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Implementation of Agenda 21 in the German Seaports:

Model Calculations for the Prediction of Air Pollutant Levels considering Lübeck-Travemünde as an Example

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Table of Content

1. Introduction 4
2. Conception 5
2.1. Summary of Previous Studies 5
2.2. Working Plan 7
2.3. Scope of this Study 11
2.3.1. Scenarios within the Present Study 11
2.3.2. Area under Investigation 11
3. Air Pollutant Emission Sources 12
3.1. Combustion Engines 12
3.2. Further Emission Sources 13
4. Basis for Assessment 13
5. Quantification of Emissions 16
5.1. Shipping Traffic, Actual Scenario 16
5.1.1. Ship Movements and In-Port Activities 16
5.1.2. Emission Factors for Ship Engines 17
5.1.3. Fuel Types 20
5.1.4. Loads of Engine Operations 20
5.1.5. Specific Ship Data 21
5.1.6. Emission Model 21
5.2. Shipping Traffic (Actual Scenario), Reduction Concept 1 21
5.3. Shipping Traffic (Actual Scenario), Reduction Concept 2 22
5.4. Shipping Traffic, Forecast Scenario 22
5.4.1. Ship Movements and In-Port Activities 22
5.4.2. Emission Factors 23
5.4.3. Specific Ship Data 23
5.4.4. Emission Model 23
5.5. Shipping Traffic (Forecast Scenario), Reduction Concept 1 24
5.6. Shipping Traffic (Forecast Scenario), Reduction Concept 3 24
5.7. Shipping Traffic (Forecast Scenario), Reduction Concepts 1+3 25

5.8. Road Traffic 25
5.8.1. Traffic Volumes 25
5.8.1.1. Actual Scenario 25
5.8.1.2. Forecast Scenario 26
5.8.2. Emission Factors 26
5.8.2.1. Exhaust Gases of Vehicles 26
5.8.3. Dust Resuspension due to Road Traffic 27
5.8.4. Emission Model 28
5.9. Total Emissions within the Area under Investigation 29
5.9.1. Actual Scenario 29
5.9.2. Actual Scenario considering Reduction Concepts 33
5.9.3. Forecast Scenario 38
5.9.4. Forcast Scenario considering Reduction Concepts 42
6. Immissions 48
6.1. General Facts 48
6.2. Dispersion Model 49
6.3. Preliminary Investigations 51
6.3.1. Choice of Meteorological Data 51
6.3.2. Plume Rise 52
6.3.3. NO-NO_2 Conversion 52
6.4. Background Pollution 54
6.5. Plausibility Check 55
6.6. Actual Scenario 56
6.6.1. General Facts 56
6.6.2. Pollution due to Nitrogen Oxides (NOx, Annual Average Value J00) 58
6.6.3. Pollution due to Nitrogen Oxides (NOx, 98 Percentile) 62
6.6.4. Nitrogen Dioxide Pollution (NO_2, Annual Average Value J00) 64
6.6.5. Nitrogen Dioxide Pollution (NO_2, 98 Percentile) 66
6.6.6. Nitrogen Dioxide Pollution (NO_2, 1 Hour Value S18) 68
6.6.7. Sulphur Dioxide Pollution (SO_2, Annual Average Value J00) 70
6.6.8. Sulphur Dioxide Pollution (SO_2, 24 Hours Value T03) 74
6.6.9. Sulphur Dioxide Pollution (SO_2, 1 Hour Value S24) 78

6.6.10. Particulate Matter (PM_{10}) Pollution (Annual Average Value J00) 82
6.6.11. Particulate Matter (PM_{10}) Pollution (24 Hours Value T35) 86
6.6.12. Soot Pollution (Annual Average Value J00) 90
6.7. Forecast Scenario 94
6.7.1. General Facts 94
6.7.2. Pollution due to Nitrogen Oxides (NOx, Annual Average Value J00) 94
6.7.3. Pollution due to Nitrogen Oxides (NOx, 98 Percentile) 98
6.7.4. Nitrogen Dioxide Pollution (NO_2, Annual Average Value J00) 100
6.7.5. Nitrogen Dioxide Pollution (NO_2, 98 Percentile) 102
6.7.6. Nitrogen Dioxide Pollution (NO_2, 1 Hour Value S18) 104
6.7.7. Sulphur Dioxide Pollution (SO_2, Annual Average Value J00) 106
6.7.8. Sulphur Dioxide Pollution (SO_2, 24 Hours Value T03) 110
6.7.9. Sulphur Dioxide Pollution (SO_2, 1 Hour Value S24) 114
6.7.10. Particulate Matter (PM_{10}) Pollution (Annual Average Value J00) 118
6.7.11. Particulate Matter (PM_{10}) Pollution (24 Hours Value T35) 122
6.7.12. Soot Pollution (Annual Average Value J00) 126
7. Summary 130
8. Literature 132
9. Appendices I

1. Introduction

In recent years there has been a growing area of conflict concerning the operation of seaports resulting from the conflicting interests of continuously increasing sea traffic and the increasing economic aspect of “tourism in the coastal area”. The basis of criticism is mainly seen in the international and national standards for environmental protection for shipping, which are much less severe than the regulations for land-based emission sources (motor vehicles, industrial plants, energy industry, industrial and private combustion plants etc.). Therefore, air pollution in the European ports is frequently determined by the shipping traffic. In addition to pollution arising from ship movements, emissions during the stay in port provide a major contribution to total pollution at sea ports.

Within the scope of an R & D plan for the implementation of Agenda 21 in German seaports air pollution has been analyzed for the example of Lübeck-Travemünde. In addition, the potential of possible emission reductions has been investigated.

Lübeck-Travemünde, characterized historically as a spa area - “Seeheilbad” Travemünde, provides the narrow entry from the Baltic Sea to the river Trave, to all ports of Lübeck and the docks of the seaport “Skandinavienkai”. As a result of the steady growth of sea freight traffic in recent years and the planned expansion of the Skandinavienkai, a further increase of the shipping on the river Trave is to be expected. Therefore, not only the classification of Travemünde as a spa (“Seeheilbad”) is endangered but also other plans for new tourist attractions (for example a health-spa centre) on the “Priwall” peninsula. With a reduction of the air pollutant emissions from shipping traffic a better air quality should be reached resulting in a long-term balance of the diverging interests.

Possible solutions for the reduction of air pollutants at sea are given for example by emission controls for the shipping traffic and/or by limiting the sulphur content of fuel. However, these possibilities can only be implemented by international agreements. In addition, one could consider harbour dues determined by emission levels. With regard to the competition with other German and European seaports the latter proposal could only be realized if there are comparable dues in all ports. Another very effective land-based reduction method is given by supplying the ships with power from the wharf during the stay in port.

In the scope of this study model calculations have been carried out using the German TA Luft dispersion model AUSTAL2000 to determine the level of air pollution in the Lübeck-Travemünde area. The calculations are based on one-hour-values of emissions for a representative year to investigate short-term maximum and average values over 1 hour, 24 hours and a whole year.

This study contains the results for the Actual Scenario (without expansion of the Skandinavienkai) and the Forecast Scenario 2010 after the expansion of the Skandinavienkai. For examining the potential of emission controls for the shipping traffic three idealized concepts have been considered: (concept 1) supply with power from the wharf for all ships at the Skandinavienkai, (concept 2) limiting the sulphur content of the fuels at a maximum of 1 %, (concept 3) limiting the sulphur content of the fuels during the stay in port at a maximum value of 0.1 % (use of marine gas oil).

2. Conception

2.1. Summary of Previous Studies

In the scope of the official approval of the expansion plan for the Skandinavienkai, air pollution has been estimated within a large-scale area. There are results for the actual scenario at that time (reference year 2000) and the lightly Forecast Scenario (reference year 2010). These changes have been shown and are discussed elsewhere [47]. The area under investigation contained not only the nearest buildings in need of protection but also the Travemünde town centre, the Priwall peninsula river bank and the FFH area Dummersdorfer Ufer.

For the assessment all plans related with the expansion of the Skandinavienkai have been considered (relocation of the railway line, expansion of the docks, new railway terminal (KV-terminal) and new industrial areas). In addition, the expected changes caused by other plans concerning ports in Lübeck-Siems, which have already been approved or are in preparation, have been taken into account (Lehmannkai, Seelandkai, and the Container terminal Herrenhafen). The latter mainly affect the future number of ship movements on the Trave.

With regard to the emissions all major polluter groups have been taken into account (roads, railways, ship movements, in-port activities, trucks and other mobile engines on the docks and the industrial areas). Other influences like heating of private households or distant industrial plants and the long-distance transport of air pollutants have been considered with the assumption of a characteristic background pollution derived from air quality measurements.

For the estimation of the background pollution in Travemünde there have been air quality measurements during the year 2000 in the scope of the planning procedure. As a guideline the air pollution with nitrogen oxides, soot and particulate matter has been investigated. There was an agreement about the scope with the appropriate authority responsible for the monitoring of air quality (Staatliches Umweltamt Itzehoe). The measurements were carried out from the ERGO Forschungsgesellschaft (Hamburg) which also contributes to the air quality monitoring in Schleswig-Holstein.

The air pollutant probes have been taken at three different places to distinguish between different influences:

- Measuring point 1: on the docks of the Skandinavienkai near a truck lane frequently used, mainly during periods with high activities concerning freight handling to get information about the maximum values;
- Measuring point 2: at the riverside walk near the ferry terminal connecting the town centre with the Priwall peninsula, to investigate the pollution from the ship movements on the river Trave;
- Measuring point 3: in the central park (“Kurpark”) as a location with low pollution levels, to get information about the regional background pollution.

The measurements were carried out between May and November of the year 2000. The NOx samples were taken over 30 minutes at one day per week. Mainly periods with high activities on the docks were chosen. For sampling particles and soot, passive emission control systems with sampling periods of 24 hours were used.

The results of the measurements showed a low level of pollution in Travemünde: The air quality in the Travemünde central park is comparable to the low-pollution levels at the air quality monitoring station Bornhöved, which is located in the countryside and is an appropriate reference station for estimating the background level. Therefore, in the central park the pollutant levels can be classified as low. The measurements at the riverside walk near the Priwall ferry also showed a comparatively low pollution although the place is located near frequently used roads, parking lots and the shipping lane on the Trave. In contrast, pollution levels measured at the Skandinavienkai docks are directly influenced by the activities on the docks. However, the level of air pollution on the docks is lower than at some air quality monitoring stations exposed by road traffic, for example at the Lindenplatz in Lübeck.

Within the air quality investigations the air pollutant levels were estimated using a model calculation for the actual scenario (analysis) and the expected forecast scenario. For each emission source characteristic emission factors have been taken into account, using conservative assumptions “on the safe side”, especially concerning the ships’ emissions. For plausibility tests the pollutant levels were calculated at the measurement points considering the actual scenario and compared to the results of the measurements. It turned out that the model calculations led to higher values than measured. Therefore, the calculation model overestimated the real situation and led to safe statements with regard to the areas in need to protection. These assumptions were also used for the forecast scenario. So the calculated pollutant levels for the forecast scenario will also deliver safe results.

The investigations for the main study from the year 2000 and the first supplement were carried out using the air pollutant dispersion model PROKAS, which is able to determine annual average values and percentiles. Predictions for daily or hourly pollutant levels in accordance with current limit values are not possible with this model.

Within actual directives the European Community has introduced limit values not only for averaging periods of one year but also for short-time periods referring to 24 hours or 1 hour with different frequencies of violations permitted. These limit values were implemented in the actual versions of German regulations (22. BImSchV, TA Luft). For calculating the pollutant levels the new version of the TA Luft introduced a new dispersion model based on a time series of emissions for a representative year which allows predictions for the daily and hourly pollutant levels.

The results of the initial studies using PROKAS showed high levels of the sulphur dioxide pollution (98 percentiles) over short-time scales, especially in the vicinity of the Skandinavienkai. Therefore, the study could not eliminate all doubt that pollutant levels could exceed the daily and hourly limit values more often than permitted. For more detailed results a second supplementary study was carried out, investigating the sulphur dioxide levels on basis of a time series with one-hour-values for the meteorological parameters of a representative year. However, the emissions were not considered as a time series. In this sec-

ond study, the effectiveness of providing a power supply from the wharf during the stay of ships in port has been estimated.

In summary, in the forecast scenario after the expansion of the Skandinavienkai the predicted pollutant levels are expected to observe all actual and planned limit values in all areas in need of protection. The changes of the air pollution compared to the actual scenario can be described as low. Especially in the central park of Travemünde a worsening of the actual situation is improbable.

The highest pollution levels are found near the docks of the Skandinavienkai on the Priwall peninsula river bank, due to the main wind direction (SW).

2.2. Working Plan

At the beginning of the present R&D project the scope of this study was worked out in several meetings with the appropriate authorities, institutes, companies and experts. The following sites participated:

- Stadtwerke Lübeck GmbH, commissioning and coordination of the R&D project;
- Hansestadt Lübeck (City of Lübeck);
- Umweltministerium Schleswig-Holstein (MUNL) (Ministry of Environment, Schleswig-Holstein);
- Staatliches Umweltamt Itzehoe (StUA) (National Environment Agency Itzehoe, appropriate authority for air quality monitoring in Schleswig-Holstein);
- Umweltbundesamt (UBA) (Federal Environment Agency, Berlin);
- Lübecker Hafengesellschaft (LHG);
- Gesellschaft für angewandten Umweltschutz und Sicherheit im Seeverkehr mbH (GAUSS), Bremen;
- Germanischer Lloyd (GL), Hamburg;
- Dipl.-Ing. (Schiffbau) Jürgen Isensee, Hannover;
- LAIRM Consult GmbH, Masuch + Olbrisch GmbH (until the end of 2003).

A brief summary of the results of the conferences is given in the following:

Basically, for getting information about the air quality in Lübeck-Travemünde measurements are the preferred tool if one is solely interested in the total pollution. However, there are different requirements for measurements and measuring processes concerning different regulations (EU Directives and German laws (BImSchG) on one hand and regulations for the approval as a spa on the other (Deutscher Heilbäderverband)). Due to the large size of the area under investigation and the different locations of the main emission sources (berths, shipping lanes on the river Trave to the Baltic Sea) a huge number of measuring points has to be included to get area-wide information. The measurements

should be carried out over not less than a whole year to cover seasonal variations (heating period in winter, increase of road traffic in summer due to tourism).

Furthermore, the goal of the present R&D project is to analyze the influence of the different polluter groups in order to check the possibilities of emission reduction concepts (for example reduction of ships' emissions during the stay in port by power supply from the wharf, use of fuels with low content of sulphur). These examinations are only possible by model calculations. Using the TA Luft model AUSTAL2000 based on a time series one can estimate the air pollution on a scale of 1 hour. Therefore, short-time pollutions may be investigated.

A methodological comparison between measurements and model calculations is shown in Table 1 regarding possible results and statements.

Table 1: Methodological comparison between measurements and model calculations

Requirement	Air quality measurements	Model calculations
Determination of the actual air quality (analysis)	Results with high accuracy, if the measurement period is sufficient (at least 1 year)	Results with adequate accuracy when input data are satisfactory
Determination of the future air quality (forecast)	Not possible	Possible, also comparison between different scenarios
Distinction of the contributions from different polluters and analysis of reduction measures	Only indirectly possible by comparing results at different measuring points	Analysis of emissions and immissions concerning the contributions of each polluter possible
Area-wide results	Only possible with a great effort for measurements (many measuring points)	Possible without great effort (however, one has to consider the computation times esp. for large areas)
Expansion of the area under investigation	Only possible with additional measurements	Possible without great effort
Consideration of additional air pollutants	Only possible with additional measurements	Possible without great effort, if there are emission factors available

The basis of the model calculations are the specific input data (number of ships, periods of stay in port, ship movements, installed engine power, daily, weekly and monthly distributions of the movements and in-port activities etc.) and the emission factors for the corresponding polluter group.

The emissions in the Travemünde area are dominated by ship movements on the Trave and by the in-port activities during the stay at the Skandinavienkai. To get further information compared to the previous studies an update of the ships' emissions is important. For this reason among others the following sources have to be included:

- Emissions from auxiliary engines and boilers of the ships during in-port activities at the Skandinavienkai (loading and unloading time, hotelling time);

- Emissions due to ship movements on the Trave from the Baltic Sea to the Skandinavienkai including manoeuvring times during arrival and departure;
- Emissions due to ship movements on the Trave from the Baltic Sea to other ports in Lübeck.

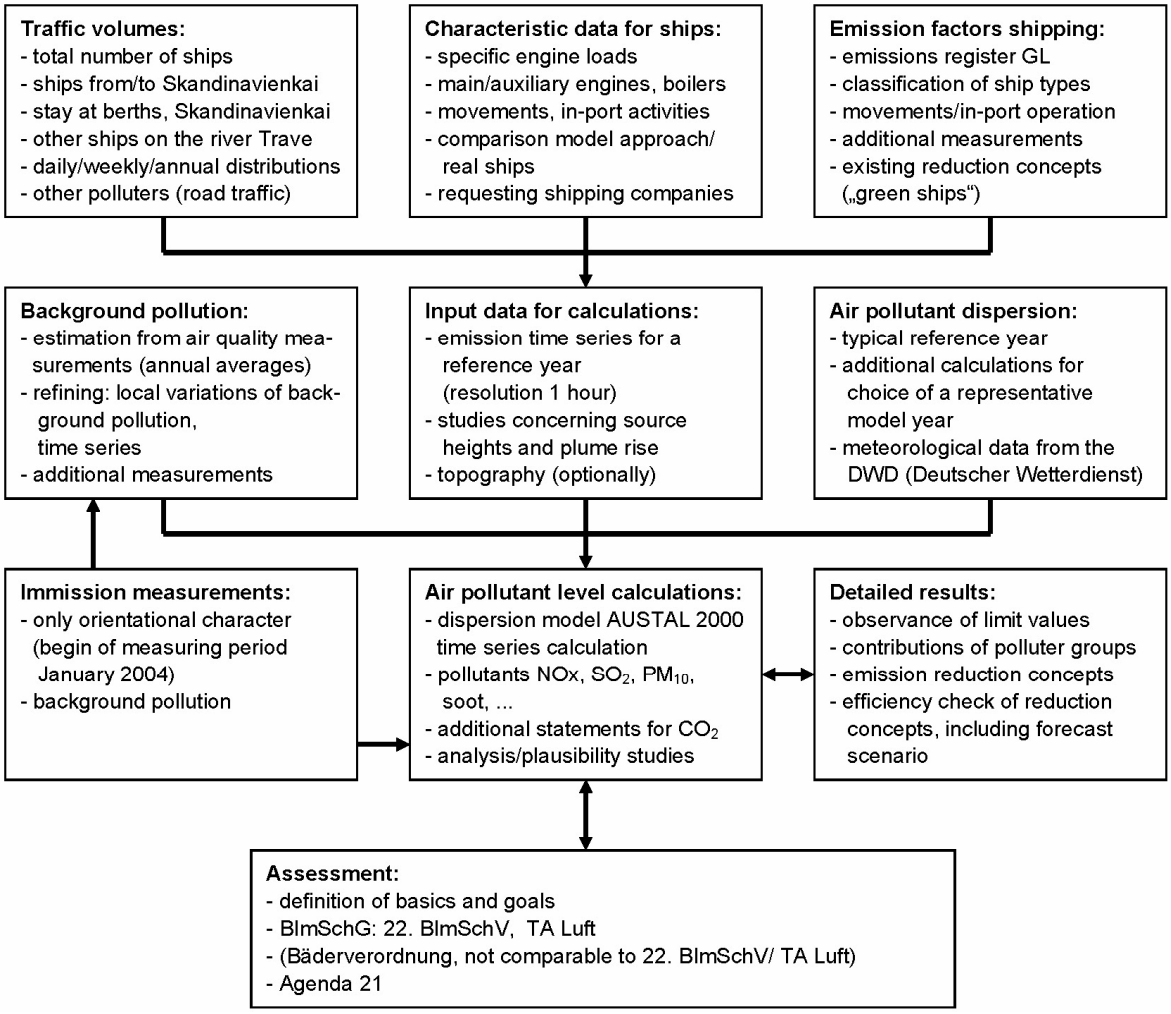
German Lloyd holds a large register of the emissions of air pollutants from ship engines, but unfortunately the data are quite old. For updating the emissions data, especially for ships and ship classes which are calling at the Skandinavienkai, German Lloyd indicates that new emission measurements are desirable. Therefore, as an alternative, one can use actual emission factors from recent studies (for example ENTEC study [16]).

For a detailed time series calculation of the air pollutant dispersion the distributions of daily and weekly emissions with a resolution of 1 hour are required for each emission source, i.e. each berth and each lane of ship movements. The required input data may be provided by the LHG or the harbour office of Lübeck. Knowing the emission factors and the characteristics of the engines, for each case of interest, one can determine the emissions for a whole model year with a resolution of 1 hour.

The co-ordinations at the beginning led to the working plan as stated below. However, not every step could be finished. Several steps were executed by the following parties involved (as listed below), particularly there were changes compared to the primary planning:

1. Determination of the ship movements and stay at the pier with involvement of the LHG, the shipping companies and the harbour office: summary by GAUSS;
2. Determination of the specific engine loads for the use of the main and auxiliary engines and the boilers requesting the shipping companies in comparison with experiences from the German Lloyd and other experts: execution by GAUSS and J. Isensee;
3. Supplementary measurements of ships' emissions for completing the German Lloyds register: New measurements of the emissions from sea ships especially those concerning the use of the auxiliary boilers could not be carried out, because the shipping companies and the manufacturers of the boilers did not cooperate, corresponding investigations have been started by J. Isensee and GAUSS but could not be finished;
4. Summary of the emissions for the area of Travemünde (shipping traffic from/to the Skandinavienkai, in-port activities at the Skandinavienkai, shipping traffic to other ports in Lübeck) considering the air pollutants CO_2, NOx, SO_2, benzene, particulate matter and soot: The determination of the emissions was carried out by LAIRM Consult GmbH in co-ordination with the UBA and GAUSS, using the emission factors summarized in an actual study of the ENTEC;
5. Compiling the time series of emissions for a model year with a resolution of 1 hour for each emission source as input data for the air pollutant dispersion calculation, including different scenarios with different concepts for emission reduction: LAIRM Consult GmbH;

Figure 1: Schematic illustration of the working plan



6. Additional consideration of the emissions from the large-scale road network for estimating the pollution caused by the road traffic, determination of the traffic volumes in co-ordination with the office of traffic of the City of Lübeck: LAIRM Consult GmbH;
7. Co-ordination with the appropriate authority for air quality monitoring (Staatliches Umweltamt Itzehoe) about the large-scale background pollution: LAIRM Consult GmbH;
8. Air pollutant dispersion calculations using the AUSTAL2000 model: LAIRM Consult GmbH;
9. Analysis of the results with regard to the air quality and the efficiency of reduction concepts: LAIRM Consult GmbH;
10. Additional air quality measurements for estimating the actual situation and checking the plausibility of the calculation model, especially the SO_2 pollution: At the end of 2003, the StUA Itzehoe started a series of measurements at five measuring

points in the surroundings of the Skandinavienkai and in Travemünde, where the nitrogen oxides and sulphur dioxide have been sampled over the period of a year.

2.3. Scope of this Study

2.3.1. Scenarios within the Present Study

In the present study the following scenarios will be investigated:

1. **Actual Scenario:** Actual status of the Skandinavienkai, number of ship movements and occupancy rate on basis of an analysis considering the year 2003;
2. **Actual Scenario with emission reduction concept 1:** Exemplary concept for checking the maximum reduction potential by providing power supply from the wharf for all berths at Skandinavienkai (100 %), other input data as in the Actual Scenario (1.);
3. **Actual Scenario with emission reduction concept 2:** As a second exemplary concept a limitation of the sulphur content of the fuels to a maximum value of 1 % for all ships within the area under investigation is considered, other input data as in the Actual Scenario (1.);
4. **Forecast Scenario (2010):** Future status after realization of all planned developments related with the expansion of Skandinavienkai, forecast for the shipping traffic based on the previous studies for the approval of the expansion of Skandinavienkai and additional actual information, considering a sulphur content of 1.5 % in residual oil, which is the permitted maximum value in the Baltic Sea region as of 2006;
5. **Forecast Scenario (2010) with emission reduction concept 1:** Exemplary concept for investigating the maximum reduction potential by providing power supply from the wharf for all berths at Skandinavienkai (100 %), other input data as in the Forecast Scenario (4.);
6. **Forecast Scenario (2010) with emission reduction concept 3:** Another exemplary concept considers a limitation of the sulphur content of the fuels during the in-port activities to a maximum value of 0.1 % for all ships within the area under investigation (use of marine gas oil), other input data as in the Forecast Scenario (4.);
7. **Forecast Scenario (2010) with emission reduction concepts 1 and 3:** This case combines the reduction concepts 1 and 3.

2.3.2. Area under Investigation

For the model calculations a large-scale area has been chosen containing all polluter groups with major contributions and all areas of exposure in the surroundings of the Skandinavienkai and in Travemünde. A graphical illustration of the area under investigation is shown in the site maps of Appendix A 1.

The calculation of the air pollutant levels has been carried out area-wide for a zone with a size of 5,000 x 7,000 m². In addition, the air pollutant levels were investigated at some major monitor points (immission points). The denotation of the monitor points investigated may be seen in Appendix A 1.

3. Air Pollutant Emission Sources

3.1. Combustion Engines

Through the combustion process in combustion engines exhaust gases are created leading to air pollutions. The main primary air pollutants in the exhaust gas are the following:

- Nitrogen oxides (normally denoted as NO_X: Sum of nitric oxide NO und nitrogen dioxide NO_2),
- Carbon monoxide (CO),
- Sulphur dioxide (SO_2),
- Hydrocarbons (HC, including benzene (C_6H_6), toluene (C_7H_8) and xylene (C_8H_{10})),
- Particulate matter (PM, including fine particulates and soot) and
- Lead (Pb).

The nitrogen oxides in the exhaust gas normally are a mixture of nitric oxide (NO) with more than 90 % and of nitrogen dioxide (NO_2) with less than 10 %. During the dispersion in the atmosphere the nitric oxide is oxidized to nitrogen dioxide. Concerning this process a lot of chemical reactions are possible [1]. The main conversion process of NO in the atmosphere is the oxidation with ozone (O_3). It is a relatively fast reaction so that in the vicinity of roads the natural content of ozone in the air is exhausted. Photolytic processes caused by sunlight may convert NO_2 to NO and O_3 again.

For carbon monoxide there are limit and precaution values available based on many investigations on human health. These values are rather high compared with measured levels in the open, so that CO is not a critical pollutant outdoors.

In the hydrocarbons a multitude of substances are contained with quite different mechanism of possible impact. At present in the exhaust gas up to 200 organic substances are known including benzene and the group of volatile hydrocarbons (VOC). Because of the different impacts on the human health an assessment of the sum of hydrocarbons is not possible. As a guideline the discussion considers benzene which is included in the hydrocarbons.

The air pollutant lead is losing importance due to the increasing use of unleaded fuel. Normally, it can be neglected in analyzing an air quality situation.

Another component in the exhaust gas of combustion engines is given by particulate matter (dust, soot etc.). There have been three meetings at the Umweltbundesamt (Federal Environment Agency, Berlin) in 1998 on this topic [26]. It was concluded at these meetings that the particulate matter in the exhaust gas of engines is mainly determined by

PM_{10} (diameter of particles less than 10 µm) and even by $PM_{2.5}$ (diameter of particles less than 2.5 µm).

The particulate matter also includes soot emissions. In recent years there has been a decrease of soot emission factors (denoted as grams per kilometer) for advanced diesel engines due to the development of emission reductions. Though, this decrease will be compensated partly by the steady increase of cars with diesel engines. Concerning the particle size distribution of soot some investigations found a non negligible amount of small and very small particles even considering advanced engine concepts. However, on the latter topic more systematic investigations are necessary especially relating to the use of soot filters. With regard to the exhaust gases of sea ships soot is an obvious air pollutant, in particular during the manoeuvring times during arrival and departure.

Another component of the exhaust gases is carbon dioxide, which is the final product by the combustion of fossil sources of energy. As it is already a natural part of the air, it is not immediately called “pollutant”. But carbon dioxide as a climate-relevant gas is considered to be responsible for global warming, so that it is of interest in the context of the present study. Therefore, one will find a balance of carbon dioxide emissions.

3.2. Further Emission Sources

Another source for the emission of particulate matter is dust raised by vehicle movements on roads (resuspension). Here one has to distinguish between paved and unpaved roads.

In addition, particles can be emitted by tyre abrasion. These emissions mainly consist of coarse particles larger than PM_{10}; the contribution of PM_{10} is specified in former publications to be 10 %. The effects of tyre abrasion are implicitly contained in the emission factors for dust resuspension by the vehicle movements. Hence, further investigations are not required especially with regard to the small fraction of fine particles.

4. Basis for Assessment

The bases for the assessment of air pollution are the immission values of the current guidelines and regulations (22. BImSchV, 23. BImSchV, TA Luft, framework EU directive and daughter EU directives, precaution values of the German Länderausschuss für Immissionsschutz (LAI)).

The implementation of the framework directive concerning air quality [7] of the EU Council and the corresponding daughter directives [8]/[9] has been achieved in Germany within the renewal of the 22. BImSchV [4]. In Addition, the TA Luft has been revised fundamentally, adopting the actual limit values of the EU directives. The new version of the TA Luft [5] became valid on October 1, 2002.

The actual limit, target, orientation and precaution values for the protection of human health, vegetation and ecosystems are listed in Table 2. (Annotation: The 98 percentile is

used to describe the short-time pollution and expresses the maximum pollutant level observed in 98 % of the hours of one year.)

For the annual limit of the nitrogen dioxide pollution, a value of 40 µg/m³ has been laid down in the new versions of the 22. BImSchV and the TA Luft.

With regard to the assessment of short-time immissions of the nitrogen dioxide pollution, the EU directive 85/203/EWG [6] introduced limit and target values for the 98 percentile. The target value has been stated to improve human health protection and to contribute to a long-term protection of the environment. The target value for the 98 percentile amounts to 135 µg/m^3. The implementation of the limit value into German law was achieved with the 22. BImSchV. According to the new version of the 22. BImSchV the limit value for the 98 percentile of 200 µg/m^3 will be valid until the end of 2009.

From 2010 on the short-term nitrogen dioxide pollution will be assessed by a 1 hour limit value of 200 µg/m^3 not to be exceeded more than 18 times a calendar year. This value also has been implemented in the new version of the TA Luft.

For the protection of vegetation an assessment of the whole range of nitrogen oxides (NOx) is required. According to the 22. BImSchV a limit value of 30 µg/m³ for the annual average value of the NOx pollution has been fixed. This value also was implemented in the TA Luft.

Concerning the sulphur dioxide pollution until December 31, 2004 only limit values for the daily average are available, depending on the dust pollution simultaneously present (22. BImSchV). The values are 80 µg/m³ respectively 120 µg/m³ (median with an averaging period of a year), 130 µg/m³ respectively 180 µg/m³ (median of daily average values in winter) und 250 µg/m³ respectively 350 µg/m³ (98 percentile of daily average values).

From 2005 on, for the sulphur dioxide pollution, the following limit values are valid according to the 22. BImSchV: The 1 hour limit value amounts to 350 µg/m³, not to be exceeded more than 24 times a calendar year, the 24 hours (daily) limit value amounts to 125 µg/m³, not to be exceeded more than 3 times a calendar year. In addition, a limit value of 20 µg/m³ for the protection of ecosystems has been introduced, valid for the calendar year and the winter (October 1 to March 31).

In the TA Luft the sulphur dioxide limit values (2005) of the 22. BImSchV have been included. In addition, for the protection of human health a limit value of 50 µg/m³ for the annual average value was laid down.

According to the 22. BImSchV the limit values for the protection of ecosystems and the vegetation are valid at sampling points, which are sited more than 20 km from agglomerations or more than 5 km from other built-up areas, industrial installations or motorways.

For the annual average value of the benzene pollution in the new versions of the 22. BImSchV and the TA Luft a limit value of 5 µg/m³ has been fixed. Additionally, for precaution the LAI (Länderausschuss für Immissionsschutz) suggested a target value of 2.5 µg/m^3 (annual average [10]).

Table 2: Immission values [µg/m^3] for the protection of human health (if not stated differently)

Air pollutant		Immission and limit values		
		Value [µg/m³]	Regulation	Character
NOx	annual average	30	22. BImSchV	Protection of vegetation
		30	TA Luft	
NO_2	annual average	40	22. BImSchV	Limit value (2010)
		40	TA Luft	Immission value
	98 percentile	200	22. BImSchV	Limit value (until end of 2009)
		135	EU-Directive 85/203/EWG	Precaution value
	1 hour	200	22. BImSchV	Limit value (2010), not to be exceeded 18 times a year
		200	TA Luft	Immission value, not to be exceeded 18 times a year
SO_2	annual av.	50	TA Luft	Immission value
	year and winter	20	22. BImSchV	Protection of ecosystems
		20	TA Luft	
	24 hours	125	22. BImSchV	Limit value (2005), not to be exceeded 3 times a year
			TA Luft	Immission value, not to be exceeded 3 times a year
	1 hour	350	22. BImSchV	Limit value (2005), not to be exceeded 24 times a year
			TA Luft	Immission value, not to be exceeded 24 times a year
Benzene	annual average	5	22. BImSchV	Limit value (2010)
		5	TA Luft	Immission value
		2.5	LAI	Precaution value
Soot	annual average	1.1	LAI	Precaution value
Particulate matter (PM_{10})	annual average	40	22. BImSchV	Limit value (2005)
		40	TA Luft	Immission value
	24 hours	50	22. BImSchV	Limit value (2005), not to be exceeded 35 times a year
		50	TA Luft	Immission value, not to be exceeded 35 times a year

With regard to soot, no limit values are available. Soot is under suspicion of being carcinogenic, especially in the presence of polycyclic aromatic hydrocarbons (PAH). The carcinogenic impact of some PAHs (for example benzo(a)pyrene (BaP)) already has been proved. In recent times there are serious suggestions that soot particles themselves may cause cancer resulting from cellular changes by deposition in the alveoli of the lungs. Particles with a diameter smaller than 1 µm are critical. As a guideline for the assessment of the soot pollution the target value (precaution) of the LAI of 1.1 µg/m^3 [10] may be chosen.

(Annotation: The target values (precaution) of the LAI study have been estimated assuming a cancer risk of 1:2,500 during an exposition of 70 years. The assumption for this risk is the *simultaneous* presence of benzene, soot and the pollutants arsenic, asbestos, cadmium, PAH (guide substance BaP) and 2,3,4,8,-TCCD in corresponding critical concentrations. The concentrations are defined as average values referring to an area of 1 x 1 km² size, like the values in the old version of the TA Luft. Therefore, the target values are only particularly applicable to assess the pollution at single immission points.)

Concerning pollution resulting from particulate matter, new investigations have shown an impact on human health, even at concentrations normally found in ambient air. Therefore, particles with an aerodynamic diameter of 10 µm and less are of great importance (denoted as PM_{10} – particulate matter of 10 µm).

Considering the results above, the EU council has made concrete decisions to limit the emissions of fine particulate matter. In the scope of the EU directive 1999/30/EG [8] limit values for the annual average values of the PM_{10} pollution of 40 µg/m³ (stage 1, January 1, 2005) and 20 µg/m³ (stage 2, January 1, 2010) have been laid down. For the 24 hours values of the PM_{10} pollution a limit value of 50 µg/m³ has been introduced, not to be exceeded more than 35 times (stage 1) or 7 times (stage 2) within a calendar year, respectively.

Hence, at this time the suggested limit values of stage 2 have to be seen as a guideline. They will be checked after more information about the impact on human health, the technical feasibility and the experiences with the application of the limit values of stage 1 are available.

According to the statements above the new versions of the 22. BImSchV and the TA Luft only included the limit values of stage 1 for the PM_{10} pollution. Therefore, the present study will also apply only the limit values of stage 1.

5. Quantification of Emissions

5.1. Shipping Traffic, Actual Scenario

5.1.1. Ship Movements and In-Port Activities

The number of ship movements on the Trave and the periods of stays at the Skandinavienkai have been determined by the GAUSS [48], For the report, lists of arrivals and departures of the Lübeck harbour office were analyzed. At that time no electronic data were available, so that the evaluation had to be carried out manually. For the shipping traffic at regular intervals a representative month has been analyzed (July 2003). To estimate the periods of stay in port the shipping schedules have been considered. In addition, the LHG and the shipping companies have been requested. The irregularly arriving cruisers have been separately investigated by GAUSS for the year 2003.

From the data compiled by GAUSS a 4-week model for the regular shipping traffic has been developed. Using this 4-week model a representative model year has been estab-

lished as a basis for the model calculations. The cruisers have been included separately using the 2003 data. Small-sized ships or ships rarely arriving at Lübeck, excursion ships and the ferries to the Priwall peninsula are of minor significance and hence have been neglected in agreement with the GAUSS.

For the model year a time resolution of 1 hour was chosen, leading to overall 8,760 values in a year. The ship movements on the Trave were allocated to the corresponding (full) hour according to the listings of arrivals and departures. The emissions however were calculated considering the concrete moving times derived from velocity and length of the shipping lane. For the movements on the Baltic Sea near the mouth of the Trave and on the river Trave a mean velocity of 15 km/h (approximately 8 knots) has been assumed. The following shipping lanes and exposition times have been considered:

- Ship movements to the Ostpreußenkai: length of shipping lane 2.2 km, shipping time 10 minutes;
- Ship movements to the Skandinavienkai: length of shipping lane 4.6 km, shipping time 20 minutes;
- Ship movements to other ports of Lübeck (south of Skandinavienkai): length of shipping lane 6.8 km, shipping time 30 minutes.

The periods of the stay in port also have been included with a resolution of 1 hour. Normally, all hours with a ship at the berth have been taken into account, even if the stay was less than one full hour. According to this procedure the model provides enough certainties to include additional emissions during manoeuvring times at arrival and departure.

The input data are summarized in Appendix A 2. A schematic illustration of the 4-week model for the ship movements is shown in Appendix A 2.1. The in-port stays at the Ostpreußenkai can be found in Appendix A 2.2. (Annotation: During the first quarter of 2003 there was no shipping traffic to the Ostpreußenkai.) A detailed listing of the 4-week model is shown in Appendix A 2.3 (exemplary month July); the denotations of the ships can be found in Appendix A 2.6.1.

5.1.2. Emission Factors for Ship Engines

Air pollutant emissions from the shipping traffic are given by movements on the Trave including the manoeuvring times, on the other hand by the continuous operation of the auxiliary engines and boilers during in-port activities (loading/unloading, hotelling).

Normally, for a ship energy supply, three to four different engine types are available:

- Main engine(s) (motive for propeller and shaft generator): Continuous operation at sea, fractional load at manoeuvring during arrival and departure, normally shut down in port;
- Auxiliary engines (2 to 4, electric power generation): Normally shut down at sea when a shaft generator on the main engines is used, fractional or maximum load during manoeuvring, in port normally in operation;

- Exhaust gas boiler (not always installed, heat production): Operating at sea using exhaust gases of main and auxiliary engines, fractional load at manoeuvring, normally shut down in port;
- Auxiliary boiler (heat production): Normally shut down at sea, fractional load at manoeuvring, responsible for entire heat production in port.

Some recent ships are equipped with a diesel-electric generator producing electric power for the propulsion and electric power supply. With regard to consumption and emissions these engines are appreciated as favourable concepts, among other things due to the use of fuels with low sulphur content ("green ships"). Auxiliary engines are not installed on these ships.

The rate of emissions is determined by engine specific emission factors, generally referring to engine power or fuel consumption. To calculate the emissions one also has to know the specific status of engine operation, especially the load. Due to the variations of emission factors and loads for different operations, engine concepts and/or ship types, in the case of an individual ship, considerable deviations from the average values may be found.

Regarding the emission factors of ships' engines the following references are available:

- Concerning the operation of the auxiliary and main engines published data of the German Lloyd are available, partly from 1980 and 1985 [14]. Additionally, the German Lloyd (GL) holds a register not open to the public. The data derived from emission measurements, mostly commissioned by engine fabricators, are often related with the special project and belong to the client. As the engine power and hence the consumption are closely related to the load, a calculation of an average emission factor is often only possible with some restrictions. Therefore, for a concrete emission factor derived from measurements data about the corresponding operation conditions have to be specified.
- For the investigation and assessment of emissions from shipping traffic the harbour office of Bremen (Hansestadt Bremisches Hafenamt) has developed the emission model MARION commissioned by the UBA (Federal Environment Agency, Berlin). The model allows the calculation of the total emissions of ports considering each single ship. However, the emission factors included are average values for all types and classes of ships.
- Information concerning the pollutant emissions are found, among others, in publications by Isensee et al. [15]. There are some ancient factors (data from the Agency of Environment Hamburg, 1980 (reference: Ministry of Health and Environment Protection, Holland)) but also future emission factors referring to the project CLEAN (Project „Low-emission ship propulsion engines", German Lloyd).
- For the environmental seal of approval "Blauer Engel" Isensee has developed the software EMISS [17] to calculate ships' emissions. The work was commissioned by the Umweltbundesamt (Federal Environment Agency, Berlin). It is based on plausible average emission factors and engine loads comparable to values from recently published studies.

- The most recent summary of specific emission factors of sea ships is found in the final report “Quantification of emissions from ships associated with ship movements between ports in the European Community” of the Entec UK Limited from 2002 [16]. There are not only average emission factors for characteristic ship classes but also detailed values for the main and auxiliary engines for different types of engines and fuels available. Emission factors concerning the auxiliary boilers are not included in the study by ENTEC.
- As a first approach in estimating the emissions of the auxiliary boilers Isensee has suggested a model which is under further development [18]. The heat requirement and therefore the size of the auxiliary boilers necessary can be estimated considering some characteristic parameters (container ships, tanker, RoRo cargo: loading capacity tdw, RoPax and passenger ships: number of passengers and crew). Furthermore, Isensee denotes typical values concerning engine load, efficiency and emission factors. However, one has to keep in mind that the model is based on a small set of data. In spite of this, the order of magnitude for the emissions from the auxiliary boilers can be estimated.
- The following comments have to be considered as possible reduction concepts for the emissions from ships’ engines:
    - For new ships basically a reduction of the NOx emissions by an amount of 90 % and more is possible by using a catalyst. Recently, such concepts have been realized in a few cases [19].
    - The SO_2 emissions can be reduced by a factor two to three using fuels with a sulphur content of 1 % compared to the regular fuel (sulphur content approximately 2 – 3 %).
    - The soot emissions can be limited using filter systems.

  However, the above mentioned measures lead to additional costs both in acquiring and operation of ships. So these concepts will only be implemented through official regulations (as already implemented in Sweden).

In the present study the detailed emission factors considering the different engine and fuel types of the ENTEC study are used. These values are the most recent available data and are appropriate to calculate the emissions for each ship considering engine and fuel types. A summary of the emission factors is shown in Appendix A 2.4.

Additionally, the ENTEC values for specific ship classes are listed. These data will not be used and are only listed for completion (Appendix A 2.4.4).

For comparison not only the ENTEC values are shown but also the emission factors according to the model EMISS (Isensee) (see Appendix A 2.4.6). Comparing the emission factors for SO_2 and CO_2 on the basis of the fuel consumptions according to ENTEC only little differences occur. The order of magnitude of the differences lies between 10 and 15 % as shown in Appendix A 2.4.7.

For the auxiliary boilers the values proposed by Isensee have been considered. A summary is shown in Appendix A 2.4.5.

The emission factors available are restricted to the pollutants NOx, SO_2, CO_2, HC and particulate matter PM_{10}.The emission factors of other pollutants are estimated analogous to truck diesel engines. Therefore, the benzene emissions are determined by a characteristic fraction of the total HC emissions (approximately 1.9 %), the soot emissions as a fraction of the particulate matter PM_{10} (approximate 40 %).

5.1.3. Fuel Types

The fuels used for ship engines are classified as residual oil (RO), marine diesel oil (MDO) and marine gas oil (MGO). Concerning the exhaust gas emissions the main difference is given by the sulphur content, because approximately the whole sulphur in the fuel is oxidized to SO_2 during combustion. The present study considers the following sulphur contents according to ENTEC, which may be representative for the Baltic Sea:

- Residual oil (RO): Sulphur content 2.7 %;
- Marine diesel oil (MDO): Sulphur content 1.0 %;
- Marine gas oil (MGO): Sulphur content 0.5 %.

Provided that detailed data concerning the used fuels and sulphur contents have been available from the shipping companies, these special data and not the ENTEC values have been chosen.

5.1.4. Loads of Engine Operations

Another important parameter for the determination of the emissions is given by the engine loads of the different operation conditions. In the present study, the average engine loads according to ENTEC have been used. Especially, for in-port operation of the main engines there is a remaining load of 1 % assumed and not a complete shut-down. With this approach the special operation conditions during the start and shut-down procedures of the engines may be considered. A summary of the engine loads is shown in Appendix A 2.5.

Considering the engine loads according to the EMISS model (Isensee) one finds approximately 5 to 10 % less total emissions from shipping traffic within the area under investigation than using the ENTEC values. So the differences are only small. Using the ENTEC engine loads the estimated emissions are found to be “on the safe side”.

Regarding the loads of the auxiliary boilers Isensee suggests values of about 30 % at manoeuvring and slow movements and 25 % for in-port operation, respectively. According to the small basis set of data in the present study a different load of 10 % for each operation condition is assumed not to overestimate the influence of the auxiliary boilers. Some checks for plausibility by comparing the results of model calculations with actual measurements confirm the approach above.

If for a concrete ship more detailed data concerning the engine loads are available, these data have been considered. For some special cases (for example ships with diesel-electric generators) plausible assumptions have been made.

5.1.5. Specific Ship Data

For regular shipping traffic and cruisers GAUSS has summarized the specific input data for the ships required [48]. Among other things the data contain information about the number and installed power of the main and auxiliary engines and boilers, the used fuel types and the corresponding sulphur contents, the exhaust gas volumes and temperatures, the loading capacities, numbers of passengers and crew. Altogether 54 different ships have been considered. In addition, the results of a former investigation [49] using the model MARION have been included. A summary of the data is found in Appendix A 2.6.

If there was no detailed information about some specific parameters available, plausible assumptions were made. Concerning the sulphur content the data compiled by GAUSS and the shipping companies have been considered, in case of missing data the ENTEC values have been used. The size of the auxiliary boilers has been estimated by Isensee where no detailed data were available.

5.1.6. Emission Model

Considering the emission factors, fuel types, engine loads and other specific input data the emissions have been calculated for each individual ship, taking the operation conditions “at sea”, “manoeuvring (i.e. slow movements)” and “in-port activities” into account. A detailed listing can be found in Appendix A 2.6.

In the present case for the ship movements on the Baltic Sea near the mouth of the Trave and on the river Trave the operation condition “manoeuvring” is assumed.

Afterwards the total emissions for each operation condition have been derived as a sum of all different ships’ engines (see Appendices A 2.6.21to A 2.6.23). This set of emission data was used as a basis for combining the emissions with the time series of ship movements and in-port stay. For each air pollutant investigated an annual time series with a resolution of 1 hour was created. These time series’ have been the basis for the following dispersion calculations.

A summary of the annual total emissions from shipping traffic within the area under investigation is shown in Appendix A 2.

5.2. Shipping Traffic (Actual Scenario), Reduction Concept 1

In this reduction concept it is assumed that all berths at the Skandinavienkai are equipped with electric power connections and all ships are supplied by electric power from the wharf during the stay in port, so the main and auxiliary engines are not in operation. However, to consider the special operation conditions during the start and shut-down procedures of the engines a remaining load of 1 % according to ENTEC has been taken into account. This concerns the main engines and the auxiliary engines, too.

Regarding the load of the auxiliary boilers two cases have been distinguished:

- Reduction concept 1a: Load of auxiliary boilers of 10 % as in the Actual Scenario;
- Reduction concept 1b: No operation of the auxiliary boilers, i.e. load of 1 % (safe side analogous to the operation of main and auxiliary engines).

The resulting emissions per hour of operation for each operation condition are listed in Appendices A 2.7 and A 2.8. A balance of the annual emissions is shown in Appendices A 2.11.2 and A 2.11.3.

5.3. Shipping Traffic (Actual Scenario), Reduction Concept 2

The reduction concept 2 assumes the use of fuels with a maximum sulphur content of 1 % for all ships within the area under investigation. This considers the operation of the main and auxiliary engines. This reduction concept mainly has an effect on the sulphur dioxide pollution due to the proportionality between sulphur content and production of sulphur oxides during combustion. Concerning other air pollutants the reductions are small and have not been taken into account.

The resulting emissions per hour of operation for each operation condition are listed in Appendix A 2.9. A balance of the annual emissions is found in Appendix A 2.11.4.

5.4. Shipping Traffic, Forecast Scenario

5.4.1. Ship Movements and In-Port Activities

The Forecast Scenario in the present study accounts to the year 2010 after realization of all planned developments related with the expansion of the Skandinavienkai. Among other things an additional berth is considered.

The increase of the shipping traffic has been predicted in co-ordination with GAUSS on the basis of former estimations in the scope of the approval procedure for the expansion of the Skandinavienkai [47]. Correspondingly, one has to expect about 28 additional ships per week at the Skandinavienkai. The calculation model assumes 2 ships per day using the new berth 5a and two ships per day using the berths 7 and 8 (i.e. one ship at each berth). For the period of the stay in port an average time of 10 hours is considered.

For the shipping traffic on the Trave to the other ports of Lübeck already existing or at present at the planning stage (container terminal Lübeck-Siems, Seelandkai, Lehmann) an increase by about 28 ships per week, i.e. 56 ship movements, has been estimated. Correspondingly, for each day 8 additional ship movements have been considered. Between arrival and departure an average time of 12 hours has been assumed (10 hours of staying in port and 1 hour per each voyage).

For the Ostpreußenkai the target planning of about 50 cruisers per year has been taken into account. An average period of stay in port of 16 hours has been assumed.

The traffic volumes concerning the shipping are shown in Appendices A 3.1 to A 3.3.

5.4.2. Emission Factors

From 2006 on in the Baltic Sea region the sulphur content of residual oil (RO) is limited to a maximum of 1.5 %. Therefore, in the Forecast Scenario 2010 this reduction has been considered.

With regard to the emission factors the detailed data according to the ENTEC study [16] have been considered as in the Actual Scenario. The above mentioned limitation of the sulphur content is described with “Scenario 2 (2006)” in the ENTEC study. So the corresponding emission factors and reductions have been considered for the Forecast Scenario of the present study.

The emission factors are listed in Appendix A 3.4.

5.4.3. Specific Ship Data

The additional predicted ships at the Skandinavienkai and the other ports of Lübeck have been considered as RoRo/C ships (ENTEC type A35). There have been made the following conservative assumptions:

- Totally installed engine power of the main engines 25.000 kW;
- Auxiliary engines with a power of together 6.000 kW;
- Auxiliary boiler with 3.000 kW.

Concerning the ships which are currently arriving at Skandinavienkai and the other ports of Lübeck, it has been assumed that there are no changes compared to the Actual Scenario. Predictions for the replacement of present ships with new ships are nearly impossible as stated by GAUSS. Some of the regular ships to the Skandinavienkai have just been renewed, so they are already included in the Actual Scenario. Moreover, with regard to typical operation times of sea ships the forecast horizon 2010 is not far away, so only few shipping lines will be expected to be affected. A prediction for future ships or ship classes is not possible due to the lack of available data. Considering there are many assumptions in the input data, the accuracy of the results is limited.

5.4.4. Emission Model

The emission model was derived considering the emission factors, fuel types and characteristic ships’ data analogous to the Actual Scenario. A summary is shown in Appendix A 3.6.

The annual total emissions according to the shipping traffic within the area under investigation are listed in Appendix A 3.13.

5.5. Shipping Traffic (Forecast Scenario), Reduction Concept 1

In this reduction concept, it is assumed analogous to the Actual Scenario that all berths at the Skandinavienkai are equipped with electric power connections and all ships are supplied with electric power from the wharf during the stay in port. So the main and auxiliary engines are not in operation. However, to consider the special operation conditions during the start and shut-down procedures of the engines a remaining load of 1 % according to ENTEC has been taken into account. This concerns the main engines and the auxiliary engines, too.

Regarding the load of the auxiliary boilers two cases have been distinguished:

- Reduction concept 1a: Load of auxiliary boilers of 10 % as in Forecast Scenario;
- Reduction concept 1b: No operation of the auxiliary boilers, i.e. load of 1 % (conservative, analogous to the operation of main and auxiliary engines).

The so derived emissions per hour of operation for each operation condition are listed in Appendices A 3.7 and A 3.8. A balance of the annual total emissions is found in Appendices A 3.13.2 and A 3.13.3.

5.6. Shipping Traffic (Forecast Scenario), Reduction Concept 3

Reduction concept 3 assumes a limitation of the sulphur content of the fuels to a maximum value of 0.1 % (MGO) during the stay in port. At present there are corresponding negotiations in Europe.

This reduction concept mainly effects the sulphur dioxide pollution due to the proportionality between sulphur content and production of sulphur oxides during combustion. Compared with the emission factors for SO_2 of the ENTEC scenario 2 (2006) including a sulphur content of 0.5 % for MGO in the present reduction concept the emission factors are reduced to an amount of 20 %.

For the other pollutants the operation with low-sulphur marine gas oil (MGO) also yields reduced emission factors, but the reduction is less than that concerning sulphur dioxide.

For the present scenario the operation of all ships' engines using low-sulphur MGO is assumed, i.e. the main and auxiliary engines and the auxiliary boilers, too.

The corresponding emissions per hour for each operation condition are shown in Appendix A 3.9. A balance of the annual emissions is found in Appendix A 3.13.4.

5.7. Shipping Traffic (Forecast Scenario), Reduction Concepts 1+3

In addition, a combination of reduction concepts as in (1) - electric power supply from the wharf and (3) - limitation of sulphur contents during the stay in port, has been investigated to check the most possible reduction potential.

At the Skandinavienkai the main reductions as compared to concept 1 arise from the operation of the auxiliary boilers as the main and auxiliary engines are not in operation (power supply from the wharf).

The emissions per hour of operation and each operation condition are summarized in Appendices A 3.10 and A 3.11. An annual balance of the total emissions is shown in Apendices A 3.13.5 and A 3.13.6.

5.8. Road Traffic

5.8.1. Traffic Volumes

5.8.1.1. Actual Scenario

Within the scope of the present study the emissions due to the main road network have also been considered to estimate overall total emissions. In particular, all major road lanes within the area under investigation have been included. Road lanes not explicitly considered show much less traffic volumes or are far enough away from the monitor points of interest. So their contributions to the pollution are of minor importance and hence have been neglected in the following.

The traffic volume (DTV, annual average daily traffic volume) and the relevant fractions of trucks (p, vehicles with a total weight of more than 2.8 t) on the public roads within the area under investigation have been estimated on basis of former traffic count data of the Hansestadt Lübeck [13] and previous studies [47]. As the road traffic itself is not the main topic within the scope of the present study, a detailed study concerning the traffic volumes has not been carried out. Furthermore, estimation of the order of magnitude of the emissions from road traffic has been adequate, so the following traffic volumes have to be seen as a rough estimate.

When there have been no data concerning the number of trucks, plausible assumptions considering the traffic count data have been made. The vehicles have been classified in passenger cars (PC), light duty trucks (LDT: up to 3.8 tons) and heavy duty trucks (HDT: over 3.8 tons) on basis of characteristic data [21]. A detailed listing of the traffic volumes is shown in Appendix A 4.1.2.

The results of the traffic surveys have been provided by the office of traffic of the Hansestadt Lübeck. The data included investigations between 1995 and 2002 with different extents, traffic counts on both working days and Sundays were considered. For projection of the short term traffic count, data corresponding to periods of several hours to the daily

traffic volume average projection factors have been estimated according to some 24 hour traffic surveys. The following factors have been used:

- Counting period from 0:00 to 24:00 h (24 hours): Factor 1;
- Counting period from 6:00 to 20:00 h (14 hours): Factor 1.2;
- Counting period from 15:00 to 18:00 h (3 hours): Factor 4;
- Counting period from 15:00 to 19:00 (4 hours): Factor 3.

Other counting periods have not been considered.

The analysis showed large deviations of the daily traffic volumes according to different counting days, especially when comparing working days to Sundays and for same days in different seasons. From these results a great influence of the weekly and annual distributions are visible. Therefore, in a second step the estimation of the average daily traffic volumes characteristic weekly and annual distributions have been taken into account. To this end, recent publications of the Bundesanstalt für Straßenwesen (BAST) [12] have been considered. Comparison to the results of the traffic count data distributions with a large fraction of weekend and holiday traffic showed the best fits (annual series type F, weekly series as an average of type E and type F).

(Annotation: The annual distributions of the BAST originally are listed with a weekly resolution. Due to the particular large changes at bank holiday weekends (Easter, Whitsun etc.) a comparison of the measured data also showed a large uncertainty. A better fit was achieved considering an annual distribution with a monthly resolution derived by averaging the weekly values of the corresponding month.)

5.8.1.2. Forecast Scenario

Due to the loss of a road (Travemünder Landstraße) according to the expansion of the Skandinavienkai a change of the traffic distribution on the road network has to be expected. Corresponding investigations have been carried out within the scope of previous studies [47] and have been considered. The changes in traffic volumes on public roads and the additional vehicle movements to the Skandinavienkai have been included.

For other road lanes not explicitly considered in the previous study, plausible assumptions have been made. In agreement with the office of traffic of the Hansestadt Lübeck a main future increase of the traffic burdens in the town centre of Travemünde is not to be expected.

The predicted traffic volumes for the Forecast Scenario are shown in Appendix A 4.1.3.

5.8.2. Emission Factors

5.8.2.1. Exhaust Gases of Vehicles

The determination of the emission factors of the exhaust gases of cars is based on the recent version of the “Handbook Emission Factors for Road transport“ (HBEFA [20]).

The emission factors depend among others on the following parameters:

- Vehicle categories and fleet compositions;
- Traffic situations (speed patterns, road types);
- Environmental temperature, gradients, vehicle age etc.;
- Reference year.

Using the software "Handbook Emission Factors" emission factors for different road types and traffic situations may be calculated. For each reference year a characteristic fleet composition is available. In addition, one finds appropriate data for the parameters concerning hot engines, cold start and evaporate emissions, which may be used if detailed data are missing.

Due to the changes in fleet composition, engine developments and emission concepts the emission factors are mainly dependent on the reference year considered. Therefore, the „Handbook Emission Factors" considers a predicted fleet composition for each year. Additionally, future changes in the fuel qualities are taken into account (limitation of sulphur and benzene contents). (Annotation: A decrease of the sulphur content will also partly cause a reduction of other pollutants (particulate matter, HC, CO, NOx)).

In the present study the estimation of the emission factors for the Actual Scenario is based on the reference year 2004. For the Forecast Scenario the reference year 2010 has been chosen.

Concerning the soot emissions in the HBEFA no emission factors are available. According to recent knowledge for passenger cars one can approximately assume the soot emissions to a fraction of about 60 % of the particulate matter emissions (information from the Umweltbundesamt). For trucks a fraction of about 40 % is assumed.

On the topic "dust/fine particles" three conferences have been arranged at the Umweltbundesamt [26] in 1998. According to the results the fine particles in exhaust gases of vehicles are mainly determined by PM_{10}. Hence, in the scope of the present study the particle emissions are assumed to consist completely of PM_{10} (100 %).

The basic emission factors form the "Handbook Emission Factors" are shown in Appendices A 4.4.1 and A 4.4.2. A summary of the relevant input data for determining the emissions is found in Appendix A 4.2. The resulting emissions of the road network considered are listed in Appendix A 4.5. They are defined as average emission factors per vehicle and kilometer for the corresponding road lane.

5.8.3. Dust Resuspension due to Road Traffic

Another source for the emission of particulate matter is dust resuspension due to the vehicle movements on roads. Here one has to distinguish between paved and unpaved roads. While for the emissions of particulate matter in the exhaust gas detailed emission factors are available, the estimation of the dust resuspension on roads is much more difficult. In the VDI guideline 3790, part 3 [23] one finds some data on the basis of former ap-

proaches of the U.S. Environmental Protection Agency (EPA, fourth edition [24]). However, the pollution with particulate matter as found in immission measurements near roads in Germany is largely overestimated using the model mentioned above.

Another approach may be the use of the recent model of the EPA (fifth edition [25]), which has been introduced in the United States as an official model for predicting the particulate matter emissions.

For applying the recent EPA model some information on the average vehicle weight and the silt loading of the roads is required. In the United States there are considerable measurement results on the silt loadings available, but an adoption of these values for describing the situation in Germany is hardly possible. For German roads only a few measurements are known [29], but considerable measuring programs have been started. First results are expected to be published in 2004.

As long as no systematic results for developing an appropriate emission model are available, the EPA model may be used alternatively. The implementation on the German situation has been carried out by Lohmeyer et al. within the scope of a R&D project [28]. On the basis of recent publications and measurement results the EPA model has been scaled. In addition, helpful assumptions for the application have been derived. However, recent measurements in Schleswig-Holstein and Hamburg give rise to the assumption that the actual dust emissions are overestimated by the Lohmeyer model, too. In absence of any other appropriate model the present study considers the Lohmeyer model. The estimation of the emission factors is shown in Appendix A 4.4.2.

5.8.4. Emission Model

Considering the emission factors and the daily, weekly and annual distributions of the traffic volumes a time series on the basis of one-hour-values has been derived for the whole main road network. Due to the restriction of the maximum number of emission sources in AUSTAL2000 the road network has been split into 5 sets of sources (i.e. 5 calculation procedures).

In order to determine the hourly percentage of vehicles and daily and monthly factors recent BAST data have been used [12]. For passenger cars (PC) distributions with a large fraction of weekend and holiday traffic have been considered according to the results of the traffic surveys. The commercial traffic (LDT and HDT) only shows little variations and, therefore, has been described using widely balanced distributions with only a slight increase in summer. Illustrations of the distributions considered are found in Appendix A 4.3. For the annual distribution a monthly resolution was used.

The emissions for each road lane considered are listed in Appendix A 4.6. The annual total emissions of the whole road network within the area under investigation are shown in Appendix A 4.7.

5.9. Total Emissions within the Area under Investigation

5.9.1. Actual Scenario

In Table 3 and Figures 2 to 7 the resulting total annual emissions referring to the reference year are summarized. For comparison the contributions of the different polluter groups are analyzed. The listing includes the emissions of shipping traffic and the emissions of the main road network.

The following results have been established:

- The emissions within the area under investigation are mainly determined by the Skandinavienkai. The fraction of the total emissions amounts to about 80 to 85 % for nitrogen oxides, sulphur dioxide and soot, about 70 % for CO_2 and benzene and about 60 % for fine dust (PM_{10}). In this context the emissions resulting from in-port activities of the ships dominate with about 60 to 80 % when compared to ship movements from/to Skandinavienkai (20 to 40 %).

  The in-port activities of the ships at the Skandinavienkai amount to about 50 to 65 %, for fine dust to about 40 % referring to the total emissions within the area under investigation.

- The emissions according to the Ostpreußenkai are of negligible size compared to the overall total emissions. However, due to the vicinity of the decisive buildings a local increase of the pollution may be observed.

- For the shipping traffic on the Trave to the other ports of Lübeck an amount of about 18 % of sulphur dioxide, 16 % of soot and 12 % of fine dust (PM_{10}) pollution has been estimated, referred to the annual total emissions. For the other pollutants an amount of less than 10 % is found.

- The contributions of the main road network to the total emissions within the area under investigation have been derived to 18 % and 25 % for benzene and fine dust (PM_{10}) pollution, respectively. For the pollutants NOx and soot the contributions turn out small with less then 7 %. The sulphur dioxide emissions due to the road traffic are negligible.

According to the results mentioned above the greatest potentials for reductions of air pollutant emissions are found by limiting the emissions during the in-port activities of the ships at the Skandinavienkai.

Table 3: Total annual emissions within the area under investigation for shipping and road traffic (tons per year), Actual Scenario

Polluter group	Total emissions within area under investigation per year [t/a]					
	CO_2	NOx	SO_2	Benzene	PM_{10}	Soot
Skandinavienkai						
Stay in port	35,745	612.2	185.4	0.818	32.42	12.97
Ship movements	10,748	181.5	91.2	0.368	21.69	8.68
Sum	46,493	793.7	276.6	1.186	54.12	21.65
Ostpreußenkai						
Stay in port	194	2.8	1.5	0.006	0.24	0.09
Ship movements	7	0.1	0.1	0.000	0.01	0.00
Sum	201	2.9	1.6	0.006	0.25	0.10
Other ports						
Ship movements	4,667	76.9	59.4	0.133	10.39	4.16
Sum shipping	**51,360**	**873.5**	**337.6**	**1.325**	**64.75**	**25.90**
Road traffic	14,683	61.9	0.07	0.293	21.51	0.84
Total sum	**66,043**	**935.5**	**337.6**	**1.619**	**86.26**	**26.74**

Figure 2: Total annual carbon dioxide emissions [t/a] within the area under investigation for shipping and road traffic, Actual Scenario

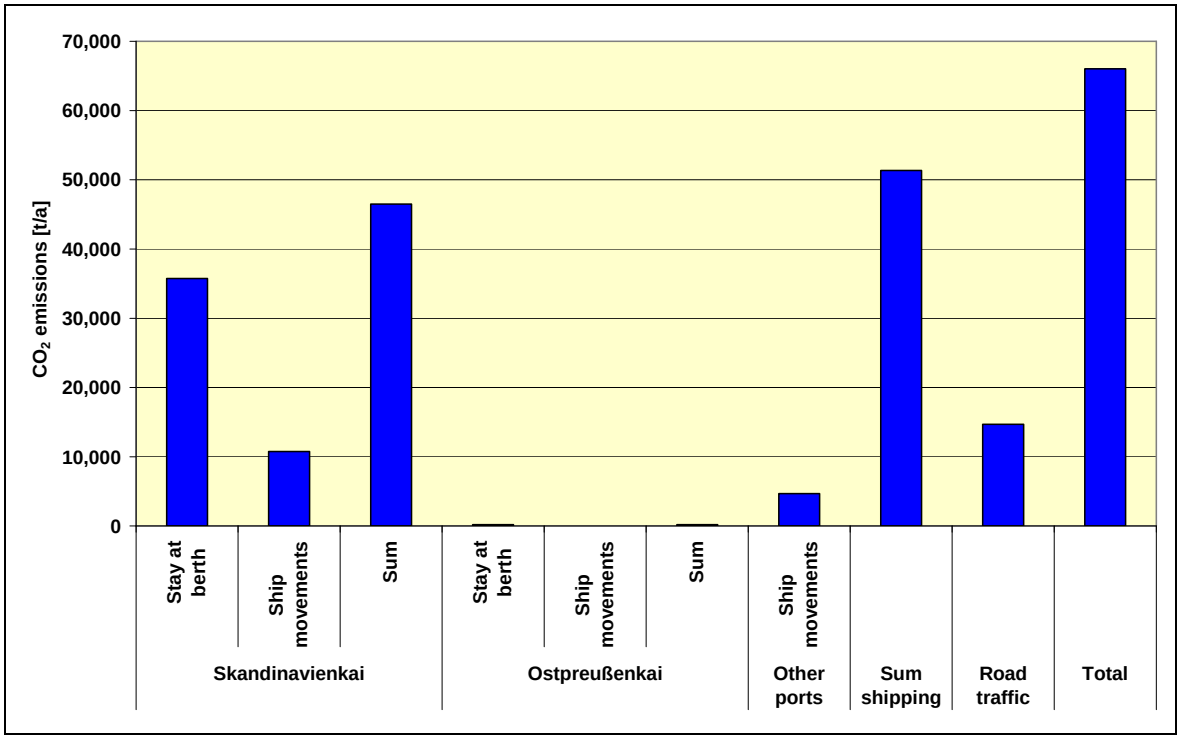


Figure 3: Total annual nitrogen oxides emissions [t/a] within the area under investigation for shipping and road traffic, Actual Scenario

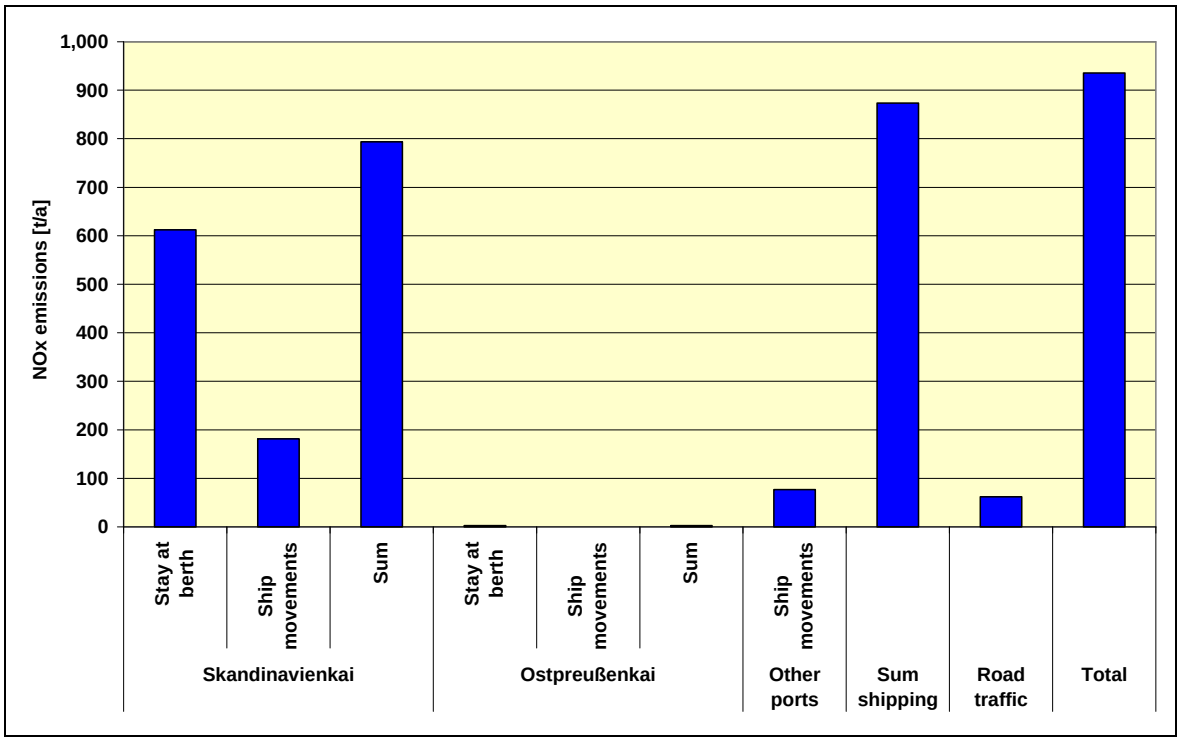


Figure 4: Total annual sulphur dioxide emissions [t/a] within the area under investigation for shipping and road traffic, Actual Scenario

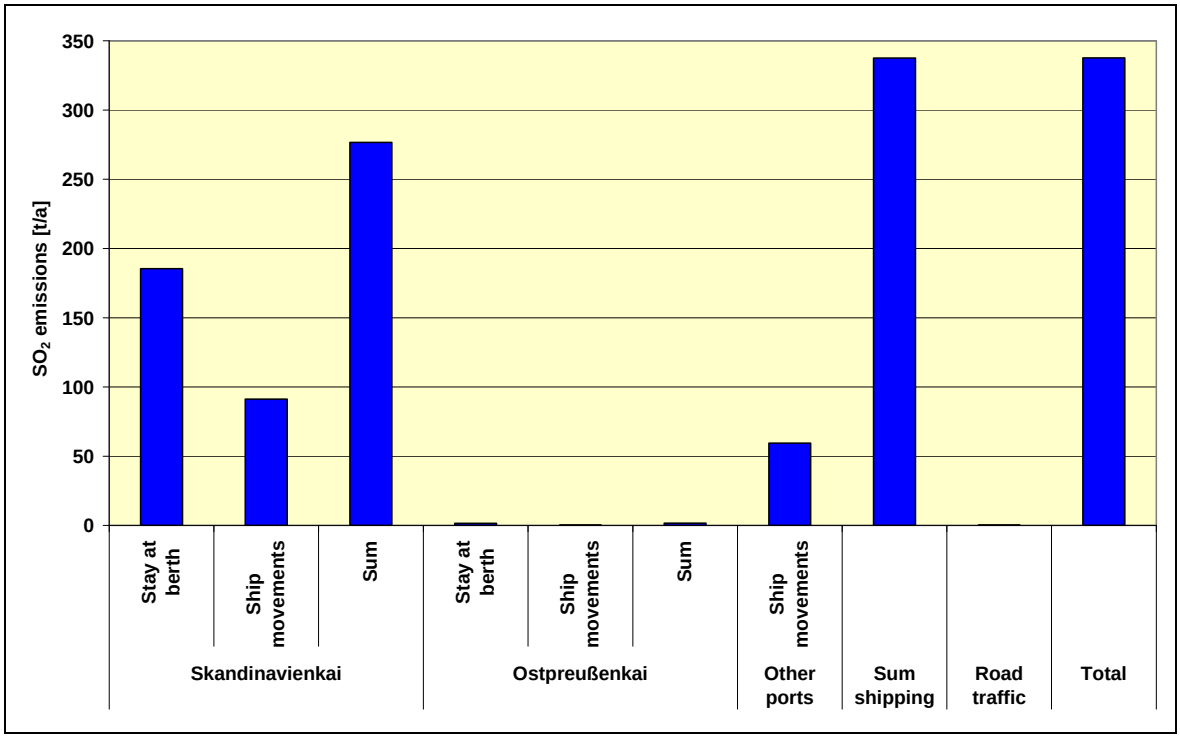


Figure 5: Total annual benzene emissions [t/a] within the area under investigation for shipping and road traffic, Actual Scenario

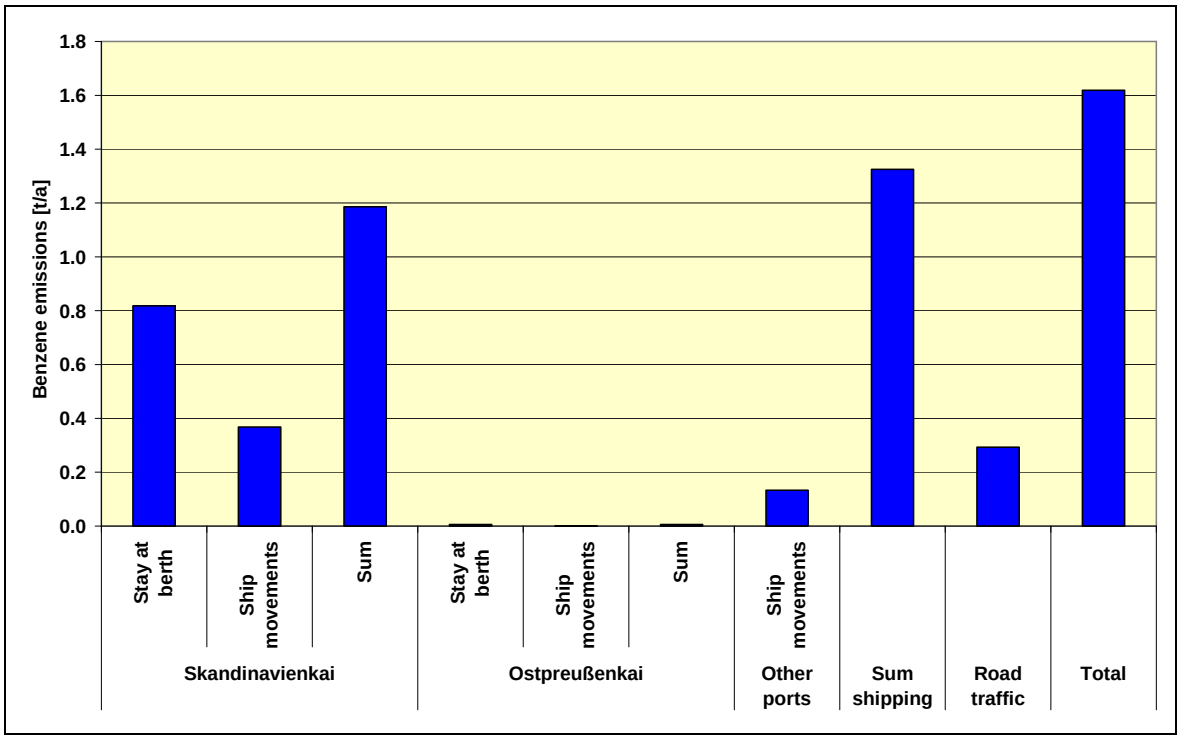


Figure 6: Total annual particulate matter (PM_{10}) emissions [t/a] within the area under investigation for shipping and road traffic, Actual Scenario

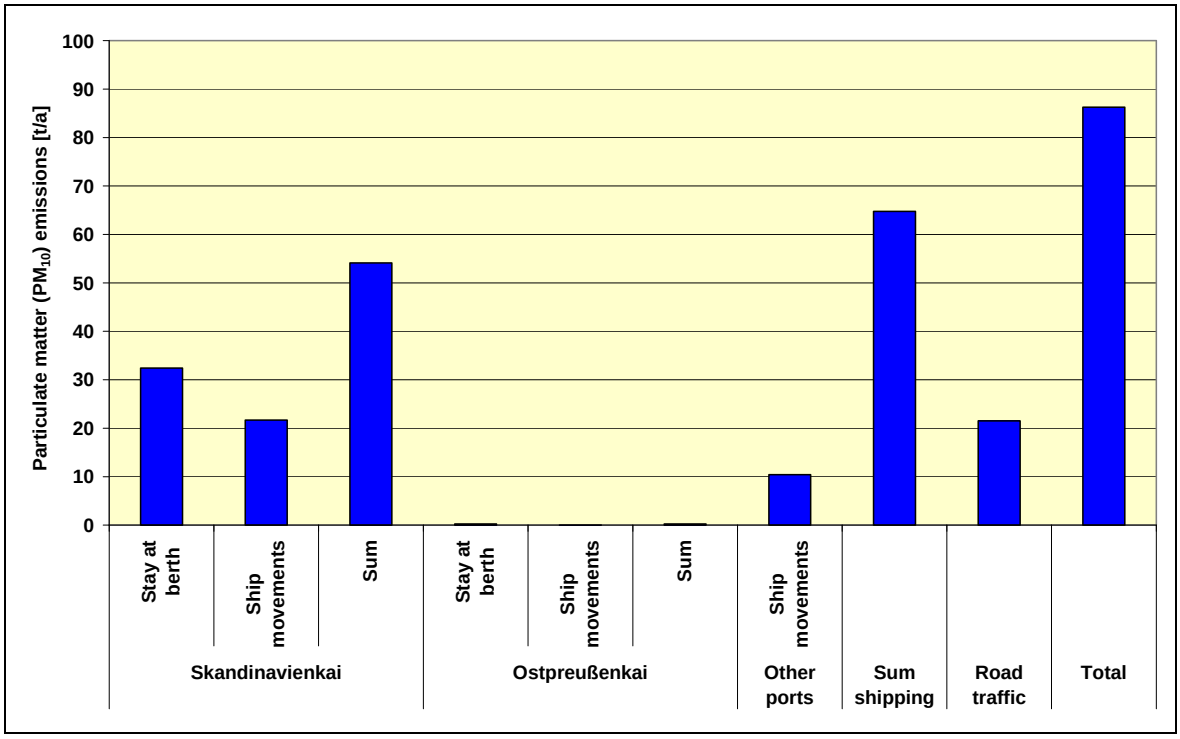
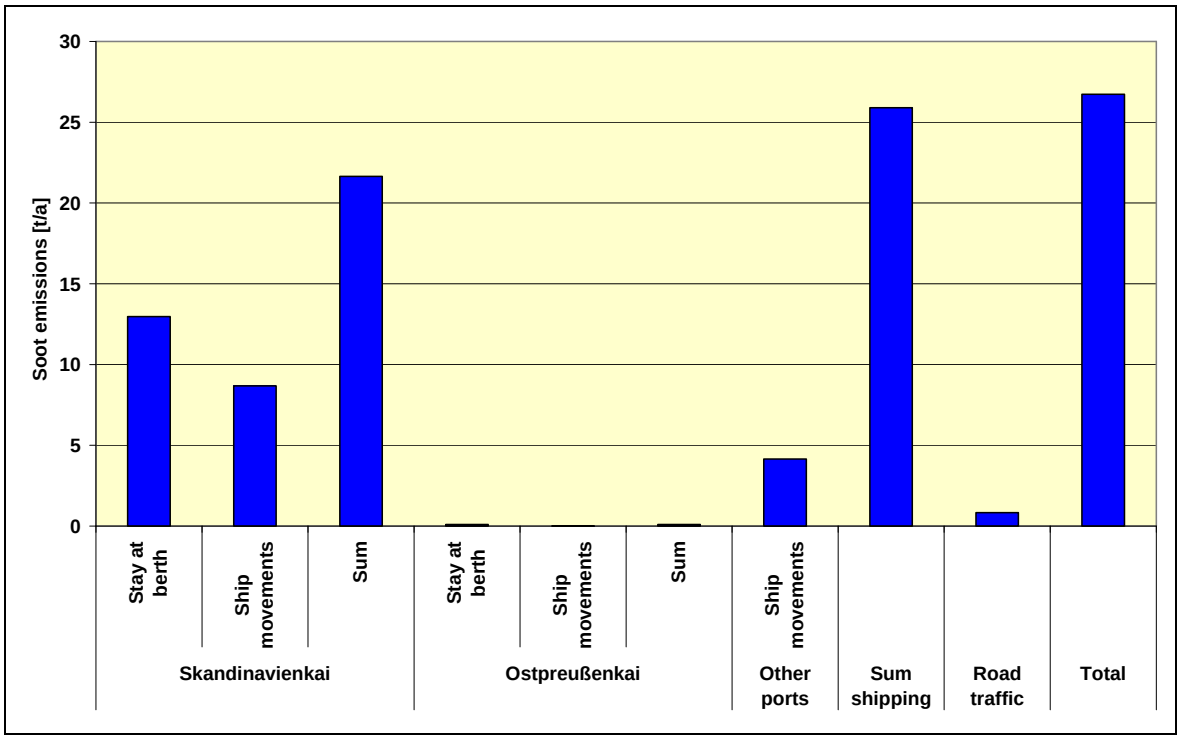


Figure 7: Total annual soot emissions [t/a] within the area under investigation for shipping and road traffic, Actual Scenario



5.9.2. Actual Scenario considering Reduction Concepts

The total annual emissions for the Actual Scenario considering the reduction concepts 1a/1b (electric power supply from the wharf) and 2 (limiting the sulphur content) are summarized in Table 4. Detailed listings are found in Appendix A 2.7. Some illustrations are shown in Figures 8 to 13.

The following results have been found:

- **Reduction concept 1 (power supply from the wharf):** Considering the reduction concepts 1a/1b a decrease of the annual carbon monoxide, sulphur dioxide and benzene emissions by an amount of about 40 to 45 % is expected. With regard to the nitrogen oxides a slightly larger reduction by barely 60 % is found. The particulate matter (PM_{10}) and soot emissions will be reduced by about 25 to 35 %.

  Comparing the concepts 1a/1b (operation of auxiliary boilers during in-port activities with loads of 10 % or 1 %, respectively) a major reduction due to a decreased load of the auxiliary boilers is only found for the sulphur dioxide emissions (about 10 %). With regard to the other pollutants the reductions have been estimated to 5 % and less.

  Concerning the emissions near Skandinavienkai, especially in the vicinity of the wharf notable larger reductions are to be expected: The emissions according to Skandinavienkai (as a sum of ship movements and in-port activities) reductions of

about 40 to 70 % have to be expected. Considering only the stay in port (in-port activities), considerable reductions by 70 to 90 % have been found.

- **Reduction concept 2:** Limiting the sulphur content of the fuels to a maximum value of 1 % only yields reductions of the sulphur dioxide emissions. For this case a decrease by about one third of the total annual emissions within the area under investigation is found.

In summary, providing electric power supply from the wharf has been established as an effective measure to reduce the air pollutant emissions, especially as the improvements are located in the vicinity on the most burdened areas. The limiting of the sulphur content to a maximum value of 1 % is shown to reduce the sulphur dioxide emissions considerably.

Table 4: Total emissions within the area under investigation considering reduction concepts 1a/b and 2 (tons per year)

Polluter group	Total emissions within area under investigation per year [t/a]					
	CO_2	NOx	SO_2	Benzene	PM_{10}	Soot
Actual Scenario						
Skandinavienkai	46,493	793.7	276.6	1.186	54.12	21.65
Ostpreußenkai	201	2.9	1.6	0.006	0.25	0.10
Other ports	4,667	76.9	59.4	0.133	10.39	4.16
Road traffic	14,683	61.9	0.07	0.293	21.51	0.84
Total sum	66,043	935.5	337.6	1.619	86.26	26.74
Reduction concept 1a						
Skandinavienkai	16,774	252.4	148.0	0.538	31.94	12.78
Ostpreußenkai	201	2.9	1.6	0.006	0.25	0.10
Other ports	4,667	76.9	59.4	0.133	10.39	4.16
Road traffic	14,683	61.9	0.07	0.293	21.51	0.84
Total sum	36,324	394.2	209.1	0.971	64.09	17.87
Decrase vs. Actual Sce.	-45 %	-58 %	-38 %	-40 %	-26 %	-33 %
Reduction concept 1a						
Skandinavienkai	14,956	246.6	129.7	0.516	31.08	12.43
Ostpreußenkai	201	2.9	1.6	0.006	0.25	0.10
Other ports	4,667	76.9	59.4	0.133	10.39	4.16
Road traffic	14,683	61.9	0.07	0.293	21.51	0.84
Total sum	34,507	388.4	190.7	0.949	63.22	17.52
Decrase vs. Actual Sce.	-48 %	-58 %	-44 %	-41 %	-27 %	-34 %
Reduction concept 2						
Skandinavienkai	46,493	793.7	195.1	1.186	54.12	21.65
Ostpreußenkai	201	2.9	1.3	0.006	0.25	0.10
Other ports	4,667	76.9	28.4	0.133	10.39	4.16
Road traffic	14,683	61.9	0.07	0.293	21.51	0.84
Total sum	66,043	935.5	224.8	1.619	86.26	26.74
Decrase vs. Actual Sce.	0 %	0 %	-33 %	0 %	0 %	0 %

Figure 8: Total annual carbon dioxide emissions [t/a] (shipping and road traffic) within the area under investigation considering reduction concepts

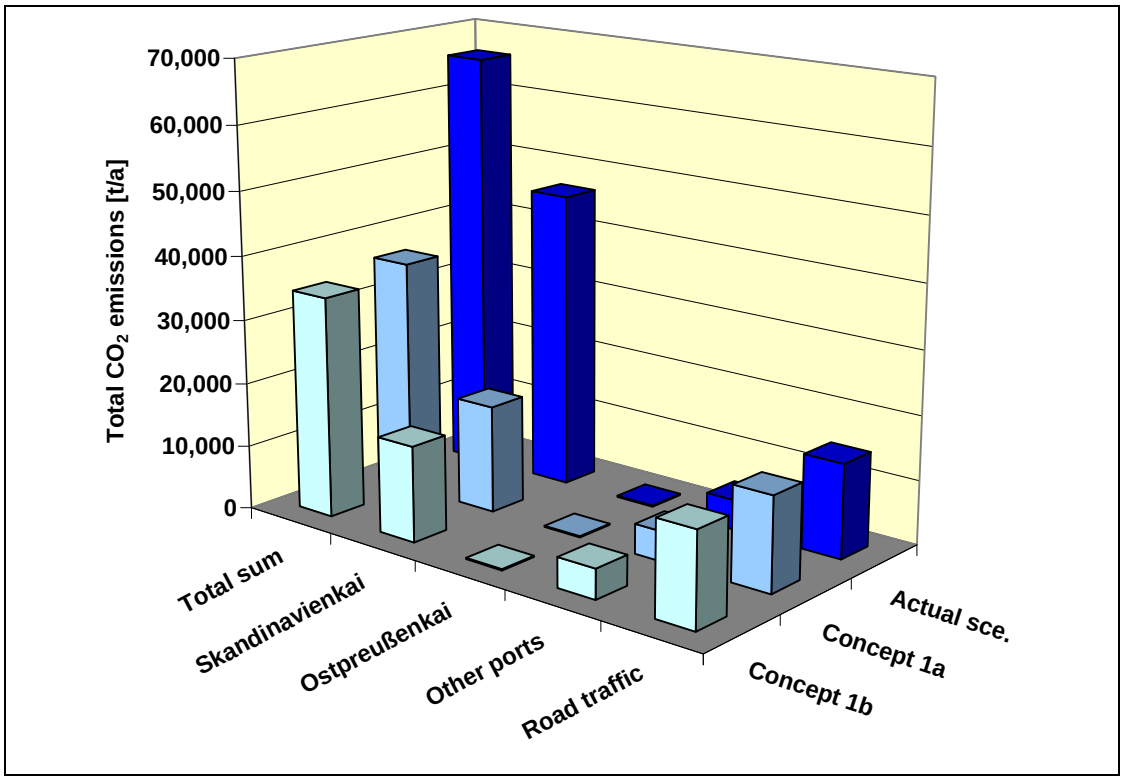


Figure 9: Total annual nitrogen oxides emissions [t/a] (shipping and road traffic) within the area under investigation considering reduction concepts

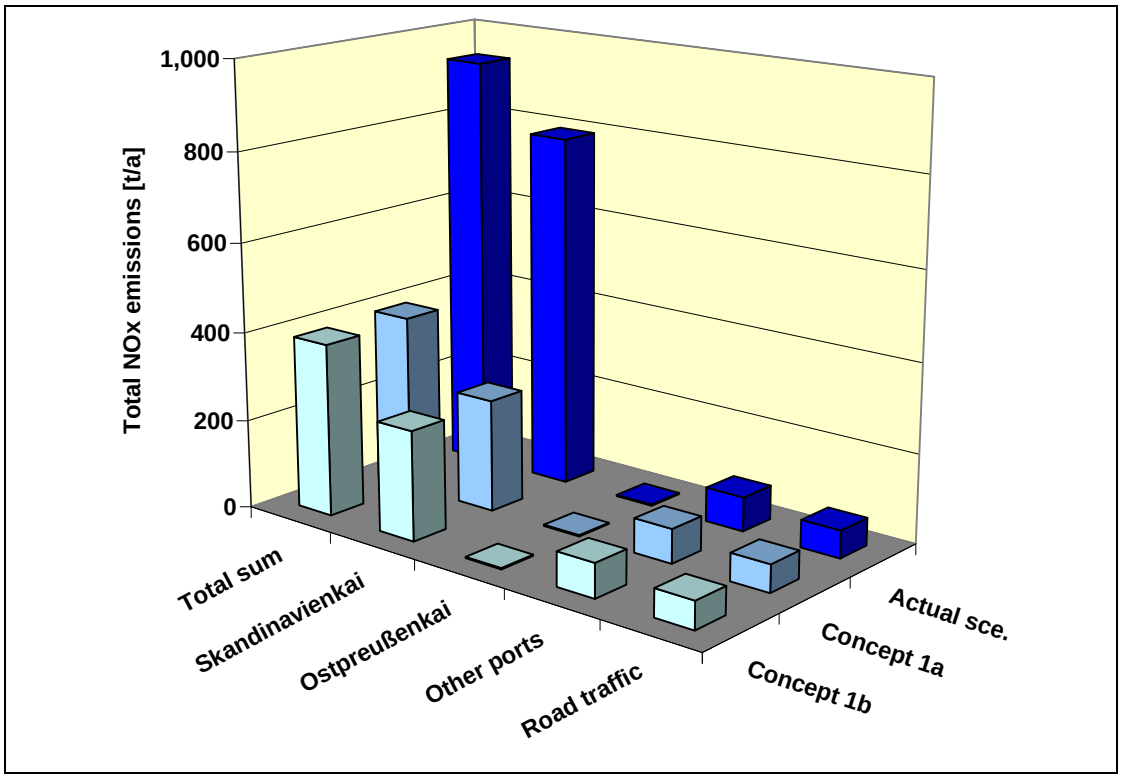


Figure 10: Total annual sulphur dioxides emissions [t/a] (shipping and road traffic) within the area under investigation considering reduction concepts

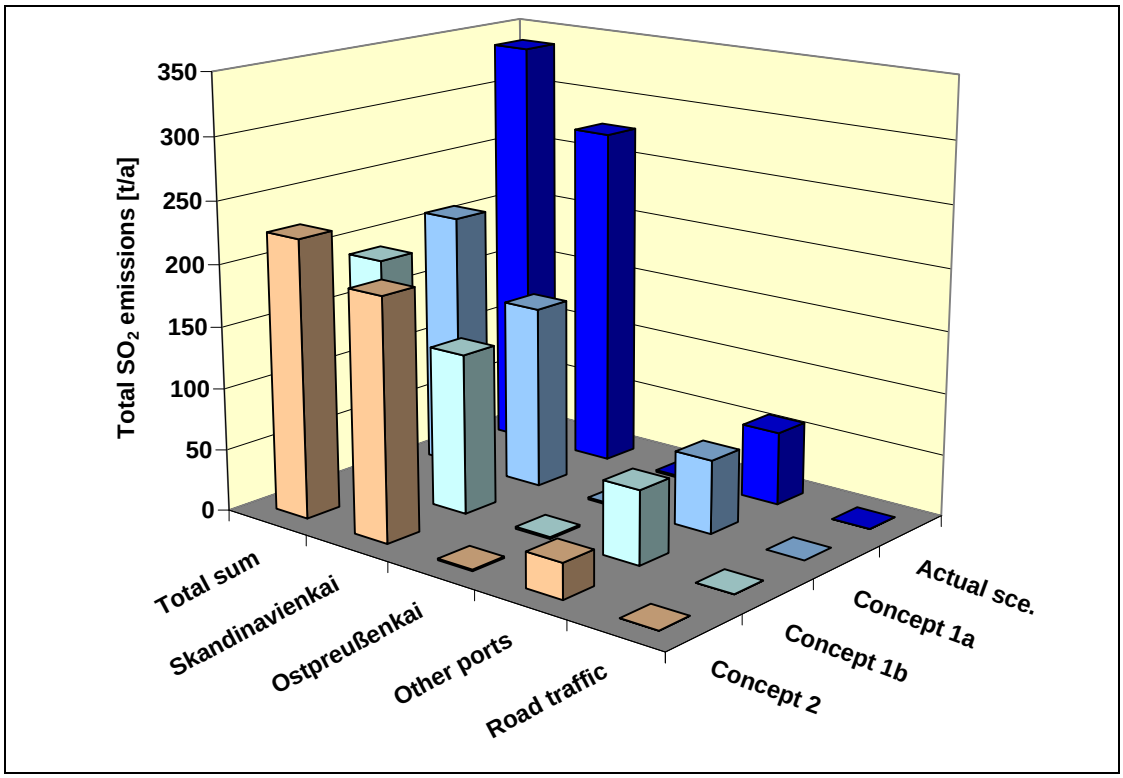


Figure 11: Total annual benzene emissions [t/a] (shipping and road traffic) within the area under investigation considering reduction concepts

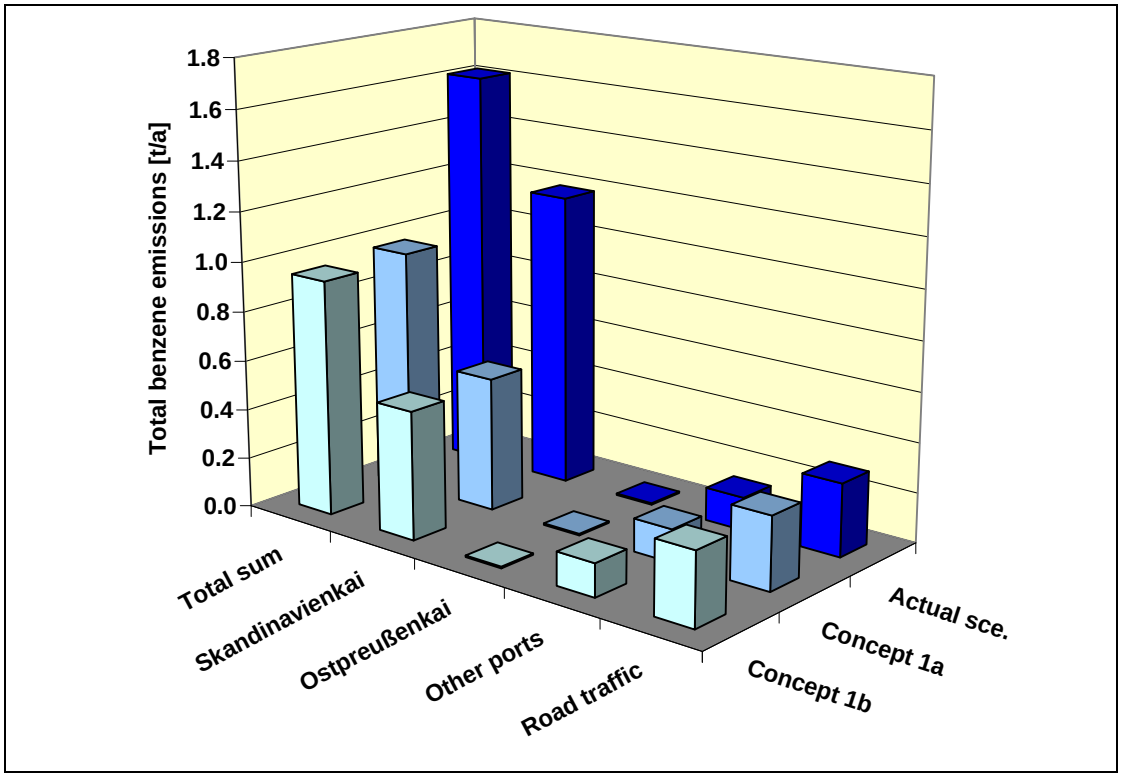


Figure 12: Total annual particulate matter (PM_{10}) emissions [t/a] (shipping and road traffic) within the area under investigation considering reduction concepts

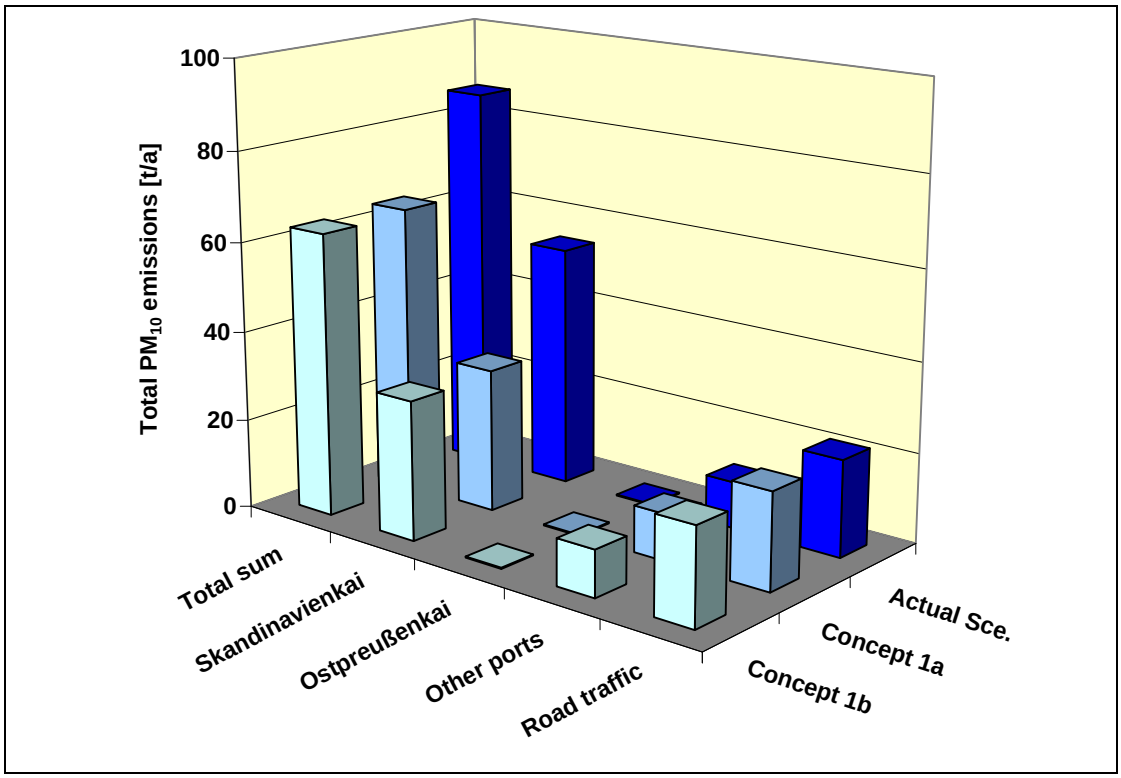
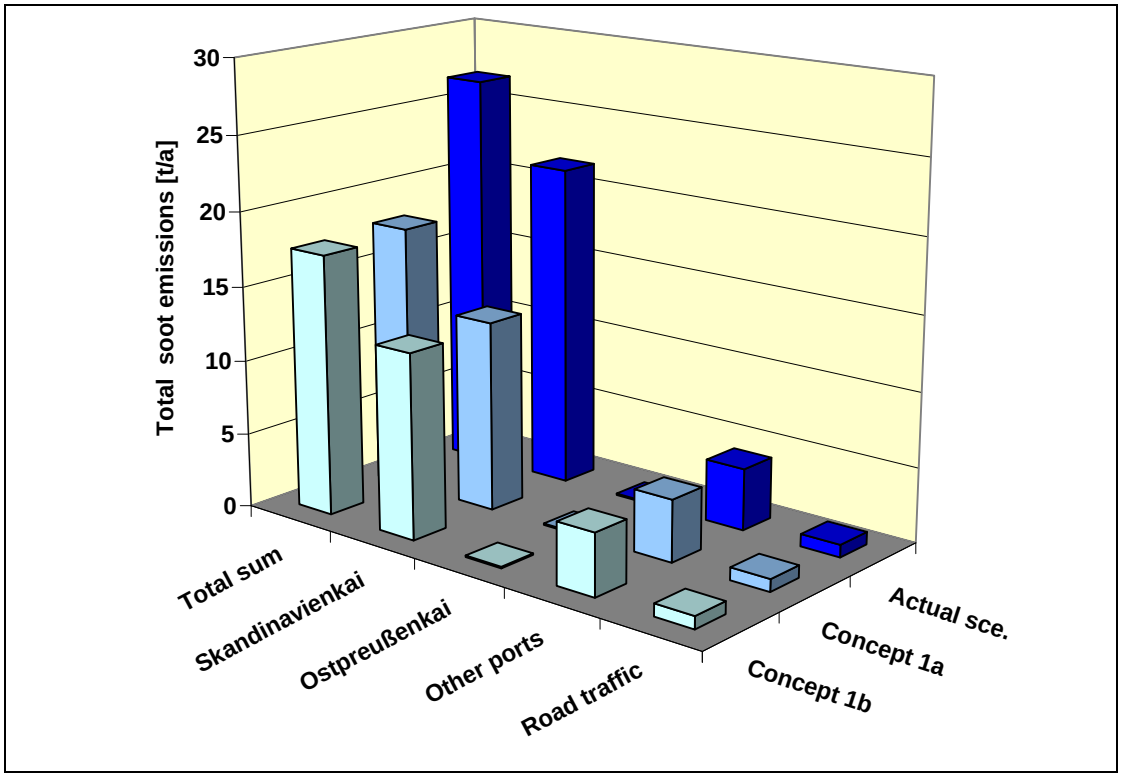


Figure 13: Total annual soot emissions [t/a] (shipping and road traffic) within the area under investigation considering reduction concepts



5.9.3. Forecast Scenario

The resulting annual total emissions within the area under investigation referring to reference year 2010 are shown in Table 5 and Figures 14 to 19. Analogous to the Actual Scenario, the contributions of the different polluter groups have been analyzed.

The following results have been found:

- Compared to the Actual Scenario a considerable increase of the total emissions is predicted due to the additional shipping traffic. The increases are in the order of magnitude of about 70 to 80 % concerning the pollutants carbon dioxide, nitrogen oxides and sulphur dioxide, and, respectively, 35 to 40 % concerning benzene, fine dust (PM_{10}) and soot.
- As in the Actual Scenario the emissions within the area under investigation are determined by the shipping traffic at the Skandinavienkai. The fractions of the total emissions are analyzed to about 80 to 85 % for nitrogen oxides and sulphur dioxide, about 75 % for CO_2, benzene and soot and 60 % for particulate matter (PM_{10}). The emissions during in-port activities dominate with an amount of about 65 to 80 % compared to the ship movements from/to the Skandinavienkai (20 to 35 %).

  Referring to the total emissions within the area under investigation, the in-port activities at the Skandinavienkai show a contribution of about 50 to 65 %, for fine dust about 40 %.
- The emissions according to the Ostpreußenkai are of negligible size compared to the total emissions, again. Locally, they may be of interest.
- The shipping traffic on the Trave to the other ports of Lübeck contribute to the total emissions by an amount of about 10 to 20 %.
- Referring to the total emissions the major fraction according to the main road network within the area under investigation is found for the fine dust (PM_{10}) with an amount of about 22 %. For benzene, nitrogen oxides and soot only contributions of about 6 % and less are found. The fraction of CO_2 amounts to approximately 15 %. The sulphur dioxide emissions according to the road traffic are negligible.

With regard to the results above also in the Forecast Scenario the most effective reduction potentials are expected with a reduction of the emissions during the stay in port at the Skandinavienkai.

Table 5: Total annual emissions within the area under investigation for shipping and road traffic (tons per year), Forecast Scenario

Polluter group	Total emissions within area under investigation per year [t/a]					
	CO_2	NOx	SO_2	Benzene	PM_{10}	Soot
Skandinavienkai						
Stay in port	64,027	1144.3	350.7	1.205	46.59	18.61
Ship movements	16,480	276.8	111.5	0.530	24.43	9.73
Sum	80,506	1421.2	462.1	1.735	71.02	28.33
Ostpreußenkai						
Stay in port	421	6.2	2.9	0.013	0.46	0.19
Ship movements	16	0.2	0.1	0.001	0.02	0.01
Sum	437	6.4	3.0	0.013	0.49	0.19
Other ports						
Ship movements	13,267	220.0	108.8	0.376	19.78	7.87
Sum shipping	**94,211**	**1647.6**	**574.0**	**2.124**	**91.28**	**36.39**
Road traffic	16,312	47.4	0.08	0.137	24.94	0.65
Total sum	**110,522**	**1695.0**	**574.0**	**2.261**	**116.22**	**37.05**

Figure 14: Total annual carbon dioxide emissions [t/a] within the area under investigation for shipping and road traffic, Forecast Scenario

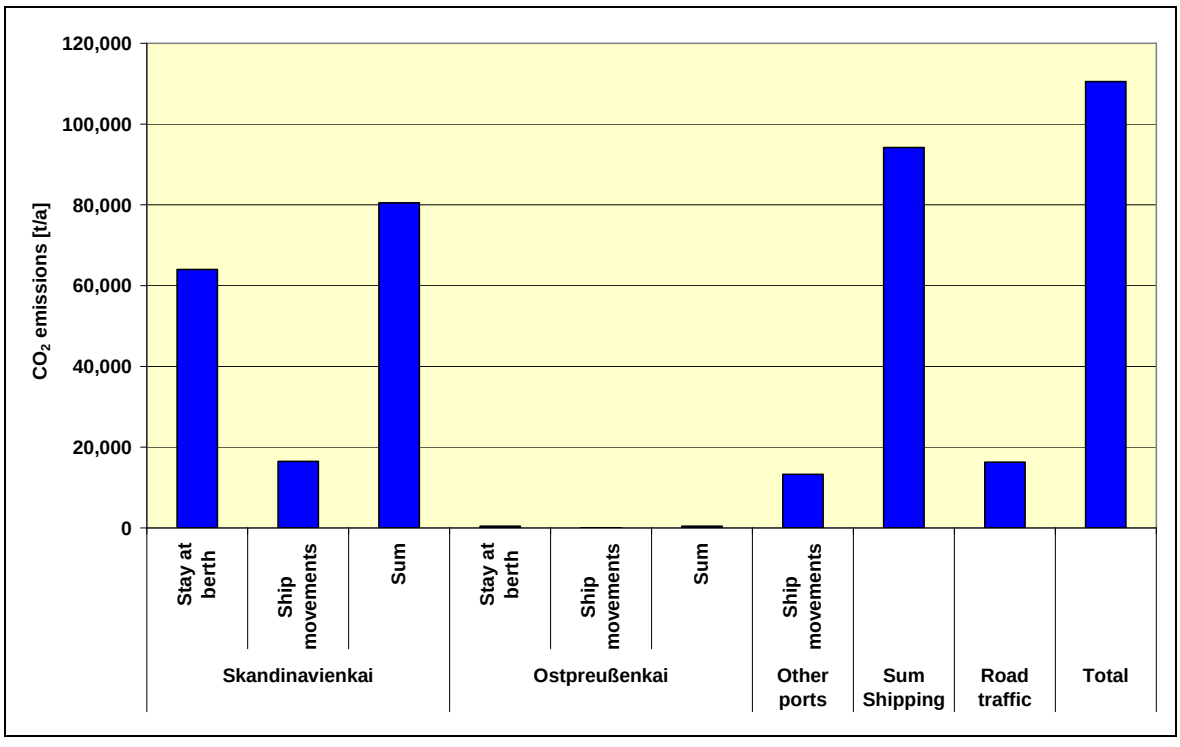


Figure 15: Total annual nitrogen oxides emissions [t/a] within the area under investigation for shipping and road traffic, Forecast Scenario

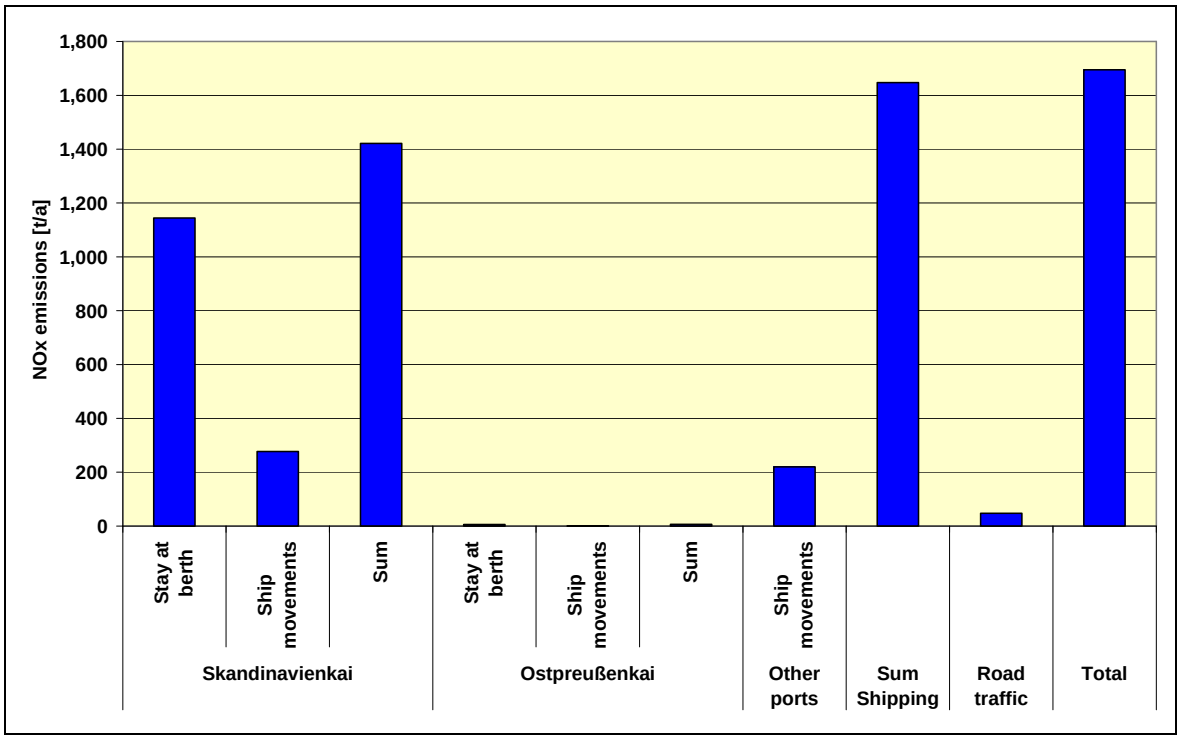


Figure 16: Total annual sulphur dioxide emissions [t/a] within the area under investigation for shipping and road traffic, Forecast Scenario

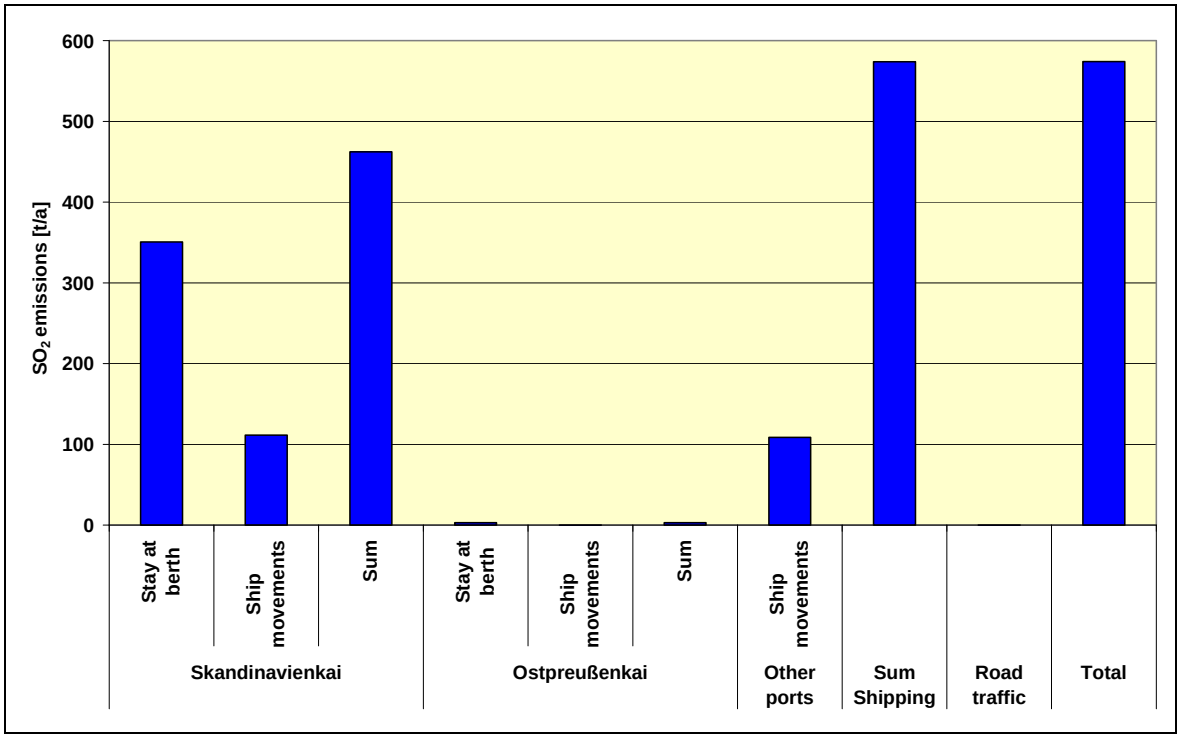


Figure 17: Total annual benzene emissions [t/a] within the area under investigation for shipping and road traffic, Forecast Scenario

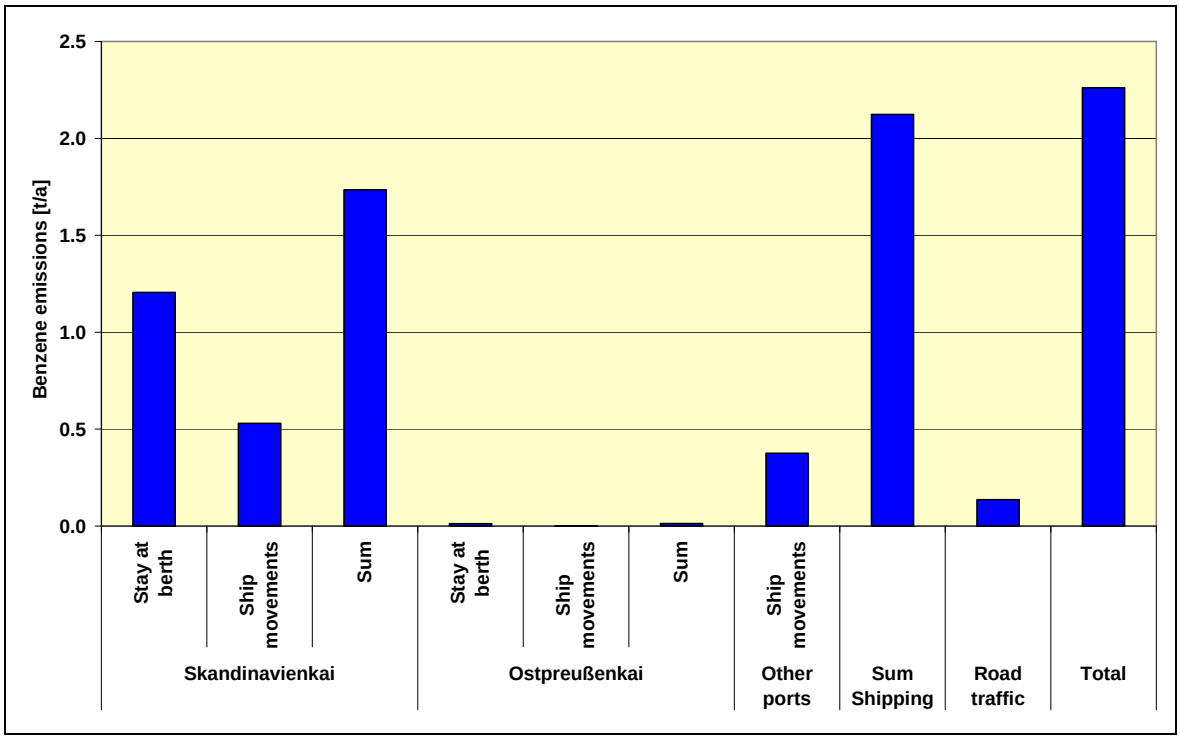


Figure 18: Total annual particulate matter (PM_{10}) emissions [t/a] within the area under investigation for shipping and road traffic, Forecast Scenario

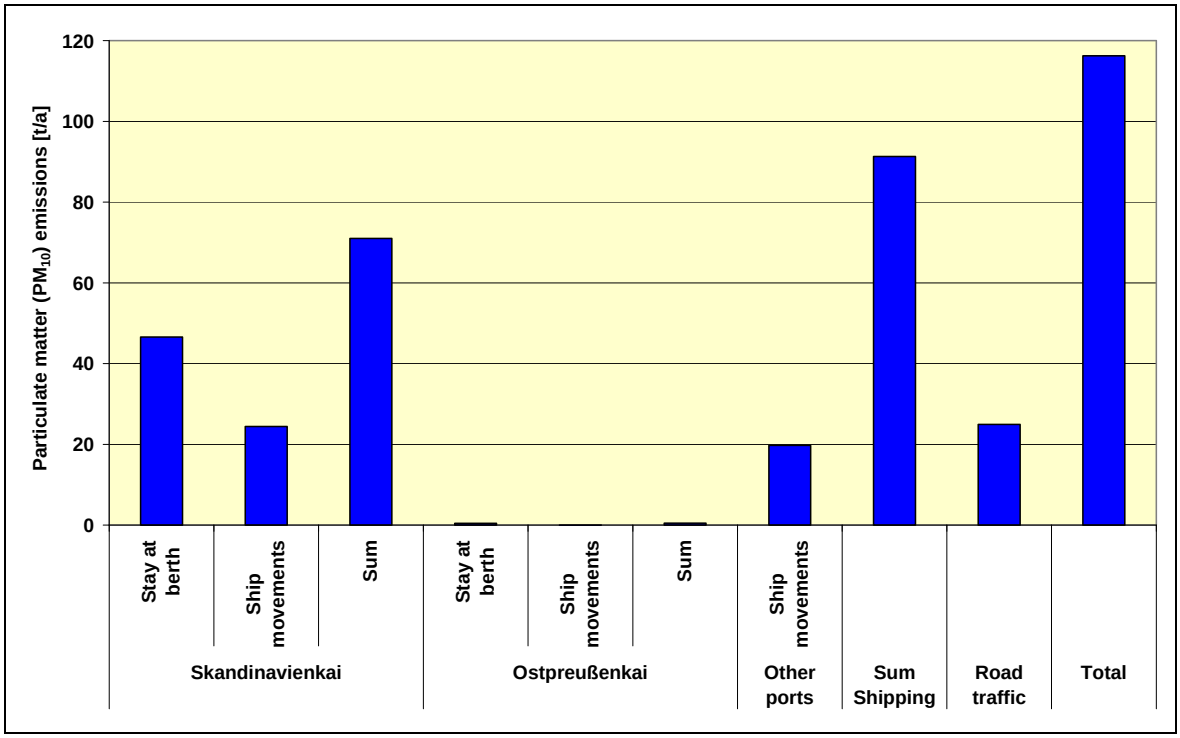
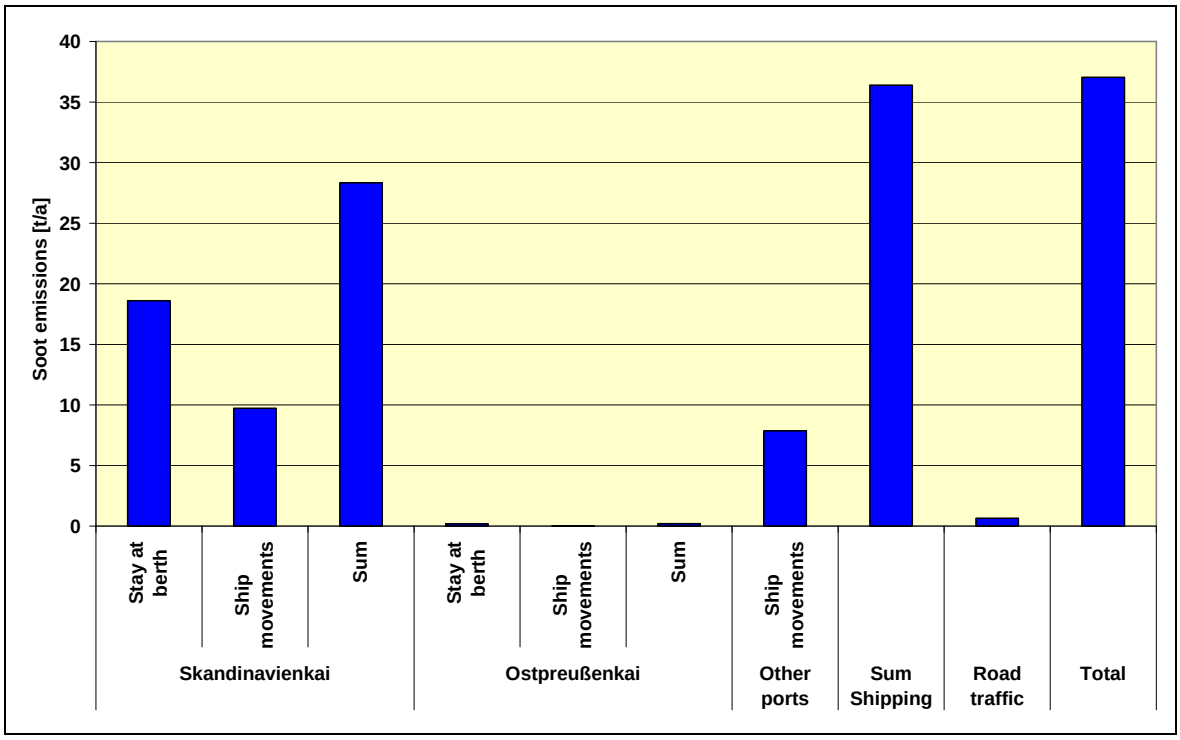


Figure 19: Total annual soot emissions [t/a] within the area under investigation for shipping and road traffic, Forecast Scenario



5.9.4. Forcast Scenario considering Reduction Concepts

The total annual emissions for the Forecast Scenario and the reduction concepts 1a/1b (electric power supply from the wharf), 3 (limiting the sulphur content) and combinations of 1 and 3 are summarized in Table 6. Detailed listings are found in Appendix A 3.13. Some illustrations are shown in Figures 20 to 25.

The following results have been derived:

- **Reduction concept 1 (power supply from the wharf):** Considering the reduction concepts 1a/1b a decrease of the annual carbon monoxide, sulphur dioxide and benzene emissions by an amount of about 40 to 45 % is expected. With regard to the nitrogen oxides a slightly larger reduction by barely 60 % is found. The particulate matter (PM_{10}) and soot emissions will be reduced by about 25 to 35 %.

  Comparing the concepts 1a/1b (operation of auxiliary boilers during in-port activities with loads of 10 % or 1 %, respectively) only small differences up to 6 % have been found.

  Concerning the emissions near the Skandinavienkai, especially in the vicinity of the wharf notable larger reductions are to be expected: For the emissions according to the Skandinavienkai (as a sum of ship movements and in-port-activities) re-

ductions of about 45 to 70 % have to be expected. Considering only the stay in port (in-port activities), considerable reductions by 70 to 90 % have been found.

- **Reduction concept 2:** Limiting the sulphur content of the fuels during the in-port activities to a maximum value of 0.1 % only yields notable reductions of the sulphur dioxide emissions by an amount of about 50 %. For the other pollutants decreases by about 5 % and less have been estimated.
- **Reduction concepts 1a+3:** For nearly all pollutants the combination of concepts 1a and 3 shows almost the same reductions as concept 1a solely. Only the sulphur dioxide emissions are decreased by an amount of 12 percentage points compared to concept 1a. Referring to the Forecast Scenario without any reduction concepts the sulphur dioxide emissions are reduced by an amount of about 60 %.
- **Reduction concepts 1b+3:** Compared to the combination of concepts 1a+3 only slight further decreases up to 3 percentage points are to be expected.

In summary, also for the Forecast Scenario the supply of electric power from the wharf has been established as an effective measure to reduce the air pollutant emissions, especially as the improvements are located in the vicinity on the most burdened areas. The limiting of the sulphur content to a maximum value of 0.1 % for the in-port activities has been proved for a further reduction of the sulphur dioxide emissions.

Table 6: Total emissions within the area under investigation considering reduction concepts 1a/b and 3 (tons per year)

Polluter group	Total emissions within area under investigation per year [t/a]					
	CO_2	NOx	SO_2	Benzene	PM_{10}	Soot
Forecast Scenario						
Skandinavienkai	80,506	1421.2	462.1	1.735	71.02	28.33
Ostpreußenkai	437	6.4	3.0	0.013	0.49	0.19
Other ports	13,267	220.0	108.8	0.376	19.78	7.87
Road traffic	16,312	47.4	0.08	0.137	24.94	0.65
Total sum	110,522	1695.0	574.0	2.261	116.22	37.05
Reduction concept 1a						
Skandinavienkai	27,222	405.1	187.1	0.828	38.66	15.39
Ostpreußenkai	437	6.4	3.0	0.013	0.49	0.19
Other ports	13,267	220.0	108.8	0.376	19.78	7.87
Road traffic	16,312	47.4	0.08	0.137	24.94	0.65
Total sum	57,238	679.0	298.9	1.354	83.85	24.10
Decrase vs. Forecast Sce.	-48 %	-60 %	-48 %	-40 %	-28 %	-35 %
Reduction concept 1b						
Skandinavienkai	24,150	395.4	167.8	0.791	37.20	14.81
Ostpreußenkai	437	6.4	3.0	0.013	0.49	0.19
Other ports	13,267	220.0	108.8	0.376	19.78	7.87
Road traffic	16,312	47.4	0.08	0.137	24.94	0.65
Total sum	54,166	669.3	279.6	1.317	82.40	23.52
Decrase vs. Forecast Sce.	-51 %	-61 %	-51 %	-42 %	-29 %	-37 %
Reduction concept 3						
Skandinavienkai	80,290	1416.9	148.4	1.735	66.50	26.55
Ostpreußenkai	435	6.4	0.4	0.013	0.43	0.17
Other ports	13,267	220.0	108.7	0.376	19.78	7.87
Road traffic	16,312	47.4	0.08	0.137	24.94	0.65
Total sum	110,304	1690.7	257.5	2.261	111.65	35.24
Decrase vs. Forecast Sce.	0 %	0 %	-55 %	0 %	-4 %	-5 %
Reduction concepts 1a+3						
Skandinavienkai	27,008	400.9	117.6	0.828	34.18	13.62
Ostpreußenkai	435	6.4	0.4	0.013	0.43	0.17
Other ports	13,267	220.0	108.7	0.376	19.78	7.87
Road traffic	16,312	47.4	0.08	0.137	24.94	0.65
Total sum	57,022	674.7	226.8	1.354	79.32	22.31
Decrase vs. Forecast Sce.	-48 %	-60 %	-60 %	-40 %	-32 %	-40 %
Reduction concepts 1b+3						
Skandinavienkai	23,915	391.2	115.7	0.791	32.72	13.04
Ostpreußenkai	435	6.4	0.4	0.013	0.43	0.17
Other ports	13,267	220.0	108.7	0.376	19.78	7.87
Road traffic	16,312	47.4	0.08	0.137	24.94	0.65
Total sum	53,929	665.0	224.8	1.317	77.86	21.73
Decrase vs. Forecast Sce.	-51 %	-61 %	-61 %	-42 %	-33 %	-41 %

Figure 20: Total annual carbon dioxide emissions [t/a] (shipping and road traffic) within the area under investigation considering reduction concepts

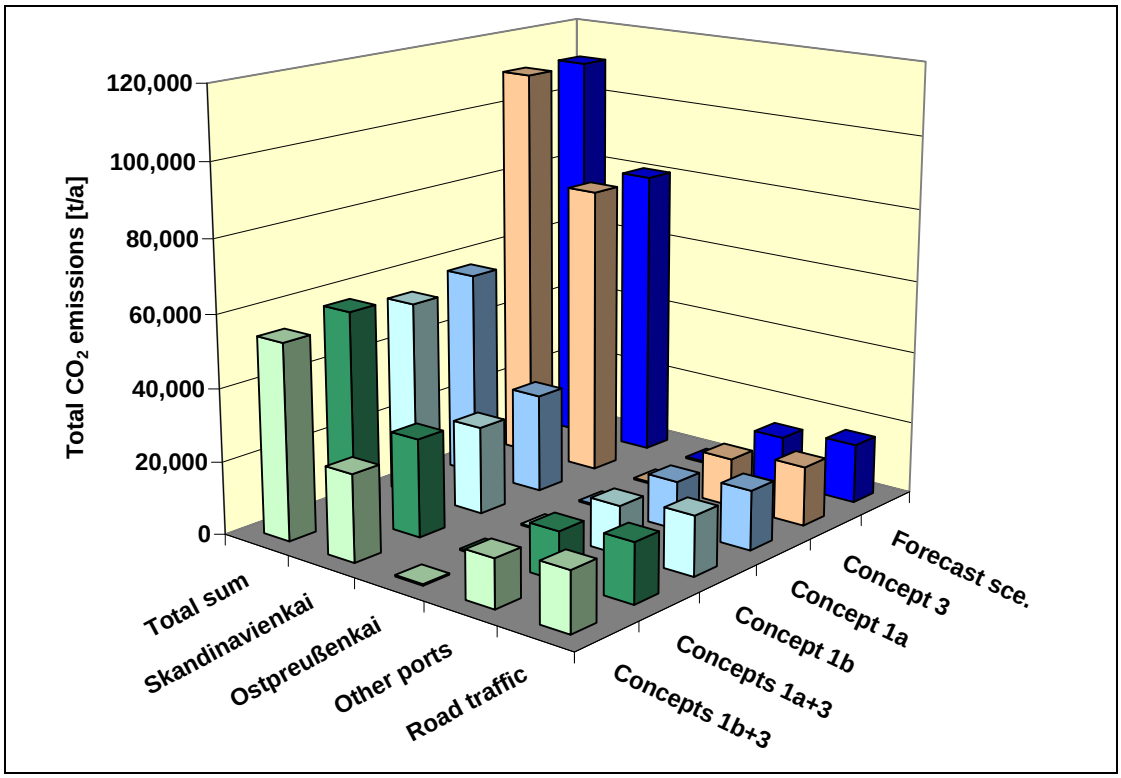


Figure 21: Total annual nitrogen oxides emissions [t/a] (shipping and road traffic) within the area under investigation considering reduction concepts

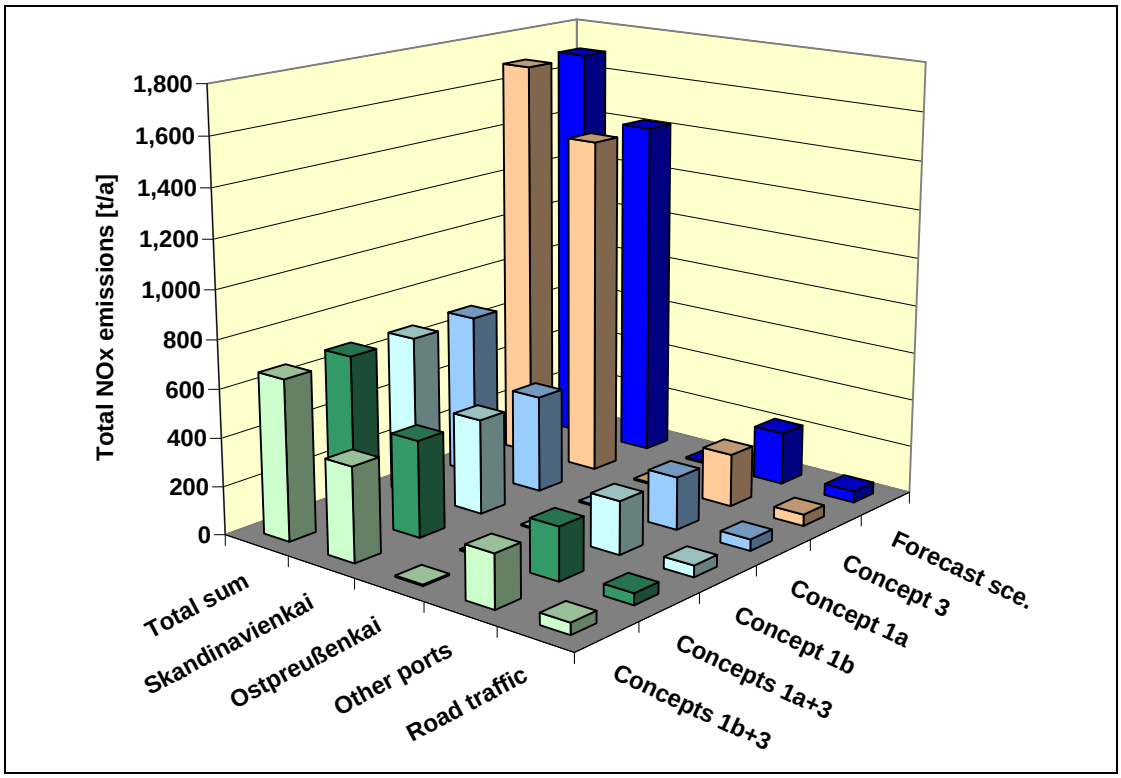


Figure 22: Total annual sulphur dioxides emissions [t/a] (shipping and road traffic) within the area under investigation considering reduction concepts

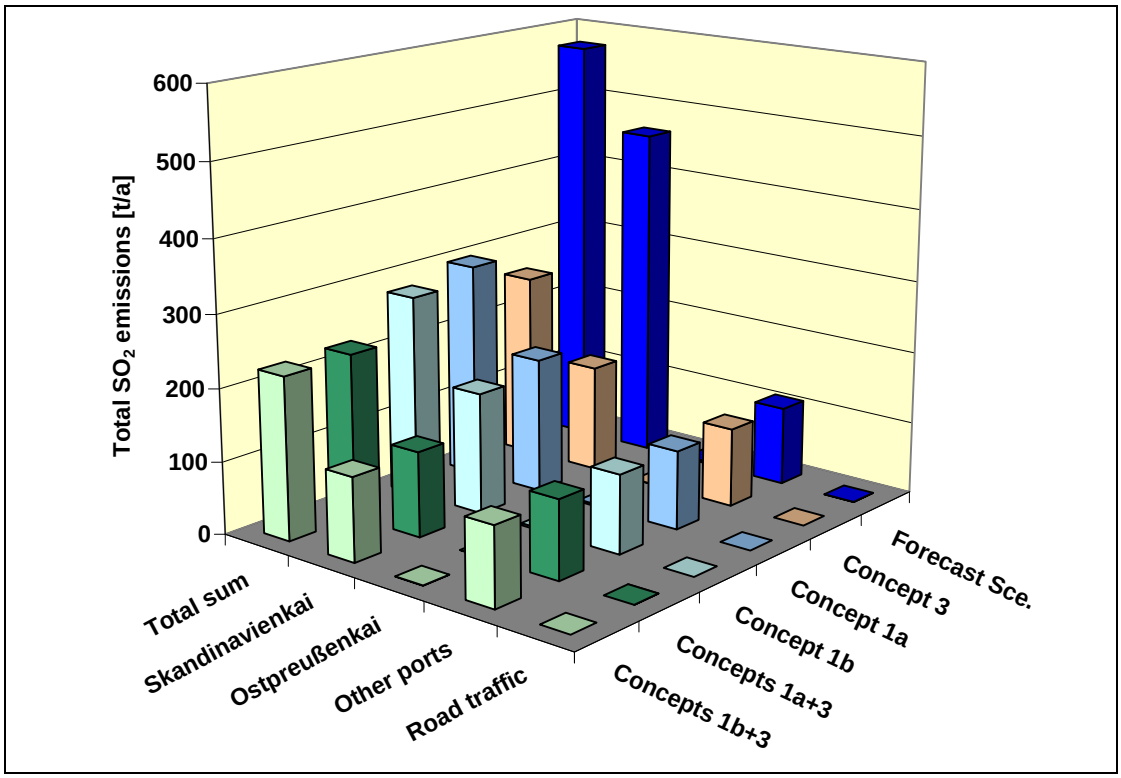


Figure 23: Total annual benzene emissions [t/a] (shipping and road traffic) within the area under investigation considering reduction concepts

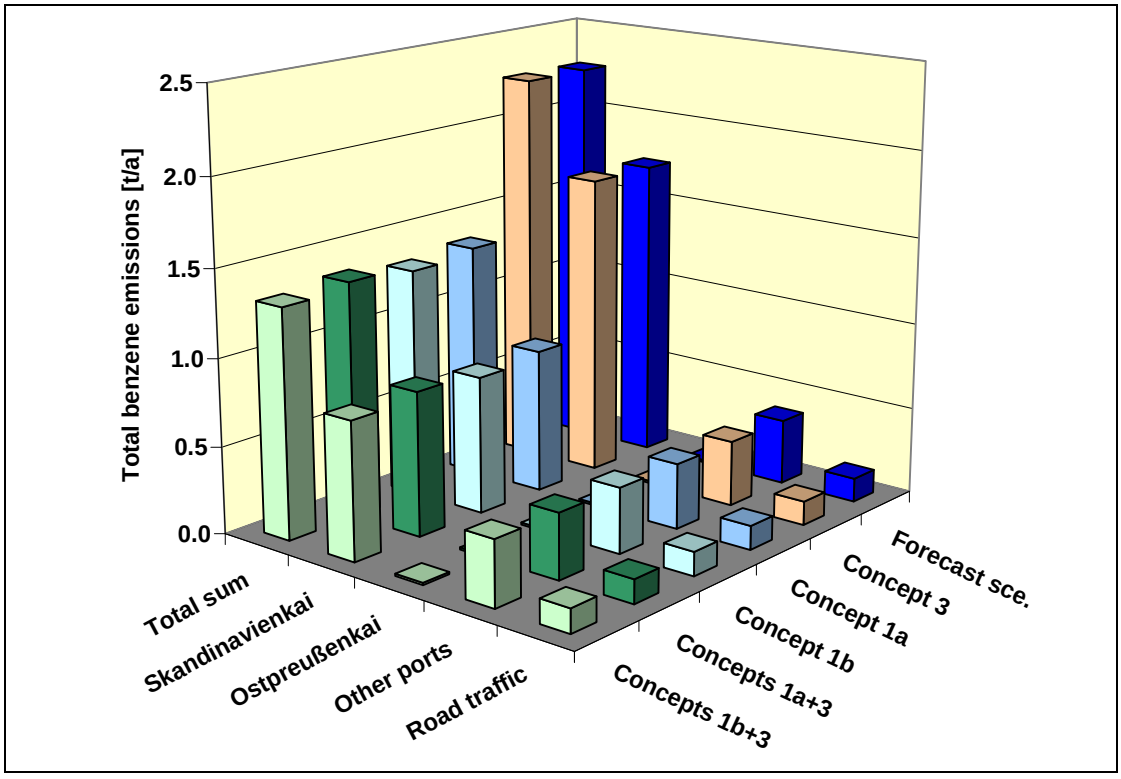


Figure 24: Total annual particulate matter (PM_{10}) emissions [t/a] (shipping and road traffic) within the area under investigation considering reduction concepts

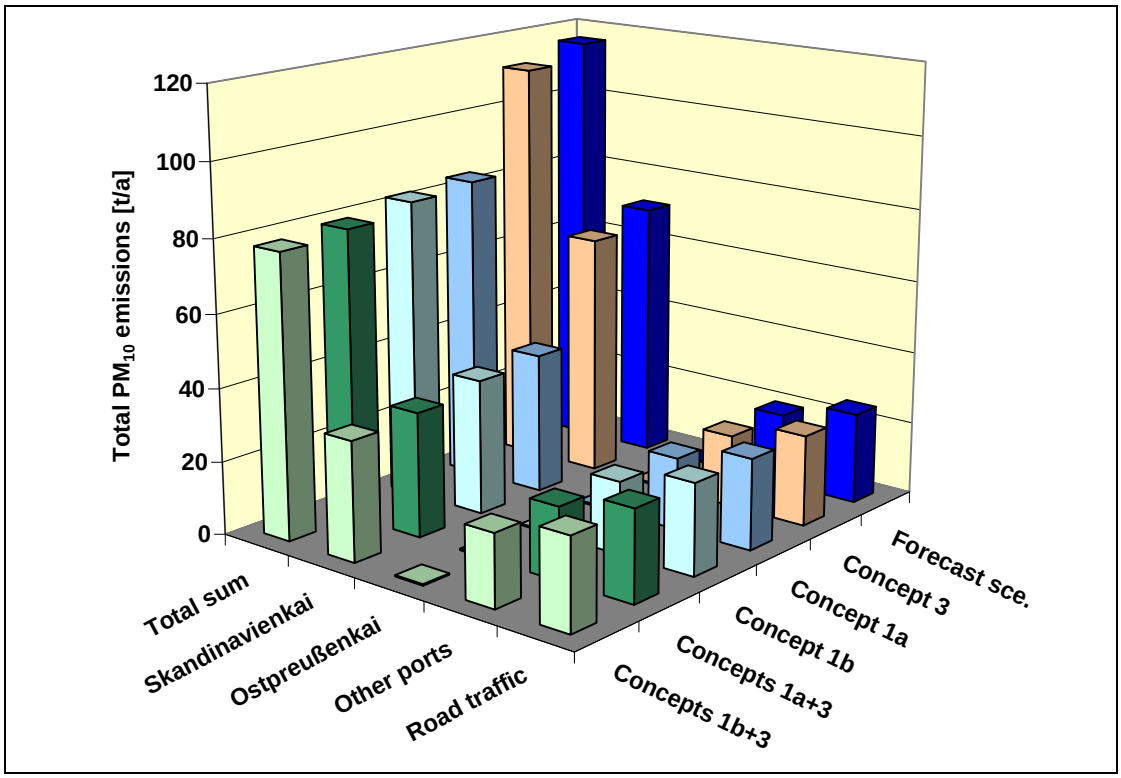
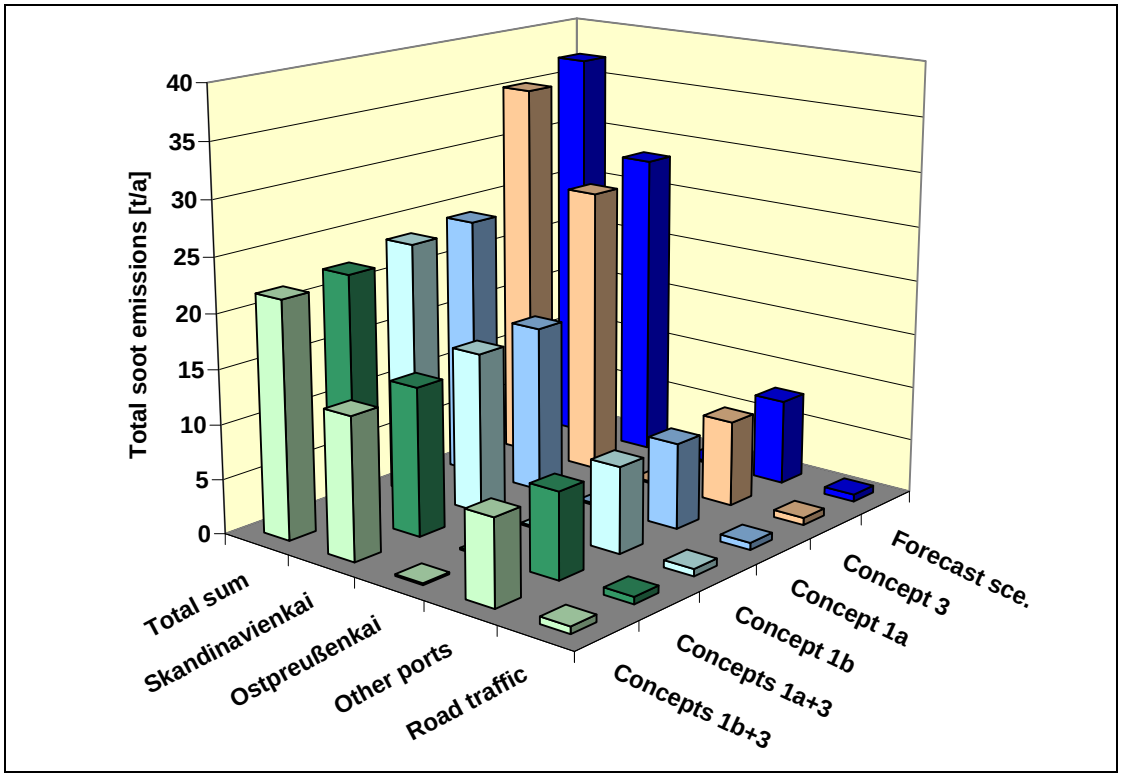


Figure 25: Total annual soot emissions [t/a] (shipping and road traffic) within the area under investigation considering reduction concepts



6. Immissions

6.1. General Facts

Due to turbulant processes during the dispersion the air pollutant emissions are changed into immissions. Normally, the atmospheric dispersion is quite complex and requires a dispersion model of high standard.

The road traffic induced pollution in the *vicinity* of roads may be roughly estimated using the guideline MLuS-02 (Merkblatt über Luftverunreinigungen an Straßen, Teil: Straßen ohne oder mit lockerer Randbebauung, Ausgabe 2002 [30]), which has been recommended by the Bundesminister für Verkehr (BMV) [31].

To determine the *large-scale* pollution a much greater effort for modelling the atmospheric dispersion is necessary. Among other things, all relevant sources and the meteorological conditions (wind directions and velocities, distribution of stability classes, special weather situations like inversions etc.) have to be considered. According to the kind of problem and required accuracy some different model approaches are available at present. Normally, the development and topography of the area is only included indirectly. The explicit calculation of the wind fields considering the flow around buildings and the surrounding topography is at present only applicable on a small scale. However, the “simple” models (without considering buildings) are appropriate for estimating the pollutant levels with an adequate accuracy as proved by comparison with measured data.

For determining the pollution in un-built or loosely built-up areas a.o. the MLuS-02 for rough estimates and more complex Gaussian line source models (for example PROKAS [32]) are available, especially appropriate for traffic induced immissions. Concerning closely built-up areas common canyon plume box models (for example STREET) may be used. For more detailed calculations (town centres, street canyons) considering the modifications of the wind field by the surrounding buildings and topography more complex models (for example MISKAM [33]) have to be applied.

The actual version of the TA Luft recommends the dispersion model AUSTAL2000 [35] for the assessment of facilities which are in need of an approval. This model is able to consider the topography of the terrain but with much larger computing times. At present, the influence of buildings may not be taken into account. However, the inclusion of other calculated wind fields is possible (for example according to MISKAM results).

At present, only few models are available based on a time series to determine short-term pollutant levels in order to check daily and hourly limit values (for example LASAT, AUSTAL2000). Normally, the results of other models (PROKAS, MISKAM) only allow statements concerning the annual average values and percentiles.

Due to the great effort for area-wide model calculations, especially when considering buildings and topography, for the calculation model a compromise has to be found between spatial resolution and computing time.

For PROKAS and MISKAM the calculation grids are mainly limited due to the computing time. The limits of the model sizes according to calculations on common personal com-

puters are given by the order of magnitude of 150 x 150 x 25 cells (length x width x height). For AUSTAL2000 the number of horizontal cells is limited.

Basically, there is the possibility to split the calculation grid into several models. Within this procedure on has to consider a sufficient “overlap” between neighbouring model grids. Relevant sources in the adjacent grids have to be included to yield steady pollutant levels at the edge between two grids.

6.2. Dispersion Model

In the present study, AUSTAL2000 has been used for modelling the air pollutant dispersion in order to get information concerning the short time scale pollution. The calculations based on annual time series’ for each source with a resolution of 1 hour.

Therefore, the site specific meteorological data have been considered. These data have been provided as an annual time series with a resolution of 1 hour by the DWD (Deutscher Wetterdienst, data set denoted as “AKTerm“).

The calculation grid included an area of 5.000 x 7.000 m² with a horizontal cell size of 25 m. Altogether the model contains 200 x 280 horizontal cells. For the vertical grid the standard setting of AUSTAL2000 has been considered.

Due to the limitation of the number of horizontal cells a higher spatial resolution could not be chosen. Calculations with a higher resolution would have required a split into several grids, so that the number of computing processes would have been multiplied. Fundamentally, for model simulations using AUSTAL2000 or other complex dispersion models a compromise between resolution and computing time has to be found. Hence, in preliminary investigations the accuracy of the results due to the spatial resolution chosen has been proved, especially with regard to the goals of the present study.

The quality, i.e. the standard deviation, of the results obtained by AUSTAL2000 depends on the number of particles considered during the simulation. The number of particles may be varied by choosing a corresponding quality stage. However, an increase by a factor of 2 will have to be paid by an increase of computing time by a factor of 4. In the present study the quality stage QS = 2 has been chosen ensuring standard deviations sufficient low. This has been proven in preliminary investigations, too.

Due to the limitation of the number of sources within AUSTAL2000 (at maximum 99 sources) several different calculation runs have been carried out. The shipping traffic was simulated within the same calculation run. However, not all pollutants could be simulated in the same run. In addition, the contributions of some relevant source groups to the total pollution have been analyzed by additional calculation runs considering only the corresponding sources.

The calculation model distinguishes between the following polluter groups summarizing the emissions of the corresponding ships:

- Ship movements on the Trave from/to the Skandinavienkai;

- Ship movements on the Trave from/to the Ostpreußenkai;
- Ship movements on the Trave from/to other ports of Lübeck south of the Skandinavienkai;
- Skandinavienkai, stay in port at berths 2, 3, 4, 5, 6, 6a, 7, 7a and 8 (each modelled as an own source), considering the additional berth 5a for the Forecast Scenario;
- Ostpreußenkai, stay in port.

With respect to chimney emissions AUSTAL2000 considers the plume rise due to a vertical momentum of hot exhaust gases. In the present study the plume rise according to the VDI guideline 3782, part 3 [37] has been considered. The input parameters required have been estimated within the scope of preliminary investigations.

For modelling the large-scale road network within the area under investigation, more than 420 road lanes have been taken into account. The calculations have been allocated to 5 sets of sources, i.e. 5 several runs.

The immissions have been calculated area-wide within the calculation grid chosen. The results of AUSTAL2000 are referring to the limit values of the TA Luft and the 22. BImSchV. Additionally, the maximum values of daily and hourly pollutant levels are estimated. However, the whole resulting annual time series' of pollutant levels can only be shown and analyzed at selected monitor points.

The results are given by the following parameters defined as below:

- J00: Annual average value;
- T03: 24 hours value, exceeded at 3 days in a calendar year (only SO_2);
- T35: 24 hours value, exceeded at 35 days in a calendar year (only PM_{10});
- S18: 1 hour value, exceeded at 18 days in a calendar year (only NO_2);
- S24: 1 hour value, exceeded at 24 days in a calendar year (only SO_2);
- 98 percentile: value, exceeded in 2 % of the hours of a year.

A superposition of the area-wide results according to different calculation runs is only allowed considering the annual average values. Therefore, the inert pollutants without chemical reactions during dispersion have to be used (i.e. NOx instead of NO and NO_2). The other results like 24 hours or 1 hour values may not be summarized, because the different calculation runs considering different sets of polluter groups may lead to maxima at different days or hours.

The superposition of the results of different calculation runs is possible, with the restriction to the inert pollutants, if one considers the detailed time series' at a selected monitor point with a resolution of 1 hour. In addition, a time series of the overall background pollution may be included. Hence, in the present study a number of 90 monitor points has been chosen to cover all areas of interest.

(Annotation: The actual version of AUSTAL2000 is restricted to a maximum number of 10 monitor points. So in the software source code the limit has been increased to 99.)

6.3. Preliminary Investigations

6.3.1. Choice of Meteorological Data

The model calculations with AUSTAL2000 are based on a time series of meteorological parameters referring to a representative year. The data are provided by the DWD (denoted as “AKTerm“). Due to variations of the meteorological situations from year to year one has to examine the changes in the air pollutant levels calculated.

For this purpose in preliminary investigations several calculations have been carried out using the same emission model but considering the meteorological time series’ of different succeeding years. The simulations have been restricted to the shipping traffic and the relevant pollutants sulphur dioxide (SO_2), nitrogen oxides (NOx) and particulate matter (PM_{10}). For the meteorological data the calendar years from 1997 to 2002 have been considered. Therefore, 6 different simulations have been carried out.

In Appendix A 5 the area-wide results are shown as pollution maps. Exemplarily, the additional pollutant levels of sulphur dioxide due to the shipping haven been chosen. The results are shown for the annual average value (J00), the 24 hours value, exceeded at 3 days a calendar year (T03), and the 1 hour value, exceeded 24 times a calendar year (S24). Concerning the parameters J00, T03 and S24 corresponding limit values have been introduced in EU-Directives, the German TA Luft and the 22. BImSchV, so the size of these values is relevant for assessment.

Though the pollution maps show significant differences when comparing the different years, a straightforward determination of the year yielding the “worst case” is not obvious. On the contrary, for different years spatial differences are found. Considering one selected area of interest, the highest pollution may be found for one definite year. But examining other areas other years may show the highest pollutant levels.

Therefore, the results for the different years investigated have been compared at 10 selected monitor points in the vicinity of the Skandinavienkai (see map in Appendix A 1.3). For that purpose the corresponding parameters according to the different years have been analysed using a special kind of point system. At first, at each monitor point the deviations from the average values have been estimated (Analysis 1). Using the sum of the deviations at all monitor points a ranking of the years has been deduced: The year showing the highest levels has been rated with 6 points, the year showing the lowest with 1 point. Alternatively, the same ranking procedure has been carried out for each monitor point without considering the absolute magnitudes of the deviations from the average values (Analysis 2). Finally, the results have been normalized to a percentage scale. An illustration is shown in Appendix A 5.3.

In summary, this ranking procedure showed only little differences or spatial deviations, too. However, the highest calculated pollutant levels occurred predominantly for the year 1998, especially concerning the most relevant short-term parameters of the sulphur dioxide pollution. So, in the following the meteorological data of the year 1998 have been considered.

6.3.2. Plume Rise

For the dissipation of the exhaust gases from the ships' chimneys a plume rise according to the VDI-guideline VDI 3782, part 3 [37] has been considered. As several different ships (and all engines on board) had to be compiled to a single emission source, a detailed modelling for a single ship is not possible.

The plume rise depends on the emission volume flux, the exit temperature of the exhaust gas, the ambient temperature, the diameter of the chimney and the effluent velocity of the emissions. Due to thermodynamic dependences of some of the parameters stated above a free choose of all values is not feasible.

With regard to the dissipation of ship exhaust gases very little data are available. They have been checked for plausibility and completed by some simplified assumptions. The detailed input data for each ship are summarized in Appendix A 2.10. The effects of the plum rise on the pollutant levels have been estimated and compared with several model calculations using AUSTAL2000. The results of these preliminary investigations have been used for estimating plausible assumptions for the following model calculations.

According to the results an average exhaust gas temperature of 300°C, a typical diameter of a chimney of 0,7 m and effluent velocities of 5 m/s (manoeuvring) or 2.5 m/s (in-port operation) have been chosen.

6.3.3. NO-NO_2 Conversion

The nitrogen oxides in the exhaust gas due to combustion processes in petrol or diesel engines normally are a mixture of nitric oxide (NO) with more than 90 % and of nitrogen dioxide (NO_2) with less than 10 %. The conversion of NO into NO_2 occurs during the dispersion in the atmosphere, mainly by a reaction with ozone in lower air layers. The reversed process is induced by a photolytic reaction, so after some time an equilibrium between the NO and NO_2 concentrations will be observed. Due to the complex chemical reactions during the dispersion in the atmosphere a prediction of the NO_2 pollutant levels is difficult.

The dispersion model AUSTAL2000 considers the pollutants NOx, NO and NO_2 as independent components. Therefore, the NOx pollution will be calculated independently. The emissions of NO and NO_2 have to be considered separately. The AUSTAL2000 simulation of the air pollutant dispersion considers the chemical conversion of NO into NO_2 according to the VDI guideline 3782, part 1 [36] mainly based on measurements at stacks of power plants.

In the present case concerning the exhaust gases of ships the NO-NO_2 conversion according to VDI 3782, part 1 yields nitrogen dioxide levels much too low compared to the actual situation found by measurements. These conversion rates may lead to appropriate results concerning power plants and high industrial emission sources. However, regarding the exhaust gas emissions of ships the results are not plausible. This may be, among other things, due to the special operation conditions of the ships' diesel engines, which

run lean. Therefore, in the chimneys enough oxygen is available for a fast conversion of NO into NO_2.

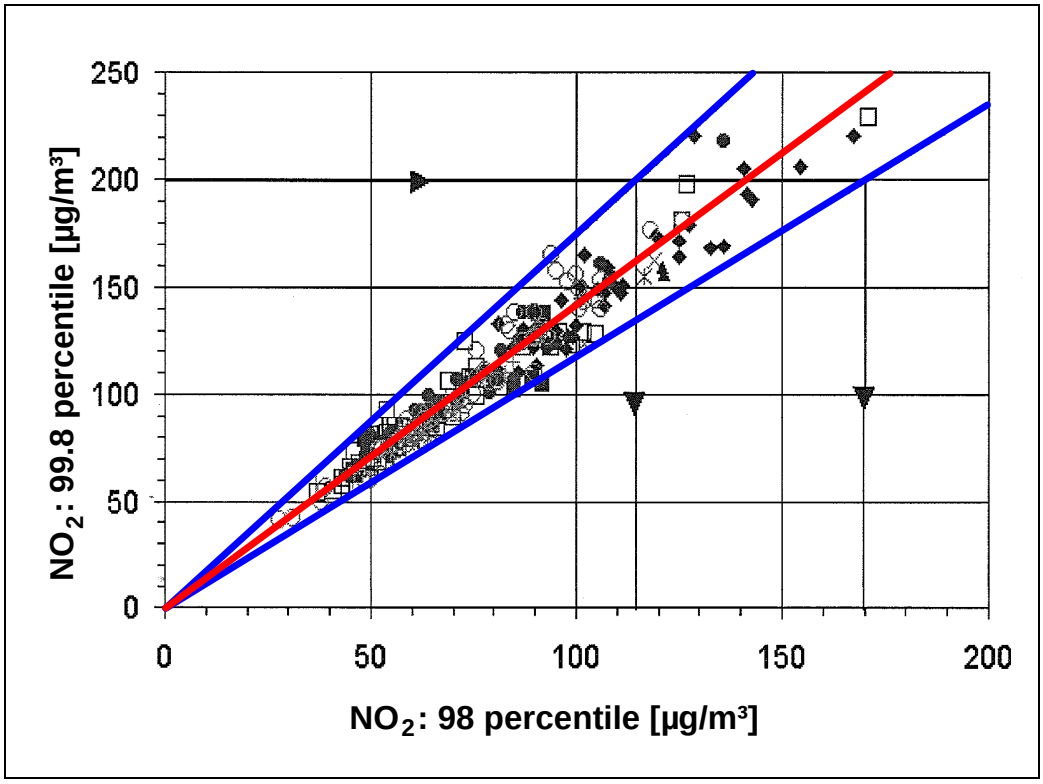
One can estimate the nitrogen dioxide pollutant levels according to Romberg [39] using statistical data derived from air quality measurements. As the mathematical formulas only consider the annual average value and the 98 percentile (referred to a calendar year), for other parameters the estimation of the NO-NO_2 conversion according to Romberg is not possible. According to Romberg the NO_2 pollutant levels are given by:

- Annual average value: $$[NO_2] = [NOx] \cdot \left(\frac{103}{[NOx] + 130} \right) + 0.005$$
- 98 percentile : $$[NO_2] = [NOx] \cdot \left(\frac{111}{[NOx] + 119} \right) + 0.039$$

Due to this aspect, in the present study firstly the NOx pollutant levels will be summarized and the corresponding parameters will be calculated (annual average values, 98 percentiles). The NO_2 concentrations will be estimated afterwards according to Romberg.

The estimation of the relevant 1 hour values of the nitrogen dioxide pollution is based on the 98 percentiles. From air quality measurements a correlation between the 98 percentile and the 1 hour value S18 (corresponds to the 99.8 percentile of the 1 hour values of a calendar year) has been found, which is available in actual publications [27]. In the following this approach has been used considering an average regression line (see Figure 26).

Figure 26: Correlation between 98 percentile and 99.8 percentile of the NO_2 pollution, derived from air quality measurements [27]



6.4. Background Pollution

The background pollution is defined as the pollution, which is present *without* the contributions of the polluter groups considered in the calculation model.

For estimating the background pollution actual air quality measurements have been considered. For that purpose measurement sites not exposed by road traffic or at the edge of agglomeration areas are appropriate.

Concerning the time series calculations the results of air quality measurements have been provided by the authority responsible for air quality monitoring (Staatliches Umweltamt Itzehoe). There have been appropriate data for the sulphur dioxide, the particulate matter (PM_{10}) and the nitrogen oxides pollution.

Within the scope of the present study the following background pollutions have been considered:

- Nitrogen oxides: Measurement site Lübeck/St.-Jürgen;
- Sulphur dioxide: Measurement site Lübeck/Lindenplatz (though this site is exposed by road traffic it is used due to the lack of other SO_2 background measurement sites in Schleswig-Holstein);
- Particulate matter: Measurement site Bornhöved;
- Soot: The annual average soot pollution has been estimated on basis of recent measurement results.

The statistical parameters of the background pollution are shown in Table 7.

The air pollution calculated by emissions from polluters explicitly considered in the calculation model will be denoted in the following as “additional” pollution. As far as the background pollution is included, we will speak of “total” pollution.

Table 7: Summary of background pollutions

Parameter	Air pollutant				
	SO_2	NOx	NO_2	PM_{10}	Soot
J00	3.5	27.1	17.8	19.7	2.0
T03	17.0	—	—	—	—
T35	—	—	—	35.7	—
S18	—	—	65.5	—	—
S24	20.1	—	—	—	—
98 percentile	—	89.8	48.0	—	—

6.5. Plausibility Check

Calculated pollutant levels for the Actual Scenario have been compared with measurement results available in order to verify the calculation model. A summary is shown in Table 8.

Regarding the area under investigation measurement results are available from to the approval procedure for the Skandinavienkai expansion performed in 2000 [47].

At the end of 2003 in the scope of the air quality monitoring in Schleswig-Holstein a series of measurements was commenced sampling the nitrogen oxides and the sulphur dioxide pollutions. So far only preliminary results are available based on an analysis from December 2003 to June 2004 [44].

In the following the results are summarized:

- Considering the Actual Scenario the calculation model slightly overestimates the pollution measured in 2000 at the measuring points Priwall ferry and Kurpark.
- For the measuring point at the Skandinavienkai the calculation model predominantly shows little too small pollutant levels. However, this may be plausible as the measurement point was located near a truck lane, on the docks, which has not been considered in the calculation model. The land-based emission sources on the docks have not been considered due to the negligible contributions to the pollution at the sufficient far away areas in need of protection.
- In comparison with the preliminary results of the measurements from 2004, the calculation shows a slight underestimation of the NO_2 pollution in the vicinity of the Skandinavienkai (Priwall/banks of the Trave).

  At the measuring point Vorderreihe (2004) one also finds calculated NO_2 levels too low compared with the measured data. This may be caused by a public bus route which, due to road works, is temporarily located near the measuring site. These additional bus emissions are not included in the calculation model.

  Regarding the other measuring points sited near relevant residential areas, the calculation model yields plausible results for the NO_2 pollution.
- In the case of SO_2 pollution one finds plausible agreements between the measurement results from 2004 and the calculated *additional* pollution, though the model slightly overestimates the pollutant levels in the vicinity of the Skandinavienkai. However, including the background pollution (measuring site Lübeck-Lindenplatz) the calculation model considerably overestimates the measured total pollution. This may indicate that the background pollution derived from the measuring site Lindenplatz which is exposed by road traffic is possibly not applicable to describe the situation in Travemünde. On the other hand one has to notice that the used measuring techniques (passive sampling systems) tend to underestimate the real SO_2 concentrations. Therefore, slightly higher calculation values may be plausible.

Although some deviations of the calculated total pollutions compared to the measurement results have been found, the calculation model appears to be plausible. For this confirmation one has to consider the fact that the measurement results and the calculated levels are both subjected to measurement errors and other uncertainties.

Table 8: Comparison between calculated pollutant levels and measurement results

Immission point (monitor point)		Pollutant levels [µg/m³]										
		NO_2 (J00)		NO_2 (98-P)		SO_2 (J00)			PM_{10} (J00)		Soot (J00)	
		Measurement	Calculation (total pollution)	Measurement	Calculation (total pollution)	Measurement	Calculation (additional pollution)	Calculation (total pollution)	Measurement	Calculation (total pollution)	Measurement	Calculation (total pollution)
Measurements 2000 (measurement period May to November 2000)												
IO MP1	Meas. point Skandinavienkai (2000)	29	22.4	48	66.2	—	—	—	22	20.5	2.6	2.2
IO MP2	Measuring point Priwall ferry (2000)	17	23.5	33	67.4	—	—	—	16	20.5	1.8	2.2
IO MP3	Meauring point Kurpark (2000)	15	22.3	35	61.8	—	—	—	16	20.4	—	—
Measurements 2004 (measurement period December 2003 to June 2004)												
IO V	Priwall/ Traveufer	34	28.3	—	73.4	4.8	6.5	10.0	—	—	—	—
IO P8	Priwall/ Rosenhof	23	25.5	—	71.3	3.6	5.7	9.2	—	—	—	—
IO 8	Ostseestraße/ Pommernzentrum	24	24.5	—	72.4	3.0	2.8	6.3	—	—	—	—
IO MP3	Meauring point Kurpark (2000)	21	22.3	—	61.8	2.9	2.7	6.2	—	—	—	—
IO T1	Vorderreihe/ Ostpreußenkai	31	23.6	—	64.9	4.1	3.6	7.1	—	—	—	—

6.6. Actual Scenario

6.6.1. General Facts

For a full assessment of the air quality situation, the pollutant levels have been calculated considering the Actual Scenario and the reduction concepts 1a/b and 2. Therefore, shipping traffic and the large-scale road network have been considered. Other polluter groups have been neglected, because they do not show relevant contributions to the total emissions within the area under investigation and/or are located sufficiently far away from the relevant areas in need of protection. This includes side roads, parking sites, railway traffic and also the vehicle movements on the Skandinavienkai docks.

In the following the presentation and discussion is restricted to relevant single monitor points (immission points). Altogether 94 immission points have been taken into account. For each point the pollutant levels of the nitrogen oxides (NOx), sulphur dioxide (SO_2), particulate matter (PM_{10}) and soot have been calculated as an annual time series with a resolution of 1 hour. The sulphur dioxide emissions from the road traffic are no longer relevant since the introduction of fuels with low sulphur contents and so have been ne-

glected. For the air pollutant benzene, a further investigation has been abandoned due to the low total emissions compared with the other relevant pollutants.

The location of the immission points investigated is shown in the site maps of Appendices A 1.1 and A 1.2. Regarding the meteorological parameters the year 1998 has been chosen which yielded the highest pollution levels in the preliminary investigations.

The results for all immission points investigated are shown in the tables of Appendix A 6 (additional pollution) and A 7 (total pollution). There one finds the sum of all polluter groups and the contributions from each polluter group for analysing the relevance of the different sources. One has to note that the sum of contributions from different polluter groups is only feasible for the annual average values. Concerning the 24 hours or 1 hour values the calculated levels for different polluter groups may appear at different days or hours. So a conventional summation is not allowed. Therefore, the contributions of different polluter groups have to be summed on the basis of the time series' for each hour of the year.

For the following discussion of the results we have chosen 30 representative immission points. The results are summarized in the following chapters for each air pollutant and parameter separated.

Appendix A 8 shows area-wide pollution maps for the Actual Scenario and the reduction concepts 1a and 2. The decreases compared to the Actual Scenario without emission reductions are illustrated in difference maps on a percentage scale. The maps are restricted to the relevant parameters of the additional sulphur dioxide pollution (annual average values, 24 hours values T03 and 1 hour values S24) and the total sulphur dioxide and nitrogen dioxide pollutions (annual average values).

(Annotation: An area-wide calculation of the total pollution for 24 hours or 1 hour values is not possible using the model AUSTAL2000. However, the relevant short-term pollutant levels are given by the SO_2 concentrations. These are mainly determined by the shipping traffic. So an illustration of the additional sulphur dioxide pollution due to the shipping traffic is adequate and appropriate for an assessment of the situation.)

6.6.2. Pollution due to Nitrogen Oxides (NOx, Annual Average Value J00)

The annual average values of the pollution due to nitrogen oxides are summarized in Tables 9 and 10 as well as in Figures 27 and 28 (additional and total pollution, respectively). The analysis of the contributions from the different polluter groups shows relevant contributions to the NOx pollution from the shipping and the road traffic. Concerning the shipping solely the major contribution arises from the emissions during the stay of the ships at the Skandinavienkai (also compare Appendix A 6.1).

Considering the reduction concepts 1a/1b the following results have been estimated: In areas dominated by emissions from the shipping large decreases of the additional NOx pollution (sum of shipping and road traffic) by an amount up to 80 % are to be expected (Priwall). Near the Pommernzentrum and in the old town of Travemünde one finds an average decrease by about 40 %. Even at immission points exposed by road traffic (Gneversdorfer Weg) reductions of the additional pollution of approximately 10 to 20 % have been found.

The total pollution is given by summing the additional pollution and the background pollution. Considering a background pollution of about 27 µg/m³ the reduction concepts 1a/1b yield decreases of the total pollution up to 33 % (Priwall). In the centre of Travemünde and near the Pommernzentrum remain reductions of 10 to 15 %. At the other immission points partly dominated by road traffic one still finds decreases by an amount of 5 to 10 %.

Considering the reduction concept 2 for the NOx pollution no measurable effects are to be expected.

Figure 27: Additional pollution due to nitrogen oxides (annual average value J00) at representative immission points for shipping and road traffic

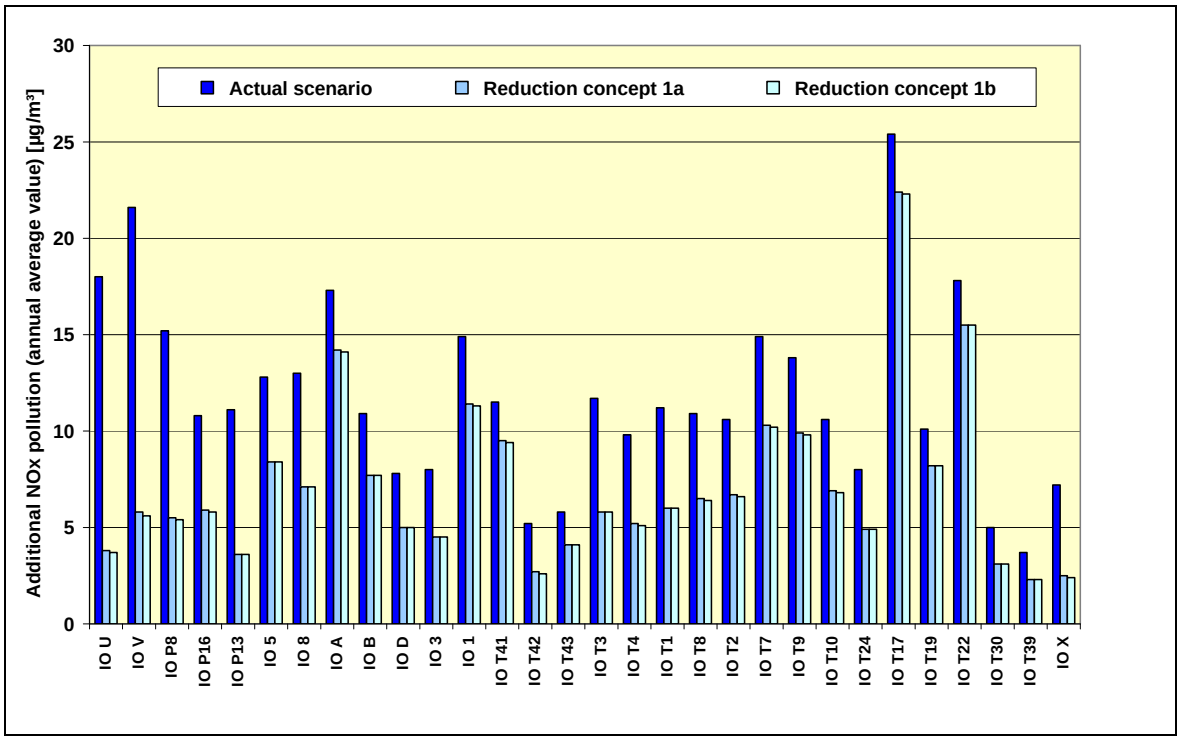


Figure 28: Total pollution due to nitrogen oxides (annual average value J00) at representative immission points

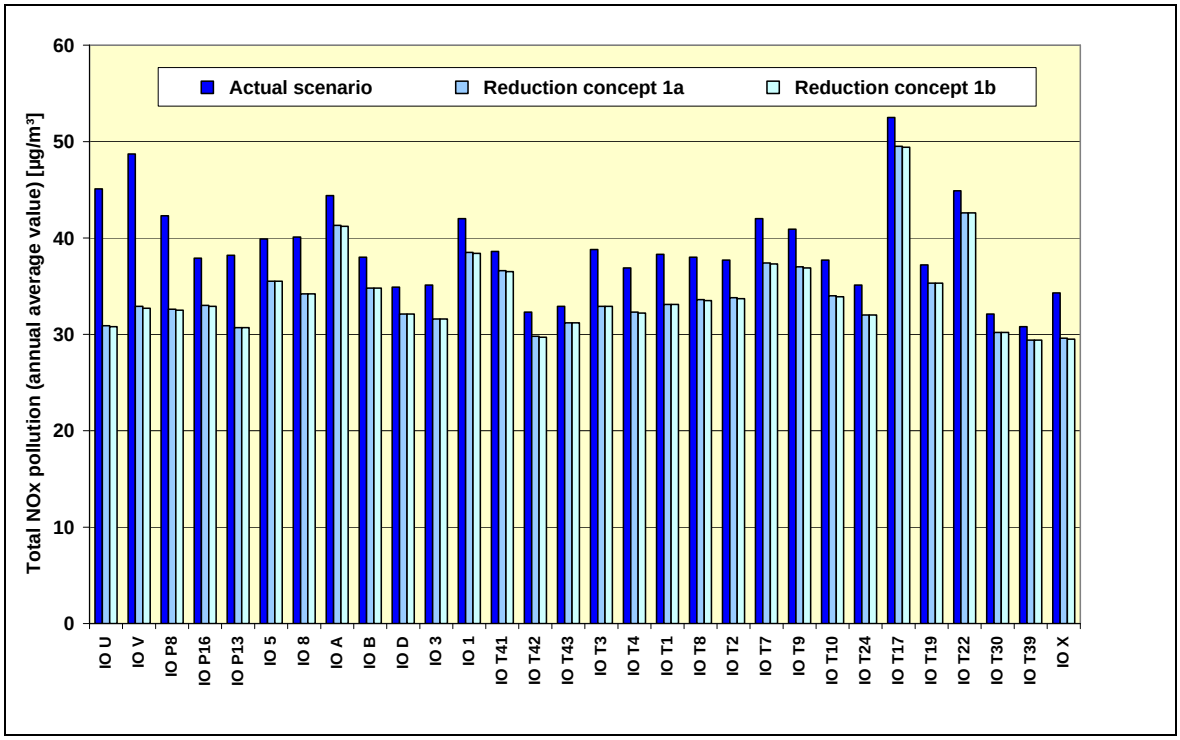


Table 9: Additional pollution due to nitrogen oxides (annual average value J00) at representative immission points for shipping and road traffic

Immission point (monitor point)		Additional NOx pollution (annual average value J00) [µg/m³]						
		Road traffic	Shippping	Sum Actual Scenario	Reduction concept 1a	Comparison with Actual Scenario	Reduction concept 1b	Comparison with Actual Scenario
Priwall								
IO U	Priwall/ Traveufer	0.9	17.1	**18.0**	3.8	-79 %	3.7	-79 %
IO V	Priwall/ Traveufer	1.8	19.8	**21.6**	5.8	-73 %	5.6	-74 %
IO P8	Priwall/ Rosenhof	1.1	14.1	**15.2**	5.5	-64 %	5.4	-64 %
IO P16	Priwall/ Krankenhaus	2.8	8.0	**10.8**	5.9	-45 %	5.8	-46 %
IO P13	Priwall/ Pötenitzer Weg	0.5	10.6	**11.1**	3.6	-68 %	3.6	-68 %
Pommernzentrum								
IO 5	Rönnauer Weg/ Ivendorfer Landstr.	6.5	6.3	**12.8**	8.4	-34 %	8.4	-34 %
IO 8	Ostseestraße/ Pommernzentrum	5.1	7.9	**13.0**	7.1	-45 %	7.1	-45 %
Ivendorf								
IO A	Ivendorf/ Ovendorfer Straße	13.1	4.2	**17.3**	14.2	-18 %	14.1	-18 %
IO B	Ivendorf/ Ovendorfer Straße	6.7	4.2	**10.9**	7.7	-29 %	7.7	-29 %
IO D	Ivendorf/ Ivendorfer Landstraße	4.1	3.7	**7.8**	5.0	-36 %	5.0	-36 %
Residential area Teutendorfer Weg								
IO 3	Rönnauer Ring	2.8	5.2	**8.0**	4.5	-44 %	4.5	-44 %
IO 1	Teutendorfer Weg/ An der Bak	9.4	5.5	**14.9**	11.4	-23 %	11.3	-24 %
IO T41	Teutendorfer Weg	8.3	3.2	**11.5**	9.5	-17 %	9.4	-18 %
IO T42	Am Krautacker	1.4	3.8	**5.2**	2.7	-48 %	2.6	-50 %
IO T43	Hollbeck	3.2	2.6	**5.8**	4.1	-29 %	4.1	-29 %
Travemünde, harbour area								
IO T3	Marina Baltica	3.6	8.1	**11.7**	5.8	-50 %	5.8	-50 %
IO T4	Fischereihafen	2.9	6.9	**9.8**	5.2	-47 %	5.1	-48 %
Travemünde, old town area								
IO T1	Vorderreihe/ Ostpreußenkai	2.6	8.6	**11.2**	6.0	-46 %	6.0	-46 %
IO T8	Vorderreihe/ Prinzenbrücke	3.0	7.9	**10.9**	6.5	-40 %	6.4	-41 %
IO T2	Yachthafen/ Kaiserbrücke	3.0	7.6	**10.6**	6.7	-37 %	6.6	-38 %
IO T7	Kurgartenstraße	7.0	7.9	**14.9**	10.3	-31 %	10.2	-32 %
IO T9	Am Lotsenberg	6.7	7.1	**13.8**	9.9	-28 %	9.8	-29 %
IO T10	Rose	4.0	6.6	**10.6**	6.9	-35 %	6.8	-36 %
IO T24	Parkallee/ Kurhaus	1.8	6.2	**8.0**	4.9	-39 %	4.9	-39 %
Travemünde, areas exposed by road traffic								
IO T17	Gneversdorfer Weg	20.4	5.0	**25.4**	22.4	-12 %	22.3	-12 %
IO T19	Gneversdorfer Weg	7.0	3.1	**10.1**	8.2	-19 %	8.2	-19 %
IO T22	Moorredder	13.8	4.0	**17.8**	15.5	-13 %	15.5	-13 %
Travemünde, residential areas								
IO T30	Schwedenstraße	1.7	3.3	**5.0**	3.1	-38 %	3.1	-38 %
IO T39	Scheteligstraße	1.0	2.7	**3.7**	2.3	-38 %	2.3	-38 %
Dummersdorfer Ufer								
IO X	Dummersdorfer Ufer	1.0	6.2	**7.2**	2.5	-65 %	2.4	-67 %

Table 10: Total pollution due to nitrogen oxides (annual average value J00) at representative immission points

Immission point (monitor point)		Total NOx pollution (annual average value J00) [µg/m³]					
		Background pollution	Actual Scenario	Reduction concept 1a	Comparison with Actual Scenario	Reduction concept 1b	Comparison with Actual Scenario
Priwall							
IO U	Priwall/ Traveufer	27.1	**45.1**	30.9	-31 %	30.8	-32 %
IO V	Priwall/ Traveufer	27.1	**48.7**	32.9	-32 %	32.7	-33 %
IO P8	Priwall/ Rosenhof	27.1	**42.3**	32.6	-23 %	32.5	-23 %
IO P16	Priwall/ Krankenhaus	27.1	**37.9**	33.0	-13 %	32.9	-13 %
IO P13	Priwall/ Pötenitzer Weg	27.1	**38.2**	30.7	-20 %	30.7	-20 %
Pommernzentrum							
IO 5	Rönnauer Weg/ Ivendorfer Landstr.	27.1	**39.9**	35.5	-11 %	35.5	-11 %
IO 8	Ostseestraße/ Pommernzentrum	27.1	**40.1**	34.2	-15 %	34.2	-15 %
Ivendorf							
IO A	Ivendorf/ Ovendorfer Straße	27.1	**44.4**	41.3	-7 %	41.2	-7 %
IO B	Ivendorf/ Ovendorfer Straße	27.1	**38.0**	34.8	-8 %	34.8	-8 %
IO D	Ivendorf/ Ivendorfer Landstraße	27.1	**34.9**	32.1	-8 %	32.1	-8 %
Residential area Teutendorfer Weg							
IO 3	Rönnauer Ring	27.1	**35.1**	31.6	-10 %	31.6	-10 %
IO 1	Teutendorfer Weg/ An der Bak	27.1	**42.0**	38.5	-8 %	38.4	-9 %
IO T41	Teutendorfer Weg	27.1	**38.6**	36.6	-5 %	36.5	-5 %
IO T42	Am Krautacker	27.1	**32.3**	29.8	-8 %	29.7	-8 %
IO T43	Hollbeck	27.1	**32.9**	31.2	-5 %	31.2	-5 %
Travemünde, harbour area							
IO T3	Marina Baltica	27.1	**38.8**	32.9	-15 %	32.9	-15 %
IO T4	Fischereihafen	27.1	**36.9**	32.3	-12 %	32.2	-13 %
Travemünde, old town area							
IO T1	Vorderreihe/ Ostpreußenkai	27.1	**38.3**	33.1	-14 %	33.1	-14 %
IO T8	Vorderreihe/ Prinzenbrücke	27.1	**38.0**	33.6	-12 %	33.5	-12 %
IO T2	Yachthafen/ Kaiserbrücke	27.1	**37.7**	33.8	-10 %	33.7	-11 %
IO T7	Kurgartenstraße	27.1	**42.0**	37.4	-11 %	37.3	-11 %
IO T9	Am Lotsenberg	27.1	**40.9**	37.0	-10 %	36.9	-10 %
IO T10	Rose	27.1	**37.7**	34.0	-10 %	33.9	-10 %
IO T24	Parkallee/ Kurhaus	27.1	**35.1**	32.0	-9 %	32.0	-9 %
Travemünde, areas exposed by road traffic							
IO T17	Gneversdorfer Weg	27.1	**52.5**	49.5	-6 %	49.4	-6 %
IO T19	Gneversdorfer Weg	27.1	**37.2**	35.3	-5 %	35.3	-5 %
IO T22	Moorredder	27.1	**44.9**	42.6	-5 %	42.6	-5 %
Travemünde, residential areas							
IO T30	Schwedenstraße	27.1	**32.1**	30.2	-6 %	30.2	-6 %
IO T39	Scheteligstraße	27.1	**30.8**	29.4	-5 %	29.4	-5 %
Dummersdorfer Ufer							
IO X	Dummersdorfer Ufer	27.1	**34.3**	29.6	-14 %	29.5	-14 %

6.6.3. Pollution due to Nitrogen Oxides (NOx, 98 Percentile)

The 98 percentiles of the total NOx pollution are shown in Table 11 and Figure 29. As the 98 percentile is used as an auxiliary parameter for estimating the 1 hour values an illustration of the additional has been abandoned.

Considering the areas dominated by shipping considerable decreases of the total pollution up to approximately 45 % due to reduction concepts 1a/1b may be achieved (Priwall). At the Pommernzentrum and the Fischereihafen of Travemünde one expects decreases up to 40 %. In the other relevant areas one finds reductions between 10 and 25 %. But also at immission points exposed by road traffic decreases of 10 to 20 % still have been estimated.

Figure 29: Total nitrogen dioxide pollution (98 percentile) at representative immission points

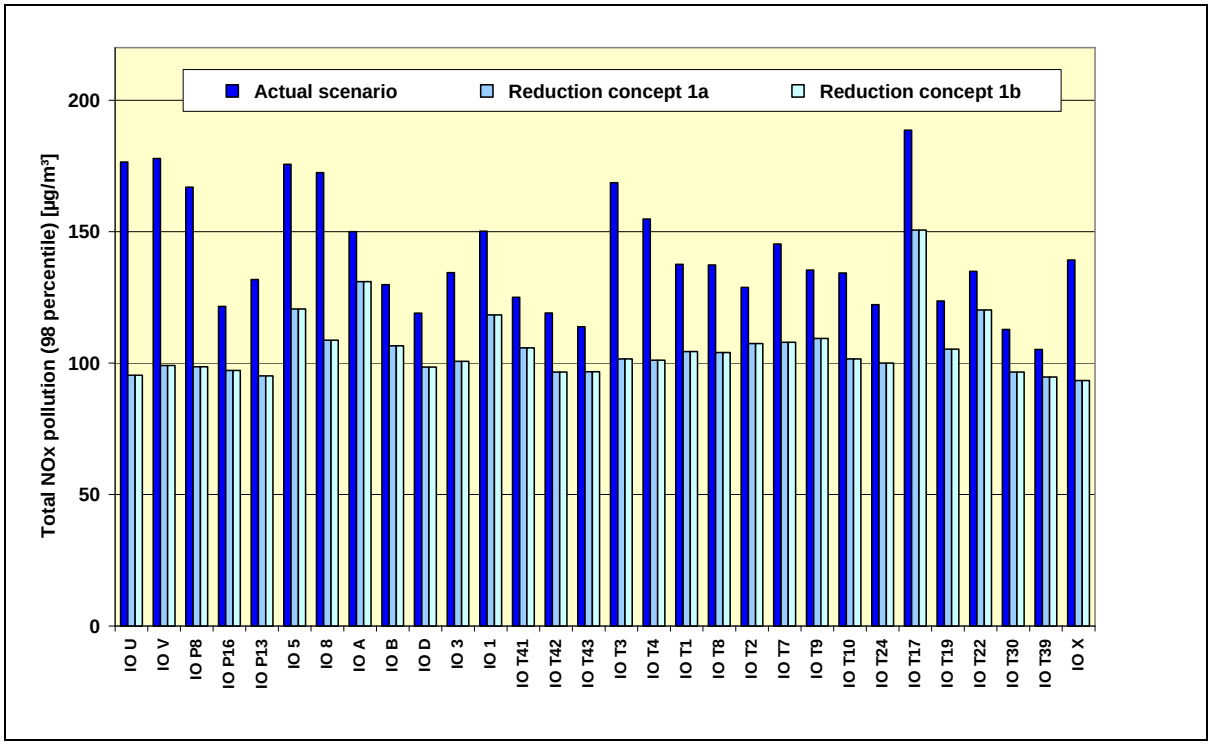


Table 11: Total nitrogen dioxide pollution (98 percentile) at representative immission points

Immission point (monitor point)		Total NOx pollution (98 percentile) [µg/m³]					
		Background pollution	Actual Scenario	Reduction concept 1a	Comparison with Actual Scenario	Reduction concept 1b	Comparison with Actual Scenario
Priwall							
IO U	Priwall/ Traveufer	89.8	**176.5**	95.4	-46 %	95.4	-46 %
IO V	Priwall/ Traveufer	89.8	**177.8**	99.1	-44 %	99.1	-44 %
IO P8	Priwall/ Rosenhof	89.8	**166.9**	98.6	-41 %	98.6	-41 %
IO P16	Priwall/ Krankenhaus	89.8	**121.6**	97.2	-20 %	97.2	-20 %
IO P13	Priwall/ Pötenitzer Weg	89.8	**131.8**	95.1	-28 %	95.1	-28 %
Pommernzentrum							
IO 5	Rönnauer Weg/ Ivendorfer Landstr.	89.8	**175.6**	120.6	-31 %	120.6	-31 %
IO 8	Ostseestraße/ Pommernzentrum	89.8	**172.5**	108.7	-37 %	108.7	-37 %
Ivendorf							
IO A	Ivendorf/ Ovendorfer Straße	89.8	**150.0**	131.0	-13 %	131.0	-13 %
IO B	Ivendorf/ Ovendorfer Straße	89.8	**129.8**	106.6	-18 %	106.6	-18 %
IO D	Ivendorf/ Ivendorfer Landstraße	89.8	**119.0**	98.5	-17 %	98.5	-17 %
Residential area Teutendorfer Weg							
IO 3	Rönnauer Ring	89.8	**134.4**	100.7	-25 %	100.7	-25 %
IO 1	Teutendorfer Weg/ An der Bak	89.8	**150.2**	118.3	-21 %	118.3	-21 %
IO T41	Teutendorfer Weg	89.8	**125.0**	105.8	-15 %	105.8	-15 %
IO T42	Am Krautacker	89.8	**119.1**	96.6	-19 %	96.6	-19 %
IO T43	Hollbeck	89.8	**113.8**	96.7	-15 %	96.7	-15 %
Travemünde, harbour area							
IO T3	Marina Baltica	89.8	**168.6**	101.6	-40 %	101.6	-40 %
IO T4	Fischereihafen	89.8	**154.8**	101.1	-35 %	101.1	-35 %
Travemünde, old town area							
IO T1	Vorderreihe/ Ostpreußenkai	89.8	**137.6**	104.4	-24 %	104.4	-24 %
IO T8	Vorderreihe/ Prinzenbrücke	89.8	**137.3**	104.0	-24 %	104.0	-24 %
IO T2	Yachthafen/ Kaiserbrücke	89.8	**128.8**	107.4	-17 %	107.4	-17 %
IO T7	Kurgartenstraße	89.8	**145.3**	107.9	-26 %	107.9	-26 %
IO T9	Am Lotsenberg	89.8	**135.4**	109.4	-19 %	109.4	-19 %
IO T10	Rose	89.8	**134.3**	101.6	-24 %	101.6	-24 %
IO T24	Parkallee/ Kurhaus	89.8	**122.2**	100.0	-18 %	100.0	-18 %
Travemünde, areas exposed by road traffic							
IO T17	Gneversdorfer Weg	89.8	**188.6**	150.6	-20 %	150.6	-20 %
IO T19	Gneversdorfer Weg	89.8	**123.6**	105.3	-15 %	105.3	-15 %
IO T22	Moorredder	89.8	**134.9**	120.2	-11 %	120.2	-11 %
Travemünde, residential areas							
IO T30	Schwedenstraße	89.8	**112.8**	96.6	-14 %	96.6	-14 %
IO T39	Scheteligstraße	89.8	**105.2**	94.7	-10 %	94.7	-10 %
Dummersdorfer Ufer							
IO X	Dummersdorfer Ufer	89.8	**139.2**	93.4	-33 %	93.4	-33 %

6.6.4. Nitrogen Dioxide Pollution (NO_2, Annual Average Value J00)

The annual average values of the total pollution due to nitrogen dioxide are listed in Table 12 and shown in Figure 30. Area-wide pollution maps can be found in Appendix A 8.5.

In the case of power being supplied from the wharf on the Priwall peninsula one expects decreases of the annual average values of the NO_2 pollution of up to 26 %. In the other relevant areas in need of protection the reductions show an order of magnitude of about 5 to 10 %. One finds minor reductions at the immission points exposed by road traffic.

Figure 30: Total nitrogen dioxide pollution (annual average value J00) at representative immission points

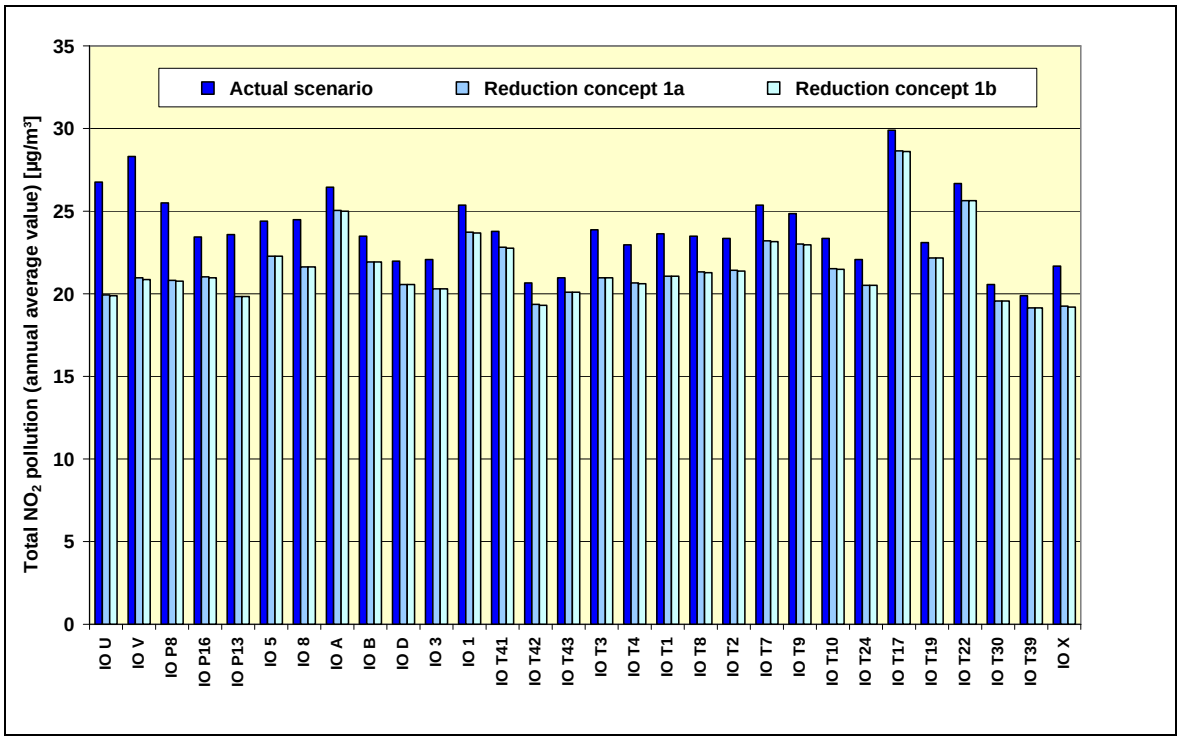


Table 12: Total nitrogen dioxide pollution (annual average value J00) at representative immission points

Immission point (monitor point)		Total NO_2 pollution (annual average value J00) [µg/m³]					
		Background pollution	Actual Scenario	Reduction concept 1a	Comparison with Actual Scenario	Reduction concept 1b	Comparison with Actual Scenario
Priwall							
IO U	Priwall/ Traveufer	17.8	**26.8**	19.9	-25 %	19.9	-26 %
IO V	Priwall/ Traveufer	17.8	**28.3**	21.0	-26 %	20.9	-26 %
IO P8	Priwall/ Rosenhof	17.8	**25.5**	20.8	-18 %	20.8	-19 %
IO P16	Priwall/ Krankenhaus	17.8	**23.4**	21.0	-10 %	21.0	-11 %
IO P13	Priwall/ Pötenitzer Weg	17.8	**23.6**	19.8	-16 %	19.8	-16 %
Pommernzentrum							
IO 5	Rönnauer Weg/ Ivendorfer Landstr.	17.8	**24.4**	22.3	-9 %	22.3	-9 %
IO 8	Ostseestraße/ Pommernzentrum	17.8	**24.5**	21.6	-12 %	21.6	-12 %
Ivendorf							
IO A	Ivendorf/ Ovendorfer Straße	17.8	**26.4**	25.0	-5 %	25.0	-5 %
IO B	Ivendorf/ Ovendorfer Straße	17.8	**23.5**	21.9	-7 %	21.9	-7 %
IO D	Ivendorf/ Ivendorfer Landstraße	17.8	**22.0**	20.6	-6 %	20.6	-6 %
Residential area Teutendorfer Weg							
IO 3	Rönnauer Ring	17.8	**22.1**	20.3	-8 %	20.3	-8 %
IO 1	Teutendorfer Weg/ An der Bak	17.8	**25.4**	23.7	-6 %	23.7	-7 %
IO T41	Teutendorfer Weg	17.8	**23.8**	22.8	-4 %	22.8	-4 %
IO T42	Am Krautacker	17.8	**20.7**	19.4	-6 %	19.3	-7 %
IO T43	Hollbeck	17.8	**21.0**	20.1	-4 %	20.1	-4 %
Travemünde, harbour area							
IO T3	Marina Baltica	17.8	**23.9**	21.0	-12 %	21.0	-12 %
IO T4	Fischereihafen	17.8	**23.0**	20.7	-10 %	20.6	-10 %
Travemünde, old town area							
IO T1	Vorderreihe/ Ostpreußenkai	17.8	**23.6**	21.1	-11 %	21.1	-11 %
IO T8	Vorderreihe/ Prinzenbrücke	17.8	**23.5**	21.3	-9 %	21.3	-9 %
IO T2	Yachthafen/ Kaiserbrücke	17.8	**23.3**	21.4	-8 %	21.4	-8 %
IO T7	Kurgartenstraße	17.8	**25.4**	23.2	-9 %	23.2	-9 %
IO T9	Am Lotsenberg	17.8	**24.9**	23.0	-7 %	23.0	-8 %
IO T10	Rose	17.8	**23.3**	21.5	-8 %	21.5	-8 %
IO T24	Parkallee/ Kurhaus	17.8	**22.1**	20.5	-7 %	20.5	-7 %
Travemünde, areas exposed by road traffic							
IO T17	Gneversdorfer Weg	17.8	**29.9**	28.7	-4 %	28.6	-4 %
IO T19	Gneversdorfer Weg	17.8	**23.1**	22.2	-4 %	22.2	-4 %
IO T22	Moorredder	17.8	**26.7**	25.6	-4 %	25.6	-4 %
Travemünde, residential areas							
IO T30	Schwedenstraße	17.8	**20.6**	19.6	-5 %	19.6	-5 %
IO T39	Scheteligstraße	17.8	**19.9**	19.1	-4 %	19.1	-4 %
Dummersdorfer Ufer							
IO X	Dummersdorfer Ufer	17.8	**21.7**	19.3	-11 %	19.2	-11 %

6.6.5. Nitrogen Dioxide Pollution (NO_2, 98 Percentile)

Table 13 and Figure 31 contain the 98 percentile values of the total nitrogen dioxide pollution.

In summary, on the Priwall peninsula the reduction concepts 1a/1b lead to decreases of up to 27 %. At the Pommernzentrum and the Fischereihafen reductions up to 20 % are expected. In the other areas the reductions of the 98 percentiles have been estimated between approximately 10 and 15 %.

Figure 31: Total nitrogen dioxide pollution (98 percentile) at representative immission points

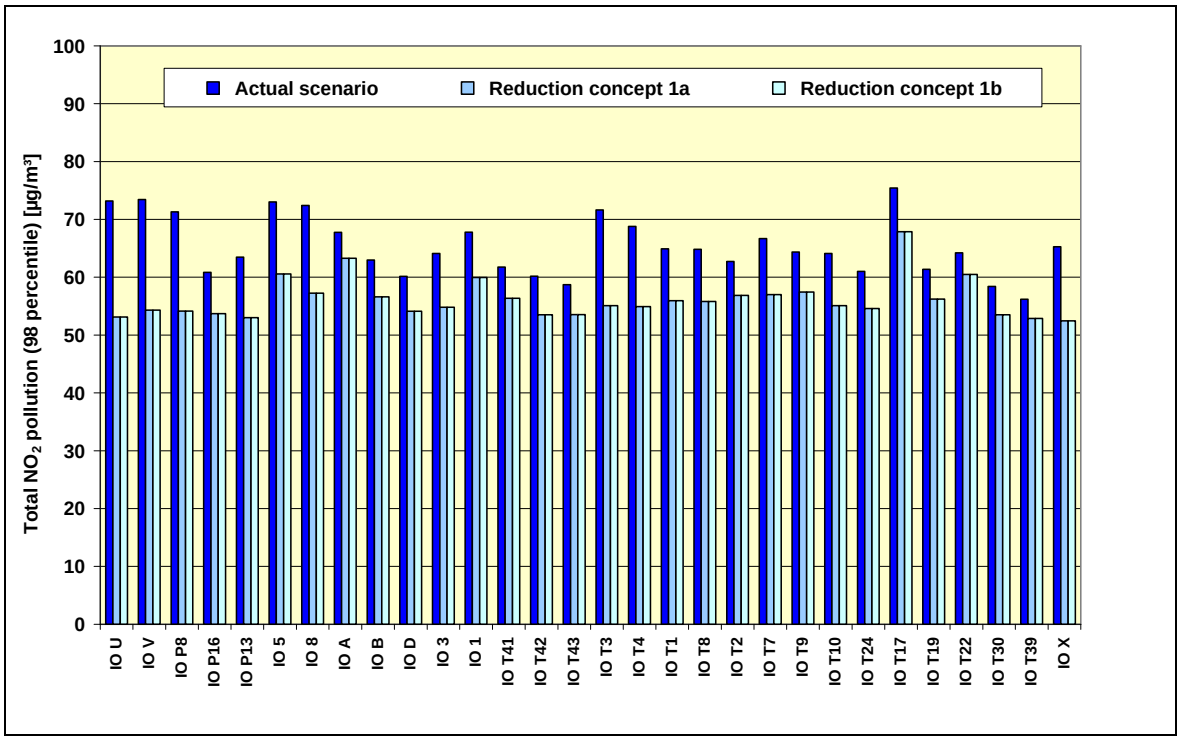


Table 13: Total nitrogen dioxide pollution (98 percentile) at representative immission points

Immission point (monitor point)		Total NO_2 pollution (98 percentile) [µg/m³]					
		Background pollution	Actual Scenario	Reduction concept 1a	Comparison with Actual Scenario	Reduction concept 1b	Comparison with Actual Scenario
Priwall							
IO U	Priwall/ Traveufer	48.0	**73.2**	53.1	-27 %	53.1	-27 %
IO V	Priwall/ Traveufer	48.0	**73.4**	54.3	-26 %	54.3	-26 %
IO P8	Priwall/ Rosenhof	48.0	**71.3**	54.1	-24 %	54.1	-24 %
IO P16	Priwall/ Krankenhaus	48.0	**60.8**	53.7	-12 %	53.7	-12 %
IO P13	Priwall/ Pötenitzer Weg	48.0	**63.5**	53.0	-16 %	53.0	-16 %
Pommernzentrum							
IO 5	Rönnauer Weg/ Ivendorfer Landstr.	48.0	**73.0**	60.6	-17 %	60.6	-17 %
IO 8	Ostseestraße/ Pommernzentrum	48.0	**72.4**	57.2	-21 %	57.2	-21 %
Ivendorf							
IO A	Ivendorf/ Ovendorfer Straße	48.0	**67.7**	63.3	-7 %	63.3	-7 %
IO B	Ivendorf/ Ovendorfer Straße	48.0	**63.0**	56.6	-10 %	56.6	-10 %
IO D	Ivendorf/ Ivendorfer Landstraße	48.0	**60.1**	54.1	-10 %	54.1	-10 %
Residential area Teutendorfer Weg							
IO 3	Rönnauer Ring	48.0	**64.1**	54.8	-15 %	54.8	-15 %
IO 1	Teutendorfer Weg/ An der Bak	48.0	**67.8**	59.9	-12 %	59.9	-12 %
IO T41	Teutendorfer Weg	48.0	**61.7**	56.4	-9 %	56.4	-9 %
IO T42	Am Krautacker	48.0	**60.2**	53.5	-11 %	53.5	-11 %
IO T43	Hollbeck	48.0	**58.7**	53.5	-9 %	53.5	-9 %
Travemünde, harbour area							
IO T3	Marina Baltica	48.0	**71.6**	55.1	-23 %	55.1	-23 %
IO T4	Fischereihafen	48.0	**68.8**	54.9	-20 %	54.9	-20 %
Travemünde, old town area							
IO T1	Vorderreihe/ Ostpreußenkai	48.0	**64.9**	55.9	-14 %	55.9	-14 %
IO T8	Vorderreihe/ Prinzenbrücke	48.0	**64.8**	55.8	-14 %	55.8	-14 %
IO T2	Yachthafen/ Kaiserbrücke	48.0	**62.7**	56.8	-9 %	56.8	-9 %
IO T7	Kurgartenstraße	48.0	**66.7**	57.0	-15 %	57.0	-15 %
IO T9	Am Lotsenberg	48.0	**64.4**	57.4	-11 %	57.4	-11 %
IO T10	Rose	48.0	**64.1**	55.1	-14 %	55.1	-14 %
IO T24	Parkallee/ Kurhaus	48.0	**61.0**	54.6	-11 %	54.6	-11 %
Travemünde, areas exposed by road traffic							
IO T17	Gneversdorfer Weg	48.0	**75.4**	67.9	-10 %	67.9	-10 %
IO T19	Gneversdorfer Weg	48.0	**61.4**	56.2	-8 %	56.2	-8 %
IO T22	Moorredder	48.0	**64.2**	60.5	-6 %	60.5	-6 %
Travemünde, residential areas							
IO T30	Schwedenstraße	48.0	**58.4**	53.5	-8 %	53.5	-8 %
IO T39	Scheteligstraße	48.0	**56.2**	52.9	-6 %	52.9	-6 %
Dummersdorfer Ufer							
IO X	Dummersdorfer Ufer	48.0	**65.3**	52.5	-20 %	52.5	-20 %

6.6.6. Nitrogen Dioxide Pollution (NO_2, 1 Hour Value S18)

The parameter S18 is defined by the 1 hour value exceeded 18 times in a calendar year. A listing of the total nitrogen dioxide pollution is shown in Table 14 and Figure 32.

In summary, the current limit set to 200 µg/m³ by the EU and the 22. BImSchV will be not achieved. This is also true for the Actual Scenario without reduction concepts.

Considering the reduction concepts 1a/1b, comparable decreases as for the 98 percentiles have been estimated:

- up to 27 % on the Priwall peninsula;
- about 20 % near the Pommernzentrum and the Fischereihafen;
- about 10 to 15 % in the other relevant areas.

Figure 32: Total nitrogen dioxide pollution (1 hour value S18) at representative immission points

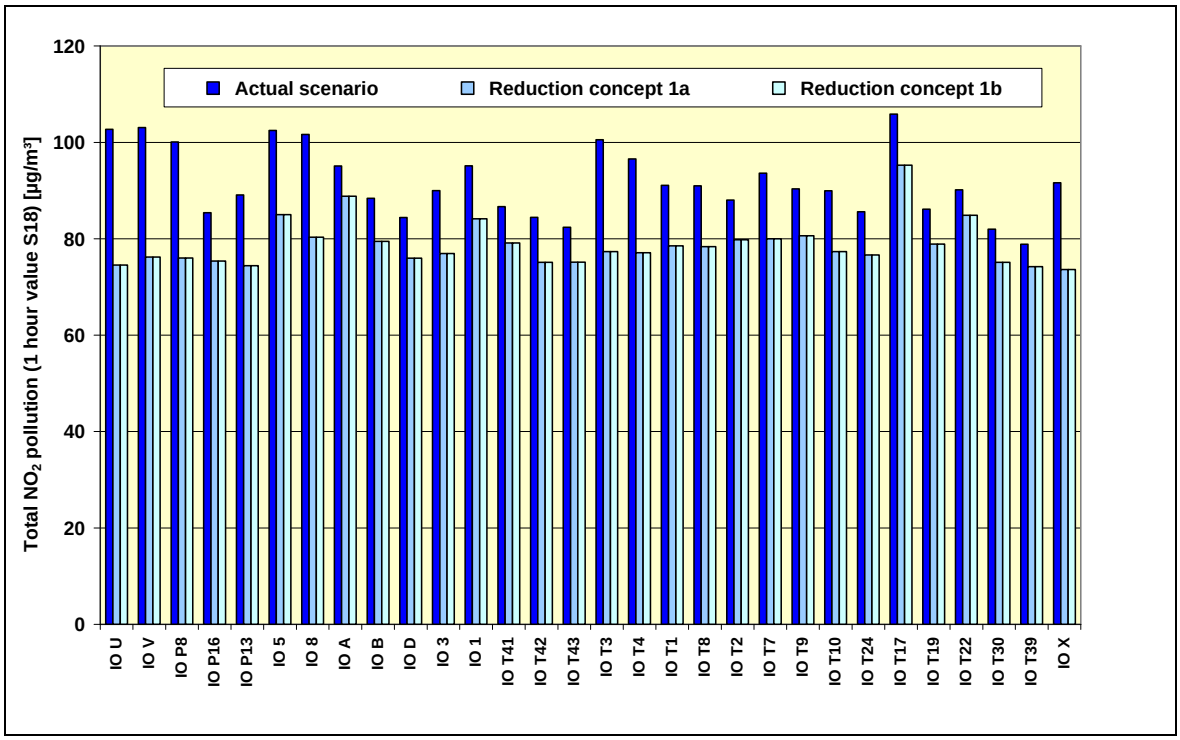


Table 14: Total nitrogen dioxide pollution (1 hour value S18) at representative immission points

Immission point (monitor point)		Total NO_2 pollution (1 hour value S18) [µg/m³]					
		Background pollution	Actual Scenario	Reduction concept 1a	Comparison with Actual Scenario	Reduction concept 1b	Comparison with Actual Scenario
Priwall							
IO U	Priwall/ Traveufer	65.5	**102.7**	74.5	-27 %	74.5	-27 %
IO V	Priwall/ Traveufer	65.5	**103.1**	76.2	-26 %	76.2	-26 %
IO P8	Priwall/ Rosenhof	65.5	**100.1**	76.0	-24 %	76.0	-24 %
IO P16	Priwall/ Krankenhaus	65.5	**85.4**	75.4	-12 %	75.4	-12 %
IO P13	Priwall/ Pötenitzer Weg	65.5	**89.1**	74.4	-16 %	74.4	-16 %
Pommernzentrum							
IO 5	Rönnauer Weg/ Ivendorfer Landstr.	65.5	**102.5**	85.0	-17 %	85.0	-17 %
IO 8	Ostseestraße/ Pommernzentrum	65.5	**101.6**	80.3	-21 %	80.3	-21 %
Ivendorf							
IO A	Ivendorf/ Ovendorfer Straße	65.5	**95.1**	88.8	-7 %	88.8	-7 %
IO B	Ivendorf/ Ovendorfer Straße	65.5	**88.4**	79.4	-10 %	79.4	-10 %
IO D	Ivendorf/ Ivendorfer Landstraße	65.5	**84.4**	75.9	-10 %	75.9	-10 %
Residential area Teutendorfer Weg							
IO 3	Rönnauer Ring	65.5	**90.0**	76.9	-15 %	76.9	-15 %
IO 1	Teutendorfer Weg/ An der Bak	65.5	**95.1**	84.1	-12 %	84.1	-12 %
IO T41	Teutendorfer Weg	65.5	**86.7**	79.1	-9 %	79.1	-9 %
IO T42	Am Krautacker	65.5	**84.4**	75.1	-11 %	75.1	-11 %
IO T43	Hollbeck	65.5	**82.4**	75.1	-9 %	75.1	-9 %
Travemünde, harbour area							
IO T3	Marina Baltica	65.5	**100.6**	77.3	-23 %	77.3	-23 %
IO T4	Fischereihafen	65.5	**96.6**	77.1	-20 %	77.1	-20 %
Travemünde, old town area							
IO T1	Vorderreihe/ Ostpreußenkai	65.5	**91.1**	78.5	-14 %	78.5	-14 %
IO T8	Vorderreihe/ Prinzenbrücke	65.5	**91.0**	78.3	-14 %	78.3	-14 %
IO T2	Yachthafen/ Kaiserbrücke	65.5	**88.0**	79.8	-9 %	79.8	-9 %
IO T7	Kurgartenstraße	65.5	**93.6**	80.0	-15 %	80.0	-15 %
IO T9	Am Lotsenberg	65.5	**90.3**	80.6	-11 %	80.6	-11 %
IO T10	Rose	65.5	**90.0**	77.3	-14 %	77.3	-14 %
IO T24	Parkallee/ Kurhaus	65.5	**85.6**	76.6	-11 %	76.6	-11 %
Travemünde, areas exposed by road traffic							
IO T17	Gneversdorfer Weg	65.5	**105.8**	95.3	-10 %	95.3	-10 %
IO T19	Gneversdorfer Weg	65.5	**86.1**	78.9	-8 %	78.9	-8 %
IO T22	Moorredder	65.5	**90.2**	84.9	-6 %	84.9	-6 %
Travemünde, residential areas							
IO T30	Schwedenstraße	65.5	**82.0**	75.1	-8 %	75.1	-8 %
IO T39	Scheteligstraße	65.5	**78.9**	74.2	-6 %	74.2	-6 %
Dummersdorfer Ufer							
IO X	Dummersdorfer Ufer	65.5	**91.6**	73.6	-20 %	73.6	-20 %

6.6.7. Sulphur Dioxide Pollution (SO_2, Annual Average Value J00)

The annual average values for the sulphur dioxide pollution are shown in Tables 15 and 16 and in Figures 33 and 34 (additional pollution and total pollution, respectively). Area-wide pollution maps are contained in Appendices A 8.1 and A 8.4.

The sulphur dioxide pollution is mainly determined by the shipping traffic. The emissions resulting from road traffic are of minor relevance and therefore have been neglected. The analysis of the polluter groups shows major contributions due to the in-port operations of the ships at the Skandinavienkai.

By supplying the ships with power from the wharf (reduction concepts 1a/1b) a considerable reduction of additional pollution up to 70 % on the Priwall peninsula and about 30 to 60 % area-wide can be achieved.

Considering a background pollution of 3.5 µg/m³, the reduction concepts 1a/1b lead to decreases of the total pollution up to about 40 % on the Priwall peninsula. In the other areas reductions by approximately 10 to 20 % still remain. These reductions are also to be expected at sites exposed by road traffic and in far away regions.

The reduction concept 2 (limitation of the sulphur content to an amount of 1 %) also shows a considerable decrease of the additional sulphur pollution by approximately 30 %. This is valid for the whole area under investigation. Considering a background pollution of 3.5 µg/m³ the decreases of the total pollution amount to about 10 to 20 %.

Figure 33: Additional sulphur dioxides pollution (annual average value J00) at representative immission points considering shipping (incl. stay at berth)

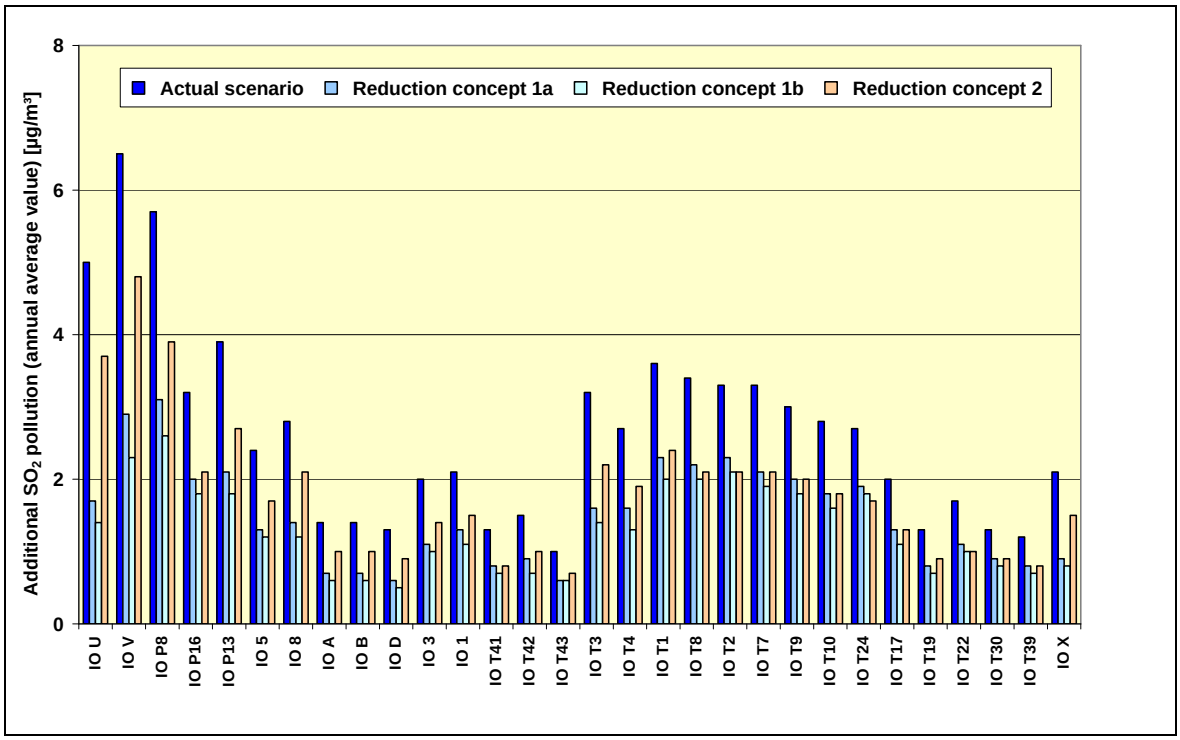


Figure 34: Total sulphur dioxide pollution (annual average value J00) at representative immission points

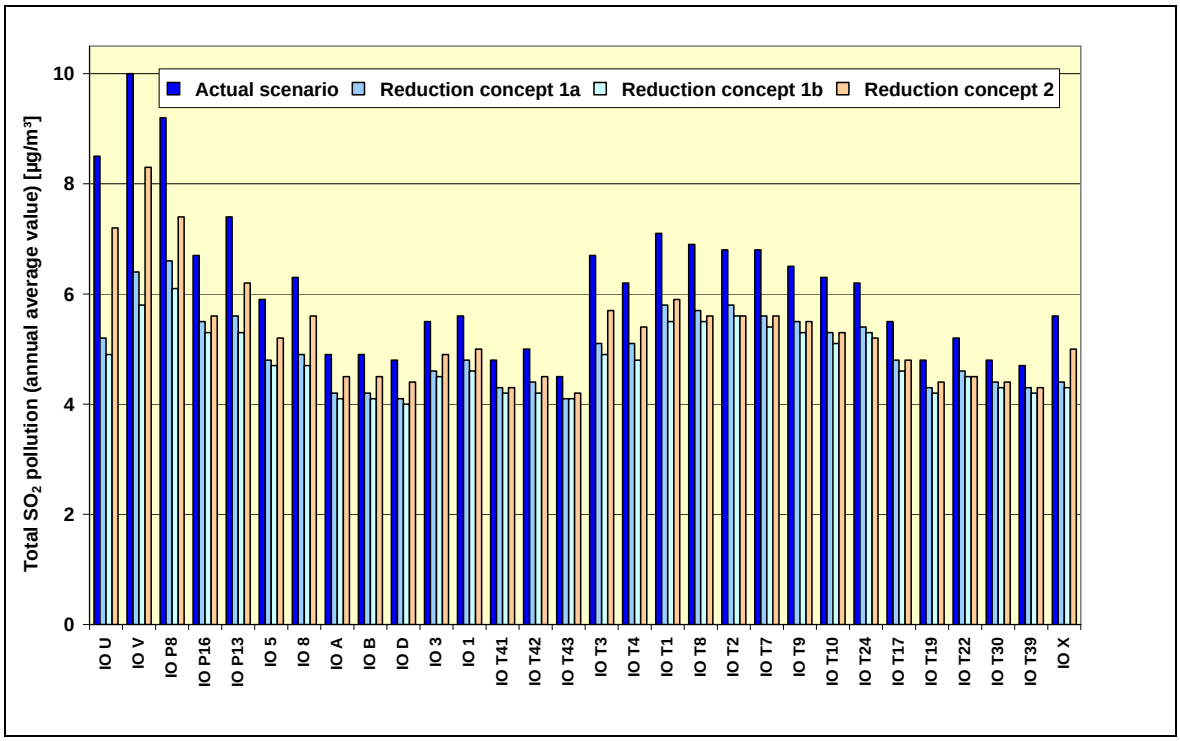


Table 15: Additional sulphur dioxides pollution (annual average value J00) at representative immission points considering shipping (incl. stay at berth)

Immission point (monitor point)		Additional SO_2 pollution (annual average value J00) [µg/m³]								
		Road traffic	Shippping	Sum Actual Scenario	Reduction concept 1a	Comparison with Actual Scenario	Reduction concept 1b	Comparison with Actual Scenario	Reduction concept 2	Comparison with Actual Scenario
Priwall										
IO U	Priwall/ Traveufer	—	5.0	**5.0**	1.7	-66 %	1.4	-72 %	3.7	-26 %
IO V	Priwall/ Traveufer	—	6.5	**6.5**	2.9	-55 %	2.3	-65 %	4.8	-26 %
IO P8	Priwall/ Rosenhof	—	5.7	**5.7**	3.1	-46 %	2.6	-54 %	3.9	-32 %
IO P16	Priwall/ Krankenhaus	—	3.2	**3.2**	2.0	-38 %	1.8	-44 %	2.1	-34 %
IO P13	Priwall/ Pötenitzer Weg	—	3.9	**3.9**	2.1	-46 %	1.8	-54 %	2.7	-31 %
Pommernzentrum										
IO 5	Rönnauer Weg/ Ivendorfer Landstr.	—	2.4	**2.4**	1.3	-46 %	1.2	-50 %	1.7	-29 %
IO 8	Ostseestraße/ Pommernzentrum	—	2.8	**2.8**	1.4	-50 %	1.2	-57 %	2.1	-25 %
Ivendorf										
IO A	Ivendorf/ Ovendorfer Straße	—	1.4	**1.4**	0.7	-50 %	0.6	-57 %	1.0	-29 %
IO B	Ivendorf/ Ovendorfer Straße	—	1.4	**1.4**	0.7	-50 %	0.6	-57 %	1.0	-29 %
IO D	Ivendorf/ Ivendorfer Landstraße	—	1.3	**1.3**	0.6	-54 %	0.5	-62 %	0.9	-31 %
Residential area Teutendorfer Weg										
IO 3	Rönnauer Ring	—	2.0	**2.0**	1.1	-45 %	1.0	-50 %	1.4	-30 %
IO 1	Teutendorfer Weg/ An der Bak	—	2.1	**2.1**	1.3	-38 %	1.1	-48 %	1.5	-29 %
IO T41	Teutendorfer Weg	—	1.3	**1.3**	0.8	-38 %	0.7	-46 %	0.8	-38 %
IO T42	Am Krautacker	—	1.5	**1.5**	0.9	-40 %	0.7	-53 %	1.0	-33 %
IO T43	Hollbeck	—	1.0	**1.0**	0.6	-40 %	0.6	-40 %	0.7	-30 %
Travemünde, harbour area										
IO T3	Marina Baltica	—	3.2	**3.2**	1.6	-50 %	1.4	-56 %	2.2	-31 %
IO T4	Fischereihafen	—	2.7	**2.7**	1.6	-41 %	1.3	-52 %	1.9	-30 %
Travemünde, old town area										
IO T1	Vorderreihe/ Ostpreußenkai	—	3.6	**3.6**	2.3	-36 %	2.0	-44 %	2.4	-33 %
IO T8	Vorderreihe/ Prinzenbrücke	—	3.4	**3.4**	2.2	-35 %	2.0	-41 %	2.1	-38 %
IO T2	Yachthafen/ Kaiserbrücke	—	3.3	**3.3**	2.3	-30 %	2.1	-36 %	2.1	-36 %
IO T7	Kurgartenstraße	—	3.3	**3.3**	2.1	-36 %	1.9	-42 %	2.1	-36 %
IO T9	Am Lotsenberg	—	3.0	**3.0**	2.0	-33 %	1.8	-40 %	2.0	-33 %
IO T10	Rose	—	2.8	**2.8**	1.8	-36 %	1.6	-43 %	1.8	-36 %
IO T24	Parkallee/ Kurhaus	—	2.7	**2.7**	1.9	-30 %	1.8	-33 %	1.7	-37 %
Travemünde, areas exposed by road traffic										
IO T17	Gneversdorfer Weg	—	2.0	**2.0**	1.3	-35 %	1.1	-45 %	1.3	-35 %
IO T19	Gneversdorfer Weg	—	1.3	**1.3**	0.8	-38 %	0.7	-46 %	0.9	-31 %
IO T22	Moorredder	—	1.7	**1.7**	1.1	-35 %	1.0	-41 %	1.0	-41 %
Travemünde, residential areas										
IO T30	Schwedenstraße	—	1.3	**1.3**	0.9	-31 %	0.8	-38 %	0.9	-31 %
IO T39	Scheteligstraße	—	1.2	**1.2**	0.8	-33 %	0.7	-42 %	0.8	-33 %
Dummersdorfer Ufer										
IO X	Dummersdorfer Ufer	—	2.1	**2.1**	0.9	-57 %	0.8	-62 %	1.5	-29 %

Table 16: Total sulphur dioxide pollution (annual average value J00) at representative immission points

Immission point (monitor point)		Total SO_2 pollution (annual average value J00) [µg/m³]							
		Background pollution	Actual Scenario	Reduction concept 1a	Comparison with Actual Scenario	Reduction concept 1b	Comparison with Actual Scenario	Reduction concept 2	Comparison with Actual Scenario
Priwall									
IO U	Priwall/ Traveufer	3.5	**8.5**	5.2	-39 %	4.9	-42 %	7.2	-15 %
IO V	Priwall/ Traveufer	3.5	**10.0**	6.4	-36 %	5.8	-42 %	8.3	-17 %
IO P8	Priwall/ Rosenhof	3.5	**9.2**	6.6	-28 %	6.1	-34 %	7.4	-20 %
IO P16	Priwall/ Krankenhaus	3.5	**6.7**	5.5	-18 %	5.3	-21 %	5.6	-16 %
IO P13	Priwall/ Pötenitzer Weg	3.5	**7.4**	5.6	-24 %	5.3	-28 %	6.2	-16 %
Pommernzentrum									
IO 5	Rönnauer Weg/ Ivendorfer Landstr.	3.5	**5.9**	4.8	-19 %	4.7	-20 %	5.2	-12 %
IO 8	Ostseestraße/ Pommernzentrum	3.5	**6.3**	4.9	-22 %	4.7	-25 %	5.6	-11 %
Ivendorf									
IO A	Ivendorf/ Ovendorfer Straße	3.5	**4.9**	4.2	-14 %	4.1	-16 %	4.5	-8 %
IO B	Ivendorf/ Ovendorfer Straße	3.5	**4.9**	4.2	-14 %	4.1	-16 %	4.5	-8 %
IO D	Ivendorf/ Ivendorfer Landstraße	3.5	**4.8**	4.1	-15 %	4.0	-17 %	4.4	-8 %
Residential area Teutendorfer Weg									
IO 3	Rönnauer Ring	3.5	**5.5**	4.6	-16 %	4.5	-18 %	4.9	-11 %
IO 1	Teutendorfer Weg/ An der Bak	3.5	**5.6**	4.8	-14 %	4.6	-18 %	5.0	-11 %
IO T41	Teutendorfer Weg	3.5	**4.8**	4.3	-10 %	4.2	-13 %	4.3	-10 %
IO T42	Am Krautacker	3.5	**5.0**	4.4	-12 %	4.2	-16 %	4.5	-10 %
IO T43	Hollbeck	3.5	**4.5**	4.1	-9 %	4.1	-9 %	4.2	-7 %
Travemünde, harbour area									
IO T3	Marina Baltica	3.5	**6.7**	5.1	-24 %	4.9	-27 %	5.7	-15 %
IO T4	Fischereihafen	3.5	**6.2**	5.1	-18 %	4.8	-23 %	5.4	-13 %
Travemünde, old town area									
IO T1	Vorderreihe/ Ostpreußenkai	3.5	**7.1**	5.8	-18 %	5.5	-23 %	5.9	-17 %
IO T8	Vorderreihe/ Prinzenbrücke	3.5	**6.9**	5.7	-17 %	5.5	-20 %	5.6	-19 %
IO T2	Yachthafen/ Kaiserbrücke	3.5	**6.8**	5.8	-15 %	5.6	-18 %	5.6	-18 %
IO T7	Kurgartenstraße	3.5	**6.8**	5.6	-18 %	5.4	-21 %	5.6	-18 %
IO T9	Am Lotsenberg	3.5	**6.5**	5.5	-15 %	5.3	-18 %	5.5	-15 %
IO T10	Rose	3.5	**6.3**	5.3	-16 %	5.1	-19 %	5.3	-16 %
IO T24	Parkallee/ Kurhaus	3.5	**6.2**	5.4	-13 %	5.3	-15 %	5.2	-16 %
Travemünde, areas exposed by road traffic									
IO T17	Gneversdorfer Weg	3.5	**5.5**	4.8	-13 %	4.6	-16 %	4.8	-13 %
IO T19	Gneversdorfer Weg	3.5	**4.8**	4.3	-10 %	4.2	-13 %	4.4	-8 %
IO T22	Moorredder	3.5	**5.2**	4.6	-12 %	4.5	-13 %	4.5	-13 %
Travemünde, residential areas									
IO T30	Schwedenstraße	3.5	**4.8**	4.4	-8 %	4.3	-10 %	4.4	-8 %
IO T39	Scheteligstraße	3.5	**4.7**	4.3	-9 %	4.2	-11 %	4.3	-9 %
Dummersdorfer Ufer									
IO X	Dummersdorfer Ufer	3.5	**5.6**	4.4	-21 %	4.3	-23 %	5.0	-11 %

6.6.8. Sulphur Dioxide Pollution (SO_2, 24 Hours Value T03)

The parameter T03 is defined by the 24 hour value exceeded 3 times in a calendar year (99.2 percentile of daily average values). The corresponding results for the sulphur dioxide pollution are shown in Tables 17 and 18 and Figures 35 and 36. Appendix A 8.2 contains an area-wide pollution map considering the additional pollution due to shipping (including the stay at berth).

Compared to current annual average values, the reduction concepts 1a/1b tend to be more beneficial. With respect to the Actual Scenario, for the 24 hours values larger decreases may be expected than for the annual average values. The decreases of the additional pollution amount up to about 70 % on the Priwall peninsula and 40 to 60 % elsewhere.

Considering the background pollution, the compliance of the limit value of 125 µg/m³ according to the EU and the 22. BImSchV will be guaranteed in the Actual Scenario.

With regard to the total pollution the power supply from the wharf (1a/1b) leads to reductions of the 24 hours values T03 by an amount up to approximately 40 % (Priwall, Pommernzentrum, Fischereihafen, residential area Teutendorfer Weg). In the other areas still remain decreases of about 10 to 30 %.

The reduction concept 2 effects reductions of the additional pollution by approximately 30 %. The total pollution is reduced by about 10 to 30 %.

Figure 35: Additional sulphur dioxides pollution (24 hours value T03) at representative immission points considering shipping (incl. stay at berth)

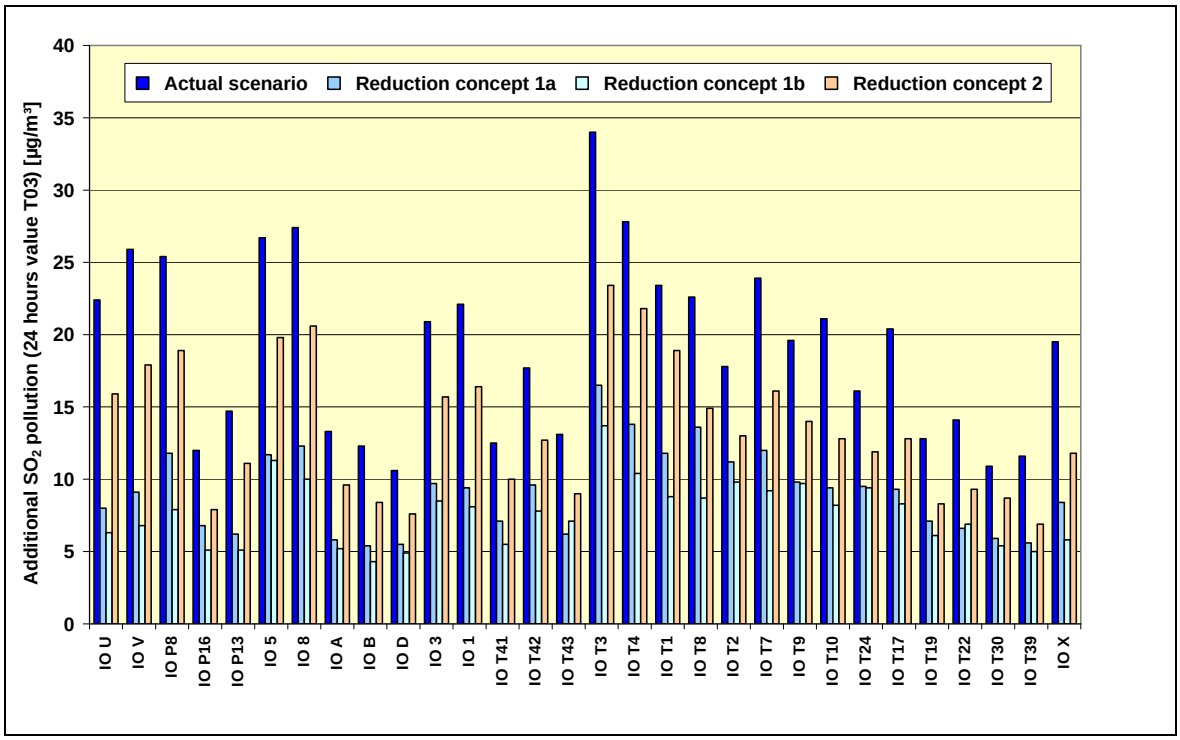


Figure 36: Total sulphur dioxide pollution (24 hours value T03) at representative immission points

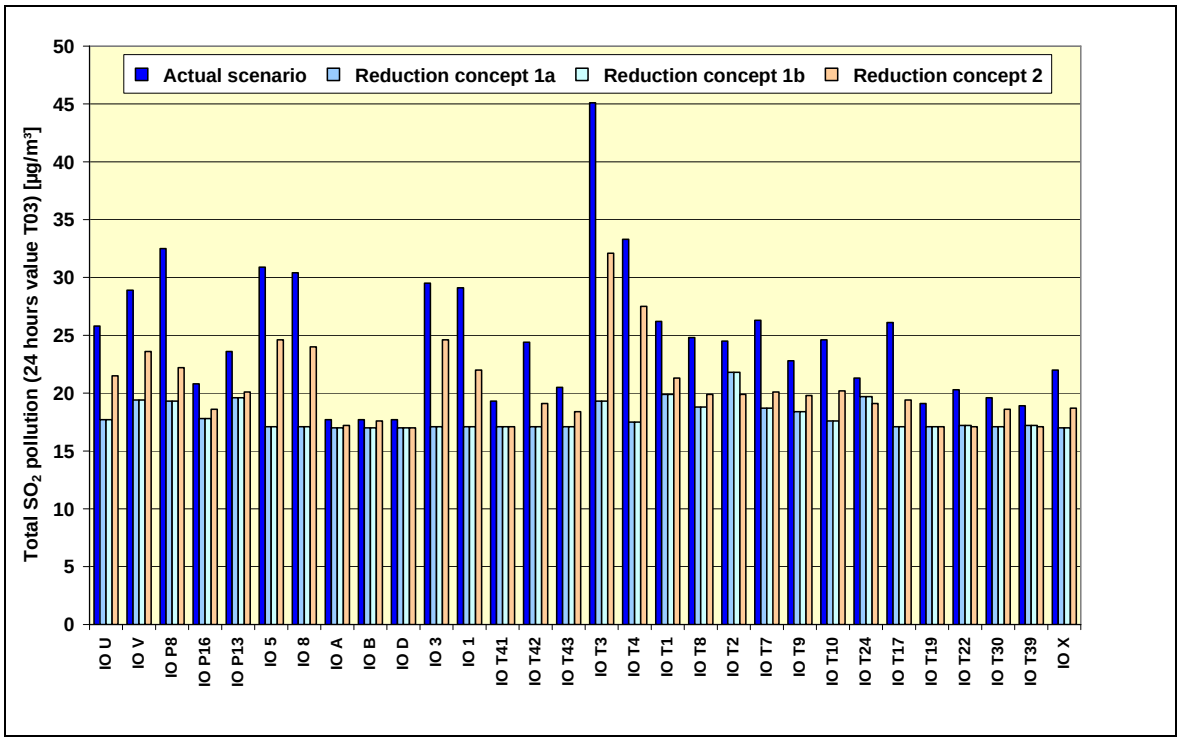


Table 17: Additional sulphur dioxides pollution (24 hours value T03) at representative immission points considering shipping (incl. stay at berth)

Immission point (monitor point)		Additional SO_2 pollution (24 hours value T03) [µg/m³]								
		Road traffic	Shippping	Sum Actual Scenario	Reduction concept 1a	Comparison with Actual Scenario	Reduction concept 1b	Comparison with Actual Scenario	Reduction concept 2	Comparison with Actual Scenario
Priwall										
IO U	Priwall/ Traveufer	—	22.4	**22.4**	8.0	-64 %	6.3	-72 %	15.9	-29 %
IO V	Priwall/ Traveufer	—	25.9	**25.9**	9.1	-65 %	6.8	-74 %	17.9	-31 %
IO P8	Priwall/ Rosenhof	—	25.4	**25.4**	11.8	-54 %	7.9	-69 %	18.9	-26 %
IO P16	Priwall/ Krankenhaus	—	12.0	**12.0**	6.8	-43 %	5.1	-58 %	7.9	-34 %
IO P13	Priwall/ Pötenitzer Weg	—	14.7	**14.7**	6.2	-58 %	5.1	-65 %	11.1	-24 %
Pommernzentrum										
IO 5	Rönnauer Weg/ Ivendorfer Landstr.	—	26.7	**26.7**	11.7	-56 %	11.3	-58 %	19.8	-26 %
IO 8	Ostseestraße/ Pommernzentrum	—	27.4	**27.4**	12.3	-55 %	10.0	-64 %	20.6	-25 %
Ivendorf										
IO A	Ivendorf/ Ovendorfer Straße	—	13.3	**13.3**	5.8	-56 %	5.2	-61 %	9.6	-28 %
IO B	Ivendorf/ Ovendorfer Straße	—	12.3	**12.3**	5.4	-56 %	4.3	-65 %	8.4	-32 %
IO D	Ivendorf/ Ivendorfer Landstraße	—	10.6	**10.6**	5.5	-48 %	4.9	-54 %	7.6	-28 %
Residential area Teutendorfer Weg										
IO 3	Rönnauer Ring	—	20.9	**20.9**	9.7	-54 %	8.5	-59 %	15.7	-25 %
IO 1	Teutendorfer Weg/ An der Bak	—	22.1	**22.1**	9.4	-57 %	8.1	-63 %	16.4	-26 %
IO T41	Teutendorfer Weg	—	12.5	**12.5**	7.1	-43 %	5.5	-56 %	10.0	-20 %
IO T42	Am Krautacker	—	17.7	**17.7**	9.6	-46 %	7.8	-56 %	12.7	-28 %
IO T43	Hollbeck	—	13.1	**13.1**	6.2	-53 %	7.1	-46 %	9.0	-31 %
Travemünde, harbour area										
IO T3	Marina Baltica	—	34.0	**34.0**	16.5	-51 %	13.7	-60 %	23.4	-31 %
IO T4	Fischereihafen	—	27.8	**27.8**	13.8	-50 %	10.4	-63 %	21.8	-22 %
Travemünde, old town area										
IO T1	Vorderreihe/ Ostpreußenkai	—	23.4	**23.4**	11.8	-50 %	8.8	-62 %	18.9	-19 %
IO T8	Vorderreihe/ Prinzenbrücke	—	22.6	**22.6**	13.6	-40 %	8.7	-62 %	14.9	-34 %
IO T2	Yachthafen/ Kaiserbrücke	—	17.8	**17.8**	11.2	-37 %	9.8	-45 %	13.0	-27 %
IO T7	Kurgartenstraße	—	23.9	**23.9**	12.0	-50 %	9.2	-62 %	16.1	-33 %
IO T9	Am Lotsenberg	—	19.6	**19.6**	9.8	-50 %	9.7	-51 %	14.0	-29 %
IO T10	Rose	—	21.1	**21.1**	9.4	-55 %	8.2	-61 %	12.8	-39 %
IO T24	Parkallee/ Kurhaus	—	16.1	**16.1**	9.5	-41 %	9.4	-42 %	11.9	-26 %
Travemünde, areas exposed by road traffic										
IO T17	Gneversdorfer Weg	—	20.4	**20.4**	9.3	-54 %	8.3	-59 %	12.8	-37 %
IO T19	Gneversdorfer Weg	—	12.8	**12.8**	7.1	-45 %	6.1	-52 %	8.3	-35 %
IO T22	Moorredder	—	14.1	**14.1**	6.6	-53 %	6.9	-51 %	9.3	-34 %
Travemünde, residential areas										
IO T30	Schwedenstraße	—	10.9	**10.9**	5.9	-46 %	5.4	-50 %	8.7	-20 %
IO T39	Scheteligstraße	—	11.6	**11.6**	5.6	-52 %	5.0	-57 %	6.9	-41 %
Dummersdorfer Ufer										
IO X	Dummersdorfer Ufer	—	19.5	**19.5**	8.4	-57 %	5.8	-70 %	11.8	-39 %

Table 18: Total sulphur dioxide pollution (24 hours value T03) at representative immission points

Immission point (monitor point)		Total SO_2 pollution (24 hours value T03) [µg/m³]							
		Background pollution	Actual Scenario	Reduction concept 1a	Comparison with Actual Scenario	Reduction concept 1b	Comparison with Actual Scenario	Reduction concept 2	Comparison with Actual Scenario
Priwall									
IO U	Priwall/ Traveufer	17.0	**25.8**	17.7	-31 %	17.7	-31 %	21.5	-17 %
IO V	Priwall/ Traveufer	17.0	**28.9**	19.4	-33 %	19.4	-33 %	23.6	-18 %
IO P8	Priwall/ Rosenhof	17.0	**32.5**	19.3	-41 %	19.3	-41 %	22.2	-32 %
IO P16	Priwall/ Krankenhaus	17.0	**20.8**	17.8	-14 %	17.8	-14 %	18.6	-11 %
IO P13	Priwall/ Pötenitzer Weg	17.0	**23.6**	19.6	-17 %	19.6	-17 %	20.1	-15 %
Pommernzentrum									
IO 5	Rönnauer Weg/ Ivendorfer Landstr.	17.0	**30.9**	17.1	-45 %	17.1	-45 %	24.6	-20 %
IO 8	Ostseestraße/ Pommernzentrum	17.0	**30.4**	17.1	-44 %	17.1	-44 %	24.0	-21 %
Ivendorf									
IO A	Ivendorf/ Ovendorfer Straße	17.0	**17.7**	17.0	-4 %	17.0	-4 %	17.2	-3 %
IO B	Ivendorf/ Ovendorfer Straße	17.0	**17.7**	17.0	-4 %	17.0	-4 %	17.6	-1 %
IO D	Ivendorf/ Ivendorfer Landstraße	17.0	**17.7**	17.0	-4 %	17.0	-4 %	17.0	-4 %
Residential area Teutendorfer Weg									
IO 3	Rönnauer Ring	17.0	**29.5**	17.1	-42 %	17.1	-42 %	24.6	-17 %
IO 1	Teutendorfer Weg/ An der Bak	17.0	**29.1**	17.1	-41 %	17.1	-41 %	22.0	-24 %
IO T41	Teutendorfer Weg	17.0	**19.3**	17.1	-11 %	17.1	-11 %	17.1	-11 %
IO T42	Am Krautacker	17.0	**24.4**	17.1	-30 %	17.1	-30 %	19.1	-22 %
IO T43	Hollbeck	17.0	**20.5**	17.1	-17 %	17.1	-17 %	18.4	-10 %
Travemünde, harbour area									
IO T3	Marina Baltica	17.0	**45.1**	19.3	-57 %	19.3	-57 %	32.1	-29 %
IO T4	Fischereihafen	17.0	**33.3**	17.5	-47 %	17.5	-47 %	27.5	-17 %
Travemünde, old town area									
IO T1	Vorderreihe/ Ostpreußenkai	17.0	**26.2**	19.9	-24 %	19.9	-24 %	21.3	-19 %
IO T8	Vorderreihe/ Prinzenbrücke	17.0	**24.8**	18.8	-24 %	18.8	-24 %	19.9	-20 %
IO T2	Yachthafen/ Kaiserbrücke	17.0	**24.5**	21.8	-11 %	21.8	-11 %	19.9	-19 %
IO T7	Kurgartenstraße	17.0	**26.3**	18.7	-29 %	18.7	-29 %	20.1	-24 %
IO T9	Am Lotsenberg	17.0	**22.8**	18.4	-19 %	18.4	-19 %	19.8	-13 %
IO T10	Rose	17.0	**24.6**	17.6	-28 %	17.6	-28 %	20.2	-18 %
IO T24	Parkallee/ Kurhaus	17.0	**21.3**	19.7	-8 %	19.7	-8 %	19.1	-10 %
Travemünde, areas exposed by road traffic									
IO T17	Gneversdorfer Weg	17.0	**26.1**	17.1	-34 %	17.1	-34 %	19.4	-26 %
IO T19	Gneversdorfer Weg	17.0	**19.1**	17.1	-10 %	17.1	-10 %	17.1	-10 %
IO T22	Moorredder	17.0	**20.3**	17.2	-15 %	17.2	-15 %	17.1	-16 %
Travemünde, residential areas									
IO T30	Schwedenstraße	17.0	**19.6**	17.1	-13 %	17.1	-13 %	18.6	-5 %
IO T39	Scheteligstraße	17.0	**18.9**	17.2	-9 %	17.2	-9 %	17.1	-10 %
Dummersdorfer Ufer									
IO X	Dummersdorfer Ufer	17.0	**22.0**	17.0	-23 %	17.0	-23 %	18.7	-15 %

6.6.9. Sulphur Dioxide Pollution (SO_2, 1 Hour Value S24)

The parameter S24 serves for assessment of short-term pollution and describes the 1 hour value exceeded 24 times in a calendar year (99.7 percentile of 1 hour values). The corresponding results for sulphur dioxide pollution are listed in Tables 19 and 20 and shown in Figures 37 and 38. Area-wide pollution maps considering the additional pollution due to shipping are found in Appendix A 8.3.

Considering the parameter S24 the reduction concepts 1a/1b lead to comparable decreases as for the annual average value.

The reduction potential of concept 2 has been estimated to bb of the order of magnitude of 30 %.

Comparing the additional and total pollutions only little differences have been found. This indicates the considerable influence of the additional pollution, i.e. the shipping traffic, on the short-term pollution.

Finally, at all relevant immission points the short-term pollution parameter S24 will not exceed the limit value of 350 µg/m³ due to the EU and the 22. BImSchV.

Figure 37: Additional sulphur dioxides pollution (1 hour value S24) at representative immission points considering shipping (incl. stay at berth)

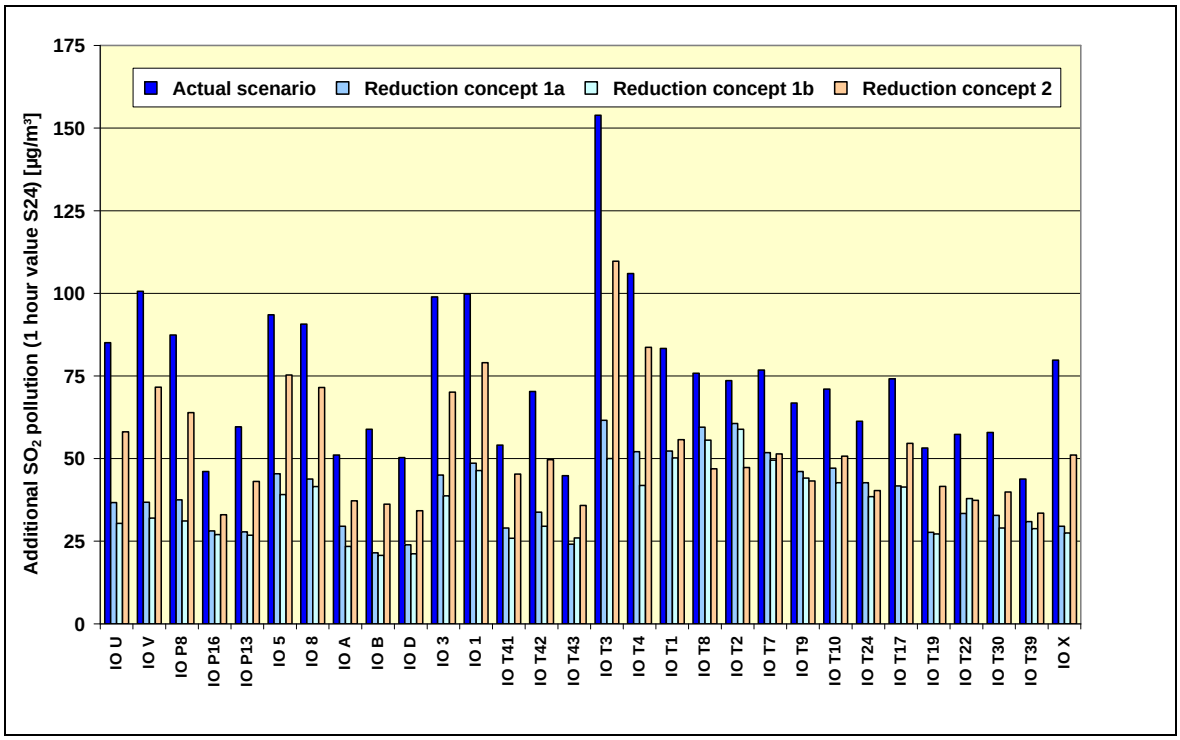


Figure 38: Total sulphur dioxide pollution (1 hour value S24) at representative immission points

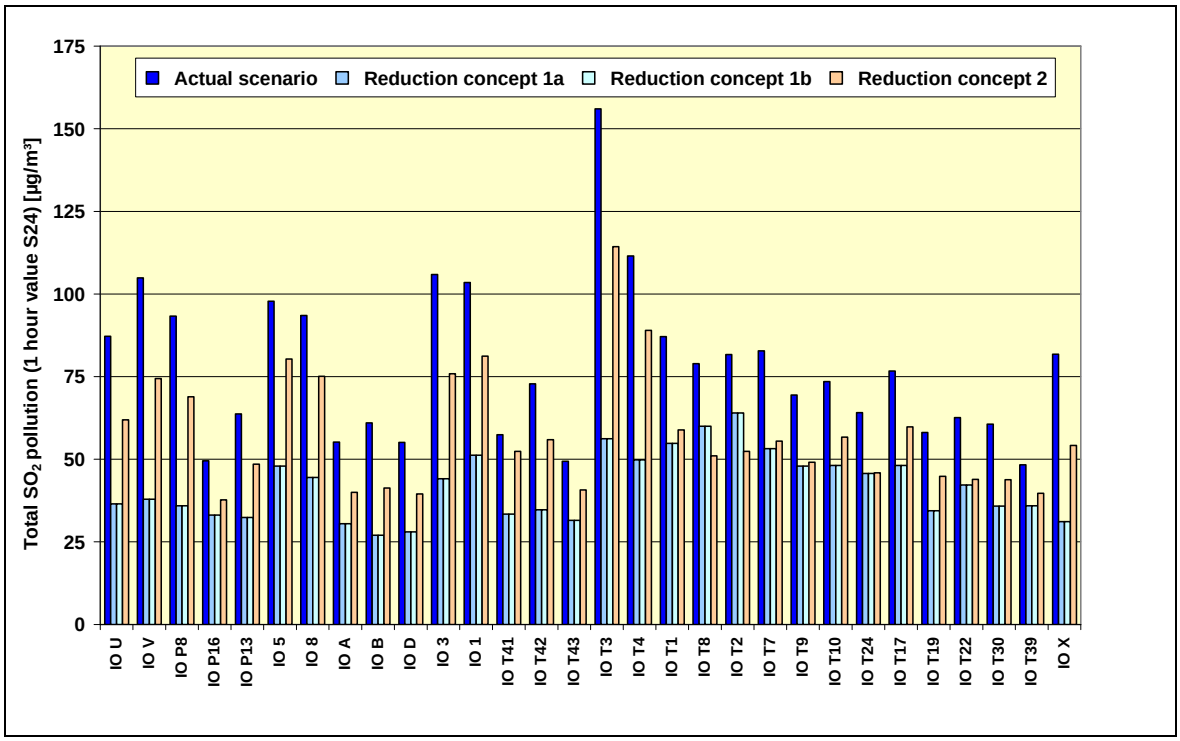


Table 19: Additional sulphur dioxides pollution (1 hour value S24) at representative immission points considering shipping (incl. stay at berth)

Immission point (monitor point)		Additional SO_2 pollution (1 hour value S24) [µg/m³]								
		Road traffic	Shippping	Sum Actual Scenario	Reduction concept 1a	Comparison with Actual Scenario	Reduction concept 1b	Comparison with Actual Scenario	Reduction concept 2	Comparison with Actual Scenario
Priwall										
IO U	Priwall/ Traveufer	—	85.1	**85.1**	36.7	-57 %	30.4	-64 %	58.1	-32 %
IO V	Priwall/ Traveufer	—	100.6	**100.6**	36.8	-63 %	32.0	-68 %	71.6	-29 %
IO P8	Priwall/ Rosenhof	—	87.4	**87.4**	37.5	-57 %	31.1	-64 %	63.9	-27 %
IO P16	Priwall/ Krankenhaus	—	46.1	**46.1**	28.1	-39 %	27.0	-41 %	33.0	-28 %
IO P13	Priwall/ Pötenitzer Weg	—	59.6	**59.6**	27.8	-53 %	26.8	-55 %	43.1	-28 %
Pommernzentrum										
IO 5	Rönnauer Weg/ Ivendorfer Landstr.	—	93.5	**93.5**	45.4	-51 %	39.1	-58 %	75.3	-19 %
IO 8	Ostseestraße/ Pommernzentrum	—	90.7	**90.7**	43.8	-52 %	41.5	-54 %	71.5	-21 %
Ivendorf										
IO A	Ivendorf/ Ovendorfer Straße	—	51.1	**51.1**	29.5	-42 %	23.4	-54 %	37.2	-27 %
IO B	Ivendorf/ Ovendorfer Straße	—	58.9	**58.9**	21.5	-63 %	20.7	-65 %	36.2	-39 %
IO D	Ivendorf/ Ivendorfer Landstraße	—	50.3	**50.3**	23.9	-52 %	21.2	-58 %	34.2	-32 %
Residential area Teutendorfer Weg										
IO 3	Rönnauer Ring	—	98.9	**98.9**	45.0	-54 %	38.7	-61 %	70.1	-29 %
IO 1	Teutendorfer Weg/ An der Bak	—	99.8	**99.8**	48.6	-51 %	46.4	-54 %	79.0	-21 %
IO T41	Teutendorfer Weg	—	54.1	**54.1**	29.0	-46 %	25.9	-52 %	45.3	-16 %
IO T42	Am Krautacker	—	70.3	**70.3**	33.8	-52 %	29.5	-58 %	49.7	-29 %
IO T43	Hollbeck	—	44.8	**44.8**	24.1	-46 %	26.0	-42 %	35.8	-20 %
Travemünde, harbour area										
IO T3	Marina Baltica	—	153.9	**153.9**	61.6	-60 %	50.0	-68 %	109.7	-29 %
IO T4	Fischereihafen	—	106.0	**106.0**	52.1	-51 %	41.9	-60 %	83.7	-21 %
Travemünde, old town area										
IO T1	Vorderreihe/ Ostpreußenkai	—	83.3	**83.3**	52.3	-37 %	50.2	-40 %	55.7	-33 %
IO T8	Vorderreihe/ Prinzenbrücke	—	75.8	**75.8**	59.5	-22 %	55.6	-27 %	46.9	-38 %
IO T2	Yachthafen/ Kaiserbrücke	—	73.6	**73.6**	60.6	-18 %	58.9	-20 %	47.3	-36 %
IO T7	Kurgartenstraße	—	76.8	**76.8**	51.8	-33 %	49.5	-36 %	51.4	-33 %
IO T9	Am Lotsenberg	—	66.8	**66.8**	46.1	-31 %	44.1	-34 %	43.2	-35 %
IO T10	Rose	—	71.0	**71.0**	47.1	-34 %	42.7	-40 %	50.7	-29 %
IO T24	Parkallee/ Kurhaus	—	61.3	**61.3**	42.7	-30 %	38.5	-37 %	40.3	-34 %
Travemünde, areas exposed by road traffic										
IO T17	Gneversdorfer Weg	—	74.1	**74.1**	41.7	-44 %	41.4	-44 %	54.6	-26 %
IO T19	Gneversdorfer Weg	—	53.2	**53.2**	27.7	-48 %	27.2	-49 %	41.6	-22 %
IO T22	Moorredder	—	57.3	**57.3**	33.4	-42 %	37.9	-34 %	37.4	-35 %
Travemünde, residential areas										
IO T30	Schwedenstraße	—	57.9	**57.9**	32.8	-43 %	29.0	-50 %	39.9	-31 %
IO T39	Scheteligstraße	—	43.8	**43.8**	30.9	-29 %	28.8	-34 %	33.5	-24 %
Dummersdorfer Ufer										
IO X	Dummersdorfer Ufer	—	79.8	**79.8**	29.5	-63 %	27.5	-66 %	51.1	-36 %

Table 20: Total sulphur dioxide pollution (1 hour value S24) at representative immission points

Immission point (monitor point)		Total SO_2 pollution (1 hour value S24) [µg/m³]							
		Background pollution	Actual Scenario	Reduction concept 1a	Comparison with Actual Scenario	Reduction concept 1b	Comparison with Actual Scenario	Reduction concept 2	Comparison with Actual Scenario
Priwall									
IO U	Priwall/ Traveufer	20.1	**87.2**	36.5	-58 %	36.5	-58 %	61.9	-29 %
IO V	Priwall/ Traveufer	20.1	**104.9**	37.9	-64 %	37.9	-64 %	74.4	-29 %
IO P8	Priwall/ Rosenhof	20.1	**93.3**	35.9	-62 %	35.9	-62 %	68.9	-26 %
IO P16	Priwall/ Krankenhaus	20.1	**49.5**	33.1	-33 %	33.1	-33 %	37.7	-24 %
IO P13	Priwall/ Pötenitzer Weg	20.1	**63.7**	32.4	-49 %	32.4	-49 %	48.5	-24 %
Pommernzentrum									
IO 5	Rönnauer Weg/ Ivendorfer Landstr.	20.1	**97.8**	47.9	-51 %	47.9	-51 %	80.3	-18 %
IO 8	Ostseestraße/ Pommernzentrum	20.1	**93.5**	44.5	-52 %	44.5	-52 %	75.1	-20 %
Ivendorf									
IO A	Ivendorf/ Ovendorfer Straße	20.1	**55.2**	30.5	-45 %	30.5	-45 %	40.0	-28 %
IO B	Ivendorf/ Ovendorfer Straße	20.1	**61.0**	27.0	-56 %	27.0	-56 %	41.3	-32 %
IO D	Ivendorf/ Ivendorfer Landstraße	20.1	**55.1**	28.0	-49 %	28.0	-49 %	39.5	-28 %
Residential area Teutendorfer Weg									
IO 3	Rönnauer Ring	20.1	**105.9**	44.1	-58 %	44.1	-58 %	75.9	-28 %
IO 1	Teutendorfer Weg/ An der Bak	20.1	**103.5**	51.2	-51 %	51.2	-51 %	81.2	-22 %
IO T41	Teutendorfer Weg	20.1	**57.4**	33.4	-42 %	33.4	-42 %	52.4	-9 %
IO T42	Am Krautacker	20.1	**72.8**	34.7	-52 %	34.7	-52 %	55.9	-23 %
IO T43	Hollbeck	20.1	**49.4**	31.5	-36 %	31.5	-36 %	40.7	-18 %
Travemünde, harbour area									
IO T3	Marina Baltica	20.1	**156.0**	56.2	-64 %	56.2	-64 %	114.3	-27 %
IO T4	Fischereihafen	20.1	**111.5**	49.8	-55 %	49.8	-55 %	89.0	-20 %
Travemünde, old town area									
IO T1	Vorderreihe/ Ostpreußenkai	20.1	**87.1**	54.8	-37 %	54.8	-37 %	58.9	-32 %
IO T8	Vorderreihe/ Prinzenbrücke	20.1	**78.9**	60.0	-24 %	60.0	-24 %	51.0	-35 %
IO T2	Yachthafen/ Kaiserbrücke	20.1	**81.7**	64.0	-22 %	64.0	-22 %	52.4	-36 %
IO T7	Kurgartenstraße	20.1	**82.8**	53.2	-36 %	53.2	-36 %	55.5	-33 %
IO T9	Am Lotsenberg	20.1	**69.4**	47.9	-31 %	47.9	-31 %	49.1	-29 %
IO T10	Rose	20.1	**73.5**	48.1	-35 %	48.1	-35 %	56.7	-23 %
IO T24	Parkallee/ Kurhaus	20.1	**64.1**	45.7	-29 %	45.7	-29 %	45.9	-28 %
Travemünde, areas exposed by road traffic									
IO T17	Gneversdorfer Weg	20.1	**76.7**	48.1	-37 %	48.1	-37 %	59.8	-22 %
IO T19	Gneversdorfer Weg	20.1	**58.1**	34.4	-41 %	34.4	-41 %	44.8	-23 %
IO T22	Moorredder	20.1	**62.6**	42.2	-33 %	42.2	-33 %	43.9	-30 %
Travemünde, residential areas									
IO T30	Schwedenstraße	20.1	**60.6**	35.8	-41 %	35.8	-41 %	43.8	-28 %
IO T39	Scheteligstraße	20.1	**48.3**	35.9	-26 %	35.9	-26 %	39.7	-18 %
Dummersdorfer Ufer									
IO X	Dummersdorfer Ufer	20.1	**81.8**	31.1	-62 %	31.1	-62 %	54.2	-34 %

6.6.10. Particulate Matter (PM_{10}) Pollution (Annual Average Value J00)

The resulting additional and total PM_{10} pollution at the monitor points investigated have been listed in Tables 21 and 22 and Figures 39 and 40.

The additional PM_{10} pollution arising from the shipping amounts to approximately 1 µg/m³ and hence proves only as a minor contribution, especially when compared to the dust resuspension due to road traffic. This can also be seen comparing the additional pollution with the background pollution of approximately 20 µg/m³.

The power supplies from the wharf (reduction concepts 1a/1b) lead to some reductions of the additional pollution. But due to the determining background pollution the reduction concepts and the possible decreases are of minor relevance.

In conclusion, even without considering any of the reduction concepts, the annual average values of the total PM_{10} pollution will not exceed the EU limit of 40 µg/m³ or the 22. BImSchV value anywhere within the area concerned.

Figure 39: Additional particulate matter (PM_{10}) pollution (annual average value J00) at representative immission points for shipping and road traffic

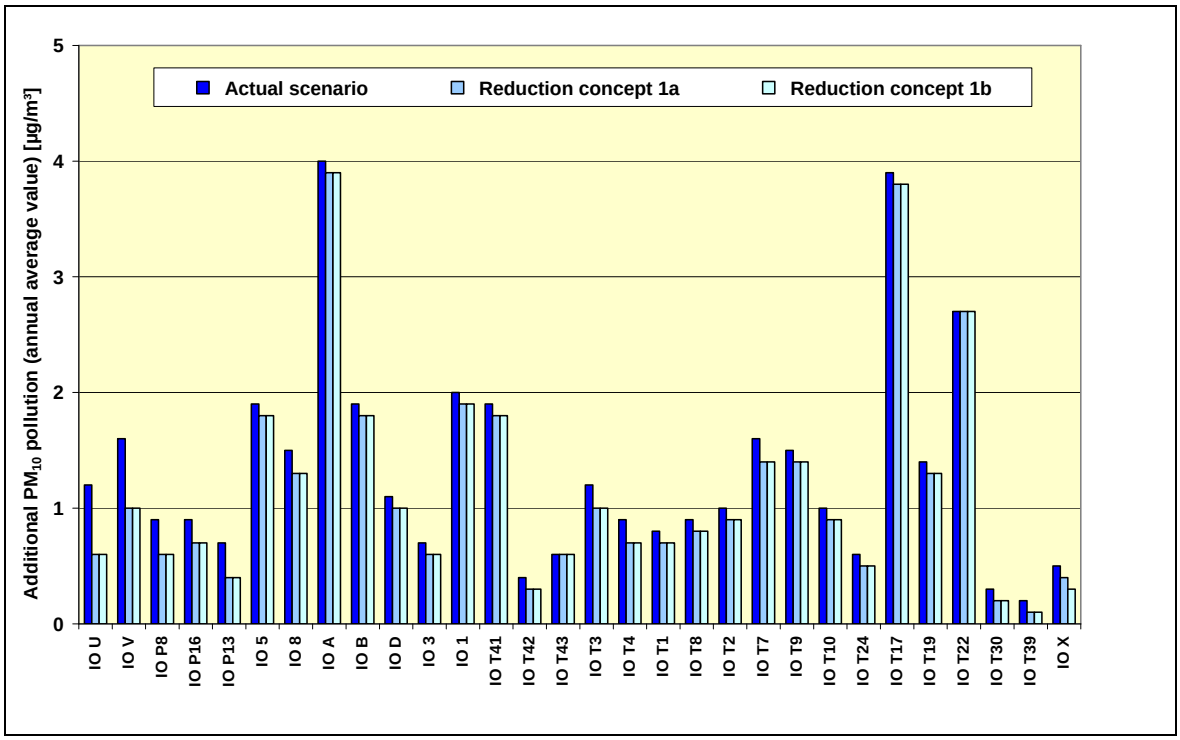


Figure 40: Total particulate matter (PM_{10}) pollution (annual average value J00) at representative immission points

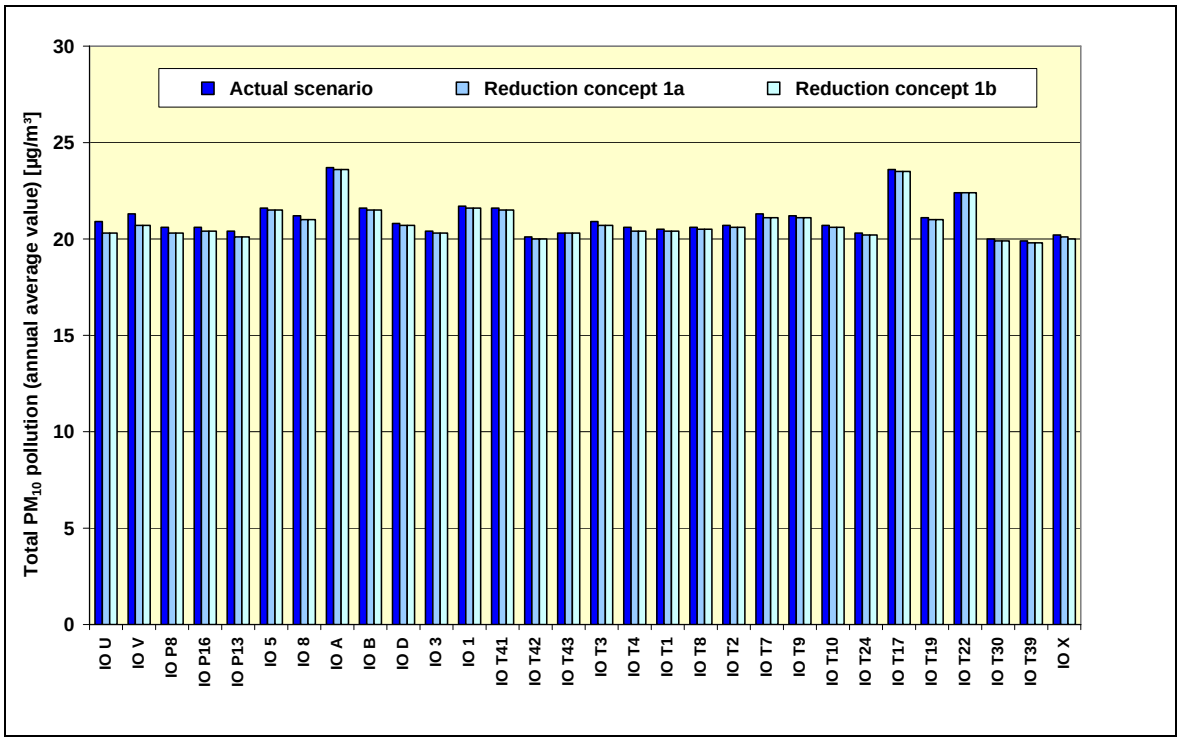


Table 21: Additional particulate matter (PM_{10}) pollution (annual average value J00) at representative immission points for shipping and road traffic

Immission point (monitor point)		Additional PM_{10} pollution (annual average value J00) [µg/m³]						
		Road traffic	Shippping	Sum Actual Scenario	Reduction concept 1a	Comparison with Actual Scenario	Reduction concept 1b	Comparison with Actual Scenario
Priwall								
IO U	Priwall/ Traveufer	0.3	0.9	**1.2**	0.6	-50 %	0.6	-50 %
IO V	Priwall/ Traveufer	0.5	1.1	**1.6**	1.0	-38 %	1.0	-38 %
IO P8	Priwall/ Rosenhof	0.1	0.8	**0.9**	0.6	-33 %	0.6	-33 %
IO P16	Priwall/ Krankenhaus	0.4	0.5	**0.9**	0.7	-22 %	0.7	-22 %
IO P13	Priwall/ Pötenitzer Weg	0.1	0.6	**0.7**	0.4	-43 %	0.4	-43 %
Pommernzentrum								
IO 5	Rönnauer Weg/ Ivendorfer Landstr.	1.6	0.3	**1.9**	1.8	-5 %	1.8	-5 %
IO 8	Ostseestraße/ Pommernzentrum	1.1	0.4	**1.5**	1.3	-13 %	1.3	-13 %
Ivendorf								
IO A	Ivendorf/ Ovendorfer Straße	3.8	0.2	**4.0**	3.9	-3 %	3.9	-3 %
IO B	Ivendorf/ Ovendorfer Straße	1.7	0.2	**1.9**	1.8	-5 %	1.8	-5 %
IO D	Ivendorf/ Ivendorfer Landstraße	0.9	0.2	**1.1**	1.0	-9 %	1.0	-9 %
Residential area Teutendorfer Weg								
IO 3	Rönnauer Ring	0.4	0.3	**0.7**	0.6	-14 %	0.6	-14 %
IO 1	Teutendorfer Weg/ An der Bak	1.7	0.3	**2.0**	1.9	-5 %	1.9	-5 %
IO T41	Teutendorfer Weg	1.7	0.2	**1.9**	1.8	-5 %	1.8	-5 %
IO T42	Am Krautacker	0.2	0.2	**0.4**	0.3	-25 %	0.3	-25 %
IO T43	Hollbeck	0.5	0.1	**0.6**	0.6	0 %	0.6	0 %
Travemünde, harbour area								
IO T3	Marina Baltica	0.8	0.4	**1.2**	1.0	-17 %	1.0	-17 %
IO T4	Fischereihafen	0.5	0.4	**0.9**	0.7	-22 %	0.7	-22 %
Travemünde, old town area								
IO T1	Vorderreihe/ Ostpreußenkai	0.3	0.5	**0.8**	0.7	-13 %	0.7	-13 %
IO T8	Vorderreihe/ Prinzenbrücke	0.4	0.5	**0.9**	0.8	-11 %	0.8	-11 %
IO T2	Yachthafen/ Kaiserbrücke	0.5	0.5	**1.0**	0.9	-10 %	0.9	-10 %
IO T7	Kurgartenstraße	1.1	0.5	**1.6**	1.4	-13 %	1.4	-13 %
IO T9	Am Lotsenberg	1.1	0.4	**1.5**	1.4	-7 %	1.4	-7 %
IO T10	Rose	0.6	0.4	**1.0**	0.9	-10 %	0.9	-10 %
IO T24	Parkallee/ Kurhaus	0.2	0.4	**0.6**	0.5	-17 %	0.5	-17 %
Travemünde, areas exposed by road traffic								
IO T17	Gneversdorfer Weg	3.6	0.3	**3.9**	3.8	-3 %	3.8	-3 %
IO T19	Gneversdorfer Weg	1.2	0.2	**1.4**	1.3	-7 %	1.3	-7 %
IO T22	Moorredder	2.5	0.2	**2.7**	2.7	0 %	2.7	0 %
Travemünde, residential areas								
IO T30	Schwedenstraße	0.1	0.2	**0.3**	0.2	-33 %	0.2	-33 %
IO T39	Scheteligstraße	0.0	0.2	**0.2**	0.1	-50 %	0.1	-50 %
Dummersdorfer Ufer								
IO X	Dummersdorfer Ufer	0.2	0.3	**0.5**	0.4	-20 %	0.3	-40 %

Table 22: Total particulate matter (PM_{10}) pollution (annual average value J00) at representative immission points

Immission point (monitor point)		Total PM_{10} pollution (annual average value J00) [µg/m³]					
		Background pollution	Actual Scenario	Reduction concept 1a	Comparison with Actual Scenario	Reduction concept 1b	Comparison with Actual Scenario
Priwall							
IO U	Priwall/ Traveufer	19.7	**20.9**	20.3	-3 %	20.3	-3 %
IO V	Priwall/ Traveufer	19.7	**21.3**	20.7	-3 %	20.7	-3 %
IO P8	Priwall/ Rosenhof	19.7	**20.6**	20.3	-1 %	20.3	-1 %
IO P16	Priwall/ Krankenhaus	19.7	**20.6**	20.4	-1 %	20.4	-1 %
IO P13	Priwall/ Pötenitzer Weg	19.7	**20.4**	20.1	-1 %	20.1	-1 %
Pommernzentrum							
IO 5	Rönnauer Weg/ Ivendorfer Landstr.	19.7	**21.6**	21.5	0 %	21.5	0 %
IO 8	Ostseestraße/ Pommernzentrum	19.7	**21.2**	21.0	-1 %	21.0	-1 %
Ivendorf							
IO A	Ivendorf/ Ovendorfer Straße	19.7	**23.7**	23.6	0 %	23.6	0 %
IO B	Ivendorf/ Ovendorfer Straße	19.7	**21.6**	21.5	0 %	21.5	0 %
IO D	Ivendorf/ Ivendorfer Landstraße	19.7	**20.8**	20.7	0 %	20.7	0 %
Residential area Teutendorfer Weg							
IO 3	Rönnauer Ring	19.7	**20.4**	20.3	0 %	20.3	0 %
IO 1	Teutendorfer Weg/ An der Bak	19.7	**21.7**	21.6	0 %	21.6	0 %
IO T41	Teutendorfer Weg	19.7	**21.6**	21.5	0 %	21.5	0 %
IO T42	Am Krautacker	19.7	**20.1**	20.0	0 %	20.0	0 %
IO T43	Hollbeck	19.7	**20.3**	20.3	0 %	20.3	0 %
Travemünde, harbour area							
IO T3	Marina Baltica	19.7	**20.9**	20.7	-1 %	20.7	-1 %
IO T4	Fischereihafen	19.7	**20.6**	20.4	-1 %	20.4	-1 %
Travemünde, old town area							
IO T1	Vorderreihe/ Ostpreußenkai	19.7	**20.5**	20.4	0 %	20.4	0 %
IO T8	Vorderreihe/ Prinzenbrücke	19.7	**20.6**	20.5	0 %	20.5	0 %
IO T2	Yachthafen/ Kaiserbrücke	19.7	**20.7**	20.6	0 %	20.6	0 %
IO T7	Kurgartenstraße	19.7	**21.3**	21.1	-1 %	21.1	-1 %
IO T9	Am Lotsenberg	19.7	**21.2**	21.1	0 %	21.1	0 %
IO T10	Rose	19.7	**20.7**	20.6	0 %	20.6	0 %
IO T24	Parkallee/ Kurhaus	19.7	**20.3**	20.2	0 %	20.2	0 %
Travemünde, areas exposed by road traffic							
IO T17	Gneversdorfer Weg	19.7	**23.6**	23.5	0 %	23.5	0 %
IO T19	Gneversdorfer Weg	19.7	**21.1**	21.0	0 %	21.0	0 %
IO T22	Moorredder	19.7	**22.4**	22.4	0 %	22.4	0 %
Travemünde, residential areas							
IO T30	Schwedenstraße	19.7	**20.0**	19.9	-1 %	19.9	-1 %
IO T39	Scheteligstraße	19.7	**19.9**	19.8	-1 %	19.8	-1 %
Dummersdorfer Ufer							
IO X	Dummersdorfer Ufer	19.7	**20.2**	20.1	0 %	20.0	-1 %

6.6.11. Particulate Matter (PM_{10}) Pollution (24 Hours Value T35)

The parameter T35 describes the 24 hours value exceeded 35 times in a calendar year (90.4 percentile of daily average values). Tables 23 and 24 contain the results of the corresponding PM_{10} pollutions (additional pollution and total pollution, respectively). Illustrations are shown in Figures 41 and 42.

The 24 hours values T35 of the additional PM_{10} pollution according to the shipping amount to about 2.5 µg/m³ and hence are small when compared to the background pollution of 36 µg/m³. They are also small compared to the contributions from the road traffic at monitor points located in the vicinity of main roads.

Compared to the results for the annual average values the potential for reductions concerning the emissions of the shipping traffic appears to be of minor relevance.

In all relevant areas the total PM_{10} pollution T35 has been estimated lower than the limit value of 50 µg/m³ according to EU and 22. BImSchV. So it is not expected that the limit value will be exceeded more than permitted (35 times in a calendar year).

Figure 41: Additional particulate matter (PM_{10}) pollution (24 hours value T35) at representative immission points for shipping and road traffic

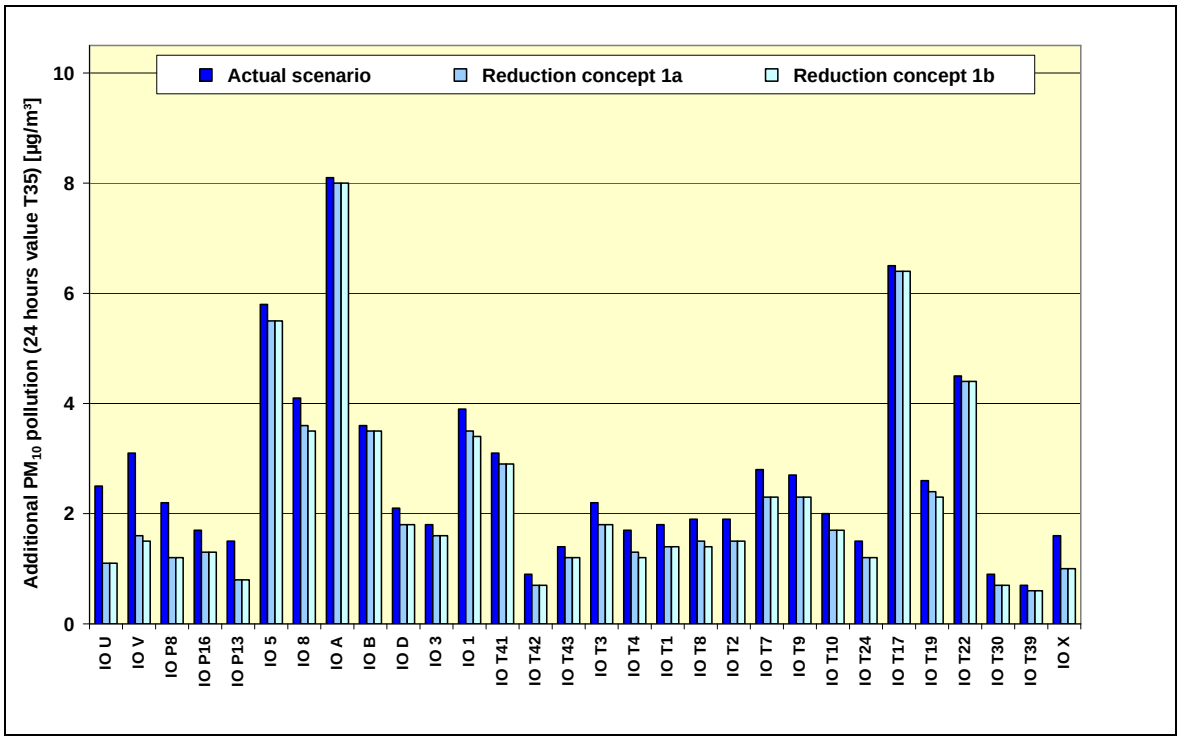


Figure 42: Total particulate matter (PM_{10}) pollution (24 hours value T35) at representative immission points

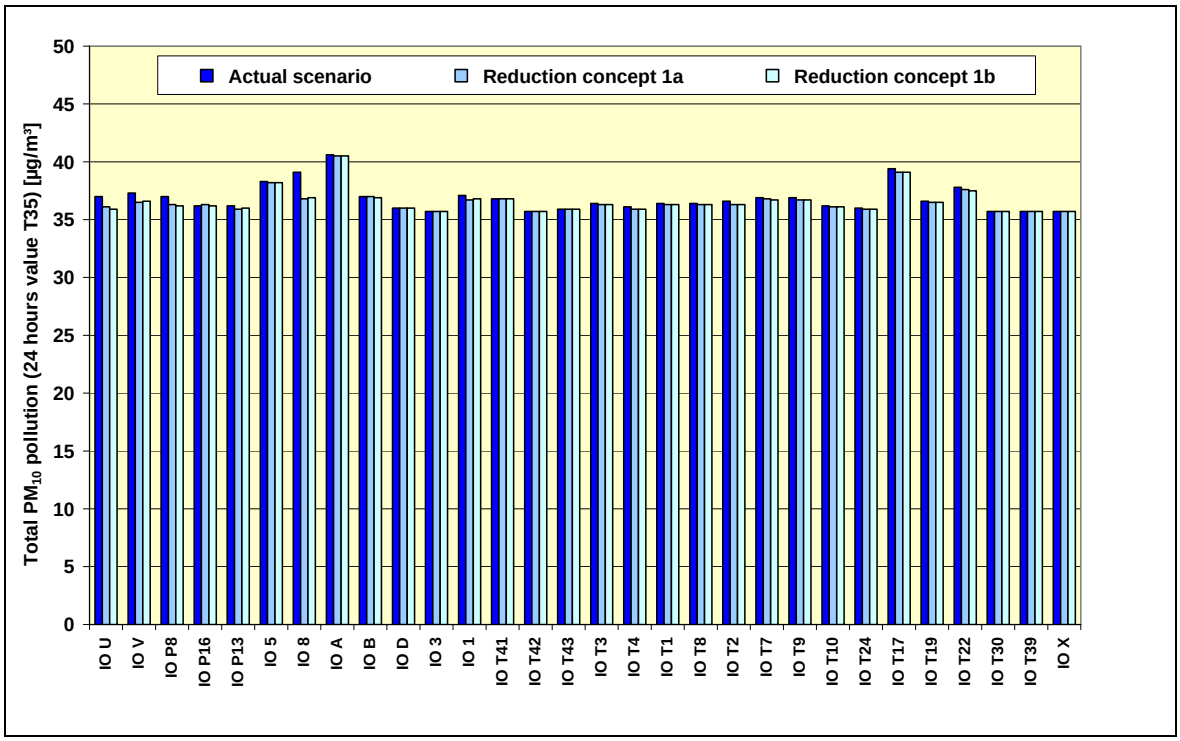


Table 23: Additional particulate matter (PM_{10}) pollution (24 hours value T35) at representative immission points for shipping and road traffic

Immission point (monitor point)		Additional PM_{10} pollution (24 hours value T35) [µg/m³]						
		Road traffic	Shippping	Sum Actual Scenario	Reduction concept 1a	Comparison with Actual Scenario	Reduction concept 1b	Comparison with Actual Scenario
Priwall								
IO U	Priwall/ Traveufer	0.6	2.1	**2.5**	1.1	-56 %	1.1	-56 %
IO V	Priwall/ Traveufer	0.9	2.5	**3.1**	1.6	-48 %	1.5	-52 %
IO P8	Priwall/ Rosenhof	0.4	1.9	**2.2**	1.2	-45 %	1.2	-45 %
IO P16	Priwall/ Krankenhaus	0.9	1.0	**1.7**	1.3	-24 %	1.3	-24 %
IO P13	Priwall/ Pötenitzer Weg	0.2	1.3	**1.5**	0.8	-47 %	0.8	-47 %
Pommernzentrum								
IO 5	Rönnauer Weg/ Ivendorfer Landstr.	4.8	1.1	**5.8**	5.5	-5 %	5.5	-5 %
IO 8	Ostseestraße/ Pommernzentrum	2.9	1.3	**4.1**	3.6	-12 %	3.5	-15 %
Ivendorf								
IO A	Ivendorf/ Ovendorfer Straße	7.8	0.8	**8.1**	8.0	-1 %	8.0	-1 %
IO B	Ivendorf/ Ovendorfer Straße	3.4	0.8	**3.6**	3.5	-3 %	3.5	-3 %
IO D	Ivendorf/ Ivendorfer Landstraße	1.7	0.7	**2.1**	1.8	-14 %	1.8	-14 %
Residential area Teutendorfer Weg								
IO 3	Rönnauer Ring	1.0	0.9	**1.8**	1.6	-11 %	1.6	-11 %
IO 1	Teutendorfer Weg/ An der Bak	3.0	0.9	**3.9**	3.5	-10 %	3.4	-13 %
IO T41	Teutendorfer Weg	2.7	0.6	**3.1**	2.9	-6 %	2.9	-6 %
IO T42	Am Krautacker	0.4	0.6	**0.9**	0.7	-22 %	0.7	-22 %
IO T43	Hollbeck	1.1	0.4	**1.4**	1.2	-14 %	1.2	-14 %
Travemünde, harbour area								
IO T3	Marina Baltica	1.6	1.4	**2.2**	1.8	-18 %	1.8	-18 %
IO T4	Fischereihafen	0.8	1.2	**1.7**	1.3	-24 %	1.2	-29 %
Travemünde, old town area								
IO T1	Vorderreihe/ Ostpreußenkai	0.7	1.5	**1.8**	1.4	-22 %	1.4	-22 %
IO T8	Vorderreihe/ Prinzenbrücke	0.7	1.4	**1.9**	1.5	-21 %	1.4	-26 %
IO T2	Yachthafen/ Kaiserbrücke	1.0	1.4	**1.9**	1.5	-21 %	1.5	-21 %
IO T7	Kurgartenstraße	1.8	1.4	**2.8**	2.3	-18 %	2.3	-18 %
IO T9	Am Lotsenberg	1.8	1.2	**2.7**	2.3	-15 %	2.3	-15 %
IO T10	Rose	1.0	1.2	**2.0**	1.7	-15 %	1.7	-15 %
IO T24	Parkallee/ Kurhaus	0.5	1.1	**1.5**	1.2	-20 %	1.2	-20 %
Travemünde, areas exposed by road traffic								
IO T17	Gneversdorfer Weg	6.2	0.9	**6.5**	6.4	-2 %	6.4	-2 %
IO T19	Gneversdorfer Weg	2.3	0.6	**2.6**	2.4	-8 %	2.3	-12 %
IO T22	Moorredder	4.2	0.7	**4.5**	4.4	-2 %	4.4	-2 %
Travemünde, residential areas								
IO T30	Schwedenstraße	0.4	0.6	**0.9**	0.7	-22 %	0.7	-22 %
IO T39	Scheteligstraße	0.2	0.5	**0.7**	0.6	-14 %	0.6	-14 %
Dummersdorfer Ufer								
IO X	Dummersdorfer Ufer	0.7	1.2	**1.6**	1.0	-38 %	1.0	-38 %

Table 24: Total particulate matter (PM_{10}) pollution (24 hours value T35) at representative immission points

Immission point (monitor point)		Total PM_{10} pollution (24 hours value T35) [µg/m³]					
		Background pollution	Actual Scenario	Reduction concept 1a	Comparison with Actual Scenario	Reduction concept 1b	Comparison with Actual Scenario
Priwall							
IO U	Priwall/ Traveufer	35.7	**37.0**	36.1	-2 %	35.9	-3 %
IO V	Priwall/ Traveufer	35.7	**37.3**	36.5	-2 %	36.6	-2 %
IO P8	Priwall/ Rosenhof	35.7	**37.0**	36.3	-2 %	36.2	-2 %
IO P16	Priwall/ Krankenhaus	35.7	**36.2**	36.3	0 %	36.2	0 %
IO P13	Priwall/ Pötenitzer Weg	35.7	**36.2**	35.9	-1 %	36.0	-1 %
Pommernzentrum							
IO 5	Rönnauer Weg/ Ivendorfer Landstr.	35.7	**38.3**	38.2	0 %	38.2	0 %
IO 8	Ostseestraße/ Pommernzentrum	35.7	**39.1**	36.8	-6 %	36.9	-6 %
Ivendorf							
IO A	Ivendorf/ Ovendorfer Straße	35.7	**40.6**	40.5	0 %	40.5	0 %
IO B	Ivendorf/ Ovendorfer Straße	35.7	**37.0**	37.0	0 %	36.9	0 %
IO D	Ivendorf/ Ivendorfer Landstraße	35.7	**36.0**	36.0	0 %	36.0	0 %
Residential area Teutendorfer Weg							
IO 3	Rönnauer Ring	35.7	**35.7**	35.7	0 %	35.7	0 %
IO 1	Teutendorfer Weg/ An der Bak	35.7	**37.1**	36.7	-1 %	36.8	-1 %
IO T41	Teutendorfer Weg	35.7	**36.8**	36.8	0 %	36.8	0 %
IO T42	Am Krautacker	35.7	**35.7**	35.7	0 %	35.7	0 %
IO T43	Hollbeck	35.7	**35.9**	35.9	0 %	35.9	0 %
Travemünde, harbour area							
IO T3	Marina Baltica	35.7	**36.4**	36.3	0 %	36.3	0 %
IO T4	Fischereihafen	35.7	**36.1**	35.9	-1 %	35.9	-1 %
Travemünde, old town area							
IO T1	Vorderreihe/ Ostpreußenkai	35.7	**36.4**	36.3	0 %	36.3	0 %
IO T8	Vorderreihe/ Prinzenbrücke	35.7	**36.4**	36.3	0 %	36.3	0 %
IO T2	Yachthafen/ Kaiserbrücke	35.7	**36.6**	36.3	-1 %	36.3	-1 %
IO T7	Kurgartenstraße	35.7	**36.9**	36.8	0 %	36.7	-1 %
IO T9	Am Lotsenberg	35.7	**36.9**	36.7	-1 %	36.7	-1 %
IO T10	Rose	35.7	**36.2**	36.1	0 %	36.1	0 %
IO T24	Parkallee/ Kurhaus	35.7	**36.0**	35.9	0 %	35.9	0 %
Travemünde, areas exposed by road traffic							
IO T17	Gneversdorfer Weg	35.7	**39.4**	39.1	-1 %	39.1	-1 %
IO T19	Gneversdorfer Weg	35.7	**36.6**	36.5	0 %	36.5	0 %
IO T22	Moorredder	35.7	**37.8**	37.6	-1 %	37.5	-1 %
Travemünde, residential areas							
IO T30	Schwedenstraße	35.7	**35.7**	35.7	0 %	35.7	0 %
IO T39	Scheteligstraße	35.7	**35.7**	35.7	0 %	35.7	0 %
Dummersdorfer Ufer							
IO X	Dummersdorfer Ufer	35.7	**35.7**	35.7	0 %	35.7	0 %

6.6.12. Soot Pollution (Annual Average Value J00)

Additionally, the soot pollution has been estimated. The results at the main immission points investigated are found in Tables 25 and 26 as well as in Figures 43 and 44 (additional pollution and total pollution, respectively).

In summary, one only finds low additional pollutant levels up to 0.4 µg/m³ at the immission points investigated. The shipping solely yields pollutant levels up to 0.4 µg/m³. Considering the reduction concepts 1a/1b some decreases up to 0.3 µg/m³ have been determined.

Taking the background pollution of 2.0 µg/m³ into account, one finds annual average values of the total soot pollution up to 2.4 µg/m³. The reductions of the total pollution are in the order of magnitude of 5 to 10 %.

(Annotation: The clearly visible soot emissions during the manoevring operations at the arrivals and departures of the ships may give rise to large short-term emissions. However, by estimating the annual average values these contributions are of negligible size due to the short emission periods.)

Figure 43: Additional soot pollution (annual average value J00) at representative immission points for shipping and road traffic

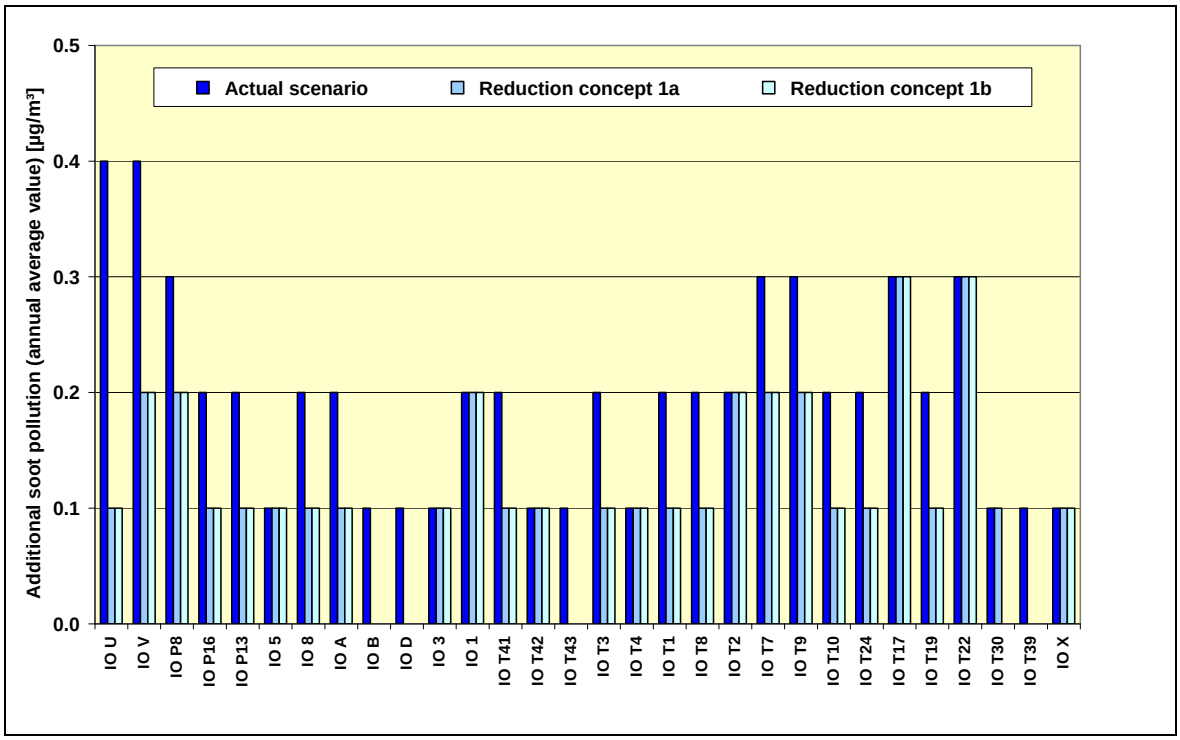


Figure 44: Total soot pollution (annual average value J00) at representative immission points

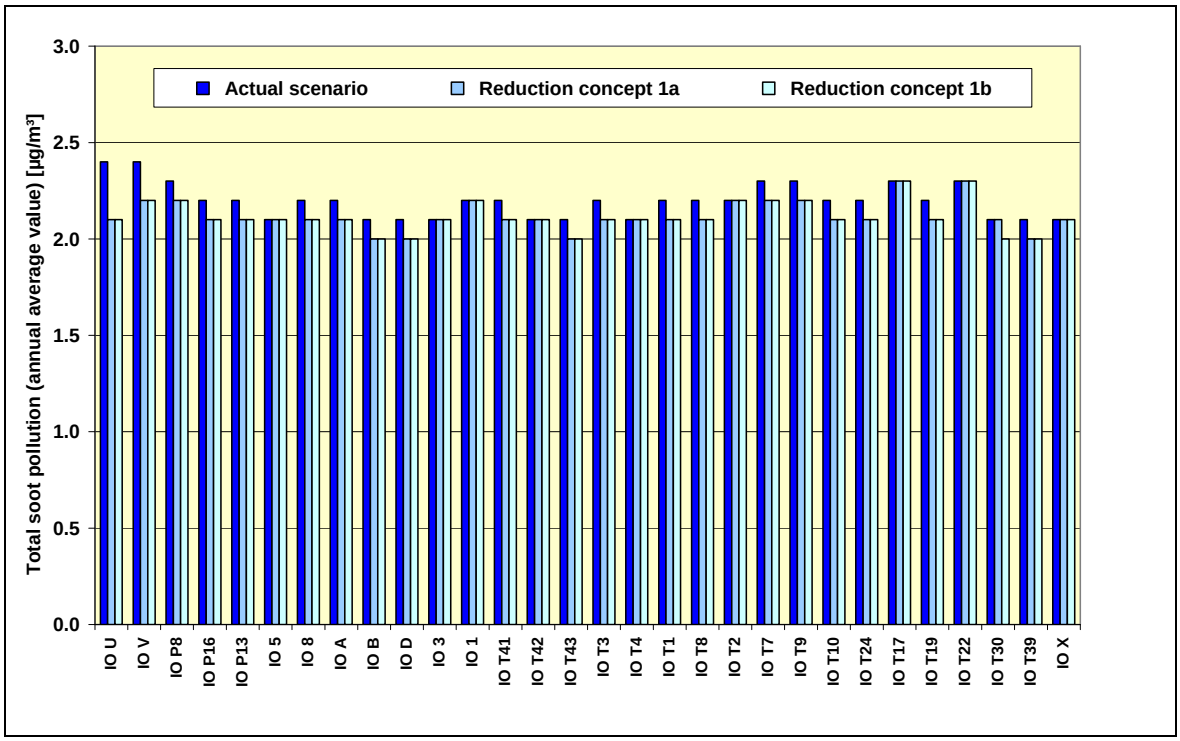


Table 25: Additional soot pollution (annual average value J00) at representative immission points for shipping and road traffic

Immission point (monitor point)		Additional soot pollution (annual average value J00) [µg/m³]						
		Road traffic	Shippping	Sum Actual Scenario	Reduction concept 1a	Comparison with Actual Scenario	Reduction concept 1b	Comparison with Actual Scenario
Priwall								
IO U	Priwall/ Traveufer	0.0	0.4	**0.4**	0.1	-75 %	0.1	-75 %
IO V	Priwall/ Traveufer	0.0	0.4	**0.4**	0.2	-50 %	0.2	-50 %
IO P8	Priwall/ Rosenhof	0.0	0.3	**0.3**	0.2	-33 %	0.2	-33 %
IO P16	Priwall/ Krankenhaus	0.0	0.2	**0.2**	0.1	-50 %	0.1	-50 %
IO P13	Priwall/ Pötenitzer Weg	0.0	0.2	**0.2**	0.1	-50 %	0.1	-50 %
Pommernzentrum								
IO 5	Rönnauer Weg/ Ivendorfer Landstr.	0.0	0.1	**0.1**	0.1	0 %	0.1	0 %
IO 8	Ostseestraße/ Pommernzentrum	0.0	0.2	**0.2**	0.1	-50 %	0.1	-50 %
Ivendorf								
IO A	Ivendorf/ Ovendorfer Straße	0.1	0.1	**0.2**	0.1	-50 %	0.1	-50 %
IO B	Ivendorf/ Ovendorfer Straße	0.0	0.1	**0.1**	0.0	-100 %	0.0	-100 %
IO D	Ivendorf/ Ivendorfer Landstraße	0.0	0.1	**0.1**	0.0	-100 %	0.0	-100 %
Residential area Teutendorfer Weg								
IO 3	Rönnauer Ring	0.0	0.1	**0.1**	0.1	0 %	0.1	0 %
IO 1	Teutendorfer Weg/ An der Bak	0.1	0.1	**0.2**	0.2	0 %	0.2	0 %
IO T41	Teutendorfer Weg	0.1	0.1	**0.2**	0.1	-50 %	0.1	-50 %
IO T42	Am Krautacker	0.0	0.1	**0.1**	0.1	0 %	0.1	0 %
IO T43	Hollbeck	0.0	0.1	**0.1**	0.0	-100 %	0.0	-100 %
Travemünde, harbour area								
IO T3	Marina Baltica	0.0	0.2	**0.2**	0.1	-50 %	0.1	-50 %
IO T4	Fischereihafen	0.0	0.1	**0.1**	0.1	0 %	0.1	0 %
Travemünde, old town area								
IO T1	Vorderreihe/ Ostpreußenkai	0.0	0.2	**0.2**	0.1	-50 %	0.1	-50 %
IO T8	Vorderreihe/ Prinzenbrücke	0.0	0.2	**0.2**	0.1	-50 %	0.1	-50 %
IO T2	Yachthafen/ Kaiserbrücke	0.0	0.2	**0.2**	0.2	0 %	0.2	0 %
IO T7	Kurgartenstraße	0.1	0.2	**0.3**	0.2	-33 %	0.2	-33 %
IO T9	Am Lotsenberg	0.1	0.2	**0.3**	0.2	-33 %	0.2	-33 %
IO T10	Rose	0.0	0.2	**0.2**	0.1	-50 %	0.1	-50 %
IO T24	Parkallee/ Kurhaus	0.0	0.2	**0.2**	0.1	-50 %	0.1	-50 %
Travemünde, areas exposed by road traffic								
IO T17	Gneversdorfer Weg	0.2	0.1	**0.3**	0.3	0 %	0.3	0 %
IO T19	Gneversdorfer Weg	0.1	0.1	**0.2**	0.1	-50 %	0.1	-50 %
IO T22	Moorredder	0.2	0.1	**0.3**	0.3	0 %	0.3	0 %
Travemünde, residential areas								
IO T30	Schwedenstraße	0.0	0.1	**0.1**	0.1	0 %	0.0	-100 %
IO T39	Scheteligstraße	0.0	0.1	**0.1**	0.0	-100 %	0.0	-100 %
Dummersdorfer Ufer								
IO X	Dummersdorfer Ufer	0.0	0.1	**0.1**	0.1	0 %	0.1	0 %

Table 26: Total soot pollution (annual average value J00) at representative immission points

Immission point (monitor point)		Total soot pollution (annual average value J00) [µg/m³]					
		Background pollution	Actual Scenario	Reduction concept 1a	Comparison with Actual Scenario	Reduction concept 1b	Comparison with Actual Scenario
Priwall							
IO U	Priwall/ Traveufer	2.0	**2.4**	2.1	-13 %	2.1	-13 %
IO V	Priwall/ Traveufer	2.0	**2.4**	2.2	-8 %	2.2	-8 %
IO P8	Priwall/ Rosenhof	2.0	**2.3**	2.2	-4 %	2.2	-4 %
IO P16	Priwall/ Krankenhaus	2.0	**2.2**	2.1	-5 %	2.1	-5 %
IO P13	Priwall/ Pötenitzer Weg	2.0	**2.2**	2.1	-5 %	2.1	-5 %
Pommernzentrum							
IO 5	Rönnauer Weg/ Ivendorfer Landstr.	2.0	**2.1**	2.1	0 %	2.1	0 %
IO 8	Ostseestraße/ Pommernzentrum	2.0	**2.2**	2.1	-5 %	2.1	-5 %
Ivendorf							
IO A	Ivendorf/ Ovendorfer Straße	2.0	**2.2**	2.1	-5 %	2.1	-5 %
IO B	Ivendorf/ Ovendorfer Straße	2.0	**2.1**	2.0	-5 %	2.0	-5 %
IO D	Ivendorf/ Ivendorfer Landstraße	2.0	**2.1**	2.0	-5 %	2.0	-5 %
Residential area Teutendorfer Weg							
IO 3	Rönnauer Ring	2.0	**2.1**	2.1	0 %	2.1	0 %
IO 1	Teutendorfer Weg/ An der Bak	2.0	**2.2**	2.2	0 %	2.2	0 %
IO T41	Teutendorfer Weg	2.0	**2.2**	2.1	-5 %	2.1	-5 %
IO T42	Am Krautacker	2.0	**2.1**	2.1	0 %	2.1	0 %
IO T43	Hollbeck	2.0	**2.1**	2.0	-5 %	2.0	-5 %
Travemünde, harbour area							
IO T3	Marina Baltica	2.0	**2.2**	2.1	-5 %	2.1	-5 %
IO T4	Fischereihafen	2.0	**2.1**	2.1	0 %	2.1	0 %
Travemünde, old town area							
IO T1	Vorderreihe/ Ostpreußenkai	2.0	**2.2**	2.1	-5 %	2.1	-5 %
IO T8	Vorderreihe/ Prinzenbrücke	2.0	**2.2**	2.1	-5 %	2.1	-5 %
IO T2	Yachthafen/ Kaiserbrücke	2.0	**2.2**	2.2	0 %	2.2	0 %
IO T7	Kurgartenstraße	2.0	**2.3**	2.2	-4 %	2.2	-4 %
IO T9	Am Lotsenberg	2.0	**2.3**	2.2	-4 %	2.2	-4 %
IO T10	Rose	2.0	**2.2**	2.1	-5 %	2.1	-5 %
IO T24	Parkallee/ Kurhaus	2.0	**2.2**	2.1	-5 %	2.1	-5 %
Travemünde, areas exposed by road traffic							
IO T17	Gneversdorfer Weg	2.0	**2.3**	2.3	0 %	2.3	0 %
IO T19	Gneversdorfer Weg	2.0	**2.2**	2.1	-5 %	2.1	-5 %
IO T22	Moorredder	2.0	**2.3**	2.3	0 %	2.3	0 %
Travemünde, residential areas							
IO T30	Schwedenstraße	2.0	**2.1**	2.1	0 %	2.0	-5 %
IO T39	Scheteligstraße	2.0	**2.1**	2.0	-5 %	2.0	-5 %
Dummersdorfer Ufer							
IO X	Dummersdorfer Ufer	2.0	**2.1**	2.1	0 %	2.1	0 %

6.7. Forecast Scenario

6.7.1. General Facts

For an assessment of the future air quality situation the pollutant levels have been calculated considering the Forecast Scenario after the Skandinavienkai expansion. In particular, the efficiency of the reduction concepts should be checked, especially concerning delivering power from the wharf. Therefore, the reduction concepts 1a/b and a further limitation of the sulphur content in the fuels during in-port operations of the ships (reduction concept 3) have been taken into account.

The results are listed in Appendix A 6.3 (additional pollution) and Appendix A 7.2 (total pollution).

Appendix A 9 shows corresponding pollution maps for the Forecast Scenario and the reduction concepts 1a and 3. The decreases compared to the Forecast Scenario without emission reductions are illustrated in difference maps on a percentage scale. The maps are restricted to the relevant parameters of the additional sulphur dioxide pollution (annual average values, 24 hours values T03 and 1 hour values S24) and the total sulphur dioxide and nitrogen dioxide pollutions.

6.7.2. Pollution due to Nitrogen Oxides (NOx, Annual Average Value J00)

The annual average values of the pollution due to nitrogen oxides are summarized in Tables 27 and 28 as well as in Figures 45 and 46 (additional and total pollution, respectively). The analysis of the contributions from the different polluter groups shows relevant contributions to the NOx pollution from the shipping and the road traffic. Due to the increase of the shipping traffic the emissions are more determined by the ships' emissions compared to the Actual Scenario.

By supplying the ships with power from the wharf (reduction concepts 1a/1b) decreases of the additional NOx pollution up to 80 % on the Priwall peninsula and about 40 to 60 % in other areas of interest may be achieved. Even at immission points exposed by road traffic (Gneversdorfer Weg) still remain reductions of the additional pollution of approximately 20 %.

Considering the background pollution one finds reductions of the total pollution by an amount up to 45 % on the Priwall peninsula and approximately 10 to 20 % elsewhere.

The further limitation of sulphur content during the in-port operations of the ships (reduction concept 3, use of MGO fuel) leads to only small decreases of the NO_2 pollution. Therefore, also for a combination of concepts 1a/1b and 3 only little further reductions are to be expected.

Figure 45: Additional pollution due to nitrogen oxides (annual average value J00) at representative immission points for shipping and road traffic

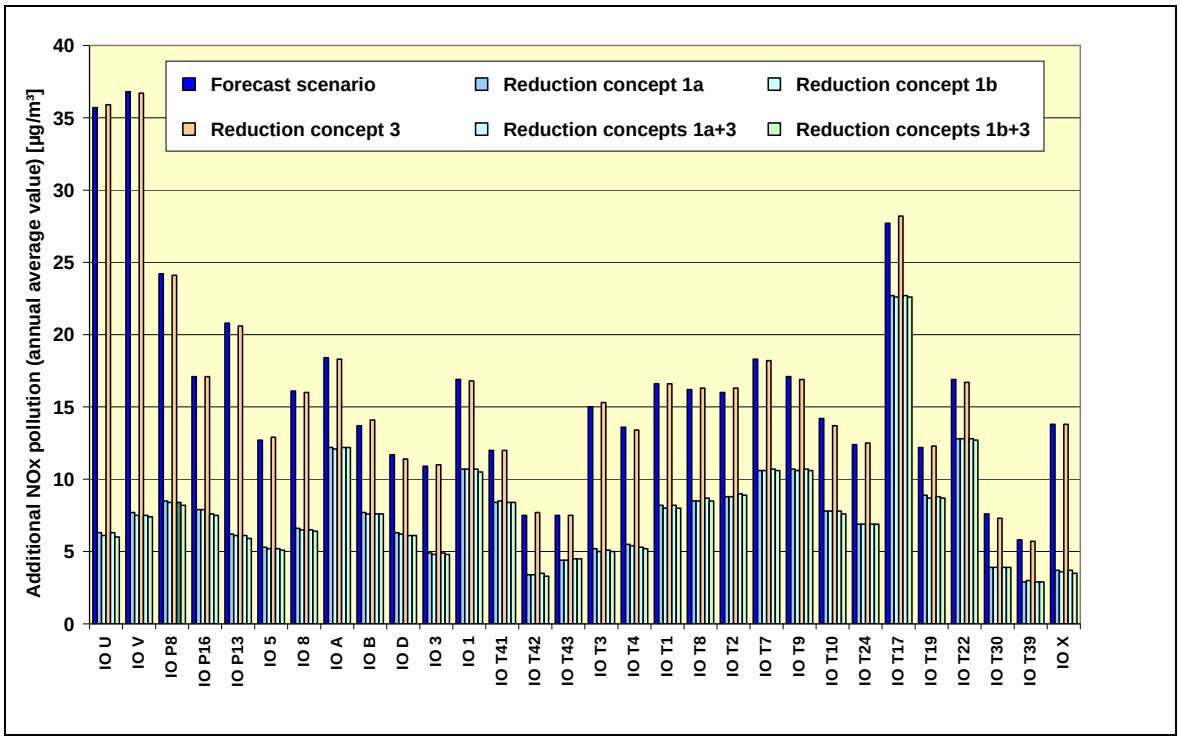


Figure 46: Total pollution due to nitrogen oxides (annual average value J00) at representative immission points

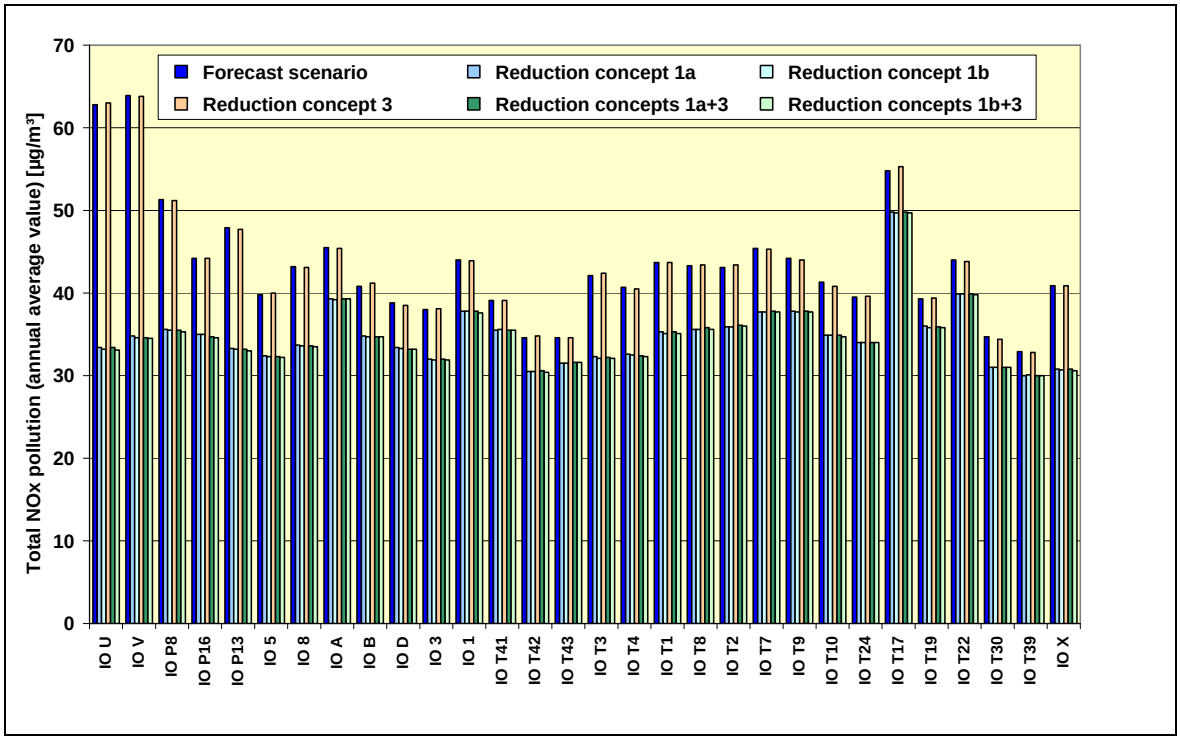


Table 27: Additional pollution due to nitrogen oxides (annual average value J00) at representative immission points for shipping and road traffic

Immission point (monitor point)		Additional NOx pollution (annual average value J00) [µg/m³]												
		Road traffic	Shipping	Sum Forecast Scenario	Reduction concept 1a	Comparison with Forecast Scenario	Reduction concept 1b	Comparison with Forecast Scenario	Reduction concept 3	Comparison with Forecast Scenario	Reduction concepts 1a+3	Comparison with Forecast Scenario	Reduction concepts 1b+3	Comparison with Forecast Scenario
Priwall														
IO U	Priwall/ Traveufer	0.5	35.2	**35.7**	6.3	-82 %	6.1	-83 %	35.9	1 %	6.3	-82 %	6.0	-83 %
IO V	Priwall/ Traveufer	0.5	36.3	**36.8**	7.7	-79 %	7.5	-80 %	36.7	0 %	7.5	-80 %	7.4	-80 %
IO P8	Priwall/ Rosenhof	0.6	23.6	**24.2**	8.5	-65 %	8.4	-65 %	24.1	0 %	8.4	-65 %	8.2	-66 %
IO P16	Priwall/ Krankenhaus	1.9	15.2	**17.1**	7.9	-54 %	7.9	-54 %	17.1	0 %	7.6	-56 %	7.5	-56 %
IO P13	Priwall/ Pötenitzer Weg	0.3	20.5	**20.8**	6.2	-70 %	6.1	-71 %	20.6	-1 %	6.1	-71 %	5.9	-72 %
Pommernzentrum														
IO 5	Rönnauer Weg/ Ivend. L.	2.0	10.7	**12.7**	5.3	-58 %	5.2	-59 %	12.9	2 %	5.2	-59 %	5.1	-60 %
IO 8	Ostseestr./ Pommernz.	2.8	13.3	**16.1**	6.6	-59 %	6.5	-60 %	16.0	-1 %	6.5	-60 %	6.4	-60 %
Ivendorf														
IO A	Ivendorf/ Ovendorfer Str.	10.2	8.2	**18.4**	12.2	-34 %	12.1	-34 %	18.3	-1 %	12.2	-34 %	12.2	-34 %
IO B	Ivendorf/ Ovendorfer Str.	5.6	8.1	**13.7**	7.7	-44 %	7.6	-45 %	14.1	3 %	7.6	-45 %	7.6	-45 %
IO D	Ivendorf/ Ivend. Landstr.	4.4	7.3	**11.7**	6.3	-46 %	6.2	-47 %	11.4	-3 %	6.1	-48 %	6.1	-48 %
Residential area Teutendorfer Weg														
IO 3	Rönnauer Ring	1.8	9.1	**10.9**	4.9	-55 %	4.8	-56 %	11.0	1 %	4.9	-55 %	4.8	-56 %
IO 1	Teutend. Weg/A.d.Bak	7.2	9.7	**16.9**	10.7	-37 %	10.7	-37 %	16.8	-1 %	10.7	-37 %	10.5	-38 %
IO T41	Teutendorfer Weg	6.3	5.7	**12.0**	8.4	-30 %	8.5	-29 %	12.0	0 %	8.4	-30 %	8.4	-30 %
IO T42	Am Krautacker	1.1	6.4	**7.5**	3.4	-55 %	3.4	-55 %	7.7	3 %	3.5	-53 %	3.3	-56 %
IO T43	Hollbeck	2.8	4.7	**7.5**	4.4	-41 %	4.4	-41 %	7.5	0 %	4.5	-40 %	4.5	-40 %
Travemünde, harbour area														
IO T3	Marina Baltica	1.1	13.9	**15.0**	5.2	-65 %	5.0	-67 %	15.3	2 %	5.1	-66 %	5.0	-67 %
IO T4	Fischereihafen	1.4	12.2	**13.6**	5.5	-60 %	5.4	-60 %	13.4	-1 %	5.3	-61 %	5.2	-62 %
Travemünde, old town area														
IO T1	Vorderreihe/ Ostpr.kai	1.8	14.8	**16.6**	8.2	-51 %	8.0	-52 %	16.6	0 %	8.2	-51 %	8.0	-52 %
IO T8	Vorderreihe/ Prinzenbr.	2.2	14.0	**16.2**	8.5	-48 %	8.5	-48 %	16.3	1 %	8.7	-46 %	8.5	-48 %
IO T2	Yachthafen/ Kaiserbr.	2.2	13.8	**16.0**	8.8	-45 %	8.8	-45 %	16.3	2 %	9.0	-44 %	8.9	-44 %
IO T7	Kurgartenstraße	4.9	13.4	**18.3**	10.6	-42 %	10.6	-42 %	18.2	-1 %	10.7	-42 %	10.6	-42 %
IO T9	Am Lotsenberg	4.9	12.2	**17.1**	10.7	-37 %	10.6	-38 %	16.9	-1 %	10.7	-37 %	10.6	-38 %
IO T10	Rose	2.8	11.4	**14.2**	7.8	-45 %	7.8	-45 %	13.7	-4 %	7.8	-45 %	7.6	-46 %
IO T24	Parkallee/ Kurhaus	1.3	11.1	**12.4**	6.9	-44 %	6.9	-44 %	12.5	1 %	6.9	-44 %	6.9	-44 %
Travemünde, areas exposed by road traffic														
IO T17	Gneversdorfer Weg	19.1	8.6	**27.7**	22.7	-18 %	22.6	-18 %	28.2	2 %	22.7	-18 %	22.6	-18 %
IO T19	Gneversdorfer Weg	6.5	5.7	**12.2**	8.9	-27 %	8.7	-29 %	12.3	1 %	8.8	-28 %	8.7	-29 %
IO T22	Moorredder	9.6	7.3	**16.9**	12.8	-24 %	12.8	-24 %	16.7	-1 %	12.8	-24 %	12.7	-25 %
Travemünde, residential areas														
IO T30	Schwedenstraße	1.4	6.2	**7.6**	3.9	-49 %	3.9	-49 %	7.3	-4 %	3.9	-49 %	3.9	-49 %
IO T39	Scheteligstraße	0.7	5.1	**5.8**	2.9	-50 %	3.0	-48 %	5.7	-2 %	2.9	-50 %	2.9	-50 %
Dummersdorfer Ufer														
IO X	Dummersdorfer Ufer	0.8	13.0	**13.8**	3.7	-73 %	3.6	-74 %	13.8	0 %	3.7	-73 %	3.5	-75 %

Table 28: Total pollution due to nitrogen oxides (annual average value J00) at representative immission points

Immission point (monitor point)		Total NOx pollution (annual average value J00) [µg/m³]											
		Background pollution	Forecast Scenario	Reduction concept 1a	Comparison with Forecast Scenario	Reduction concept 1b	Comparison with Forecast Scenario	Reduction concept 3	Comparison with Forecast Scenario	Reduction concepts 1a+3	Comparison with Forecast Scenario	Reduction concepts 1b+3	Comparison with Forecast Scenario
Priwall													
IO U	Priwall/ Traveufer	27.1	**62.8**	33.4	-47 %	33.2	-47 %	63.0	0 %	33.4	-47 %	33.1	-47 %
IO V	Priwall/ Traveufer	27.1	**63.9**	34.8	-46 %	34.6	-46 %	63.8	0 %	34.6	-46 %	34.5	-46 %
IO P8	Priwall/ Rosenhof	27.1	**51.3**	35.6	-31 %	35.5	-31 %	51.2	0 %	35.5	-31 %	35.3	-31 %
IO P16	Priwall/ Krankenhaus	27.1	**44.2**	35.0	-21 %	35.0	-21 %	44.2	0 %	34.7	-21 %	34.6	-22 %
IO P13	Priwall/ Pötenitzer Weg	27.1	**47.9**	33.3	-30 %	33.2	-31 %	47.7	0 %	33.2	-31 %	33.0	-31 %
Pommernzentrum													
IO 5	Rönnauer Weg/ Ivend. L.	27.1	**39.8**	32.4	-19 %	32.3	-19 %	40.0	1 %	32.3	-19 %	32.2	-19 %
IO 8	Ostseestr./ Pommernz.	27.1	**43.2**	33.7	-22 %	33.6	-22 %	43.1	0 %	33.6	-22 %	33.5	-22 %
Ivendorf													
IO A	Ivendorf/ Ovendorfer Str.	27.1	**45.5**	39.3	-14 %	39.2	-14 %	45.4	0 %	39.3	-14 %	39.3	-14 %
IO B	Ivendorf/ Ovendorfer Str.	27.1	**40.8**	34.8	-15 %	34.7	-15 %	41.2	1 %	34.7	-15 %	34.7	-15 %
IO D	Ivendorf/ Ivend. Landstr.	27.1	**38.8**	33.4	-14 %	33.3	-14 %	38.5	-1 %	33.2	-14 %	33.2	-14 %
Residential area Teutendorfer Weg													
IO 3	Rönnauer Ring	27.1	**38.0**	32.0	-16 %	31.9	-16 %	38.1	0 %	32.0	-16 %	31.9	-16 %
IO 1	Teutend. Weg/A.d.Bak	27.1	**44.0**	37.8	-14 %	37.8	-14 %	43.9	0 %	37.8	-14 %	37.6	-15 %
IO T41	Teutendorfer Weg	27.1	**39.1**	35.5	-9 %	35.6	-9 %	39.1	0 %	35.5	-9 %	35.5	-9 %
IO T42	Am Krautacker	27.1	**34.6**	30.5	-12 %	30.5	-12 %	34.8	1 %	30.6	-12 %	30.4	-12 %
IO T43	Hollbeck	27.1	**34.6**	31.5	-9 %	31.5	-9 %	34.6	0 %	31.6	-9 %	31.6	-9 %
Travemünde, harbour area													
IO T3	Marina Baltica	27.1	**42.1**	32.3	-23 %	32.1	-24 %	42.4	1 %	32.2	-24 %	32.1	-24 %
IO T4	Fischereihafen	27.1	**40.7**	32.6	-20 %	32.5	-20 %	40.5	0 %	32.4	-20 %	32.3	-21 %
Travemünde, old town area													
IO T1	Vorderreihe/ Ostpr.kai	27.1	**43.7**	35.3	-19 %	35.1	-20 %	43.7	0 %	35.3	-19 %	35.1	-20 %
IO T8	Vorderreihe/ Prinzenbr.	27.1	**43.3**	35.6	-18 %	35.6	-18 %	43.4	0 %	35.8	-17 %	35.6	-18 %
IO T2	Yachthafen/ Kaiserbr.	27.1	**43.1**	35.9	-17 %	35.9	-17 %	43.4	1 %	36.1	-16 %	36.0	-16 %
IO T7	Kurgartenstraße	27.1	**45.4**	37.7	-17 %	37.7	-17 %	45.3	0 %	37.8	-17 %	37.7	-17 %
IO T9	Am Lotsenberg	27.1	**44.2**	37.8	-14 %	37.7	-15 %	44.0	0 %	37.8	-14 %	37.7	-15 %
IO T10	Rose	27.1	**41.3**	34.9	-15 %	34.9	-15 %	40.8	-1 %	34.9	-15 %	34.7	-16 %
IO T24	Parkallee/ Kurhaus	27.1	**39.5**	34.0	-14 %	34.0	-14 %	39.6	0 %	34.0	-14 %	34.0	-14 %
Travemünde, areas exposed by road traffic													
IO T17	Gneversdorfer Weg	27.1	**54.8**	49.8	-9 %	49.7	-9 %	55.3	1 %	49.8	-9 %	49.7	-9 %
IO T19	Gneversdorfer Weg	27.1	**39.3**	36.0	-8 %	35.8	-9 %	39.4	0 %	35.9	-9 %	35.8	-9 %
IO T22	Moorredder	27.1	**44.0**	39.9	-9 %	39.9	-9 %	43.8	0 %	39.9	-9 %	39.8	-10 %
Travemünde, residential areas													
IO T30	Schwedenstraße	27.1	**34.7**	31.0	-11 %	31.0	-11 %	34.4	-1 %	31.0	-11 %	31.0	-11 %
IO T39	Scheteligstraße	27.1	**32.9**	30.0	-9 %	30.1	-9 %	32.8	0 %	30.0	-9 %	30.0	-9 %
Dummersdorfer Ufer													
IO X	Dummersdorfer Ufer	27.1	**40.9**	30.8	-25 %	30.7	-25 %	40.9	0 %	30.8	-25 %	30.6	-25 %

6.7.3. Pollution due to Nitrogen Oxides (NOx, 98 Percentile)

The 98 percentiles of the total NOx pollution are shown in Table 29 and Figure 47. As the 98 percentile is used as an auxiliary parameter for estimating the 1 hour values an illustration of the additional pollution has been abandoned.

In the areas dominated by shipping, considerable decreases of the total pollution up to approximately 70 % due to reduction concepts 1a/1b can be achieved (Priwall). In the other relevant areas one finds reductions between 30 and 50 %.

Only a small decrease has been determined for reduction concept 3, even in combination with concepts 1a/1b.

Figure 47: Total pollution due to nitrogen oxides (98 percentile) at representative immission points

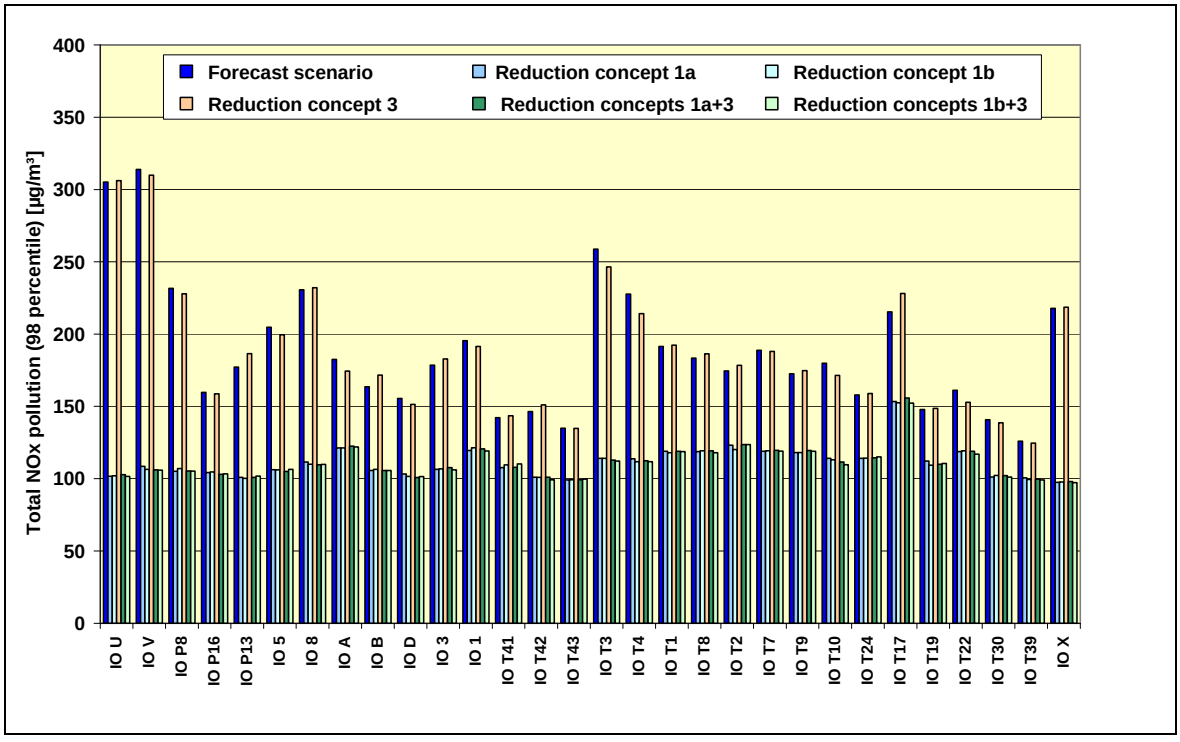


Table 29: Total pollution due to nitrogen oxides (98 percentile) at representative immission points

Immission point (monitor point)		Total NOx pollution (98 percentile) [µg/m³]											
		Background pollution	Forecast Scenario	Reduction concept 1a	Comparison with Forecast Scenario	Reduction concept 1b	Comparison with Forecast Scenario	Reduction concept 3	Comparison with Forecast Scenario	Reduction concepts 1a+3	Comparison with Forecast Scenario	Reduction concepts 1b+3	Comparison with Forecast Scenario
Priwall													
IO U	Priwall/ Traveufer	89.8	**305.1**	101.7	-67 %	102.0	-67 %	306.1	0 %	102.8	-66 %	101.6	-67 %
IO V	Priwall/ Traveufer	89.8	**313.9**	108.5	-65 %	106.4	-66 %	309.9	-1 %	106.1	-66 %	105.9	-66 %
IO P8	Priwall/ Rosenhof	89.8	**231.6**	105.1	-55 %	107.0	-54 %	227.9	-2 %	105.3	-55 %	105.2	-55 %
IO P16	Priwall/ Krankenhaus	89.8	**159.7**	104.2	-35 %	104.7	-34 %	158.7	-1 %	103.0	-36 %	103.3	-35 %
IO P13	Priwall/ Pötenitzer Weg	89.8	**177.1**	100.9	-43 %	100.2	-43 %	186.5	5 %	100.9	-43 %	101.8	-43 %
Pommernzentrum													
IO 5	Rönnauer Weg/ Ivend. L.	89.8	**204.8**	106.2	-48 %	106.1	-48 %	199.5	-3 %	105.0	-49 %	106.5	-48 %
IO 8	Ostseestr./ Pommernz.	89.8	**230.7**	111.6	-52 %	110.0	-52 %	232.1	1 %	109.7	-52 %	109.8	-52 %
Ivendorf													
IO A	Ivendorf/ Ovendorfer Str.	89.8	**182.5**	121.3	-34 %	121.3	-34 %	174.4	-4 %	122.5	-33 %	121.9	-33 %
IO B	Ivendorf/ Ovendorfer Str.	89.8	**163.6**	105.6	-35 %	106.4	-35 %	171.6	5 %	105.6	-35 %	105.6	-35 %
IO D	Ivendorf/ Ivend. Landstr.	89.8	**155.5**	103.2	-34 %	101.6	-35 %	151.4	-3 %	100.8	-35 %	101.4	-35 %
Residential area Teutendorfer Weg													
IO 3	Rönnauer Ring	89.8	**178.5**	106.5	-40 %	106.8	-40 %	182.8	2 %	107.7	-40 %	106.1	-41 %
IO 1	Teutend. Weg/A.d.Bak	89.8	**195.4**	119.5	-39 %	121.4	-38 %	191.5	-2 %	120.6	-38 %	119.2	-39 %
IO T41	Teutendorfer Weg	89.8	**142.2**	107.6	-24 %	109.5	-23 %	143.5	1 %	107.8	-24 %	110.2	-23 %
IO T42	Am Krautacker	89.8	**146.4**	101.0	-31 %	100.9	-31 %	151.0	3 %	101.0	-31 %	99.3	-32 %
IO T43	Hollbeck	89.8	**134.9**	99.1	-27 %	99.3	-26 %	134.8	0 %	99.3	-26 %	99.7	-26 %
Travemünde, harbour area													
IO T3	Marina Baltica	89.8	**258.7**	114.1	-56 %	114.1	-56 %	246.5	-5 %	112.9	-56 %	112.2	-57 %
IO T4	Fischereihafen	89.8	**227.6**	113.7	-50 %	111.7	-51 %	214.1	-6 %	112.4	-51 %	111.7	-51 %
Travemünde, old town area													
IO T1	Vorderreihe/ Ostpr.kai	89.8	**191.5**	118.9	-38 %	118.0	-38 %	192.3	0 %	119.0	-38 %	118.8	-38 %
IO T8	Vorderreihe/ Prinzenbr.	89.8	**183.4**	118.7	-35 %	119.3	-35 %	186.4	2 %	119.3	-35 %	117.9	-36 %
IO T2	Yachthafen/ Kaiserbr.	89.8	**174.5**	123.2	-29 %	120.2	-31 %	178.4	2 %	123.6	-29 %	123.6	-29 %
IO T7	Kurgartenstraße	89.8	**188.8**	119.0	-37 %	119.3	-37 %	188.0	0 %	119.6	-37 %	119.1	-37 %
IO T9	Am Lotsenberg	89.8	**172.5**	118.1	-32 %	118.1	-32 %	174.7	1 %	119.5	-31 %	118.9	-31 %
IO T10	Rose	89.8	**179.8**	114.1	-37 %	113.1	-37 %	171.4	-5 %	111.5	-38 %	109.7	-39 %
IO T24	Parkallee/ Kurhaus	89.8	**157.9**	114.1	-28 %	114.2	-28 %	158.9	1 %	114.4	-28 %	115.1	-27 %
Travemünde, areas exposed by road traffic													
IO T17	Gneversdorfer Weg	89.8	**215.3**	153.4	-29 %	152.5	-29 %	228.1	6 %	155.8	-28 %	152.2	-29 %
IO T19	Gneversdorfer Weg	89.8	**147.9**	112.2	-24 %	109.3	-26 %	148.6	0 %	110.0	-26 %	110.5	-25 %
IO T22	Moorredder	89.8	**161.1**	118.7	-26 %	119.3	-26 %	152.8	-5 %	118.9	-26 %	117.0	-27 %
Travemünde, residential areas													
IO T30	Schwedenstraße	89.8	**140.8**	101.1	-28 %	102.2	-27 %	138.6	-2 %	102.1	-27 %	101.1	-28 %
IO T39	Scheteligstraße	89.8	**125.9**	100.6	-20 %	99.5	-21 %	124.6	-1 %	99.7	-21 %	99.1	-21 %
Dummersdorfer Ufer													
IO X	Dummersdorfer Ufer	89.8	**217.8**	97.5	-55 %	97.7	-55 %	218.6	0 %	98.0	-55 %	97.3	-55 %

6.7.4. Nitrogen Dioxide Pollution (NO_2, Annual Average Value J00)

The annual average values of the total pollution due to nitrogen dioxide are listed in Table 30 and shown in Figure 48. Area-wide pollution maps can be found in Appendix A 9.5.

In the case of delivering power supply from the wharf (reduction concepts 1a/1b), one expects decreases of the annual average values of NO_2 pollution up to 35 % on the Priwall peninsula. In the other relevant areas in need of protection the reductions show an order of magnitude of about 10 to 15 %. One finds minor reductions at immission points exposed by road traffic (Gneversdorfer Weg) by about 7 %.

The further limitation of the sulphur content (reduction concept 3) only leads to small decreases of the NO_2 pollution. Therefore, also for a combination of concepts 1a/1b and 3 only little further reductions are to be expected.

Figure 48: Total nitrogen dioxide pollution (annual average value J00) at representative immission points

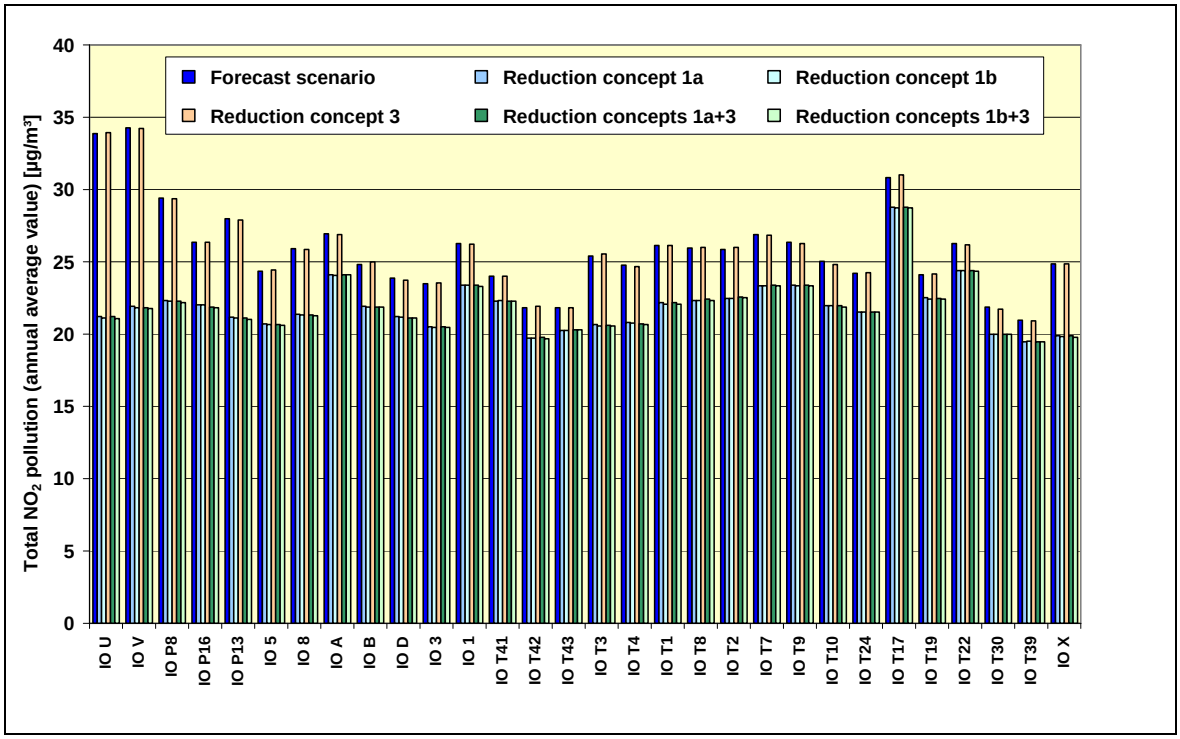


Table 30: Total nitrogen dioxide pollution (annual average value J00) at representative immission points

Immission point (monitor point)		Total NO_2 pollution (annual average value J00) [µg/m³]											
		Background pollution	Forecast Scenario	Reduction concept 1a	Comparison with Forecast Scenario	Reduction concept 1b	Comparison with Forecast Scenario	Reduction concept 3	Comparison with Forecast Scenario	Reduction concepts 1a+3	Comparison with Forecast Scenario	Reduction concepts 1b+3	Comparison with Forecast Scenario
Priwall													
IO U	Priwall/ Traveufer	17.8	**33.9**	21.2	-37 %	21.1	-38 %	33.9	0 %	21.2	-37 %	21.1	-38 %
IO V	Priwall/ Traveufer	17.8	**34.3**	21.9	-36 %	21.8	-36 %	34.2	0 %	21.8	-36 %	21.8	-36 %
IO P8	Priwall/ Rosenhof	17.8	**29.4**	22.3	-24 %	22.3	-24 %	29.4	0 %	22.3	-24 %	22.2	-25 %
IO P16	Priwall/ Krankenhaus	17.8	**26.4**	22.0	-16 %	22.0	-16 %	26.4	0 %	21.9	-17 %	21.8	-17 %
IO P13	Priwall/ Pötenitzer Weg	17.8	**28.0**	21.2	-24 %	21.1	-24 %	27.9	0 %	21.1	-24 %	21.0	-25 %
Pommernzentrum													
IO 5	Rönnauer Weg/ Ivend. L.	17.8	**24.3**	20.7	-15 %	20.7	-15 %	24.4	0 %	20.7	-15 %	20.6	-15 %
IO 8	Ostseestr./ Pommernz.	17.8	**25.9**	21.4	-18 %	21.3	-18 %	25.9	0 %	21.3	-18 %	21.3	-18 %
Ivendorf													
IO A	Ivendorf/ Ovendorfer Str.	17.8	**26.9**	24.1	-10 %	24.1	-11 %	26.9	0 %	24.1	-10 %	24.1	-10 %
IO B	Ivendorf/ Ovendorfer Str.	17.8	**24.8**	21.9	-12 %	21.9	-12 %	25.0	1 %	21.9	-12 %	21.9	-12 %
IO D	Ivendorf/ Ivend. Landstr.	17.8	**23.9**	21.2	-11 %	21.2	-11 %	23.7	-1 %	21.1	-12 %	21.1	-12 %
Residential area Teutendorfer Weg													
IO 3	Rönnauer Ring	17.8	**23.5**	20.5	-13 %	20.5	-13 %	23.5	0 %	20.5	-13 %	20.5	-13 %
IO 1	Teutend. Weg/A.d.Bak	17.8	**26.3**	23.4	-11 %	23.4	-11 %	26.2	0 %	23.4	-11 %	23.3	-11 %
IO T41	Teutendorfer Weg	17.8	**24.0**	22.3	-7 %	22.3	-7 %	24.0	0 %	22.3	-7 %	22.3	-7 %
IO T42	Am Krautacker	17.8	**21.8**	19.7	-10 %	19.7	-10 %	21.9	0 %	19.8	-9 %	19.7	-10 %
IO T43	Hollbeck	17.8	**21.8**	20.2	-7 %	20.2	-7 %	21.8	0 %	20.3	-7 %	20.3	-7 %
Travemünde, harbour area													
IO T3	Marina Baltica	17.8	**25.4**	20.7	-19 %	20.6	-19 %	25.5	1 %	20.6	-19 %	20.6	-19 %
IO T4	Fischereihafen	17.8	**24.8**	20.8	-16 %	20.8	-16 %	24.7	0 %	20.7	-16 %	20.7	-17 %
Travemünde, old town area													
IO T1	Vorderreihe/ Ostpr.kai	17.8	**26.1**	22.2	-15 %	22.1	-16 %	26.1	0 %	22.2	-15 %	22.1	-16 %
IO T8	Vorderreihe/ Prinzenbr.	17.8	**26.0**	22.3	-14 %	22.3	-14 %	26.0	0 %	22.4	-14 %	22.3	-14 %
IO T2	Yachthafen/ Kaiserbr.	17.8	**25.9**	22.5	-13 %	22.5	-13 %	26.0	1 %	22.6	-13 %	22.5	-13 %
IO T7	Kurgartenstraße	17.8	**26.9**	23.3	-13 %	23.3	-13 %	26.8	0 %	23.4	-13 %	23.3	-13 %
IO T9	Am Lotsenberg	17.8	**26.4**	23.4	-11 %	23.3	-11 %	26.3	0 %	23.4	-11 %	23.3	-11 %
IO T10	Rose	17.8	**25.0**	22.0	-12 %	22.0	-12 %	24.8	-1 %	22.0	-12 %	21.9	-13 %
IO T24	Parkallee/ Kurhaus	17.8	**24.2**	21.5	-11 %	21.5	-11 %	24.2	0 %	21.5	-11 %	21.5	-11 %
Travemünde, areas exposed by road traffic													
IO T17	Gneversdorfer Weg	17.8	**30.8**	28.8	-7 %	28.7	-7 %	31.0	1 %	28.8	-7 %	28.7	-7 %
IO T19	Gneversdorfer Weg	17.8	**24.1**	22.5	-7 %	22.4	-7 %	24.2	0 %	22.5	-7 %	22.4	-7 %
IO T22	Moorredder	17.8	**26.3**	24.4	-7 %	24.4	-7 %	26.2	0 %	24.4	-7 %	24.3	-7 %
Travemünde, residential areas													
IO T30	Schwedenstraße	17.8	**21.9**	20.0	-9 %	20.0	-9 %	21.7	-1 %	20.0	-9 %	20.0	-9 %
IO T39	Scheteligstraße	17.8	**21.0**	19.5	-7 %	19.5	-7 %	20.9	0 %	19.5	-7 %	19.5	-7 %
Dummersdorfer Ufer													
IO X	Dummersdorfer Ufer	17.8	**24.9**	19.9	-20 %	19.8	-20 %	24.9	0 %	19.9	-20 %	19.8	-20 %

6.7.5. Nitrogen Dioxide Pollution (NO_2, 98 Percentile)

Table 31 and Figure 49 contain the 98 percentile values of the total nitrogen dioxide pollution.

In summary, the reduction concepts 1a/1b lead to decreases up to 40 % nitrogen dioxide pollution on the Priwall peninsula. At the Pommernzentrum and the Fischereihafen reductions up to 30 % are expected. In the other areas of interest the reductions of the 98 percentiles have been estimated between approximately 15 and 20 %.

For the reduction concept 3 only little decreases have been determined.

Figure 49: Total nitrogen dioxide pollution (98 percentile) at representative immission points

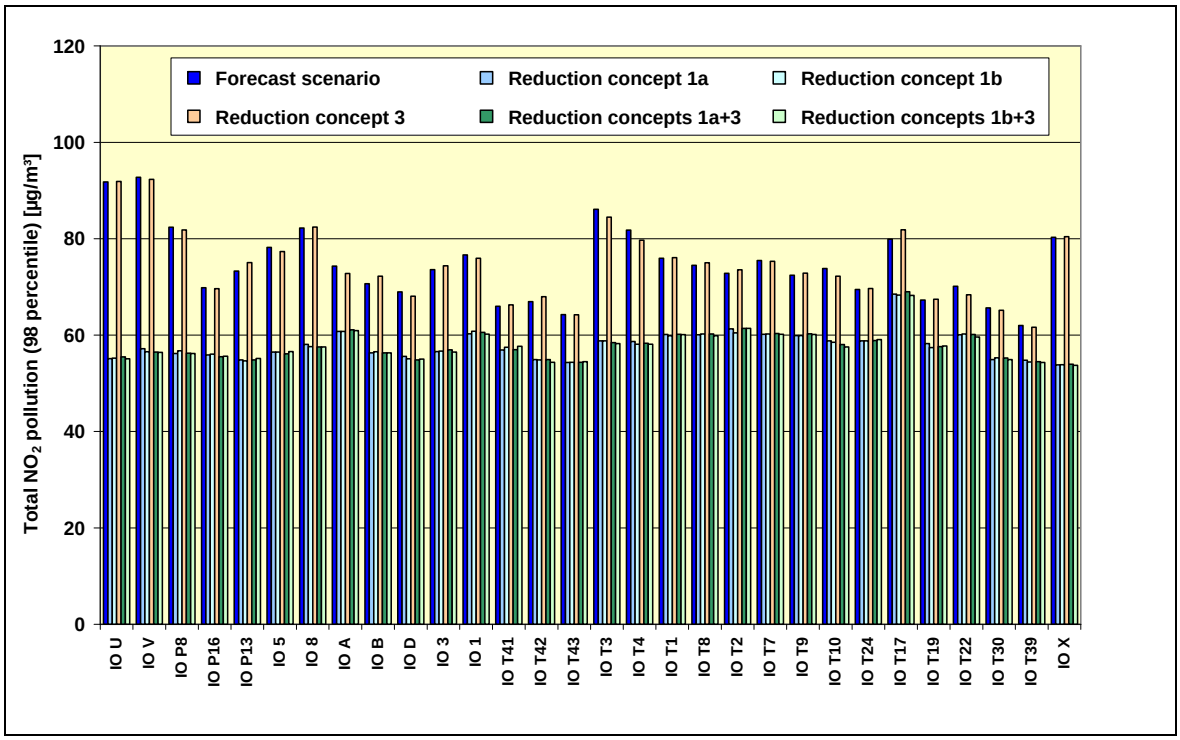


Table 31: Total nitrogen dioxide pollution (98 percentile) at representative immission points

Immission point (monitor point)		Total NO_2 pollution (98 percentile) [µg/m³]											
		Background pollution	Forecast Scenario	Reduction concept 1a	Comparison with Forecast Scenario	Reduction concept 1b	Comparison with Forecast Scenario	Reduction concept 3	Comparison with Forecast Scenario	Reduction concepts 1a+3	Comparison with Forecast Scenario	Reduction concepts 1b+3	Comparison with Forecast Scenario
Priwall													
IO U	Priwall/ Traveufer	48.0	**91.8**	55.1	-40 %	55.2	-40 %	91.9	0 %	55.5	-40 %	55.1	-40 %
IO V	Priwall/ Traveufer	48.0	**92.7**	57.2	-38 %	56.5	-39 %	92.3	0 %	56.5	-39 %	56.4	-39 %
IO P8	Priwall/ Rosenhof	48.0	**82.4**	56.2	-32 %	56.7	-31 %	81.8	-1 %	56.2	-32 %	56.2	-32 %
IO P16	Priwall/ Krankenhaus	48.0	**69.8**	55.9	-20 %	56.0	-20 %	69.6	0 %	55.5	-21 %	55.6	-20 %
IO P13	Priwall/ Pötenitzer Weg	48.0	**73.3**	54.9	-25 %	54.6	-25 %	75.0	2 %	54.9	-25 %	55.1	-25 %
Pommernzentrum													
IO 5	Rönnauer Weg/ Ivend. L.	48.0	**78.2**	56.5	-28 %	56.5	-28 %	77.3	-1 %	56.1	-28 %	56.6	-28 %
IO 8	Ostseestr./ Pommernz.	48.0	**82.2**	58.1	-29 %	57.6	-30 %	82.4	0 %	57.5	-30 %	57.6	-30 %
Ivendorf													
IO A	Ivendorf/ Ovendorfer Str.	48.0	**74.3**	60.8	-18 %	60.8	-18 %	72.8	-2 %	61.1	-18 %	60.9	-18 %
IO B	Ivendorf/ Ovendorfer Str.	48.0	**70.6**	56.3	-20 %	56.5	-20 %	72.2	2 %	56.3	-20 %	56.3	-20 %
IO D	Ivendorf/ Ivend. Landstr.	48.0	**68.9**	55.6	-19 %	55.1	-20 %	68.1	-1 %	54.8	-20 %	55.0	-20 %
Residential area Teutendorfer Weg													
IO 3	Rönnauer Ring	48.0	**73.6**	56.6	-23 %	56.7	-23 %	74.4	1 %	56.9	-23 %	56.5	-23 %
IO 1	Teutend. Weg/A.d.Bak	48.0	**76.6**	60.3	-21 %	60.8	-21 %	75.9	-1 %	60.6	-21 %	60.2	-21 %
IO T41	Teutendorfer Weg	48.0	**66.0**	56.9	-14 %	57.5	-13 %	66.3	0 %	57.0	-14 %	57.7	-13 %
IO T42	Am Krautacker	48.0	**66.9**	54.9	-18 %	54.9	-18 %	68.0	2 %	54.9	-18 %	54.4	-19 %
IO T43	Hollbeck	48.0	**64.2**	54.3	-15 %	54.4	-15 %	64.2	0 %	54.4	-15 %	54.5	-15 %
Travemünde, harbour area													
IO T3	Marina Baltica	48.0	**86.1**	58.8	-32 %	58.8	-32 %	84.5	-2 %	58.4	-32 %	58.2	-32 %
IO T4	Fischereihafen	48.0	**81.8**	58.7	-28 %	58.1	-29 %	79.7	-3 %	58.3	-29 %	58.1	-29 %
Travemünde, old town area													
IO T1	Vorderreihe/ Ostpr.kai	48.0	**75.9**	60.1	-21 %	59.9	-21 %	76.1	0 %	60.1	-21 %	60.1	-21 %
IO T8	Vorderreihe/ Prinzenbr.	48.0	**74.5**	60.1	-19 %	60.2	-19 %	75.0	1 %	60.2	-19 %	59.8	-20 %
IO T2	Yachthafen/ Kaiserbr.	48.0	**72.8**	61.3	-16 %	60.5	-17 %	73.5	1 %	61.4	-16 %	61.4	-16 %
IO T7	Kurgartenstraße	48.0	**75.4**	60.1	-20 %	60.2	-20 %	75.3	0 %	60.3	-20 %	60.2	-20 %
IO T9	Am Lotsenberg	48.0	**72.4**	59.9	-17 %	59.9	-17 %	72.8	1 %	60.3	-17 %	60.1	-17 %
IO T10	Rose	48.0	**73.8**	58.8	-20 %	58.5	-21 %	72.2	-2 %	58.0	-21 %	57.5	-22 %
IO T24	Parkallee/ Kurhaus	48.0	**69.5**	58.8	-15 %	58.8	-15 %	69.7	0 %	58.9	-15 %	59.1	-15 %
Travemünde, areas exposed by road traffic													
IO T17	Gneversdorfer Weg	48.0	**79.9**	68.5	-14 %	68.3	-15 %	81.8	2 %	69.0	-14 %	68.2	-15 %
IO T19	Gneversdorfer Weg	48.0	**67.3**	58.2	-13 %	57.4	-15 %	67.4	0 %	57.6	-14 %	57.8	-14 %
IO T22	Moorredder	48.0	**70.1**	60.1	-14 %	60.2	-14 %	68.4	-3 %	60.1	-14 %	59.6	-15 %
Travemünde, residential areas													
IO T30	Schwedenstraße	48.0	**65.6**	54.9	-16 %	55.3	-16 %	65.1	-1 %	55.2	-16 %	54.9	-16 %
IO T39	Scheteligstraße	48.0	**62.0**	54.8	-12 %	54.4	-12 %	61.6	-1 %	54.5	-12 %	54.3	-12 %
Dummersdorfer Ufer													
IO X	Dummersdorfer Ufer	48.0	**80.3**	53.8	-33 %	53.9	-33 %	80.4	0 %	54.0	-33 %	53.7	-33 %

6.7.6. Nitrogen Dioxide Pollution (NO_2, 1 Hour Value S18)

The parameter S18 is defined by the 1 hour value exceeded 18 times in a calendar year. A listing of the total pollution due to nitrogen dioxide is shown in Table 32 and Figure 50.

As a first statement in summary, the limit value of 200 µg/m³ according to the EU and the 22. BImSchV will be not achieved, also considering the Forecast Scenario without reduction concepts.

Considering the reduction concepts 1a/1b comparable decreases as for the 98 percentiles have been estimated:

- up to 40 % on the Priwall peninsula;
- about 30 % at the Pommernzentrum and the Fischereihafen;
- about 15 to 20 % in the other relevant areas.

For the reduction concept 3 only little decreases have been determined.

Figure 51: Total nitrogen dioxide pollution (1 hour value S18) at representative immission points

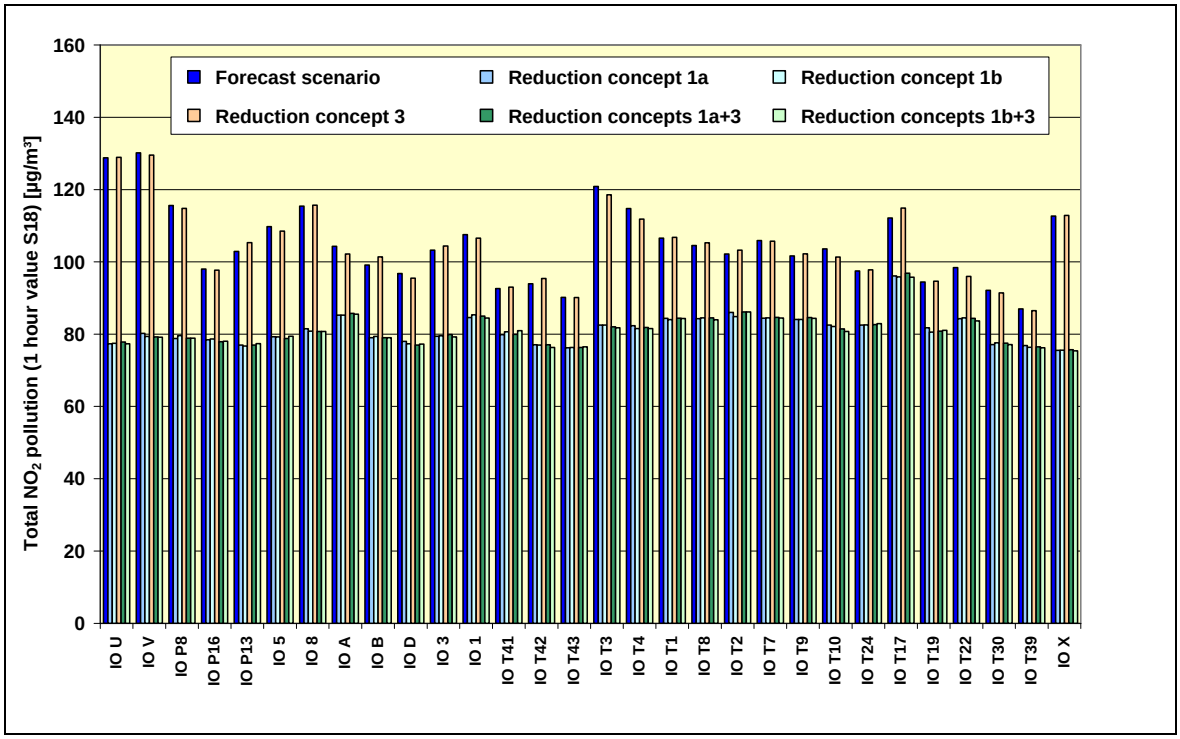


Table 32: Total nitrogen dioxide pollution (1 hour value S18) at representative immission points

Immission point (monitor point)		Total NO_2 pollution (1 hour value S18) [µg/m³]											
		Background pollution	Forecast Scenario	Reduction concept 1a	Comparison with Forecast Scenario	Reduction concept 1b	Comparison with Forecast Scenario	Reduction concept 3	Comparison with Forecast Scenario	Reduction concepts 1a+3	Comparison with Forecast Scenario	Reduction concepts 1b+3	Comparison with Forecast Scenario
Priwall													
IO U	Priwall/ Traveufer	65.5	128.8	77.4	-40 %	77.5	-40 %	128.9	0 %	77.8	-40 %	77.3	-40 %
IO V	Priwall/ Traveufer	65.5	130.1	80.2	-38 %	79.4	-39 %	129.5	0 %	79.2	-39 %	79.2	-39 %
IO P8	Priwall/ Rosenhof	65.5	115.6	78.8	-32 %	79.6	-31 %	114.8	-1 %	78.9	-32 %	78.9	-32 %
IO P16	Priwall/ Krankenhaus	65.5	98.0	78.4	-20 %	78.6	-20 %	97.7	0 %	77.9	-21 %	78.0	-20 %
IO P13	Priwall/ Pötenitzer Weg	65.5	102.9	77.0	-25 %	76.7	-25 %	105.3	2 %	77.0	-25 %	77.4	-25 %
Pommernzentrum													
IO 5	Rönnauer Weg/ Ivend. L.	65.5	109.7	79.3	-28 %	79.2	-28 %	108.5	-1 %	78.8	-28 %	79.4	-28 %
IO 8	Ostseestr./ Pommernz.	65.5	115.4	81.5	-29 %	80.9	-30 %	115.7	0 %	80.7	-30 %	80.8	-30 %
Ivendorf													
IO A	Ivendorf/ Ovendorfer Str.	65.5	104.3	85.3	-18 %	85.3	-18 %	102.1	-2 %	85.7	-18 %	85.5	-18 %
IO B	Ivendorf/ Ovendorfer Str.	65.5	99.1	79.0	-20 %	79.4	-20 %	101.4	2 %	79.0	-20 %	79.0	-20 %
IO D	Ivendorf/ Ivend. Landstr.	65.5	96.8	78.0	-19 %	77.3	-20 %	95.5	-1 %	77.0	-20 %	77.2	-20 %
Residential area Teutendorfer Weg													
IO 3	Rönnauer Ring	65.5	103.2	79.4	-23 %	79.5	-23 %	104.4	1 %	79.9	-23 %	79.2	-23 %
IO 1	Teutend. Weg/A.d.Bak	65.5	107.5	84.6	-21 %	85.3	-21 %	106.6	-1 %	85.0	-21 %	84.5	-21 %
IO T41	Teutendorfer Weg	65.5	92.6	79.9	-14 %	80.6	-13 %	93.0	0 %	79.9	-14 %	80.9	-13 %
IO T42	Am Krautacker	65.5	94.0	77.0	-18 %	77.0	-18 %	95.4	2 %	77.0	-18 %	76.3	-19 %
IO T43	Hollbeck	65.5	90.2	76.2	-15 %	76.3	-15 %	90.1	0 %	76.3	-15 %	76.5	-15 %
Travemünde, harbour area													
IO T3	Marina Baltica	65.5	120.9	82.5	-32 %	82.5	-32 %	118.6	-2 %	82.0	-32 %	81.7	-32 %
IO T4	Fischereihafen	65.5	114.8	82.3	-28 %	81.5	-29 %	111.9	-3 %	81.8	-29 %	81.5	-29 %
Travemünde, old town area													
IO T1	Vorderreihe/ Ostpr.kai	65.5	106.6	84.4	-21 %	84.0	-21 %	106.8	0 %	84.4	-21 %	84.3	-21 %
IO T8	Vorderreihe/ Prinzenbr.	65.5	104.5	84.3	-19 %	84.5	-19 %	105.3	1 %	84.5	-19 %	84.0	-20 %
IO T2	Yachthafen/ Kaiserbr.	65.5	102.2	86.0	-16 %	84.9	-17 %	103.2	1 %	86.1	-16 %	86.1	-16 %
IO T7	Kurgartenstraße	65.5	105.9	84.4	-20 %	84.5	-20 %	105.7	0 %	84.6	-20 %	84.4	-20 %
IO T9	Am Lotsenberg	65.5	101.6	84.1	-17 %	84.1	-17 %	102.2	1 %	84.6	-17 %	84.4	-17 %
IO T10	Rose	65.5	103.6	82.5	-20 %	82.1	-21 %	101.3	-2 %	81.5	-21 %	80.7	-22 %
IO T24	Parkallee/ Kurhaus	65.5	97.5	82.5	-15 %	82.5	-15 %	97.8	0 %	82.6	-15 %	82.9	-15 %
Travemünde, areas exposed by road traffic													
IO T17	Gneversdorfer Weg	65.5	112.1	96.1	-14 %	95.9	-15 %	114.9	2 %	96.9	-14 %	95.8	-15 %
IO T19	Gneversdorfer Weg	65.5	94.4	81.7	-13 %	80.6	-15 %	94.6	0 %	80.9	-14 %	81.1	-14 %
IO T22	Moorredder	65.5	98.4	84.3	-14 %	84.5	-14 %	95.9	-3 %	84.4	-14 %	83.6	-15 %
Travemünde, residential areas													
IO T30	Schwedenstraße	65.5	92.1	77.1	-16 %	77.6	-16 %	91.4	-1 %	77.5	-16 %	77.1	-16 %
IO T39	Scheteligstraße	65.5	87.0	76.9	-12 %	76.4	-12 %	86.5	-1 %	76.5	-12 %	76.2	-12 %
Dummersdorfer Ufer													
IO X	Dummersdorfer Ufer	65.5	112.7	75.5	-33 %	75.6	-33 %	112.8	0 %	75.7	-33 %	75.4	-33 %

6.7.7. Sulphur Dioxide Pollution (SO_2, Annual Average Value J00)

The average annual sulphur dioxide pollution values are shown in Tables 33 and 34 as well as in Figures 51 and 52 (additional pollution and total pollution, respectively). Area-wide pollution maps for the Forecast Scenario and the reduction concepts 1a and 3 are contained in Appendices A 9.1 and A 9.4.

The sulphur dioxide pollution is mainly determined by the shipping traffic. The emissions according to the road traffic are of minor relevance and therefore have been neglected.

By supplying the ships with power from the wharf (reduction concepts 1a/1b) a considerable reduction of the additional pollution up to 75 % on the Priwall peninsula and about 60 to 70 % in the areas of Ivendorf, Pommernzentrum, Teutendorfer Weg and Fischereihafen can be achieved. In the centre of Travemünde and the other areas of interest decreases by about 40 to 50 % have been determined.

Considering a background pollution of 3.5 µg/m³, the reduction concepts 1a/1b lead to decreases of the total pollution up to about 55 % on the Priwall peninsula. In the other areas reductions by approximately 20 to 30 % still remain. These reductions are also to be expected at sites exposed by road traffic and in far away regions.

The reduction concept 3 also shows a considerable decrease of the additional sulphur pollution by approximately 80 % on the Priwall peninsula and about 50 to 70 % in the other areas of interest. Considering a background pollution of 3.5 µg/m³ the decreases of the total pollution amount to about 60 % on the Priwall peninsula and 10 to 20 % elsewhere.

With a combination of reduction concepts 1a/1b and 3 additional reductions of the additional pollution by an amount of about 10 percentage points can be achieved. The total pollution may be reduced by approximately 5 percentage points.

Figure 51: Additional sulphur dioxides pollution (annual average value J00) at representative immission points considering shipping (incl. stay at berth)

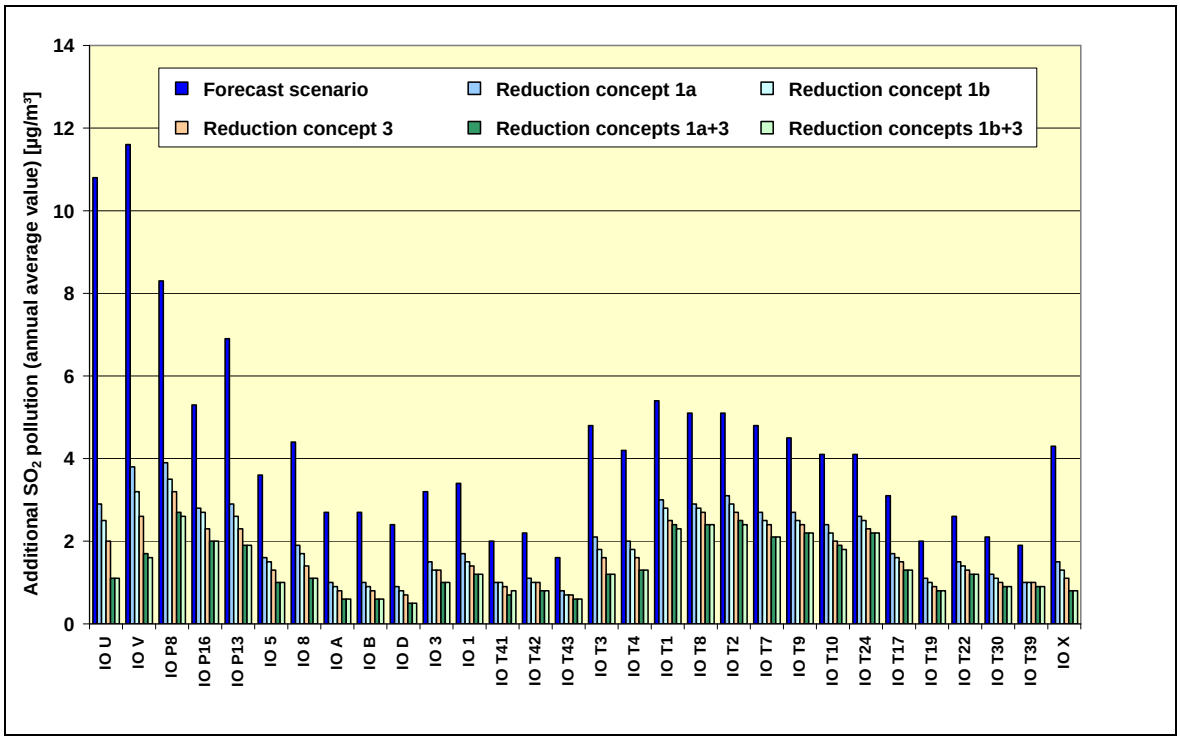


Figure 52: Total sulphur dioxide pollution (annual average value J00) at representative immission points

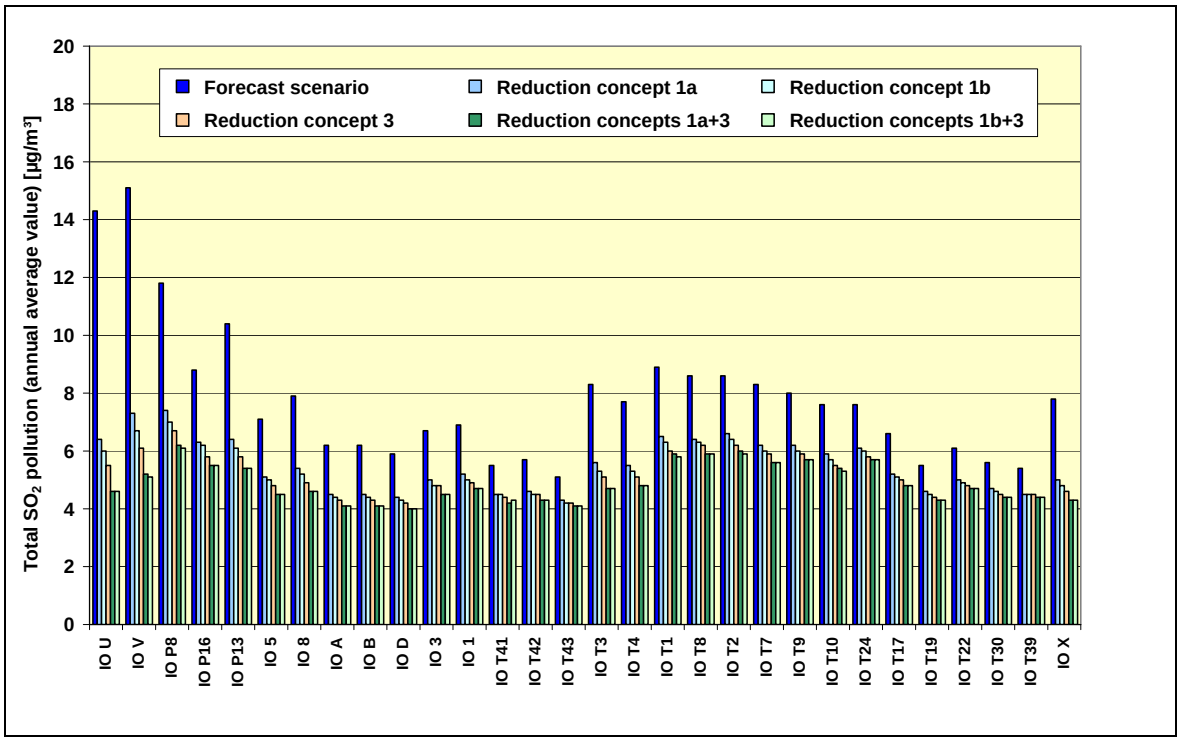


Table 33: Additional sulphur dioxides pollution (annual average value J00) at representative immission points considering shipping (incl. stay at berth)

Immission point (monitor point)		Additional SO_2 pollution (annual average value J00) [µg/m³]												
		Road traffic	Shippping	Sum Forecast Scenario	Reduction concept 1a	Comparison with Forecast Scenario	Reduction concept 1b	Comparison with Forecast Scenario	Reduction concept 3	Comparison with Forecast Scenario	Reduction concepts 1a+3	Comparison with Forecast Scenario	Reduction concepts 1b+3	Comparison with Forecast Scenario
Priwall														
IO U	Priwall/ Traveufer	—	10.8	**10.8**	2.9	-73 %	2.5	-77 %	2.0	-81 %	1.1	-90 %	1.1	-90 %
IO V	Priwall/ Traveufer	—	11.6	**11.6**	3.8	-67 %	3.2	-72 %	2.6	-78 %	1.7	-85 %	1.6	-86 %
IO P8	Priwall/ Rosenhof	—	8.3	**8.3**	3.9	-53 %	3.5	-58 %	3.2	-61 %	2.7	-67 %	2.6	-69 %
IO P16	Priwall/ Krankenhaus	—	5.3	**5.3**	2.8	-47 %	2.7	-49 %	2.3	-57 %	2.0	-62 %	2.0	-62 %
IO P13	Priwall/ Pötenitzer Weg	—	6.9	**6.9**	2.9	-58 %	2.6	-62 %	2.3	-67 %	1.9	-72 %	1.9	-72 %
Pommernzentrum														
IO 5	Rönnauer Weg/ Ivend. L.	—	3.6	**3.6**	1.6	-56 %	1.5	-58 %	1.3	-64 %	1.0	-72 %	1.0	-72 %
IO 8	Ostseestr./ Pommernz.	—	4.4	**4.4**	1.9	-57 %	1.7	-61 %	1.4	-68 %	1.1	-75 %	1.1	-75 %
Ivendorf														
IO A	Ivendorf/ Ovendorfer Str.	—	2.7	**2.7**	1.0	-63 %	0.9	-67 %	0.8	-70 %	0.6	-78 %	0.6	-78 %
IO B	Ivendorf/ Ovendorfer Str.	—	2.7	**2.7**	1.0	-63 %	0.9	-67 %	0.8	-70 %	0.6	-78 %	0.6	-78 %
IO D	Ivendorf/ Ivend. Landstr.	—	2.4	**2.4**	0.9	-63 %	0.8	-67 %	0.7	-71 %	0.5	-79 %	0.5	-79 %
Residential area Teutendorfer Weg														
IO 3	Rönnauer Ring	—	3.2	**3.2**	1.5	-53 %	1.3	-59 %	1.3	-59 %	1.0	-69 %	1.0	-69 %
IO 1	Teutend. Weg/A.d.Bak	—	3.4	**3.4**	1.7	-50 %	1.5	-56 %	1.4	-59 %	1.2	-65 %	1.2	-65 %
IO T41	Teutendorfer Weg	—	2.0	**2.0**	1.0	-50 %	1.0	-50 %	0.9	-55 %	0.7	-65 %	0.8	-60 %
IO T42	Am Krautacker	—	2.2	**2.2**	1.1	-50 %	1.0	-55 %	1.0	-55 %	0.8	-64 %	0.8	-64 %
IO T43	Hollbeck	—	1.6	**1.6**	0.8	-50 %	0.7	-56 %	0.7	-56 %	0.6	-63 %	0.6	-63 %
Travemünde, harbour area														
IO T3	Marina Baltica	—	4.8	**4.8**	2.1	-56 %	1.8	-63 %	1.6	-67 %	1.2	-75 %	1.2	-75 %
IO T4	Fischereihafen	—	4.2	**4.2**	2.0	-52 %	1.8	-57 %	1.6	-62 %	1.3	-69 %	1.3	-69 %
Travemünde, old town area														
IO T1	Vorderreihe/ Ostpr.kai	—	5.4	**5.4**	3.0	-44 %	2.8	-48 %	2.5	-54 %	2.4	-56 %	2.3	-57 %
IO T8	Vorderreihe/ Prinzenbr.	—	5.1	**5.1**	2.9	-43 %	2.8	-45 %	2.7	-47 %	2.4	-53 %	2.4	-53 %
IO T2	Yachthafen/ Kaiserbr.	—	5.1	**5.1**	3.1	-39 %	2.9	-43 %	2.7	-47 %	2.5	-51 %	2.4	-53 %
IO T7	Kurgartenstraße	—	4.8	**4.8**	2.7	-44 %	2.5	-48 %	2.4	-50 %	2.1	-56 %	2.1	-56 %
IO T9	Am Lotsenberg	—	4.5	**4.5**	2.7	-40 %	2.5	-44 %	2.4	-47 %	2.2	-51 %	2.2	-51 %
IO T10	Rose	—	4.1	**4.1**	2.4	-41 %	2.2	-46 %	2.0	-51 %	1.9	-54 %	1.8	-56 %
IO T24	Parkallee/ Kurhaus	—	4.1	**4.1**	2.6	-37 %	2.5	-39 %	2.3	-44 %	2.2	-46 %	2.2	-46 %
Travemünde, areas exposed by road traffic														
IO T17	Gneversdorfer Weg	—	3.1	**3.1**	1.7	-45 %	1.6	-48 %	1.5	-52 %	1.3	-58 %	1.3	-58 %
IO T19	Gneversdorfer Weg	—	2.0	**2.0**	1.1	-45 %	1.0	-50 %	0.9	-55 %	0.8	-60 %	0.8	-60 %
IO T22	Moorredder	—	2.6	**2.6**	1.5	-42 %	1.4	-46 %	1.3	-50 %	1.2	-54 %	1.2	-54 %
Travemünde, residential areas														
IO T30	Schwedenstraße	—	2.1	**2.1**	1.2	-43 %	1.1	-48 %	1.0	-52 %	0.9	-57 %	0.9	-57 %
IO T39	Scheteligstraße	—	1.9	**1.9**	1.0	-47 %	1.0	-47 %	1.0	-47 %	0.9	-53 %	0.9	-53 %
Dummersdorfer Ufer														
IO X	Dummersdorfer Ufer	—	4.3	**4.3**	1.5	-65 %	1.3	-70 %	1.1	-74 %	0.8	-81 %	0.8	-81 %

Table 34: Total sulphur dioxide pollution (annual average value J00) at representative immission points

Immission point (monitor point)		Total SO_2 pollution (annual average value J00) [µg/m³]											
		Background pollution	Forecast Scenario	Reduction concept 1a	Comparison with Forecast Scenario	Reduction concept 1b	Comparison with Forecast Scenario	Reduction concept 3	Comparison with Forecast Scenario	Reduction concepts 1a+3	Comparison with Forecast Scenario	Reduction concepts 1b+3	Comparison with Forecast Scenario
Priwall													
IO U	Priwall/ Traveufer	3.5	**14.3**	6.4	-55 %	6.0	-58 %	5.5	-62 %	4.6	-68 %	4.6	-68 %
IO V	Priwall/ Traveufer	3.5	**15.1**	7.3	-52 %	6.7	-56 %	6.1	-60 %	5.2	-66 %	5.1	-66 %
IO P8	Priwall/ Rosenhof	3.5	**11.8**	7.4	-37 %	7.0	-41 %	6.7	-43 %	6.2	-47 %	6.1	-48 %
IO P16	Priwall/ Krankenhaus	3.5	**8.8**	6.3	-28 %	6.2	-30 %	5.8	-34 %	5.5	-38 %	5.5	-38 %
IO P13	Priwall/ Pötenitzer Weg	3.5	**10.4**	6.4	-38 %	6.1	-41 %	5.8	-44 %	5.4	-48 %	5.4	-48 %
Pommernzentrum													
IO 5	Rönnauer Weg/ Ivend. L.	3.5	**7.1**	5.1	-28 %	5.0	-30 %	4.8	-32 %	4.5	-37 %	4.5	-37 %
IO 8	Ostseestr./ Pommernz.	3.5	**7.9**	5.4	-32 %	5.2	-34 %	4.9	-38 %	4.6	-42 %	4.6	-42 %
Ivendorf													
IO A	Ivendorf/ Ovendorfer Str.	3.5	**6.2**	4.5	-27 %	4.4	-29 %	4.3	-31 %	4.1	-34 %	4.1	-34 %
IO B	Ivendorf/ Ovendorfer Str.	3.5	**6.2**	4.5	-27 %	4.4	-29 %	4.3	-31 %	4.1	-34 %	4.1	-34 %
IO D	Ivendorf/ Ivend. Landstr.	3.5	**5.9**	4.4	-25 %	4.3	-27 %	4.2	-29 %	4.0	-32 %	4.0	-32 %
Residential area Teutendorfer Weg													
IO 3	Rönnauer Ring	3.5	**6.7**	5.0	-25 %	4.8	-28 %	4.8	-28 %	4.5	-33 %	4.5	-33 %
IO 1	Teutend. Weg/A.d.Bak	3.5	**6.9**	5.2	-25 %	5.0	-28 %	4.9	-29 %	4.7	-32 %	4.7	-32 %
IO T41	Teutendorfer Weg	3.5	**5.5**	4.5	-18 %	4.5	-18 %	4.4	-20 %	4.2	-24 %	4.3	-22 %
IO T42	Am Krautacker	3.5	**5.7**	4.6	-19 %	4.5	-21 %	4.5	-21 %	4.3	-25 %	4.3	-25 %
IO T43	Hollbeck	3.5	**5.1**	4.3	-16 %	4.2	-18 %	4.2	-18 %	4.1	-20 %	4.1	-20 %
Travemünde, harbour area													
IO T3	Marina Baltica	3.5	**8.3**	5.6	-33 %	5.3	-36 %	5.1	-39 %	4.7	-43 %	4.7	-43 %
IO T4	Fischereihafen	3.5	**7.7**	5.5	-29 %	5.3	-31 %	5.1	-34 %	4.8	-38 %	4.8	-38 %
Travemünde, old town area													
IO T1	Vorderreihe/ Ostpr.kai	3.5	**8.9**	6.5	-27 %	6.3	-29 %	6.0	-33 %	5.9	-34 %	5.8	-35 %
IO T8	Vorderreihe/ Prinzenbr.	3.5	**8.6**	6.4	-26 %	6.3	-27 %	6.2	-28 %	5.9	-31 %	5.9	-31 %
IO T2	Yachthafen/ Kaiserbr.	3.5	**8.6**	6.6	-23 %	6.4	-26 %	6.2	-28 %	6.0	-30 %	5.9	-31 %
IO T7	Kurgartenstraße	3.5	**8.3**	6.2	-25 %	6.0	-28 %	5.9	-29 %	5.6	-33 %	5.6	-33 %
IO T9	Am Lotsenberg	3.5	**8.0**	6.2	-23 %	6.0	-25 %	5.9	-26 %	5.7	-29 %	5.7	-29 %
IO T10	Rose	3.5	**7.6**	5.9	-22 %	5.7	-25 %	5.5	-28 %	5.4	-29 %	5.3	-30 %
IO T24	Parkallee/ Kurhaus	3.5	**7.6**	6.1	-20 %	6.0	-21 %	5.8	-24 %	5.7	-25 %	5.7	-25 %
Travemünde, areas exposed by road traffic													
IO T17	Gneversdorfer Weg	3.5	**6.6**	5.2	-21 %	5.1	-23 %	5.0	-24 %	4.8	-27 %	4.8	-27 %
IO T19	Gneversdorfer Weg	3.5	**5.5**	4.6	-16 %	4.5	-18 %	4.4	-20 %	4.3	-22 %	4.3	-22 %
IO T22	Moorredder	3.5	**6.1**	5.0	-18 %	4.9	-20 %	4.8	-21 %	4.7	-23 %	4.7	-23 %
Travemünde, residential areas													
IO T30	Schwedenstraße	3.5	**5.6**	4.7	-16 %	4.6	-18 %	4.5	-20 %	4.4	-21 %	4.4	-21 %
IO T39	Scheteligstraße	3.5	**5.4**	4.5	-17 %	4.5	-17 %	4.5	-17 %	4.4	-19 %	4.4	-19 %
Dummersdorfer Ufer													
IO X	Dummersdorfer Ufer	3.5	**7.8**	5.0	-36 %	4.8	-38 %	4.6	-41 %	4.3	-45 %	4.3	-45 %

6.7.8. Sulphur Dioxide Pollution (SO_2, 24 Hours Value T03)

The parameter T03 is defined by the 24 hour value exceeded 3 times in a calendar year (99.2 percentile of daily average values). The corresponding results for the sulphur dioxide pollution are shown in Tables 35 and 36 and Figures 53 and 54. Appendix A 9.2 contains an area-wide pollution map considering the additional pollution due to shipping (including the stays at berths).

Compared to the annual average values, the reduction concepts 1a/1b tend to be more advantageous. With respect to the Forecast Scenario, the 24 hours values show larger decreases than the annual average values. The decreases of the additional pollution amount up to about 80 % on the Priwall peninsula and 50 to 70 % elsewhere.

Considering the background pollution the compliance of the limit value of 125 µg/m³ according to the EU and the 22. BImSchV will be guaranteed in the Forecast Scenario.

With regard to the total pollution, supplying power from the wharf (1a/1b) leads to reductions of the 24 hours values T03 by an amount up to approximately 60 % (Priwall, Pommernzentrum, Fischereihafen, residential area Teutendorfer Weg). In the other areas still remain decreases of about 20 to 40 %.

The reduction concept 3 also leads to considerable decreases of the additional pollution, even slightly larger than concerning concepts 1a/1b. The decreases of the total pollution are comparable to reduction concepts 1a/1b.

The combination of reduction concepts 1a/1b and 3 only shows little improvements compared to the single concepts, especially concerning the total pollution.

Figure 53: Additional sulphur dioxides pollution (24 hours value T03) at representative immission points considering shipping (incl. stay at berth)

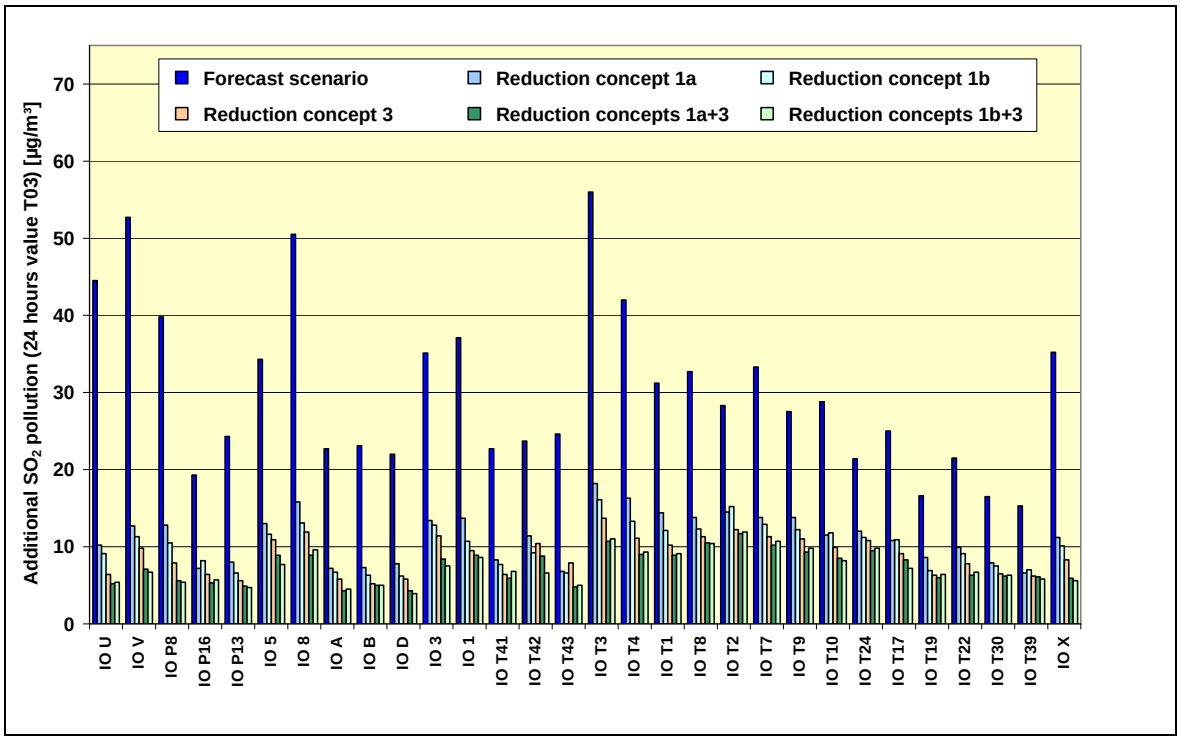


Figure 54: Total sulphur dioxide pollution (24 hours value T03) at representative immission points

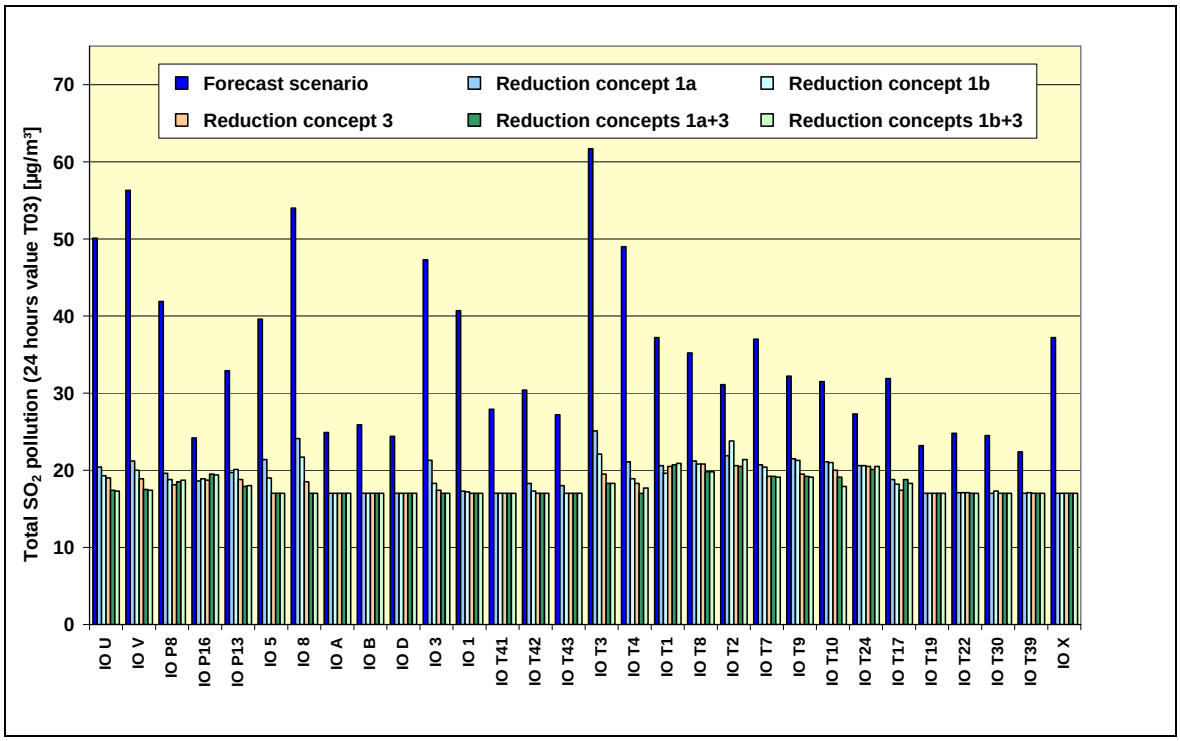


Table 35: Additional sulphur dioxides pollution (24 hours value T03) at representative immission points considering shipping (incl. stay at berth)

Immission point (monitor point)		Additional SO_2 pollution (24 hours value T03) [µg/m³]												
		Road traffic	Shippping	Sum Forecast Scenario	Reduction concept 1a	Comparison with Forecast Scenario	Reduction concept 1b	Comparison with Forecast Scenario	Reduction concept 3	Comparison with Forecast Scenario	Reduction concepts 1a+3	Comparison with Forecast Scenario	Reduction concepts 1b+3	Comparison with Forecast Scenario
Priwall														
IO U	Priwall/ Traveufer	—	44.5	**44.5**	10.2	-77 %	9.1	-80 %	6.4	-86 %	5.2	-88 %	5.4	-88 %
IO V	Priwall/ Traveufer	—	52.7	**52.7**	12.7	-76 %	11.3	-79 %	9.8	-81 %	7.1	-87 %	6.7	-87 %
IO P8	Priwall/ Rosenhof	—	39.8	**39.8**	12.8	-68 %	10.5	-74 %	7.9	-80 %	5.6	-86 %	5.4	-86 %
IO P16	Priwall/ Krankenhaus	—	19.3	**19.3**	7.2	-63 %	8.2	-58 %	6.4	-67 %	5.3	-73 %	5.7	-70 %
IO P13	Priwall/ Pötenitzer Weg	—	24.3	**24.3**	8.0	-67 %	6.6	-73 %	5.6	-77 %	4.9	-80 %	4.7	-81 %
Pommernzentrum														
IO 5	Rönnauer Weg/ Ivend. L.	—	34.3	**34.3**	13.0	-62 %	11.6	-66 %	10.9	-68 %	8.9	-74 %	7.7	-78 %
IO 8	Ostseestr./ Pommernz.	—	50.5	**50.5**	15.8	-69 %	13.1	-74 %	11.9	-76 %	8.9	-82 %	9.6	-81 %
Ivendorf														
IO A	Ivendorf/ Ovendorfer Str.	—	22.7	**22.7**	7.2	-68 %	6.7	-70 %	5.8	-74 %	4.3	-81 %	4.5	-80 %
IO B	Ivendorf/ Ovendorfer Str.	—	23.1	**23.1**	7.3	-68 %	6.3	-73 %	5.2	-77 %	5.0	-78 %	5.0	-78 %
IO D	Ivendorf/ Ivend. Landstr.	—	22.0	**22.0**	7.8	-65 %	6.2	-72 %	5.8	-74 %	4.3	-80 %	3.9	-82 %
Residential area Teutendorfer Weg														
IO 3	Rönnauer Ring	—	35.1	**35.1**	13.4	-62 %	12.8	-64 %	11.4	-68 %	8.4	-76 %	7.5	-79 %
IO 1	Teutend. Weg/A.d.Bak	—	37.1	**37.1**	13.7	-63 %	10.7	-71 %	9.5	-74 %	8.9	-76 %	8.6	-77 %
IO T41	Teutendorfer Weg	—	22.7	**22.7**	8.3	-63 %	7.7	-66 %	6.4	-72 %	5.9	-74 %	6.8	-70 %
IO T42	Am Krautacker	—	23.7	**23.7**	11.4	-52 %	9.2	-61 %	10.4	-56 %	8.8	-63 %	6.6	-72 %
IO T43	Hollbeck	—	24.6	**24.6**	6.8	-72 %	6.6	-73 %	7.9	-68 %	4.8	-80 %	5.0	-80 %
Travemünde, harbour area														
IO T3	Marina Baltica	—	56.0	**56.0**	18.2	-68 %	16.1	-71 %	13.7	-76 %	10.7	-81 %	11.0	-80 %
IO T4	Fischereihafen	—	42.0	**42.0**	16.3	-61 %	13.3	-68 %	11.1	-74 %	9.0	-79 %	9.3	-78 %
Travemünde, old town area														
IO T1	Vorderreihe/ Ostpr.kai	—	31.2	**31.2**	14.4	-54 %	12.1	-61 %	10.2	-67 %	8.9	-71 %	9.1	-71 %
IO T8	Vorderreihe/ Prinzenbr.	—	32.7	**32.7**	13.8	-58 %	12.3	-62 %	11.3	-65 %	10.5	-68 %	10.4	-68 %
IO T2	Yachthafen/ Kaiserbr.	—	28.3	**28.3**	14.5	-49 %	15.2	-46 %	12.2	-57 %	11.7	-59 %	11.9	-58 %
IO T7	Kurgartenstraße	—	33.3	**33.3**	13.8	-59 %	12.9	-61 %	11.3	-66 %	10.2	-69 %	10.7	-68 %
IO T9	Am Lotsenberg	—	27.5	**27.5**	13.8	-50 %	12.2	-56 %	11.0	-60 %	9.3	-66 %	9.8	-64 %
IO T10	Rose	—	28.8	**28.8**	11.5	-60 %	11.8	-59 %	9.9	-66 %	8.5	-70 %	8.2	-72 %
IO T24	Parkallee/ Kurhaus	—	21.4	**21.4**	12.0	-44 %	11.2	-48 %	10.8	-50 %	9.5	-56 %	9.8	-54 %
Travemünde, areas exposed by road traffic														
IO T17	Gneversdorfer Weg	—	25.0	**25.0**	10.8	-57 %	10.9	-56 %	9.1	-64 %	8.3	-67 %	7.2	-71 %
IO T19	Gneversdorfer Weg	—	16.6	**16.6**	8.6	-48 %	6.9	-58 %	6.3	-62 %	6.0	-64 %	6.4	-61 %
IO T22	Moorredder	—	21.5	**21.5**	9.9	-54 %	9.1	-58 %	7.8	-64 %	6.3	-71 %	6.7	-69 %
Travemünde, residential areas														
IO T30	Schwedenstraße	—	16.5	**16.5**	7.9	-52 %	7.5	-55 %	6.5	-61 %	6.2	-62 %	6.3	-62 %
IO T39	Scheteligstraße	—	15.3	**15.3**	6.6	-57 %	7.0	-54 %	6.2	-59 %	6.1	-60 %	5.8	-62 %
Dummersdorfer Ufer														
IO X	Dummersdorfer Ufer	—	35.2	**35.2**	11.2	-68 %	10.1	-71 %	8.3	-76 %	5.9	-83 %	5.6	-84 %

Table 36: Total sulphur dioxide pollution (24 hours value T03) at representative immission points

Immission point (monitor point)		Total SO_2 pollution (24 hours value T03) [µg/m³]											
		Background pollution	Forecast Scenario	Reduction concept 1a	Comparison with Forecast Scenario	Reduction concept 1b	Comparison with Forecast Scenario	Reduction concept 3	Comparison with Forecast Scenario	Reduction concepts 1a+3	Comparison with Forecast Scenario	Reduction concepts 1b+3	Comparison with Forecast Scenario
Priwall													
IO U	Priwall/ Traveufer	17.0	**50.1**	20.4	-59 %	19.3	-61 %	19.0	-62 %	17.4	-65 %	17.3	-65 %
IO V	Priwall/ Traveufer	17.0	**56.3**	21.2	-62 %	20.0	-64 %	18.9	-66 %	17.5	-69 %	17.4	-69 %
IO P8	Priwall/ Rosenhof	17.0	**41.9**	19.6	-53 %	18.8	-55 %	18.1	-57 %	18.5	-56 %	18.7	-55 %
IO P16	Priwall/ Krankenhaus	17.0	**24.2**	18.6	-23 %	18.9	-22 %	18.7	-23 %	19.5	-19 %	19.4	-20 %
IO P13	Priwall/ Pötenitzer Weg	17.0	**32.9**	19.7	-40 %	20.1	-39 %	18.8	-43 %	17.9	-46 %	18.0	-45 %
Pommernzentrum													
IO 5	Rönnauer Weg/ Ivend. L.	17.0	**39.6**	21.4	-46 %	19.0	-52 %	17.0	-57 %	17.0	-57 %	17.0	-57 %
IO 8	Ostseestr./ Pommernz.	17.0	**54.0**	24.1	-55 %	21.7	-60 %	18.5	-66 %	17.0	-69 %	17.0	-69 %
Ivendorf													
IO A	Ivendorf/ Ovendorfer Str.	17.0	**24.9**	17.0	-32 %	17.0	-32 %	17.0	-32 %	17.0	-32 %	17.0	-32 %
IO B	Ivendorf/ Ovendorfer Str.	17.0	**25.9**	17.0	-34 %	17.0	-34 %	17.0	-34 %	17.0	-34 %	17.0	-34 %
IO D	Ivendorf/ Ivend. Landstr.	17.0	**24.4**	17.0	-30 %	17.0	-30 %	17.0	-30 %	17.0	-30 %	17.0	-30 %
Residential area Teutendorfer Weg													
IO 3	Rönnauer Ring	17.0	**47.3**	21.3	-55 %	18.3	-61 %	17.4	-63 %	17.0	-64 %	17.0	-64 %
IO 1	Teutend. Weg/A.d.Bak	17.0	**40.7**	17.3	-57 %	17.2	-58 %	17.0	-58 %	17.0	-58 %	17.0	-58 %
IO T41	Teutendorfer Weg	17.0	**27.9**	17.0	-39 %	17.0	-39 %	17.0	-39 %	17.0	-39 %	17.0	-39 %
IO T42	Am Krautacker	17.0	**30.4**	18.3	-40 %	17.3	-43 %	17.0	-44 %	17.0	-44 %	17.0	-44 %
IO T43	Hollbeck	17.0	**27.2**	18.0	-34 %	17.0	-38 %	17.0	-38 %	17.0	-38 %	17.0	-38 %
Travemünde, harbour area													
IO T3	Marina Baltica	17.0	**61.7**	25.1	-59 %	22.1	-64 %	19.5	-68 %	18.3	-70 %	18.3	-70 %
IO T4	Fischereihafen	17.0	**49.0**	21.1	-57 %	18.9	-61 %	18.3	-63 %	17.0	-65 %	17.7	-64 %
Travemünde, old town area													
IO T1	Vorderreihe/ Ostpr.kai	17.0	**37.2**	20.6	-45 %	19.6	-47 %	20.5	-45 %	20.7	-44 %	20.9	-44 %
IO T8	Vorderreihe/ Prinzenbr.	17.0	**35.2**	21.2	-40 %	20.8	-41 %	20.8	-41 %	19.8	-44 %	19.8	-44 %
IO T2	Yachthafen/ Kaiserbr.	17.0	**31.1**	21.9	-30 %	23.8	-23 %	20.6	-34 %	20.5	-34 %	21.4	-31 %
IO T7	Kurgartenstraße	17.0	**37.0**	20.7	-44 %	20.4	-45 %	19.2	-48 %	19.2	-48 %	19.1	-48 %
IO T9	Am Lotsenberg	17.0	**32.2**	21.5	-33 %	21.3	-34 %	19.5	-39 %	19.2	-40 %	19.1	-41 %
IO T10	Rose	17.0	**31.5**	21.1	-33 %	21.0	-33 %	20.0	-37 %	19.1	-39 %	17.9	-43 %
IO T24	Parkallee/ Kurhaus	17.0	**27.3**	20.6	-25 %	20.6	-25 %	20.5	-25 %	20.1	-26 %	20.5	-25 %
Travemünde, areas exposed by road traffic													
IO T17	Gneversdorfer Weg	17.0	**31.9**	18.8	-41 %	18.2	-43 %	17.4	-45 %	18.8	-41 %	18.3	-43 %
IO T19	Gneversdorfer Weg	17.0	**23.2**	17.0	-27 %	17.0	-27 %	17.0	-27 %	17.0	-27 %	17.0	-27 %
IO T22	Moorredder	17.0	**24.8**	17.1	-31 %	17.1	-31 %	17.1	-31 %	17.0	-31 %	17.0	-31 %
Travemünde, residential areas													
IO T30	Schwedenstraße	17.0	**24.5**	17.0	-31 %	17.3	-29 %	17.0	-31 %	17.0	-31 %	17.0	-31 %
IO T39	Scheteligstraße	17.0	**22.4**	17.0	-24 %	17.1	-24 %	17.0	-24 %	17.0	-24 %	17.0	-24 %
Dummersdorfer Ufer													
IO X	Dummersdorfer Ufer	17.0	**37.2**	17.0	-54 %	17.0	-54 %	17.0	-54 %	17.0	-54 %	17.0	-54 %

6.7.9. Sulphur Dioxide Pollution (SO_2, 1 Hour Value S24)

The parameter S24 serves for assessment of short-term pollution and describes the 1 hour value exceeded 24 times in a calendar year (99.7 percentile of 1 hour values). The corresponding results for the sulphur dioxide pollution are listed in Tables 37 and 38 and shown in Figures 55 and 56. Area-wide pollution maps considering the additional pollution due to shipping are found in Appendix A 9.3.

Considering the parameter S24, the reduction concepts 1a/1b lead to decreases up to 70 % in the areas of Priwall and Ivendorf and 40 to 60 % elsewhere.

The reduction concept 3 shows slightly larger decreases of the additional and total pollutions compared to concepts 1a/1b of about 5 to 10 percentage points. This remains valid considering combinations of concepts 1a/1b and 3.

Comparing the additional and total pollution, little difference has been found. This indicates the main influence of the additional pollution, i.e. the shipping traffic, on the short-term pollution. So for the total pollution similar decreases are to be expected as found for the additional pollution.

Finally, at all relevant immission points the short-term pollution parameter S24 will not exceed the limit value of 350 µg/m³ due to the EU and the 22. BImSchV.

Figure 55: Additional sulphur dioxides pollution (1 hour value S24) at representative immission points considering shipping (incl. stay at berth)

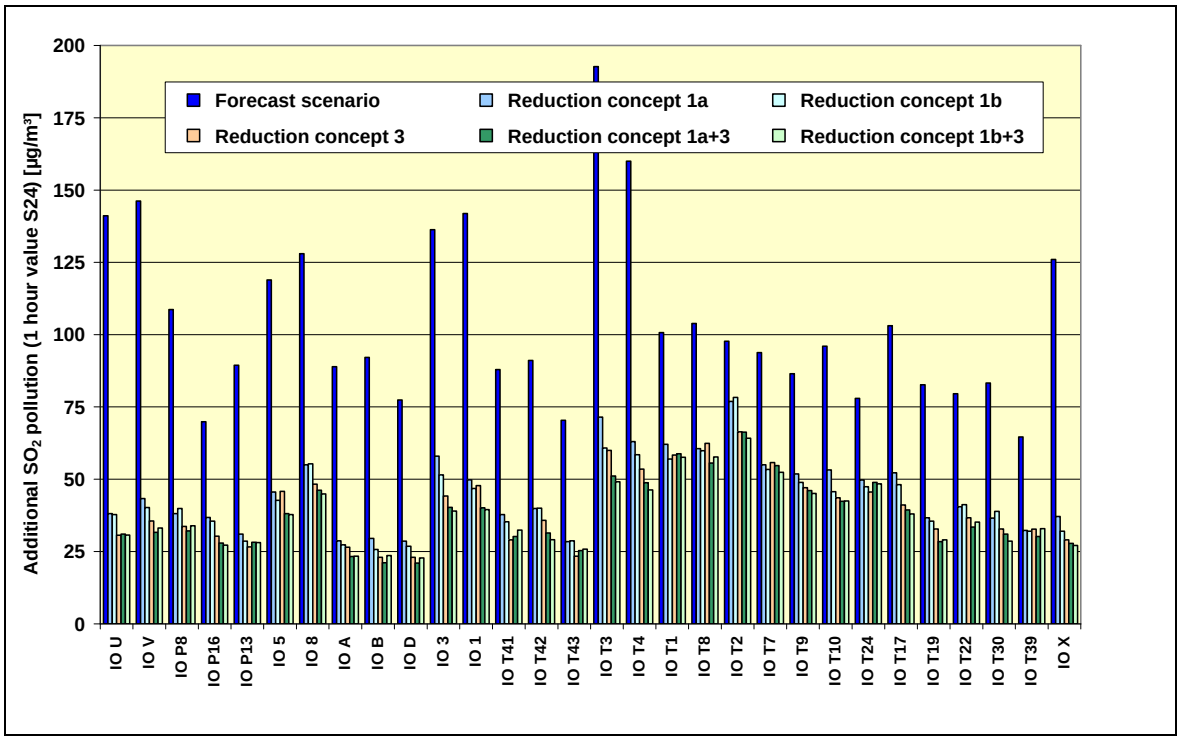


Figure 56: Total sulphur dioxide pollution (1 hour value S24) at representative immission points

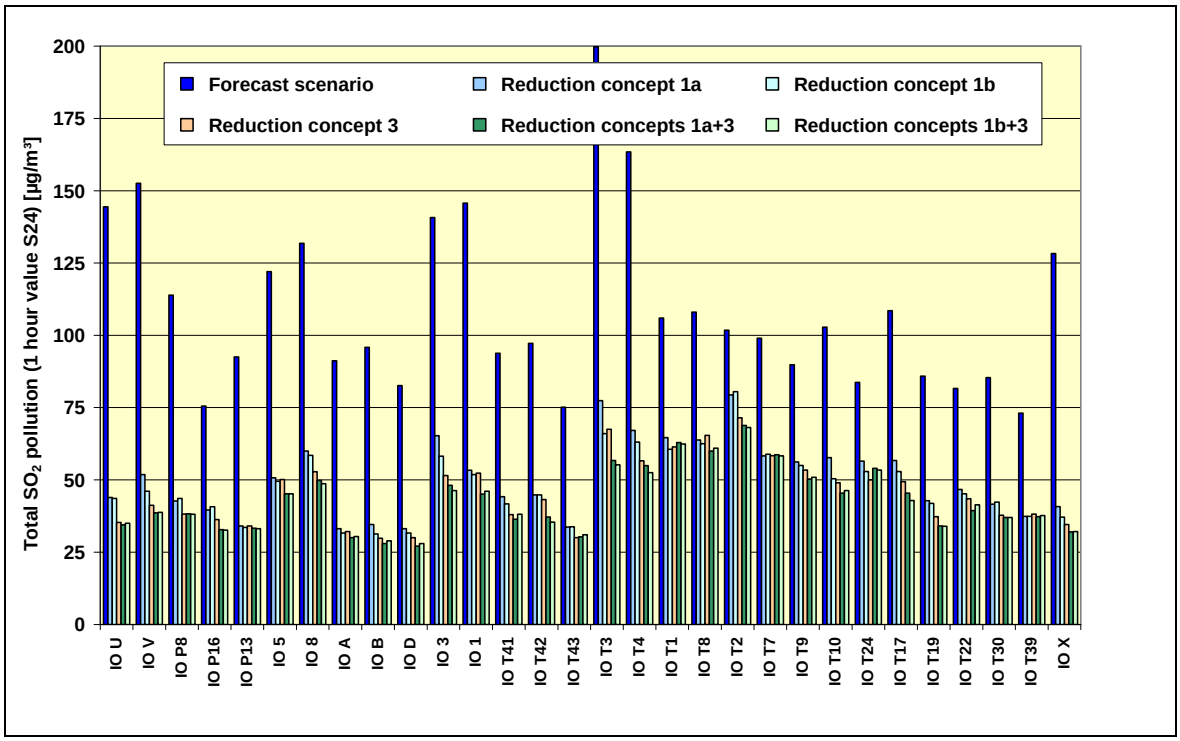


Table 37: Additional sulphur dioxides pollution (1 hour value S24) at representative immission points considering shipping (incl. stay at berth)

Immission point (monitor point)		Additional SO_2 pollution (1 hour value S24) [µg/m³]												
		Road traffic	Shippping	Sum Forecast Scenario	Reduction concept 1a	Comparison with Forecast Scenario	Reduction concept 1b	Comparison with Forecast Scenario	Reduction concept 3	Comparison with Forecast Scenario	Reduction concepts 1a+3	Comparison with Forecast Scenario	Reduction concepts 1b+3	Comparison with Forecast Scenario
Priwall														
IO U	Priwall/ Traveufer	—	141.1	**141.1**	38.1	-73 %	37.8	-73 %	30.6	-78 %	31.0	-78 %	30.7	-78 %
IO V	Priwall/ Traveufer	—	146.2	**146.2**	43.3	-70 %	40.2	-73 %	35.6	-76 %	31.6	-78 %	33.1	-77 %
IO P8	Priwall/ Rosenhof	—	108.7	**108.7**	38.1	-65 %	39.9	-63 %	33.7	-69 %	32.1	-70 %	33.9	-69 %
IO P16	Priwall/ Krankenhaus	—	69.9	**69.9**	36.8	-47 %	35.5	-49 %	30.3	-57 %	27.9	-60 %	27.2	-61 %
IO P13	Priwall/ Pötenitzer Weg	—	89.4	**89.4**	31.0	-65 %	28.6	-68 %	26.6	-70 %	28.2	-68 %	28.1	-69 %
Pommernzentrum														
IO 5	Rönnauer Weg/ Ivend. L.	—	118.9	**118.9**	45.6	-62 %	42.7	-64 %	45.8	-61 %	38.1	-68 %	37.8	-68 %
IO 8	Ostseestr./ Pommernz.	—	128.0	**128.0**	55.0	-57 %	55.3	-57 %	48.3	-62 %	46.2	-64 %	44.9	-65 %
Ivendorf														
IO A	Ivendorf/ Ovendorfer Str.	—	88.9	**88.9**	28.7	-68 %	27.3	-69 %	26.5	-70 %	23.3	-74 %	23.4	-74 %
IO B	Ivendorf/ Ovendorfer Str.	—	92.1	**92.1**	29.5	-68 %	25.7	-72 %	23.0	-75 %	21.1	-77 %	23.6	-74 %
IO D	Ivendorf/ Ivend. Landstr.	—	77.4	**77.4**	28.6	-63 %	26.8	-65 %	23.0	-70 %	21.0	-73 %	22.8	-71 %
Residential area Teutendorfer Weg														
IO 3	Rönnauer Ring	—	136.3	**136.3**	58.0	-57 %	51.5	-62 %	44.2	-68 %	40.3	-70 %	39.0	-71 %
IO 1	Teutend. Weg/A.d.Bak	—	141.9	**141.9**	49.8	-65 %	46.8	-67 %	47.8	-66 %	40.1	-72 %	39.5	-72 %
IO T41	Teutendorfer Weg	—	87.9	**87.9**	37.8	-57 %	35.3	-60 %	29.0	-67 %	30.2	-66 %	32.4	-63 %
IO T42	Am Krautacker	—	91.1	**91.1**	39.9	-56 %	40.0	-56 %	35.8	-61 %	31.4	-66 %	29.1	-68 %
IO T43	Hollbeck	—	70.4	**70.4**	28.4	-60 %	28.7	-59 %	23.4	-67 %	25.3	-64 %	25.8	-63 %
Travemünde, harbour area														
IO T3	Marina Baltica	—	192.7	**192.7**	71.5	-63 %	60.8	-68 %	60.0	-69 %	51.1	-73 %	49.1	-75 %
IO T4	Fischereihafen	—	160.0	**160.0**	63.0	-61 %	58.5	-63 %	53.5	-67 %	48.8	-70 %	46.3	-71 %
Travemünde, old town area														
IO T1	Vorderreihe/ Ostpr.kai	—	100.7	**100.7**	62.1	-38 %	57.0	-43 %	58.4	-42 %	58.8	-42 %	57.6	-43 %
IO T8	Vorderreihe/ Prinzenbr.	—	103.9	**103.9**	60.6	-42 %	59.9	-42 %	62.4	-40 %	55.6	-46 %	57.7	-44 %
IO T2	Yachthafen/ Kaiserbr.	—	97.7	**97.7**	76.9	-21 %	78.3	-20 %	66.4	-32 %	66.3	-32 %	64.2	-34 %
IO T7	Kurgartenstraße	—	93.8	**93.8**	55.0	-41 %	53.4	-43 %	55.8	-41 %	54.7	-42 %	52.4	-44 %
IO T9	Am Lotsenberg	—	86.5	**86.5**	51.8	-40 %	48.9	-43 %	47.1	-46 %	46.1	-47 %	45.1	-48 %
IO T10	Rose	—	96.0	**96.0**	53.2	-45 %	45.7	-52 %	43.6	-55 %	42.4	-56 %	42.5	-56 %
IO T24	Parkallee/ Kurhaus	—	78.0	**78.0**	49.7	-36 %	47.4	-39 %	45.6	-42 %	48.9	-37 %	48.4	-38 %
Travemünde, areas exposed by road traffic														
IO T17	Gneversdorfer Weg	—	103.1	**103.1**	52.2	-49 %	48.1	-53 %	41.1	-60 %	39.4	-62 %	38.0	-63 %
IO T19	Gneversdorfer Weg	—	82.7	**82.7**	36.7	-56 %	35.5	-57 %	32.8	-60 %	28.4	-66 %	29.0	-65 %
IO T22	Moorredder	—	79.6	**79.6**	40.5	-49 %	41.2	-48 %	36.7	-54 %	33.5	-58 %	35.2	-56 %
Travemünde, residential areas														
IO T30	Schwedenstraße	—	83.3	**83.3**	36.6	-56 %	38.9	-53 %	32.8	-61 %	31.0	-63 %	28.6	-66 %
IO T39	Scheteligstraße	—	64.6	**64.6**	32.3	-50 %	32.0	-50 %	32.7	-49 %	30.2	-53 %	32.9	-49 %
Dummersdorfer Ufer														
IO X	Dummersdorfer Ufer	—	126.0	**126.0**	37.1	-71 %	32.0	-75 %	29.0	-77 %	27.8	-78 %	27.1	-78 %

Table 38: Total sulphur dioxide pollution (1 hour value S24) at representative immission points

Immission point (monitor point)		Total SO_2 pollution (1 hour value S24) [µg/m³]											
		Background pollution	Forecast Scenario	Reduction concept 1a	Comparison with Forecast Scenario	Reduction concept 1b	Comparison with Forecast Scenario	Reduction concept 3	Comparison with Forecast Scenario	Reduction concepts 1a+3	Comparison with Forecast Scenario	Reduction concepts 1b+3	Comparison with Forecast Scenario
Priwall													
IO U	Priwall/ Traveufer	20.1	**144.4**	43.9	-70 %	43.6	-70 %	35.3	-76 %	34.5	-76 %	35.0	-76 %
IO V	Priwall/ Traveufer	20.1	**152.6**	51.8	-66 %	46.1	-70 %	41.2	-73 %	38.6	-75 %	38.8	-75 %
IO P8	Priwall/ Rosenhof	20.1	**113.9**	42.7	-63 %	43.6	-62 %	38.2	-66 %	38.3	-66 %	38.1	-67 %
IO P16	Priwall/ Krankenhaus	20.1	**75.5**	39.6	-48 %	40.7	-46 %	36.3	-52 %	32.8	-57 %	32.6	-57 %
IO P13	Priwall/ Pötenitzer Weg	20.1	**92.5**	34.1	-63 %	33.6	-64 %	34.1	-63 %	33.3	-64 %	33.1	-64 %
Pommernzentrum													
IO 5	Rönnauer Weg/ Ivend. L.	20.1	**122.0**	50.7	-58 %	49.5	-59 %	50.1	-59 %	45.2	-63 %	45.2	-63 %
IO 8	Ostseestr./ Pommernz.	20.1	**131.8**	60.0	-54 %	58.5	-56 %	52.8	-60 %	49.8	-62 %	48.7	-63 %
Ivendorf													
IO A	Ivendorf/ Ovendorfer Str.	20.1	**91.2**	33.1	-64 %	31.6	-65 %	32.1	-65 %	30.0	-67 %	30.4	-67 %
IO B	Ivendorf/ Ovendorfer Str.	20.1	**95.8**	34.6	-64 %	31.3	-67 %	29.8	-69 %	28.0	-71 %	28.9	-70 %
IO D	Ivendorf/ Ivend. Landstr.	20.1	**82.6**	33.1	-60 %	31.6	-62 %	30.0	-64 %	27.1	-67 %	28.0	-66 %
Residential area Teutendorfer Weg													
IO 3	Rönnauer Ring	20.1	**140.7**	65.3	-54 %	58.2	-59 %	51.5	-63 %	48.1	-66 %	46.3	-67 %
IO 1	Teutend. Weg/A.d.Bak	20.1	**145.7**	53.3	-63 %	51.8	-64 %	52.3	-64 %	45.1	-69 %	46.1	-68 %
IO T41	Teutendorfer Weg	20.1	**93.8**	44.2	-53 %	41.7	-56 %	38.0	-59 %	36.4	-61 %	38.1	-59 %
IO T42	Am Krautacker	20.1	**97.2**	44.8	-54 %	44.8	-54 %	43.2	-56 %	37.2	-62 %	35.4	-64 %
IO T43	Hollbeck	20.1	**75.1**	33.7	-55 %	33.8	-55 %	30.0	-60 %	30.3	-60 %	31.0	-59 %
Travemünde, harbour area													
IO T3	Marina Baltica	20.1	**199.8**	77.4	-61 %	66.0	-67 %	67.5	-66 %	56.7	-72 %	55.2	-72 %
IO T4	Fischereihafen	20.1	**163.4**	67.1	-59 %	63.1	-61 %	56.6	-65 %	54.9	-66 %	52.5	-68 %
Travemünde, old town area													
IO T1	Vorderreihe/ Ostpr.kai	20.1	**106.0**	64.6	-39 %	60.6	-43 %	61.4	-42 %	62.9	-41 %	62.4	-41 %
IO T8	Vorderreihe/ Prinzenbr.	20.1	**108.0**	63.8	-41 %	62.5	-42 %	65.4	-39 %	60.0	-44 %	61.0	-44 %
IO T2	Yachthafen/ Kaiserbr.	20.1	**101.8**	79.4	-22 %	80.5	-21 %	71.5	-30 %	68.8	-32 %	68.1	-33 %
IO T7	Kurgartenstraße	20.1	**99.0**	58.3	-41 %	58.9	-41 %	58.4	-41 %	58.7	-41 %	58.3	-41 %
IO T9	Am Lotsenberg	20.1	**89.8**	56.2	-37 %	55.0	-39 %	53.4	-41 %	50.3	-44 %	50.9	-43 %
IO T10	Rose	20.1	**102.8**	57.7	-44 %	50.4	-51 %	49.0	-52 %	45.4	-56 %	46.3	-55 %
IO T24	Parkallee/ Kurhaus	20.1	**83.7**	56.5	-32 %	52.9	-37 %	50.0	-40 %	54.0	-35 %	53.4	-36 %
Travemünde, areas exposed by road traffic													
IO T17	Gneversdorfer Weg	20.1	**108.5**	56.7	-48 %	52.9	-51 %	49.4	-54 %	45.4	-58 %	42.9	-60 %
IO T19	Gneversdorfer Weg	20.1	**85.9**	42.8	-50 %	41.9	-51 %	37.3	-57 %	34.1	-60 %	34.0	-60 %
IO T22	Moorredder	20.1	**81.6**	46.7	-43 %	45.2	-45 %	43.5	-47 %	39.4	-52 %	41.4	-49 %
Travemünde, residential areas													
IO T30	Schwedenstraße	20.1	**85.4**	41.6	-51 %	42.3	-50 %	37.8	-56 %	37.0	-57 %	37.0	-57 %
IO T39	Scheteligstraße	20.1	**73.1**	37.4	-49 %	37.4	-49 %	38.2	-48 %	37.3	-49 %	37.7	-48 %
Dummersdorfer Ufer													
IO X	Dummersdorfer Ufer	20.1	**128.3**	40.8	-68 %	37.1	-71 %	34.6	-73 %	32.0	-75 %	32.1	-75 %

6.7.10. Particulate Matter (PM_{10}) Pollution (Annual Average Value J00)

The resulting additional and total PM_{10} pollutions at the monitor points investigated have been listed in Tables 39 and 40 and Figures 57 and 58.

Regarding the Forecast Scenario, with concentrations of up to 1.4 µg/m³, the additional PM_{10} pollution arising due to shipping has been estimated to be a minor contribution, especially when compared to dust resuspension due road traffic. This has also to be confirmed according to the size of the background pollution with an amount of approximately 20 µg/m³.

The concept of power delivery from the wharf (reduction concepts 1a/1b) leads to some reductions of the additional pollution. But due to the determining background pollution the reduction concepts and the possible decreases are of minor relevance.

In conclusion, even without considering any of the reduction concepts the annual average values of the total PM_{10} pollution will not exceed the limit value of 40 µg/m³ according to the EU and the 22. BImSchV anywhere within the area under investigation.

Figure 57: Additional particulate matter (PM_{10}) pollution (annual average value J00) at representative immission points for shipping and road traffic

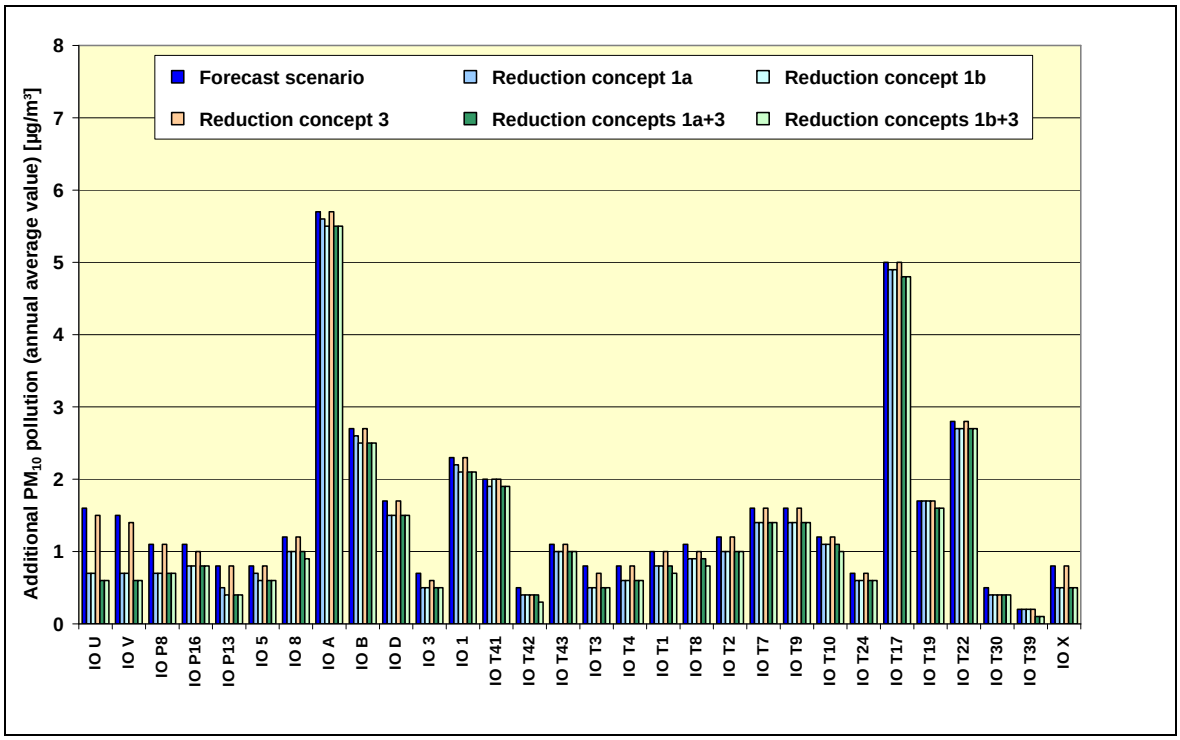


Figure 58: Total particulate matter (PM_{10}) pollution (annual average value J00) at representative immission points

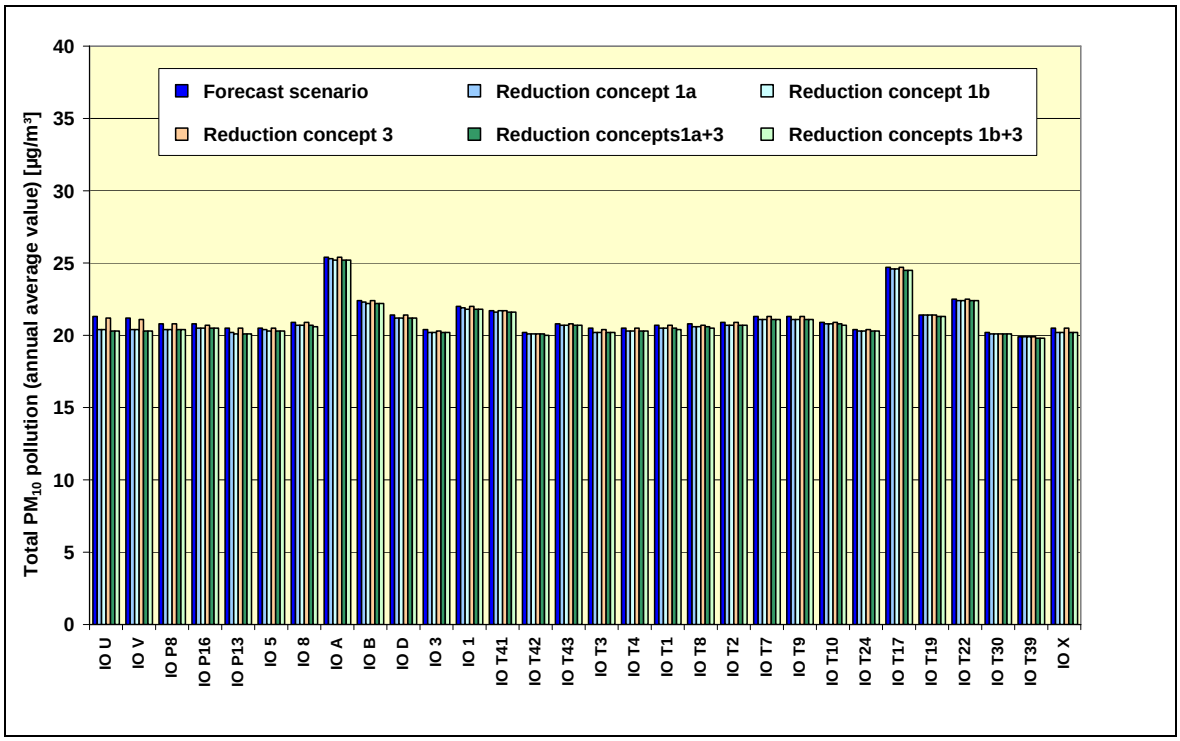


Table 39: Additional particulate matter (PM_{10}) pollution (annual average value J00) at representative immission points for shipping and road traffic

Immission point (monitor point)		Additional PM_{10} pollution (annual average value J00) [µg/m³]												
		Road traffic	Shipping	Sum Forecast Scenario	Reduction concept 1a	Comparison with Forecast Scenario	Reduction concept 1b	Comparison with Forecast Scenario	Reduction concept 3	Comparison with Forecast Scenario	Reduction concepts 1a+3	Comparison with Forecast Scenario	Reduction concepts 1b+3	Comparison with Forecast Scenario
Priwall														
IO U	Priwall/ Traveufer	0.2	1.4	**1.6**	0.7	-56 %	0.7	-56 %	1.5	-6 %	0.6	-63 %	0.6	-63 %
IO V	Priwall/ Traveufer	0.1	1.4	**1.5**	0.7	-53 %	0.7	-53 %	1.4	-7 %	0.6	-60 %	0.6	-60 %
IO P8	Priwall/ Rosenhof	0.1	1.0	**1.1**	0.7	-36 %	0.7	-36 %	1.1	0 %	0.7	-36 %	0.7	-36 %
IO P16	Priwall/ Krankenhaus	0.4	0.7	**1.1**	0.8	-27 %	0.8	-27 %	1.0	-9 %	0.8	-27 %	0.8	-27 %
IO P13	Priwall/ Pötenitzer Weg	0.0	0.8	**0.8**	0.5	-38 %	0.4	-50 %	0.8	0 %	0.4	-50 %	0.4	-50 %
Pommernzentrum														
IO 5	Rönnauer Weg/ Ivend. L.	0.4	0.4	**0.8**	0.7	-13 %	0.6	-25 %	0.8	0 %	0.6	-25 %	0.6	-25 %
IO 8	Ostseestr./ Pommernz.	0.7	0.5	**1.2**	1.0	-17 %	1.0	-17 %	1.2	0 %	1.0	-17 %	0.9	-25 %
Ivendorf														
IO A	Ivendorf/ Ovendorfer Str.	5.4	0.3	**5.7**	5.6	-2 %	5.5	-4 %	5.7	0 %	5.5	-4 %	5.5	-4 %
IO B	Ivendorf/ Ovendorfer Str.	2.4	0.3	**2.7**	2.6	-4 %	2.5	-7 %	2.7	0 %	2.5	-7 %	2.5	-7 %
IO D	Ivendorf/ Ivend. Landstr.	1.4	0.3	**1.7**	1.5	-12 %	1.5	-12 %	1.7	0 %	1.5	-12 %	1.5	-12 %
Residential area Teutendorfer Weg														
IO 3	Rönnauer Ring	0.3	0.4	**0.7**	0.5	-29 %	0.5	-29 %	0.6	-14 %	0.5	-29 %	0.5	-29 %
IO 1	Teutend. Weg/A.d.Bak	1.9	0.4	**2.3**	2.2	-4 %	2.1	-9 %	2.3	0 %	2.1	-9 %	2.1	-9 %
IO T41	Teutendorfer Weg	1.8	0.2	**2.0**	1.9	-5 %	2.0	0 %	2.0	0 %	1.9	-5 %	1.9	-5 %
IO T42	Am Krautacker	0.2	0.3	**0.5**	0.4	-20 %	0.4	-20 %	0.4	-20 %	0.4	-20 %	0.3	-40 %
IO T43	Hollbeck	0.9	0.2	**1.1**	1.0	-9 %	1.0	-9 %	1.1	0 %	1.0	-9 %	1.0	-9 %
Travemünde, harbour area														
IO T3	Marina Baltica	0.2	0.6	**0.8**	0.5	-38 %	0.5	-38 %	0.7	-13 %	0.5	-38 %	0.5	-38 %
IO T4	Fischereihafen	0.3	0.5	**0.8**	0.6	-25 %	0.6	-25 %	0.8	0 %	0.6	-25 %	0.6	-25 %
Travemünde, old town area														
IO T1	Vorderreihe/ Ostpr.kai	0.3	0.7	**1.0**	0.8	-20 %	0.8	-20 %	1.0	0 %	0.8	-20 %	0.7	-30 %
IO T8	Vorderreihe/ Prinzenbr.	0.4	0.7	**1.1**	0.9	-18 %	0.9	-18 %	1.0	-9 %	0.9	-18 %	0.8	-27 %
IO T2	Yachthafen/ Kaiserbr.	0.5	0.7	**1.2**	1.0	-17 %	1.0	-17 %	1.2	0 %	1.0	-17 %	1.0	-17 %
IO T7	Kurgartenstraße	1.0	0.6	**1.6**	1.4	-13 %	1.4	-13 %	1.6	0 %	1.4	-13 %	1.4	-13 %
IO T9	Am Lotsenberg	1.0	0.6	**1.6**	1.4	-13 %	1.4	-13 %	1.6	0 %	1.4	-13 %	1.4	-13 %
IO T10	Rose	0.7	0.5	**1.2**	1.1	-8 %	1.1	-8 %	1.2	0 %	1.1	-8 %	1.0	-17 %
IO T24	Parkallee/ Kurhaus	0.2	0.5	**0.7**	0.6	-14 %	0.6	-14 %	0.7	0 %	0.6	-14 %	0.6	-14 %
Travemünde, areas exposed by road traffic														
IO T17	Gneversdorfer Weg	4.6	0.4	**5.0**	4.9	-2 %	4.9	-2 %	5.0	0 %	4.8	-4 %	4.8	-4 %
IO T19	Gneversdorfer Weg	1.5	0.2	**1.7**	1.7	0 %	1.7	0 %	1.7	0 %	1.6	-6 %	1.6	-6 %
IO T22	Moorredder	2.5	0.3	**2.8**	2.7	-4 %	2.7	-4 %	2.8	0 %	2.7	-4 %	2.7	-4 %
Travemünde, residential areas														
IO T30	Schwedenstraße	0.2	0.3	**0.5**	0.4	-20 %	0.4	-20 %	0.4	-20 %	0.4	-20 %	0.4	-20 %
IO T39	Scheteligstraße	0.0	0.2	**0.2**	0.2	0 %	0.2	0 %	0.2	0 %	0.1	-50 %	0.1	-50 %
Dummersdorfer Ufer														
IO X	Dummersdorfer Ufer	0.3	0.5	**0.8**	0.5	-38 %	0.5	-38 %	0.8	0 %	0.5	-38 %	0.5	-38 %

Table 40: Total particulate matter (PM_{10}) pollution (annual average value J00) at representative immission points

Immission point (monitor point)		Total PM_{10} pollution (annual average value J00) [µg/m³]											
		Background pollution	Forecast Scenario	Reduction concept 1a	Comparison with Forecast Scenario	Reduction concept 1b	Comparison with Forecast Scenario	Reduction concept 3	Comparison with Forecast Scenario	Reduction concepts 1a+3	Comparison with Forecast Scenario	Reduction concepts 1b+3	Comparison with Forecast Scenario
Priwall													
IO U	Priwall/ Traveufer	19.7	**21.3**	20.4	-4 %	20.4	-4 %	21.2	0 %	20.3	-5 %	20.3	-5 %
IO V	Priwall/ Traveufer	19.7	**21.2**	20.4	-4 %	20.4	-4 %	21.1	0 %	20.3	-4 %	20.3	-4 %
IO P8	Priwall/ Rosenhof	19.7	**20.8**	20.4	-2 %	20.4	-2 %	20.8	0 %	20.4	-2 %	20.4	-2 %
IO P16	Priwall/ Krankenhaus	19.7	**20.8**	20.5	-1 %	20.5	-1 %	20.7	0 %	20.5	-1 %	20.5	-1 %
IO P13	Priwall/ Pötenitzer Weg	19.7	**20.5**	20.2	-1 %	20.1	-2 %	20.5	0 %	20.1	-2 %	20.1	-2 %
Pommernzentrum													
IO 5	Rönnauer Weg/ Ivend. L.	19.7	**20.5**	20.4	0 %	20.3	-1 %	20.5	0 %	20.3	-1 %	20.3	-1 %
IO 8	Ostseestr./ Pommernz.	19.7	**20.9**	20.7	-1 %	20.7	-1 %	20.9	0 %	20.7	-1 %	20.6	-1 %
Ivendorf													
IO A	Ivendorf/ Ovendorfer Str.	19.7	**25.4**	25.3	0 %	25.2	-1 %	25.4	0 %	25.2	-1 %	25.2	-1 %
IO B	Ivendorf/ Ovendorfer Str.	19.7	**22.4**	22.3	0 %	22.2	-1 %	22.4	0 %	22.2	-1 %	22.2	-1 %
IO D	Ivendorf/ Ivend. Landstr.	19.7	**21.4**	21.2	-1 %	21.2	-1 %	21.4	0 %	21.2	-1 %	21.2	-1 %
Residential area Teutendorfer Weg													
IO 3	Rönnauer Ring	19.7	**20.4**	20.2	-1 %	20.2	-1 %	20.3	0 %	20.2	-1 %	20.2	-1 %
IO 1	Teutend. Weg/A.d.Bak	19.7	**22.0**	21.9	0 %	21.8	-1 %	22.0	0 %	21.8	-1 %	21.8	-1 %
IO T41	Teutendorfer Weg	19.7	**21.7**	21.6	0 %	21.7	0 %	21.7	0 %	21.6	0 %	21.6	0 %
IO T42	Am Krautacker	19.7	**20.2**	20.1	0 %	20.1	0 %	20.1	0 %	20.1	0 %	20.0	-1 %
IO T43	Hollbeck	19.7	**20.8**	20.7	0 %	20.7	0 %	20.8	0 %	20.7	0 %	20.7	0 %
Travemünde, harbour area													
IO T3	Marina Baltica	19.7	**20.5**	20.2	-1 %	20.2	-1 %	20.4	0 %	20.2	-1 %	20.2	-1 %
IO T4	Fischereihafen	19.7	**20.5**	20.3	-1 %	20.3	-1 %	20.5	0 %	20.3	-1 %	20.3	-1 %
Travemünde, old town area													
IO T1	Vorderreihe/ Ostpr.kai	19.7	**20.7**	20.5	-1 %	20.5	-1 %	20.7	0 %	20.5	-1 %	20.4	-1 %
IO T8	Vorderreihe/ Prinzenbr.	19.7	**20.8**	20.6	-1 %	20.6	-1 %	20.7	0 %	20.6	-1 %	20.5	-1 %
IO T2	Yachthafen/ Kaiserbr.	19.7	**20.9**	20.7	-1 %	20.7	-1 %	20.9	0 %	20.7	-1 %	20.7	-1 %
IO T7	Kurgartenstraße	19.7	**21.3**	21.1	-1 %	21.1	-1 %	21.3	0 %	21.1	-1 %	21.1	-1 %
IO T9	Am Lotsenberg	19.7	**21.3**	21.1	-1 %	21.1	-1 %	21.3	0 %	21.1	-1 %	21.1	-1 %
IO T10	Rose	19.7	**20.9**	20.8	0 %	20.8	0 %	20.9	0 %	20.8	0 %	20.7	-1 %
IO T24	Parkallee/ Kurhaus	19.7	**20.4**	20.3	0 %	20.3	0 %	20.4	0 %	20.3	0 %	20.3	0 %
Travemünde, areas exposed by road traffic													
IO T17	Gneversdorfer Weg	19.7	**24.7**	24.6	0 %	24.6	0 %	24.7	0 %	24.5	-1 %	24.5	-1 %
IO T19	Gneversdorfer Weg	19.7	**21.4**	21.4	0 %	21.4	0 %	21.4	0 %	21.3	0 %	21.3	0 %
IO T22	Moorredder	19.7	**22.5**	22.4	0 %	22.4	0 %	22.5	0 %	22.4	0 %	22.4	0 %
Travemünde, residential areas													
IO T30	Schwedenstraße	19.7	**20.2**	20.1	0 %	20.1	0 %	20.1	0 %	20.1	0 %	20.1	0 %
IO T39	Scheteligstraße	19.7	**19.9**	19.9	0 %	19.9	0 %	19.9	0 %	19.8	-1 %	19.8	-1 %
Dummersdorfer Ufer													
IO X	Dummersdorfer Ufer	19.7	**20.5**	20.2	-1 %	20.2	-1 %	20.5	0 %	20.2	-1 %	20.2	-1 %

6.7.11. Particulate Matter (PM_{10}) Pollution (24 Hours Value T35)

The parameter T35 describes the 24 hours value exceeded 35 times in a calendar year (90.4 percentile of daily average values). Tables 41 and 42 contain the results of the corresponding PM_{10} pollutions (additional pollution and total pollution, respectively). Grafical illustrations are shown in Figures 59 and 60.

The 24 hours values T35 of the additional PM_{10} pollution according to the shipping amount to about 3.5 µg/m³ and hence are small when compared to the background pollution of 36 µg/m³. They are also small compared to the contributions from the road traffic at monitor points located in the vicinity of main roads.

Compared to the results for the annual average values the potential for reductions concerning the emissions of the shipping traffic appears to be of minor relevance.

In all relevant areas the total PM_{10} pollution T35 has been estimated lower than the limit value of 50 µg/m³ according to EU and 22. BImSchV, so it is not expected that the limit value will be exceeded more than permitted (35 times in a calendar year).

Figure 59: Additional particulate matter (PM_{10}) pollution (24 hours value T35) at representative immission points for shipping and road traffic

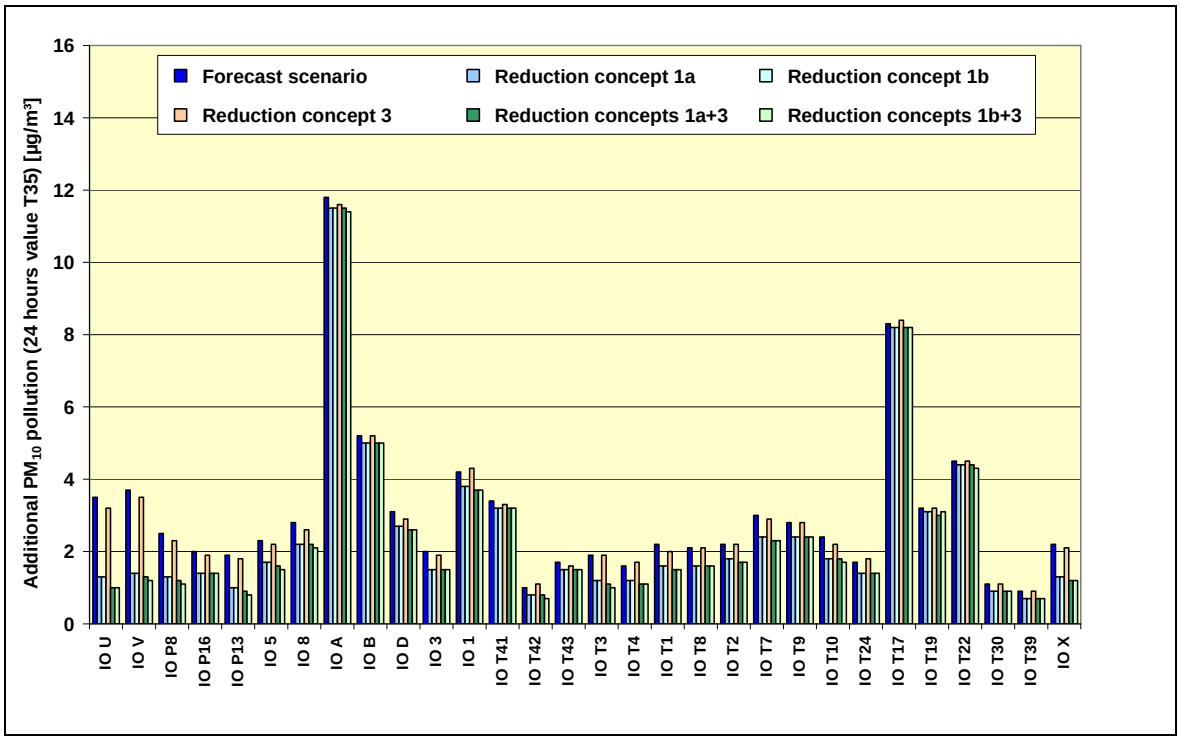


Figure 60: Total particulate matter (PM_{10}) pollution (24 hours value T35) at representative immission points

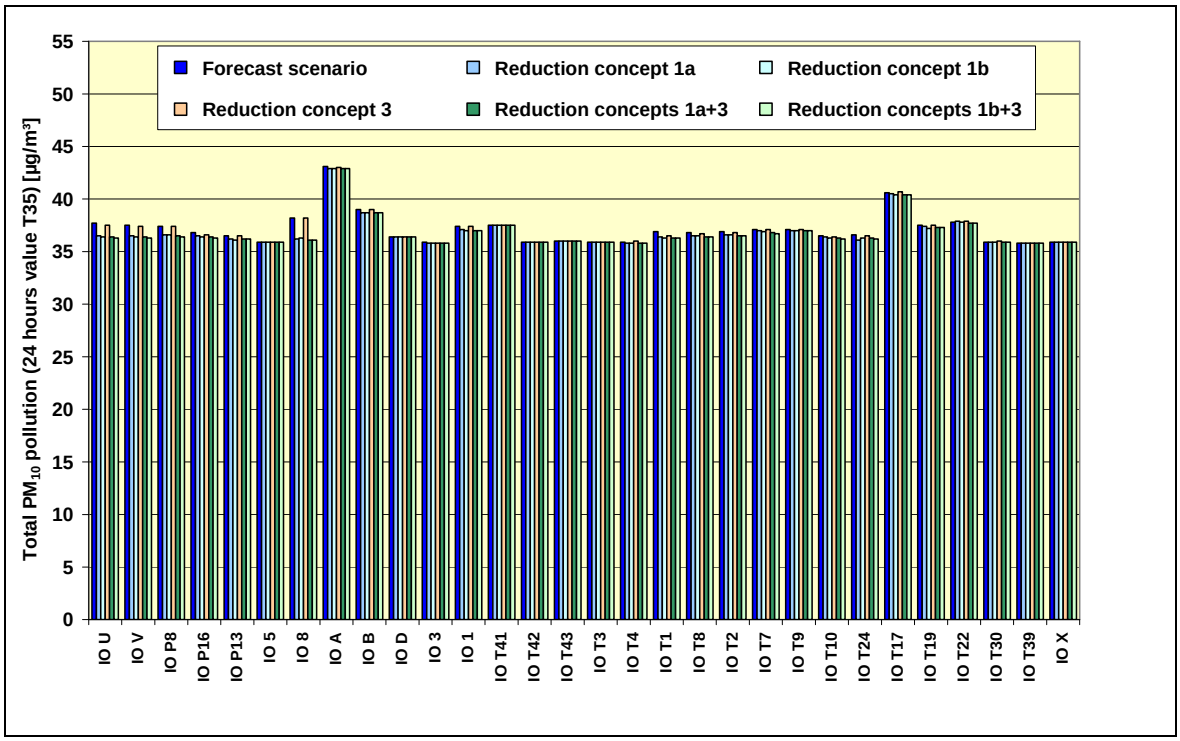


Table 41: Additional particulate matter (PM_{10}) pollution (24 hours value T35) at representative immission points for shipping and road traffic

Immission point (monitor point)		Additional PM_{10} pollution (24 hours value T35) [µg/m³]												
		Road traffic	Shipping	Sum Forecast Scenario	Reduction concept 1a	Comparison with Forecast Scenario	Reduction concept 1b	Comparison with Forecast Scenario	Reduction concept 3	Comparison with Forecast Scenario	Reduction concepts 1a+3	Comparison with Forecast Scenario	Reduction concepts 1b+3	Comparison with Forecast Scenario
Priwall														
IO U	Priwall/ Traveufer	0.5	3.2	**3.5**	1.3	-63 %	1.3	-63 %	3.2	-9 %	1.0	-71 %	1.0	-71 %
IO V	Priwall/ Traveufer	0.3	3.5	**3.7**	1.5	-59 %	1.4	-62 %	3.5	-5 %	1.3	-65 %	1.2	-68 %
IO P8	Priwall/ Rosenhof	0.2	2.3	**2.5**	1.4	-44 %	1.3	-48 %	2.3	-8 %	1.2	-52 %	1.1	-56 %
IO P16	Priwall/ Krankenhaus	0.8	1.4	**2.0**	1.4	-30 %	1.4	-30 %	1.9	-5 %	1.4	-30 %	1.4	-30 %
IO P13	Priwall/ Pötenitzer Weg	0.2	1.8	**1.9**	1.0	-47 %	1.0	-47 %	1.8	-5 %	0.9	-53 %	0.8	-58 %
Pommernzentrum														
IO 5	Rönnauer Weg/ Ivend. L.	0.9	1.4	**2.3**	1.7	-26 %	1.7	-26 %	2.2	-4 %	1.6	-30 %	1.5	-35 %
IO 8	Ostseestr./ Pommernz.	1.5	1.7	**2.8**	2.3	-18 %	2.2	-21 %	2.6	-7 %	2.2	-21 %	2.1	-25 %
Ivendorf														
IO A	Ivendorf/ Ovendorfer Str.	11.2	1.2	**11.8**	11.5	-3 %	11.5	-3 %	11.6	-2 %	11.5	-3 %	11.4	-3 %
IO B	Ivendorf/ Ovendorfer Str.	5.0	1.2	**5.2**	5.1	-2 %	5.0	-4 %	5.2	0 %	5.0	-4 %	5.0	-4 %
IO D	Ivendorf/ Ivend. Landstr.	2.4	1.1	**3.1**	2.7	-13 %	2.7	-13 %	2.9	-6 %	2.6	-16 %	2.6	-16 %
Residential area Teutendorfer Weg														
IO 3	Rönnauer Ring	0.9	1.1	**2.0**	1.6	-20 %	1.5	-25 %	1.9	-5 %	1.5	-25 %	1.5	-25 %
IO 1	Teutend. Weg/A.d.Bak	3.2	1.2	**4.2**	3.7	-12 %	3.8	-10 %	4.3	2 %	3.7	-12 %	3.7	-12 %
IO T41	Teutendorfer Weg	2.9	0.8	**3.4**	3.2	-6 %	3.2	-6 %	3.3	-3 %	3.2	-6 %	3.2	-6 %
IO T42	Am Krautacker	0.4	0.8	**1.0**	0.8	-20 %	0.8	-20 %	1.1	10 %	0.8	-20 %	0.7	-30 %
IO T43	Hollbeck	1.4	0.6	**1.7**	1.5	-12 %	1.5	-12 %	1.6	-6 %	1.5	-12 %	1.5	-12 %
Travemünde, harbour area														
IO T3	Marina Baltica	0.5	1.8	**1.9**	1.2	-37 %	1.2	-37 %	1.9	0 %	1.1	-42 %	1.0	-47 %
IO T4	Fischereihafen	0.6	1.5	**1.6**	1.2	-25 %	1.2	-25 %	1.7	6 %	1.1	-31 %	1.1	-31 %
Travemünde, old town area														
IO T1	Vorderreihe/ Ostpr.kai	0.7	1.9	**2.2**	1.6	-27 %	1.6	-27 %	2.0	-9 %	1.5	-32 %	1.5	-32 %
IO T8	Vorderreihe/ Prinzenbr.	0.7	1.8	**2.1**	1.7	-19 %	1.6	-24 %	2.1	0 %	1.6	-24 %	1.6	-24 %
IO T2	Yachthafen/ Kaiserbr.	1.0	1.8	**2.2**	1.8	-18 %	1.8	-18 %	2.2	0 %	1.7	-23 %	1.7	-23 %
IO T7	Kurgartenstraße	1.7	1.8	**3.0**	2.4	-20 %	2.4	-20 %	2.9	-3 %	2.3	-23 %	2.3	-23 %
IO T9	Am Lotsenberg	1.7	1.5	**2.8**	2.4	-14 %	2.4	-14 %	2.8	0 %	2.4	-14 %	2.4	-14 %
IO T10	Rose	1.0	1.5	**2.4**	1.9	-21 %	1.8	-25 %	2.2	-8 %	1.8	-25 %	1.7	-29 %
IO T24	Parkallee/ Kurhaus	0.4	1.4	**1.7**	1.5	-12 %	1.4	-18 %	1.8	6 %	1.4	-18 %	1.4	-18 %
Travemünde, areas exposed by road traffic														
IO T17	Gneversdorfer Weg	7.9	1.2	**8.3**	8.2	-1 %	8.2	-1 %	8.4	1 %	8.2	-1 %	8.2	-1 %
IO T19	Gneversdorfer Weg	2.9	0.8	**3.2**	3.1	-3 %	3.1	-3 %	3.2	0 %	3.0	-6 %	3.1	-3 %
IO T22	Moorredder	4.0	1.0	**4.5**	4.4	-2 %	4.4	-2 %	4.5	0 %	4.4	-2 %	4.3	-4 %
Travemünde, residential areas														
IO T30	Schwedenstraße	0.5	0.9	**1.1**	0.9	-18 %	0.9	-18 %	1.1	0 %	0.9	-18 %	0.9	-18 %
IO T39	Scheteligstraße	0.3	0.7	**0.9**	0.7	-22 %	0.7	-22 %	0.9	0 %	0.7	-22 %	0.7	-22 %
Dummersdorfer Ufer														
IO X	Dummersdorfer Ufer	1.0	2.0	**2.2**	1.4	-36 %	1.3	-41 %	2.1	-5 %	1.2	-45 %	1.2	-45 %

Table 42: Total particulate matter (PM_{10}) pollution (24 hours value T35) at representative immission points

Immission point (monitor point)		Total PM_{10} pollution (24 hours value T35) [µg/m³]											
		Background pollution	Forecast Scenario	Reduction concept 1a	Comparison with Forecast Scenario	Reduction concept 1b	Comparison with Forecast Scenario	Reduction concept 3	Comparison with Forecast Scenario	Reduction concepts 1a+3	Comparison with Forecast Scenario	Reduction concepts 1b+3	Comparison with Forecast Scenario
Priwall													
IO U	Priwall/ Traveufer	35.7	**37.7**	36.5	-3 %	36.4	-3 %	37.5	-1 %	36.4	-3 %	36.3	-4 %
IO V	Priwall/ Traveufer	35.7	**37.5**	36.5	-3 %	36.4	-3 %	37.4	0 %	36.4	-3 %	36.3	-3 %
IO P8	Priwall/ Rosenhof	35.7	**37.4**	36.6	-2 %	36.6	-2 %	37.4	0 %	36.5	-2 %	36.4	-3 %
IO P16	Priwall/ Krankenhaus	35.7	**36.8**	36.5	-1 %	36.4	-1 %	36.6	-1 %	36.4	-1 %	36.3	-1 %
IO P13	Priwall/ Pötenitzer Weg	35.7	**36.5**	36.2	-1 %	36.1	-1 %	36.5	0 %	36.2	-1 %	36.2	-1 %
Pommernzentrum													
IO 5	Rönnauer Weg/ Ivend. L.	35.7	**35.9**	35.9	0 %	35.9	0 %	35.9	0 %	35.9	0 %	35.9	0 %
IO 8	Ostseestr./ Pommernz.	35.7	**38.2**	36.2	-5 %	36.3	-5 %	38.2	0 %	36.1	-5 %	36.1	-5 %
Ivendorf													
IO A	Ivendorf/ Ovendorfer Str.	35.7	**43.1**	42.9	0 %	42.9	0 %	43.0	0 %	42.9	0 %	42.9	0 %
IO B	Ivendorf/ Ovendorfer Str.	35.7	**39.0**	38.7	-1 %	38.7	-1 %	39.0	0 %	38.7	-1 %	38.7	-1 %
IO D	Ivendorf/ Ivend. Landstr.	35.7	**36.4**	36.4	0 %	36.4	0 %	36.4	0 %	36.4	0 %	36.4	0 %
Residential area Teutendorfer Weg													
IO 3	Rönnauer Ring	35.7	**35.9**	35.8	0 %	35.8	0 %	35.8	0 %	35.8	0 %	35.8	0 %
IO 1	Teutend. Weg/A.d.Bak	35.7	**37.4**	37.1	-1 %	37.0	-1 %	37.4	0 %	37.0	-1 %	37.0	-1 %
IO T41	Teutendorfer Weg	35.7	**37.5**	37.5	0 %	37.5	0 %	37.5	0 %	37.5	0 %	37.5	0 %
IO T42	Am Krautacker	35.7	**35.9**	35.9	0 %	35.9	0 %	35.9	0 %	35.9	0 %	35.9	0 %
IO T43	Hollbeck	35.7	**36.0**	36.0	0 %	36.0	0 %	36.0	0 %	36.0	0 %	36.0	0 %
Travemünde, harbour area													
IO T3	Marina Baltica	35.7	**35.9**	35.9	0 %	35.9	0 %	35.9	0 %	35.9	0 %	35.9	0 %
IO T4	Fischereihafen	35.7	**35.9**	35.8	0 %	35.8	0 %	36.0	0 %	35.8	0 %	35.8	0 %
Travemünde, old town area													
IO T1	Vorderreihe/ Ostpr.kai	35.7	**36.9**	36.4	-1 %	36.3	-2 %	36.5	-1 %	36.3	-2 %	36.3	-2 %
IO T8	Vorderreihe/ Prinzenbr.	35.7	**36.8**	36.5	-1 %	36.5	-1 %	36.7	0 %	36.4	-1 %	36.4	-1 %
IO T2	Yachthafen/ Kaiserbr.	35.7	**36.9**	36.6	-1 %	36.6	-1 %	36.8	0 %	36.5	-1 %	36.5	-1 %
IO T7	Kurgartenstraße	35.7	**37.1**	37.0	0 %	36.9	-1 %	37.1	0 %	36.8	-1 %	36.7	-1 %
IO T9	Am Lotsenberg	35.7	**37.1**	37.0	0 %	37.0	0 %	37.1	0 %	37.0	0 %	37.0	0 %
IO T10	Rose	35.7	**36.5**	36.4	0 %	36.3	-1 %	36.4	0 %	36.3	-1 %	36.2	-1 %
IO T24	Parkallee/ Kurhaus	35.7	**36.6**	36.1	-1 %	36.3	-1 %	36.5	0 %	36.3	-1 %	36.2	-1 %
Travemünde, areas exposed by road traffic													
IO T17	Gneversdorfer Weg	35.7	**40.6**	40.5	0 %	40.4	0 %	40.7	0 %	40.4	0 %	40.4	0 %
IO T19	Gneversdorfer Weg	35.7	**37.5**	37.4	0 %	37.2	-1 %	37.5	0 %	37.3	-1 %	37.3	-1 %
IO T22	Moorredder	35.7	**37.8**	37.9	0 %	37.8	0 %	37.9	0 %	37.7	0 %	37.7	0 %
Travemünde, residential areas													
IO T30	Schwedenstraße	35.7	**35.9**	35.9	0 %	35.9	0 %	36.0	0 %	35.9	0 %	35.9	0 %
IO T39	Scheteligstraße	35.7	**35.8**	35.8	0 %	35.8	0 %	35.8	0 %	35.8	0 %	35.8	0 %
Dummersdorfer Ufer													
IO X	Dummersdorfer Ufer	35.7	**35.9**	35.9	0 %	35.9	0 %	35.9	0 %	35.9	0 %	35.9	0 %

6.7.12. Soot Pollution (Annual Average Value J00)

Additionally, the soot pollution has been estimated. The results at the main immission points investigated are found in Tables 61 und 62 as well as in Figures 43 and 44 (additional pollution and total pollution, respectively).

In summary, one finds low additional pollutant levels up to 0.6 µg/m³ at the immission points investigated. Considering the reduction concepts 1a/1b some decreases up to 0.4 µg/m³ have been determined.

Taking the background pollution of 2.0 µg/m³ into account one finds annual average values of the total soot pollution up to 2.6 µg/m³. The reductions of the total pollution are in the order of magnitude of 5 to 15 %. The reduction concept 3 only shows measurable decreases of the total pollution on the Priwall peninsula.

Figure 61: Additional soot pollution (annual average value J00) at representative immission points for shipping and road traffic

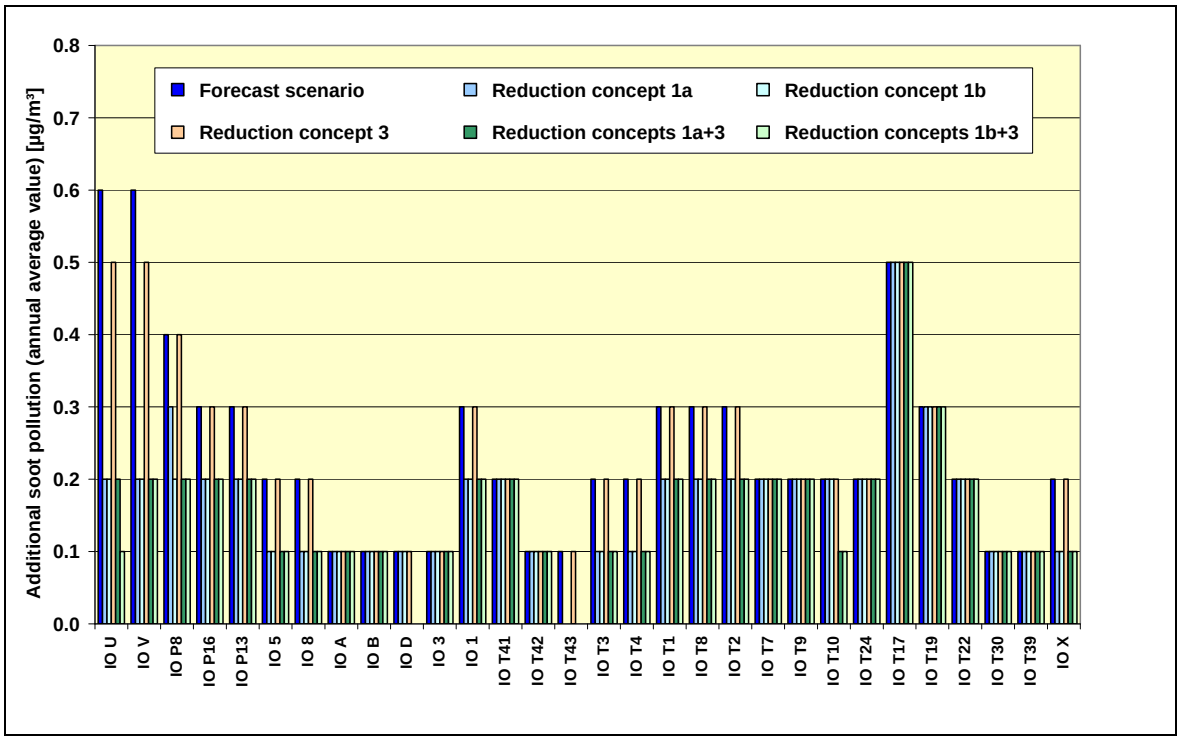


Figure 62: Total soot pollution (annual average value J00) at representative immission points

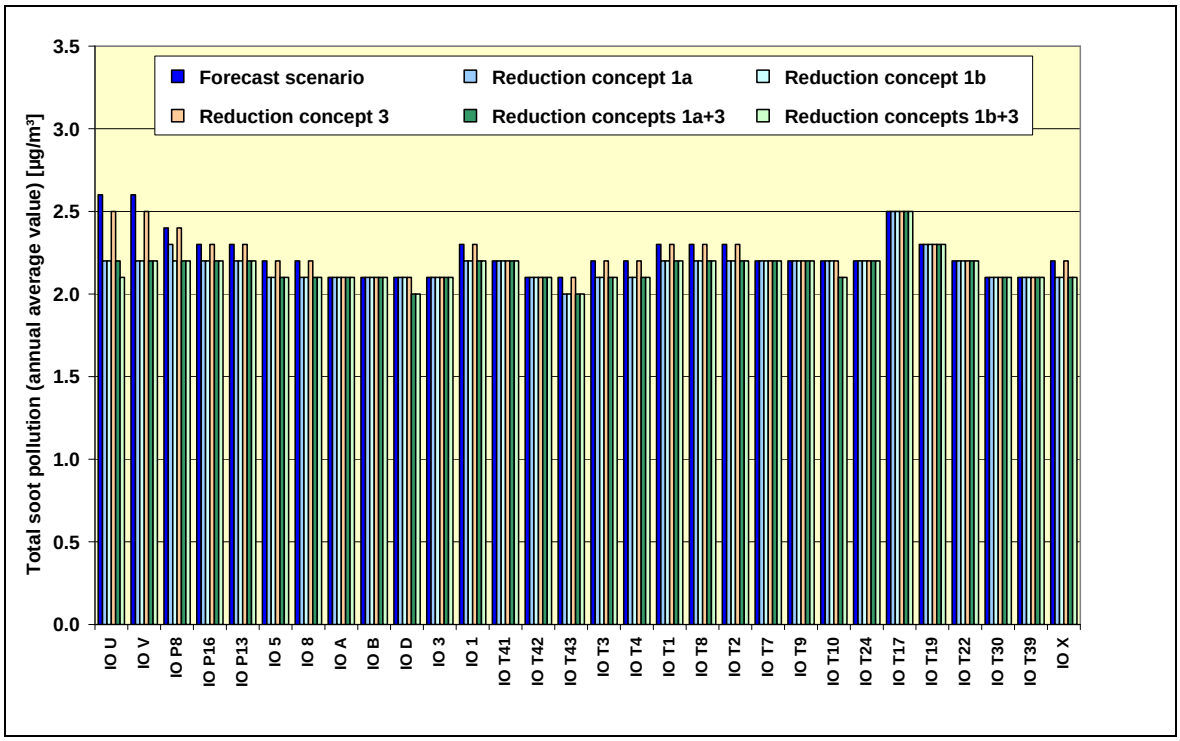


Table 43: Additional soot pollution (annual average value J00) at representative immission points for shipping and road traffic

Immission point (monitor point)		Additional soot pollution (annual average value J00) [µg/m³]												
		Road traffic	Shipping	Sum Forecast Scenario	Reduction concept 1a	Comparison with Forecast Scenario	Reduction concept 1b	Comparison with Forecast Scenario	Reduction concept 3	Comparison with Forecast Scenario	Reduction concepts 1a+3	Comparison with Forecast Scenario	Reduction concepts 1b+3	Comparison with Forecast Scenario
Priwall														
IO U	Priwall/ Traveufer	0.0	0.6	**0.6**	0.2	-67 %	0.2	-67 %	0.5	-17 %	0.2	-67 %	0.1	-83 %
IO V	Priwall/ Traveufer	0.0	0.6	**0.6**	0.2	-67 %	0.2	-67 %	0.5	-17 %	0.2	-67 %	0.2	-67 %
IO P8	Priwall/ Rosenhof	0.0	0.4	**0.4**	0.3	-25 %	0.2	-50 %	0.4	0 %	0.2	-50 %	0.2	-50 %
IO P16	Priwall/ Krankenhaus	0.0	0.3	**0.3**	0.2	-33 %	0.2	-33 %	0.3	0 %	0.2	-33 %	0.2	-33 %
IO P13	Priwall/ Pötenitzer Weg	0.0	0.3	**0.3**	0.2	-33 %	0.2	-33 %	0.3	0 %	0.2	-33 %	0.2	-33 %
Pommernzentrum														
IO 5	Rönnauer Weg/ Ivend. L.	0.0	0.2	**0.2**	0.1	-50 %	0.1	-50 %	0.2	0 %	0.1	-50 %	0.1	-50 %
IO 8	Ostseestr./ Pommernz.	0.0	0.2	**0.2**	0.1	-50 %	0.1	-50 %	0.2	0 %	0.1	-50 %	0.1	-50 %
Ivendorf														
IO A	Ivendorf/ Ovendorfer Str.	0.0	0.1	**0.1**	0.1	0 %	0.1	0 %	0.1	0 %	0.1	0 %	0.1	0 %
IO B	Ivendorf/ Ovendorfer Str.	0.0	0.1	**0.1**	0.1	0 %	0.1	0 %	0.1	0 %	0.1	0 %	0.1	0 %
IO D	Ivendorf/ Ivend. Landstr.	0.0	0.1	**0.1**	0.1	0 %	0.1	0 %	0.1	0 %	0.0	-100%	0.0	-100%
Residential area Teutendorfer Weg														
IO 3	Rönnauer Ring	0.0	0.1	**0.1**	0.1	0 %	0.1	0 %	0.1	0 %	0.1	0 %	0.1	0 %
IO 1	Teutend. Weg/A.d.Bak	0.1	0.2	**0.3**	0.2	-33 %	0.2	-33 %	0.3	0 %	0.2	-33 %	0.2	-33 %
IO T41	Teutendorfer Weg	0.1	0.1	**0.2**	0.2	0 %	0.2	0 %	0.2	0 %	0.2	0 %	0.2	0 %
IO T42	Am Krautacker	0.0	0.1	**0.1**	0.1	0 %	0.1	0 %	0.1	0 %	0.1	0 %	0.1	0 %
IO T43	Hollbeck	0.0	0.1	**0.1**	0.0	-100%	0.0	-100%	0.1	0 %	0.0	-100%	0.0	-100%
Travemünde, harbour area														
IO T3	Marina Baltica	0.0	0.2	**0.2**	0.1	-50 %	0.1	-50 %	0.2	0 %	0.1	-50 %	0.1	-50 %
IO T4	Fischereihafen	0.0	0.2	**0.2**	0.1	-50 %	0.1	-50 %	0.2	0 %	0.1	-50 %	0.1	-50 %
Travemünde, old town area														
IO T1	Vorderreihe/ Ostpr.kai	0.0	0.3	**0.3**	0.2	-33 %	0.2	-33 %	0.3	0 %	0.2	-33 %	0.2	-33 %
IO T8	Vorderreihe/ Prinzenbr.	0.0	0.3	**0.3**	0.2	-33 %	0.2	-33 %	0.3	0 %	0.2	-33 %	0.2	-33 %
IO T2	Yachthafen/ Kaiserbr.	0.0	0.3	**0.3**	0.2	-33 %	0.2	-33 %	0.3	0 %	0.2	-33 %	0.2	-33 %
IO T7	Kurgartenstraße	0.0	0.2	**0.2**	0.2	0 %	0.2	0 %	0.2	0 %	0.2	0 %	0.2	0 %
IO T9	Am Lotsenberg	0.0	0.2	**0.2**	0.2	0 %	0.2	0 %	0.2	0 %	0.2	0 %	0.2	0 %
IO T10	Rose	0.0	0.2	**0.2**	0.2	0 %	0.2	0 %	0.2	0 %	0.1	-50 %	0.1	-50 %
IO T24	Parkallee/ Kurhaus	0.0	0.2	**0.2**	0.2	0 %	0.2	0 %	0.2	0 %	0.2	0 %	0.2	0 %
Travemünde, areas exposed by road traffic														
IO T17	Gneversdorfer Weg	0.4	0.1	**0.5**	0.5	0 %	0.5	0 %	0.5	0 %	0.5	0 %	0.5	0 %
IO T19	Gneversdorfer Weg	0.2	0.1	**0.3**	0.3	0 %	0.3	0 %	0.3	0 %	0.3	0 %	0.3	0 %
IO T22	Moorredder	0.1	0.1	**0.2**	0.2	0 %	0.2	0 %	0.2	0 %	0.2	0 %	0.2	0 %
Travemünde, residential areas														
IO T30	Schwedenstraße	0.0	0.1	**0.1**	0.1	0 %	0.1	0 %	0.1	0 %	0.1	0 %	0.1	0 %
IO T39	Scheteligstraße	0.0	0.1	**0.1**	0.1	0 %	0.1	0 %	0.1	0 %	0.1	0 %	0.1	0 %
Dummersdorfer Ufer														
IO X	Dummersdorfer Ufer	0.0	0.2	**0.2**	0.1	-50 %	0.1	-50 %	0.2	0 %	0.1	-50 %	0.1	-50 %

Table 44: Total soot pollution (annual average value J00) at representative immission points

Immission point (monitor point)		Total soot pollution (annual average value J00) [µg/m³]											
		Background pollution	Forecast Scenario	Reduction concept 1a	Comparison with Forecast Scenario	Reduction concept 1b	Comparison with Forecast Scenario	Reduction concept 3	Comparison with Forecast Scenario	Reduction concepts 1a+3	Comparison with Forecast Scenario	Reduction concepts 1b+3	Comparison with Forecast Scenario
Priwall													
IO U	Priwall/ Traveufer	2.0	**2.6**	2.2	-15 %	2.2	-15 %	2.5	-4 %	2.2	-15 %	2.1	-19 %
IO V	Priwall/ Traveufer	2.0	**2.6**	2.2	-15 %	2.2	-15 %	2.5	-4 %	2.2	-15 %	2.2	-15 %
IO P8	Priwall/ Rosenhof	2.0	**2.4**	2.3	-4 %	2.2	-8 %	2.4	0 %	2.2	-8 %	2.2	-8 %
IO P16	Priwall/ Krankenhaus	2.0	**2.3**	2.2	-4 %	2.2	-4 %	2.3	0 %	2.2	-4 %	2.2	-4 %
IO P13	Priwall/ Pötenitzer Weg	2.0	**2.3**	2.2	-4 %	2.2	-4 %	2.3	0 %	2.2	-4 %	2.2	-4 %
Pommernzentrum													
IO 5	Rönnauer Weg/ Ivend. L.	2.0	**2.2**	2.1	-5 %	2.1	-5 %	2.2	0 %	2.1	-5 %	2.1	-5 %
IO 8	Ostseestr./ Pommernz.	2.0	**2.2**	2.1	-5 %	2.1	-5 %	2.2	0 %	2.1	-5 %	2.1	-5 %
Ivendorf													
IO A	Ivendorf/ Ovendorfer Str.	2.0	**2.1**	2.1	0 %	2.1	0 %	2.1	0 %	2.1	0 %	2.1	0 %
IO B	Ivendorf/ Ovendorfer Str.	2.0	**2.1**	2.1	0 %	2.1	0 %	2.1	0 %	2.1	0 %	2.1	0 %
IO D	Ivendorf/ Ivend. Landstr.	2.0	**2.1**	2.1	0 %	2.1	0 %	2.1	0 %	2.0	-5 %	2.0	-5 %
Residential area Teutendorfer Weg													
IO 3	Rönnauer Ring	2.0	**2.1**	2.1	0 %	2.1	0 %	2.1	0 %	2.1	0 %	2.1	0 %
IO 1	Teutend. Weg/A.d.Bak	2.0	**2.3**	2.2	-4 %	2.2	-4 %	2.3	0 %	2.2	-4 %	2.2	-4 %
IO T41	Teutendorfer Weg	2.0	**2.2**	2.2	0 %	2.2	0 %	2.2	0 %	2.2	0 %	2.2	0 %
IO T42	Am Krautacker	2.0	**2.1**	2.1	0 %	2.1	0 %	2.1	0 %	2.1	0 %	2.1	0 %
IO T43	Hollbeck	2.0	**2.1**	2.0	-5 %	2.0	-5 %	2.1	0 %	2.0	-5 %	2.0	-5 %
Travemünde, harbour area													
IO T3	Marina Baltica	2.0	**2.2**	2.1	-5 %	2.1	-5 %	2.2	0 %	2.1	-5 %	2.1	-5 %
IO T4	Fischereihafen	2.0	**2.2**	2.1	-5 %	2.1	-5 %	2.2	0 %	2.1	-5 %	2.1	-5 %
Travemünde, old town area													
IO T1	Vorderreihe/ Ostpr.kai	2.0	**2.3**	2.2	-4 %	2.2	-4 %	2.3	0 %	2.2	-4 %	2.2	-4 %
IO T8	Vorderreihe/ Prinzenbr.	2.0	**2.3**	2.2	-4 %	2.2	-4 %	2.3	0 %	2.2	-4 %	2.2	-4 %
IO T2	Yachthafen/ Kaiserbr.	2.0	**2.3**	2.2	-4 %	2.2	-4 %	2.3	0 %	2.2	-4 %	2.2	-4 %
IO T7	Kurgartenstraße	2.0	**2.2**	2.2	0 %	2.2	0 %	2.2	0 %	2.2	0 %	2.2	0 %
IO T9	Am Lotsenberg	2.0	**2.2**	2.2	0 %	2.2	0 %	2.2	0 %	2.2	0 %	2.2	0 %
IO T10	Rose	2.0	**2.2**	2.2	0 %	2.2	0 %	2.2	0 %	2.1	-5 %	2.1	-5 %
IO T24	Parkallee/ Kurhaus	2.0	**2.2**	2.2	0 %	2.2	0 %	2.2	0 %	2.2	0 %	2.2	0 %
Travemünde, areas exposed by road traffic													
IO T17	Gneversdorfer Weg	2.0	**2.5**	2.5	0 %	2.5	0 %	2.5	0 %	2.5	0 %	2.5	0 %
IO T19	Gneversdorfer Weg	2.0	**2.3**	2.3	0 %	2.3	0 %	2.3	0 %	2.3	0 %	2.3	0 %
IO T22	Moorredder	2.0	**2.2**	2.2	0 %	2.2	0 %	2.2	0 %	2.2	0 %	2.2	0 %
Travemünde, residential areas													
IO T30	Schwedenstraße	2.0	**2.1**	2.1	0 %	2.1	0 %	2.1	0 %	2.1	0 %	2.1	0 %
IO T39	Scheteligstraße	2.0	**2.1**	2.1	0 %	2.1	0 %	2.1	0 %	2.1	0 %	2.1	0 %
Dummersdorfer Ufer													
IO X	Dummersdorfer Ufer	2.0	**2.2**	2.1	-5 %	2.1	-5 %	2.2	0 %	2.1	-5 %	2.1	-5 %

7. Summary

In this study, the degree of air pollution resulting from shipping traffic in the surroundings of Skandinavienkai in Lübeck-Travemünde has been considered. In order to estimate the total level of emissions, the main road network within the area under investigation has been included in the study. Due to low contributions, other polluter groups have been neglected in the total emission, as was shown to be appropriate in previous investigations concerning Skandinavienkai expansion.

Model calculations have been carried out using the dispersion model AUSTAL2000 on the basis of an annual emission time series. The plausibility of the input data and parameters have been checked in preliminary investigations. Additionally, the effects of the variation of meteorological conditions have been examined over several years. At the end of 2003 a measurement series within the scope of air quality monitoring in Schleswig-Holstein in the vicinity of the Skandinavienkai and in Travemünde commenced (sampling the nitrogen oxides and sulphur dioxide pollution). Conclusive results are not yet available, so a calibration of the calculation model may not presently be achieved. However, a comparison with preliminary measurement results and data from previous measurements (2000) indicate a sufficient plausibility of the calculation model.

Though the shipping traffic and in-port activities lead to considerable pollution in the vicinity of the Skandinavienkai and the river Trave, the actual limits for the protection of human health will be observed in all areas in need of protection. This is also the case for the Forecast Scenario pertaining to the expansion of the Skandinavienkai. Despite this, one should consider the more severe regulations required in order to preserve “Seeheilbad” Travemünde spa status.

In the present investigations, the following idealized reduction concepts concerning the emissions from the ships have been taken into account:

- Reduction concept 1: Supplying power from the wharf, no operation of the ships’ auxiliary engines; this has been assumed for all ships during the stay in port;
- Reduction concept 2: Limitation of the sulphur content of the fuels to an maximum amount of 1 % for all ships and all engines on the Trave;
- Reduction concept 3: Limitation of the sulphur content of the fuels to a maximum amount of 0.1 % for all ships and all engines during the stay in port (use of MGO fuel).

The investigations included the Actual Scenario (traffic volumes referring to 2003) and the Forecast Scenario (reference year 2010).

In summary, the continuous in-port operations of the ships’ engines at Skandinavienkai provide a major contribution to the total emissions and the total immission, i.e. resulting in air pollution within the area under investigation. Therefore, reduction concepts such as supplying power from the wharf are appropriate to reduce the level of air pollution. In addition large reductions in levels of pollution due to sulphur dioxide and nitrogen oxides may

be achieved. Furthermore, some decreases can be estimated in areas far away from the Skandinavienkai.

The limitation of the sulphur content substantially reduces sulphur dioxide pollution. With a limitation to 1 %, a noticeable decrease of sulphur dioxide pollution can be achieved within the whole area under investigation. The limitation of the sulphur content to a maximum of 0.1 % for in-port operations also shows considerable reductions only for sulphur dioxide pollution. By combining the power supplies from the wharf with the limitation of the sulphur contents only little improvements have been estimated, because the main and auxiliary engines are not in operation. Provided that not all ships are supplied with electric power from the wharf, a limitation of the sulphur contents of the fuels may considerably reduce the sulphur dioxide emissions and pollution.

Hammoor, September 28, 2004
(Translation: March, 2005)





(Dipl.-Phys. Dr. Bernd Burandt) (Dipl.-Ing. Björn Heichen)

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9. Appendices

A 1 Site plans XI
A 1.1 Area Under Investigation, Northern Part, Scale 1 : 15.000 XI
A 1.2 Area Under Investigation, Southern Part, Scale 1 : 15.000 XII
A 1.3 Location of Monitor Points for Preliminary Investigations, Scale 1 : 15.000 XIII
A 1.4 Emission Source Model for Shipping, Actual Scenario, Scale 1 : 40.000 XIV
A 1.5 Emission Source Model for Shipping, Forecast Scenario, Scale 1 : 40.000 XV
A 1.6 Emission Source Model for Main Road Network, Actual Scenario, Scale 1 : 40.000 XVI
A 1.7 Emission Source Model for Main Road Network, Forecast Scenario, Scale 1 : 40.000 XVII
A 2 Emissions of Shipping (Actual Scenario) XVIII
A 2.1 Traffic Volume of Regular Shipping XVIII
A 2.1.1 Shipping According to the Skandinavienkai XVIII
A 2.1.2 Shipping According to Other Ports of Lübeck (south of Skandinavienkai) XVIII
A 2.1.3 Stay at Berth, Skandinavienkai, Berths 2/3 XIX
A 2.1.4 Stay at Berth, Skandinavienkai, Berth 4 XIX
A 2.1.5 Stay at Berth, Skandinavienkai, Berth 5 XIX
A 2.1.6 Stay at Berth, Skandinavienkai, Berth 6 XIX
A 2.1.7 Stay at Berth, Skandinavienkai, Berth 6a XX
A 2.1.8 Stay at Berth, Skandinavienkai, Berth 7 XX
A 2.1.9 Stay at Berth, Skandinavienkai, Berth 7a XX
A 2.1.10 Stay at Berth, Skandinavienkai, Berth 8 XX
A 2.2 Irregular Shipping (Year) XXI
A 2.2.1 Stay at Berth, Ostpreußenkai, 2. Quarter (April to June) XXI
A 2.2.2 Stay at Berth, Ostpreußenkai, 3. Quarter (July to September) XXI
A 2.2.3 Stay at Berth, Ostpreußenkai, 4. Quarter (September to December) XXI
A 2.3 Illustration of 4-Week-Period for Shipping XXII
A 2.4 Emission Factors XXIX
A 2.4.1 Main Engines at Sea According to ENTEC Study XXIX

A 2.4.2 Main Engines at Manoeuvring and in Port According to ENTEC Study XXIX
A 2.4.3 Auxiliary Engines at Sea, at Manoeuvring and in Port According to ENTEC Study XXIX
A 2.4.4 Global Approach for Ship Classes According to ENTEC Study (only for information) XXX
A 2.4.5 Auxiliary Boilers at Sea, at Manoeuvring and in Port According to Isensee XXX
A 2.4.6 Main Engines, Auxiliary Engines and Auxiliary Boilers According to EMISS (Isensee) XXX
A 2.4.7 Comparison between ENTEC Study and EMISS (Isensee) XXXI
A 2.5 Engine Loads XXXI
A 2.6 Emissions of Sea Ships, Actual Scenario XXXII
A 2.6.1 Specific Ship Data,General XXXII
A 2.6.2 Specific Ship Data, Main Engines XXXIII
A 2.6.3 Specific Ship Data, Auxiliary Engines XXXIV
A 2.6.4 Specific Ship Data, Auxiliary Boilers XXXV
A 2.6.5 Global Emission Factors According to ENTEC, at Sea (only for Information) XXXVI
A 2.6.6 Global Emission Factors According to ENTEC, Manoeuvring (only for Information) XXXVII
A 2.6.7 Global Emission Factors According to ENTEC, in Port (only for Information) XXXVIII
A 2.6.8 Emission Factors According to ENTEC, Main Engines, at Sea XXXIX
A 2.6.9 Emission Factors According to ENTEC, Main Engines, Manoeuvring and in Port XL
A 2.6.10 Emission Factors According to ENTEC, Auxiliary Engines, at Sea, Manoeuvring and in Port XLI
A 2.6.11 Emission Factors According to Isensee, Auxiliary Boilers, at Sea, Manoeuvring and in Port XLII
A 2.6.12 Emissions per Hour, Main Engines, at Sea XLIII
A 2.6.13 Emissions per Hour, Main Engines, Manoeuvring XLIV
A 2.6.14 Emissions per Hour, Main Engines, in Port XLV
A 2.6.15 Emissions per Hour, Auxiliary Engines, at Sea XLVI
A 2.6.16 Emissions per Hour, Auxiliary Engines, Manoeuvring XLVII

A 2.6.17 Emissions per Hour, Auxiliary Engines, in Port XLVIII
A 2.6.18 Emissions per Hour, Auxiliary Boilers, at Sea XLIX
A 2.6.19 Emissions per Hour, Auxiliary Boilers, Manoeuvring L
A 2.6.20 Emissions per Hour, Auxiliary Boilers, in Port LI
A 2.6.21 Total Emissions per Hour, at Sea LII
A 2.6.22 Total Emissions per Hour, Manoeuvring LIII
A 2.6.23 Total Emissions per Hour, in Port LIV
A 2.7 Emissions of Sea Ships, Actual Scenario, Reduction Concept 1a (Power Supply from Wharf, Boilers 10 %) LV
A 2.8 Emissions of Sea Ships, Actual Scenario, Reduction Concept 1a (Power Supply from Wharf, Boilers 1 %) LVI
A 2.9 Emissions of Sea Ships, Actual Scenario, Reduction Concept 2 (Sulphur Content of Fuels max. 1 %) LVII
A 2.9.1 Total Emissions per Hour, at Sea LVII
A 2.9.2 Total Emissions per Hour, Manoeuvring LVIII
A 2.9.3 Total Emissions per Hour, in Port LIX
A 2.10 Estimation of Plume Rise LX
A 2.10.1 Diffusion of Exhaust Gases, Main Engines LX
A 2.10.2 Diffusion of Exhaust Gases, Auxiliary Engines LXI
A 2.11 Total Emissions of Shipping LXII
A 2.11.1 Actual Scenario (Tons per Year) LXII
A 2.11.2 Actual Scenario, Reduction Concept 1a (Tons per Year) LXII
A 2.11.3 Actual Scenario, Reduction Concept 1b (Tons per Year) LXIII
A 2.11.4 Actual Scenario, Reduction Concept 2 (Tons per Year) LXIII
A 3 Emissions of Shipping (Forecast Scenario) LXIV
A 3.1 Traffic Volume of Regular Shipping LXIV
A 3.1.1 Shipping According to the Skandinavienkai LXIV
A 3.1.2 Shipping According to Other Ports of Lübeck (south of Skandinavienkai) LXIV
A 3.1.3 Stay at Berth, Skandinavienkai, Berths 2/3 LXV
A 3.1.4 Stay at Berth, Skandinavienkai, Berth 4 LXV
A 3.1.5 Stay at Berth, Skandinavienkai, Berth 5 LXV
A 3.1.6 Stay at Berth, Skandinavienkai, Berth 5a LXV
A 3.1.7 Stay at Berth, Skandinavienkai, Berth 6 LXVI

A 3.1.8 Stay at Berth, Skandinavienkai, Berth 6a LXVI
A 3.1.9 Stay at Berth, Skandinavienkai, Berth 7 LXVI
A 3.1.10 Stay at Berth, Skandinavienkai, Berth 7a LXVI
A 3.1.11 Stay at Berth, Skandinavienkai, Berth 8 LXVI
A 3.2 Irregular Shipping (Year) LXVII
A 3.2.1 Stay at Berth, Ostpreußenkai, 2. Quarter (April to June) LXVII
A 3.2.2 Stay at Berth, Ostpreußenkai, 3. Quarter (July to September) LXVII
A 3.2.3 Stay at Berth, Ostpreußenkai, 4. Quarter (September to December) LXVII
A 3.3 Illustration of 4-Week-Period for Shipping LXVIII
A 3.4 Emission Factors LXXV
A 3.4.1 Main Engines at Sea According to ENTEC Study (Scenario 2, 2006) LXXV
A 3.4.2 Main Engines at Manoeuvring and in Port According to ENTEC Study (Scenario 2, 2006) LXXV
A 3.4.3 Auxiliary Engines at Sea, at Manoeuvring and in Port According to ENTEC Study (Scenario 2, 2006) LXXV
A 3.4.4 Global Approach for Ship Classes According to ENTEC Study (Scenario 2, 2006) (only for information) LXXVI
A 3.4.5 Auxiliary Boilers at Sea, at Manoeuvring and in Port According to Isensee LXXVI
A 3.4.6 Main Engines, Auxiliary Engines and Auxiliary Boilers According to EMISS (Isensee) LXXVI
A 3.4.7 Comparison between ENTEC Study and EMISS (Isensee) LXXVII
A 3.5 Engine Loads LXXVII
A 3.6 Emissions of Sea Ships, Forecast Scenario LXXVIII
A 3.6.1 Specific Ship Data, General LXXVIII
A 3.6.2 Specific Ship Data, Main Engines LXXIX
A 3.6.3 Specific Ship Data, Auxiliary Engines LXXX
A 3.6.4 Specific Ship Data, Auxiliary Boilers LXXXI
A 3.6.5 Global Emission Factors According to ENTEC, at Sea (only for Information) LXXXII
A 3.6.6 Global Emission Factors According to ENTEC, Manoeuvring (only for Information) LXXXIII

A 3.6.7 Global Emission Factors According to ENTEC, in Port (only for Information) LXXXIV

A 3.6.8 Emission Factors According to ENTEC, Main Engines, at Sea LXXXV

A 3.6.9 Emission Factors According to ENTEC, Main Engines, Manoeuvring and in Port LXXXVI

A 3.6.10 Emission Factors According to ENTEC, Auxiliary Engines, at Sea, Manoeuvring and in Port LXXXVII

A 3.6.11 Emission Factors According to Isensee, Auxiliary Boilers, at Sea, Manoeuvring and in Port LXXXVIII

A 3.6.12 Emissions per Hour, Main Engines, at Sea LXXXIX

A 3.6.13 Emissions per Hour, Main Engines, Manoeuvring XC

A 3.6.14 Emissions per Hour, Main Engines, in Port XCI

A 3.6.15 Emissions per Hour, Auxiliary Engines, at Sea XCII

A 3.6.16 Emissions per Hour, Auxiliary Engines, Manoeuvring XCIII

A 3.6.17 Emissions per Hour, Auxiliary Engines, in Port XCIV

A 3.6.18 Emissions per Hour, Auxiliary Boilers, at Sea XCV

A 3.6.19 Emissions per Hour, Auxiliary Boilers, Manoeuvring XCVI

A 3.6.20 Emissions per Hour, Auxiliary Boilers, in Port XCVII

A 3.6.21 Total Emissions per Hour, at Sea XCVIII

A 3.6.22 Total Emissions per Hour, Manoeuvring XCIX

A 3.6.23 Total Emissions per Hour, in Port C

A 3.7 Emissions of Sea Ships, Forecast Scenario, Reduction Concept 1a (Power Supply from Wharf, Boilers 10 %) CI

A 3.8 Emissions of Sea Ships, Forecast Scenario, Reduction Concept 1b (Power Supply from Wharf, Boilers 1 %) CII

A 3.9 Emissions of Sea Ships, Forecast Scenario, Reduction Concept 3 (Sulphur Content of Fuels in Port max. 0.1 %) CIII

A 3.10 Emissions of Sea Ships, Forecast Scenario, Reduction Concepts 1a+ 3 CIV

A 3.11 Emissions of Sea Ships, Forecast Scenario, Reduction Concepts 1b+ 3 CV

A 3.12 Estimations Concerning Plume Rise CVI

A 3.12.1 Diffusion of Exhaust Gases, Main Engines CVI

A 3.12.2 Diffusion of Exhaust Gases, Auxiliary Engines CVII

A 3.13 Total Emissions of Shipping CVIII
A 3.13.1 Forecast Scenario 2010 (Tons per Year) CVIII
A 3.13.2 Forecast Scenario, Reduction Concept 1a (Tons per year) CVIII
A 3.13.3 Forecast Scenario, Reduction Concept 1b (Tons per year) CIX
A 3.13.4 Forecast Scenario, Reduction Concept 3 (Tons per year) CIX
A 3.13.5 Forecast Scenario, Reduction Concepts 1a+3 (Tons per year) CX
A 3.13.6 Forecast Scenario, Reduction Concepts 1b+3 (Tons per year) CX
A 4 Emissions of the Road Traffic CXI
A 4.1 Summary of Traffic Volumes CXI
A 4.1.1 General CXI
A 4.1.2 Actual Scenario CXI
A 4.1.3 Forecast Scenario 2010 CXIII
A 4.2 Summary of Traffic Situations CXIV
A 4.3 Summary of Time Series' for Road Traffic CXVI
A 4.3.1 Annual Distributions According to BAST (weekly resolution) CXVI
A 4.3.2 Annual Distribution According to BAST (monthly average) CXVI
A 4.3.3 Weekly Distribution According to BAST CXVII
A 4.3.4 Traffic distributions on Monday According to BAST CXVII
A 4.3.5 Traffic Distributions Tuesday to Thursday According to BAST CXVIII
A 4.3.6 Traffic Distributions on Friday According to BAST CXVIII
A 4.3.7 Traffic Distributions on Saturday According to BAST CXIX
A 4.3.8 Traffic Distributions on Sunday According to BAST CXIX
A 4.4 Basic Emission Factors CXX
A 4.4.1 Exhaust Gases (Handbook Emission Factors), Reference Year 2004 CXX
A 4.4.2 Exhaust Gases (Handbook Emission Factors), Reference Year 2010 CXXI
A 4.4.3 Estimation of PM_{10} Emission Factors for Dust Resuspension on Paved Roads CXXII
A 4.5 Emission Factors of Road Traffic CXXIII
A 4.5.1 Actual Scenario CXXIII
A 4.5.2 Forecast Scenario CXXVIII
A 4.6 Total Annual Emissions of Road Traffic CXXXIII

A 4.6.1 Actual Scenario CXXXIII
A 4.6.2 Forecast Scenario CXXXVIII
A 4.7 Total Emissions of Road Traffic CXLIII
A 4.7.1 Actual Scenario (Tons per Year) CXLIII
A 4.7.2 Forecast Scenario (Tons per Year) CXLIII
A 5 Preliminary Investigations concerning Variations due to Meteorological Parameters (model years 1997 to 2002) CXLV
A 5.1 Distributions of Wind Directions CXLV
A 5.2 Exemplary Pollution Maps CXLVI
A 5.2.1 Additional Sulphur Dioxide Pollution due to Shipping, Annual Average Value (J00) CXLVI
A 5.2.2 Additional Sulphur Dioxide Pollution due to Shipping, 24 Hours Value (T03) CXLVII
A 5.2.3 Additional Sulphur Dioxide Pollution due to Shipping, 1 Hour Value (S24) CXLVIII
A 5.3 Analysis at Monitor Points (Preliminary Studies) CXLIX
A 5.3.1 Additional Sulphur Dioxide Pollution due to Shipping CXLIX
A 5.3.2 Additional Nitrogen Oxides Pollution due to Shipping CLI
A 5.3.3 Additional Particle (PM_{10}) Pollution due to Shipping CLII
A 5.3.4 Analysis and Evaluation of Reference Year CLIV
A 6 Additional Pollutions CLV
A 6.1 Shipping, Actual Scenario (Polluter Analysis) CLV
A 6.1.1 Additional NOx Pollution (Annual Average Value J00) CLV
A 6.1.2 Additional SO_2 Pollution (Annual Average Value J00) CLVI
A 6.1.3 Additional SO_2 Pollution (24 Hours Value T03) CLVII
A 6.1.4 Additional SO_2 Pollution (1 Hour Value S24) CLVIII
A 6.1.5 Additional PM_{10} Pollution (Annual Average Value J00) CLIX
A 6.1.6 Additional PM_{10} Pollution (24 Hours Value T35) CLX
A 6.1.7 Additional Soot Pollution (Annual Average Value J00) CLXI
A 6.2 Sum of Road Traffic and Shipping, Actual Scenario CLXII
A 6.2.1 Additional NOx Pollution (Annual Average Value J00) CLXII
A 6.2.2 Additional PM_{10} Pollution (Annual Average Value J00) CLXIII
A 6.2.3 Additional PM_{10} Pollution (24 Hours Value T35) CLXIV
A 6.2.4 Additional Soot Pollution (Annual Average Value J00) CLXV

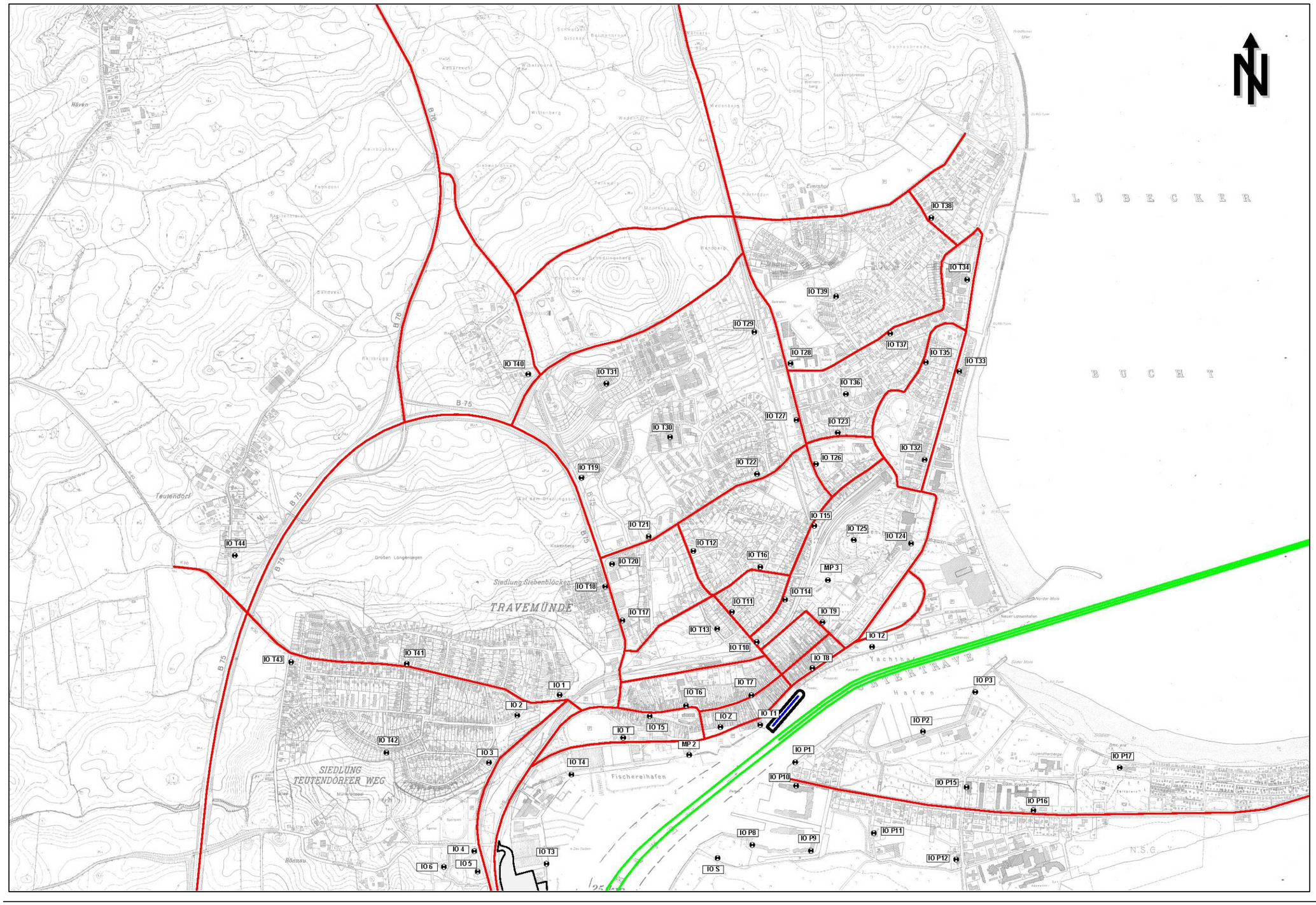
A 6.3 Sum of Road Traffic and Shipping, Forecast Scenario CLXVI
A 6.3.1 Additional NOx Pollution (Annual Average Value J00).....CLXVI
A 6.3.2 Additional SO_2 Pollution (Annual Average Value J00) CLXVII
A 6.3.3 Additional SO_2 Pollution (24 Hours Value T03).....CLXVIII
A 6.3.4 Additional SO_2 Pollution (1 Hour Value S24) CLXIX
A 6.3.5 Additional PM_{10} Pollution (Annual Average Value J00).....CLXX
A 6.3.6 Additional PM_{10} Pollution (24 Hours Value T35) CLXXI
A 6.3.7 Additional Soot Pollution (Annual Average Value J00) CLXXII
A 7 Total Pollutions.....CLXXIII
A 7.1 Total Pollutions, Actual Scenario CLXXIII
A 7.1.1 Total NOx Pollution (Annual Average Value J00) CLXXIII
A 7.1.2 Total NOx Pollution (98 Percentile)..... CLXXIV
A 7.1.3 Total NO_2 Pollution (Annual Average Value J00)..... CLXXV
A 7.1.4 Total NO_2 Pollution (98 Percentile) CLXXVI
A 7.1.5 Total NO_2 Pollution (1 Hour Value S18) CLXXVII
A 7.1.6 Total SO_2 Pollution (Annual Average Value J00) CLXXVIII
A 7.1.7 Total SO_2 Pollution (24 Hours Value T03)..... CLXXIX
A 7.1.8 Total SO_2 Pollution (1 Hour Value S24) CLXXX
A 7.1.9 Total PM_{10} Pollution (Annual Average Value J00)..... CLXXXI
A 7.1.10 Total PM_{10} Pollution (24 Hours Value T35) CLXXXII
A 7.1.11 Total Soot Pollution (Annual Average Value J00) CLXXXIII
A 7.2 Total Pollutions, Forecast Scenario CLXXXIV
A 7.2.1 Total NOx Pollution (Annual Average Value J00) CLXXXIV
A 7.2.2 Total NOx Pollution (98 Percentile).....CLXXXV
A 7.2.3 Total NO_2 Pollution (Annual Average Value J00).....CLXXXVI
A 7.2.4 Total NO_2 Pollution (98 Percentile) CLXXXVII
A 7.2.5 Total NO_2 Pollution (1 Hour Value S18) CLXXXVIII
A 7.2.6 Total SO_2 Pollution (Annual Average Value J00) CLXXXIX
A 7.2.7 Total SO_2 Pollution (24 Hours Value T03)..... CXC
A 7.2.8 Total SO_2 Pollution (1 Hour Value S24) CXCI
A 7.2.9 Total PM_{10} Pollution (Annual Average Value J00)..... CXCII
A 7.2.10 Total PM_{10} Pollution (24 Hours Value T35) CXCIII

A 7.2.11 Total Soot Pollution (Annual Average Value J00) CXCIV
A 8 Pollution Maps for the Actual Scenario CXCV
A 8.1 Additional Sulphur Dioxide Pollution (Annual Average Value J00) CXCV
A 8.1.1 Actual Scenario without Reductions CXCV
A 8.1.2 Reduction Concept 1a CXCVI
A 8.1.3 Difference Map: Decrease by Reduction Concept 1a CXCVII
A 8.1.4 Reduction Concept 2 CXCVIII
A 8.1.5 Difference Map: Decrease by Reduction Concept 2 CXCIX
A 8.2 Additional Sulphur Dioxide Pollution (24 Hours Value T03) CC
A 8.2.1 Actual Scenario without Reductions CC
A 8.2.2 Reduction Concept 1a CCI
A 8.2.3 Difference Map: Decrease by Reduction Concept 1a CCII
A 8.2.4 Reduction Concept 2 CCIII
A 8.2.5 Difference Map: Decrease by Reduction Concept 2 CCIV
A 8.3 Additional Sulphur Dioxide Pollution (1 Hour Value S24) CCV
A 8.3.1 Actual Scenario without Reductions CCV
A 8.3.2 Reduction Concept 1a CCVI
A 8.3.3 Difference Map: Decrease by Reduction Concept 1a CCVII
A 8.3.4 Reduction Concept 2 CCVIII
A 8.3.5 Difference Map: Decrease by Reduction Concept 2 CCIX
A 8.4 Total Sulphur Dioxide Pollution (Annual Average Value J00) CCX
A 8.4.1 Actual Scenario without Reductions CCX
A 8.4.2 Reduction Concept 1a CCXI
A 8.4.3 Difference Map: Decrease by Reduction Concept 1a CCXII
A 8.4.4 Reduction Concept 2 CCXIII
A 8.4.5 Difference Map: Decrease by Reduction Concept 2 CCXIV
A 8.5 Total Nitrogen Dioxide Pollution (Annual Average Value J00) CCXV
A 8.5.1 Actual Scenario without Reductions CCXV
A 8.5.2 Reduction Concept 1a CCXVI
A 8.5.3 Difference Map: Decrease by Reduction Concept 1a CCXVII
A 9 Pollution Maps for the Forecast Scenario CCXVIII
A 9.1 Additional Sulphur Dioxide Pollution (Annual Average ValueJ00) CCXVIII

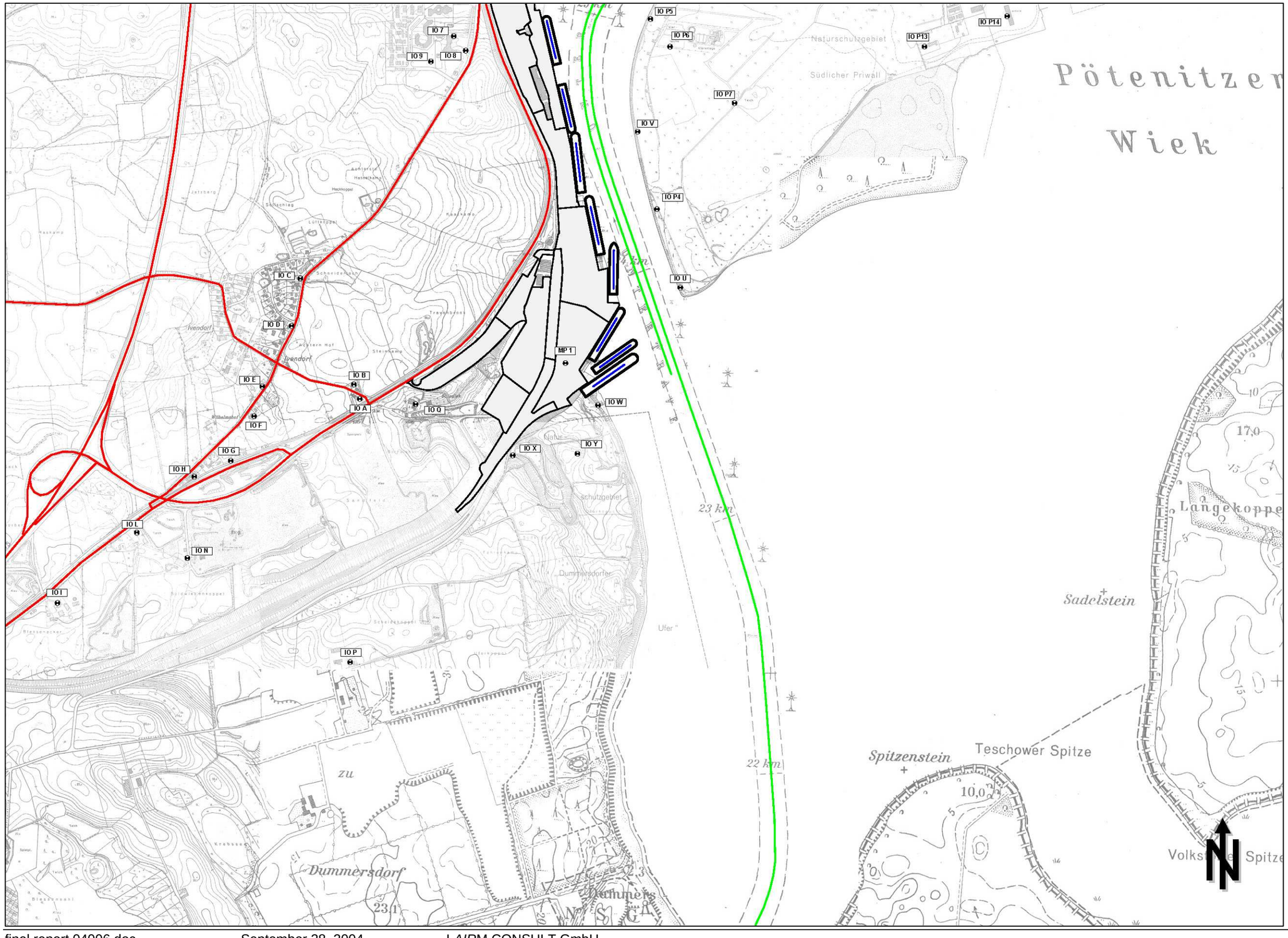
A 9.1.1 Forecast Scenario without Reductions CCXVIII
A 9.1.2 Reduction Concept 1a CCXIX
A 9.1.3 Difference Map: Decrease by Reduction Concept 1a CCXX
A 9.1.4 Reduction Concept 3 CCXXI
A 9.1.5 Difference Map: Decrease by Reduction Concept 3 CCXXII
A 9.2 Additional Sulphur Dioxide Pollution (24 Hours Value T03) CCXXIII
A 9.2.1 Forecast Scenario without Reductions CCXXIII
A 9.2.2 Minderungskonzept 1a CCXXIV
A 9.2.3 Difference Map: Decrease by Reduction Concept 1a CCXXV
A 9.2.4 Reduction Concept 3 CCXXVI
A 9.2.5 Difference Map: Decrease by Reduction Concept 3 CCXXVII
A 9.3 Additional Sulphur Dioxide Pollution (1 Hour Value S24) CCXXVIII
A 9.3.1 Forecast Scenario without Reductions CCXXVIII
A 9.3.2 Reduction Concept 1a CCXXIX
A 9.3.3 Difference Map: Decrease by Reduction Concept 1a CCXXX
A 9.3.4 Reduction Concept 2 CCXXXI
A 9.3.5 Difference Map: Decrease by Reduction Concept 3 CCXXXII
A 9.4 Total Sulphur Dioxide Pollution (Annual Average Value J00) CCXXXIII
A 9.4.1 Forecast Scenario without Reductions CCXXXIII
A 9.4.2 Reduction Concept 1a CCXXXIV
A 9.4.3 Difference Map: Decrease by Reduction Concept 1a CCXXXV
A 9.4.4 Reduction Concept 3 CCXXXVI
A 9.4.5 Difference Map: Decrease by Reduction Concept 3 CCXXXVII
A 9.5 Total Nitrogen Dioxide Pollution (Annual Average Value J00) CCXXXVIII
A 9.5.1 Forecast Scenario without Reductions CCXXXVIII
A 9.5.2 Reduction Concept 1a CCXXXIX
A 9.5.3 Difference Map: Decrease by Reduction Concept 1a CCXL

A 1 Site plans

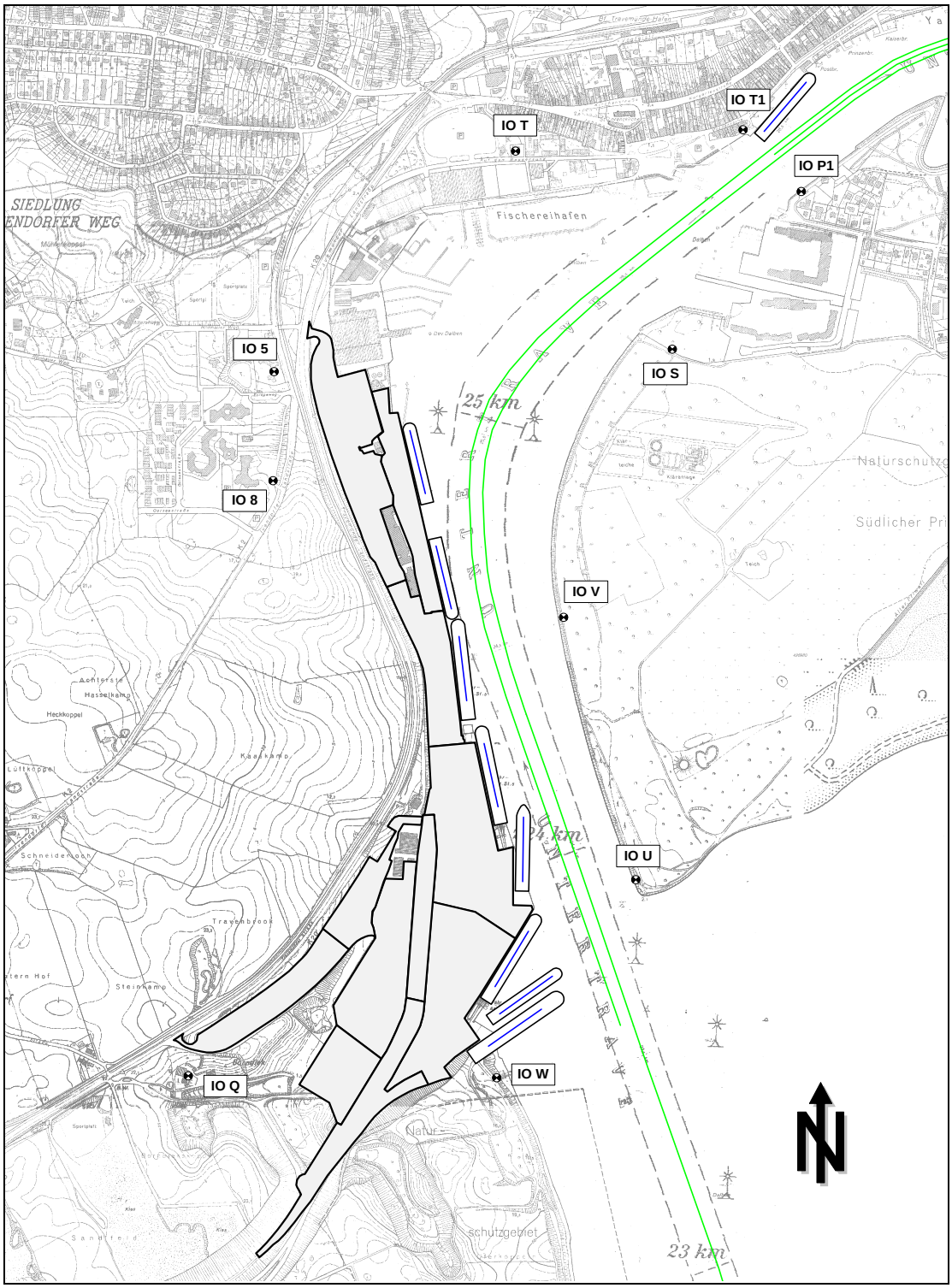
A 1.1 Area Under Investigation, Northern Part, Scale 1 : 15.000



A 1.2 Area Under Investigation, Southern Part, Scale 1 : 15.000



A 1.3 Location of Monitor Points for Preliminary Investigations, Scale 1 : 15.000



A 1.4 Emission Source Model for Shipping, Actual Scenario, Scale 1 : 40.000



Emission source model:

Shipping lanes: green lines

Berths: blue lines

A 1.5 Emission Source Model for Shipping, Forecast Scenario, Scale 1 : 40.000

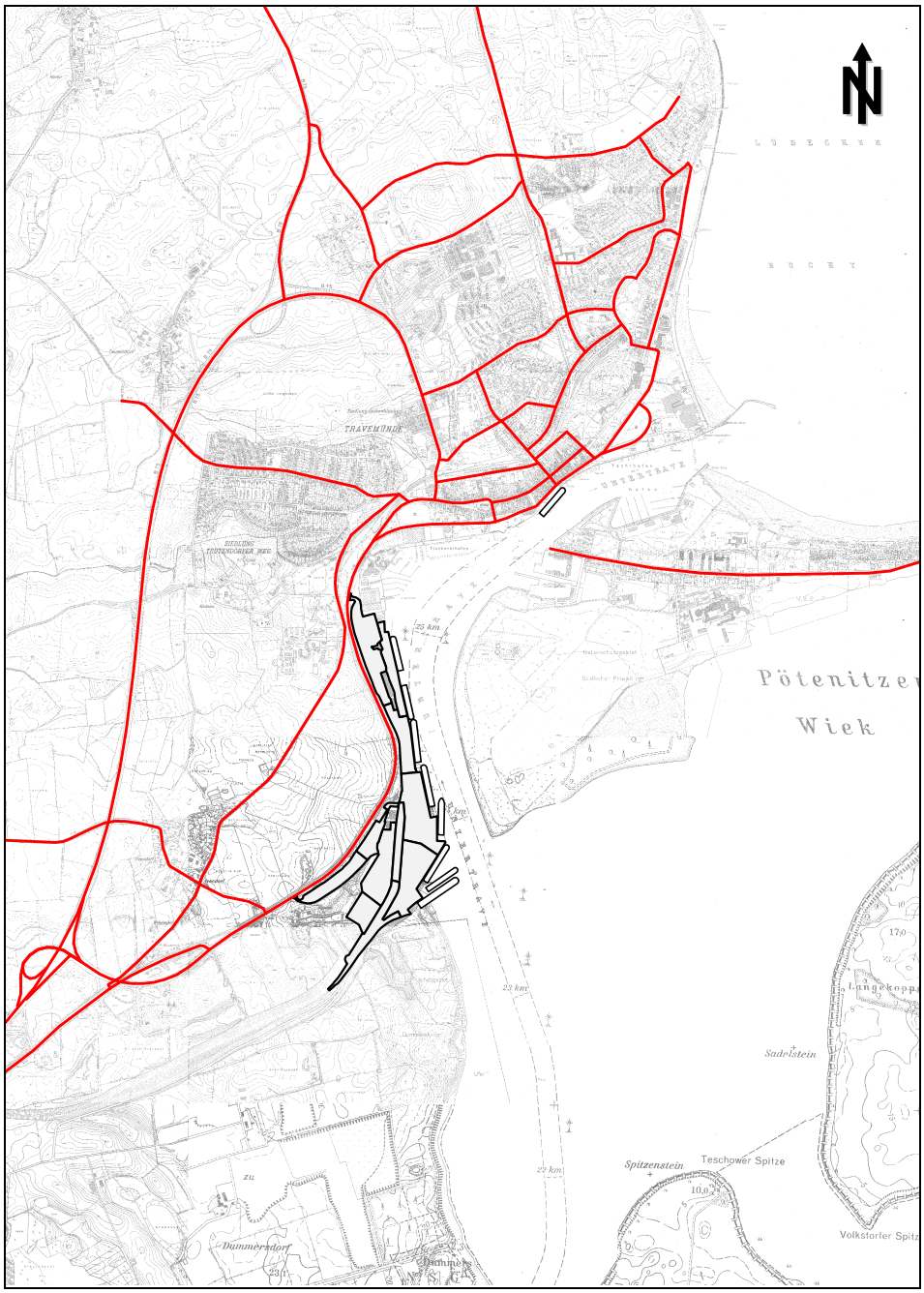


Emission source model:

Shipping lanes: green lines

Berths: blue lines

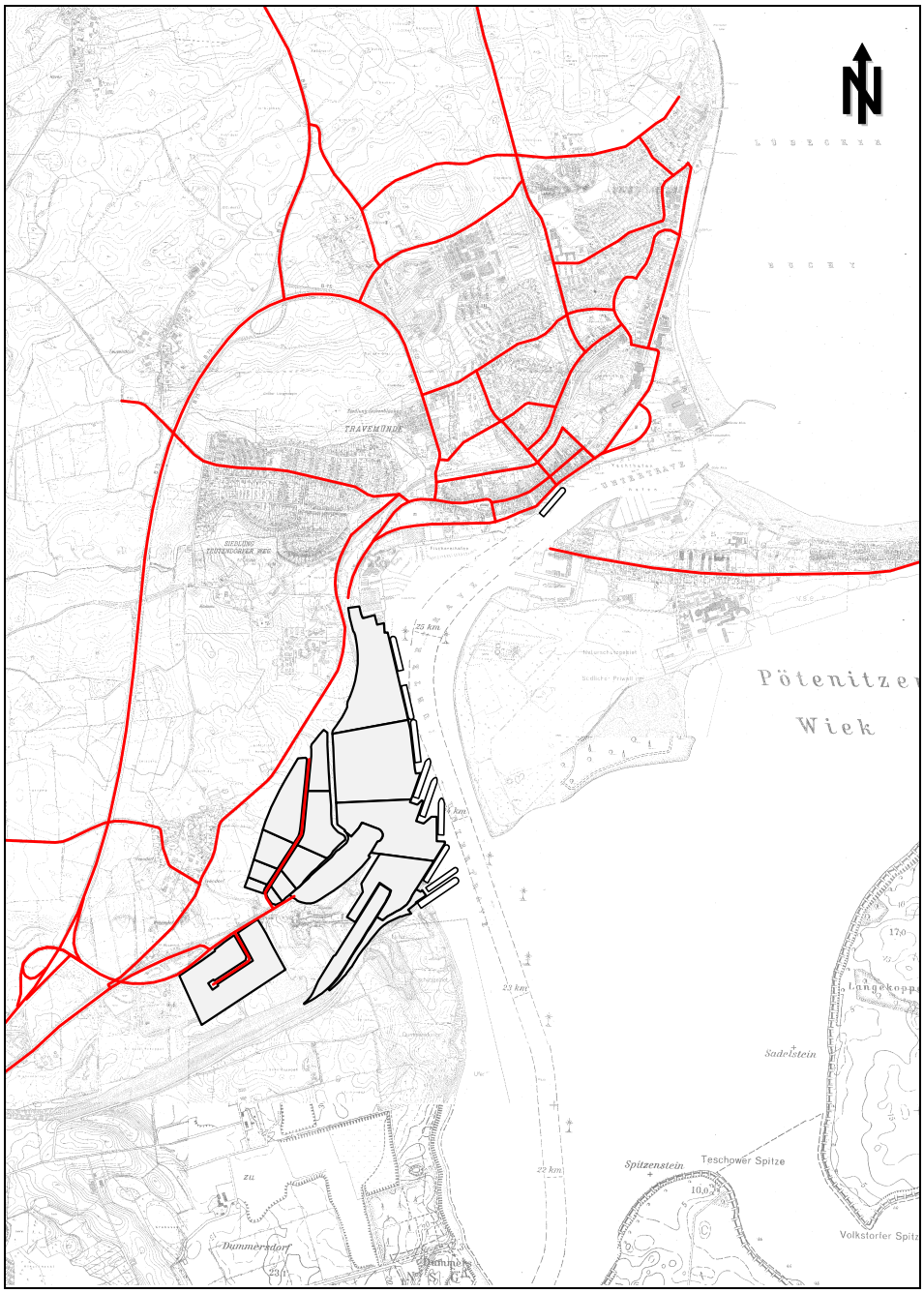
A 1.6 Emission Source Model for Main Road Network, Actual Scenario, Scale 1 : 40.000



Emission source model:

Road lanes: red lines

A 1.7 Emission Source Model for Main Road Network, Forecast Scenario, Scale 1 : 40.000



Emission source model:

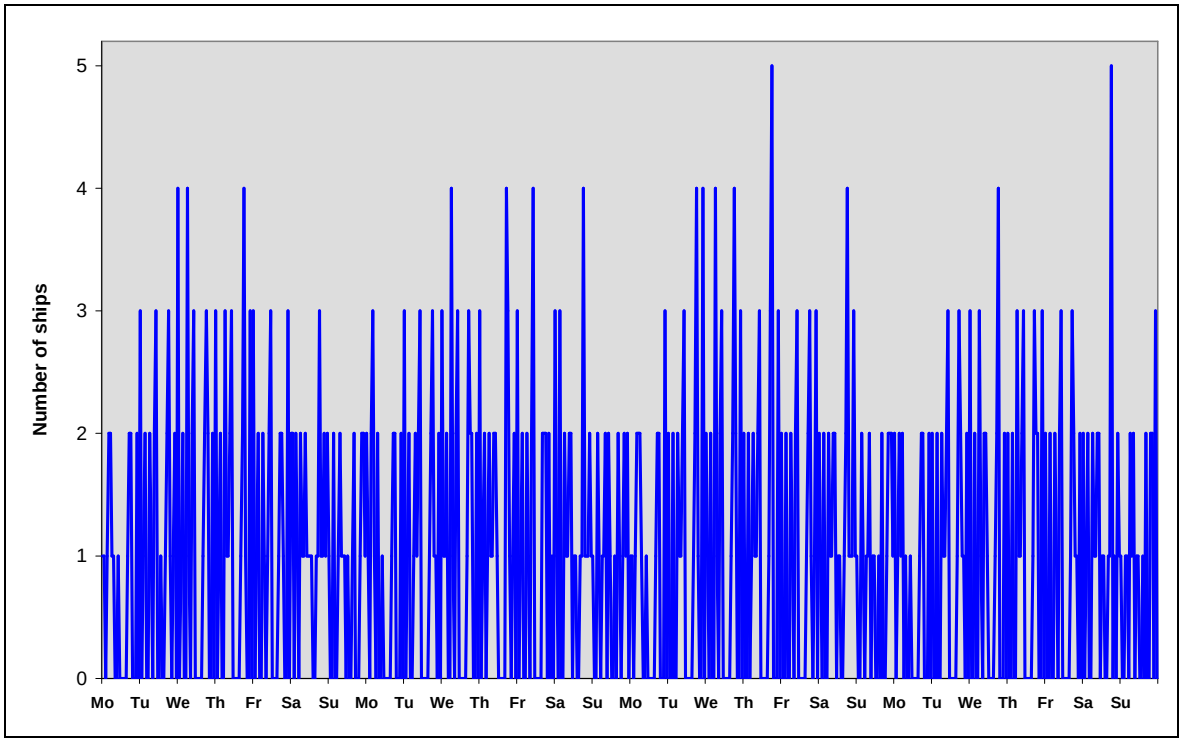
Road lanes: red lines

A 2 Emissions of Shipping (Actual Scenario)

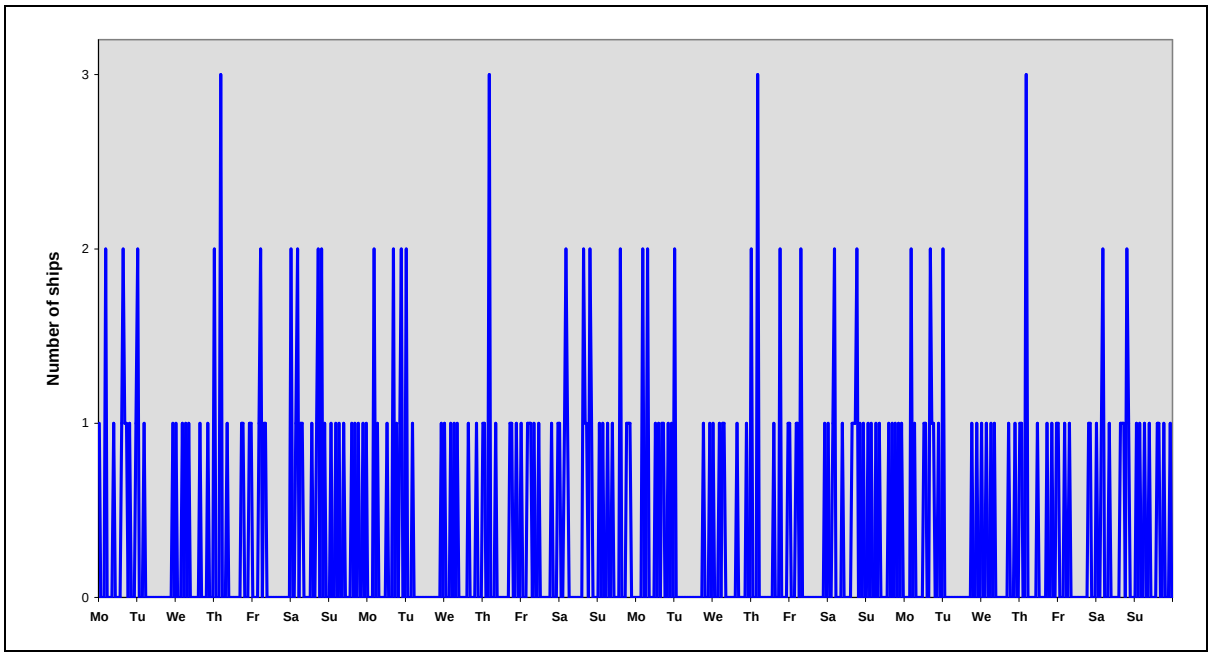
A 2.1 Traffic Volume of Regular Shipping

(Model Year, 4-Week-Period)

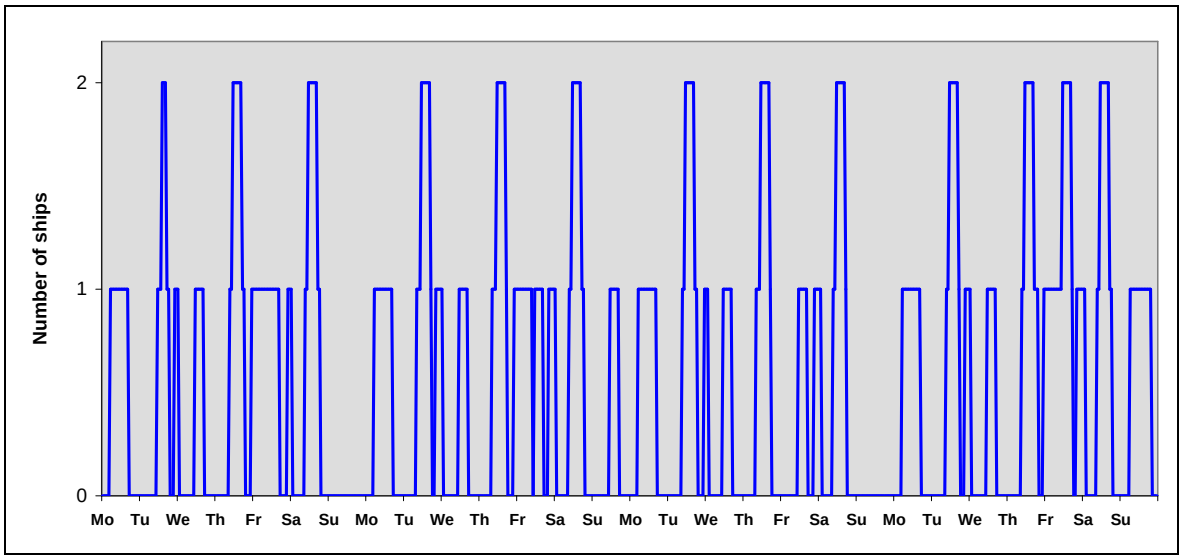
A 2.1.1 Shipping According to the Skandinavienkai



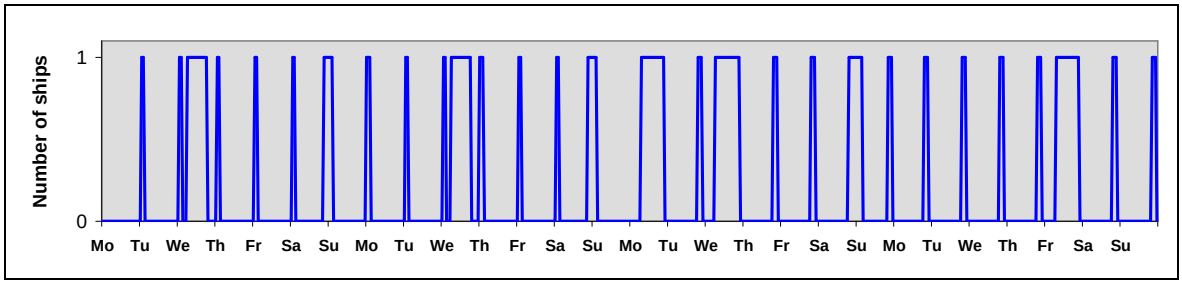
A 2.1.2 Shipping According to Other Ports of Lübeck (south of Skandinavienkai)



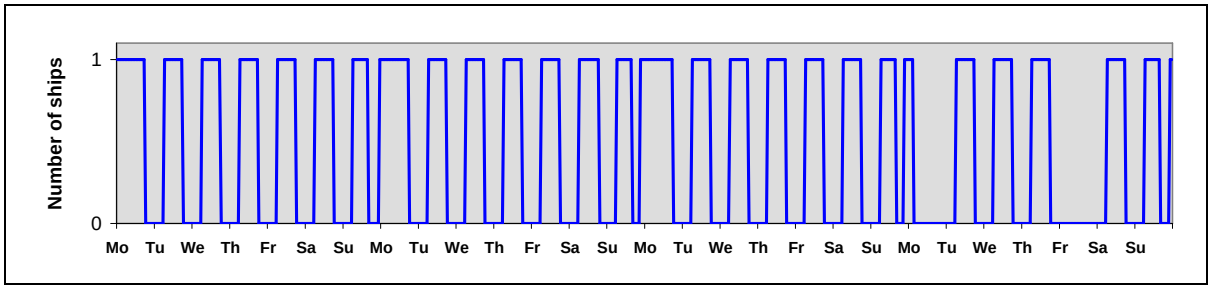
A 2.1.3 Stay at Berth, Skandinavienkai, Berths 2/3



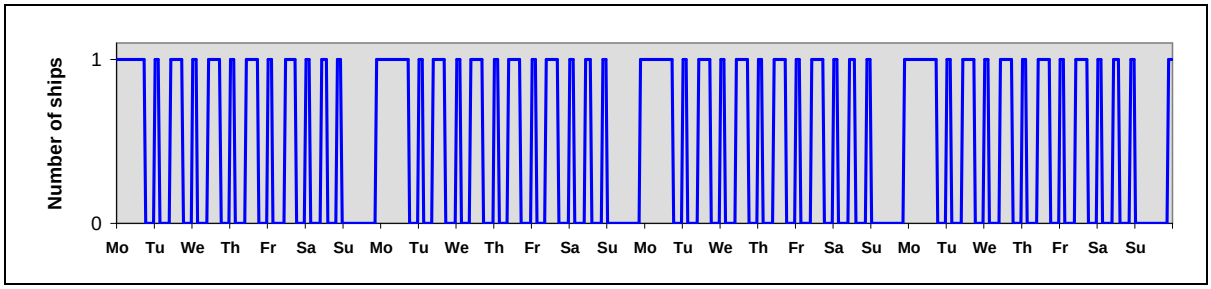
A 2.1.4 Stay at Berth, Skandinavienkai, Berth 4



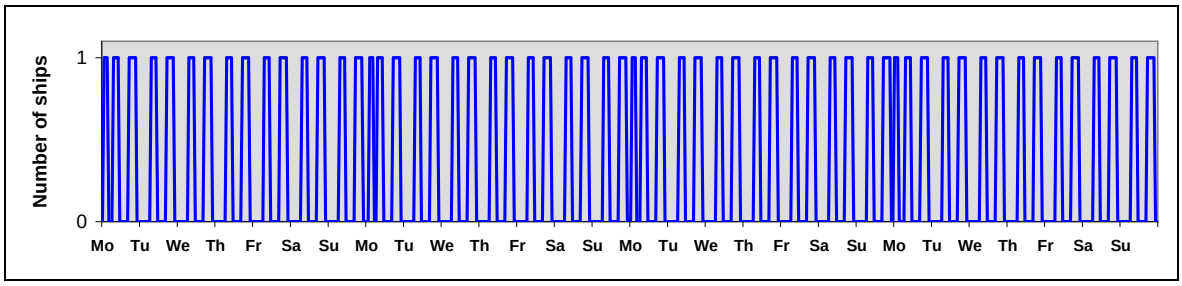
A 2.1.5 Stay at Berth, Skandinavienkai, Berth 5



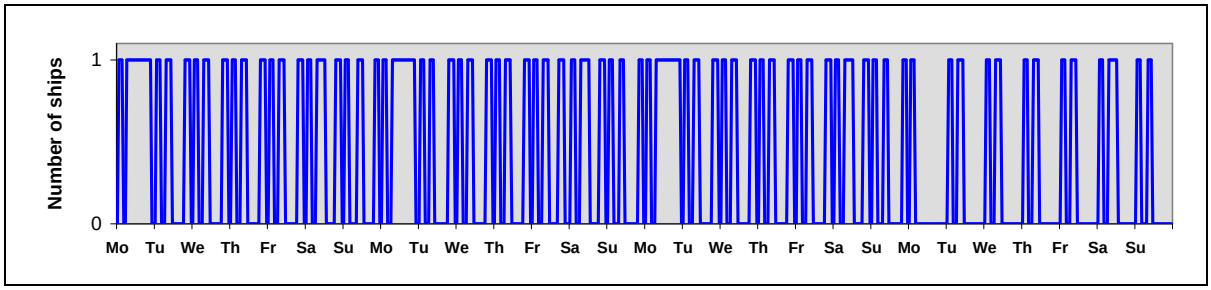
A 2.1.6 Stay at Berth, Skandinavienkai, Berth 6



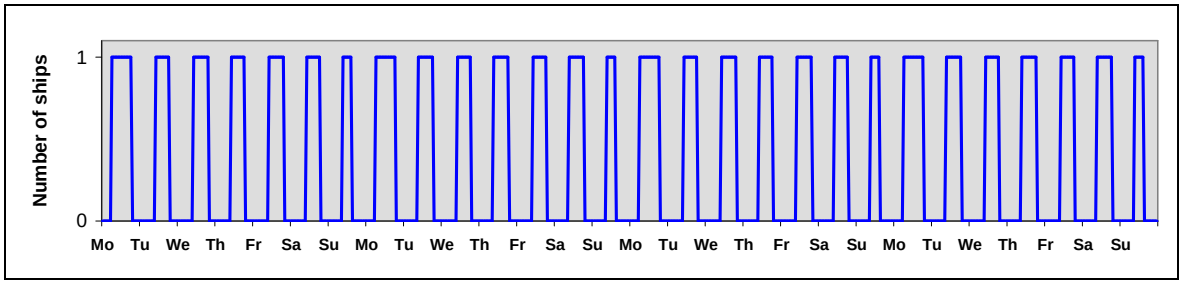
A 2.1.7 Stay at Berth, Skandinavienkai, Berth 6a



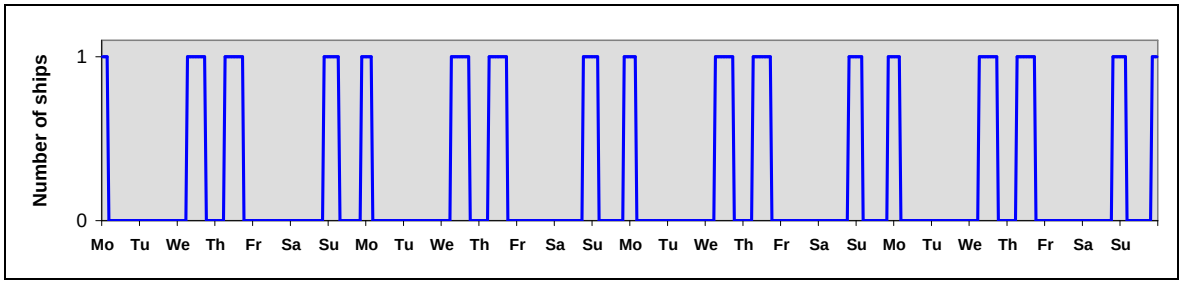
A 2.1.8 Stay at Berth, Skandinavienkai, Berth 7



A 2.1.9 Stay at Berth, Skandinavienkai, Berth 7a

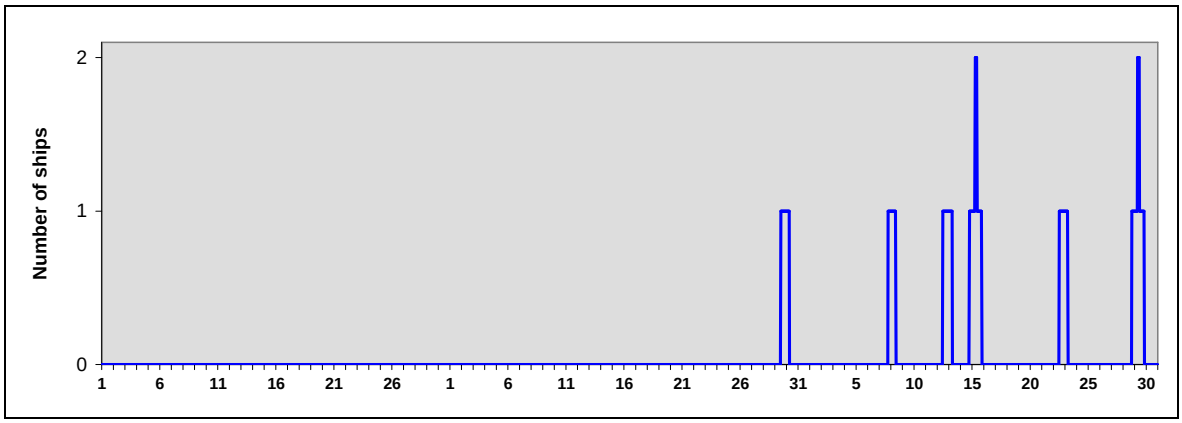


A 2.1.10 Stay at Berth, Skandinavienkai, Berth 8

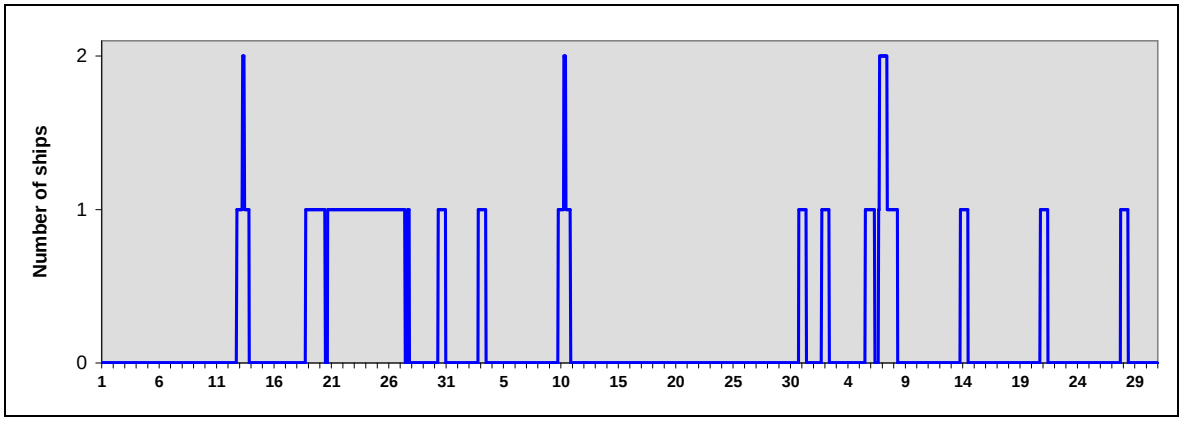


A 2.2 Irregular Shipping (Year)

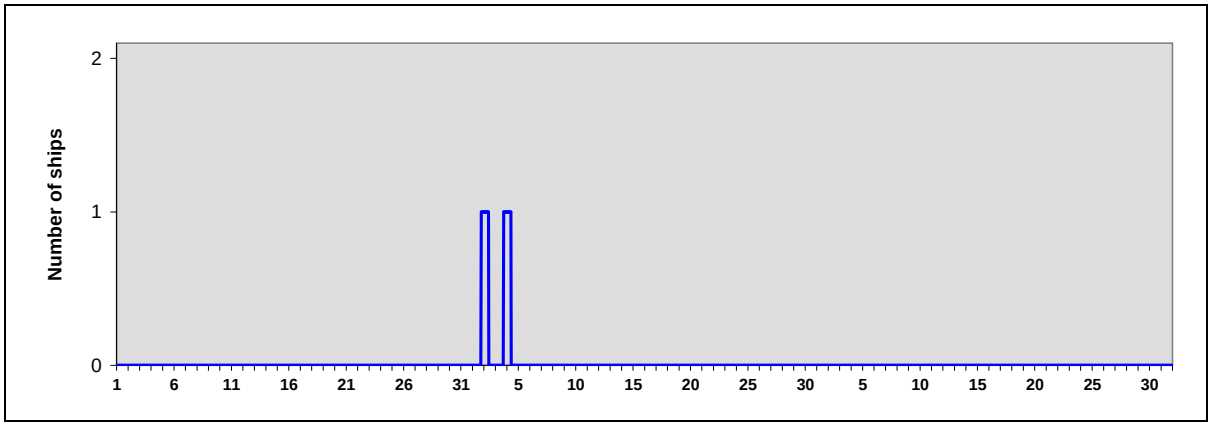
A 2.2.1 Stay at Berth, Ostpreußenkai, 2. Quarter (April to June)



A 2.2.2 Stay at Berth, Ostpreußenkai, 3. Quarter (July to September)



A 2.2.3 Stay at Berth, Ostpreußenkai, 4. Quarter (September to December)



A 2.3 Illustration of 4-Week-Period for Shipping

(reference month July), for denotation see Appendix A 2.6.1

Day	h	Stay at berth, Skandinavienkai									Ship movements from/to Skandinavienkai				Ship movements from/to other ports		Ostpreußenkai	
		No. 2	No. 3	No. 4	No. 5	No. 6	No. 6a	No. 7	No. 7a	No. 8							Stay at berth	Move-ments
Mon	1				sk52	sk6a3				sk81	sk73				nk3			
	2				sk52	sk6a3	sk6a4	sk73		sk81	sk6a4							
	3				sk52	sk6a3	sk6a4	sk73		sk81								
	4				sk52	sk6a3	sk6a4	sk73		sk81	sk73							
	5				sk52	sk6a3					sk6a4	sk81			ct1	nk8		
	6	sk34			sk52	sk6a3					sk34	sk7a2						
	7	sk34			sk52	sk6a3		sk71	sk7a2			sk71						
	8	sk34			sk52	sk6a3	sk6a2	sk71	sk7a2		sk6a2							
	9	sk34			sk52	sk6a3	sk6a2	sk71	sk7a2									
	10	sk34			sk52	sk6a3	sk6a2	sk71	sk7a2						lk2			
	11	sk34			sk52	sk6a3	sk6a2	sk71	sk7a2		sk6a2							
	12	sk34			sk52	sk6a3		sk71	sk7a2									
	13	sk34			sk52	sk6a3		sk71	sk7a2									
	14	sk34			sk52	sk6a3		sk71	sk7a2									
	15	sk34			sk52	sk6a3		sk71	sk7a2						kk1			
	16	sk34			sk52	sk6a3		sk71	sk7a2						lk3	sp2		
	17	sk34			sk52	sk6a3		sk71	sk7a2		sk6a1				nk7			
	18				sk52	sk6a3	sk6a1	sk71	sk7a2		sk34	sk6a3			nk8			
	19						sk6a1	sk71	sk7a2		sk52	sk7a2						
	20						sk6a1	sk71							nk3			
	21						sk6a1	sk71										
	22						sk6a1	sk71										
	23										sk6a1	sk71						
	24														lk2			
Tue	1					sk6a4					sk41	sk6a4	sk73		ct1	kk5		
	2			sk41		sk6a4		sk73										
	3			sk41		sk6a4		sk73			sk41							
	4							sk73			sk73	sk6a4						
	5														nk6			
	6																	
	7				sk51						sk51	sk72						
	8				sk51		sk6a2	sk72			sk6a2							
	9				sk51		sk6a2	sk72										
	10				sk51		sk6a2	sk72			sk6a3		sk7a1					
	11				sk51	sk6a3	sk6a2	sk72	sk7a1		sk34	sk6a2	sk72					
	12	sk34			sk51	sk6a3			sk7a1									
	13	sk34			sk51	sk6a3			sk7a1									
	14	sk34			sk51	sk6a3			sk7a1		sk32							
	15	sk34	sk32		sk51	sk6a3			sk7a1									
	16	sk34	sk32		sk51	sk6a3			sk7a1									
	17	sk34	sk32		sk51	sk6a3			sk7a1		sk6a1							
	18		sk32		sk51	sk6a3	sk6a1		sk7a1		sk34	sk6a3						
	19		sk32				sk6a1		sk7a1		sk32	sk51	sk7a1					
	20						sk6a1	sk71			sk71							
	21						sk6a1	sk71										
	22						sk6a1	sk71			sk33							
	23		sk33					sk71			sk6a1	sk71			nk7			
	24		sk33															
Wed	1		sk33			sk6a4					sk33	sk41	sk6a4	sk73	kk3			
	2			sk41		sk6a4		sk73										
	3			sk41		sk6a4		sk73			sk41							
	4							sk73			sk6a4	sk73						
	5														kk1			
	6																	
	7			sk42	sk53					sk82	sk42	sk53	sk72	sk82	lk1			
	8			sk42	sk53		sk6a2	sk72		sk82	sk6a2							
	9			sk42	sk53		sk6a2	sk72		sk82					nk10			
	10			sk42	sk53		sk6a2	sk72		sk82	sk6a3	sk7a2						
	11			sk42	sk53	sk6a3	sk6a2	sk72	sk7a2	sk82	sk34	sk6a2	sk72					
	12	sk34		sk42	sk53	sk6a3			sk7a2	sk82								
	13	sk34		sk42	sk53	sk6a3			sk7a2	sk82								
	14	sk34		sk42	sk53	sk6a3			sk7a2	sk82								
	15	sk34		sk42	sk53	sk6a3			sk7a2	sk82								
	16	sk34		sk42	sk53	sk6a3			sk7a2	sk82					lk1			
	17	sk34		sk42	sk53	sk6a3			sk7a2	sk82	sk6a1							
	18			sk42	sk53	sk6a3	sk6a1		sk7a2	sk82	sk34	sk6a3						
	19			sk42			sk6a1		sk7a2		sk53	sk71	sk82					
	20						sk6a1	sk71	sk7a2		sk42	sk7a2						
	21						sk6a1	sk71							nk6			
	22						sk6a1	sk71										
	23							sk71			sk6a1	sk71						
	24																	
Thu	1					sk6a4					sk41	sk6a4	sk73		kk1	nk10		
	2			sk41		sk6a4		sk73										
	3			sk41		sk6a4		sk73			sk41							
	4							sk73			sk6a4	sk73						
	5														kk4	nk9 sp3		
	6																	
	7				sk54					sk81	sk54	sk72	sk81					
	8				sk54		sk6a2	sk72		sk81	sk6a2							
	9				sk54		sk6a2	sk72		sk81	sk32				nk4			
	10		sk32		sk54		sk6a2	sk72		sk81	sk6a3	sk7a1						
	11		sk32		sk54	sk6a3	sk6a2	sk72	sk7a1	sk81	sk34	sk6a2	sk72					
	12	sk34	sk32		sk54	sk6a3			sk7a1	sk81								
	13	sk34	sk32		sk54	sk6a3			sk7a1	sk81								
	14	sk34	sk32		sk54	sk6a3			sk7a1	sk81								
	15	sk34	sk32		sk54	sk6a3			sk7a1	sk81								
	16	sk34	sk32		sk54	sk6a3			sk7a1	sk81								
	17	sk34	sk32		sk54	sk6a3			sk7a1	sk81	sk6a1							
	18		sk32		sk54	sk6a3	sk6a1		sk7a1	sk81	sk34	sk6a3			sp3			
	19		sk32				sk6a1		sk7a1		sk32	sk54	sk71	sk81	nk9			
	20						sk6a1	sk71			sk7a1							
	21						sk6a1	sk71										
	22						sk6a1	sk71										
	23							sk71			sk31	sk6a1	sk71		lk2			
	24		sk31												kk4			

Illustration of 4-Week-Period for Shipping (continued)

Day	h	Stay at berth, Skandinavienkai									Ship movements from/to Skandinavienkai	Ship movements from/to other ports	Ostpreußenkai	
		No. 2	No. 3	No. 4	No. 5	No. 6	No. 6a	No. 7	No. 7a	No. 8			Stay at berth	Move-ments
Fri	1		sk31			sk6a4					sk41 sk6a4 sk73			
	2		sk31	sk41		sk6a4		sk73						
	3		sk31	sk41		sk6a4		sk73			sk41			
	4		sk31					sk73			sk6a4 sk73			
	5		sk31									kk5		
	6		sk31									lk2 lk3		
	7		sk31		sk52						sk52 sk72			
	8		sk31		sk52		sk6a2	sk72			sk6a2	nk11		
	9		sk31		sk52		sk6a2	sk72				ct1		
	10		sk31		sk52		sk6a2	sk72			sk7a2			
	11		sk31		sk52		sk6a2	sk72	sk7a2		sk6a3 sk72			
	12	sk34			sk52	sk6a3			sk7a2		sk31 sk34 sk6a2			
	13	sk34			sk52	sk6a3			sk7a2					
	14	sk34			sk52	sk6a3			sk7a2					
	15	sk34			sk52	sk6a3			sk7a2					
	16	sk34			sk52	sk6a3			sk7a2					
	17	sk34			sk52	sk6a3			sk7a2		sk6a1			
	18				sk52	sk6a3	sk6a1		sk7a2		sk34 sk6a3			
	19						sk6a1		sk7a2		sk52 sk71			
	20						sk6a1	sk71	sk7a2		sk7a2			
	21						sk6a1	sk71						
	22						sk6a1	sk71						
	23		sk33					sk71			sk33 sk6a1 sk71			
	24		sk33											
Sat	1		sk33			sk6a4					sk6a4 sk73	kk5 lk3		
	2			sk41		sk6a4		sk73			sk33 sk41			
	3			sk41		sk6a4		sk73						
	4							sk73			sk6a4 sk73	kk3		
	5										sk41	nk8 ct1		
	6													
	7				sk51						sk51 sk72	nk5		
	8				sk51		sk6a2	sk72			sk6a2	kk2		
	9				sk51		sk6a2	sk72			sk32			
	10		sk32		sk51		sk6a2	sk72			sk6a3 sk7a1			
	11		sk32		sk51	sk6a3	sk6a2	sk72	sk7a1		sk6a2			
	12	sk34	sk32		sk51	sk6a3		sk72	sk7a1		sk34			
	13	sk34	sk32		sk51	sk6a3		sk72	sk7a1		sk72			
	14	sk34	sk32		sk51	sk6a3			sk7a1		sk6a3	kk3		
	15	sk34	sk32		sk51				sk7a1					
	16	sk34	sk32		sk51				sk7a1					
	17	sk34	sk32		sk51				sk7a1		sk6a1	lk1		
	18		sk32		sk51		sk6a1		sk7a1		sk34	nk4 nk11		
	19		sk32				sk6a1		sk7a1		sk32 sk51 sk7a1			
	20						sk6a1	sk71			sk71	kk2 nk8		
	21					sk6a4	sk6a1	sk71			sk6a4			
	22			sk42		sk6a4	sk6a1	sk71		sk82	sk42 sk82	nk5		
	23			sk42		sk6a4		sk71		sk82	sk6a1			
	24			sk42						sk82	sk6a4 sk71			
Sun	1			sk42						sk82	sk73			
	2			sk42				sk73		sk82		lk1		
	3			sk42				sk73		sk82				
	4							sk73		sk82	sk42 sk73			
	5									sk82		kk1		
	6									sk82				
	7				sk53					sk82	sk53	nk1		
	8				sk53		sk6a2				sk6a2 sk82			
	9				sk53		sk6a2				sk7a2			
	10				sk53		sk6a2	sk72	sk7a2		sk72	sp1		
	11				sk53		sk6a2	sk72	sk7a2		sk6a2			
	12				sk53			sk72	sk7a2					
	13				sk53			sk72	sk7a2		sk72			
	14				sk53				sk7a2					
	15				sk53				sk7a2			kk1		
	16				sk53						sk7a2			
	17										sk53 sk6a1	kk4		
	18						sk6a1							
	19						sk6a1					nk1		
	20						sk6a1							
	21						sk6a1	sk71			sk71			
	22					sk6a4	sk6a1	sk71		sk81	sk6a4 sk81	nk3		
	23					sk6a4		sk71		sk81	sk54 sk6a1			
	24				sk54	sk6a4				sk81	sk71	lk3		
Mon	1			sk41	sk54	sk6a4				sk81	sk41 sk73			
	2			sk41	sk54	sk6a4		sk73		sk81	sk6a3			
	3			sk41	sk54	sk6a4	sk6a3	sk73		sk81				
	4				sk54	sk6a4	sk6a3	sk73		sk81	sk41 sk73			
	5				sk54	sk6a4	sk6a3				sk34 sk6a3 sk81	nk9 nk10		
	6		sk34		sk54	sk6a4					sk7a1			
	7		sk34		sk54	sk6a4			sk7a1			lk2		
	8		sk34		sk54	sk6a4	sk6a2	sk72	sk7a1		sk6a2 sk72			
	9		sk34		sk54	sk6a4	sk6a2	sk72	sk7a1					
	10		sk34		sk54	sk6a4	sk6a2	sk72	sk7a1					
	11		sk34		sk54	sk6a4	sk6a2	sk72	sk7a1		sk6a2			
	12		sk34		sk54	sk6a4		sk72	sk7a1					
	13		sk34		sk54	sk6a4		sk72	sk7a1			sp1		
	14		sk34		sk54	sk6a4		sk72	sk7a1					
	15		sk34		sk54	sk6a4		sk72	sk7a1					
	16		sk34		sk54	sk6a4		sk72	sk7a1					
	17		sk34		sk54	sk6a4		sk72	sk7a1		sk6a1	kk5 nk7		
	18				sk54	sk6a4	sk6a1	sk72	sk7a1		sk34 sk6a4			
	19						sk6a1	sk72	sk7a1		sk54 sk7a1	nk3		
	20						sk6a1	sk72						
	21						sk6a1	sk72				lk3		
	22						sk6a1	sk72				lk2 nk9		
	23										sk6a1 sk72			
	24													

Illustration of 4-Week-Period for Shipping (continued)

Day	h	Stay at berth, Skandinavienkai									Ship movements from/to Skandinavienkai	Ship movements from/to other ports	Ostpreußenkai	
		No. 2	No. 3	No. 4	No. 5	No. 6	No. 6a	No. 7	No. 7a	No. 8			Stay at berth	Move-ments
Tue	1					sk6a3					sk41 sk6a3 sk73	kk4 nk10		
	2			sk41		sk6a3		sk73						
	3			sk41		sk6a3		sk73			sk41			
	4							sk73			sk73 sk6a3			
	5											nk6		
	6													
	7				sk52						sk52			
	8				sk52		sk6a2	sk71			sk6a2 sk71			
	9		sk32		sk52		sk6a2	sk71			sk32			
	10		sk32		sk52	sk6a4	sk6a2	sk71	sk7a2		sk6a4 sk7a2			
	11		sk32		sk52	sk6a4	sk6a2		sk7a2		sk34 sk6a2 sk71			
	12	sk34	sk32		sk52	sk6a4			sk7a2					
	13	sk34	sk32		sk52	sk6a4			sk7a2					
	14	sk34	sk32		sk52	sk6a4			sk7a2					
	15	sk34	sk32		sk52	sk6a4			sk7a2					
	16	sk34	sk32		sk52	sk6a4			sk7a2					
	17	sk34	sk32		sk52	sk6a4			sk7a2		sk6a1			
	18		sk32		sk52		sk6a1		sk7a2		sk34 sk6a4			
	19						sk6a1		sk7a2		sk32 sk52 sk72			
	20						sk6a1	sk72			sk7a2			
	21		sk33				sk6a1	sk72			sk33			
	22		sk33				sk6a1	sk72						
	23		sk33					sk72			sk6a1 sk72	nk7		
	24		sk33											
Wed	1		sk33			sk6a3					sk41 sk6a3 sk73	kk5		
	2			sk41		sk6a3		sk73			sk33			
	3			sk41		sk6a3		sk73			sk41			
	4							sk73			sk73 sk6a3			
	5											kk3		
	6													
	7			sk42	sk51					sk82	sk42 sk51 sk71 sk82	lk1		
	8			sk42	sk51		sk6a2	sk71		sk82	sk6a2			
	9			sk42	sk51		sk6a2	sk71		sk82		ct1		
	10			sk42	sk51	sk6a4	sk6a2	sk71		sk82	sk6a4 sk7a1			
	11			sk42	sk51	sk6a4	sk6a2	sk71	sk7a1	sk82	sk34 sk6a2 sk71			
	12	sk34		sk42	sk51	sk6a4			sk7a1	sk82				
	13	sk34		sk42	sk51	sk6a4			sk7a1	sk82				
	14	sk34		sk42	sk51	sk6a4			sk7a1	sk82				
	15	sk34		sk42	sk51	sk6a4			sk7a1	sk82				
	16	sk34		sk42	sk51	sk6a4			sk7a1	sk82		lk1		
	17	sk34		sk42	sk51	sk6a4			sk7a1	sk82	sk6a1			
	18			sk42	sk51		sk6a1		sk7a1	sk82	sk34 sk6a4 sk82			
	19			sk42			sk6a1		sk7a1		sk51 sk72			
	20						sk6a1	sk72			sk42 sk7a1			
	21						sk6a1	sk72				nk6		
	22						sk6a1	sk72						
	23							sk72			sk6a1 sk72			
	24													
Thu	1			sk41		sk6a3					sk41 sk6a3 sk73	kk3		
	2			sk41		sk6a3		sk73				ct1		
	3			sk41		sk6a3		sk73			sk6a3			
	4							sk73			sk41 sk73			
	5											kk1 nk8 sp3		
	6										sk81			
	7				sk53					sk81	sk53 sk71			
	8				sk53		sk6a2	sk71		sk81	sk6a2			
	9		sk32		sk53		sk6a2	sk71		sk81	sk32	nk4		
	10		sk32		sk53	sk6a4	sk6a2	sk71	sk7a2	sk81	sk6a4 sk7a2			
	11		sk32		sk53	sk6a4	sk6a2	sk71	sk7a2	sk81	sk34 sk71			
	12	sk34	sk32		sk53	sk6a4			sk7a2	sk81	sk6a2			
	13	sk34	sk32		sk53	sk6a4			sk7a2	sk81				
	14	sk34	sk32		sk53	sk6a4			sk7a2	sk81				
	15	sk34	sk32		sk53	sk6a4			sk7a2	sk81				
	16	sk34	sk32		sk53	sk6a4			sk7a2	sk81				
	17	sk34	sk32		sk53	sk6a4			sk7a2	sk81				
	18		sk32		sk53		sk6a1		sk7a2	sk81	sk34 sk6a1 sk6a4 sk81	sp3		
	19						sk6a1		sk7a2		sk32 sk53 sk72	nk8		
	20						sk6a1	sk72			sk7a2			
	21						sk6a1	sk72						
	22						sk6a1	sk72			sk31	lk2		
	23		sk31					sk72			sk6a1 sk72			
	24		sk31											
Fri	1		sk31			sk6a3					sk41 sk6a3 sk73	kk1		
	2		sk31	sk41		sk6a3		sk73						
	3		sk31	sk41		sk6a3		sk73			sk41			
	4		sk31					sk73			sk73 sk6a3			
	5		sk31									kk4		
	6		sk31									lk3		
	7		sk31		sk54						sk54 sk71	lk2		
	8		sk31		sk54		sk6a2	sk71			sk6a2			
	9		sk31		sk54		sk6a2	sk71				nk10		
	10		sk31		sk54	sk6a4	sk6a2	sk71			sk6a4 sk7a1			
	11				sk54	sk6a4	sk6a2	sk71	sk7a1		sk31 sk34 sk6a2 sk71			
	12	sk34			sk54	sk6a4			sk7a1			nk11		
	13	sk34			sk54	sk6a4			sk7a1					
	14	sk34			sk54	sk6a4			sk7a1					
	15	sk34			sk54	sk6a4			sk7a1					
	16	sk34			sk54	sk6a4			sk7a1					
	17	sk34			sk54	sk6a4			sk7a1		sk6a1 sk72			
	18				sk54		sk6a1	sk72	sk7a1		sk34 sk6a4			
	19						sk6a1	sk72	sk7a1		sk54 sk7a1			
	20						sk6a1	sk72				nk11		
	21		sk33				sk6a1	sk72			sk33 sk72			
	22		sk33				sk6a1							
	23		sk33								sk6a1			
	24		sk33									kk4		

Illustration of 4-Week-Period for Shipping (continued)

Day	h	Stay at berth, Skandinavienkai									Ship movements from/to Skandinavienkai	Ship movements from/to other ports	Ostpreußenkai	
		No. 2	No. 3	No. 4	No. 5	No. 6	No. 6a	No. 7	No. 7a	No. 8			Stay at berth	Move-ments
Sat	1		sk33			sk6a3					sk41 sk6a3 sk73	lk3		
	2			sk41		sk6a3		sk73			sk33			
	3			sk41		sk6a3		sk73						
	4							sk73			sk41 sk6a3 sk73	kk5		
	5											kk2 nk9		
	6											nk5		
	7				sk52						sk52 sk71			
	8				sk52		sk6a2	sk71			sk6a2			
	9				sk52		sk6a2	sk71			sk32			
	10		sk32		sk52		sk6a2	sk71	sk7a2		sk6a4 sk7a2			
	11		sk32		sk52	sk6a4	sk6a2	sk71	sk7a2		sk34 sk6a2			
	12	sk34	sk32		sk52	sk6a4		sk71	sk7a2					
	13	sk34	sk32		sk52	sk6a4		sk71	sk7a2		sk71			
	14	sk34	sk32		sk52	sk6a4			sk7a2		sk6a4			
	15	sk34	sk32		sk52				sk7a2					
	16	sk34	sk32		sk52				sk7a2			kk5 nk10		
	17	sk34	sk32		sk52				sk7a2		sk6a1	lk1		
	18		sk32		sk52		sk6a1		sk7a2		sk34	nk4		
	19		sk32		sk52		sk6a1		sk7a2	sk82	sk32 sk52 sk72 sk82		ok3	ok3
	20						sk6a1	sk72		sk82	sk7a2	kk2 nk9	ok3	
	21						sk6a1	sk72		sk82	sk6a3	nk5	ok3	
	22			sk42		sk6a3	sk6a1	sk72		sk82	sk42		ok3	
	23			sk42		sk6a3		sk72		sk82	sk6a1 sk72		ok3	
	24			sk42		sk6a3				sk82	sk6a3		ok3	
Sun	1			sk42						sk82	sk73		ok3	
	2			sk42				sk73		sk82		lk1	ok3	
	3			sk42				sk73		sk82			ok3	
	4							sk73		sk82	sk42 sk73	kk3	ok3	
	5										sk82		ok3	
	6												ok3	
	7				sk51						sk51	nk2	ok7 ok3	ok7
	8				sk51		sk6a2				sk6a2		ok7 ok3	
	9				sk51		sk6a2	sk71			sk71 sk7a1		ok7 ok3	
	10				sk51		sk6a2	sk71	sk7a1			sp1	ok7 ok3	ok3
	11				sk51		sk6a2	sk71	sk7a1		sk34 sk6a2		ok7	
	12	sk34			sk51				sk7a1		sk71		ok7	
	13	sk34			sk51				sk7a1				ok7	
	14	sk34			sk51				sk7a1				ok7	
	15	sk34			sk51				sk7a1		sk7a1	kk1 kk3	ok7	
	16	sk34			sk51								ok7	
	17	sk34									sk51 sk6a1		ok7	
	18						sk6a1				sk34		ok7	
	19						sk6a1					nk2	ok7	
	20						sk6a1				sk72	sp2	ok7	ok7
	21						sk6a1	sk72		sk81	sk6a3 sk81	nk3		
	22				sk53	sk6a3	sk6a1	sk72		sk81	sk53			
	23				sk53	sk6a3		sk72		sk81	sk6a1 sk72			
	24				sk53	sk6a3				sk81				
Mon	1				sk53	sk6a3				sk81	sk73			
	2				sk53	sk6a3	sk6a4	sk73		sk81	sk6a4			
	3				sk53	sk6a3	sk6a4	sk73		sk81				
	4				sk53	sk6a3	sk6a4	sk73		sk81	sk73			
	5				sk53	sk6a3					sk6a4 sk81	ct1 nk8		
	6		sk34		sk53	sk6a3					sk34 sk7a2			
	7		sk34		sk53	sk6a3			sk7a2		sk41 sk71			
	8		sk34	sk41	sk53	sk6a3	sk6a2	sk71	sk7a2		sk6a2	lk2 lk3		
	9		sk34	sk41	sk53	sk6a3	sk6a2	sk71	sk7a2					
	10		sk34	sk41	sk53	sk6a3	sk6a2	sk71	sk7a2					
	11		sk34	sk41	sk53	sk6a3	sk6a2	sk71	sk7a2		sk6a2			
	12		sk34	sk41	sk53	sk6a3		sk71	sk7a2					
	13		sk34	sk41	sk53	sk6a3		sk71	sk7a2			sp1		
	14		sk34	sk41	sk53	sk6a3		sk71	sk7a2					
	15		sk34	sk41	sk53	sk6a3		sk71	sk7a2			lk3		
	16		sk34	sk41	sk53	sk6a3		sk71	sk7a2					
	17		sk34	sk41	sk53	sk6a3		sk71	sk7a2		sk6a1	nk7		
	18			sk41	sk53	sk6a3	sk6a1	sk71	sk7a2		sk34 sk6a3	nk3		
	19			sk41			sk6a1	sk71	sk7a2		sk53 sk7a2			
	20			sk41			sk6a1	sk71						
	21			sk41			sk6a1	sk71				nk8		
	22			sk41			sk6a1	sk71						
	23							sk71			sk41 sk6a1 sk71	lk2		
	24													
Tue	1					sk6a4					sk6a4 sk73	ct1 kk1		
	2					sk6a4		sk73						
	3					sk6a4		sk73						
	4							sk73			sk6a4 sk73			
	5													
	6													
	7				sk54						sk54 sk72			
	8				sk54		sk6a2	sk72			sk6a2			
	9				sk54		sk6a2	sk72			sk32			
	10		sk32		sk54		sk6a2	sk72			sk6a3 sk7a1			
	11		sk32		sk54	sk6a3	sk6a2	sk72	sk7a1		sk34 sk6a2 sk72			
	12	sk34	sk32		sk54	sk6a3			sk7a1					
	13	sk34	sk32		sk54	sk6a3			sk7a1					
	14	sk34	sk32		sk54	sk6a3			sk7a1					
	15	sk34	sk32		sk54	sk6a3			sk7a1					
	16	sk34	sk32		sk54	sk6a3			sk7a1					
	17	sk34	sk32		sk54	sk6a3			sk7a1		sk6a1			
	18		sk32		sk54	sk6a3	sk6a1		sk7a1		sk34 sk6a3			
	19		sk32				sk6a1		sk7a1		sk32 sk41 sk54 sk71	nk6		
	20			sk41			sk6a1	sk71			sk7a1			
	21			sk41			sk6a1	sk71						
	22			sk41			sk6a1	sk71						
	23							sk71			sk33 sk41 sk6a1 sk71	nk7		
	24		sk33											

Illustration of 4-Week-Period for Shipping (continued)

Day	h	Stay at berth, Skandinavienkai									Ship movements from/to Skandinavienkai	Ship movements from/to other ports	Ostpreußenkai	
		No. 2	No. 3	No. 4	No. 5	No. 6	No. 6a	No. 7	No. 7a	No. 8			Stay at berth	Move-ments
Wed	1		sk33			sk6a4					sk6a4 sk73	sp1		
	2		sk33			sk6a4		sk73			sk33			
	3					sk6a4		sk73						
	4							sk73			sk6a4 sk73			
	5											kk5		
	6													
	7			sk42	sk52					sk82	sk42 sk52 sk72 sk82	lk1		
	8			sk42	sk52		sk6a2	sk72		sk82	sk6a2	nk10		
	9			sk42	sk52		sk6a2	sk72		sk82				
	10			sk42	sk52		sk6a2	sk72		sk82	sk6a3 sk7a2			
	11			sk42	sk52	sk6a3	sk6a2	sk72	sk7a2	sk82	sk34 sk6a2 sk72			
	12	sk34		sk42	sk52	sk6a3			sk7a2	sk82				
	13	sk34		sk42	sk52	sk6a3			sk7a2	sk82				
	14	sk34		sk42	sk52	sk6a3			sk7a2	sk82				
	15	sk34		sk42	sk52	sk6a3			sk7a2	sk82				
	16	sk34		sk42	sk52	sk6a3			sk7a2	sk82		lk1		
	17	sk34		sk42	sk52	sk6a3			sk7a2	sk82	sk6a1			
	18			sk42	sk52	sk6a3	sk6a1		sk7a2	sk82	sk34 sk6a3			
	19			sk42			sk6a1		sk7a2		sk41 sk52 sk71 sk82			
	20			sk41			sk6a1	sk71	sk7a2		sk42 sk7a2			
	21			sk41			sk6a1	sk71						
	22			sk41			sk6a1	sk71				nk8		
	23							sk71			sk41 sk6a1 sk71			
	24													
Thu	1					sk6a4					sk6a4 sk73	kk5 nk10		
	2					sk6a4		sk73						
	3					sk6a4		sk73						
	4							sk73			sk6a4 sk73			
	5											kk3 nk9 sp3		
	6										sk81			
	7				sk51					sk81	sk51 sk72			
	8				sk51		sk6a2	sk72		sk81	sk6a2			
	9		sk32		sk51		sk6a2	sk72		sk81	sk32			
	10		sk32		sk51		sk6a2	sk72		sk81	sk6a3 sk7a1			
	11		sk32		sk51	sk6a3	sk6a2	sk72	sk7a1	sk81	sk34 sk6a2 sk72			
	12	sk34	sk32		sk51	sk6a3			sk7a1	sk81				
	13	sk34	sk32		sk51	sk6a3			sk7a1	sk81				
	14	sk34	sk32		sk51	sk6a3			sk7a1	sk81				
	15	sk34	sk32		sk51	sk6a3			sk7a1	sk81		nk4		
	16	sk34	sk32		sk51	sk6a3			sk7a1	sk81				
	17	sk34	sk32		sk51	sk6a3			sk7a1	sk81	sk6a1			
	18		sk32		sk51	sk6a3	sk6a1		sk7a1	sk81	sk34 sk6a3 sk81			
	19						sk6a1		sk7a1		sk32 sk41 sk51 sk71 sk7a1	nk9 sp3		
	20			sk41			sk6a1	sk71						
	21			sk41			sk6a1	sk71						
	22			sk41			sk6a1	sk71						
	23							sk71			sk41 sk6a1 sk71			
	24											lk2		
Fri	1					sk6a4					sk6a4 sk73	kk3		
	2					sk6a4		sk73						
	3					sk6a4		sk73						
	4							sk73			sk6a4 sk73			
	5											kk1		
	6											lk3		
	7				sk53						sk53 sk72			
	8				sk53		sk6a2	sk72			sk6a2	ct1 lk2		
	9				sk53		sk6a2	sk72						
	10				sk53		sk6a2	sk72			sk6a3 sk7a2			
	11				sk53	sk6a3	sk6a2	sk72	sk7a2		sk34 sk6a2 sk72			
	12	sk34			sk53	sk6a3			sk7a2					
	13	sk34			sk53	sk6a3			sk7a2					
	14	sk34			sk53	sk6a3			sk7a2					
	15	sk34			sk53	sk6a3			sk7a2					
	16	sk34			sk53	sk6a3			sk7a2					
	17	sk34			sk53	sk6a3			sk7a2		sk6a1			
	18				sk53	sk6a3	sk6a1		sk7a2		sk34 sk6a3			
	19						sk6a1		sk7a2		sk41 sk53 sk71		ok2	ok2
	20			sk41			sk6a1	sk71	sk7a2		sk7a2		ok2	
	21			sk41			sk6a1	sk71					ok2	
	22		sk33	sk41			sk6a1	sk71			sk33		ok2	
	23		sk33					sk71			sk41 sk6a1 sk71	lk3	ok2	
	24		sk33										ok2	
Sat	1		sk33			sk6a4					sk6a4 sk73	kk1	ok2	
	2		sk33			sk6a4		sk73			sk33		ok2	
	3					sk6a4		sk73					ok2	
	4							sk73			sk6a4 sk73	sp1	ok2	
	5											nk5 nk8	ok2	
	6												ok2	
	7				sk54						sk54 sk72		ok2	
	8				sk54		sk6a2	sk72			sk6a2		ok2	
	9				sk54		sk6a2	sk72			sk32		ok2	
	10		sk32		sk54		sk6a2	sk72			sk6a3 sk7a1	kk2	ok2	
	11		sk32		sk54	sk6a3	sk6a2	sk72	sk7a1		sk34 sk6a2		ok2	
	12	sk34	sk32		sk54	sk6a3		sk72	sk7a1				ok2	
	13	sk34	sk32		sk54	sk6a3		sk72	sk7a1		sk72		ok2	
	14	sk34	sk32		sk54	sk6a3			sk7a1		sk6a3		ok2	
	15	sk34	sk32		sk54				sk7a1				ok2	
	16	sk34	sk32		sk54				sk7a1			sp1	ok2	
	17	sk34	sk32		sk54				sk7a1		sk6a1	lk1	ok2	
	18		sk32		sk54		sk6a1		sk7a1		sk32 sk34	ct1	ok2	
	19						sk6a1		sk7a1		sk41 sk54 sk71 sk7a1	nk4 nk8	ok2	
	20			sk41			sk6a1	sk71		sk82	sk82		ok2	
	21			sk41			sk6a1	sk71		sk82	sk6a4	kk2	ok2	
	22			sk41		sk6a4	sk6a1	sk71		sk82	sk42		ok2	
	23			sk42		sk6a4		sk71		sk82	sk41 sk6a1 sk71	nk5	ok2	
	24			sk42		sk6a4				sk82	sk6a4		ok2	

Illustration of 4-Week-Period for Shipping (continued)

Day	h	Stay at berth, Skandinavienkai									Ship movements from/to Skandinavienkai	Ship movements from/to other ports	Ostpreußenkai	
		No. 2	No. 3	No. 4	No. 5	No. 6	No. 6a	No. 7	No. 7a	No. 8			Stay at berth	Move-ments
Sun	1			sk42						sk82	sk73		ok2	
	2			sk42				sk73		sk82		lk1	ok2	
	3			sk42				sk73		sk82			ok2	
	4			sk42				sk73		sk82	sk42 sk73	kk5	ok2	
	5										sk82		ok2	
	6												ok2	
	7				sk52						sk52	nk1	ok2	
	8				sk52		sk6a2				sk6a2		ok2	
	9				sk52		sk6a2	sk72			sk72 sk7a2	sp2	ok2	
	10				sk52		sk6a2	sk72	sk7a2				ok2	
	11				sk52		sk6a2	sk72	sk7a2		sk6a2		ok2	ok2
	12				sk52				sk7a2		sk72			
	13				sk52				sk7a2					
	14				sk52				sk7a2					
	15				sk52				sk7a2		sk7a2	kk5		
	16				sk52									
	17										sk52 sk6a1	kk3	ok2	ok2
	18						sk6a1						ok2	
	19						sk6a1					nk1	ok2	
	20						sk6a1				sk81		ok2	
	21			sk41			sk6a1	sk71		sk81	sk41 sk71	nk3	ok2	
	22			sk41	sk51	sk6a4	sk6a1	sk71		sk81	sk51 sk6a4		ok2	
	23			sk41	sk51	sk6a4		sk71		sk81	sk41 sk6a1	lk3	ok2	
	24				sk51	sk6a4				sk81	sk71		ok2	
Mon	1				sk51	sk6a4	sk6a3			sk81	sk6a3 sk73		ok2	
	2				sk51	sk6a4	sk6a3	sk73		sk81			ok2	
	3				sk51	sk6a4	sk6a3	sk73		sk81	sk51		ok2	
	4					sk6a4		sk73		sk81	sk6a3 sk73		ok2	
	5					sk6a4					sk81	nk9 nk10	ok2	
	6		sk34			sk6a4					sk34 sk7a1		ok2	
	7		sk34			sk6a4			sk7a1			lk2	ok2	
	8		sk34			sk6a4	sk6a2		sk7a1		sk6a2		ok2	
	9		sk34			sk6a4	sk6a2		sk7a1				ok2	
	10		sk34			sk6a4	sk6a2		sk7a1				ok2	
	11		sk34			sk6a4	sk6a2		sk7a1		sk6a2		ok2	
	12		sk34			sk6a4			sk7a1				ok2	
	13		sk34			sk6a4			sk7a1			sp2	ok2	
	14		sk34			sk6a4			sk7a1			lk2	ok2	
	15		sk34			sk6a4			sk7a1				ok2	
	16		sk34			sk6a4			sk7a1				ok2	
	17		sk34			sk6a4			sk7a1		sk6a1	kk1 nk7	ok2	
	18					sk6a4	sk6a1		sk7a1		sk34 sk6a4	nk3	ok2	
	19						sk6a1		sk7a1		sk41 sk7a1	lk3	ok2	
	20			sk41			sk6a1						ok2	
	21			sk41			sk6a1						ok2	
	22			sk41			sk6a1					nk9	ok2	
	23										sk41 sk6a1		ok2	
	24												ok2	
Tue	1					sk6a3					sk6a3 sk73	kk3 nk7	ok2	
	2					sk6a3		sk73					ok2	
	3					sk6a3		sk73					ok2	
	4							sk73			sk6a3 sk73		ok2	
	5												ok2	
	6												ok2	
	7				sk53						sk53 sk71		ok2	
	8				sk53		sk6a2	sk71			sk6a2		ok2	
	9				sk53		sk6a2	sk71			sk32		ok2	
	10		sk32		sk53		sk6a2	sk71	sk7a2		sk6a4 sk7a2		ok2	
	11		sk32		sk53	sk6a4	sk6a2	sk71	sk7a2		sk34 sk6a2 sk71		ok2	
	12	sk34	sk32		sk53	sk6a4			sk7a2				ok2	
	13	sk34	sk32		sk53	sk6a4			sk7a2				ok2	
	14	sk34	sk32		sk53	sk6a4			sk7a2				ok2	
	15	sk34	sk32		sk53	sk6a4			sk7a2				ok2	
	16	sk34	sk32		sk53	sk6a4			sk7a2				ok2	
	17	sk34	sk32		sk53	sk6a4			sk7a2		sk6a1		ok2	
	18		sk32		sk53	sk6a4	sk6a1		sk7a2		sk32 sk34 sk6a4		ok2	
	19						sk6a1		sk7a2		sk41 sk53	nk6	ok2	
	20			sk41			sk6a1				sk7a2		ok2	
	21			sk41			sk6a1				sk33		ok2	
	22		sk33	sk41			sk6a1					nk7	ok2	
	23		sk33								sk41 sk6a1		ok2	
	24		sk33										ok2	
Wed	1		sk33			sk6a3					sk33 sk6a3 sk73	kk1	ok2	
	2					sk6a3		sk73					ok2	
	3					sk6a3		sk73					ok2	
	4							sk73			sk6a3 sk73	sp1	ok2	
	5												ok2	
	6												ok2	
	7				sk54					sk82	sk54 sk71 sk82	lk1	ok2	
	8				sk54		sk6a2	sk71		sk82	sk6a2		ok2	
	9				sk54		sk6a2	sk71		sk82		ct1	ok2	
	10				sk54		sk6a2	sk71		sk82	sk6a4 sk7a1		ok2	
	11				sk54	sk6a4	sk6a2	sk71	sk7a1	sk82	sk34 sk71		ok2	
	12	sk34			sk54	sk6a4			sk7a1	sk82	sk6a2		ok2	
	13	sk34			sk54	sk6a4			sk7a1	sk82			ok2	
	14	sk34			sk54	sk6a4			sk7a1	sk82			ok2	
	15	sk34			sk54	sk6a4			sk7a1	sk82			ok2	
	16	sk34			sk54	sk6a4			sk7a1	sk82			ok2	
	17	sk34			sk54	sk6a4			sk7a1	sk82	sk6a1		ok2	
	18				sk54	sk6a4	sk6a1		sk7a1	sk82	sk34 sk6a4	lk1	ok2	
	19						sk6a1		sk7a1		sk41 sk54 sk7a1 sk82		ok2	
	20			sk41			sk6a1						ok2	
	21			sk41			sk6a1						ok2	
	22			sk41			sk6a1					nk6	ok2	
	23										sk41 sk6a1		ok2	
	24												ok2	

Illustration of 4-Week-Period for Shipping (continued)

Day	h	Stay at berth, Skandinavienkai									Ship movements from/to Skandinavienkai	Ship movements from/to other ports	Ostpreußenkai	
		No. 2	No. 3	No. 4	No. 5	No. 6	No. 6a	No. 7	No. 7a	No. 8			Stay at berth	Move-ments
Thu	1					sk6a3					sk6a3 sk73	sp1	ok2	
	2					sk6a3		sk73				ct1	ok2	
	3					sk6a3		sk73					ok2	
	4							sk73			sk6a3 sk73		ok2	
	5											kk5 nk8 sp3	ok2	
	6												ok2	
	7				sk52					sk81	sk52 sk71 sk81		ok2	
	8				sk52		sk6a2	sk71		sk81	sk6a2		ok2	
	9				sk52		sk6a2	sk71		sk81	sk32		ok2	
	10		sk32		sk52		sk6a2	sk71	sk7a2	sk81	sk6a4 sk7a2		ok2	
	11		sk32		sk52	sk6a4	sk6a2	sk71	sk7a2	sk81	sk34 sk6a2 sk71		ok2	
	12	sk34	sk32		sk52	sk6a4			sk7a2	sk81		nk4	ok2	
	13	sk34	sk32		sk52	sk6a4			sk7a2	sk81			ok2	
	14	sk34	sk32		sk52	sk6a4			sk7a2	sk81			ok2	
	15	sk34	sk32		sk52	sk6a4			sk7a2	sk81			ok2	
	16	sk34	sk32		sk52	sk6a4			sk7a2	sk81			ok2	
	17	sk34	sk32		sk52	sk6a4			sk7a2	sk81	sk6a1		ok2	
	18		sk32		sk52	sk6a4	sk6a1		sk7a2	sk81	sk34 sk6a4 sk81	sp3	ok2	
	19		sk32				sk6a1		sk7a2		sk41 sk52		ok2	
	20		sk32	sk41			sk6a1				sk32 sk7a2		ok2	
	21			sk41			sk6a1					nk8	ok2	
	22			sk41			sk6a1						ok2	
	23										sk31 sk41 sk6a1		ok2	
	24		sk31									lk3	ok2	
Fri	1		sk31			sk6a3					sk6a3 sk73	kk5	ok2	
	2		sk31			sk6a3		sk73					ok2	
	3		sk31			sk6a3		sk73					ok2	
	4		sk31					sk73			sk6a3 sk73		ok2	
	5		sk31									kk3	ok2	
	6		sk31										ok2	
	7		sk31								sk42 sk71		ok2	
	8		sk31	sk42			sk6a2	sk71			sk6a2	nk10	ok2	
	9		sk31	sk42			sk6a2	sk71					ok2	
	10		sk31	sk42			sk6a2	sk71			sk6a4 sk7a1		ok2	
	11		sk31	sk42		sk6a4	sk6a2	sk71	sk7a1		sk34 sk6a2 sk71		ok2	
	12	sk34	sk31	sk42		sk6a4			sk7a1				ok2	
	13	sk34	sk31	sk42		sk6a4			sk7a1				ok2	
	14	sk34	sk31	sk42		sk6a4			sk7a1				ok2	
	15	sk34	sk31	sk42		sk6a4			sk7a1				ok2	
	16	sk34	sk31	sk42		sk6a4			sk7a1				ok2	
	17	sk34	sk31	sk42		sk6a4			sk7a1		sk6a1		ok2	
	18		sk31	sk42		sk6a4	sk6a1		sk7a1		sk31 sk34 sk6a4		ok2	
	19			sk42			sk6a1		sk7a1		sk41 sk7a1		ok2	
	20			sk41			sk6a1				sk42	lk3	ok2	
	21		sk33	sk41			sk6a1				sk33	nk4	ok2	
	22		sk33	sk41			sk6a1						ok2	
	23		sk33								sk41 sk6a1		ok2	
	24		sk33										ok2	
Sat	1		sk33			sk6a3					sk6a3 sk73	kk3	ok2	
	2		sk33			sk6a3		sk73					ok2	
	3					sk6a3		sk73			sk33		ok2	
	4							sk73			sk6a3 sk73	kk1	ok2	
	5											nk5 nk9	ok2	
	6												ok2	
	7				sk53						sk53 sk71		ok2	
	8				sk53		sk6a2	sk71			sk6a2		ok2	
	9				sk53		sk6a2	sk71			sk32	kk2	ok2	
	10		sk32		sk53		sk6a2	sk71	sk7a2		sk6a4 sk7a2		ok2	
	11		sk32		sk53	sk6a4	sk6a2	sk71	sk7a2		sk34 sk6a2		ok2	
	12	sk34	sk32		sk53	sk6a4		sk71	sk7a2				ok2	
	13	sk34	sk32		sk53	sk6a4		sk71	sk7a2		sk71		ok2	
	14	sk34	sk32		sk53	sk6a4			sk7a2		sk6a4		ok2	
	15	sk34	sk32		sk53				sk7a2				ok2	
	16	sk34	sk32		sk53				sk7a2			kk1	ok2	
	17	sk34	sk32		sk53				sk7a2		sk6a1	lk1	ok2	
	18		sk32		sk53		sk6a1		sk7a2		sk34	nk10	ok2	
	19		sk32				sk6a1		sk7a2		sk32 sk41 sk53 sk7a2 sk82		ok2	
	20			sk41			sk6a1			sk82		kk2 nk9	ok2	
	21			sk41			sk6a1			sk82	sk6a3	nk5	ok2	
	22			sk41		sk6a3	sk6a1			sk82			ok2	
	23					sk6a3				sk82	sk41 sk6a1		ok2	
	24					sk6a3				sk82	sk6a3		ok2	
Sun	1									sk82	sk73		ok2	
	2							sk73		sk82		lk1	ok2	
	3							sk73		sk82			ok2	
	4							sk73		sk82	sk73	sp1	ok2	
	5										sk82		ok2	
	6												ok2	
	7		sk37		sk54						sk54 sk37	nk2	ok2	
	8		sk37		sk54		sk6a2				sk6a2		ok2	
	9		sk37		sk54		sk6a2	sk71			sk71 sk7a1		ok2	
	10		sk37		sk54		sk6a2	sk71	sk7a1			sp2	ok2	ok2
	11		sk37		sk54		sk6a2	sk71	sk7a1		sk6a2			
	12		sk37		sk54				sk7a1		sk71			
	13		sk37		sk54				sk7a1					
	14		sk37		sk54				sk7a1					
	15		sk37		sk54				sk7a1		sk7a1	sp1		
	16		sk37		sk54							kk5	ok2	ok2
	17		sk37								sk54 sk6a1		ok2	
	18		sk37				sk6a1						ok2	
	19		sk37				sk6a1					nk2	ok2	
	20		sk37				sk6a1				sk81 sk37			ok2
	21			sk41			sk6a1			sk81	sk41 sk6a3			
	22			sk41		sk6a3	sk6a1			sk81				
	23			sk41	sk52	sk6a3				sk81	sk41 sk52 sk6a1	lk3		
	24				sk52	sk6a3				sk81				

A 2.4 Emission Factors

A 2.4.1 Main Engines at Sea According to ENTEC Study

Engine type	Fuel	Class	S-Content ENTEC	Fuel [g/kWh]	NOx [g/kWh]	SO_2 [g/kWh]	CO_2 [g/kWh]	HC [g/kWh]	Benzene*) [g/kWh]	PM_{10} [g/kWh]	Soot **) [g/kWh]
Diesel, low speed (60 – 300 rpm)	Marine Gas Oil	SSD/MGO	0.5 %	185	17.0	1.9	588	0.6	0.0114	0.3	0.12
	Marine Diesel Oil	SSD/MDO	1.0 %	185	17.0	3.7	588	0.6	0.0114	0.3	0.12
	Residual Oil	SSD/RO	2.7 %	195	18.1	10.5	620	0.6	0.0114	0.8	0.32
Diesel, medium speed (300 – 1.000 rpm)	Marine Gas Oil	MSD/MGO	0.5 %	203	13.2	2.0	645	0.5	0.0095	0.3	0.12
	Marine Diesel Oil	MSD/MDO	1.0 %	203	13.2	4.1	645	0.5	0.0095	0.3	0.12
	Residual Oil	MSD/RO	2.7 %	213	14.0	11.5	677	0.5	0.0095	0.8	0.32
Diesel, high speed (1.000 – 3.000 rpm)	Marine Gas Oil	HSD/MGO	0.5 %	203	12.0	2.0	645	0.2	0.0038	0.3	0.12
	Marine Diesel Oil	HSD/MDO	1.0 %	203	12.0	4.1	645	0.2	0.0038	0.3	0.12
	Residual Oil	HSD/RO	2.7 %	213	12.7	11.5	677	0.2	0.0038	0.8	0.32
Gas turbine	Marine Gas Oil	GT/MGO	0.5 %	290	5.7	2.9	922	0.1	0.0019	0.1	0.04
	Marine Diesel Oil	GT/MDO	1.0 %	290	5.7	5.8	922	0.1	0.0019	0.1	0.04
	Residual Oil	GT/RO	2.7 %	305	6.1	16.5	970	0.1	0.0019	0.3	0.12
Steam turbine	Marine Gas Oil	ST/MGO	0.5 %	290	2.0	2.9	922	0.1	0.0019	0.3	0.12
	Marine Diesel Oil	ST/MDO	1.0 %	290	2.0	5.8	922	0.1	0.0019	0.3	0.12
	Residual Oil	ST/RO	2.7 %	305	2.1	16.5	970	0.1	0.0019	0.8	0.32

*) derived from characteristic benzene content of total HC (1,9 %)

**) derived from characteristic fraction of PM_{10} (40 %)

A 2.4.2 Main Engines at Manoeuvring and in Port According to ENTEC Study

Engine type	Fuel	Class	S-Content ENTEC	Fuel [g/kWh]	NOx [g/kWh]	SO_2 [g/kWh]	CO_2 [g/kWh]	HC [g/kWh]	Benzene*) [g/kWh]	PM_{10} [g/kWh]	Soot **) [g/kWh]
Diesel, low speed (60 – 300 rpm)	Marine Gas Oil	SSD/MGO	0.5 %	204	13.6	2.0	647	1.8	0.0342	0.9	0.36
	Marine Diesel Oil	SSD/MDO	1.0 %	204	13.6	4.1	647	1.8	0.0342	0.9	0.36
	Residual Oil	SSD/RO	2.7 %	215	14.5	11.6	682	1.8	0.0342	2.4	0.96
Diesel, medium speed (300 – 1.000 rpm)	Marine Gas Oil	MSD/MGO	0.5 %	223	10.6	2.2	710	1.5	0.0285	0.9	0.36
	Marine Diesel Oil	MSD/MDO	1.0 %	223	10.6	4.5	710	1.5	0.0285	0.9	0.36
	Residual Oil	MSD/RO	2.7 %	234	11.2	12.6	745	1.5	0.0285	2.4	0.96
Diesel, high speed (1.000 – 3.000 rpm)	Marine Gas Oil	HSD/MGO	0.5 %	223	9.6	2.2	710	0.6	0.0114	0.9	0.36
	Marine Diesel Oil	HSD/MDO	1.0 %	223	9.6	4.5	710	0.6	0.0114	0.9	0.36
	Residual Oil	HSD/RO	2.7 %	234	10.2	12.6	745	0.6	0.0114	2.4	0.96
Gas turbine	Marine Gas Oil	GT/MGO	0.5 %	319	2.9	3.2	1,014	0.5	0.0095	0.5	0.20
	Marine Diesel Oil	GT/MDO	1.0 %	319	2.9	6.4	1,014	0.5	0.0095	0.5	0.20
	Residual Oil	GT/RO	2.7 %	336	3.1	18.1	1,067	0.5	0.0095	1.5	0.60
Steam turbine	Marine Gas Oil	ST/MGO	0.5 %	319	1.6	3.2	1,014	0.3	0.0057	0.9	0.36
	Marine Diesel Oil	ST/MDO	1.0 %	319	1.6	6.4	1,014	0.3	0.0057	0.9	0.36
	Residual Oil	ST/RO	2.7 %	336	1.7	18.1	1,067	0.3	0.0057	2.4	0.96

*) derived from characteristic benzene content of total HC (1,9 %)

**) derived from characteristic fraction of PM_{10} (40 %)

A 2.4.3 Auxiliary Engines at Sea, at Manoeuvring and in Port According to ENTEC Study

Engine type	Fuel	Class	S-Content ENTEC	Fuel [g/kWh]	NOx [g/kWh]	SO_2 [g/kWh]	CO_2 [g/kWh]	HC [g/kWh]	Benzene*) [g/kWh]	PM_{10} [g/kWh]	Soot **) [g/kWh]
Diesel, medium speed (300 – 1.000 rpm)	Marine Gas Oil	MSD/MGO	0.5 %	217	13.9	2.2	690	0.4	0.0076	0.3	0.12
	Marine Diesel Oil	MSD/MDO	1.0 %	217	13.9	4.3	690	0.4	0.0076	0.3	0.12
	Residual Oil	MSD/RO	2.7 %	227	14.7	12.3	722	0.4	0.0076	0.8	0.32
Diesel, high speed (1.000 – 3.000 rpm)	Marine Gas Oil	HSD/MGO	0.5 %	217	10.9	2.2	690	0.4	0.0076	0.3	0.12
	Marine Diesel Oil	HSD/MDO	1.0 %	217	10.9	4.3	690	0.4	0.0076	0.3	0.12
	Residual Oil	HSD/RO	2.7 %	227	11.6	12.3	722	0.4	0.0076	0.8	0.32

*) derived from characteristic benzene content of total HC (1,9 %)

**) derived from characteristic fraction of PM_{10} (40 %)

A 2.4.4 Global Approach for Ship Classes According to ENTEC Study (only for information)

Operation condition	Fuel	Class	S-Content ENTEC	Fuel [g/kWh]	NOx [g/kWh]	SO_2 [g/kWh]	CO_2 [g/kWh]	HC [g/kWh]	Benzene*) [g/kWh]	PM_{10} [g/kWh]	Soot **) [g/kWh]
At sea	General Cargo	A31	2.7 %	203	16.3	10.9	644	0.6	0.0114	0.8	0.32
	RoRo/Cargo	A35	2.7 %	207	15.6	11.2	659	0.5	0.0095	0.8	0.32
	Pass./RoRoC	A36	2.3 %	216	13.3	9.8	686	0.4	0.0076	0.7	0.28
	Pass.	A37	2.7 %	219	13.2	11.7	696	0.5	0.0095	0.8	0.32
Manoeuvring	General Cargo	A31	2.7 %	223	13.1	12.0	709	1.6	0.0304	2.3	0.92
	RoRo/Cargo	A35	2.7 %	228	12.5	12.3	724	1.5	0.0285	2.3	0.92
	Pass./RoRoC	A36	2.3 %	237	10.6	10.8	754	1.3	0.0247	2.1	0.84
	Pass.	A37	2.7 %	240	10.7	12.9	764	1.4	0.0266	2.3	0.92
In port	General Cargo	A31	2.7 %	225	13.3	12.1	716	0.9	0.0171	1.5	0.60
	RoRo/Cargo	A35	2.7 %	227	13.0	12.3	723	0.9	0.0171	1.4	0.56
	Pass./RoRoC	A36	2.3 %	235	11.3	11.2	746	1.0	0.0190	1.8	0.72
	Pass.	A37	2.7 %	236	11.6	12.6	750	1.0	0.0190	1.8	0.72

*) derived from characteristic benzene content of total HC (1,9 %)
**) derived from characteristic fraction of PM_{10} (40 %)

A 2.4.5 Auxiliary Boilers at Sea, at Manoeuvring and in Port According to Isensee

Engine type	Fuel	Efficiency	S-Content ENTEC	Fuel [g/kWh]	NOx [g/kWh]	SO_2 [g/kWh]	CO_2 [g/kWh]	HC [g/kWh]	Benzene*) [g/kWh]	PM_{10} **) [g/kWh]	Soot ***) [g/kWh]
Auxiliary boiler, small	MGO	0.80	0.5 %	105	1.0	1.1	336	0.2	0.0038	0.15	0.06
	MDO	0.80	1.0 %	105	1.0	2.2	335	0.2	0.0038	0.15	0.06
	RO	0.80	2.7 %	105	1.0	6.0	331	0.2	0.0038	0.15	0.06
Auxiliary boiler, large	MGO	0.85	0.5 %	99	1.0	1.0	316	0.2	0.0038	0.15	0.06
	MDO	0.85	1.0 %	99	1.0	2.0	316	0.2	0.0038	0.15	0.06
	RO	0.85	2.7 %	99	1.0	5.7	312	0.2	0.0038	0.15	0.06

*) derived from characteristic benzene content of total HC (1,9 %)
**) known values between 0,03 and 0,15 g/kWh
***) derived from characteristic fraction of PM_{10} (40 %)

A 2.4.6 Main Engines, Auxiliary Engines and Auxiliary Boilers According to EMISS (Isensee)

Engine type	Class	Density [kg/m³]	S-Content ENTEC	Smut content	Oil mud	C-Content	Energy [kJ/g]	Fuel [g/kWh]	Extra charge	SO_2 [g/kWh]	CO_2 [g/kWh]
Main engine, at sea	SSD/MGO	0.89	0.5 %	0.0 %	0.3 %	87.0 %	42.38	185	0.0 %	1.9	590
	SSD/MDO	0.90	1.0 %	0.5 %	0.8 %	86.8 %	41.87	185	0.0 %	3.8	589
	SSD/RO	0.92	2.7 %	1.0 %	1.5 %	85.7 %	40.84	195	0.0 %	11.2	613
	MSD/MGO	0.89	0.5 %	0.0 %	0.3 %	87.0 %	42.38	203	0.0 %	2.1	648
	MSD/MDO	0.90	1.0 %	0.5 %	0.8 %	86.8 %	41.87	203	0.0 %	4.2	646
	MSD/RO	0.92	2.7 %	1.0 %	1.5 %	85.7 %	40.84	213	0.0 %	12.2	669
Main engine, in port	SSD/MGO	0.89	0.5 %	0.0 %	0.3 %	87.0 %	42.38	204	0.0 %	2.1	651
	SSD/MDO	0.90	1.0 %	0.5 %	0.8 %	86.8 %	41.87	204	0.0 %	4.2	649
	SSD/RO	0.92	2.7 %	1.0 %	1.5 %	85.7 %	40.84	215	0.0 %	12.3	676
	MSD/MGO	0.89	0.5 %	0.0 %	0.3 %	87.0 %	42.38	223	0.0 %	2.3	712
	MSD/MDO	0.90	1.0 %	0.5 %	0.8 %	86.8 %	41.87	223	0.0 %	4.6	710
	MSD/RO	0.92	2.7 %	1.0 %	1.5 %	85.7 %	40.84	234	0.0 %	13.4	735
Auxialiary engine	MSD/MGO	0.89	0.5 %	0.0 %	0.3 %	87.0 %	42.38	217	0.0 %	2.2	692
	MSD/MDO	0.90	1.0 %	0.5 %	0.8 %	86.8 %	41.87	217	0.0 %	4.5	690
	MSD/RO	0.92	2.7 %	1.0 %	1.5 %	85.7 %	40.84	227	0.0 %	13.0	713
	HSD/MGO	0.89	0.5 %	0.0 %	0.3 %	87.0 %	42.38	217	0.0 %	2.2	692
	HSD/MDO	0.90	1.0 %	0.5 %	0.8 %	86.8 %	41.87	217	0.0 %	4.5	690
	HSD/RO	0.92	2.7 %	1.0 %	1.5 %	85.7 %	40.84	227	0.0 %	13.0	713
Auxiliary boiler, small	MGO	0.89	0.5 %	0.0 %	0.3 %	87.0 %	42.38	105	0.0 %	1.1	336
	MDO	0.90	1.0 %	0.5 %	0.8 %	86.8 %	41.87	105	0.0 %	2.2	335
	RO	0.92	2.7 %	1.0 %	1.5 %	85.7 %	40.84	105	0.0 %	6.0	331
Auxiliary boiler, large	MGO	0.89	0.5 %	0.0 %	0.3 %	87.0 %	42.38	99	0.0 %	1.0	316
	MDO	0.90	1.0 %	0.5 %	0.8 %	86.8 %	41.87	99	0.0 %	2.0	316
	RO	0.92	2.7 %	1.0 %	1.5 %	85.7 %	40.84	99	0.0 %	5.7	312

A 2.4.7 Comparison between ENTEC Study and EMISS (Isensee)

Engine type	Class	ENTEC		Isensee		Proportion Isensee/ENTEC	
		SO_2 [g/kWh]	CO_2 [g/kWh]	SO_2 [g/kWh]	CO_2 [g/kWh]	SO_2 [g/kWh]	CO_2 [g/kWh]
Main engine, at sea	SSD/MGO	1.9	588	1.9	590	0.98	1.00
	SSD/MDO	3.7	588	3.8	589	1.03	1.00
	SSD/RO	10.5	620	11.2	613	1.06	0.99
	MSD/MGO	2.0	645	2.1	648	1.03	1.00
	MSD/MDO	4.1	645	4.2	646	1.02	1.00
	MSD/RO	11.5	677	12.2	669	1.06	0.99
Main engine, in port	SSD/MGO	1.9	588	2.1	651	1.08	1.11
	SSD/MDO	3.7	588	4.2	649	1.13	1.10
	SSD/RO	10.5	620	12.3	676	1.17	1.09
	MSD/MGO	2.0	645	2.3	712	1.13	1.10
	MSD/MDO	4.1	645	4.6	710	1.12	1.10
	MSD/RO	11.5	677	13.4	735	1.17	1.09
Auxialiary engine	MSD/MGO	2.0	645	2.2	692	1.10	1.07
	MSD/MDO	4.1	645	4.5	690	1.09	1.07
	MSD/RO	11.5	677	13.0	713	1.13	1.05
	HSD/MGO	2.0	645	2.2	692	1.10	1.07
	HSD/MDO	4.1	645	4.5	690	1.09	1.07
	HSD/RO	11.5	677	13.0	713	1.13	1.05

A 2.5 Engine Loads

Engine type	Operation condition	Engine load					
		ENTEC	Isensee	Actual scenario	Reduction concept		
					1a	1b	2
Main engine	At sea	80 %	85 %	**80 %**	80 %	80 %	80 %
	Manoeuvring	20 %	35 %	**20 %**	20 %	20 %	20 %
	In port	1 %	0 %	**1 %**	1 %	1 %	1 %
Auxiliary engine	At sea	30 %	0 %	**30 %**	30 %	30 %	30 %
	Manoeuvring	50 %	30 %	**50 %**	50 %	50 %	50 %
	In port	40 %	30 %	**40 %**	1 %	1 %	40 %
Auxiliary boiler	At sea	—	0 %	**0 %**	0 %	0 %	0 %
	Manoeuvring	—	30 %	**10 %**	10 %	10 %	10 %
	In port	—	25 %	**10 %**	10 %	1 %	10 %

A 2.6 Emissions of Sea Ships, Actual Scenario

A 2.6.1 Specific Ship Data,General

Ship			Berth	Year of con-struction	Type	Class acc. to ENTEC	Loading capacity (TDW)	Number of pas-sengers and crew
No.	Name	Port					[t]	
1	ct1	CTL (Herrenhafen)	CTL	1980	RoRo/C	A35		
2	kk1	Konstinkai	KK6	2003	RoRo/C	A35	14201	
3	kk2	Konstinkai	KK6	1991	RoRo/C	A35	5409	
4	kk3	Konstinkai	KK8	1999	RoRo/C	A35	7441	
5	kk4	Konstinkai	KK8	1999	RoRo/C	A35	7261	
6	kk5	Konstinkai	KK8	2003	RoRo/C	A35	14201	
7	lk1	Lehmannkai	Lkai 1	1987	P/V/Trn.	A36	6321	120
8	lk2	Lehmannkai	Lkai 1	1972	Pax/Veh.	A36	5301	110
9	lk3	Lehmannkai	Lkai 2	1979	RoRo/C	A35	4451	
10	nk1	Nordlandkai	VH	1988	RoRo/C	A35	9000	12
11	nk2	Nordlandkai	VH	1990	RoRo/C	A35		
12	nk3	Nordlandkai	VH1	1984	RoRo/C	A35	12871	
13	nk4	Nordlandkai	VH1	1982	RoRo/C	A35	13091	
14	nk5	Nordlandkai	VH1	1990	Pax/Veh.	A36	10996	84
15	nk6	Nordlandkai	VH1	1981	Pax/Veh.	A36	11645	12
16	nk7	Nordlandkai	VH2	2001	RoRo/C	A35	8101	
17	nk8	Nordlandkai	VH2	2002	RoRo/C	A35	8001	
18	nk9	Nordlandkai	VH2	2002	RoRo/C	A35	11322	
19	nk10	Nordlandkai	VH4		RoRo/C	A35	7629	
20	nk11	Nordlandkai	VH4	1980	Gen.Cargo	A31		
21	ok1	Ostpreußenkai	OPK		Pax	A37		182
22	ok2	Ostpreußenkai	OPK		Pax	A37		184
23	ok3	Ostpreußenkai	OPK		Pax	A37		77
24	ok4	Ostpreußenkai	OPK		Pax	A37		184
25	ok5	Ostpreußenkai	OPK		Pax	A37		800
26	ok6	Ostpreußenkai	OPK		Pax	A37		492
27	ok7	Ostpreußenkai	OPK		Pax	A37		146
28	sp1	Schlutupkai	Schlutup 2	2003	RoRo/C	A35	8501	
29	sp2	Schlutupkai	Schlutup 2	1991	RoRo/C	A35	12968	
30	sp3	Schlutupkai	Schlutup 2	1987	RoRo/C	A35	11396	
31	sk31	Skandinavienkai	Skai 3	1988	RoRo/C	A35	9000	
32	sk32	Skandinavienkai	Skai 3	1991	RoRo/C	A35	5283	
33	sk33	Skandinavienkai	Skai 3	1990	*RoRo/C*	*A35*		
34	sk34	Skandinavienkai	Skai 3	1982	Pax/Veh.	A36		186
35	sk35	Skandinavienkai	Skai 3		Pax	A37		1071
36	sk36	Skandinavienkai	Skai 3		Pax	A37		2588
37	sk37	Skandinavienkai	Skai 3		Pax	A37		146
38	sk41	Skandinavienkai	Skai 4	1996	Pax/Veh.	A36		
39	sk42	Skandinavienkai	Skai 4	2000	Pax/Veh.	A36	31601	400
40	sk51	Skandinavienkai	Skai 4	1994	Pax/Veh.	A36	10701	114
41	sk52	Skandinavienkai	Skai 5	1995	Pax/Veh.	A36	11301	88
42	sk53	Skandinavienkai	Skai 5	1995	Pax/Veh.	A36	11682	90
43	sk54	Skandinavienkai	Skai 5	1994	Pax/Veh.	A36	11558	114
44	sk6a1	Skandinavienkai	Skai 6a	2001	Pax/Veh.	A36	7200	744
45	sk6a2	Skandinavienkai	Skai 6a	2001	Pax/Veh.	A36	7200	744
46	sk6a3	Skandinavienkai	Skai 6a	1995	Pax/Veh.	A36	6601	308
47	sk6a4	Skandinavienkai	Skai 6a	1995	Pax/Veh.	A36	6601	308
48	sk71	Skandinavienkai	Skai 7	1980	P/V/Trn.	A36	8702	240
49	sk72	Skandinavienkai	Skai 7	1980	*P/V/Trn.*	*A36*		
50	sk73	Skandinavienkai	Skai 7	1973	P/V/Trn.	A36		400
51	sk7a1	Skandinavienkai	Skai 7a	1977	RoRo/C	A35	8911	
52	sk7a2	Skandinavienkai	Skai 7a	1978	RoRo/C	A35	8698	
53	sk81	Skandinavienkai	Skai 8	1984	RoRo/C	A35	9887	
54	sk82	Skandinavienkai	Skai 8	1990	RoRo/C	A35	10141	

A 2.6.2 Specific Ship Data, Main Engines

Ship			Main engines (ME)					
			No.	Total installed power [kW]	Speed class	Fuel (capacity and type)		
No.	Name	Port				Amount	Type	S-content
1	ct1	CTL (Herrenhafen)	1	14,480	*MSD*	445 to. hfo	RO	*2.70 %*
2	kk1	Konstinkai	2	25,200	*MSD*		*RO*	*2.70 %*
3	kk2	Konstinkai	1	4,500	*MSD*	600 to. hfo	RO	*2.70 %*
4	kk3	Konstinkai	1	11,030	*MSD*	798 to. hfo	RO	2.60 %
5	kk4	Konstinkai	1	15,600	*MSD*	926 to. hfo	RO	*2.70 %*
6	kk5	Konstinkai	2	16,200	*MSD*		*RO*	*2.70 %*
7	lk1	Lehmannkai	4	7,600	*MSD*	577 to. IFO 60	RO	*2.70 %*
8	lk2	Lehmannkai	2	7,600	*MSD*	670 to. hfo	RO	*2.70 %*
9	lk3	Lehmannkai	1	2,206	*MSD*	356 to. hfo	RO	*2.70 %*
10	nk1	Nordlandkai	2	14,390	*MSD*	*900 to. hfo*	RO	*2.70 %*
11	nk2	Nordlandkai	1	12,600	*MSD*	814,4 to. hfo	RO	*2.70 %*
12	nk3	Nordlandkai	2	13,198	*MSD*	1189 to. hfo	RO	*2.70 %*
13	nk4	Nordlandkai	1	14,390	*MSD*	1189 to.hfo	RO	*2.70 %*
14	nk5	Nordlandkai	2	14,400	*MSD*		RO	1.90 %
15	nk6	Nordlandkai	2	14,504	*MSD*	1305 to. hfo	RO	1.80 %
16	nk7	Nordlandkai	1	12,600	*MSD*	792 to. hfo	RO	*2.70 %*
17	nk8	Nordlandkai	2	18,900	*MSD*	949 to. hfo	RO	*2.70 %*
18	nk9	Nordlandkai	2	18,900	*MSD*	949 to. hfo	RO	*2.70 %*
19	nk10	Nordlandkai	1	14,480	*MSD*	1264 to. hfo	RO	*2.70 %*
20	nk11	Nordlandkai	1	1,800	*MSD*		*RO*	*2.70 %*
21	ok1	Ostpreußenkai	1	3,236	*MSD*		*MDO*	*1.00 %*
22	ok2	Ostpreußenkai	2	425	*MSD*		*MDO*	*1.00 %*
23	ok3	Ostpreußenkai	1	660	*MSD*		*MDO*	*1.00 %*
24	ok4	Ostpreußenkai	2	425	*MSD*		*MDO*	*1.00 %*
25	ok5	Ostpreußenkai	2	*20,000*	*MSD*		*RO*	*2.70 %*
26	ok6	Ostpreußenkai	1	11,700	*MSD*		*RO*	*2.70 %*
27	ok7	Ostpreußenkai	2	3,500	*MSD*		*MDO*	*1.00 %*
28	sp1	Schlutupkai	4	24,000	*MSD*		*RO*	*2.70 %*
29	sp2	Schlutupkai	1	7,693	*MSD*	960 to. hfo	RO	*2.70 %*
30	sp3	Schlutupkai	1	7,774	*MSD*	hfo	RO	*2.70 %*
31	sk31	Skandinavienkai	2	14,390	*MSD*	*900 to. hfo*	RO	*2.70 %*
32	sk32	Skandinavienkai	1	5,916	*MSD*	560 to. hfo	RO	*2.70 %*
33	sk33	Skandinavienkai	2	7,920	*MSD*	452 to. hfo	RO	*2.70 %*
34	sk34	Skandinavienkai	2	9,840	*MSD*	1198 to. hfo	RO	*2.70 %*
35	sk35	Skandinavienkai	4	13,400	*MSD*		*RO*	*2.70 %*
36	sk36	Skandinavienkai	2	47,750	*MSD*		*RO*	*2.70 %*
37	sk37	Skandinavienkai	2	3,500	*MSD*		*MDO*	*1.00 %*
38	sk41	Skandinavienkai	4	17,280	*MSD*	890 to. hfo	RO	*2.70 %*
39	sk42	Skandinavienkai	4	24,000	*MSD*		*RO*	*2.70 %*
40	sk51	Skandinavienkai	4	23,040	*MSD*	1490 to. hfo	RO	*2.70 %*
41	sk52	Skandinavienkai	4	23,040	*MSD*	1490 to. hfo	RO	*2.70 %*
42	sk53	Skandinavienkai	4	23,068	*MSD*	1490 hfo	RO	1.80 %
43	sk54	Skandinavienkai	4	23,036	*MSD*	1490 to. hfo	RO	*2.70 %*
44	sk6a1	Skandinavienkai	5	29,880	*MSD*	900 to do	MDO	0.30 %
45	sk6a2	Skandinavienkai	5	29,880	*MSD*	900 to do	MDO	0.30 %
46	sk6a3	Skandinavienkai	4	18,000	*MSD*	450 to do	MDO	0.30 %
47	sk6a4	Skandinavienkai	4	18,000	*MSD*	450 to do	MDO	0.30 %
48	sk71	Skandinavienkai	2	15,900	SSD	2868 to. hfo	RO	2.50 %
49	sk72	Skandinavienkai	2	15,900	SSD	2868 to. hfo	RO	2.50 %
50	sk73	Skandinavienkai	4	10,300	*MSD*		RO	0.49 %
51	sk7a1	Skandinavienkai	2	11,474	*MSD*	1623 hfo	RO	1.00 %
52	sk7a2	Skandinavienkai	2	11,474	*MSD*	1623 LS 180	RO	0.48 %
53	sk81	Skandinavienkai	2	15,999	*MSD*	888 to. hfo	RO	1.90 %
54	sk82	Skandinavienkai	2	16,290	*MSD*	814 to. hfo	RO	1.80 %

A 2.6.3 Specific Ship Data, Auxiliary Engines

Ship			Auxiliary engines (AE)					
			No.	Total installed power	Speed class	Fuel (capacity and type)		
No.	Name	Port		[kW]		Amount	Type	S-content
1	ct1	CTL (Herrenhafen)	2	1,562	*MSD*		*MDO*	*1.00 %*
2	kk1	Konstinkai	4	6,080	*MSD*		*MDO*	*1.00 %*
3	kk2	Konstinkai	3	1,256	*MSD*	47 to. do	MDO	*1.00 %*
4	kk3	Konstinkai	3	2,430	*MSD*	130 to. do	MDO	0.20 %
5	kk4	Konstinkai	3	2,468	*MSD*	129 to. do	MDO	*1.00 %*
6	kk5	Konstinkai	4	6,080	*MSD*		*MDO*	*1.00 %*
7	lk1	Lehmannkai	5	3,098	*MSD*	103 to. do	MDO	*1.00 %*
8	lk2	Lehmannkai	3	1,545	*MSD*	81 to. do	MDO	*1.00 %*
9	lk3	Lehmannkai	3	540	*MSD*	60 to. do	MDO	*1.00 %*
10	nk1	Nordlandkai	2	2,370	*MSD*	*200 to. do*	MDO	*1.00 %*
11	nk2	Nordlandkai	3	2,360	*MSD*	133,3 to. go	MGO	*0.50 %*
12	nk3	Nordlandkai	3	3,000	*MSD*	90 to. do	MDO	*1.00 %*
13	nk4	Nordlandkai	3	3,000	*MSD*	90 to. do	MDO	*1.00 %*
14	nk5	Nordlandkai	3	3,410	*MSD*		*MDO*	0.10 %
15	nk6	Nordlandkai	3	1,950	*MSD*	107 to. do	MDO	0.10 %
16	nk7	Nordlandkai	3	2,500	*MSD*	107,9 to. do	MDO	*1.00 %*
17	nk8	Nordlandkai	4	4,000	*MSD*	144 to. do	MDO	*1.00 %*
18	nk9	Nordlandkai	4	4,000	*MSD*	144 to. do	MDO	*1.00 %*
19	nk10	Nordlandkai	3	2,700	*MSD*	71 to. do	MDO	*1.00 %*
20	nk11	Nordlandkai	2	796	*MSD*		*MDO*	*1.00 %*
21	ok1	Ostpreußenkai	0	0	—	—	—	—
22	ok2	Ostpreußenkai	0	0	—	—	—	—
23	ok3	Ostpreußenkai	1	317	*MSD*		*MDO*	*1.00 %*
24	ok4	Ostpreußenkai	0	0	—	—	—	—
25	ok5	Ostpreußenkai	2	*4,000*	*MSD*		*MDO*	*1.00 %*
26	ok6	Ostpreußenkai	0	0	—	—	—	—
27	ok7	Ostpreußenkai	0	0	—	—	—	—
28	sp1	Schlutupkai	2	6,564	*MSD*		*MDO*	*1.00 %*
29	sp2	Schlutupkai	3	2,820	*MSD*	195 to. do	MDO	*1.00 %*
30	sp3	Schlutupkai	2	2,025	*MSD*	do	MDO	*1.00 %*
31	sk31	Skandinavienkai	3	2,370	*MSD*	*200 to. do*	MDO	*1.00 %*
32	sk32	Skandinavienkai	3	1,020	*MSD*	47 to. do	MDO	*1.00 %*
33	sk33	Skandinavienkai	4	1,560	*MSD*	105 to. do	MDO	*1.00 %*
34	sk34	Skandinavienkai	2	2,190	*MSD*	509 to. do	MDO	*1.00 %*
35	sk35	Skandinavienkai	0	0	—	—	—	—
36	sk36	Skandinavienkai	0	0	—	—	—	—
37	sk37	Skandinavienkai	0	0	—	—	—	—
38	sk41	Skandinavienkai	5	5,900	*MSD*	90 to. do	MDO	*1.00 %*
39	sk42	Skandinavienkai	5	6,564	*MSD*		*MDO*	*1.00 %*
40	sk51	Skandinavienkai	3	4,056	*MSD*	360 to. do	MDO	*1.00 %*
41	sk52	Skandinavienkai	3	4,056	*MSD*	360 to. do	MDO	*1.00 %*
42	sk53	Skandinavienkai	3	3,575	*MSD*	360 to. do	MDO	0.15 %
43	sk54	Skandinavienkai	4	5,312	*MSD*	360 to. do	MDO	*1.00 %*
44	sk6a1	Skandinavienkai	0	0	—	—	—	—
45	sk6a2	Skandinavienkai	0	0	—	—	—	—
46	sk6a3	Skandinavienkai	0	0	—	—	—	—
47	sk6a4	Skandinavienkai	0	0	—	—	—	—
48	sk71	Skandinavienkai	3	4,200	MSD	do	MDO	1.50 %
49	sk72	Skandinavienkai	3	4,200	MSD		MDO	1.50 %
50	sk73	Skandinavienkai	4	2,904	*MSD*		*MDO*	0.49 %
51	sk7a1	Skandinavienkai	3	3,120	*MSD*	164.5 to. do	MDO	1.00 %
52	sk7a2	Skandinavienkai	2	1,520	*MSD*	164.5 to. do	MDO	*1.00 %*
53	sk81	Skandinavienkai	4	3,904	*MSD*	147 to. do	MDO	0.15 %
54	sk82	Skandinavienkai	2	3,240	*MSD*	151 to. do	MDO	0.15 %

A 2.6.4 Specific Ship Data, Auxiliary Boilers

Ship			Auxiliary boilers (AB)					
			No.	Total installed power	Satu-rated steam	Vapour pres-sure	Fuel	
No.	Name	Port		[kW]	[t/h]	[bar]	Type	S-con-tent
1	ct1	CTL (Herrenhafen)		*2,000*		*8*	*RO*	*2.70 %*
2	kk1	Konstinkai		3,180		*8*	*RO*	*2.70 %*
3	kk2	Konstinkai		1,690		*8*	*RO*	*2.70 %*
4	kk3	Konstinkai		2,040		*8*	*RO*	*2.70 %*
5	kk4	Konstinkai		*2,000*		*8*	*RO*	*2.70 %*
6	kk5	Konstinkai		3,180		*8*	*RO*	*2.70 %*
7	lk1	Lehmannkai		1,850		*8*	*RO*	*2.70 %*
8	lk2	Lehmannkai		1,680		*8*	*RO*	*2.70 %*
9	lk3	Lehmannkai		1,530		*8*	*RO*	*2.70 %*
10	nk1	Nordlandkai		*2,300*		*8*	*RO*	*2.70 %*
11	nk2	Nordlandkai		2,200		*8*	*RO*	*2.70 %*
12	nk3	Nordlandkai		2,960		*8*	*RO*	*2.70 %*
13	nk4	Nordlandkai		3,000		*8*	*RO*	*2.70 %*
14	nk5	Nordlandkai	1	2,640	3.4	8	*MDO*	0.10 %
15	nk6	Nordlandkai	1	2,750	4	*8*	MDO	0.10 %
16	nk7	Nordlandkai		2,150		*8*	*RO*	*2.70 %*
17	nk8	Nordlandkai		2,150		*8*	*RO*	*2.70 %*
18	nk9	Nordlandkai		2,700		*8*	*RO*	*2.70 %*
19	nk10	Nordlandkai		2,070		*8*	*RO*	*2.70 %*
20	nk11	Nordlandkai		*1,500*		*8*	*RO*	*2.70 %*
21	ok1	Ostpreußenkai		*4,680*	*6.1*	*8*	*MDO*	*1.00 %*
22	ok2	Ostpreußenkai		0	—	—	—	—
23	ok3	Ostpreußenkai		0	—	—	—	—
24	ok4	Ostpreußenkai		0	—	—	—	—
25	ok5	Ostpreußenkai		*7,530*	*9.8*	*8*	*RO*	*2.70 %*
26	ok6	Ostpreußenkai		*6,110*	*8.0*	*8*	*RO*	*2.70 %*
27	ok7	Ostpreußenkai		*4,510*	*5.9*	*8*	*MDO*	*1.00 %*
28	sp1	Schlutupkai		2,220		*8*	*RO*	*2.70 %*
29	sp2	Schlutupkai		2,970		*8*	*RO*	*2.70 %*
30	sp3	Schlutupkai		2,710		*8*	*RO*	*2.70 %*
31	sk31	Skandinavienkai		*2,300*		*8*	*RO*	*2.70 %*
32	sk32	Skandinavienkai		1,670		*8*	*RO*	*2.70 %*
33	sk33	Skandinavienkai		*2,700*		*8*	*RO*	*2.70 %*
34	sk34	Skandinavienkai		1,580		*8*	*RO*	*2.70 %*
35	sk35	Skandinavienkai		*8,780*	*11.4*	*8*	*RO*	*2.70 %*
36	sk36	Skandinavienkai		*15,770*	*20.5*	*8*	*RO*	*2.70 %*
37	sk37	Skandinavienkai		*4,510*	*5.9*	*8*	*MDO*	*1.00 %*
38	sk41	Skandinavienkai		2,490		*8*	*RO*	*2.70 %*
39	sk42	Skandinavienkai		6,120		*8*	*RO*	*2.70 %*
40	sk51	Skandinavienkai		2,600		*8*	*RO*	*2.70 %*
41	sk52	Skandinavienkai		2,690		*8*	*RO*	*2.70 %*
42	sk53	Skandinavienkai	5	2,750	10.2	*8*	MDO	0.15 %
43	sk54	Skandinavienkai		2,730		*8*	*RO*	*2.70 %*
44	sk6a1	Skandinavienkai		2,410		*8*	*MDO*	*0.30 %*
45	sk6a2	Skandinavienkai		2,410		*8*	*MDO*	*0.30 %*
46	sk6a3	Skandinavienkai		1,900		*8*	*MDO*	*0.30 %*
47	sk6a4	Skandinavienkai		1,900		*8*	*MDO*	*0.30 %*
48	sk71	Skandinavienkai		2,250		*8*	*RO*	*2.50 %*
49	sk72	Skandinavienkai		*2,250*		*8*	*RO*	*2.50 %*
50	sk73	Skandinavienkai		1,900		*8*	*RO*	*0.49 %*
51	sk7a1	Skandinavienkai	1	1,950		*8*	*MDO*	1.00 %
52	sk7a2	Skandinavienkai	1	1,000		*8*	*MDO*	*1.00 %*
53	sk81	Skandinavienkai	1	2,900		*8*	*MDO*	0.15 %
54	sk82	Skandinavienkai	1	2,900		*8*	*MDO*	0.15 %

A 2.6.5 Global Emission Factors According to ENTEC, at Sea (only for Information)

Ship			Emission factors [g/kWh]								
			Global approach for ship classes according to ENTEC								
			At sea								
No.	Name	Port	Class	Fuel	NOx	SO2	CO2	HC	Benz.	PM10	Soot
1	ct1	CTL (Herrenhafen)	A35	207	15.6	11.2	659	0.5	0.0095	0.8	0.32
2	kk1	Konstinkai	A35	207	15.6	11.2	659	0.5	0.0095	0.8	0.32
3	kk2	Konstinkai	A35	207	15.6	11.2	659	0.5	0.0095	0.8	0.32
4	kk3	Konstinkai	A35	207	15.6	11.2	659	0.5	0.0095	0.8	0.32
5	kk4	Konstinkai	A35	207	15.6	11.2	659	0.5	0.0095	0.8	0.32
6	kk5	Konstinkai	A35	207	15.6	11.2	659	0.5	0.0095	0.8	0.32
7	lk1	Lehmannkai	A36	216	13.3	9.8	686	0.4	0.0076	0.7	0.28
8	lk2	Lehmannkai	A36	216	13.3	9.8	686	0.4	0.0076	0.7	0.28
9	lk3	Lehmannkai	A35	207	15.6	11.2	659	0.5	0.0095	0.8	0.32
10	nk1	Nordlandkai	A35	207	15.6	11.2	659	0.5	0.0095	0.8	0.32
11	nk2	Nordlandkai	A35	207	15.6	11.2	659	0.5	0.0095	0.8	0.32
12	nk3	Nordlandkai	A35	207	15.6	11.2	659	0.5	0.0095	0.8	0.32
13	nk4	Nordlandkai	A35	207	15.6	11.2	659	0.5	0.0095	0.8	0.32
14	nk5	Nordlandkai	A36	216	13.3	9.8	686	0.4	0.0076	0.7	0.28
15	nk6	Nordlandkai	A36	216	13.3	9.8	686	0.4	0.0076	0.7	0.28
16	nk7	Nordlandkai	A35	207	15.6	11.2	659	0.5	0.0095	0.8	0.32
17	nk8	Nordlandkai	A35	207	15.6	11.2	659	0.5	0.0095	0.8	0.32
18	nk9	Nordlandkai	A35	207	15.6	11.2	659	0.5	0.0095	0.8	0.32
19	nk10	Nordlandkai	A35	207	15.6	11.2	659	0.5	0.0095	0.8	0.32
20	nk11	Nordlandkai	A31	203	16.3	10.9	644	0.6	0.0114	0.8	0.32
21	ok1	Ostpreußenkai	A37	219	13.2	11.7	696	0.5	0.0095	0.8	0.32
22	ok2	Ostpreußenkai	A37	219	13.2	11.7	696	0.5	0.0095	0.8	0.32
23	ok3	Ostpreußenkai	A37	219	13.2	11.7	696	0.5	0.0095	0.8	0.32
24	ok4	Ostpreußenkai	A37	219	13.2	11.7	696	0.5	0.0095	0.8	0.32
25	ok5	Ostpreußenkai	A37	219	13.2	11.7	696	0.5	0.0095	0.8	0.32
26	ok6	Ostpreußenkai	A37	219	13.2	11.7	696	0.5	0.0095	0.8	0.32
27	ok7	Ostpreußenkai	A37	219	13.2	11.7	696	0.5	0.0095	0.8	0.32
28	sp1	Schlutupkai	A35	207	15.6	11.2	659	0.5	0.0095	0.8	0.32
29	sp2	Schlutupkai	A35	207	15.6	11.2	659	0.5	0.0095	0.8	0.32
30	sp3	Schlutupkai	A35	207	15.6	11.2	659	0.5	0.0095	0.8	0.32
31	sk31	Skandinavienkai	A35	207	15.6	11.2	659	0.5	0.0095	0.8	0.32
32	sk32	Skandinavienkai	A35	207	15.6	11.2	659	0.5	0.0095	0.8	0.32
33	sk33	Skandinavienkai	A35	207	15.6	11.2	659	0.5	0.0095	0.8	0.32
34	sk34	Skandinavienkai	A36	216	13.3	9.8	686	0.4	0.0076	0.7	0.28
35	sk35	Skandinavienkai	A37	219	13.2	11.7	696	0.5	0.0095	0.8	0.32
36	sk36	Skandinavienkai	A37	219	13.2	11.7	696	0.5	0.0095	0.8	0.32
37	sk37	Skandinavienkai	A37	219	13.2	11.7	696	0.5	0.0095	0.8	0.32
38	sk41	Skandinavienkai	A36	216	13.3	9.8	686	0.4	0.0076	0.7	0.28
39	sk42	Skandinavienkai	A36	216	13.3	9.8	686	0.4	0.0076	0.7	0.28
40	sk51	Skandinavienkai	A36	216	13.3	9.8	686	0.4	0.0076	0.7	0.28
41	sk52	Skandinavienkai	A36	216	13.3	9.8	686	0.4	0.0076	0.7	0.28
42	sk53	Skandinavienkai	A36	216	13.3	9.8	686	0.4	0.0076	0.7	0.28
43	sk54	Skandinavienkai	A36	216	13.3	9.8	686	0.4	0.0076	0.7	0.28
44	sk6a1	Skandinavienkai	A36	216	13.3	9.8	686	0.4	0.0076	0.7	0.28
45	sk6a2	Skandinavienkai	A36	216	13.3	9.8	686	0.4	0.0076	0.7	0.28
46	sk6a3	Skandinavienkai	A36	216	13.3	9.8	686	0.4	0.0076	0.7	0.28
47	sk6a4	Skandinavienkai	A36	216	13.3	9.8	686	0.4	0.0076	0.7	0.28
48	sk71	Skandinavienkai	A36	216	13.3	9.8	686	0.4	0.0076	0.7	0.28
49	sk72	Skandinavienkai	A36	216	13.3	9.8	686	0.4	0.0076	0.7	0.28
50	sk73	Skandinavienkai	A36	216	13.3	9.8	686	0.4	0.0076	0.7	0.28
51	sk7a1	Skandinavienkai	A35	207	15.6	11.2	659	0.5	0.0095	0.8	0.32
52	sk7a2	Skandinavienkai	A35	207	15.6	11.2	659	0.5	0.0095	0.8	0.32
53	sk81	Skandinavienkai	A35	207	15.6	11.2	659	0.5	0.0095	0.8	0.32
54	sk82	Skandinavienkai	A35	207	15.6	11.2	659	0.5	0.0095	0.8	0.32

A 2.6.6 Global Emission Factors According to ENTEC, Manoeuvring (only for Information)

Ship			Emission factors [g/kWh]								
			Global approach for ship classes according to ENTEC								
			Manoeuvring								
No.	Name	Port	Class	Fuel	NOx	SO2	CO2	HC	Benz.	PM10	Soot
1	ct1	CTL (Herrenhafen)	A35	228	12.5	12.3	724	1.5	0.0285	2.3	0.92
2	kk1	Konstinkai	A35	228	12.5	12.3	724	1.5	0.0285	2.3	0.92
3	kk2	Konstinkai	A35	228	12.5	12.3	724	1.5	0.0285	2.3	0.92
4	kk3	Konstinkai	A35	228	12.5	12.3	724	1.5	0.0285	2.3	0.92
5	kk4	Konstinkai	A35	228	12.5	12.3	724	1.5	0.0285	2.3	0.92
6	kk5	Konstinkai	A35	228	12.5	12.3	724	1.5	0.0285	2.3	0.92
7	lk1	Lehmannkai	A36	237	10.6	10.8	754	1.3	0.0247	2.1	0.84
8	lk2	Lehmannkai	A36	237	10.6	10.8	754	1.3	0.0247	2.1	0.84
9	lk3	Lehmannkai	A35	228	12.5	12.3	724	1.5	0.0285	2.3	0.92
10	nk1	Nordlandkai	A35	228	12.5	12.3	724	1.5	0.0285	2.3	0.92
11	nk2	Nordlandkai	A35	228	12.5	12.3	724	1.5	0.0285	2.3	0.92
12	nk3	Nordlandkai	A35	228	12.5	12.3	724	1.5	0.0285	2.3	0.92
13	nk4	Nordlandkai	A35	228	12.5	12.3	724	1.5	0.0285	2.3	0.92
14	nk5	Nordlandkai	A36	237	10.6	10.8	754	1.3	0.0247	2.1	0.84
15	nk6	Nordlandkai	A36	237	10.6	10.8	754	1.3	0.0247	2.1	0.84
16	nk7	Nordlandkai	A35	228	12.5	12.3	724	1.5	0.0285	2.3	0.92
17	nk8	Nordlandkai	A35	228	12.5	12.3	724	1.5	0.0285	2.3	0.92
18	nk9	Nordlandkai	A35	228	12.5	12.3	724	1.5	0.0285	2.3	0.92
19	nk10	Nordlandkai	A35	228	12.5	12.3	724	1.5	0.0285	2.3	0.92
20	nk11	Nordlandkai	A31	223	13.1	12.0	709	1.6	0.0304	2.3	0.92
21	ok1	Ostpreußenkai	A37	240	10.7	12.9	764	1.4	0.0266	2.3	0.92
22	ok2	Ostpreußenkai	A37	240	10.7	12.9	764	1.4	0.0266	2.3	0.92
23	ok3	Ostpreußenkai	A37	240	10.7	12.9	764	1.4	0.0266	2.3	0.92
24	ok4	Ostpreußenkai	A37	240	10.7	12.9	764	1.4	0.0266	2.3	0.92
25	ok5	Ostpreußenkai	A37	240	10.7	12.9	764	1.4	0.0266	2.3	0.92
26	ok6	Ostpreußenkai	A37	240	10.7	12.9	764	1.4	0.0266	2.3	0.92
27	ok7	Ostpreußenkai	A37	240	10.7	12.9	764	1.4	0.0266	2.3	0.92
28	sp1	Schlutupkai	A35	228	12.5	12.3	724	1.5	0.0285	2.3	0.92
29	sp2	Schlutupkai	A35	228	12.5	12.3	724	1.5	0.0285	2.3	0.92
30	sp3	Schlutupkai	A35	228	12.5	12.3	724	1.5	0.0285	2.3	0.92
31	sk31	Skandinavienkai	A35	228	12.5	12.3	724	1.5	0.0285	2.3	0.92
32	sk32	Skandinavienkai	A35	228	12.5	12.3	724	1.5	0.0285	2.3	0.92
33	sk33	Skandinavienkai	A35	228	12.5	12.3	724	1.5	0.0285	2.3	0.92
34	sk34	Skandinavienkai	A36	237	10.6	10.8	754	1.3	0.0247	2.1	0.84
35	sk35	Skandinavienkai	A37	240	10.7	12.9	764	1.4	0.0266	2.3	0.92
36	sk36	Skandinavienkai	A37	240	10.7	12.9	764	1.4	0.0266	2.3	0.92
37	sk37	Skandinavienkai	A37	240	10.7	12.9	764	1.4	0.0266	2.3	0.92
38	sk41	Skandinavienkai	A36	237	10.6	10.8	754	1.3	0.0247	2.1	0.84
39	sk42	Skandinavienkai	A36	237	10.6	10.8	754	1.3	0.0247	2.1	0.84
40	sk51	Skandinavienkai	A36	237	10.6	10.8	754	1.3	0.0247	2.1	0.84
41	sk52	Skandinavienkai	A36	237	10.6	10.8	754	1.3	0.0247	2.1	0.84
42	sk53	Skandinavienkai	A36	237	10.6	10.8	754	1.3	0.0247	2.1	0.84
43	sk54	Skandinavienkai	A36	237	10.6	10.8	754	1.3	0.0247	2.1	0.84
44	sk6a1	Skandinavienkai	A36	237	10.6	10.8	754	1.3	0.0247	2.1	0.84
45	sk6a2	Skandinavienkai	A36	237	10.6	10.8	754	1.3	0.0247	2.1	0.84
46	sk6a3	Skandinavienkai	A36	237	10.6	10.8	754	1.3	0.0247	2.1	0.84
47	sk6a4	Skandinavienkai	A36	237	10.6	10.8	754	1.3	0.0247	2.1	0.84
48	sk71	Skandinavienkai	A36	237	10.6	10.8	754	1.3	0.0247	2.1	0.84
49	sk72	Skandinavienkai	A36	237	10.6	10.8	754	1.3	0.0247	2.1	0.84
50	sk73	Skandinavienkai	A36	237	10.6	10.8	754	1.3	0.0247	2.1	0.84
51	sk7a1	Skandinavienkai	A35	228	12.5	12.3	724	1.5	0.0285	2.3	0.92
52	sk7a2	Skandinavienkai	A35	228	12.5	12.3	724	1.5	0.0285	2.3	0.92
53	sk81	Skandinavienkai	A35	228	12.5	12.3	724	1.5	0.0285	2.3	0.92
54	sk82	Skandinavienkai	A35	228	12.5	12.3	724	1.5	0.0285	2.3	0.92

A 2.6.7 Global Emission Factors According to ENTEC, in Port (only for Information)

Ship			Emission factors [g/kWh]								
			Global approach for ship classes according to ENTEC								
			In port								
No.	Name	Port	Class	Fuel	NOx	SO2	CO2	HC	Benz.	PM10	Soot
1	ct1	CTL (Herrenhafen)	A35	227	13.0	12.3	723	0.9	0.0171	1.4	0.56
2	kk1	Konstinkai	A35	227	13.0	12.3	723	0.9	0.0171	1.4	0.56
3	kk2	Konstinkai	A35	227	13.0	12.3	723	0.9	0.0171	1.4	0.56
4	kk3	Konstinkai	A35	227	13.0	12.3	723	0.9	0.0171	1.4	0.56
5	kk4	Konstinkai	A35	227	13.0	12.3	723	0.9	0.0171	1.4	0.56
6	kk5	Konstinkai	A35	227	13.0	12.3	723	0.9	0.0171	1.4	0.56
7	lk1	Lehmannkai	A36	235	11.3	11.2	746	1.0	0.0190	1.8	0.72
8	lk2	Lehmannkai	A36	235	11.3	11.2	746	1.0	0.0190	1.8	0.72
9	lk3	Lehmannkai	A35	227	13.0	12.3	723	0.9	0.0171	1.4	0.56
10	nk1	Nordlandkai	A35	227	13.0	12.3	723	0.9	0.0171	1.4	0.56
11	nk2	Nordlandkai	A35	227	13.0	12.3	723	0.9	0.0171	1.4	0.56
12	nk3	Nordlandkai	A35	227	13.0	12.3	723	0.9	0.0171	1.4	0.56
13	nk4	Nordlandkai	A35	227	13.0	12.3	723	0.9	0.0171	1.4	0.56
14	nk5	Nordlandkai	A36	235	11.3	11.2	746	1.0	0.0190	1.8	0.72
15	nk6	Nordlandkai	A36	235	11.3	11.2	746	1.0	0.0190	1.8	0.72
16	nk7	Nordlandkai	A35	227	13.0	12.3	723	0.9	0.0171	1.4	0.56
17	nk8	Nordlandkai	A35	227	13.0	12.3	723	0.9	0.0171	1.4	0.56
18	nk9	Nordlandkai	A35	227	13.0	12.3	723	0.9	0.0171	1.4	0.56
19	nk10	Nordlandkai	A35	227	13.0	12.3	723	0.9	0.0171	1.4	0.56
20	nk11	Nordlandkai	A31	225	13.3	12.1	716	0.9	0.0171	1.5	0.60
21	ok1	Ostpreußenkai	A37	236	11.6	12.6	750	1.0	0.0190	1.8	0.72
22	ok2	Ostpreußenkai	A37	236	11.6	12.6	750	1.0	0.0190	1.8	0.72
23	ok3	Ostpreußenkai	A37	236	11.6	12.6	750	1.0	0.0190	1.8	0.72
24	ok4	Ostpreußenkai	A37	236	11.6	12.6	750	1.0	0.0190	1.8	0.72
25	ok5	Ostpreußenkai	A37	236	11.6	12.6	750	1.0	0.0190	1.8	0.72
26	ok6	Ostpreußenkai	A37	236	11.6	12.6	750	1.0	0.0190	1.8	0.72
27	ok7	Ostpreußenkai	A37	236	11.6	12.6	750	1.0	0.0190	1.8	0.72
28	sp1	Schlutupkai	A35	227	13.0	12.3	723	0.9	0.0171	1.4	0.56
29	sp2	Schlutupkai	A35	227	13.0	12.3	723	0.9	0.0171	1.4	0.56
30	sp3	Schlutupkai	A35	227	13.0	12.3	723	0.9	0.0171	1.4	0.56
31	sk31	Skandinavienkai	A35	227	13.0	12.3	723	0.9	0.0171	1.4	0.56
32	sk32	Skandinavienkai	A35	227	13.0	12.3	723	0.9	0.0171	1.4	0.56
33	sk33	Skandinavienkai	A35	227	13.0	12.3	723	0.9	0.0171	1.4	0.56
34	sk34	Skandinavienkai	A36	235	11.3	11.2	746	1.0	0.0190	1.8	0.72
35	sk35	Skandinavienkai	A37	236	11.6	12.6	750	1.0	0.0190	1.8	0.72
36	sk36	Skandinavienkai	A37	236	11.6	12.6	750	1.0	0.0190	1.8	0.72
37	sk37	Skandinavienkai	A37	236	11.6	12.6	750	1.0	0.0190	1.8	0.72
38	sk41	Skandinavienkai	A36	235	11.3	11.2	746	1.0	0.0190	1.8	0.72
39	sk42	Skandinavienkai	A36	235	11.3	11.2	746	1.0	0.0190	1.8	0.72
40	sk51	Skandinavienkai	A36	235	11.3	11.2	746	1.0	0.0190	1.8	0.72
41	sk52	Skandinavienkai	A36	235	11.3	11.2	746	1.0	0.0190	1.8	0.72
42	sk53	Skandinavienkai	A36	235	11.3	11.2	746	1.0	0.0190	1.8	0.72
43	sk54	Skandinavienkai	A36	235	11.3	11.2	746	1.0	0.0190	1.8	0.72
44	sk6a1	Skandinavienkai	A36	235	11.3	11.2	746	1.0	0.0190	1.8	0.72
45	sk6a2	Skandinavienkai	A36	235	11.3	11.2	746	1.0	0.0190	1.8	0.72
46	sk6a3	Skandinavienkai	A36	235	11.3	11.2	746	1.0	0.0190	1.8	0.72
47	sk6a4	Skandinavienkai	A36	235	11.3	11.2	746	1.0	0.0190	1.8	0.72
48	sk71	Skandinavienkai	A36	235	11.3	11.2	746	1.0	0.0190	1.8	0.72
49	sk72	Skandinavienkai	A36	235	11.3	11.2	746	1.0	0.0190	1.8	0.72
50	sk73	Skandinavienkai	A36	235	11.3	11.2	746	1.0	0.0190	1.8	0.72
51	sk7a1	Skandinavienkai	A35	227	13.0	12.3	723	0.9	0.0171	1.4	0.56
52	sk7a2	Skandinavienkai	A35	227	13.0	12.3	723	0.9	0.0171	1.4	0.56
53	sk81	Skandinavienkai	A35	227	13.0	12.3	723	0.9	0.0171	1.4	0.56
54	sk82	Skandinavienkai	A35	227	13.0	12.3	723	0.9	0.0171	1.4	0.56

A 2.6.8 Emission Factors According to ENTEC, Main Engines, at Sea

Ship			Emission factors [g/kWh] according to ENTEC								
			Main engines								
			At sea								
No.	Name	Port	Class	Fuel	NOx	SO2	CO2	HC	Benz.	PM10	Soot
1	ct1	CTL (Herrenhafen)	MSD/RO	213	14.0	11.5	677	0.5	0.0095	0.8	0.32
2	kk1	Konstinkai	MSD/RO	213	14.0	11.5	677	0.5	0.0095	0.8	0.32
3	kk2	Konstinkai	MSD/RO	213	14.0	11.5	677	0.5	0.0095	0.8	0.32
4	kk3	Konstinkai	MSD/RO	213	14.0	11.1	677	0.5	0.0095	0.8	0.32
5	kk4	Konstinkai	MSD/RO	213	14.0	11.5	677	0.5	0.0095	0.8	0.32
6	kk5	Konstinkai	MSD/RO	213	14.0	11.5	677	0.5	0.0095	0.8	0.32
7	lk1	Lehmannkai	MSD/RO	213	14.0	11.5	677	0.5	0.0095	0.8	0.32
8	lk2	Lehmannkai	MSD/RO	213	14.0	11.5	677	0.5	0.0095	0.8	0.32
9	lk3	Lehmannkai	MSD/RO	213	14.0	11.5	677	0.5	0.0095	0.8	0.32
10	nk1	Nordlandkai	MSD/RO	213	14.0	11.5	677	0.5	0.0095	0.8	0.32
11	nk2	Nordlandkai	MSD/RO	213	14.0	11.5	677	0.5	0.0095	0.8	0.32
12	nk3	Nordlandkai	MSD/RO	213	14.0	11.5	677	0.5	0.0095	0.8	0.32
13	nk4	Nordlandkai	MSD/RO	213	14.0	11.5	677	0.5	0.0095	0.8	0.32
14	nk5	Nordlandkai	MSD/RO	213	14.0	8.1	677	0.5	0.0095	0.8	0.32
15	nk6	Nordlandkai	MSD/RO	213	14.0	7.7	677	0.5	0.0095	0.8	0.32
16	nk7	Nordlandkai	MSD/RO	213	14.0	11.5	677	0.5	0.0095	0.8	0.32
17	nk8	Nordlandkai	MSD/RO	213	14.0	11.5	677	0.5	0.0095	0.8	0.32
18	nk9	Nordlandkai	MSD/RO	213	14.0	11.5	677	0.5	0.0095	0.8	0.32
19	nk10	Nordlandkai	MSD/RO	213	14.0	11.5	677	0.5	0.0095	0.8	0.32
20	nk11	Nordlandkai	MSD/RO	213	14.0	11.5	677	0.5	0.0095	0.8	0.32
21	ok1	Ostpreußenkai	MSD/MDO	203	13.2	4.1	645	0.5	0.0095	0.3	0.12
22	ok2	Ostpreußenkai	MSD/MDO	203	13.2	4.1	645	0.5	0.0095	0.3	0.12
23	ok3	Ostpreußenkai	MSD/MDO	203	13.2	4.1	645	0.5	0.0095	0.3	0.12
24	ok4	Ostpreußenkai	MSD/MDO	203	13.2	4.1	645	0.5	0.0095	0.3	0.12
25	ok5	Ostpreußenkai	MSD/RO	213	14.0	11.5	677	0.5	0.0095	0.8	0.32
26	ok6	Ostpreußenkai	MSD/RO	213	14.0	11.5	677	0.5	0.0095	0.8	0.32
27	ok7	Ostpreußenkai	MSD/MDO	203	13.2	4.1	645	0.5	0.0095	0.3	0.12
28	sp1	Schlutupkai	MSD/RO	213	14.0	11.5	677	0.5	0.0095	0.8	0.32
29	sp2	Schlutupkai	MSD/RO	213	14.0	11.5	677	0.5	0.0095	0.8	0.32
30	sp3	Schlutupkai	MSD/RO	213	14.0	11.5	677	0.5	0.0095	0.8	0.32
31	sk31	Skandinavienkai	MSD/RO	213	14.0	11.5	677	0.5	0.0095	0.8	0.32
32	sk32	Skandinavienkai	MSD/RO	213	14.0	11.5	677	0.5	0.0095	0.8	0.32
33	sk33	Skandinavienkai	MSD/RO	213	14.0	11.5	677	0.5	0.0095	0.8	0.32
34	sk34	Skandinavienkai	MSD/RO	213	14.0	11.5	677	0.5	0.0095	0.8	0.32
35	sk35	Skandinavienkai	MSD/RO	213	14.0	11.5	677	0.5	0.0095	0.8	0.32
36	sk36	Skandinavienkai	MSD/RO	213	14.0	11.5	677	0.5	0.0095	0.8	0.32
37	sk37	Skandinavienkai	MSD/MDO	203	13.2	4.1	645	0.5	0.0095	0.3	0.12
38	sk41	Skandinavienkai	MSD/RO	213	14.0	11.5	677	0.5	0.0095	0.8	0.32
39	sk42	Skandinavienkai	MSD/RO	213	14.0	11.5	677	0.5	0.0095	0.8	0.32
40	sk51	Skandinavienkai	MSD/RO	213	14.0	11.5	677	0.5	0.0095	0.8	0.32
41	sk52	Skandinavienkai	MSD/RO	213	14.0	11.5	677	0.5	0.0095	0.8	0.32
42	sk53	Skandinavienkai	MSD/RO	213	14.0	7.7	677	0.5	0.0095	0.8	0.32
43	sk54	Skandinavienkai	MSD/RO	213	14.0	11.5	677	0.5	0.0095	0.8	0.32
44	sk6a1	Skandinavienkai	MSD/MDO	203	13.2	1.2	645	0.5	0.0095	0.3	0.12
45	sk6a2	Skandinavienkai	MSD/MDO	203	13.2	1.2	645	0.5	0.0095	0.3	0.12
46	sk6a3	Skandinavienkai	MSD/MDO	203	13.2	1.2	645	0.5	0.0095	0.3	0.12
47	sk6a4	Skandinavienkai	MSD/MDO	203	13.2	1.2	645	0.5	0.0095	0.3	0.12
48	sk71	Skandinavienkai	SSD/RO	195	18.1	9.7	620	0.6	0.0114	0.8	0.32
49	sk72	Skandinavienkai	SSD/RO	195	18.1	9.7	620	0.6	0.0114	0.8	0.32
50	sk73	Skandinavienkai	MSD/RO	213	14.0	2.1	677	0.5	0.0095	0.8	0.32
51	sk7a1	Skandinavienkai	MSD/RO	213	14.0	4.3	677	0.5	0.0095	0.8	0.32
52	sk7a2	Skandinavienkai	MSD/RO	213	14.0	2.0	677	0.5	0.0095	0.8	0.32
53	sk81	Skandinavienkai	MSD/RO	213	14.0	8.1	677	0.5	0.0095	0.8	0.32
54	sk82	Skandinavienkai	MSD/RO	213	14.0	7.7	677	0.5	0.0095	0.8	0.32

A 2.6.9 Emission Factors According to ENTEC, Main Engines, Manoeuvring and in Port

Ship			Emission factors [g/kWh] according to ENTEC								
			Main engines								
			Manoeuvring and in port								
No.	Name	Port	Class	Fuel	NOx	SO2	CO2	HC	Benz.	PM10	Soot
1	ct1	CTL (Herrenhafen)	MSD/RO	234	11.2	12.6	745	1.5	0.0285	2.4	0.96
2	kk1	Konstinkai	MSD/RO	234	11.2	12.6	745	1.5	0.0285	2.4	0.96
3	kk2	Konstinkai	MSD/RO	234	11.2	12.6	745	1.5	0.0285	2.4	0.96
4	kk3	Konstinkai	MSD/RO	234	11.2	12.1	745	1.5	0.0285	2.4	0.96
5	kk4	Konstinkai	MSD/RO	234	11.2	12.6	745	1.5	0.0285	2.4	0.96
6	kk5	Konstinkai	MSD/RO	234	11.2	12.6	745	1.5	0.0285	2.4	0.96
7	lk1	Lehmannkai	MSD/RO	234	11.2	12.6	745	1.5	0.0285	2.4	0.96
8	lk2	Lehmannkai	MSD/RO	234	11.2	12.6	745	1.5	0.0285	2.4	0.96
9	lk3	Lehmannkai	MSD/RO	234	11.2	12.6	745	1.5	0.0285	2.4	0.96
10	nk1	Nordlandkai	MSD/RO	234	11.2	12.6	745	1.5	0.0285	2.4	0.96
11	nk2	Nordlandkai	MSD/RO	234	11.2	12.6	745	1.5	0.0285	2.4	0.96
12	nk3	Nordlandkai	MSD/RO	234	11.2	12.6	745	1.5	0.0285	2.4	0.96
13	nk4	Nordlandkai	MSD/RO	234	11.2	12.6	745	1.5	0.0285	2.4	0.96
14	nk5	Nordlandkai	MSD/RO	234	11.2	8.9	745	1.5	0.0285	2.4	0.96
15	nk6	Nordlandkai	MSD/RO	234	11.2	8.4	745	1.5	0.0285	2.4	0.96
16	nk7	Nordlandkai	MSD/RO	234	11.2	12.6	745	1.5	0.0285	2.4	0.96
17	nk8	Nordlandkai	MSD/RO	234	11.2	12.6	745	1.5	0.0285	2.4	0.96
18	nk9	Nordlandkai	MSD/RO	234	11.2	12.6	745	1.5	0.0285	2.4	0.96
19	nk10	Nordlandkai	MSD/RO	234	11.2	12.6	745	1.5	0.0285	2.4	0.96
20	nk11	Nordlandkai	MSD/RO	234	11.2	12.6	745	1.5	0.0285	2.4	0.96
21	ok1	Ostpreußenkai	MSD/MDO	223	10.6	4.5	710	1.5	0.0285	0.9	0.36
22	ok2	Ostpreußenkai	MSD/MDO	223	10.6	4.5	710	1.5	0.0285	0.9	0.36
23	ok3	Ostpreußenkai	MSD/MDO	223	10.6	4.5	710	1.5	0.0285	0.9	0.36
24	ok4	Ostpreußenkai	MSD/MDO	223	10.6	4.5	710	1.5	0.0285	0.9	0.36
25	ok5	Ostpreußenkai	MSD/RO	234	11.2	12.6	745	1.5	0.0285	2.4	0.96
26	ok6	Ostpreußenkai	MSD/RO	234	11.2	12.6	745	1.5	0.0285	2.4	0.96
27	ok7	Ostpreußenkai	MSD/MDO	223	10.6	4.5	710	1.5	0.0285	0.9	0.36
28	sp1	Schlutupkai	MSD/RO	234	11.2	12.6	745	1.5	0.0285	2.4	0.96
29	sp2	Schlutupkai	MSD/RO	234	11.2	12.6	745	1.5	0.0285	2.4	0.96
30	sp3	Schlutupkai	MSD/RO	234	11.2	12.6	745	1.5	0.0285	2.4	0.96
31	sk31	Skandinavienkai	MSD/RO	234	11.2	12.6	745	1.5	0.0285	2.4	0.96
32	sk32	Skandinavienkai	MSD/RO	234	11.2	12.6	745	1.5	0.0285	2.4	0.96
33	sk33	Skandinavienkai	MSD/RO	234	11.2	12.6	745	1.5	0.0285	2.4	0.96
34	sk34	Skandinavienkai	MSD/RO	234	11.2	12.6	745	1.5	0.0285	2.4	0.96
35	sk35	Skandinavienkai	MSD/RO	234	11.2	12.6	745	1.5	0.0285	2.4	0.96
36	sk36	Skandinavienkai	MSD/RO	234	11.2	12.6	745	1.5	0.0285	2.4	0.96
37	sk37	Skandinavienkai	MSD/MDO	223	10.6	4.5	710	1.5	0.0285	0.9	0.36
38	sk41	Skandinavienkai	MSD/RO	234	11.2	12.6	745	1.5	0.0285	2.4	0.96
39	sk42	Skandinavienkai	MSD/RO	234	11.2	12.6	745	1.5	0.0285	2.4	0.96
40	sk51	Skandinavienkai	MSD/RO	234	11.2	12.6	745	1.5	0.0285	2.4	0.96
41	sk52	Skandinavienkai	MSD/RO	234	11.2	12.6	745	1.5	0.0285	2.4	0.96
42	sk53	Skandinavienkai	MSD/RO	234	11.2	8.4	745	1.5	0.0285	2.4	0.96
43	sk54	Skandinavienkai	MSD/RO	234	11.2	12.6	745	1.5	0.0285	2.4	0.96
44	sk6a1	Skandinavienkai	MSD/MDO	223	10.6	1.4	710	1.5	0.0285	0.9	0.36
45	sk6a2	Skandinavienkai	MSD/MDO	223	10.6	1.4	710	1.5	0.0285	0.9	0.36
46	sk6a3	Skandinavienkai	MSD/MDO	223	10.6	1.4	710	1.5	0.0285	0.9	0.36
47	sk6a4	Skandinavienkai	MSD/MDO	223	10.6	1.4	710	1.5	0.0285	0.9	0.36
48	sk71	Skandinavienkai	SSD/RO	215	14.5	10.7	682	1.8	0.0342	2.4	0.96
49	sk72	Skandinavienkai	SSD/RO	215	14.5	10.7	682	1.8	0.0342	2.4	0.96
50	sk73	Skandinavienkai	MSD/RO	234	11.2	2.3	745	1.5	0.0285	2.4	0.96
51	sk7a1	Skandinavienkai	MSD/RO	234	11.2	4.7	745	1.5	0.0285	2.4	0.96
52	sk7a2	Skandinavienkai	MSD/RO	234	11.2	2.2	745	1.5	0.0285	2.4	0.96
53	sk81	Skandinavienkai	MSD/RO	234	11.2	8.9	745	1.5	0.0285	2.4	0.96
54	sk82	Skandinavienkai	MSD/RO	234	11.2	8.4	745	1.5	0.0285	2.4	0.96

A 2.6.10 Emission Factors According to ENTEC, Auxiliary Engines, at Sea, Manoeuvring and in Port

Ship			Emission factors [g/kWh] according to ENTEC								
			Auxiliary engines								
			At sea, manoeuvring and in port								
No.	Name	Port	Class	Fuel	NOx	SO2	CO2	HC	Benz.	PM10	Soot
1	ct1	CTL (Herrenhafen)	MSD/MDO	217	13.9	4.3	690	0.4	0.0076	0.3	0.12
2	kk1	Konstinkai	MSD/MDO	217	13.9	4.3	690	0.4	0.0076	0.3	0.12
3	kk2	Konstinkai	MSD/MDO	217	13.9	4.3	690	0.4	0.0076	0.3	0.12
4	kk3	Konstinkai	MSD/MDO	217	13.9	0.9	690	0.4	0.0076	0.3	0.12
5	kk4	Konstinkai	MSD/MDO	217	13.9	4.3	690	0.4	0.0076	0.3	0.12
6	kk5	Konstinkai	MSD/MDO	217	13.9	4.3	690	0.4	0.0076	0.3	0.12
7	lk1	Lehmannkai	MSD/MDO	217	13.9	4.3	690	0.4	0.0076	0.3	0.12
8	lk2	Lehmannkai	MSD/MDO	217	13.9	4.3	690	0.4	0.0076	0.3	0.12
9	lk3	Lehmannkai	MSD/MDO	217	13.9	4.3	690	0.4	0.0076	0.3	0.12
10	nk1	Nordlandkai	MSD/MDO	217	13.9	4.3	690	0.4	0.0076	0.3	0.12
11	nk2	Nordlandkai	MSD/MGO	217	13.9	2.2	690	0.4	0.0076	0.3	0.12
12	nk3	Nordlandkai	MSD/MDO	217	13.9	4.3	690	0.4	0.0076	0.3	0.12
13	nk4	Nordlandkai	MSD/MDO	217	13.9	4.3	690	0.4	0.0076	0.3	0.12
14	nk5	Nordlandkai	MSD/MDO	217	13.9	0.4	690	0.4	0.0076	0.3	0.12
15	nk6	Nordlandkai	MSD/MDO	217	13.9	0.4	690	0.4	0.0076	0.3	0.12
16	nk7	Nordlandkai	MSD/MDO	217	13.9	4.3	690	0.4	0.0076	0.3	0.12
17	nk8	Nordlandkai	MSD/MDO	217	13.9	4.3	690	0.4	0.0076	0.3	0.12
18	nk9	Nordlandkai	MSD/MDO	217	13.9	4.3	690	0.4	0.0076	0.3	0.12
19	nk10	Nordlandkai	MSD/MDO	217	13.9	4.3	690	0.4	0.0076	0.3	0.12
20	nk11	Nordlandkai	MSD/MDO	217	13.9	4.3	690	0.4	0.0076	0.3	0.12
21	ok1	Ostpreußenkai	-	0	0	0	0	0	0	0	0
22	ok2	Ostpreußenkai	-	0	0	0	0	0	0	0	0
23	ok3	Ostpreußenkai	MSD/MDO	217	13.9	4.3	690	0.4	0.0076	0.3	0.12
24	ok4	Ostpreußenkai	-	0	0	0	0	0	0	0	0
25	ok5	Ostpreußenkai	MSD/MDO	217	13.9	4.3	690	0.4	0.0076	0.3	0.12
26	ok6	Ostpreußenkai	-	0	0	0	0	0	0	0	0
27	ok7	Ostpreußenkai	-	0	0	0	0	0	0	0	0
28	sp1	Schlutupkai	MSD/MDO	217	13.9	4.3	690	0.4	0.0076	0.3	0.12
29	sp2	Schlutupkai	MSD/MDO	217	13.9	4.3	690	0.4	0.0076	0.3	0.12
30	sp3	Schlutupkai	MSD/MDO	217	13.9	4.3	690	0.4	0.0076	0.3	0.12
31	sk31	Skandinavienkai	MSD/MDO	217	13.9	4.3	690	0.4	0.0076	0.3	0.12
32	sk32	Skandinavienkai	MSD/MDO	217	13.9	4.3	690	0.4	0.0076	0.3	0.12
33	sk33	Skandinavienkai	MSD/MDO	217	13.9	4.3	690	0.4	0.0076	0.3	0.12
34	sk34	Skandinavienkai	MSD/MDO	217	13.9	4.3	690	0.4	0.0076	0.3	0.12
35	sk35	Skandinavienkai	-	0	0	0	0	0	0	0	0
36	sk36	Skandinavienkai	-	0	0	0	0	0	0	0	0
37	sk37	Skandinavienkai	-	0	0	0	0	0	0	0	0
38	sk41	Skandinavienkai	MSD/MDO	217	13.9	4.3	690	0.4	0.0076	0.3	0.12
39	sk42	Skandinavienkai	MSD/MDO	217	13.9	4.3	690	0.4	0.0076	0.3	0.12
40	sk51	Skandinavienkai	MSD/MDO	217	13.9	4.3	690	0.4	0.0076	0.3	0.12
41	sk52	Skandinavienkai	MSD/MDO	217	13.9	4.3	690	0.4	0.0076	0.3	0.12
42	sk53	Skandinavienkai	MSD/MDO	217	13.9	0.6	690	0.4	0.0076	0.3	0.12
43	sk54	Skandinavienkai	MSD/MDO	217	13.9	4.3	690	0.4	0.0076	0.3	0.12
44	sk6a1	Skandinavienkai	-	0	0	0	0	0	0	0	0
45	sk6a2	Skandinavienkai	-	0	0	0	0	0	0	0	0
46	sk6a3	Skandinavienkai	-	0	0	0	0	0	0	0	0
47	sk6a4	Skandinavienkai	-	0	0	0	0	0	0	0	0
48	sk71	Skandinavienkai	MSD/MDO	217	13.9	6.5	690	0.4	0.0076	0.3	0.12
49	sk72	Skandinavienkai	MSD/MDO	217	13.9	6.5	690	0.4	0.0076	0.3	0.12
50	sk73	Skandinavienkai	MSD/MDO	217	13.9	2.1	690	0.4	0.0076	0.3	0.12
51	sk7a1	Skandinavienkai	MSD/MDO	217	13.9	4.3	690	0.4	0.0076	0.3	0.12
52	sk7a2	Skandinavienkai	MSD/MDO	217	13.9	4.3	690	0.4	0.0076	0.3	0.12
53	sk81	Skandinavienkai	MSD/MDO	217	13.9	0.6	690	0.4	0.0076	0.3	0.12
54	sk82	Skandinavienkai	MSD/MDO	217	13.9	0.6	690	0.4	0.0076	0.3	0.12

A 2.6.11 Emission Factors According to Isensee, Auxiliary Boilers, at Sea, Manoeuvring and in Port

Ship			Emission factors [g/kWh] according to ENTEC								
			Auxiliary engines								
			At sea, manoeuvring and in port								
No.	Name	Port	Class	Fuel	NOx	SO2	CO2	HC	Benz.	PM10	Soot
1	ct1	CTL (Herrenhafen)	MSD/MDO	217	13.9	4.3	690	0.4	0.0076	0.3	0.12
2	kk1	Konstinkai	MSD/MDO	217	13.9	4.3	690	0.4	0.0076	0.3	0.12
3	kk2	Konstinkai	MSD/MDO	217	13.9	4.3	690	0.4	0.0076	0.3	0.12
4	kk3	Konstinkai	MSD/MDO	217	13.9	0.9	690	0.4	0.0076	0.3	0.12
5	kk4	Konstinkai	MSD/MDO	217	13.9	4.3	690	0.4	0.0076	0.3	0.12
6	kk5	Konstinkai	MSD/MDO	217	13.9	4.3	690	0.4	0.0076	0.3	0.12
7	lk1	Lehmannkai	MSD/MDO	217	13.9	4.3	690	0.4	0.0076	0.3	0.12
8	lk2	Lehmannkai	MSD/MDO	217	13.9	4.3	690	0.4	0.0076	0.3	0.12
9	lk3	Lehmannkai	MSD/MDO	217	13.9	4.3	690	0.4	0.0076	0.3	0.12
10	nk1	Nordlandkai	MSD/MDO	217	13.9	4.3	690	0.4	0.0076	0.3	0.12
11	nk2	Nordlandkai	MSD/MGO	217	13.9	2.2	690	0.4	0.0076	0.3	0.12
12	nk3	Nordlandkai	MSD/MDO	217	13.9	4.3	690	0.4	0.0076	0.3	0.12
13	nk4	Nordlandkai	MSD/MDO	217	13.9	4.3	690	0.4	0.0076	0.3	0.12
14	nk5	Nordlandkai	MSD/MDO	217	13.9	0.4	690	0.4	0.0076	0.3	0.12
15	nk6	Nordlandkai	MSD/MDO	217	13.9	0.4	690	0.4	0.0076	0.3	0.12
16	nk7	Nordlandkai	MSD/MDO	217	13.9	4.3	690	0.4	0.0076	0.3	0.12
17	nk8	Nordlandkai	MSD/MDO	217	13.9	4.3	690	0.4	0.0076	0.3	0.12
18	nk9	Nordlandkai	MSD/MDO	217	13.9	4.3	690	0.4	0.0076	0.3	0.12
19	nk10	Nordlandkai	MSD/MDO	217	13.9	4.3	690	0.4	0.0076	0.3	0.12
20	nk11	Nordlandkai	MSD/MDO	217	13.9	4.3	690	0.4	0.0076	0.3	0.12
21	ok1	Ostpreußenkai	-	0	0	0	0	0	0	0	0
22	ok2	Ostpreußenkai	-	0	0	0	0	0	0	0	0
23	ok3	Ostpreußenkai	MSD/MDO	217	13.9	4.3	690	0.4	0.0076	0.3	0.12
24	ok4	Ostpreußenkai	-	0	0	0	0	0	0	0	0
25	ok5	Ostpreußenkai	MSD/MDO	217	13.9	4.3	690	0.4	0.0076	0.3	0.12
26	ok6	Ostpreußenkai	-	0	0	0	0	0	0	0	0
27	ok7	Ostpreußenkai	-	0	0	0	0	0	0	0	0
28	sp1	Schlutupkai	MSD/MDO	217	13.9	4.3	690	0.4	0.0076	0.3	0.12
29	sp2	Schlutupkai	MSD/MDO	217	13.9	4.3	690	0.4	0.0076	0.3	0.12
30	sp3	Schlutupkai	MSD/MDO	217	13.9	4.3	690	0.4	0.0076	0.3	0.12
31	sk31	Skandinavienkai	MSD/MDO	217	13.9	4.3	690	0.4	0.0076	0.3	0.12
32	sk32	Skandinavienkai	MSD/MDO	217	13.9	4.3	690	0.4	0.0076	0.3	0.12
33	sk33	Skandinavienkai	MSD/MDO	217	13.9	4.3	690	0.4	0.0076	0.3	0.12
34	sk34	Skandinavienkai	MSD/MDO	217	13.9	4.3	690	0.4	0.0076	0.3	0.12
35	sk35	Skandinavienkai	-	0	0	0	0	0	0	0	0
36	sk36	Skandinavienkai	-	0	0	0	0	0	0	0	0
37	sk37	Skandinavienkai	-	0	0	0	0	0	0	0	0
38	sk41	Skandinavienkai	MSD/MDO	217	13.9	4.3	690	0.4	0.0076	0.3	0.12
39	sk42	Skandinavienkai	MSD/MDO	217	13.9	4.3	690	0.4	0.0076	0.3	0.12
40	sk51	Skandinavienkai	MSD/MDO	217	13.9	4.3	690	0.4	0.0076	0.3	0.12
41	sk52	Skandinavienkai	MSD/MDO	217	13.9	4.3	690	0.4	0.0076	0.3	0.12
42	sk53	Skandinavienkai	MSD/MDO	217	13.9	0.6	690	0.4	0.0076	0.3	0.12
43	sk54	Skandinavienkai	MSD/MDO	217	13.9	4.3	690	0.4	0.0076	0.3	0.12
44	sk6a1	Skandinavienkai	-	0	0	0	0	0	0	0	0
45	sk6a2	Skandinavienkai	-	0	0	0	0	0	0	0	0
46	sk6a3	Skandinavienkai	-	0	0	0	0	0	0	0	0
47	sk6a4	Skandinavienkai	-	0	0	0	0	0	0	0	0
48	sk71	Skandinavienkai	MSD/MDO	217	13.9	6.5	690	0.4	0.0076	0.3	0.12
49	sk72	Skandinavienkai	MSD/MDO	217	13.9	6.5	690	0.4	0.0076	0.3	0.12
50	sk73	Skandinavienkai	MSD/MDO	217	13.9	2.1	690	0.4	0.0076	0.3	0.12
51	sk7a1	Skandinavienkai	MSD/MDO	217	13.9	4.3	690	0.4	0.0076	0.3	0.12
52	sk7a2	Skandinavienkai	MSD/MDO	217	13.9	4.3	690	0.4	0.0076	0.3	0.12
53	sk81	Skandinavienkai	MSD/MDO	217	13.9	0.6	690	0.4	0.0076	0.3	0.12
54	sk82	Skandinavienkai	MSD/MDO	217	13.9	0.6	690	0.4	0.0076	0.3	0.12

A 2.6.12 Emissions per Hour, Main Engines, at Sea

Ship			Emissions per hour [kg/h] according to ENTEC									
			Main engines									
			At sea									
No.	Name	Port	Load	[kW]	Fuel	NOx	SO2	CO2	HC	Benz.	PM10	Soot
1	ct1	CTL (Herrenhafen)	80 %	11,584	2,467	162.2	133.2	7,842	5.79	0.110	9.27	3.71
2	kk1	Konstinkai	80 %	20,160	4,294	282.2	231.8	13,648	10.08	0.192	16.13	6.45
3	kk2	Konstinkai	80 %	3,600	767	50.4	41.4	2,437	1.80	0.034	2.88	1.15
4	kk3	Konstinkai	80 %	8,824	1,880	123.5	97.7	5,974	4.41	0.084	7.06	2.82
5	kk4	Konstinkai	80 %	12,480	2,658	174.7	143.5	8,449	6.24	0.119	9.98	3.99
6	kk5	Konstinkai	80 %	12,960	2,760	181.4	149.0	8,774	6.48	0.123	10.37	4.15
7	lk1	Lehmannkai	80 %	6,080	1,295	85.1	69.9	4,116	3.04	0.058	4.86	1.95
8	lk2	Lehmannkai	80 %	6,080	1,295	85.1	69.9	4,116	3.04	0.058	4.86	1.95
9	lk3	Lehmannkai	80 %	1,765	376	24.7	20.3	1,195	0.88	0.017	1.41	0.56
10	nk1	Nordlandkai	80 %	11,512	2,452	161.2	132.4	7,794	5.76	0.109	9.21	3.68
11	nk2	Nordlandkai	80 %	10,080	2,147	141.1	115.9	6,824	5.04	0.096	8.06	3.23
12	nk3	Nordlandkai	80 %	10,558	2,249	147.8	121.4	7,148	5.28	0.100	8.45	3.38
13	nk4	Nordlandkai	80 %	11,512	2,452	161.2	132.4	7,794	5.76	0.109	9.21	3.68
14	nk5	Nordlandkai	80 %	11,520	2,454	161.3	93.2	7,799	5.76	0.109	9.22	3.69
15	nk6	Nordlandkai	80 %	11,603	2,471	162.4	89.0	7,855	5.80	0.110	9.28	3.71
16	nk7	Nordlandkai	80 %	10,080	2,147	141.1	115.9	6,824	5.04	0.096	8.06	3.23
17	nk8	Nordlandkai	80 %	15,120	3,221	211.7	173.9	10,236	7.56	0.144	12.10	4.84
18	nk9	Nordlandkai	80 %	15,120	3,221	211.7	173.9	10,236	7.56	0.144	12.10	4.84
19	nk10	Nordlandkai	80 %	11,584	2,467	162.2	133.2	7,842	5.79	0.110	9.27	3.71
20	nk11	Nordlandkai	80 %	1,440	307	20.2	16.6	975	0.72	0.014	1.15	0.46
21	ok1	Ostpreußenkai	80 %	2,589	526	34.2	10.6	1,670	1.29	0.025	0.78	0.31
22	ok2	Ostpreußenkai	80 %	340	69	4.5	1.4	219	0.17	0.003	0.10	0.04
23	ok3	Ostpreußenkai	80 %	528	107	7.0	2.2	341	0.26	0.005	0.16	0.06
24	ok4	Ostpreußenkai	80 %	340	69	4.5	1.4	219	0.17	0.003	0.10	0.04
25	ok5	Ostpreußenkai	80 %	16,000	3,408	224.0	184.0	10,832	8.00	0.152	12.80	5.12
26	ok6	Ostpreußenkai	80 %	9,360	1,994	131.0	107.6	6,337	4.68	0.089	7.49	3.00
27	ok7	Ostpreußenkai	80 %	2,800	568	37.0	11.5	1,806	1.40	0.027	0.84	0.34
28	sp1	Schlutupkai	80 %	19,200	4,090	268.8	220.8	12,998	9.60	0.182	15.36	6.14
29	sp2	Schlutupkai	80 %	6,154	1,311	86.2	70.8	4,167	3.08	0.058	4.92	1.97
30	sp3	Schlutupkai	80 %	6,219	1,325	87.1	71.5	4,210	3.11	0.059	4.98	1.99
31	sk31	Skandinavienkai	80 %	11,512	2,452	161.2	132.4	7,794	5.76	0.109	9.21	3.68
32	sk32	Skandinavienkai	80 %	4,733	1,008	66.3	54.4	3,204	2.37	0.045	3.79	1.51
33	sk33	Skandinavienkai	80 %	6,336	1,350	88.7	72.9	4,289	3.17	0.060	5.07	2.03
34	sk34	Skandinavienkai	80 %	7,872	1,677	110.2	90.5	5,329	3.94	0.075	6.30	2.52
35	sk35	Skandinavienkai	80 %	10,720	2,283	150.1	123.3	7,257	5.36	0.102	8.58	3.43
36	sk36	Skandinavienkai	80 %	38,200	8,137	534.8	439.3	25,861	19.10	0.363	30.56	12.22
37	sk37	Skandinavienkai	80 %	2,800	568	37.0	11.5	1,806	1.40	0.027	0.84	0.34
38	sk41	Skandinavienkai	80 %	13,824	2,945	193.5	159.0	9,359	6.91	0.131	11.06	4.42
39	sk42	Skandinavienkai	80 %	19,200	4,090	268.8	220.8	12,998	9.60	0.182	15.36	6.14
40	sk51	Skandinavienkai	80 %	18,432	3,926	258.0	212.0	12,478	9.22	0.175	14.75	5.90
41	sk52	Skandinavienkai	80 %	18,432	3,926	258.0	212.0	12,478	9.22	0.175	14.75	5.90
42	sk53	Skandinavienkai	80 %	18,454	3,931	258.4	141.5	12,494	9.23	0.175	14.76	5.91
43	sk54	Skandinavienkai	80 %	18,429	3,925	258.0	211.9	12,476	9.21	0.175	14.74	5.90
44	sk6a1	Skandinavienkai	80 %	23,904	4,853	315.5	29.4	15,418	11.95	0.227	7.17	2.87
45	sk6a2	Skandinavienkai	80 %	23,904	4,853	315.5	29.4	15,418	11.95	0.227	7.17	2.87
46	sk6a3	Skandinavienkai	80 %	14,400	2,923	190.1	17.7	9,288	7.20	0.137	4.32	1.73
47	sk6a4	Skandinavienkai	80 %	14,400	2,923	190.1	17.7	9,288	7.20	0.137	4.32	1.73
48	sk71	Skandinavienkai	80 %	12,720	2,480	230.2	123.7	7,886	7.63	0.145	10.18	4.07
49	sk72	Skandinavienkai	80 %	12,720	2,480	230.2	123.7	7,886	7.63	0.145	10.18	4.07
50	sk73	Skandinavienkai	80 %	8,240	1,755	115.4	17.2	5,578	4.12	0.078	6.59	2.64
51	sk7a1	Skandinavienkai	80 %	9,179	1,955	128.5	39.1	6,214	4.59	0.087	7.34	2.94
52	sk7a2	Skandinavienkai	80 %	9,179	1,955	128.5	18.8	6,214	4.59	0.087	7.34	2.94
53	sk81	Skandinavienkai	80 %	12,799	2,726	179.2	103.6	8,665	6.40	0.122	10.24	4.10
54	sk82	Skandinavienkai	80 %	13,032	2,776	182.4	99.9	8,823	6.52	0.124	10.43	4.17

A 2.6.13 Emissions per Hour, Main Engines, Manoeuvring

Ship			Emissions per hour [kg/h] according to ENTEC									
			Main engines									
			Manoeuvring									
No.	Name	Port	Load	[kW]	Fuel	NOx	SO2	CO2	HC	Benz.	PM10	Soot
1	ct1	CTL (Herrenhafen)	20 %	2,896	678	32.4	36.5	2,158	4.34	0.083	6.95	2.78
2	kk1	Konstinkai	20 %	5,040	1,179	56.4	63.5	3,755	7.56	0.144	12.10	4.84
3	kk2	Konstinkai	20 %	900	211	10.1	11.3	671	1.35	0.026	2.16	0.86
4	kk3	Konstinkai	20 %	2,206	516	24.7	26.8	1,643	3.31	0.063	5.29	2.12
5	kk4	Konstinkai	20 %	3,120	730	34.9	39.3	2,324	4.68	0.089	7.49	3.00
6	kk5	Konstinkai	20 %	3,240	758	36.3	40.8	2,414	4.86	0.092	7.78	3.11
7	lk1	Lehmannkai	20 %	1,520	356	17.0	19.2	1,132	2.28	0.043	3.65	1.46
8	lk2	Lehmannkai	20 %	1,520	356	17.0	19.2	1,132	2.28	0.043	3.65	1.46
9	lk3	Lehmannkai	20 %	441	103	4.9	5.6	329	0.66	0.013	1.06	0.42
10	nk1	Nordlandkai	20 %	2,878	673	32.2	36.3	2,144	4.32	0.082	6.91	2.76
11	nk2	Nordlandkai	20 %	2,520	590	28.2	31.8	1,877	3.78	0.072	6.05	2.42
12	nk3	Nordlandkai	20 %	2,640	618	29.6	33.3	1,967	3.96	0.075	6.34	2.53
13	nk4	Nordlandkai	20 %	2,878	673	32.2	36.3	2,144	4.32	0.082	6.91	2.76
14	nk5	Nordlandkai	30 %	4,320	1,011	48.4	38.3	3,218	6.48	0.123	10.37	4.15
15	nk6	Nordlandkai	30 %	4,351	1,018	48.7	36.6	3,242	6.53	0.124	10.44	4.18
16	nk7	Nordlandkai	20 %	2,520	590	28.2	31.8	1,877	3.78	0.072	6.05	2.42
17	nk8	Nordlandkai	20 %	3,780	885	42.3	47.6	2,816	5.67	0.108	9.07	3.63
18	nk9	Nordlandkai	20 %	3,780	885	42.3	47.6	2,816	5.67	0.108	9.07	3.63
19	nk10	Nordlandkai	20 %	2,896	678	32.4	36.5	2,158	4.34	0.083	6.95	2.78
20	nk11	Nordlandkai	20 %	360	84	4.0	4.5	268	0.54	0.010	0.86	0.35
21	ok1	Ostpreußenkai	20 %	647	144	6.9	2.9	460	0.97	0.018	0.58	0.23
22	ok2	Ostpreußenkai	20 %	85	19	0.9	0.4	60	0.13	0.002	0.08	0.03
23	ok3	Ostpreußenkai	60 %	396	88	4.2	1.8	281	0.59	0.011	0.36	0.14
24	ok4	Ostpreußenkai	20 %	85	19	0.9	0.4	60	0.13	0.002	0.08	0.03
25	ok5	Ostpreußenkai	20 %	4,000	936	44.8	50.4	2,980	6.00	0.114	9.60	3.84
26	ok6	Ostpreußenkai	20 %	2,340	548	26.2	29.5	1,743	3.51	0.067	5.62	2.25
27	ok7	Ostpreußenkai	60 %	2,100	468	22.3	9.5	1,491	3.15	0.060	1.89	0.76
28	sp1	Schlutupkai	20 %	4,800	1,123	53.8	60.5	3,576	7.20	0.137	11.52	4.61
29	sp2	Schlutupkai	20 %	1,539	360	17.2	19.4	1,146	2.31	0.044	3.69	1.48
30	sp3	Schlutupkai	20 %	1,555	364	17.4	19.6	1,158	2.33	0.044	3.73	1.49
31	sk31	Skandinavienkai	20 %	2,878	673	32.2	36.3	2,144	4.32	0.082	6.91	2.76
32	sk32	Skandinavienkai	20 %	1,183	277	13.3	14.9	881	1.77	0.034	2.84	1.14
33	sk33	Skandinavienkai	20 %	1,584	371	17.7	20.0	1,180	2.38	0.045	3.80	1.52
34	sk34	Skandinavienkai	20 %	1,968	461	22.0	24.8	1,466	2.95	0.056	4.72	1.89
35	sk35	Skandinavienkai	20 %	2,680	627	30.0	33.8	1,997	4.02	0.076	6.43	2.57
36	sk36	Skandinavienkai	20 %	9,550	2,235	107.0	120.3	7,115	14.33	0.272	22.92	9.17
37	sk37	Skandinavienkai	20 %	700	156	7.4	3.2	497	1.05	0.020	0.63	0.25
38	sk41	Skandinavienkai	20 %	3,456	809	38.7	43.5	2,575	5.18	0.098	8.29	3.32
39	sk42	Skandinavienkai	20 %	4,800	1,123	53.8	60.5	3,576	7.20	0.137	11.52	4.61
40	sk51	Skandinavienkai	20 %	4,608	1,078	51.6	58.1	3,433	6.91	0.131	11.06	4.42
41	sk52	Skandinavienkai	20 %	4,608	1,078	51.6	58.1	3,433	6.91	0.131	11.06	4.42
42	sk53	Skandinavienkai	20 %	4,614	1,080	51.7	38.8	3,437	6.92	0.131	11.07	4.43
43	sk54	Skandinavienkai	20 %	4,607	1,078	51.6	58.1	3,432	6.91	0.131	11.06	4.42
44	sk6a1	Skandinavienkai	20 %	5,976	1,333	63.3	8.1	4,243	8.96	0.170	5.38	2.15
45	sk6a2	Skandinavienkai	20 %	5,976	1,333	63.3	8.1	4,243	8.96	0.170	5.38	2.15
46	sk6a3	Skandinavienkai	20 %	3,600	803	38.2	4.9	2,556	5.40	0.103	3.24	1.30
47	sk6a4	Skandinavienkai	20 %	3,600	803	38.2	4.9	2,556	5.40	0.103	3.24	1.30
48	sk71	Skandinavienkai	40 %	6,360	1,367	92.2	68.3	4,338	11.45	0.218	15.26	6.11
49	sk72	Skandinavienkai	40 %	6,360	1,367	92.2	68.3	4,338	11.45	0.218	15.26	6.11
50	sk73	Skandinavienkai	20 %	2,060	482	23.1	4.7	1,535	3.09	0.059	4.94	1.98
51	sk7a1	Skandinavienkai	20 %	2,295	537	25.7	10.7	1,710	3.44	0.065	5.51	2.20
52	sk7a2	Skandinavienkai	20 %	2,295	537	25.7	5.1	1,710	3.44	0.065	5.51	2.20
53	sk81	Skandinavienkai	20 %	3,200	749	35.8	28.4	2,384	4.80	0.091	7.68	3.07
54	sk82	Skandinavienkai	20 %	3,258	762	36.5	27.4	2,427	4.89	0.093	7.82	3.13

A 2.6.14 Emissions per Hour, Main Engines, in Port

Ship			Emissions per hour [kg/h] according to ENTEC									
			Main engines									
			In port									
No.	Name	Port	Load	[kW]	Fuel	NOx	SO2	CO2	HC	Benz.	PM10	Soot
1	ct1	CTL (Herrenhafen)	1 %	145	33.9	1.6	1.8	108	0.22	0.004	0.35	0.14
2	kk1	Konstinkai	1 %	252	59.0	2.8	3.2	188	0.38	0.007	0.60	0.24
3	kk2	Konstinkai	1 %	45	10.5	0.5	0.6	34	0.07	0.001	0.11	0.04
4	kk3	Konstinkai	1 %	110	25.8	1.2	1.3	82	0.17	0.003	0.26	0.11
5	kk4	Konstinkai	1 %	156	36.5	1.7	2.0	116	0.23	0.004	0.37	0.15
6	kk5	Konstinkai	1 %	162	37.9	1.8	2.0	121	0.24	0.005	0.39	0.16
7	lk1	Lehmannkai	1 %	76	17.8	0.9	1.0	57	0.11	0.002	0.18	0.07
8	lk2	Lehmannkai	1 %	76	17.8	0.9	1.0	57	0.11	0.002	0.18	0.07
9	lk3	Lehmannkai	1 %	22	5.2	0.2	0.3	16	0.03	0.001	0.05	0.02
10	nk1	Nordlandkai	1 %	144	33.7	1.6	1.8	107	0.22	0.004	0.35	0.14
11	nk2	Nordlandkai	1 %	126	29.5	1.4	1.6	94	0.19	0.004	0.30	0.12
12	nk3	Nordlandkai	1 %	132	30.9	1.5	1.7	98	0.20	0.004	0.32	0.13
13	nk4	Nordlandkai	1 %	144	33.7	1.6	1.8	107	0.22	0.004	0.35	0.14
14	nk5	Nordlandkai	1 %	144	33.7	1.6	1.3	107	0.22	0.004	0.35	0.14
15	nk6	Nordlandkai	1 %	145	33.9	1.6	1.2	108	0.22	0.004	0.35	0.14
16	nk7	Nordlandkai	1 %	126	29.5	1.4	1.6	94	0.19	0.004	0.30	0.12
17	nk8	Nordlandkai	1 %	189	44.2	2.1	2.4	141	0.28	0.005	0.45	0.18
18	nk9	Nordlandkai	1 %	189	44.2	2.1	2.4	141	0.28	0.005	0.45	0.18
19	nk10	Nordlandkai	1 %	145	33.9	1.6	1.8	108	0.22	0.004	0.35	0.14
20	nk11	Nordlandkai	1 %	18	4.2	0.2	0.2	13	0.03	0.001	0.04	0.02
21	ok1	Ostpreußenkai	40 %	1,294	288.7	13.7	5.8	919	1.94	0.037	1.16	0.47
22	ok2	Ostpreußenkai	40 %	170	37.9	1.8	0.8	121	0.26	0.005	0.15	0.06
23	ok3	Ostpreußenkai	1 %	7	1.5	0.1	0.0	5	0.01	0.000	0.01	0.00
24	ok4	Ostpreußenkai	1 %	4	0.9	0.0	0.0	3	0.01	0.000	0.00	0.00
25	ok5	Ostpreußenkai	5 %	1,000	234.0	11.2	12.6	745	1.50	0.029	2.40	0.96
26	ok6	Ostpreußenkai	5 %	585	136.9	6.6	7.4	436	0.88	0.017	1.40	0.56
27	ok7	Ostpreußenkai	40 %	1,400	312.2	14.8	6.3	994	2.10	0.040	1.26	0.50
28	sp1	Schlutupkai	1 %	240	56.2	2.7	3.0	179	0.36	0.007	0.58	0.23
29	sp2	Schlutupkai	1 %	77	18.0	0.9	1.0	57	0.12	0.002	0.18	0.07
30	sp3	Schlutupkai	1 %	78	18.2	0.9	1.0	58	0.12	0.002	0.19	0.07
31	sk31	Skandinavienkai	1 %	144	33.7	1.6	1.8	107	0.22	0.004	0.35	0.14
32	sk32	Skandinavienkai	1 %	59	13.8	0.7	0.7	44	0.09	0.002	0.14	0.06
33	sk33	Skandinavienkai	1 %	79	18.5	0.9	1.0	59	0.12	0.002	0.19	0.08
34	sk34	Skandinavienkai	1 %	98	23.0	1.1	1.2	73	0.15	0.003	0.24	0.09
35	sk35	Skandinavienkai	10 %	1,340	313.6	15.0	16.9	998	2.01	0.038	3.22	1.29
36	sk36	Skandinavienkai	5 %	2,388	558.7	26.7	30.1	1,779	3.58	0.068	5.73	2.29
37	sk37	Skandinavienkai	30 %	1,050	234.2	11.1	4.7	746	1.58	0.030	0.95	0.38
38	sk41	Skandinavienkai	1 %	173	40.4	1.9	2.2	129	0.26	0.005	0.41	0.17
39	sk42	Skandinavienkai	1 %	240	56.2	2.7	3.0	179	0.36	0.007	0.58	0.23
40	sk51	Skandinavienkai	1 %	230	53.9	2.6	2.9	172	0.35	0.007	0.55	0.22
41	sk52	Skandinavienkai	1 %	230	53.9	2.6	2.9	172	0.35	0.007	0.55	0.22
42	sk53	Skandinavienkai	1 %	231	54.0	2.6	1.9	172	0.35	0.007	0.55	0.22
43	sk54	Skandinavienkai	1 %	230	53.9	2.6	2.9	172	0.35	0.007	0.55	0.22
44	sk6a1	Skandinavienkai	10 %	2,988	666.3	31.7	4.0	2,121	4.48	0.085	2.69	1.08
45	sk6a2	Skandinavienkai	10 %	2,988	666.3	31.7	4.0	2,121	4.48	0.085	2.69	1.08
46	sk6a3	Skandinavienkai	10 %	1,800	401.4	19.1	2.4	1,278	2.70	0.051	1.62	0.65
47	sk6a4	Skandinavienkai	10 %	1,800	401.4	19.1	2.4	1,278	2.70	0.051	1.62	0.65
48	sk71	Skandinavienkai	1 %	159	34.2	2.3	1.7	108	0.29	0.005	0.38	0.15
49	sk72	Skandinavienkai	1 %	159	34.2	2.3	1.7	108	0.29	0.005	0.38	0.15
50	sk73	Skandinavienkai	1 %	103	24.1	1.2	0.2	77	0.15	0.003	0.25	0.10
51	sk7a1	Skandinavienkai	1 %	115	26.8	1.3	0.5	85	0.17	0.003	0.28	0.11
52	sk7a2	Skandinavienkai	1 %	115	26.8	1.3	0.3	85	0.17	0.003	0.28	0.11
53	sk81	Skandinavienkai	1 %	160	37.4	1.8	1.4	119	0.24	0.005	0.38	0.15
54	sk82	Skandinavienkai	1 %	163	38.1	1.8	1.4	121	0.24	0.005	0.39	0.16

A 2.6.15 Emissions per Hour, Auxiliary Engines, at Sea

Ship			Emissions per hour [kg/h] according to ENTEC									
			Auxiliary engines									
			At sea									
No.	Name	Port	Load	[kW]	Fuel	NOx	SO2	CO2	HC	Benz.	PM10	Soot
1	ct1	CTL (Herrenhafen)	30 %	469	102	6.5	2.0	323	0.19	0.004	0.14	0.06
2	kk1	Konstinkai	30 %	1,824	396	25.4	7.8	1,259	0.73	0.014	0.55	0.22
3	kk2	Konstinkai	30 %	377	82	5.2	1.6	260	0.15	0.003	0.11	0.05
4	kk3	Konstinkai	30 %	729	158	10.1	0.6	503	0.29	0.006	0.22	0.09
5	kk4	Konstinkai	30 %	740	161	10.3	3.2	511	0.30	0.006	0.22	0.09
6	kk5	Konstinkai	30 %	1,824	396	25.4	7.8	1,259	0.73	0.014	0.55	0.22
7	lk1	Lehmannkai	30 %	929	202	12.9	4.0	641	0.37	0.007	0.28	0.11
8	lk2	Lehmannkai	30 %	464	101	6.4	2.0	320	0.19	0.004	0.14	0.06
9	lk3	Lehmannkai	30 %	162	35	2.3	0.7	112	0.06	0.001	0.05	0.02
10	nk1	Nordlandkai	30 %	711	154	9.9	3.1	491	0.28	0.005	0.21	0.09
11	nk2	Nordlandkai	30 %	708	154	9.8	1.6	489	0.28	0.005	0.21	0.08
12	nk3	Nordlandkai	30 %	900	195	12.5	3.9	621	0.36	0.007	0.27	0.11
13	nk4	Nordlandkai	30 %	900	195	12.5	3.9	621	0.36	0.007	0.27	0.11
14	nk5	Nordlandkai	30 %	1,023	222	14.2	0.4	706	0.41	0.008	0.31	0.12
15	nk6	Nordlandkai	30 %	585	127	8.1	0.3	404	0.23	0.004	0.18	0.07
16	nk7	Nordlandkai	30 %	750	163	10.4	3.2	518	0.30	0.006	0.23	0.09
17	nk8	Nordlandkai	30 %	1,200	260	16.7	5.2	828	0.48	0.009	0.36	0.14
18	nk9	Nordlandkai	30 %	1,200	260	16.7	5.2	828	0.48	0.009	0.36	0.14
19	nk10	Nordlandkai	30 %	810	176	11.3	3.5	559	0.32	0.006	0.24	0.10
20	nk11	Nordlandkai	30 %	239	52	3.3	1.0	165	0.10	0.002	0.07	0.03
21	ok1	Ostpreußenkai	30 %	0	0	0.0	0.0	0	0.00	0.000	0.00	0.00
22	ok2	Ostpreußenkai	30 %	0	0	0.0	0.0	0	0.00	0.000	0.00	0.00
23	ok3	Ostpreußenkai	30 %	95	21	1.3	0.4	66	0.04	0.001	0.03	0.01
24	ok4	Ostpreußenkai	30 %	0	0	0.0	0.0	0	0.00	0.000	0.00	0.00
25	ok5	Ostpreußenkai	30 %	1,200	260	16.7	5.2	828	0.48	0.009	0.36	0.14
26	ok6	Ostpreußenkai	30 %	0	0	0.0	0.0	0	0.00	0.000	0.00	0.00
27	ok7	Ostpreußenkai	30 %	0	0	0.0	0.0	0	0.00	0.000	0.00	0.00
28	sp1	Schlutupkai	30 %	1,969	427	27.4	8.5	1,359	0.79	0.015	0.59	0.24
29	sp2	Schlutupkai	30 %	846	184	11.8	3.6	584	0.34	0.006	0.25	0.10
30	sp3	Schlutupkai	30 %	608	132	8.4	2.6	419	0.24	0.005	0.18	0.07
31	sk31	Skandinavienkai	30 %	711	154	9.9	3.1	491	0.28	0.005	0.21	0.09
32	sk32	Skandinavienkai	30 %	306	66	4.3	1.3	211	0.12	0.002	0.09	0.04
33	sk33	Skandinavienkai	30 %	468	102	6.5	2.0	323	0.19	0.004	0.14	0.06
34	sk34	Skandinavienkai	30 %	657	143	9.1	2.8	453	0.26	0.005	0.20	0.08
35	sk35	Skandinavienkai	30 %	0	0	0.0	0.0	0	0.00	0.000	0.00	0.00
36	sk36	Skandinavienkai	30 %	0	0	0.0	0.0	0	0.00	0.000	0.00	0.00
37	sk37	Skandinavienkai	30 %	0	0	0.0	0.0	0	0.00	0.000	0.00	0.00
38	sk41	Skandinavienkai	30 %	1,770	384	24.6	7.6	1,221	0.71	0.013	0.53	0.21
39	sk42	Skandinavienkai	30 %	1,969	427	27.4	8.5	1,359	0.79	0.015	0.59	0.24
40	sk51	Skandinavienkai	30 %	1,217	264	16.9	5.2	840	0.49	0.009	0.37	0.15
41	sk52	Skandinavienkai	30 %	1,217	264	16.9	5.2	840	0.49	0.009	0.37	0.15
42	sk53	Skandinavienkai	30 %	1,073	233	14.9	0.7	740	0.43	0.008	0.32	0.13
43	sk54	Skandinavienkai	30 %	1,594	346	22.2	6.9	1,100	0.64	0.012	0.48	0.19
44	sk6a1	Skandinavienkai	0 %	0	0	0.0	0.0	0	0.00	0.000	0.00	0.00
45	sk6a2	Skandinavienkai	0 %	0	0	0.0	0.0	0	0.00	0.000	0.00	0.00
46	sk6a3	Skandinavienkai	0 %	0	0	0.0	0.0	0	0.00	0.000	0.00	0.00
47	sk6a4	Skandinavienkai	0 %	0	0	0.0	0.0	0	0.00	0.000	0.00	0.00
48	sk71	Skandinavienkai	30 %	1,260	273	17.5	8.1	869	0.50	0.010	0.38	0.15
49	sk72	Skandinavienkai	30 %	1,260	273	17.5	8.1	869	0.50	0.010	0.38	0.15
50	sk73	Skandinavienkai	30 %	871	189	12.1	1.8	601	0.35	0.007	0.26	0.10
51	sk7a1	Skandinavienkai	30 %	936	203	13.0	4.0	646	0.37	0.007	0.28	0.11
52	sk7a2	Skandinavienkai	30 %	456	99	6.3	2.0	315	0.18	0.003	0.14	0.05
53	sk81	Skandinavienkai	30 %	1,171	254	16.3	0.8	808	0.47	0.009	0.35	0.14
54	sk82	Skandinavienkai	30 %	972	211	13.5	0.6	671	0.39	0.007	0.29	0.12

A 2.6.16 Emissions per Hour, Auxiliary Engines, Manoeuvring

Ship			Emissions per hour [kg/h] according to ENTEC									
			Auxiliary engines									
			Manoeuvring									
No.	Name	Port	Load	[kW]	Fuel	NOx	SO2	CO2	HC	Benz.	PM10	Soot
1	ct1	CTL (Herrenhafen)	50 %	781	169	10.9	3.4	539	0.31	0.006	0.23	0.09
2	kk1	Konstinkai	50 %	3,040	660	42.3	13.1	2,098	1.22	0.023	0.91	0.36
3	kk2	Konstinkai	50 %	628	136	8.7	2.7	433	0.25	0.005	0.19	0.08
4	kk3	Konstinkai	50 %	1,215	264	16.9	1.0	838	0.49	0.009	0.36	0.15
5	kk4	Konstinkai	50 %	1,234	268	17.2	5.3	851	0.49	0.009	0.37	0.15
6	kk5	Konstinkai	50 %	3,040	660	42.3	13.1	2,098	1.22	0.023	0.91	0.36
7	lk1	Lehmannkai	50 %	1,549	336	21.5	6.7	1,069	0.62	0.012	0.46	0.19
8	lk2	Lehmannkai	50 %	773	168	10.7	3.3	533	0.31	0.006	0.23	0.09
9	lk3	Lehmannkai	50 %	270	59	3.8	1.2	186	0.11	0.002	0.08	0.03
10	nk1	Nordlandkai	50 %	1,185	257	16.5	5.1	818	0.47	0.009	0.36	0.14
11	nk2	Nordlandkai	50 %	1,180	256	16.4	2.6	814	0.47	0.009	0.35	0.14
12	nk3	Nordlandkai	50 %	1,500	326	20.9	6.5	1,035	0.60	0.011	0.45	0.18
13	nk4	Nordlandkai	50 %	1,500	326	20.9	6.5	1,035	0.60	0.011	0.45	0.18
14	nk5	Nordlandkai	50 %	1,705	370	23.7	0.7	1,176	0.68	0.013	0.51	0.20
15	nk6	Nordlandkai	50 %	975	212	13.6	0.4	673	0.39	0.007	0.29	0.12
16	nk7	Nordlandkai	50 %	1,250	271	17.4	5.4	863	0.50	0.010	0.38	0.15
17	nk8	Nordlandkai	50 %	2,000	434	27.8	8.6	1,380	0.80	0.015	0.60	0.24
18	nk9	Nordlandkai	50 %	2,000	434	27.8	8.6	1,380	0.80	0.015	0.60	0.24
19	nk10	Nordlandkai	50 %	1,350	293	18.8	5.8	932	0.54	0.010	0.41	0.16
20	nk11	Nordlandkai	50 %	398	86	5.5	1.7	275	0.16	0.003	0.12	0.05
21	ok1	Ostpreußenkai	50 %	0	0	0.0	0.0	0	0.00	0.000	0.00	0.00
22	ok2	Ostpreußenkai	50 %	0	0	0.0	0.0	0	0.00	0.000	0.00	0.00
23	ok3	Ostpreußenkai	50 %	159	34	2.2	0.7	109	0.06	0.001	0.05	0.02
24	ok4	Ostpreußenkai	50 %	0	0	0.0	0.0	0	0.00	0.000	0.00	0.00
25	ok5	Ostpreußenkai	50 %	2,000	434	27.8	8.6	1,380	0.80	0.015	0.60	0.24
26	ok6	Ostpreußenkai	50 %	0	0	0.0	0.0	0	0.00	0.000	0.00	0.00
27	ok7	Ostpreußenkai	50 %	0	0	0.0	0.0	0	0.00	0.000	0.00	0.00
28	sp1	Schlutupkai	50 %	3,282	712	45.6	14.1	2,265	1.31	0.025	0.98	0.39
29	sp2	Schlutupkai	50 %	1,410	306	19.6	6.1	973	0.56	0.011	0.42	0.17
30	sp3	Schlutupkai	50 %	1,013	220	14.1	4.4	699	0.41	0.008	0.30	0.12
31	sk31	Skandinavienkai	50 %	1,185	257	16.5	5.1	818	0.47	0.009	0.36	0.14
32	sk32	Skandinavienkai	50 %	510	111	7.1	2.2	352	0.20	0.004	0.15	0.06
33	sk33	Skandinavienkai	50 %	780	169	10.8	3.4	538	0.31	0.006	0.23	0.09
34	sk34	Skandinavienkai	50 %	1,095	238	15.2	4.7	756	0.44	0.008	0.33	0.13
35	sk35	Skandinavienkai	50 %	0	0	0.0	0.0	0	0.00	0.000	0.00	0.00
36	sk36	Skandinavienkai	50 %	0	0	0.0	0.0	0	0.00	0.000	0.00	0.00
37	sk37	Skandinavienkai	50 %	0	0	0.0	0.0	0	0.00	0.000	0.00	0.00
38	sk41	Skandinavienkai	50 %	2,950	640	41.0	12.7	2,036	1.18	0.022	0.89	0.35
39	sk42	Skandinavienkai	50 %	3,282	712	45.6	14.1	2,265	1.31	0.025	0.98	0.39
40	sk51	Skandinavienkai	50 %	2,028	440	28.2	8.7	1,399	0.81	0.015	0.61	0.24
41	sk52	Skandinavienkai	50 %	2,028	440	28.2	8.7	1,399	0.81	0.015	0.61	0.24
42	sk53	Skandinavienkai	50 %	1,788	388	24.8	1.2	1,233	0.72	0.014	0.54	0.21
43	sk54	Skandinavienkai	50 %	2,656	576	36.9	11.4	1,833	1.06	0.020	0.80	0.32
44	sk6a1	Skandinavienkai	0 %	0	0	0.0	0.0	0	0.00	0.000	0.00	0.00
45	sk6a2	Skandinavienkai	0 %	0	0	0.0	0.0	0	0.00	0.000	0.00	0.00
46	sk6a3	Skandinavienkai	0 %	0	0	0.0	0.0	0	0.00	0.000	0.00	0.00
47	sk6a4	Skandinavienkai	0 %	0	0	0.0	0.0	0	0.00	0.000	0.00	0.00
48	sk71	Skandinavienkai	50 %	2,100	456	29.2	13.5	1,449	0.84	0.016	0.63	0.25
49	sk72	Skandinavienkai	50 %	2,100	456	29.2	13.5	1,449	0.84	0.016	0.63	0.25
50	sk73	Skandinavienkai	50 %	1,452	315	20.2	3.1	1,002	0.58	0.011	0.44	0.17
51	sk7a1	Skandinavienkai	50 %	1,560	339	21.7	6.7	1,076	0.62	0.012	0.47	0.19
52	sk7a2	Skandinavienkai	50 %	760	165	10.6	3.3	524	0.30	0.006	0.23	0.09
53	sk81	Skandinavienkai	50 %	1,952	424	27.1	1.3	1,347	0.78	0.015	0.59	0.23
54	sk82	Skandinavienkai	50 %	1,620	352	22.5	1.0	1,118	0.65	0.012	0.49	0.19

A 2.6.17 Emissions per Hour, Auxiliary Engines, in Port

Ship			Emissions per hour [kg/h] according to ENTEC									
			Auxiliary engines									
			In port									
No.	Name	Port	Load	[kW]	Fuel	NOx	SO2	CO2	HC	Benz.	PM10	Soot
1	ct1	CTL (Herrenhafen)	40 %	625	136	8.7	2.7	431	0.25	0.005	0.19	0.07
2	kk1	Konstinkai	40 %	2,432	528	33.8	10.5	1,678	0.97	0.018	0.73	0.29
3	kk2	Konstinkai	40 %	502	109	7.0	2.2	347	0.20	0.004	0.15	0.06
4	kk3	Konstinkai	40 %	972	211	13.5	0.8	671	0.39	0.007	0.29	0.12
5	kk4	Konstinkai	40 %	987	214	13.7	4.2	681	0.39	0.008	0.30	0.12
6	kk5	Konstinkai	40 %	2,432	528	33.8	10.5	1,678	0.97	0.018	0.73	0.29
7	lk1	Lehmannkai	40 %	1,239	269	17.2	5.3	855	0.50	0.009	0.37	0.15
8	lk2	Lehmannkai	40 %	618	134	8.6	2.7	426	0.25	0.005	0.19	0.07
9	lk3	Lehmannkai	40 %	216	47	3.0	0.9	149	0.09	0.002	0.06	0.03
10	nk1	Nordlandkai	40 %	948	206	13.2	4.1	654	0.38	0.007	0.28	0.11
11	nk2	Nordlandkai	40 %	944	205	13.1	2.1	651	0.38	0.007	0.28	0.11
12	nk3	Nordlandkai	40 %	1,200	260	16.7	5.2	828	0.48	0.009	0.36	0.14
13	nk4	Nordlandkai	40 %	1,200	260	16.7	5.2	828	0.48	0.009	0.36	0.14
14	nk5	Nordlandkai	40 %	1,364	296	19.0	0.6	941	0.55	0.010	0.41	0.16
15	nk6	Nordlandkai	40 %	780	169	10.8	0.3	538	0.31	0.006	0.23	0.09
16	nk7	Nordlandkai	40 %	1,000	217	13.9	4.3	690	0.40	0.008	0.30	0.12
17	nk8	Nordlandkai	40 %	1,600	347	22.2	6.9	1,104	0.64	0.012	0.48	0.19
18	nk9	Nordlandkai	40 %	1,600	347	22.2	6.9	1,104	0.64	0.012	0.48	0.19
19	nk10	Nordlandkai	40 %	1,080	234	15.0	4.6	745	0.43	0.008	0.32	0.13
20	nk11	Nordlandkai	40 %	318	69	4.4	1.4	220	0.13	0.002	0.10	0.04
21	ok1	Ostpreußenkai	40 %	0	0	0.0	0.0	0	0.00	0.000	0.00	0.00
22	ok2	Ostpreußenkai	40 %	0	0	0.0	0.0	0	0.00	0.000	0.00	0.00
23	ok3	Ostpreußenkai	40 %	127	28	1.8	0.5	87	0.05	0.001	0.04	0.02
24	ok4	Ostpreußenkai	40 %	0	0	0.0	0.0	0	0.00	0.000	0.00	0.00
25	ok5	Ostpreußenkai	40 %	1,600	347	22.2	6.9	1,104	0.64	0.012	0.48	0.19
26	ok6	Ostpreußenkai	40 %	0	0	0.0	0.0	0	0.00	0.000	0.00	0.00
27	ok7	Ostpreußenkai	40 %	0	0	0.0	0.0	0	0.00	0.000	0.00	0.00
28	sp1	Schlutupkai	40 %	2,626	570	36.5	11.3	1,812	1.05	0.020	0.79	0.32
29	sp2	Schlutupkai	40 %	1,128	245	15.7	4.9	778	0.45	0.009	0.34	0.14
30	sp3	Schlutupkai	40 %	810	176	11.3	3.5	559	0.32	0.006	0.24	0.10
31	sk31	Skandinavienkai	40 %	948	206	13.2	4.1	654	0.38	0.007	0.28	0.11
32	sk32	Skandinavienkai	40 %	408	89	5.7	1.8	282	0.16	0.003	0.12	0.05
33	sk33	Skandinavienkai	40 %	624	135	8.7	2.7	431	0.25	0.005	0.19	0.07
34	sk34	Skandinavienkai	40 %	876	190	12.2	3.8	604	0.35	0.007	0.26	0.11
35	sk35	Skandinavienkai	40 %	0	0	0.0	0.0	0	0.00	0.000	0.00	0.00
36	sk36	Skandinavienkai	40 %	0	0	0.0	0.0	0	0.00	0.000	0.00	0.00
37	sk37	Skandinavienkai	40 %	0	0	0.0	0.0	0	0.00	0.000	0.00	0.00
38	sk41	Skandinavienkai	40 %	2,360	512	32.8	10.1	1,628	0.94	0.018	0.71	0.28
39	sk42	Skandinavienkai	40 %	2,626	570	36.5	11.3	1,812	1.05	0.020	0.79	0.32
40	sk51	Skandinavienkai	40 %	1,622	352	22.6	7.0	1,119	0.65	0.012	0.49	0.19
41	sk52	Skandinavienkai	40 %	1,622	352	22.6	7.0	1,119	0.65	0.012	0.49	0.19
42	sk53	Skandinavienkai	40 %	1,430	310	19.9	0.9	987	0.57	0.011	0.43	0.17
43	sk54	Skandinavienkai	40 %	2,125	461	29.5	9.1	1,466	0.85	0.016	0.64	0.25
44	sk6a1	Skandinavienkai	0 %	0	0	0.0	0.0	0	0.00	0.000	0.00	0.00
45	sk6a2	Skandinavienkai	0 %	0	0	0.0	0.0	0	0.00	0.000	0.00	0.00
46	sk6a3	Skandinavienkai	0 %	0	0	0.0	0.0	0	0.00	0.000	0.00	0.00
47	sk6a4	Skandinavienkai	0 %	0	0	0.0	0.0	0	0.00	0.000	0.00	0.00
48	sk71	Skandinavienkai	40 %	1,680	365	23.4	10.8	1,159	0.67	0.013	0.50	0.20
49	sk72	Skandinavienkai	40 %	1,680	365	23.4	10.8	1,159	0.67	0.013	0.50	0.20
50	sk73	Skandinavienkai	40 %	1,162	252	16.1	2.4	802	0.46	0.009	0.35	0.14
51	sk7a1	Skandinavienkai	40 %	1,248	271	17.3	5.4	861	0.50	0.009	0.37	0.15
52	sk7a2	Skandinavienkai	40 %	608	132	8.5	2.6	420	0.24	0.005	0.18	0.07
53	sk81	Skandinavienkai	40 %	1,562	339	21.7	1.0	1,078	0.62	0.012	0.47	0.19
54	sk82	Skandinavienkai	40 %	1,296	281	18.0	0.8	894	0.52	0.010	0.39	0.16

A 2.6.18 Emissions per Hour, Auxiliary Boilers, at Sea

Ship			Emissions per hour [kg/h] according to Isensee									
			Auxiliary boilers									
			At sea									
No.	Name	Port	Load	[kW]	Fuel	NOx	SO2	CO2	HC	Benz.	PM10	Soot
1	ct1	CTL (Herrenhafen)	0 %	0	0.0	0.0	0.0	0	0.00	0.000	0.00	0.00
2	kk1	Konstinkai	0 %	0	0.0	0.0	0.0	0	0.00	0.000	0.00	0.00
3	kk2	Konstinkai	0 %	0	0.0	0.0	0.0	0	0.00	0.000	0.00	0.00
4	kk3	Konstinkai	0 %	0	0.0	0.0	0.0	0	0.00	0.000	0.00	0.00
5	kk4	Konstinkai	0 %	0	0.0	0.0	0.0	0	0.00	0.000	0.00	0.00
6	kk5	Konstinkai	0 %	0	0.0	0.0	0.0	0	0.00	0.000	0.00	0.00
7	lk1	Lehmannkai	0 %	0	0.0	0.0	0.0	0	0.00	0.000	0.00	0.00
8	lk2	Lehmannkai	0 %	0	0.0	0.0	0.0	0	0.00	0.000	0.00	0.00
9	lk3	Lehmannkai	0 %	0	0.0	0.0	0.0	0	0.00	0.000	0.00	0.00
10	nk1	Nordlandkai	0 %	0	0.0	0.0	0.0	0	0.00	0.000	0.00	0.00
11	nk2	Nordlandkai	0 %	0	0.0	0.0	0.0	0	0.00	0.000	0.00	0.00
12	nk3	Nordlandkai	0 %	0	0.0	0.0	0.0	0	0.00	0.000	0.00	0.00
13	nk4	Nordlandkai	0 %	0	0.0	0.0	0.0	0	0.00	0.000	0.00	0.00
14	nk5	Nordlandkai	0 %	0	0.0	0.0	0.0	0	0.00	0.000	0.00	0.00
15	nk6	Nordlandkai	0 %	0	0.0	0.0	0.0	0	0.00	0.000	0.00	0.00
16	nk7	Nordlandkai	0 %	0	0.0	0.0	0.0	0	0.00	0.000	0.00	0.00
17	nk8	Nordlandkai	0 %	0	0.0	0.0	0.0	0	0.00	0.000	0.00	0.00
18	nk9	Nordlandkai	0 %	0	0.0	0.0	0.0	0	0.00	0.000	0.00	0.00
19	nk10	Nordlandkai	0 %	0	0.0	0.0	0.0	0	0.00	0.000	0.00	0.00
20	nk11	Nordlandkai	0 %	0	0.0	0.0	0.0	0	0.00	0.000	0.00	0.00
21	ok1	Ostpreußenkai	0 %	0	0.0	0.0	0.0	0	0.00	0.000	0.00	0.00
22	ok2	Ostpreußenkai	0 %	0	0.0	0.0	0.0	0	0.00	0.000	0.00	0.00
23	ok3	Ostpreußenkai	0 %	0	0.0	0.0	0.0	0	0.00	0.000	0.00	0.00
24	ok4	Ostpreußenkai	0 %	0	0.0	0.0	0.0	0	0.00	0.000	0.00	0.00
25	ok5	Ostpreußenkai	0 %	0	0.0	0.0	0.0	0	0.00	0.000	0.00	0.00
26	ok6	Ostpreußenkai	0 %	0	0.0	0.0	0.0	0	0.00	0.000	0.00	0.00
27	ok7	Ostpreußenkai	0 %	0	0.0	0.0	0.0	0	0.00	0.000	0.00	0.00
28	sp1	Schlutupkai	0 %	0	0.0	0.0	0.0	0	0.00	0.000	0.00	0.00
29	sp2	Schlutupkai	0 %	0	0.0	0.0	0.0	0	0.00	0.000	0.00	0.00
30	sp3	Schlutupkai	0 %	0	0.0	0.0	0.0	0	0.00	0.000	0.00	0.00
31	sk31	Skandinavienkai	0 %	0	0.0	0.0	0.0	0	0.00	0.000	0.00	0.00
32	sk32	Skandinavienkai	0 %	0	0.0	0.0	0.0	0	0.00	0.000	0.00	0.00
33	sk33	Skandinavienkai	0 %	0	0.0	0.0	0.0	0	0.00	0.000	0.00	0.00
34	sk34	Skandinavienkai	0 %	0	0.0	0.0	0.0	0	0.00	0.000	0.00	0.00
35	sk35	Skandinavienkai	0 %	0	0.0	0.0	0.0	0	0.00	0.000	0.00	0.00
36	sk36	Skandinavienkai	0 %	0	0.0	0.0	0.0	0	0.00	0.000	0.00	0.00
37	sk37	Skandinavienkai	0 %	0	0.0	0.0	0.0	0	0.00	0.000	0.00	0.00
38	sk41	Skandinavienkai	0 %	0	0.0	0.0	0.0	0	0.00	0.000	0.00	0.00
39	sk42	Skandinavienkai	0 %	0	0.0	0.0	0.0	0	0.00	0.000	0.00	0.00
40	sk51	Skandinavienkai	0 %	0	0.0	0.0	0.0	0	0.00	0.000	0.00	0.00
41	sk52	Skandinavienkai	0 %	0	0.0	0.0	0.0	0	0.00	0.000	0.00	0.00
42	sk53	Skandinavienkai	0 %	0	0.0	0.0	0.0	0	0.00	0.000	0.00	0.00
43	sk54	Skandinavienkai	0 %	0	0.0	0.0	0.0	0	0.00	0.000	0.00	0.00
44	sk6a1	Skandinavienkai	0 %	0	0.0	0.0	0.0	0	0.00	0.000	0.00	0.00
45	sk6a2	Skandinavienkai	0 %	0	0.0	0.0	0.0	0	0.00	0.000	0.00	0.00
46	sk6a3	Skandinavienkai	0 %	0	0.0	0.0	0.0	0	0.00	0.000	0.00	0.00
47	sk6a4	Skandinavienkai	0 %	0	0.0	0.0	0.0	0	0.00	0.000	0.00	0.00
48	sk71	Skandinavienkai	0 %	0	0.0	0.0	0.0	0	0.00	0.000	0.00	0.00
49	sk72	Skandinavienkai	0 %	0	0.0	0.0	0.0	0	0.00	0.000	0.00	0.00
50	sk73	Skandinavienkai	0 %	0	0.0	0.0	0.0	0	0.00	0.000	0.00	0.00
51	sk7a1	Skandinavienkai	0 %	0	0.0	0.0	0.0	0	0.00	0.000	0.00	0.00
52	sk7a2	Skandinavienkai	0 %	0	0.0	0.0	0.0	0	0.00	0.000	0.00	0.00
53	sk81	Skandinavienkai	0 %	0	0.0	0.0	0.0	0	0.00	0.000	0.00	0.00
54	sk82	Skandinavienkai	0 %	0	0.0	0.0	0.0	0	0.00	0.000	0.00	0.00

A 2.6.19 Emissions per Hour, Auxiliary Boilers, Manoeuvring

Ship			Emissions per hour [kg/h] according to Isensee									
			Auxiliary boilers									
			Manoeuvring									
No.	Name	Port	Load	[kW]	Fuel	NOx	SO2	CO2	HC	Benz.	PM10	Soot
1	ct1	CTL (Herrenhafen)	10 %	200	19.8	0.2	1.1	62	0.04	0.001	0.03	0.01
2	kk1	Konstinkai	10 %	318	31.5	0.3	1.8	99	0.06	0.001	0.05	0.02
3	kk2	Konstinkai	10 %	169	16.8	0.2	1.0	53	0.03	0.001	0.03	0.01
4	kk3	Konstinkai	10 %	204	20.2	0.2	1.2	64	0.04	0.001	0.03	0.01
5	kk4	Konstinkai	10 %	200	19.8	0.2	1.1	62	0.04	0.001	0.03	0.01
6	kk5	Konstinkai	10 %	318	31.5	0.3	1.8	99	0.06	0.001	0.05	0.02
7	lk1	Lehmannkai	10 %	185	18.3	0.2	1.1	58	0.04	0.001	0.03	0.01
8	lk2	Lehmannkai	10 %	168	16.7	0.2	1.0	52	0.03	0.001	0.03	0.01
9	lk3	Lehmannkai	10 %	153	15.2	0.2	0.9	48	0.03	0.001	0.02	0.01
10	nk1	Nordlandkai	10 %	230	22.8	0.2	1.3	72	0.05	0.001	0.03	0.01
11	nk2	Nordlandkai	10 %	220	21.8	0.2	1.3	69	0.04	0.001	0.03	0.01
12	nk3	Nordlandkai	10 %	296	29.4	0.3	1.7	92	0.06	0.001	0.04	0.02
13	nk4	Nordlandkai	10 %	300	29.8	0.3	1.7	93	0.06	0.001	0.05	0.02
14	nk5	Nordlandkai	10 %	264	26.2	0.3	0.1	83	0.05	0.001	0.04	0.02
15	nk6	Nordlandkai	10 %	275	27.3	0.3	0.1	87	0.06	0.001	0.04	0.02
16	nk7	Nordlandkai	10 %	215	21.3	0.2	1.2	67	0.04	0.001	0.03	0.01
17	nk8	Nordlandkai	10 %	215	21.3	0.2	1.2	67	0.04	0.001	0.03	0.01
18	nk9	Nordlandkai	10 %	270	26.8	0.3	1.5	84	0.05	0.001	0.04	0.02
19	nk10	Nordlandkai	10 %	207	20.5	0.2	1.2	65	0.04	0.001	0.03	0.01
20	nk11	Nordlandkai	10 %	150	14.9	0.2	0.9	47	0.03	0.001	0.02	0.01
21	ok1	Ostpreußenkai	10 %	468	49.3	0.5	1.0	157	0.09	0.002	0.07	0.03
22	ok2	Ostpreußenkai	10 %	0	0.0	0.0	0.0	0	0.00	0.000	0.00	0.00
23	ok3	Ostpreußenkai	10 %	0	0.0	0.0	0.0	0	0.00	0.000	0.00	0.00
24	ok4	Ostpreußenkai	10 %	0	0.0	0.0	0.0	0	0.00	0.000	0.00	0.00
25	ok5	Ostpreußenkai	10 %	753	74.7	0.8	4.3	235	0.15	0.003	0.11	0.05
26	ok6	Ostpreußenkai	10 %	611	60.6	0.6	3.5	190	0.12	0.002	0.09	0.04
27	ok7	Ostpreußenkai	10 %	451	47.5	0.5	1.0	151	0.09	0.002	0.07	0.03
28	sp1	Schlutupkai	10 %	222	22.0	0.2	1.3	69	0.04	0.001	0.03	0.01
29	sp2	Schlutupkai	10 %	297	29.5	0.3	1.7	93	0.06	0.001	0.04	0.02
30	sp3	Schlutupkai	10 %	271	26.9	0.3	1.5	84	0.05	0.001	0.04	0.02
31	sk31	Skandinavienkai	10 %	230	22.8	0.2	1.3	72	0.05	0.001	0.03	0.01
32	sk32	Skandinavienkai	10 %	167	16.6	0.2	0.9	52	0.03	0.001	0.03	0.01
33	sk33	Skandinavienkai	10 %	270	26.8	0.3	1.5	84	0.05	0.001	0.04	0.02
34	sk34	Skandinavienkai	10 %	158	15.7	0.2	0.9	49	0.03	0.001	0.02	0.01
35	sk35	Skandinavienkai	10 %	878	87.1	0.9	5.0	274	0.18	0.003	0.13	0.05
36	sk36	Skandinavienkai	10 %	1,577	156.4	1.6	9.0	491	0.32	0.006	0.24	0.09
37	sk37	Skandinavienkai	10 %	451	47.5	0.5	1.0	151	0.09	0.002	0.07	0.03
38	sk41	Skandinavienkai	10 %	249	24.7	0.2	1.4	78	0.05	0.001	0.04	0.01
39	sk42	Skandinavienkai	10 %	612	60.7	0.6	3.5	191	0.12	0.002	0.09	0.04
40	sk51	Skandinavienkai	10 %	260	25.8	0.3	1.5	81	0.05	0.001	0.04	0.02
41	sk52	Skandinavienkai	10 %	269	26.7	0.3	1.5	84	0.05	0.001	0.04	0.02
42	sk53	Skandinavienkai	10 %	275	27.3	0.3	0.1	87	0.06	0.001	0.04	0.02
43	sk54	Skandinavienkai	10 %	273	27.1	0.3	1.6	85	0.05	0.001	0.04	0.02
44	sk6a1	Skandinavienkai	10 %	241	23.9	0.2	0.1	76	0.05	0.001	0.04	0.01
45	sk6a2	Skandinavienkai	10 %	241	23.9	0.2	0.1	76	0.05	0.001	0.04	0.01
46	sk6a3	Skandinavienkai	10 %	190	18.8	0.2	0.1	60	0.04	0.001	0.03	0.01
47	sk6a4	Skandinavienkai	10 %	190	18.8	0.2	0.1	60	0.04	0.001	0.03	0.01
48	sk71	Skandinavienkai	10 %	225	22.3	0.2	1.2	70	0.05	0.001	0.03	0.01
49	sk72	Skandinavienkai	10 %	225	22.3	0.2	1.2	70	0.05	0.001	0.03	0.01
50	sk73	Skandinavienkai	10 %	190	18.8	0.2	0.2	59	0.04	0.001	0.03	0.01
51	sk7a1	Skandinavienkai	10 %	195	19.3	0.2	0.4	62	0.04	0.001	0.03	0.01
52	sk7a2	Skandinavienkai	10 %	100	10.5	0.1	0.2	34	0.02	0.000	0.02	0.01
53	sk81	Skandinavienkai	10 %	290	28.8	0.3	0.1	92	0.06	0.001	0.04	0.02
54	sk82	Skandinavienkai	10 %	290	28.8	0.3	0.1	92	0.06	0.001	0.04	0.02

A 2.6.20 Emissions per Hour, Auxiliary Boilers, in Port

Ship			Emissions per hour [kg/h] according to Isensee									
			Auxiliary boilers									
			In port									
No.	Name	Port	Load	[kW]	Fuel	NOx	SO2	CO2	HC	Benz.	PM10	Soot
1	ct1	CTL (Herrenhafen)	10 %	200	19.8	0.2	1.1	62	0.04	0.001	0.03	0.01
2	kk1	Konstinkai	10 %	318	31.5	0.3	1.8	99	0.06	0.001	0.05	0.02
3	kk2	Konstinkai	10 %	169	16.8	0.2	1.0	53	0.03	0.001	0.03	0.01
4	kk3	Konstinkai	10 %	204	20.2	0.2	1.2	64	0.04	0.001	0.03	0.01
5	kk4	Konstinkai	10 %	200	19.8	0.2	1.1	62	0.04	0.001	0.03	0.01
6	kk5	Konstinkai	10 %	318	31.5	0.3	1.8	99	0.06	0.001	0.05	0.02
7	lk1	Lehmannkai	10 %	185	18.3	0.2	1.1	58	0.04	0.001	0.03	0.01
8	lk2	Lehmannkai	10 %	168	16.7	0.2	1.0	52	0.03	0.001	0.03	0.01
9	lk3	Lehmannkai	10 %	153	15.2	0.2	0.9	48	0.03	0.001	0.02	0.01
10	nk1	Nordlandkai	10 %	230	22.8	0.2	1.3	72	0.05	0.001	0.03	0.01
11	nk2	Nordlandkai	10 %	220	21.8	0.2	1.3	69	0.04	0.001	0.03	0.01
12	nk3	Nordlandkai	10 %	296	29.4	0.3	1.7	92	0.06	0.001	0.04	0.02
13	nk4	Nordlandkai	10 %	300	29.8	0.3	1.7	93	0.06	0.001	0.05	0.02
14	nk5	Nordlandkai	10 %	264	26.2	0.3	0.1	83	0.05	0.001	0.04	0.02
15	nk6	Nordlandkai	10 %	275	27.3	0.3	0.1	87	0.06	0.001	0.04	0.02
16	nk7	Nordlandkai	10 %	215	21.3	0.2	1.2	67	0.04	0.001	0.03	0.01
17	nk8	Nordlandkai	10 %	215	21.3	0.2	1.2	67	0.04	0.001	0.03	0.01
18	nk9	Nordlandkai	10 %	270	26.8	0.3	1.5	84	0.05	0.001	0.04	0.02
19	nk10	Nordlandkai	10 %	207	20.5	0.2	1.2	65	0.04	0.001	0.03	0.01
20	nk11	Nordlandkai	10 %	150	14.9	0.2	0.9	47	0.03	0.001	0.02	0.01
21	ok1	Ostpreußenkai	10 %	468	49.3	0.5	1.0	157	0.09	0.002	0.07	0.03
22	ok2	Ostpreußenkai	10 %	0	0.0	0.0	0.0	0	0.00	0.000	0.00	0.00
23	ok3	Ostpreußenkai	10 %	0	0.0	0.0	0.0	0	0.00	0.000	0.00	0.00
24	ok4	Ostpreußenkai	10 %	0	0.0	0.0	0.0	0	0.00	0.000	0.00	0.00
25	ok5	Ostpreußenkai	10 %	753	74.7	0.8	4.3	235	0.15	0.003	0.11	0.05
26	ok6	Ostpreußenkai	10 %	611	60.6	0.6	3.5	190	0.12	0.002	0.09	0.04
27	ok7	Ostpreußenkai	10 %	451	47.5	0.5	1.0	151	0.09	0.002	0.07	0.03
28	sp1	Schlutupkai	10 %	222	22.0	0.2	1.3	69	0.04	0.001	0.03	0.01
29	sp2	Schlutupkai	10 %	297	29.5	0.3	1.7	93	0.06	0.001	0.04	0.02
30	sp3	Schlutupkai	10 %	271	26.9	0.3	1.5	84	0.05	0.001	0.04	0.02
31	sk31	Skandinavienkai	10 %	230	22.8	0.2	1.3	72	0.05	0.001	0.03	0.01
32	sk32	Skandinavienkai	10 %	167	16.6	0.2	0.9	52	0.03	0.001	0.03	0.01
33	sk33	Skandinavienkai	10 %	270	26.8	0.3	1.5	84	0.05	0.001	0.04	0.02
34	sk34	Skandinavienkai	10 %	158	15.7	0.2	0.9	49	0.03	0.001	0.02	0.01
35	sk35	Skandinavienkai	10 %	878	87.1	0.9	5.0	274	0.18	0.003	0.13	0.05
36	sk36	Skandinavienkai	10 %	1,577	156.4	1.6	9.0	491	0.32	0.006	0.24	0.09
37	sk37	Skandinavienkai	10 %	451	47.5	0.5	1.0	151	0.09	0.002	0.07	0.03
38	sk41	Skandinavienkai	10 %	249	24.7	0.2	1.4	78	0.05	0.001	0.04	0.01
39	sk42	Skandinavienkai	10 %	612	60.7	0.6	3.5	191	0.12	0.002	0.09	0.04
40	sk51	Skandinavienkai	10 %	260	25.8	0.3	1.5	81	0.05	0.001	0.04	0.02
41	sk52	Skandinavienkai	10 %	269	26.7	0.3	1.5	84	0.05	0.001	0.04	0.02
42	sk53	Skandinavienkai	10 %	275	27.3	0.3	0.1	87	0.06	0.001	0.04	0.02
43	sk54	Skandinavienkai	10 %	273	27.1	0.3	1.6	85	0.05	0.001	0.04	0.02
44	sk6a1	Skandinavienkai	10 %	241	23.9	0.2	0.1	76	0.05	0.001	0.04	0.01
45	sk6a2	Skandinavienkai	10 %	241	23.9	0.2	0.1	76	0.05	0.001	0.04	0.01
46	sk6a3	Skandinavienkai	10 %	190	18.8	0.2	0.1	60	0.04	0.001	0.03	0.01
47	sk6a4	Skandinavienkai	10 %	190	18.8	0.2	0.1	60	0.04	0.001	0.03	0.01
48	sk71	Skandinavienkai	10 %	225	22.3	0.2	1.2	70	0.05	0.001	0.03	0.01
49	sk72	Skandinavienkai	10 %	225	22.3	0.2	1.2	70	0.05	0.001	0.03	0.01
50	sk73	Skandinavienkai	10 %	190	18.8	0.2	0.2	59	0.04	0.001	0.03	0.01
51	sk7a1	Skandinavienkai	10 %	195	19.3	0.2	0.4	62	0.04	0.001	0.03	0.01
52	sk7a2	Skandinavienkai	10 %	100	10.5	0.1	0.2	34	0.02	0.000	0.02	0.01
53	sk81	Skandinavienkai	10 %	290	28.8	0.3	0.1	92	0.06	0.001	0.04	0.02
54	sk82	Skandinavienkai	10 %	290	28.8	0.3	0.1	92	0.06	0.001	0.04	0.02

A 2.6.21 Total Emissions per Hour, at Sea

Ship			Sum of all emissions from main engines, auxiliary engines and auxiliary boilers per hour [kg/h]							
			At sea							
No.	Name	Port	Fuel	NOx	SO2	CO2	HC	Benz.	PM10	Soot
1	ct1	CTL (Herrenhafen)	2,569	168.7	135.2	8,166	5.98	0.114	9.41	3.76
2	kk1	Konstinkai	4,690	307.6	239.7	14,907	10.81	0.205	16.68	6.67
3	kk2	Konstinkai	849	55.6	43.0	2,697	1.95	0.037	2.99	1.20
4	kk3	Konstinkai	2,038	133.7	98.3	6,477	4.70	0.089	7.28	2.91
5	kk4	Konstinkai	2,819	185.0	146.7	8,960	6.54	0.124	10.21	4.08
6	kk5	Konstinkai	3,156	206.8	156.9	10,032	7.21	0.137	10.92	4.37
7	lk1	Lehmannkai	1,497	98.0	73.9	4,757	3.41	0.065	5.14	2.06
8	lk2	Lehmannkai	1,396	91.6	71.9	4,436	3.23	0.061	5.00	2.00
9	lk3	Lehmannkai	411	27.0	21.0	1,307	0.95	0.018	1.46	0.58
10	nk1	Nordlandkai	2,606	171.1	135.4	8,284	6.04	0.115	9.42	3.77
11	nk2	Nordlandkai	2,301	151.0	117.5	7,313	5.32	0.101	8.28	3.31
12	nk3	Nordlandkai	2,444	160.3	125.3	7,769	5.64	0.107	8.72	3.49
13	nk4	Nordlandkai	2,647	173.7	136.3	8,415	6.12	0.116	9.48	3.79
14	nk5	Nordlandkai	2,676	175.5	93.7	8,505	6.17	0.117	9.52	3.81
15	nk6	Nordlandkai	2,598	170.6	89.2	8,259	6.04	0.115	9.46	3.78
16	nk7	Nordlandkai	2,310	151.5	119.1	7,342	5.34	0.101	8.29	3.32
17	nk8	Nordlandkai	3,481	228.4	179.0	11,064	8.04	0.153	12.46	4.98
18	nk9	Nordlandkai	3,481	228.4	179.0	11,064	8.04	0.153	12.46	4.98
19	nk10	Nordlandkai	2,643	173.4	136.7	8,401	6.12	0.116	9.51	3.80
20	nk11	Nordlandkai	359	23.5	17.6	1,140	0.82	0.015	1.22	0.49
21	ok1	Ostpreußenkai	526	34.2	10.6	1,670	1.29	0.025	0.78	0.31
22	ok2	Ostpreußenkai	69	4.5	1.4	219	0.17	0.003	0.10	0.04
23	ok3	Ostpreußenkai	128	8.3	2.6	406	0.30	0.006	0.19	0.07
24	ok4	Ostpreußenkai	69	4.5	1.4	219	0.17	0.003	0.10	0.04
25	ok5	Ostpreußenkai	3,668	240.7	189.2	11,660	8.48	0.161	13.16	5.26
26	ok6	Ostpreußenkai	1,994	131.0	107.6	6,337	4.68	0.089	7.49	3.00
27	ok7	Ostpreußenkai	568	37.0	11.5	1,806	1.40	0.027	0.84	0.34
28	sp1	Schlutupkai	4,517	296.2	229.3	14,357	10.39	0.197	15.95	6.38
29	sp2	Schlutupkai	1,494	97.9	74.4	4,750	3.42	0.065	5.18	2.07
30	sp3	Schlutupkai	1,457	95.5	74.1	4,630	3.35	0.064	5.16	2.06
31	sk31	Skandinavienkai	2,606	171.1	135.4	8,284	6.04	0.115	9.42	3.77
32	sk32	Skandinavienkai	1,074	70.5	55.7	3,415	2.49	0.047	3.88	1.55
33	sk33	Skandinavienkai	1,451	95.2	74.9	4,612	3.36	0.064	5.21	2.08
34	sk34	Skandinavienkai	1,819	119.3	93.4	5,783	4.20	0.080	6.49	2.60
35	sk35	Skandinavienkai	2,283	150.1	123.3	7,257	5.36	0.102	8.58	3.43
36	sk36	Skandinavienkai	8,137	534.8	439.3	25,861	19.10	0.363	30.56	12.22
37	sk37	Skandinavienkai	568	37.0	11.5	1,806	1.40	0.027	0.84	0.34
38	sk41	Skandinavienkai	3,329	218.1	166.6	10,580	7.62	0.145	11.59	4.64
39	sk42	Skandinavienkai	4,517	296.2	229.3	14,357	10.39	0.197	15.95	6.38
40	sk51	Skandinavienkai	4,190	275.0	217.2	13,318	9.70	0.184	15.11	6.04
41	sk52	Skandinavienkai	4,190	275.0	217.2	13,318	9.70	0.184	15.11	6.04
42	sk53	Skandinavienkai	4,164	273.3	142.2	13,234	9.66	0.183	15.09	6.03
43	sk54	Skandinavienkai	4,271	280.2	218.8	13,576	9.85	0.187	15.22	6.09
44	sk6a1	Skandinavienkai	4,853	315.5	29.4	15,418	11.95	0.227	7.17	2.87
45	sk6a2	Skandinavienkai	4,853	315.5	29.4	15,418	11.95	0.227	7.17	2.87
46	sk6a3	Skandinavienkai	2,923	190.1	17.7	9,288	7.20	0.137	4.32	1.73
47	sk6a4	Skandinavienkai	2,923	190.1	17.7	9,288	7.20	0.137	4.32	1.73
48	sk71	Skandinavienkai	2,754	247.7	131.8	8,756	8.14	0.155	10.55	4.22
49	sk72	Skandinavienkai	2,754	247.7	131.8	8,756	8.14	0.155	10.55	4.22
50	sk73	Skandinavienkai	1,944	127.5	19.0	6,180	4.47	0.085	6.85	2.74
51	sk7a1	Skandinavienkai	2,158	141.5	43.1	6,860	4.96	0.094	7.62	3.05
52	sk7a2	Skandinavienkai	2,054	134.8	20.7	6,529	4.77	0.091	7.48	2.99
53	sk81	Skandinavienkai	2,980	195.5	104.3	9,473	6.87	0.130	10.59	4.24
54	sk82	Skandinavienkai	2,987	196.0	100.5	9,493	6.90	0.131	10.72	4.29

A 2.6.22 Total Emissions per Hour, Manoeuvring

Ship			Sum of all emissions from main engines, auxiliary engines and auxiliary boilers per hour [kg/h]							
			Manoeuvring							
No.	Name	Port	Fuel	NOx	SO2	CO2	HC	Benz.	PM10	Soot
1	ct1	CTL (Herrenhafen)	867	43.5	41.0	2,759	4.70	0.089	7.21	2.89
2	kk1	Konstinkai	1,871	99.0	78.4	5,951	8.84	0.168	13.06	5.22
3	kk2	Konstinkai	364	19.0	15.0	1,156	1.64	0.031	2.37	0.95
4	kk3	Konstinkai	800	41.8	29.0	2,545	3.84	0.073	5.69	2.28
5	kk4	Konstinkai	1,018	52.3	45.8	3,238	5.21	0.099	7.89	3.16
6	kk5	Konstinkai	1,449	78.9	55.7	4,610	6.14	0.117	8.74	3.49
7	lk1	Lehmannkai	710	38.7	26.9	2,259	2.94	0.056	4.14	1.66
8	lk2	Lehmannkai	540	27.9	23.4	1,718	2.62	0.050	3.90	1.56
9	lk3	Lehmannkai	177	8.8	7.6	563	0.80	0.015	1.16	0.47
10	nk1	Nordlandkai	953	48.9	42.7	3,033	4.84	0.092	7.30	2.92
11	nk2	Nordlandkai	868	44.8	35.6	2,760	4.30	0.082	6.44	2.57
12	nk3	Nordlandkai	973	50.7	41.4	3,094	4.62	0.088	6.83	2.73
13	nk4	Nordlandkai	1,029	53.4	44.4	3,273	4.98	0.095	7.40	2.96
14	nk5	Nordlandkai	1,407	72.3	39.1	4,478	7.21	0.137	10.92	4.37
15	nk6	Nordlandkai	1,257	62.6	37.0	4,001	6.97	0.132	10.78	4.31
16	nk7	Nordlandkai	882	45.8	38.3	2,807	4.32	0.082	6.46	2.58
17	nk8	Nordlandkai	1,340	70.4	57.4	4,263	6.51	0.124	9.70	3.88
18	nk9	Nordlandkai	1,345	70.4	57.8	4,280	6.52	0.124	9.71	3.89
19	nk10	Nordlandkai	991	51.4	43.5	3,154	4.93	0.094	7.39	2.95
20	nk11	Nordlandkai	185	9.7	7.1	590	0.73	0.014	1.01	0.40
21	ok1	Ostpreußenkai	194	7.3	3.9	616	1.06	0.020	0.65	0.26
22	ok2	Ostpreußenkai	19	0.9	0.4	60	0.13	0.002	0.08	0.03
23	ok3	Ostpreußenkai	123	6.4	2.5	391	0.66	0.012	0.40	0.16
24	ok4	Ostpreußenkai	19	0.9	0.4	60	0.13	0.002	0.08	0.03
25	ok5	Ostpreußenkai	1,445	73.4	63.3	4,595	6.95	0.132	10.31	4.13
26	ok6	Ostpreußenkai	608	26.8	33.0	1,934	3.63	0.069	5.71	2.28
27	ok7	Ostpreußenkai	516	22.7	10.4	1,642	3.24	0.062	1.96	0.78
28	sp1	Schlutupkai	1,857	99.6	75.9	5,910	8.56	0.163	12.54	5.02
29	sp2	Schlutupkai	695	37.1	27.1	2,212	2.93	0.056	4.16	1.66
30	sp3	Schlutupkai	610	31.8	25.5	1,941	2.79	0.053	4.08	1.63
31	sk31	Skandinavienkai	953	48.9	42.7	3,033	4.84	0.092	7.30	2.92
32	sk32	Skandinavienkai	404	20.5	18.1	1,285	2.01	0.038	3.02	1.21
33	sk33	Skandinavienkai	567	28.9	24.8	1,802	2.74	0.052	4.08	1.63
34	sk34	Skandinavienkai	714	37.4	30.4	2,271	3.42	0.065	5.08	2.03
35	sk35	Skandinavienkai	714	30.9	38.8	2,270	4.20	0.080	6.56	2.63
36	sk36	Skandinavienkai	2,391	108.5	129.3	7,606	14.64	0.278	23.16	9.26
37	sk37	Skandinavienkai	204	7.9	4.1	648	1.14	0.022	0.70	0.28
38	sk41	Skandinavienkai	1,474	80.0	57.6	4,688	6.41	0.122	9.22	3.69
39	sk42	Skandinavienkai	1,896	100.0	78.1	6,031	8.64	0.164	12.60	5.04
40	sk51	Skandinavienkai	1,544	80.1	68.3	4,913	7.78	0.148	11.71	4.68
41	sk52	Skandinavienkai	1,545	80.1	68.3	4,916	7.78	0.148	11.71	4.68
42	sk53	Skandinavienkai	1,495	76.8	40.0	4,757	7.69	0.146	11.65	4.66
43	sk54	Skandinavienkai	1,682	88.8	71.0	5,350	8.03	0.153	11.90	4.76
44	sk6a1	Skandinavienkai	1,357	63.6	8.2	4,319	9.01	0.171	5.41	2.17
45	sk6a2	Skandinavienkai	1,357	63.6	8.2	4,319	9.01	0.171	5.41	2.17
46	sk6a3	Skandinavienkai	822	38.4	5.0	2,616	5.44	0.103	3.27	1.31
47	sk6a4	Skandinavienkai	822	38.4	5.0	2,616	5.44	0.103	3.27	1.31
48	sk71	Skandinavienkai	1,845	121.6	83.0	5,857	12.33	0.234	15.93	6.37
49	sk72	Skandinavienkai	1,845	121.6	83.0	5,857	12.33	0.234	15.93	6.37
50	sk73	Skandinavienkai	816	43.4	8.0	2,596	3.71	0.070	5.41	2.16
51	sk7a1	Skandinavienkai	895	47.6	17.8	2,848	4.11	0.078	6.00	2.40
52	sk7a2	Skandinavienkai	712	36.4	8.6	2,268	3.77	0.072	5.75	2.30
53	sk81	Skandinavienkai	1,201	63.3	29.7	3,822	5.64	0.107	8.31	3.32
54	sk82	Skandinavienkai	1,143	59.3	28.5	3,637	5.59	0.106	8.35	3.34

A 2.6.23 Total Emissions per Hour, in Port

Ship			Sum of all emissions from main engines, auxiliary engines and auxiliary boilers per hour [kg/h]							
			In port							
No.	Name	Port	Fuel	NOx	SO2	CO2	HC	Benz.	PM10	Soot
1	ct1	CTL (Herrenhafen)	189	10.5	5.6	601	0.51	0.010	0.56	0.23
2	kk1	Konstinkai	618	36.9	15.4	1,965	1.41	0.027	1.38	0.55
3	kk2	Konstinkai	136	7.7	3.7	433	0.30	0.006	0.28	0.11
4	kk3	Konstinkai	257	15.0	3.3	816	0.60	0.011	0.59	0.23
5	kk4	Konstinkai	271	15.7	7.3	860	0.67	0.013	0.70	0.28
6	kk5	Konstinkai	597	35.9	14.3	1,898	1.28	0.024	1.17	0.47
7	lk1	Lehmannkai	305	18.3	7.3	969	0.65	0.012	0.58	0.23
8	lk2	Lehmannkai	169	9.6	4.6	535	0.39	0.008	0.39	0.16
9	lk3	Lehmannkai	67	3.4	2.1	213	0.15	0.003	0.14	0.06
10	nk1	Nordlandkai	262	15.0	7.2	833	0.64	0.012	0.66	0.27
11	nk2	Nordlandkai	256	14.8	4.9	814	0.61	0.012	0.62	0.25
12	nk3	Nordlandkai	321	18.5	8.5	1,019	0.74	0.014	0.72	0.29
13	nk4	Nordlandkai	324	18.6	8.7	1,029	0.76	0.014	0.75	0.30
14	nk5	Nordlandkai	356	20.8	1.9	1,132	0.81	0.015	0.79	0.32
15	nk6	Nordlandkai	230	12.7	1.6	733	0.58	0.011	0.62	0.25
16	nk7	Nordlandkai	268	15.5	7.1	851	0.63	0.012	0.63	0.25
17	nk8	Nordlandkai	413	24.6	10.5	1,312	0.97	0.018	0.97	0.39
18	nk9	Nordlandkai	418	24.6	10.8	1,329	0.98	0.019	0.97	0.39
19	nk10	Nordlandkai	289	16.8	7.6	918	0.69	0.013	0.70	0.28
20	nk11	Nordlandkai	88	4.8	2.4	280	0.18	0.004	0.16	0.06
21	ok1	Ostpreußenkai	338	14.2	6.8	1,076	2.04	0.039	1.24	0.49
22	ok2	Ostpreußenkai	38	1.8	0.8	121	0.26	0.005	0.15	0.06
23	ok3	Ostpreußenkai	29	1.8	0.6	92	0.06	0.001	0.04	0.02
24	ok4	Ostpreußenkai	1	0.0	0.0	3	0.01	0.000	0.00	0.00
25	ok5	Ostpreußenkai	656	34.2	23.8	2,084	2.29	0.044	2.99	1.20
26	ok6	Ostpreußenkai	197	7.2	10.8	626	1.00	0.019	1.50	0.60
27	ok7	Ostpreußenkai	360	15.3	7.3	1,145	2.19	0.042	1.33	0.53
28	sp1	Schlutupkai	648	39.4	15.6	2,060	1.45	0.028	1.40	0.56
29	sp2	Schlutupkai	292	16.8	7.5	928	0.63	0.012	0.57	0.23
30	sp3	Schlutupkai	221	12.4	6.0	701	0.49	0.009	0.47	0.19
31	sk31	Skandinavienkai	262	15.0	7.2	833	0.64	0.012	0.66	0.27
32	sk32	Skandinavienkai	119	6.5	3.4	378	0.29	0.005	0.29	0.12
33	sk33	Skandinavienkai	181	9.8	5.2	574	0.42	0.008	0.42	0.17
34	sk34	Skandinavienkai	229	13.4	5.9	727	0.53	0.010	0.52	0.21
35	sk35	Skandinavienkai	401	15.9	21.9	1,272	2.19	0.042	3.35	1.34
36	sk36	Skandinavienkai	715	28.3	39.0	2,270	3.90	0.074	5.97	2.39
37	sk37	Skandinavienkai	282	11.6	5.7	897	1.67	0.032	1.01	0.41
38	sk41	Skandinavienkai	577	35.0	13.7	1,835	1.25	0.024	1.16	0.46
39	sk42	Skandinavienkai	687	39.8	17.8	2,181	1.53	0.029	1.46	0.58
40	sk51	Skandinavienkai	432	25.4	11.4	1,372	1.05	0.020	1.08	0.43
41	sk52	Skandinavienkai	433	25.4	11.4	1,375	1.05	0.020	1.08	0.43
42	sk53	Skandinavienkai	392	22.7	2.9	1,245	0.97	0.018	1.02	0.41
43	sk54	Skandinavienkai	542	32.4	13.6	1,723	1.25	0.024	1.23	0.49
44	sk6a1	Skandinavienkai	690	31.9	4.2	2,198	4.53	0.086	2.73	1.09
45	sk6a2	Skandinavienkai	690	31.9	4.2	2,198	4.53	0.086	2.73	1.09
46	sk6a3	Skandinavienkai	420	19.3	2.5	1,338	2.74	0.052	1.65	0.66
47	sk6a4	Skandinavienkai	420	19.3	2.5	1,338	2.74	0.052	1.65	0.66
48	sk71	Skandinavienkai	421	25.9	13.7	1,338	1.00	0.019	0.92	0.37
49	sk72	Skandinavienkai	421	25.9	13.7	1,338	1.00	0.019	0.92	0.37
50	sk73	Skandinavienkai	295	17.5	2.9	937	0.66	0.012	0.62	0.25
51	sk7a1	Skandinavienkai	317	18.8	6.3	1,008	0.71	0.013	0.68	0.27
52	sk7a2	Skandinavienkai	169	9.8	3.1	539	0.44	0.008	0.47	0.19
53	sk81	Skandinavienkai	405	23.8	2.5	1,288	0.92	0.018	0.90	0.36
54	sk82	Skandinavienkai	348	20.1	2.3	1,107	0.82	0.016	0.82	0.33

A 2.7 Emissions of Sea Ships, Actual Scenario, Reduction Concept 1a (Power Supply from Wharf, Boilers 10 %)

Total Emissions per Hour, in Port

Ship			Sum of all emissions from main engines, auxiliary engines and auxiliary boilers per hour [kg/h]							
			In port							
No.	Name	Port	Fuel	NOx	SO2	CO2	HC	Benz.	PM10	Soot
1	ct1	CTL (Herrenhafen)	54	2.4	2.9	171	0.12	0.002	0.15	0.06
2	kk1	Konstinkai	98	4.7	5.0	312	0.21	0.004	0.27	0.11
3	kk2	Konstinkai	29	1.0	1.5	92	0.06	0.001	0.07	0.03
4	kk3	Konstinkai	49	2.1	2.4	155	0.11	0.002	0.13	0.05
5	kk4	Konstinkai	58	2.7	3.0	185	0.13	0.002	0.16	0.06
6	kk5	Konstinkai	79	3.4	3.9	251	0.17	0.003	0.20	0.08
7	lk1	Lehmannkai	41	1.7	2.1	130	0.09	0.002	0.10	0.04
8	lk2	Lehmannkai	36	1.4	1.9	114	0.08	0.001	0.09	0.04
9	lk3	Lehmannkai	21	0.5	1.1	66	0.04	0.001	0.04	0.02
10	nk1	Nordlandkai	59	2.6	3.1	185	0.13	0.002	0.16	0.06
11	nk2	Nordlandkai	54	2.3	2.8	170	0.12	0.002	0.14	0.06
12	nk3	Nordlandkai	64	2.6	3.3	202	0.14	0.003	0.16	0.06
13	nk4	Nordlandkai	70	2.3	3.6	221	0.29	0.005	0.40	0.16
14	nk5	Nordlandkai	67	2.4	1.3	214	0.28	0.005	0.40	0.16
15	nk6	Nordlandkai	65	2.2	1.3	208	0.28	0.005	0.40	0.16
16	nk7	Nordlandkai	56	2.0	2.9	178	0.24	0.005	0.34	0.14
17	nk8	Nordlandkai	74	2.9	3.8	235	0.34	0.007	0.50	0.20
18	nk9	Nordlandkai	80	2.9	4.1	253	0.35	0.007	0.51	0.20
19	nk10	Nordlandkai	60	2.2	3.1	191	0.27	0.005	0.39	0.15
20	nk11	Nordlandkai	21	0.5	1.1	66	0.06	0.001	0.07	0.03
21	ok1	Ostpreußenkai	338	14.2	6.8	1,076	2.04	0.039	1.24	0.49
22	ok2	Ostpreußenkai	38	1.8	0.8	121	0.26	0.005	0.15	0.06
23	ok3	Ostpreußenkai	29	1.8	0.6	92	0.06	0.001	0.04	0.02
24	ok4	Ostpreußenkai	1	0.0	0.0	3	0.01	0.000	0.00	0.00
25	ok5	Ostpreußenkai	656	34.2	23.8	2,084	2.29	0.044	2.99	1.20
26	ok6	Ostpreußenkai	197	7.2	10.8	626	1.00	0.019	1.50	0.60
27	ok7	Ostpreußenkai	360	15.3	7.3	1,145	2.19	0.042	1.33	0.53
28	sp1	Schlutupkai	92	3.8	4.6	293	0.43	0.008	0.63	0.25
29	sp2	Schlutupkai	54	1.6	2.8	169	0.19	0.004	0.24	0.10
30	sp3	Schlutupkai	49	1.4	2.6	156	0.18	0.003	0.23	0.09
31	sk31	Skandinavienkai	62	2.2	3.2	195	0.27	0.005	0.39	0.15
32	sk32	Skandinavienkai	33	1.0	1.7	103	0.13	0.002	0.17	0.07
33	sk33	Skandinavienkai	49	1.4	2.6	154	0.18	0.003	0.24	0.09
34	sk34	Skandinavienkai	43	1.6	2.2	138	0.19	0.004	0.27	0.11
35	sk35	Skandinavienkai	118	2.4	6.7	373	0.38	0.007	0.45	0.18
36	sk36	Skandinavienkai	268	6.9	15.0	847	1.03	0.020	1.38	0.55
37	sk37	Skandinavienkai	55	0.8	1.1	176	0.14	0.003	0.10	0.04
38	sk41	Skandinavienkai	78	3.0	3.8	247	0.33	0.006	0.47	0.19
39	sk42	Skandinavienkai	131	4.2	6.8	415	0.51	0.010	0.69	0.27
40	sk51	Skandinavienkai	89	3.4	4.6	281	0.41	0.008	0.60	0.24
41	sk52	Skandinavienkai	89	3.4	4.6	283	0.42	0.008	0.61	0.24
42	sk53	Skandinavienkai	89	3.4	2.0	283	0.42	0.008	0.61	0.24
43	sk54	Skandinavienkai	93	3.6	4.7	293	0.42	0.008	0.61	0.24
44	sk6a1	Skandinavienkai	91	3.4	0.6	288	0.50	0.009	0.31	0.12
45	sk6a2	Skandinavienkai	91	3.4	0.6	288	0.50	0.009	0.31	0.12
46	sk6a3	Skandinavienkai	59	2.1	0.4	188	0.31	0.006	0.19	0.08
47	sk6a4	Skandinavienkai	59	2.1	0.4	188	0.31	0.006	0.19	0.08
48	sk71	Skandinavienkai	66	3.1	3.2	208	0.35	0.007	0.43	0.17
49	sk72	Skandinavienkai	66	3.1	3.2	208	0.35	0.007	0.43	0.17
50	sk73	Skandinavienkai	49	1.7	0.5	156	0.20	0.004	0.28	0.11
51	sk7a1	Skandinavienkai	53	1.9	1.1	169	0.22	0.004	0.31	0.13
52	sk7a2	Skandinavienkai	41	1.6	0.5	129	0.20	0.004	0.29	0.12
53	sk81	Skandinavienkai	75	2.6	1.5	238	0.31	0.006	0.44	0.18
54	sk82	Skandinavienkai	74	2.6	1.5	235	0.32	0.006	0.44	0.18

A 2.8 Emissions of Sea Ships, Actual Scenario, Reduction Concept 1a (Power Supply from Wharf, Boilers 1 %)

Total Emissions per Hour, in Port

Ship			Sum of all emissions from main engines, auxiliary engines and auxiliary boilers per hour [kg/h]							
			In port							
No.	Name	Port	Fuel	NOx	SO2	CO2	HC	Benz.	PM10	Soot
1	ct1	CTL (Herrenhafen)	36	2.3	1.8	115	0.08	0.002	0.12	0.05
2	kk1	Konstinkai	70	4.4	3.3	222	0.16	0.003	0.22	0.09
3	kk2	Konstinkai	14	0.8	0.7	44	0.03	0.001	0.04	0.02
4	kk3	Konstinkai	31	1.9	1.4	98	0.07	0.001	0.10	0.04
5	kk4	Konstinkai	41	2.5	2.0	129	0.09	0.002	0.14	0.05
6	kk5	Konstinkai	51	3.1	2.3	162	0.11	0.002	0.15	0.06
7	lk1	Lehmannkai	25	1.5	1.1	79	0.05	0.001	0.07	0.03
8	lk2	Lehmannkai	21	1.3	1.0	67	0.05	0.001	0.07	0.03
9	lk3	Lehmannkai	7	0.4	0.4	23	0.02	0.000	0.02	0.01
10	nk1	Nordlandkai	38	2.4	1.9	121	0.09	0.002	0.13	0.05
11	nk2	Nordlandkai	34	2.1	1.6	108	0.08	0.001	0.11	0.04
12	nk3	Nordlandkai	38	2.3	1.8	119	0.08	0.002	0.12	0.05
13	nk4	Nordlandkai	43	2.1	2.1	137	0.23	0.004	0.36	0.14
14	nk5	Nordlandkai	44	2.1	1.3	139	0.23	0.004	0.36	0.14
15	nk6	Nordlandkai	41	1.9	1.2	130	0.23	0.004	0.36	0.14
16	nk7	Nordlandkai	37	1.8	1.8	118	0.20	0.004	0.31	0.13
17	nk8	Nordlandkai	55	2.7	2.7	175	0.30	0.006	0.47	0.19
18	nk9	Nordlandkai	56	2.7	2.7	177	0.30	0.006	0.47	0.19
19	nk10	Nordlandkai	42	2.0	2.1	133	0.23	0.004	0.36	0.14
20	nk11	Nordlandkai	7	0.3	0.3	24	0.03	0.001	0.05	0.02
21	ok1	Ostpreußenkai	338	14.2	6.8	1,076	2.04	0.039	1.24	0.49
22	ok2	Ostpreußenkai	38	1.8	0.8	121	0.26	0.005	0.15	0.06
23	ok3	Ostpreußenkai	29	1.8	0.6	92	0.06	0.001	0.04	0.02
24	ok4	Ostpreußenkai	1	0.0	0.0	3	0.01	0.000	0.00	0.00
25	ok5	Ostpreußenkai	656	34.2	23.8	2,084	2.29	0.044	2.99	1.20
26	ok6	Ostpreußenkai	197	7.2	10.8	626	1.00	0.019	1.50	0.60
27	ok7	Ostpreußenkai	360	15.3	7.3	1,145	2.19	0.042	1.33	0.53
28	sp1	Schlutupkai	73	3.6	3.4	231	0.39	0.007	0.60	0.24
29	sp2	Schlutupkai	27	1.3	1.3	86	0.13	0.003	0.20	0.08
30	sp3	Schlutupkai	25	1.2	1.2	80	0.13	0.002	0.20	0.08
31	sk31	Skandinavienkai	41	2.0	2.0	131	0.23	0.004	0.36	0.14
32	sk32	Skandinavienkai	18	0.8	0.9	56	0.10	0.002	0.15	0.06
33	sk33	Skandinavienkai	25	1.1	1.2	78	0.13	0.002	0.20	0.08
34	sk34	Skandinavienkai	29	1.4	1.4	93	0.16	0.003	0.25	0.10
35	sk35	Skandinavienkai	40	1.6	2.2	127	0.22	0.004	0.33	0.13
36	sk36	Skandinavienkai	127	5.5	6.9	405	0.75	0.014	1.17	0.47
37	sk37	Skandinavienkai	13	0.4	0.3	40	0.06	0.001	0.04	0.02
38	sk41	Skandinavienkai	56	2.8	2.6	177	0.29	0.005	0.44	0.17
39	sk42	Skandinavienkai	76	3.7	3.7	243	0.40	0.008	0.60	0.24
40	sk51	Skandinavienkai	65	3.2	3.2	208	0.37	0.007	0.57	0.23
41	sk52	Skandinavienkai	65	3.2	3.2	208	0.37	0.007	0.57	0.23
42	sk53	Skandinavienkai	64	3.1	2.0	205	0.37	0.007	0.57	0.23
43	sk54	Skandinavienkai	68	3.3	3.3	217	0.37	0.007	0.57	0.23
44	sk6a1	Skandinavienkai	69	3.2	0.4	220	0.45	0.009	0.27	0.11
45	sk6a2	Skandinavienkai	69	3.2	0.4	220	0.45	0.009	0.27	0.11
46	sk6a3	Skandinavienkai	42	1.9	0.3	134	0.27	0.005	0.16	0.07
47	sk6a4	Skandinavienkai	42	1.9	0.3	134	0.27	0.005	0.16	0.07
48	sk71	Skandinavienkai	46	2.9	2.1	144	0.31	0.006	0.40	0.16
49	sk72	Skandinavienkai	46	2.9	2.1	144	0.31	0.006	0.40	0.16
50	sk73	Skandinavienkai	32	1.6	0.3	103	0.17	0.003	0.26	0.10
51	sk7a1	Skandinavienkai	36	1.7	0.7	113	0.19	0.004	0.29	0.12
52	sk7a2	Skandinavienkai	31	1.5	0.3	99	0.18	0.003	0.28	0.11
53	sk81	Skandinavienkai	49	2.4	1.5	155	0.26	0.005	0.40	0.16
54	sk82	Skandinavienkai	48	2.3	1.4	153	0.26	0.005	0.41	0.16

A 2.9 Emissions of Sea Ships, Actual Scenario, Reduction Concept 2 (Sulphur Content of Fuels max. 1 %)

A 2.9.1 Total Emissions per Hour,at Sea

Ship			Sum of all emissions from main engines, auxiliary engines and auxiliary boilers per hour [kg/h]							
			At sea							
No.	Name	Port	Fuel	NOx	SO2	CO2	HC	Benz.	PM10	Soot
1	ct1	CTL (Herrenhafen)	2,569	168.7	51.8	8,166	5.98	0.114	9.41	3.76
2	kk1	Konstinkai	4,690	307.6	94.5	14,907	10.81	0.205	16.68	6.67
3	kk2	Konstinkai	849	55.6	17.1	2,697	1.95	0.037	2.99	1.20
4	kk3	Konstinkai	2,038	133.7	38.6	6,477	4.70	0.089	7.28	2.91
5	kk4	Konstinkai	2,819	185.0	56.8	8,960	6.54	0.124	10.21	4.08
6	kk5	Konstinkai	3,156	206.8	63.6	10,032	7.21	0.137	10.92	4.37
7	lk1	Lehmannkai	1,497	98.0	30.1	4,757	3.41	0.065	5.14	2.06
8	lk2	Lehmannkai	1,396	91.6	28.1	4,436	3.23	0.061	5.00	2.00
9	lk3	Lehmannkai	411	27.0	8.3	1,307	0.95	0.018	1.46	0.58
10	nk1	Nordlandkai	2,606	171.1	52.6	8,284	6.04	0.115	9.42	3.77
11	nk2	Nordlandkai	2,301	151.0	44.9	7,313	5.32	0.101	8.28	3.31
12	nk3	Nordlandkai	2,444	160.3	49.3	7,769	5.64	0.107	8.72	3.49
13	nk4	Nordlandkai	2,647	173.7	53.4	8,415	6.12	0.116	9.48	3.79
14	nk5	Nordlandkai	2,676	175.5	50.0	8,505	6.17	0.117	9.52	3.81
15	nk6	Nordlandkai	2,598	170.6	50.1	8,259	6.04	0.115	9.46	3.78
16	nk7	Nordlandkai	2,310	151.5	46.6	7,342	5.34	0.101	8.29	3.32
17	nk8	Nordlandkai	3,481	228.4	70.2	11,064	8.04	0.153	12.46	4.98
18	nk9	Nordlandkai	3,481	228.4	70.2	11,064	8.04	0.153	12.46	4.98
19	nk10	Nordlandkai	2,643	173.4	53.3	8,401	6.12	0.116	9.51	3.80
20	nk11	Nordlandkai	359	23.5	7.2	1,140	0.82	0.015	1.22	0.49
21	ok1	Ostpreußenkai	526	34.2	10.6	1,670	1.29	0.025	0.78	0.31
22	ok2	Ostpreußenkai	69	4.5	1.4	219	0.17	0.003	0.10	0.04
23	ok3	Ostpreußenkai	128	8.3	2.6	406	0.30	0.006	0.19	0.07
24	ok4	Ostpreußenkai	69	4.5	1.4	219	0.17	0.003	0.10	0.04
25	ok5	Ostpreußenkai	3,668	240.7	74.0	11,660	8.48	0.161	13.16	5.26
26	ok6	Ostpreußenkai	1,994	131.0	40.2	6,337	4.68	0.089	7.49	3.00
27	ok7	Ostpreußenkai	568	37.0	11.5	1,806	1.40	0.027	0.84	0.34
28	sp1	Schlutupkai	4,517	296.2	91.0	14,357	10.39	0.197	15.95	6.38
29	sp2	Schlutupkai	1,494	97.9	30.1	4,750	3.42	0.065	5.18	2.07
30	sp3	Schlutupkai	1,457	95.5	29.4	4,630	3.35	0.064	5.16	2.06
31	sk31	Skandinavienkai	2,606	171.1	52.6	8,284	6.04	0.115	9.42	3.77
32	sk32	Skandinavienkai	1,074	70.5	21.7	3,415	2.49	0.047	3.88	1.55
33	sk33	Skandinavienkai	1,451	95.2	29.3	4,612	3.36	0.064	5.21	2.08
34	sk34	Skandinavienkai	1,819	119.3	36.7	5,783	4.20	0.080	6.49	2.60
35	sk35	Skandinavienkai	2,283	150.1	46.1	7,257	5.36	0.102	8.58	3.43
36	sk36	Skandinavienkai	8,137	534.8	164.3	25,861	19.10	0.363	30.56	12.22
37	sk37	Skandinavienkai	568	37.0	11.5	1,806	1.40	0.027	0.84	0.34
38	sk41	Skandinavienkai	3,329	218.1	67.1	10,580	7.62	0.145	11.59	4.64
39	sk42	Skandinavienkai	4,517	296.2	91.0	14,357	10.39	0.197	15.95	6.38
40	sk51	Skandinavienkai	4,190	275.0	84.5	13,318	9.70	0.184	15.11	6.04
41	sk52	Skandinavienkai	4,190	275.0	84.5	13,318	9.70	0.184	15.11	6.04
42	sk53	Skandinavienkai	4,164	273.3	80.0	13,234	9.66	0.183	15.09	6.03
43	sk54	Skandinavienkai	4,271	280.2	86.1	13,576	9.85	0.187	15.22	6.09
44	sk6a1	Skandinavienkai	4,853	315.5	29.4	15,418	11.95	0.227	7.17	2.87
45	sk6a2	Skandinavienkai	4,853	315.5	29.4	15,418	11.95	0.227	7.17	2.87
46	sk6a3	Skandinavienkai	2,923	190.1	17.7	9,288	7.20	0.137	4.32	1.73
47	sk6a4	Skandinavienkai	2,923	190.1	17.7	9,288	7.20	0.137	4.32	1.73
48	sk71	Skandinavienkai	2,754	247.7	55.0	8,756	8.14	0.155	10.55	4.22
49	sk72	Skandinavienkai	2,754	247.7	55.0	8,756	8.14	0.155	10.55	4.22
50	sk73	Skandinavienkai	1,944	127.5	19.2	6,180	4.47	0.085	6.85	2.74
51	sk7a1	Skandinavienkai	2,158	141.5	43.5	6,860	4.96	0.094	7.62	3.05
52	sk7a2	Skandinavienkai	2,054	134.8	20.9	6,529	4.77	0.091	7.48	2.99
53	sk81	Skandinavienkai	2,980	195.5	55.8	9,473	6.87	0.130	10.59	4.24
54	sk82	Skandinavienkai	2,987	196.0	56.7	9,493	6.90	0.131	10.72	4.29

A 2.9.2 Total Emissions per Hour, Manoeuvring

Ship			Sum of all emissions from main engines, auxiliary engines and auxiliary boilers per hour [kg/h]							
			Manoeuvring							
No.	Name	Port	Fuel	NOx	SO2	CO2	HC	Benz.	PM10	Soot
1	ct1	CTL (Herrenhafen)	867	43.5	17.4	2,759	4.70	0.089	7.21	2.89
2	kk1	Konstinkai	1,871	99.0	37.4	5,951	8.84	0.168	13.06	5.22
3	kk2	Konstinkai	364	19.0	7.3	1,156	1.64	0.031	2.37	0.95
4	kk3	Konstinkai	800	41.8	11.8	2,545	3.84	0.073	5.69	2.28
5	kk4	Konstinkai	1,018	52.3	20.4	3,238	5.21	0.099	7.89	3.16
6	kk5	Konstinkai	1,449	78.9	29.0	4,610	6.14	0.117	8.74	3.49
7	lk1	Lehmannkai	710	38.7	14.2	2,259	2.94	0.056	4.14	1.66
8	lk2	Lehmannkai	540	27.9	10.8	1,718	2.62	0.050	3.90	1.56
9	lk3	Lehmannkai	177	8.8	3.6	563	0.80	0.015	1.16	0.47
10	nk1	Nordlandkai	953	48.9	19.1	3,033	4.84	0.092	7.30	2.92
11	nk2	Nordlandkai	868	44.8	14.9	2,760	4.30	0.082	6.44	2.57
12	nk3	Nordlandkai	973	50.7	19.5	3,094	4.62	0.088	6.83	2.73
13	nk4	Nordlandkai	1,029	53.4	20.6	3,273	4.98	0.095	7.40	2.96
14	nk5	Nordlandkai	1,407	72.3	21.1	4,478	7.21	0.137	10.92	4.37
15	nk6	Nordlandkai	1,257	62.6	20.9	4,001	6.97	0.132	10.78	4.31
16	nk7	Nordlandkai	882	45.8	17.7	2,807	4.32	0.082	6.46	2.58
17	nk8	Nordlandkai	1,340	70.4	26.8	4,263	6.51	0.124	9.70	3.88
18	nk9	Nordlandkai	1,345	70.4	26.9	4,280	6.52	0.124	9.71	3.89
19	nk10	Nordlandkai	991	51.4	19.9	3,154	4.93	0.094	7.39	2.95
20	nk11	Nordlandkai	185	9.7	3.7	590	0.73	0.014	1.01	0.40
21	ok1	Ostpreußenkai	194	7.3	3.9	616	1.06	0.020	0.65	0.26
22	ok2	Ostpreußenkai	19	0.9	0.4	60	0.13	0.002	0.08	0.03
23	ok3	Ostpreußenkai	123	6.4	2.5	391	0.66	0.012	0.40	0.16
24	ok4	Ostpreußenkai	19	0.9	0.4	60	0.13	0.002	0.08	0.03
25	ok5	Ostpreußenkai	1,445	73.4	29.0	4,595	6.95	0.132	10.31	4.13
26	ok6	Ostpreußenkai	608	26.8	12.3	1,934	3.63	0.069	5.71	2.28
27	ok7	Ostpreußenkai	516	22.7	10.4	1,642	3.24	0.062	1.96	0.78
28	sp1	Schlutupkai	1,857	99.6	37.1	5,910	8.56	0.163	12.54	5.02
29	sp2	Schlutupkai	695	37.1	13.9	2,212	2.93	0.056	4.16	1.66
30	sp3	Schlutupkai	610	31.8	12.2	1,941	2.79	0.053	4.08	1.63
31	sk31	Skandinavienkai	953	48.9	19.1	3,033	4.84	0.092	7.30	2.92
32	sk32	Skandinavienkai	404	20.5	8.1	1,285	2.01	0.038	3.02	1.21
33	sk33	Skandinavienkai	567	28.9	11.4	1,802	2.74	0.052	4.08	1.63
34	sk34	Skandinavienkai	714	37.4	14.3	2,271	3.42	0.065	5.08	2.03
35	sk35	Skandinavienkai	714	30.9	14.4	2,270	4.20	0.080	6.56	2.63
36	sk36	Skandinavienkai	2,391	108.5	48.2	7,606	14.64	0.278	23.16	9.26
37	sk37	Skandinavienkai	204	7.9	4.1	648	1.14	0.022	0.70	0.28
38	sk41	Skandinavienkai	1,474	80.0	29.5	4,688	6.41	0.122	9.22	3.69
39	sk42	Skandinavienkai	1,896	100.0	38.0	6,031	8.64	0.164	12.60	5.04
40	sk51	Skandinavienkai	1,544	80.1	30.9	4,913	7.78	0.148	11.71	4.68
41	sk52	Skandinavienkai	1,545	80.1	30.9	4,916	7.78	0.148	11.71	4.68
42	sk53	Skandinavienkai	1,495	76.8	22.9	4,757	7.69	0.146	11.65	4.66
43	sk54	Skandinavienkai	1,682	88.8	33.6	5,350	8.03	0.153	11.90	4.76
44	sk6a1	Skandinavienkai	1,357	63.6	8.2	4,319	9.01	0.171	5.41	2.17
45	sk6a2	Skandinavienkai	1,357	63.6	8.2	4,319	9.01	0.171	5.41	2.17
46	sk6a3	Skandinavienkai	822	38.4	5.0	2,616	5.44	0.103	3.27	1.31
47	sk6a4	Skandinavienkai	822	38.4	5.0	2,616	5.44	0.103	3.27	1.31
48	sk71	Skandinavienkai	1,845	121.6	36.9	5,857	12.33	0.234	15.93	6.37
49	sk72	Skandinavienkai	1,845	121.6	36.9	5,857	12.33	0.234	15.93	6.37
50	sk73	Skandinavienkai	816	43.4	8.0	2,596	3.71	0.070	5.41	2.16
51	sk7a1	Skandinavienkai	895	47.6	17.9	2,848	4.11	0.078	6.00	2.40
52	sk7a2	Skandinavienkai	712	36.4	8.7	2,268	3.77	0.072	5.75	2.30
53	sk81	Skandinavienkai	1,201	63.3	16.4	3,822	5.64	0.107	8.31	3.32
54	sk82	Skandinavienkai	1,143	59.3	16.4	3,637	5.59	0.106	8.35	3.34

A 2.9.3 Total Emissions per Hour, in Port

Ship			Sum of all emissions from main engines, auxiliary engines and auxiliary boilers per hour [kg/h]							
			In port							
No.	Name	Port	Fuel	NOx	SO2	CO2	HC	Benz.	PM10	Soot
1	ct1	CTL (Herrenhafen)	189	10.5	3.8	601	0.51	0.010	0.56	0.23
2	kk1	Konstinkai	618	36.9	12.3	1,965	1.41	0.027	1.38	0.55
3	kk2	Konstinkai	136	7.7	2.7	433	0.30	0.006	0.28	0.11
4	kk3	Konstinkai	257	15.0	1.8	816	0.60	0.011	0.59	0.23
5	kk4	Konstinkai	271	15.7	5.4	860	0.67	0.013	0.70	0.28
6	kk5	Konstinkai	597	35.9	11.9	1,898	1.28	0.024	1.17	0.47
7	lk1	Lehmannkai	305	18.3	6.1	969	0.65	0.012	0.58	0.23
8	lk2	Lehmannkai	169	9.6	3.4	535	0.39	0.008	0.39	0.16
9	lk3	Lehmannkai	67	3.4	1.4	213	0.15	0.003	0.14	0.06
10	nk1	Nordlandkai	262	15.0	5.2	833	0.64	0.012	0.66	0.27
11	nk2	Nordlandkai	256	14.8	3.1	814	0.61	0.012	0.62	0.25
12	nk3	Nordlandkai	321	18.5	6.4	1,019	0.74	0.014	0.72	0.29
13	nk4	Nordlandkai	324	18.6	6.5	1,029	0.76	0.014	0.75	0.30
14	nk5	Nordlandkai	356	20.8	1.3	1,132	0.81	0.015	0.79	0.32
15	nk6	Nordlandkai	230	12.7	1.1	733	0.58	0.011	0.62	0.25
16	nk7	Nordlandkai	268	15.5	5.3	851	0.63	0.012	0.63	0.25
17	nk8	Nordlandkai	413	24.6	8.2	1,312	0.97	0.018	0.97	0.39
18	nk9	Nordlandkai	418	24.6	8.3	1,329	0.98	0.019	0.97	0.39
19	nk10	Nordlandkai	289	16.8	5.8	918	0.69	0.013	0.70	0.28
20	nk11	Nordlandkai	88	4.8	1.8	280	0.18	0.004	0.16	0.06
21	ok1	Ostpreußenkai	338	14.2	6.8	1,076	2.04	0.039	1.24	0.49
22	ok2	Ostpreußenkai	38	1.8	0.8	121	0.26	0.005	0.15	0.06
23	ok3	Ostpreußenkai	29	1.8	0.6	92	0.06	0.001	0.04	0.02
24	ok4	Ostpreußenkai	1	0.0	0.0	3	0.01	0.000	0.00	0.00
25	ok5	Ostpreußenkai	656	34.2	13.2	2,084	2.29	0.044	2.99	1.20
26	ok6	Ostpreußenkai	197	7.2	4.0	626	1.00	0.019	1.50	0.60
27	ok7	Ostpreußenkai	360	15.3	7.3	1,145	2.19	0.042	1.33	0.53
28	sp1	Schlutupkai	648	39.4	12.9	2,060	1.45	0.028	1.40	0.56
29	sp2	Schlutupkai	292	16.8	5.8	928	0.63	0.012	0.57	0.23
30	sp3	Schlutupkai	221	12.4	4.4	701	0.49	0.009	0.47	0.19
31	sk31	Skandinavienkai	262	15.0	5.2	833	0.64	0.012	0.66	0.27
32	sk32	Skandinavienkai	119	6.5	2.4	378	0.29	0.005	0.29	0.12
33	sk33	Skandinavienkai	181	9.8	3.6	574	0.42	0.008	0.42	0.17
34	sk34	Skandinavienkai	229	13.4	4.6	727	0.53	0.010	0.52	0.21
35	sk35	Skandinavienkai	401	15.9	8.1	1,272	2.19	0.042	3.35	1.34
36	sk36	Skandinavienkai	715	28.3	14.5	2,270	3.90	0.074	5.97	2.39
37	sk37	Skandinavienkai	282	11.6	5.7	897	1.67	0.032	1.01	0.41
38	sk41	Skandinavienkai	577	35.0	11.5	1,835	1.25	0.024	1.16	0.46
39	sk42	Skandinavienkai	687	39.8	13.7	2,181	1.53	0.029	1.46	0.58
40	sk51	Skandinavienkai	432	25.4	8.6	1,372	1.05	0.020	1.08	0.43
41	sk52	Skandinavienkai	433	25.4	8.6	1,375	1.05	0.020	1.08	0.43
42	sk53	Skandinavienkai	392	22.7	2.1	1,245	0.97	0.018	1.02	0.41
43	sk54	Skandinavienkai	542	32.4	10.8	1,723	1.25	0.024	1.23	0.49
44	sk6a1	Skandinavienkai	690	31.9	4.2	2,198	4.53	0.086	2.73	1.09
45	sk6a2	Skandinavienkai	690	31.9	4.2	2,198	4.53	0.086	2.73	1.09
46	sk6a3	Skandinavienkai	420	19.3	2.5	1,338	2.74	0.052	1.65	0.66
47	sk6a4	Skandinavienkai	420	19.3	2.5	1,338	2.74	0.052	1.65	0.66
48	sk71	Skandinavienkai	421	25.9	8.4	1,338	1.00	0.019	0.92	0.37
49	sk72	Skandinavienkai	421	25.9	8.4	1,338	1.00	0.019	0.92	0.37
50	sk73	Skandinavienkai	295	17.5	2.9	937	0.66	0.012	0.62	0.25
51	sk7a1	Skandinavienkai	317	18.8	6.3	1,008	0.71	0.013	0.68	0.27
52	sk7a2	Skandinavienkai	169	9.8	3.1	539	0.44	0.008	0.47	0.19
53	sk81	Skandinavienkai	405	23.8	1.8	1,288	0.92	0.018	0.90	0.36
54	sk82	Skandinavienkai	348	20.1	1.7	1,107	0.82	0.016	0.82	0.33

A 2.10 Estimation of Plume Rise

A 2.10.1 Diffusion of Exhaust Gases, Main Engines

Ship			Dissipation of exhaust gases									
			Exhaust gases of main engines (for each chimney)									
No.	Name	Port	Height	Dia-meter	No. chim-neys	Tempe-rature	At sea		Manoeuvring		In port	
							v	R	v	R	v	R
			[m]	[m]		[°C]	[m/s]	[m³/s]	[m/s]	[m³/s]	[m/s]	[m³/s]
1	ct1	CTL (Herrenhafen)	*25*	*0.7*	2	*300*	22.5	4.11	6.2	1.13	0.3	0.06
2	kk1	Konstinkai	*25*	*0.7*	2	*300*	39.1	7.16	10.7	1.97	0.5	0.10
3	kk2	Konstinkai	*25*	*0.7*	2	*300*	7.0	1.28	1.9	0.35	0.1	0.02
4	kk3	Konstinkai	*25*	*0.7*	2	*300*	17.1	3.13	4.7	0.86	0.2	0.04
5	kk4	Konstinkai	*25*	*0.7*	2	*300*	24.2	4.43	6.6	1.22	0.3	0.06
6	kk5	Konstinkai	*25*	*0.7*	2	*300*	25.1	4.60	6.9	1.26	0.3	0.06
7	lk1	Lehmannkai	*25*	*0.7*	2	*300*	11.8	2.16	3.2	0.59	0.2	0.03
8	lk2	Lehmannkai	*25*	*0.7*	2	*300*	11.8	2.16	3.2	0.59	0.2	0.03
9	lk3	Lehmannkai	*25*	*0.7*	2	*300*	3.4	0.63	0.9	0.17	0.0	0.01
10	nk1	Nordlandkai	*25*	*0.7*	2	*300*	22.3	4.09	6.1	1.12	0.3	0.06
11	nk2	Nordlandkai	*25*	*0.7*	2	*300*	19.5	3.58	5.4	0.98	0.3	0.05
12	nk3	Nordlandkai	*25*	*0.7*	2	*300*	20.5	3.75	5.6	1.03	0.3	0.05
13	nk4	Nordlandkai	*25*	*0.7*	2	*300*	22.3	4.09	6.1	1.12	0.3	0.06
14	nk5	Nordlandkai	*25*	*0.7*	2	260	20.8	4.09	8.6	1.68	0.3	0.06
15	nk6	Nordlandkai	*25*	*0.7*	2	260	20.9	4.12	8.6	1.70	0.3	0.06
16	nk7	Nordlandkai	*25*	*0.7*	2	*300*	19.5	3.58	5.4	0.98	0.3	0.05
17	nk8	Nordlandkai	*25*	*0.7*	2	*300*	29.3	5.37	8.1	1.47	0.4	0.07
18	nk9	Nordlandkai	*25*	*0.7*	2	*300*	29.3	5.37	8.1	1.47	0.4	0.07
19	nk10	Nordlandkai	*25*	*0.7*	2	*300*	22.5	4.11	6.2	1.13	0.3	0.06
20	nk11	Nordlandkai	*25*	*0.7*	2	*300*	2.8	0.51	0.8	0.14	0.0	0.01
21	ok1	Ostpreußenkai	*25*	*0.7*	2	*300*	4.8	0.88	1.3	0.24	2.6	0.48
22	ok2	Ostpreußenkai	*25*	*0.7*	2	*300*	0.6	0.12	0.2	0.03	0.3	0.06
23	ok3	Ostpreußenkai	*25*	*0.7*	2	*300*	1.0	0.18	0.8	0.15	0.0	0.00
24	ok4	Ostpreußenkai	*25*	*0.7*	2	*300*	0.6	0.12	0.2	0.03	0.0	0.00
25	ok5	Ostpreußenkai	*25*	*0.7*	2	*300*	31.0	5.68	8.5	1.56	2.1	0.39
26	ok6	Ostpreußenkai	*25*	*0.7*	2	*300*	18.1	3.32	5.0	0.91	1.2	0.23
27	ok7	Ostpreußenkai	*25*	*0.7*	2	*300*	5.2	0.95	4.3	0.78	2.8	0.52
28	sp1	Schlutupkai	*25*	*0.7*	2	*300*	37.2	6.82	10.2	1.87	0.5	0.09
29	sp2	Schlutupkai	*25*	*0.7*	2	*300*	11.9	2.18	3.3	0.60	0.2	0.03
30	sp3	Schlutupkai	*25*	*0.7*	2	*300*	12.1	2.21	3.3	0.61	0.2	0.03
31	sk31	Skandinavienkai	*25*	*0.7*	2	*300*	22.3	4.09	6.1	1.12	0.3	0.06
32	sk32	Skandinavienkai	*25*	*0.7*	2	*300*	9.2	1.68	2.5	0.46	0.1	0.02
33	sk33	Skandinavienkai	*25*	*0.7*	2	*300*	12.3	2.25	3.4	0.62	0.2	0.03
34	sk34	Skandinavienkai	*25*	*0.7*	2	*300*	15.3	2.79	4.2	0.77	0.2	0.04
35	sk35	Skandinavienkai	*25*	*0.7*	2	*300*	20.8	3.81	5.7	1.05	2.9	0.52
36	sk36	Skandinavienkai	*25*	*0.7*	2	*300*	74.1	13.56	20.3	3.72	5.1	0.93
37	sk37	Skandinavienkai	*25*	*0.7*	2	*300*	5.2	0.95	1.4	0.26	2.1	0.39
38	sk41	Skandinavienkai	*25*	*0.7*	2	*300*	26.8	4.91	7.4	1.35	0.4	0.07
39	sk42	Skandinavienkai	*25*	*0.7*	2	*300*	37.2	6.82	10.2	1.87	0.5	0.09
40	sk51	Skandinavienkai	*25*	*0.7*	2	*300*	35.7	6.54	9.8	1.80	0.5	0.09
41	sk52	Skandinavienkai	*25*	*0.7*	2	*300*	35.7	6.54	9.8	1.80	0.5	0.09
42	sk53	Skandinavienkai	40	*0.7*	2	260	33.3	6.55	9.1	1.80	0.5	0.09
43	sk54	Skandinavienkai	*25*	*0.7*	2	*300*	35.7	6.54	9.8	1.80	0.5	0.09
44	sk6a1	Skandinavienkai	*25*	*0.7*	2	*300*	44.2	8.09	12.1	2.22	6.1	1.11
45	sk6a2	Skandinavienkai	*25*	*0.7*	2	*300*	44.2	8.09	12.1	2.22	6.1	1.11
46	sk6a3	Skandinavienkai	*25*	*0.7*	2	*300*	26.6	4.87	7.3	1.34	3.7	0.67
47	sk6a4	Skandinavienkai	*25*	*0.7*	2	*300*	26.6	4.87	7.3	1.34	3.7	0.67
48	sk71	Skandinavienkai	*25*	*0.7*	2	*300*	22.6	4.13	12.4	2.28	0.3	0.06
49	sk72	Skandinavienkai	*25*	*0.7*	2	*300*	22.6	4.13	12.4	2.28	0.3	0.06
50	sk73	Skandinavienkai	24	*0.7*	2	480	21.0	2.93	5.8	0.80	0.3	0.04
51	sk7a1	Skandinavienkai	30	*0.7*	2	350	19.3	3.26	5.3	0.89	0.3	0.04
52	sk7a2	Skandinavienkai	29.5	*0.7*	2	470	23.1	3.26	6.3	0.89	0.3	0.04
53	sk81	Skandinavienkai	32	*0.7*	2	250	22.6	4.54	6.2	1.25	0.3	0.06
54	sk82	Skandinavienkai	32	*0.7*	2	300	25.3	4.63	6.9	1.27	0.3	0.06

A 2.10.2 Diffusion of Exhaust Gases, Auxiliary Engines

Ship			Dissipation of exhaust gases									
			Exhaust gases of auxiliary engines (for each chimney)									
No.	Name	Port	Height	Dia-meter	No. Chim-neys	Tempe-rature	At sea		Manoeuvring		In port	
							v	R	v	R	v	R
			[m]	[m]		[°C]	[m/s]	[m³/s]	[m/s]	[m³/s]	[m/s]	[m³/s]
1	ct1	CTL (Herrenhafen)	*25*	*0.7*	2	*300*	0.9	0.17	1.5	0.28	1.2	0.23
2	kk1	Konstinkai	*25*	*0.7*	2	*300*	3.6	0.66	6.0	1.10	4.8	0.88
3	kk2	Konstinkai	*25*	*0.7*	2	*300*	0.7	0.14	1.2	0.23	1.0	0.18
4	kk3	Konstinkai	*25*	*0.7*	2	*300*	1.4	0.26	2.4	0.44	1.9	0.35
5	kk4	Konstinkai	*25*	*0.7*	2	*300*	1.5	0.27	2.4	0.45	1.9	0.36
6	kk5	Konstinkai	*25*	*0.7*	2	*300*	3.6	0.66	6.0	1.10	4.8	0.88
7	lk1	Lehmannkai	*25*	*0.7*	2	*300*	1.8	0.34	3.1	0.56	2.4	0.45
8	lk2	Lehmannkai	*25*	*0.7*	2	*300*	0.9	0.17	1.5	0.28	1.2	0.22
9	lk3	Lehmannkai	*25*	*0.7*	2	*300*	0.3	0.06	0.5	0.10	0.4	0.08
10	nk1	Nordlandkai	*25*	*0.7*	2	*300*	1.4	0.26	2.3	0.43	1.9	0.34
11	nk2	Nordlandkai	*25*	*0.7*	2	*300*	1.4	0.26	2.3	0.43	1.9	0.34
12	nk3	Nordlandkai	*25*	*0.7*	2	*300*	1.8	0.33	3.0	0.54	2.4	0.43
13	nk4	Nordlandkai	*25*	*0.7*	2	*300*	1.8	0.33	3.0	0.54	2.4	0.43
14	nk5	Nordlandkai	*25*	*0.7*	2	*300*	2.0	0.37	3.4	0.62	2.7	0.49
15	nk6	Nordlandkai	*25*	*0.7*	2	*300*	1.2	0.21	1.9	0.35	1.5	0.28
16	nk7	Nordlandkai	*25*	*0.7*	2	*300*	1.5	0.27	2.5	0.45	2.0	0.36
17	nk8	Nordlandkai	*25*	*0.7*	2	*300*	2.4	0.43	4.0	0.72	3.2	0.58
18	nk9	Nordlandkai	*25*	*0.7*	2	*300*	2.4	0.43	4.0	0.72	3.2	0.58
19	nk10	Nordlandkai	*25*	*0.7*	2	*300*	1.6	0.29	2.7	0.49	2.1	0.39
20	nk11	Nordlandkai	*25*	*0.7*	2	*300*	0.5	0.09	0.8	0.14	0.6	0.12
21	ok1	Ostpreußenkai	*25*	*0.7*	2	*300*	0.0	0.00	0.0	0.00	0.0	0.00
22	ok2	Ostpreußenkai	*25*	*0.7*	2	*300*	0.0	0.00	0.0	0.00	0.0	0.00
23	ok3	Ostpreußenkai	*25*	*0.7*	2	*300*	0.2	0.03	0.3	0.06	0.3	0.05
24	ok4	Ostpreußenkai	*25*	*0.7*	2	*300*	0.0	0.00	0.0	0.00	0.0	0.00
25	ok5	Ostpreußenkai	*25*	*0.7*	2	*300*	2.4	0.43	4.0	0.72	3.2	0.58
26	ok6	Ostpreußenkai	*25*	*0.7*	2	*300*	0.0	0.00	0.0	0.00	0.0	0.00
27	ok7	Ostpreußenkai	*25*	*0.7*	2	*300*	0.0	0.00	0.0	0.00	0.0	0.00
28	sp1	Schlutupkai	*25*	*0.7*	2	*300*	3.9	0.71	6.5	1.19	5.2	0.95
29	sp2	Schlutupkai	*25*	*0.7*	2	*300*	1.7	0.31	2.8	0.51	2.2	0.41
30	sp3	Schlutupkai	*25*	*0.7*	2	*300*	1.2	0.22	2.0	0.37	1.6	0.29
31	sk31	Skandinavienkai	*25*	*0.7*	2	*300*	1.4	0.26	2.3	0.43	1.9	0.34
32	sk32	Skandinavienkai	*25*	*0.7*	2	*300*	0.6	0.11	1.0	0.18	0.8	0.15
33	sk33	Skandinavienkai	*25*	*0.7*	2	*300*	0.9	0.17	1.5	0.28	1.2	0.23
34	sk34	Skandinavienkai	*25*	*0.7*	2	*300*	1.3	0.24	2.2	0.40	1.7	0.32
35	sk35	Skandinavienkai	*25*	*0.7*	2	*300*	0.0	0.00	0.0	0.00	0.0	0.00
36	sk36	Skandinavienkai	*25*	*0.7*	2	*300*	0.0	0.00	0.0	0.00	0.0	0.00
37	sk37	Skandinavienkai	*25*	*0.7*	2	*300*	0.0	0.00	0.0	0.00	0.0	0.00
38	sk41	Skandinavienkai	*25*	*0.7*	2	*300*	3.5	0.64	5.8	1.07	4.7	0.85
39	sk42	Skandinavienkai	*25*	*0.7*	2	*300*	3.9	0.71	6.5	1.19	5.2	0.95
40	sk51	Skandinavienkai	*25*	*0.7*	2	*300*	2.4	0.44	4.0	0.73	3.2	0.59
41	sk52	Skandinavienkai	*25*	*0.7*	2	*300*	2.4	0.44	4.0	0.73	3.2	0.59
42	sk53	Skandinavienkai	*25*	*0.7*	2	*300*	2.1	0.39	3.5	0.65	2.8	0.52
43	sk54	Skandinavienkai	*25*	*0.7*	2	*300*	3.1	0.58	5.2	0.96	4.2	0.77
44	sk6a1	Skandinavienkai	*25*	*0.7*	2	*300*	0.0	0.00	0.0	0.00	0.0	0.00
45	sk6a2	Skandinavienkai	*25*	*0.7*	2	*300*	0.0	0.00	0.0	0.00	0.0	0.00
46	sk6a3	Skandinavienkai	*25*	*0.7*	2	*300*	0.0	0.00	0.0	0.00	0.0	0.00
47	sk6a4	Skandinavienkai	*25*	*0.7*	2	*300*	0.0	0.00	0.0	0.00	0.0	0.00
48	sk71	Skandinavienkai	*25*	*0.7*	2	*300*	2.5	0.46	4.1	0.76	3.3	0.61
49	sk72	Skandinavienkai	*25*	*0.7*	2	*300*	2.5	0.46	4.1	0.76	3.3	0.61
50	sk73	Skandinavienkai	*25*	*0.7*	2	*300*	1.7	0.32	2.9	0.53	2.3	0.42
51	sk7a1	Skandinavienkai	*25*	0.7	2	320	1.9	0.34	3.2	0.56	2.6	0.45
52	sk7a2	Skandinavienkai	*25*	*0.7*	2	*300*	0.9	0.16	1.5	0.27	1.2	0.22
53	sk81	Skandinavienkai	*25*	*0.7*	2	*300*	2.3	0.42	3.9	0.71	3.1	0.56
54	sk82	Skandinavienkai	*25*	*0.7*	2	*300*	1.9	0.35	3.2	0.59	2.6	0.47

A 2.11 Total Emissions of Shipping

A 2.11.1 Actual Scenario (Tons per Year)

Port	Total emissions within area under investigation per year [t/a]					
	CO_2	NOx	SO_2	Benzene	PM_{10}	Soot
Skandinavienkai						
Stay in port						
Berth 2	1,269	23.5	10.3	0.018	0.91	0.37
Berth 3	1,714	29.9	15.6	0.026	1.44	0.58
Berth 4	3,851	71.8	30.2	0.051	2.50	1.00
Berth 5	6,251	115.8	42.3	0.090	4.82	1.93
Berth 6	5,215	75.1	9.9	0.203	6.43	2.57
Berth 6a	7,428	107.8	14.1	0.291	9.21	3.68
Berth 7	4,794	92.0	41.8	0.067	3.27	1.31
Berth 7a	2,649	49.1	16.1	0.037	1.98	0.79
Berth 8	2,574	47.2	5.2	0.036	1.85	0.74
Sum stay in port	**35,745**	**612.2**	**185.4**	**0.818**	**32.42**	**12.97**
Ship movements	10,748	181.5	91.2	0.368	21.69	8.68
Sum	**46,493**	**793.7**	**276.6**	**1.186**	**54.12**	**21.65**
Ostpreußenkai						
Stay in port	194	2.8	1.5	0.006	0.24	0.09
Ship movements	7	0.1	0.1	0.000	0.01	0.00
Sum	**201**	**2.9**	**1.6**	**0.006**	**0.25**	**0.10**
Other ports						
Ship movements	4,667	76.9	59.4	0.133	10.39	4.16
Total sum	**51,360**	**873.5**	**337.6**	**1.325**	**64.75**	**25.90**

A 2.11.2 Actual Scenario, Reduction Concept 1a (Tons per Year)

Port	Total emissions within area under investigation per year [t/a]					
	CO_2	NOx	SO_2	Benzene	PM_{10}	Soot
Skandinavienkai						
Stay in port						
Berth 2	240	2.7	3.9	0.006	0.47	0.19
Berth 3	423	4.2	7.0	0.010	0.74	0.29
Berth 4	629	6.9	10.1	0.015	1.10	0.44
Berth 5	1,247	15.0	17.1	0.035	2.65	1.06
Berth 6	732	8.2	1.4	0.023	0.74	0.30
Berth 6a	976	11.5	1.9	0.032	1.03	0.41
Berth 7	755	10.7	9.4	0.023	1.52	0.61
Berth 7a	514	6.1	2.7	0.014	1.05	0.42
Berth 8	510	5.6	3.2	0.013	0.95	0.38
Sum stay in port	**6,026**	**70.9**	**56.8**	**0.171**	**10.25**	**4.10**
Ship movements	10,748	181.5	91.2	0.368	21.69	8.68
Sum	**16,774**	**252.4**	**148.0**	**0.538**	**31.94**	**12.78**
Ostpreußenkai						
Stay in port	194	2.8	1.5	0.006	0.24	0.09
Ship movements	7	0.1	0.1	0.000	0.01	0.00
Sum	**201**	**2.9**	**1.6**	**0.006**	**0.25**	**0.10**
Other ports						
Ship movements	4,667	76.9	59.4	0.133	10.39	4.16
Total sum	**21,641**	**332.2**	**209.0**	**0.678**	**42.58**	**17.03**

A 2.11.3 Actual Scenario, Reduction Concept 1b (Tons per Year)

Port	Total emissions within area under investigation per year [t/a]					
	CO_2	NOx	SO_2	Benzene	PM_{10}	Soot
Skandinavienkai						
Stay in port						
Berth 2	163	2.5	2.5	0.005	0.43	0.17
Berth 3	246	3.6	3.8	0.008	0.65	0.26
Berth 4	401	6.2	5.9	0.012	0.99	0.40
Berth 5	915	14.0	12.7	0.031	2.49	1.00
Berth 6	522	7.5	1.0	0.020	0.64	0.26
Berth 6a	743	10.8	1.4	0.029	0.92	0.37
Berth 7	519	9.9	6.3	0.020	1.40	0.56
Berth 7a	367	5.6	1.8	0.012	0.99	0.39
Berth 8	332	5.0	3.1	0.011	0.87	0.35
Sum stay in port	**4,209**	**65.1**	**38.5**	**0.149**	**9.38**	**3.75**
Ship movements	10,748	181.5	91.2	0.368	21.69	8.68
Sum	**14,956**	**246.6**	**129.7**	**0.516**	**31.08**	**12.43**
Ostpreußenkai						
Stay in port	194	2.8	1.5	0.006	0.24	0.09
Ship movements	7	0.1	0.1	0.000	0.01	0.00
Sum	**201**	**2.9**	**1.6**	**0.006**	**0.25**	**0.10**
Other ports						
Ship movements	4,667	76.9	59.4	0.133	10.39	4.16
Total sum	**19,824**	**326.4**	**190.6**	**0.656**	**41.71**	**16.69**

A 2.11.4 Actual Scenario, Reduction Concept 2 (Tons per Year)

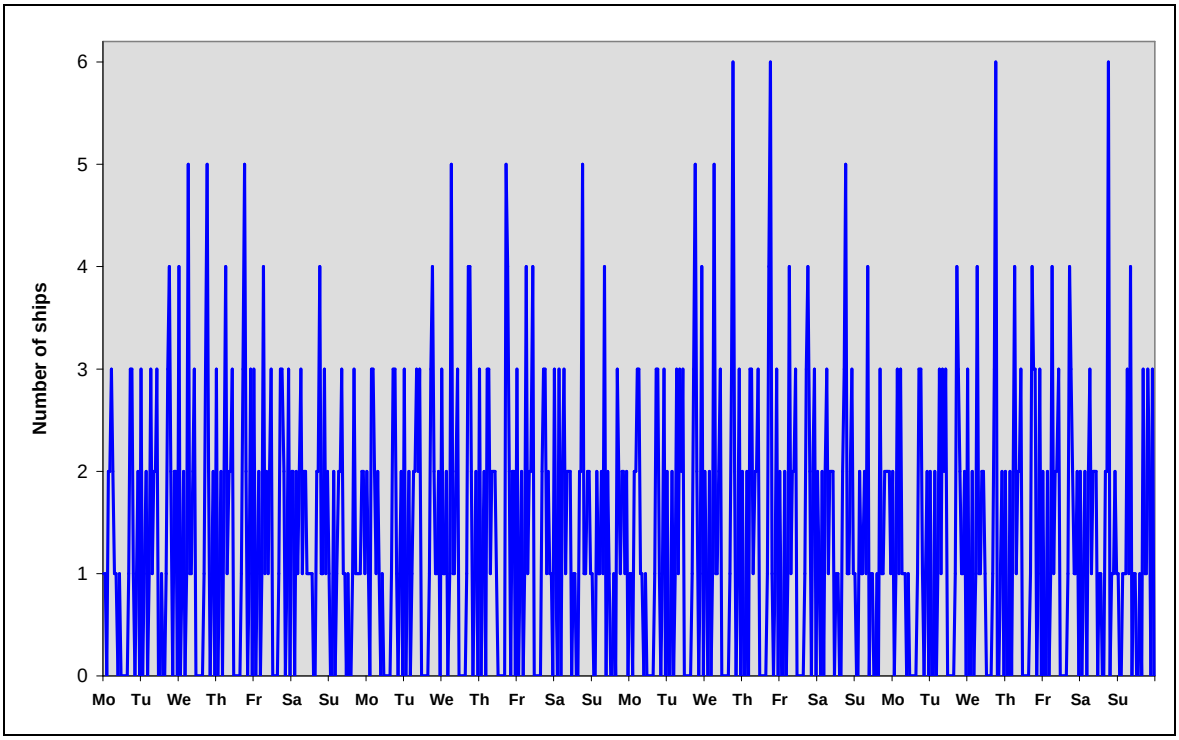
Port	Total emissions within area under investigation per year [t/a]					
	CO_2	NOx	SO_2	Benzene	PM_{10}	Soot
Skandinavienkai						
Stay in port						
Berth 2	1,269	23.5	8.0	0.018	0.91	0.37
Berth 3	1,714	29.9	10.8	0.026	1.44	0.58
Berth 4	3,851	71.8	24.2	0.051	2.50	1.00
Berth 5	6,251	115.8	32.4	0.090	4.82	1.93
Berth 6	5,215	75.1	9.9	0.203	6.43	2.57
Berth 6a	7,428	107.8	14.1	0.291	9.21	3.68
Berth 7	4,794	92.0	26.8	0.067	3.27	1.31
Berth 7a	2,649	49.1	16.1	0.037	1.98	0.79
Berth 8	2,574	47.2	3.8	0.036	1.85	0.74
Sum stay in port	**35,745**	**612.2**	**146.0**	**0.818**	**32.42**	**12.97**
Ship movements	10,748	181.5	49.1	0.368	21.69	8.68
Sum	**46,493**	**793.7**	**195.1**	**1.186**	**54.12**	**21.65**
Ostpreußenkai						
Stay in port	194	2.85	1.23	0.006	0.237	0.095
Ship movements	7	0.10	0.04	0.000	0.011	0.004
Sum	**201**	**2.95**	**1.27**	**0.006**	**0.248**	**0.099**
Other ports						
Ship movements	4,667	76.9	28.4	0.133	10.39	4.16
Total sum	**51,360**	**873.5**	**224.7**	**1.325**	**64.75**	**25.90**

A 3 Emissions of Shipping (Forecast Scenario)

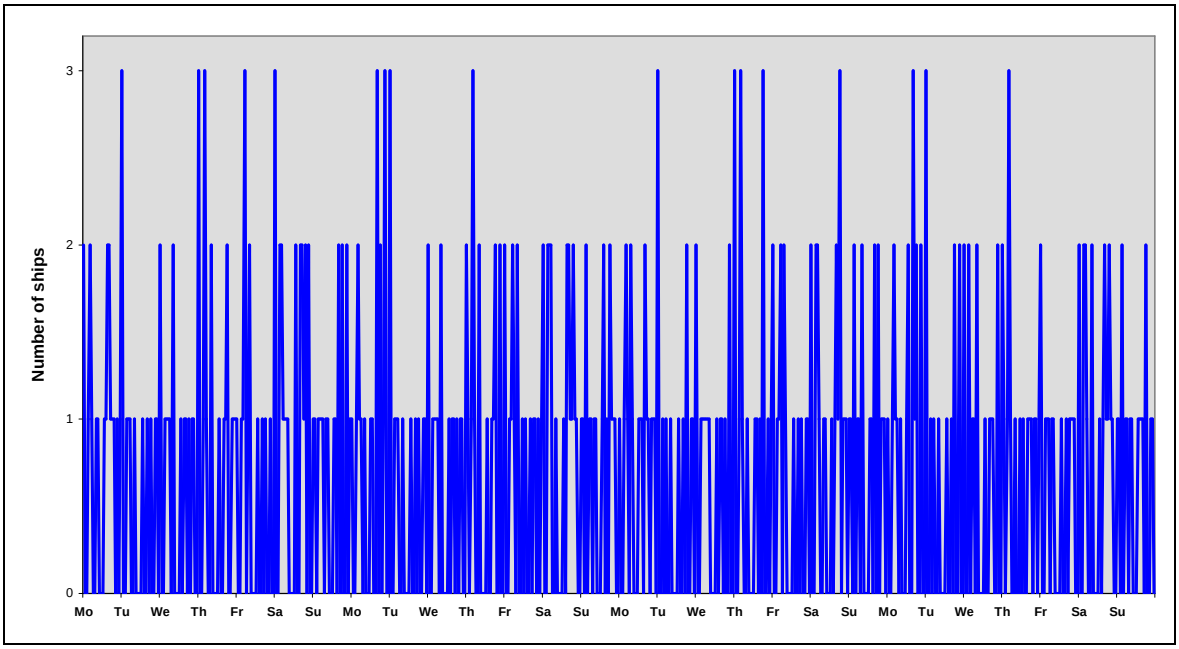
A 3.1 Traffic Volume of Regular Shipping

(Model Year, 4-Week-Period)

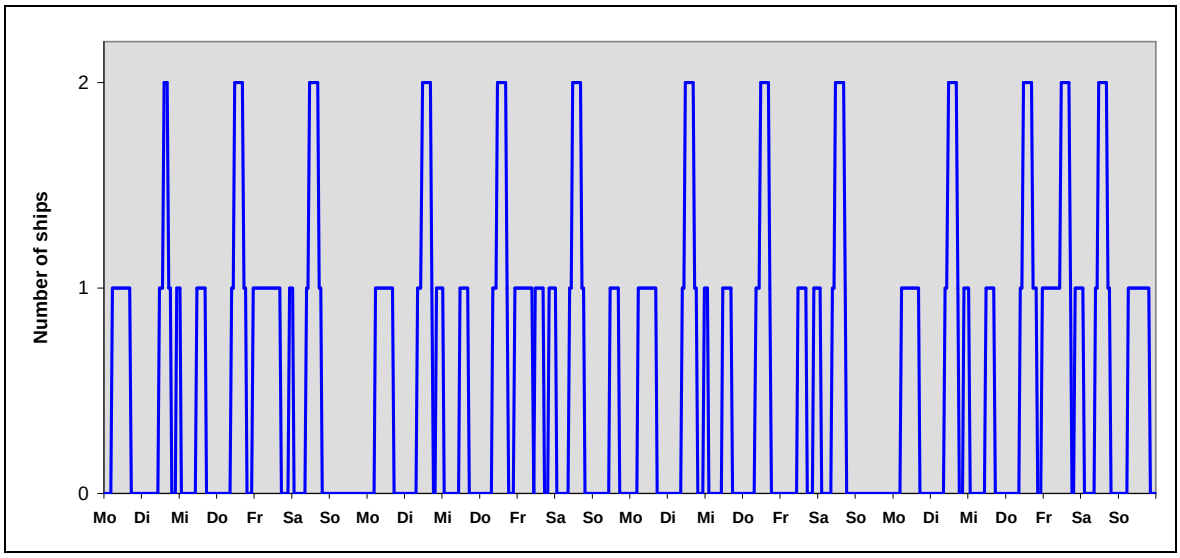
A 3.1.1 Shipping According to the Skandinavienkai



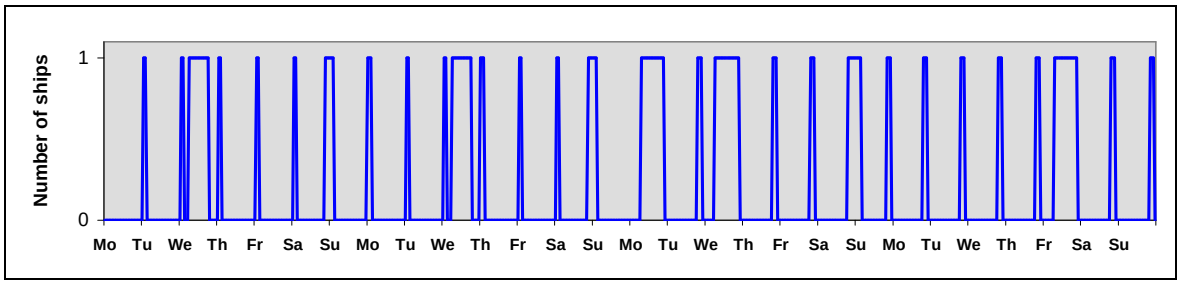
A 3.1.2 Shipping According to Other Ports of Lübeck (south of Skandinavienkai)



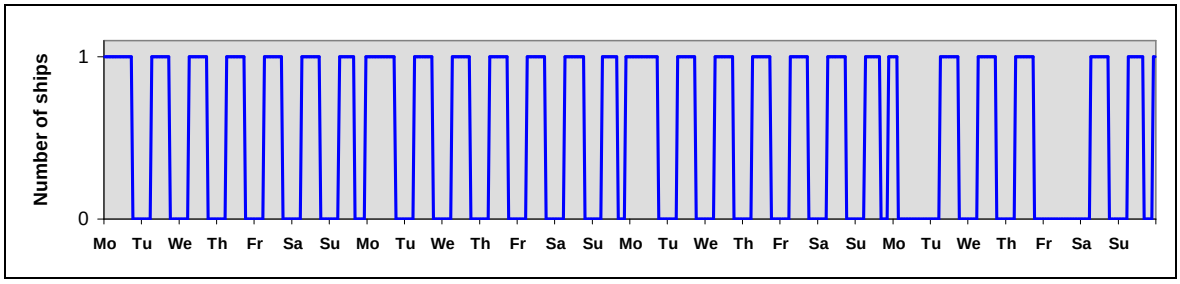
A 3.1.3 Stay at Berth, Skandinavienkai, Berths 2/3



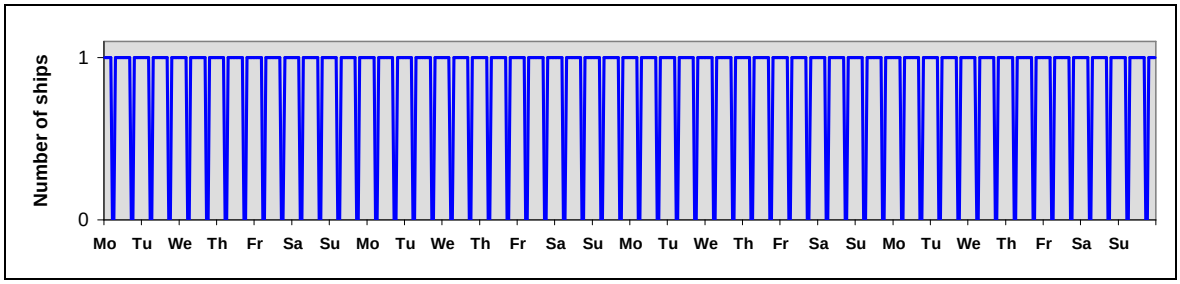
A 3.1.4 Stay at Berth, Skandinavienkai, Berth 4



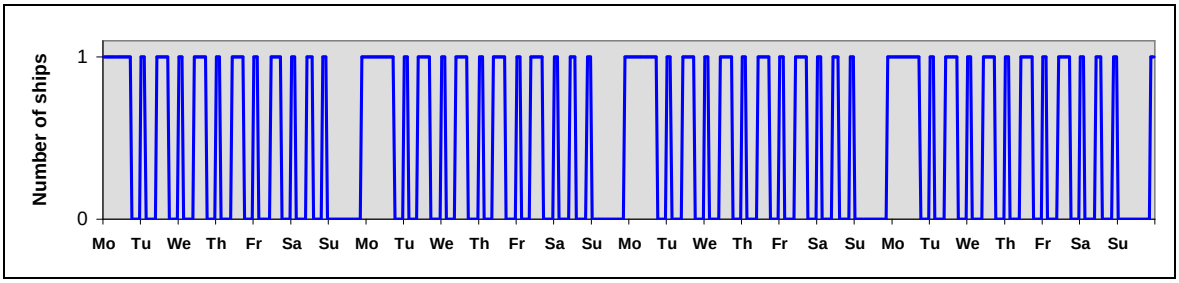
A 3.1.5 Stay at Berth, Skandinavienkai, Berth 5



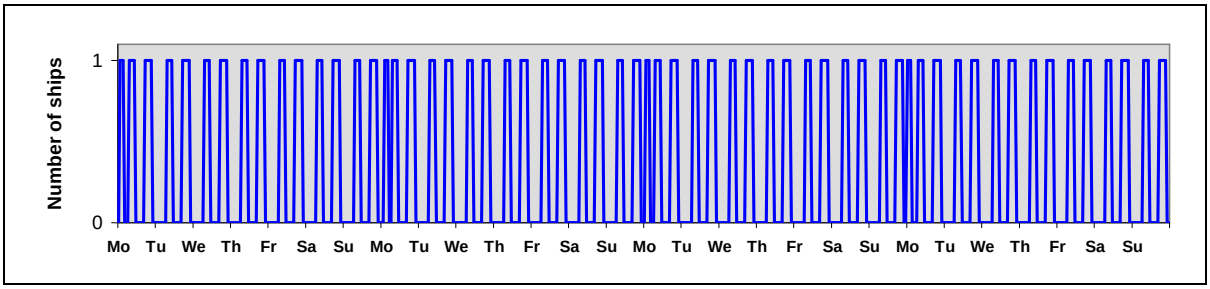
A 3.1.6 Stay at Berth, Skandinavienkai, Berth 5a



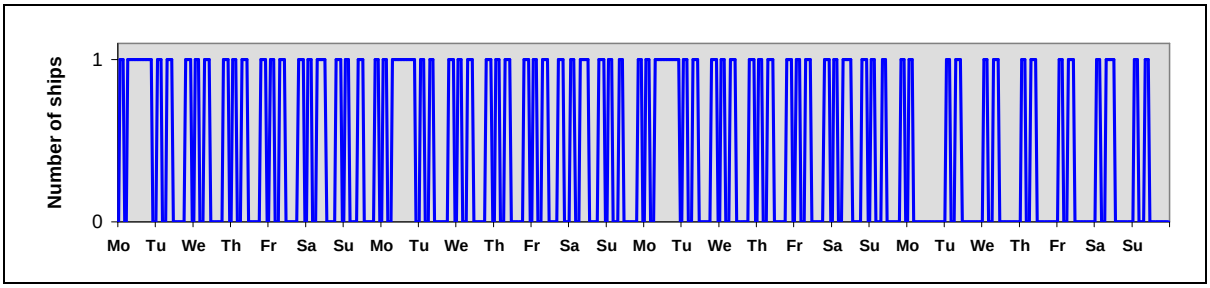
A 3.1.7 Stay at Berth, Skandinavienkai, Berth 6



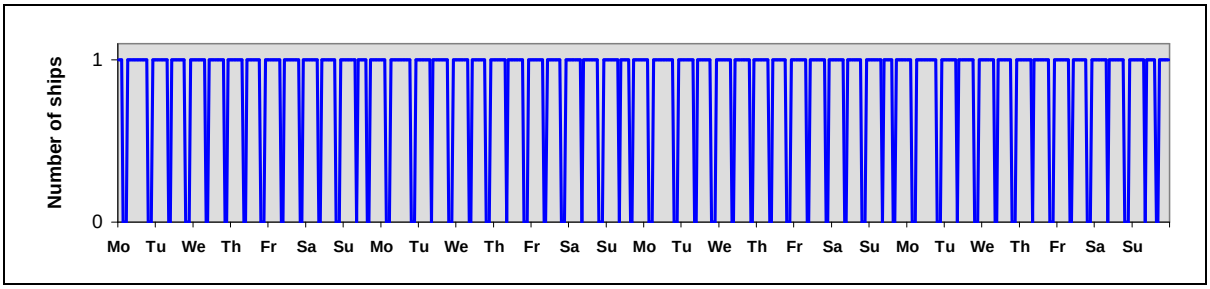
A 3.1.8 Stay at Berth, Skandinavienkai, Berth 6a



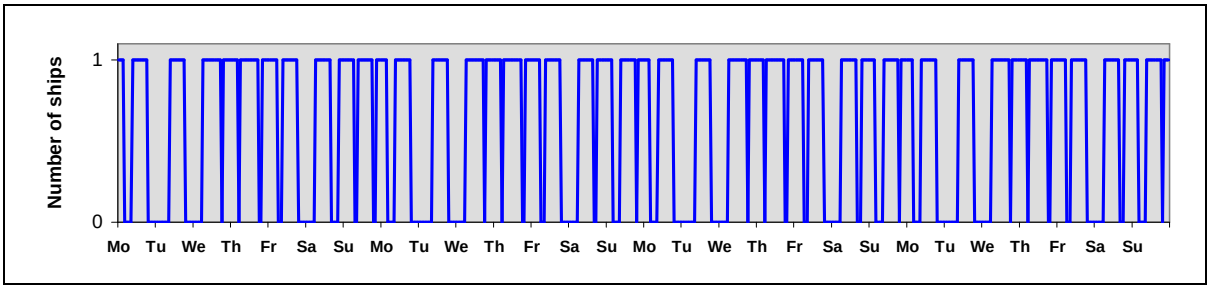
A 3.1.9 Stay at Berth, Skandinavienkai, Berth 7



A 3.1.10 Stay at Berth, Skandinavienkai, Berth 7a

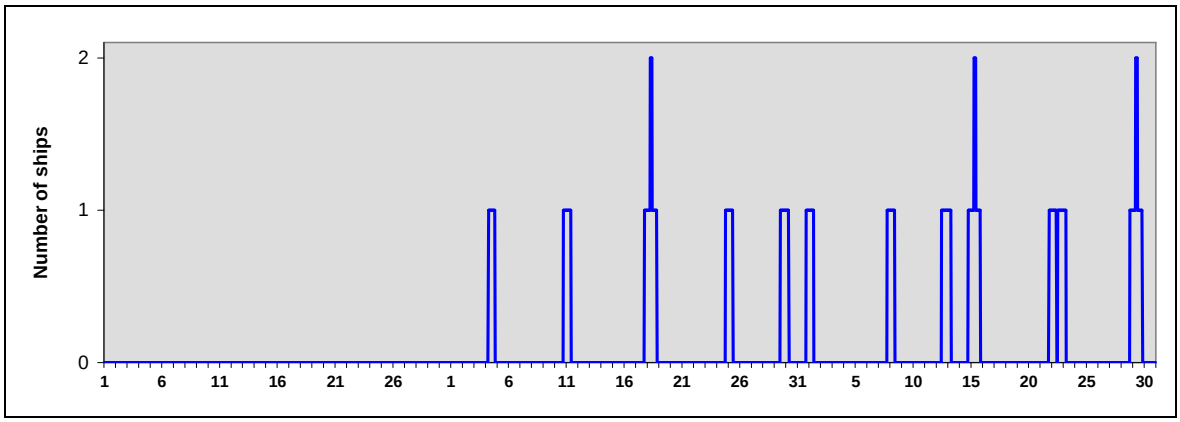


A 3.1.11 Stay at Berth, Skandinavienkai, Berth 8

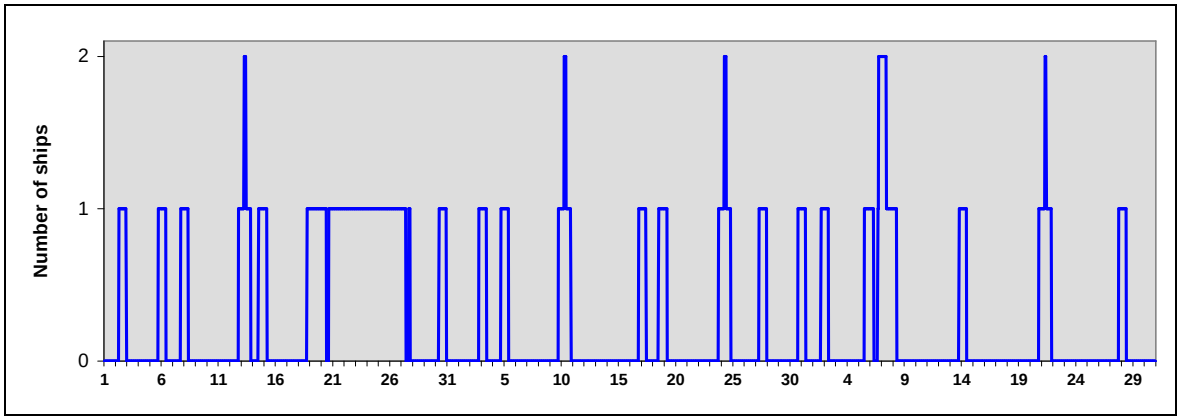


A 3.2 Irregular Shipping (Year)

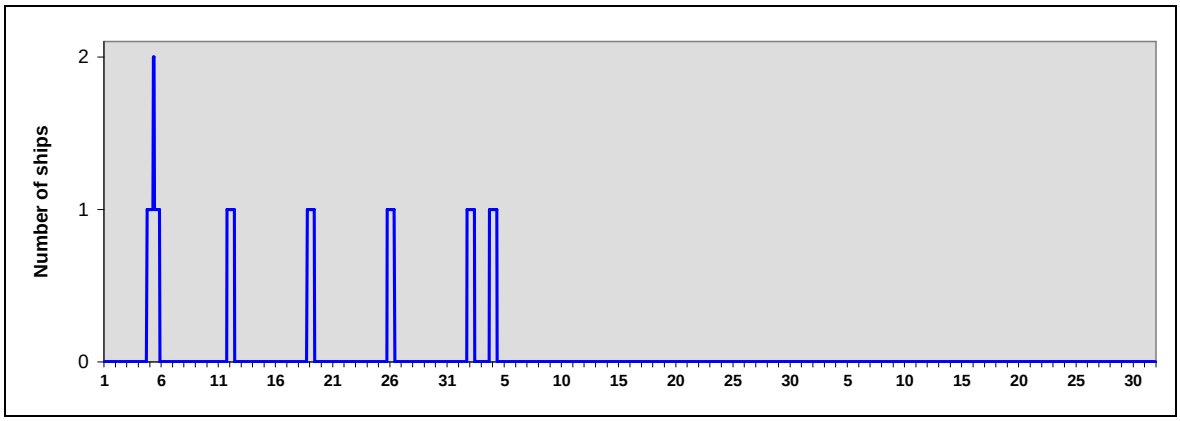
A 3.2.1 Stay at Berth, Ostpreußenkai, 2. Quarter (April to June)



A 3.2.2 Stay at Berth, Ostpreußenkai, 3. Quarter (July to September)



A 3.2.3 Stay at Berth, Ostpreußenkai, 4. Quarter (September to December)



A 3.3 Illustration of 4-Week-Period for Shipping

(Reference Month July), for Denotation see Appendix A 3.6.1

Day	h	Stay at berth, Skandinavienkai										Ship movements from/to Skandinavienkai										Ship movements from/to other ports			Ostpreußenkai	
		No. 2	No. 3	No. 4	No. 5	No. 5 a	No. 6	No. 6a	No. 7	No. 7a	No. 8														Stay at berth	Move-ments
Mon	1				sk52	sk100	sk6a3			sk100	sk81	sk73										nk3		nn100		
	2				sk52	sk100	sk6a3	sk6a4	sk73	sk100	sk81	sk6a4														
	3				sk52	sk100	sk6a3	sk6a4	sk73	sk100	sk81															
	4				sk52	sk100	sk6a3	sk6a4	sk73		sk81	sk73									sk100			nn100		
	5				sk52	sk100	sk6a3					sk6a4	sk81									ct1	nk8			
	6	sk34			sk52		sk6a3					sk34	sk7a2								sk100			nn100		
	7	sk34			sk52		sk6a3		sk71	sk7a2			sk71								sk100					
	8	sk34			sk52	sk100	sk6a3	sk6a2	sk71	sk7a2		sk6a2														
	9	sk34			sk52	sk100	sk6a3	sk6a2	sk71	sk7a2											sk100			nn100		
	10	sk34			sk52	sk100	sk6a3	sk6a2	sk71	sk7a2	sk100											lk2				
	11	sk34			sk52	sk100	sk6a3	sk6a2	sk71	sk7a2	sk100	sk6a2														
	12	sk34			sk52	sk100	sk6a3		sk71	sk7a2	sk100															
	13	sk34			sk52	sk100	sk6a3		sk71	sk7a2	sk100															
	14	sk34			sk52	sk100	sk6a3		sk71	sk7a2	sk100													nn100		
	15	sk34			sk52	sk100	sk6a3		sk71	sk7a2	sk100											kk1				
	16	sk34			sk52	sk100	sk6a3		sk71	sk7a2	sk100											lk3	sp2			
	17	sk34			sk52	sk100	sk6a3		sk71	sk7a2	sk100	sk6a1										nk7		nn100		
	18				sk52		sk6a3	sk6a1	sk71	sk7a2	sk100	sk34	sk6a3								sk100	nk8				
	19							sk6a1	sk71	sk7a2	sk100	sk52	sk7a2								sk100			nn100		
	20					sk100		sk6a1	sk71												sk100	nk3				
	21					sk100		sk6a1	sk71																	
	22					sk100		sk6a1	sk71												sk100			nn100		
	23					sk100				sk100		sk6a1	sk71													
	24					sk100				sk100												lk2				
Tue	1					sk100	sk6a4			sk100		sk41	sk6a4	sk73								ct1	kk5	nn100		
	2			sk41		sk100	sk6a4		sk73	sk100																
	3			sk41		sk100	sk6a4		sk73	sk100		sk41														
	4					sk100			sk73	sk100		sk73	sk6a4											nn100		
	5					sk100				sk100												nk6				
	6									sk100											sk100			nn100		
	7				sk51					sk100		sk51	sk72								sk100					
	8				sk51	sk100		sk6a2	sk72	sk100		sk6a2														
	9				sk51	sk100		sk6a2	sk72										sk100	sk100				nn100		
	10				sk51	sk100		sk6a2	sk72		sk100	sk6a3		sk7a1												
	11				sk51	sk100	sk6a3	sk6a2	sk72	sk7a1	sk100	sk34	sk6a2	sk72												
	12	sk34			sk51	sk100	sk6a3			sk7a1	sk100															
	13	sk34			sk51	sk100	sk6a3			sk7a1	sk100															
	14	sk34			sk51	sk100	sk6a3			sk7a1	sk100	sk32												nn100		
	15	sk34	sk32		sk51	sk100	sk6a3			sk7a1	sk100															
	16	sk34	sk32		sk51	sk100	sk6a3			sk7a1	sk100															
	17	sk34	sk32		sk51	sk100	sk6a3			sk7a1	sk100	sk6a1												nn100		
	18		sk32		sk51		sk6a3	sk6a1		sk7a1	sk100	sk34	sk6a3								sk100					
	19		sk32					sk6a1		sk7a1	sk100	sk32	sk51	sk7a1							sk100			nn100		
	20					sk100		sk6a1	sk71			sk71									sk100					
	21					sk100		sk6a1	sk71																	
	22					sk100		sk6a1	sk71			sk33									sk100			nn100		
	23		sk33			sk100			sk71	sk100		sk6a1	sk71									nk7				
	24		sk33			sk100				sk100																
Wed	1		sk33			sk100	sk6a4			sk100		sk33	sk41	sk6a4	sk73							kk3		nn100		
	2			sk41		sk100	sk6a4		sk73	sk100																
	3			sk41		sk100	sk6a4		sk73	sk100		sk41														
	4					sk100			sk73	sk100		sk6a4	sk73											nn100		
	5					sk100				sk100												kk1				
	6									sk100											sk100			nn100		
	7			sk42	sk53					sk100	sk82	sk42	sk53	sk72	sk82						sk100	lk1				
	8			sk42	sk53	sk100		sk6a2	sk72	sk100	sk82	sk6a2												ok6		ok6
	9			sk42	sk53	sk100		sk6a2	sk72		sk82										sk100	nk10		nn100	ok6	
	10			sk42	sk53	sk100		sk6a2	sk72		sk82	sk6a3	sk7a2												ok6	
	11			sk42	sk53	sk100	sk6a3	sk6a2	sk72	sk7a2	sk82	sk34	sk6a2	sk72											ok6	
	12	sk34		sk42	sk53	sk100	sk6a3			sk7a2	sk82														ok6	
	13	sk34		sk42	sk53	sk100	sk6a3			sk7a2	sk82														ok6	
	14	sk34		sk42	sk53	sk100	sk6a3			sk7a2	sk82													nn100	ok6	
	15	sk34		sk42	sk53	sk100	sk6a3			sk7a2	sk82														ok6	
	16	sk34		sk42	sk53	sk100	sk6a3			sk7a2	sk82											lk1			ok6	
	17	sk34		sk42	sk53	sk100	sk6a3			sk7a2	sk82	sk6a1												nn100	ok6	
	18			sk42	sk53		sk6a3	sk6a1		sk7a2	sk82	sk34	sk6a3								sk100				ok6	
	19			sk42				sk6a1		sk7a2		sk53	sk71	sk82		sk100	sk100							nn100	ok6	
	20					sk100		sk6a1	sk71	sk7a2	sk100	sk42	sk7a2												ok6	
	21					sk100		sk6a1	sk71		sk100											nk6			ok6	
	22					sk100		sk6a1	sk71		sk100										sk100			nn100	ok6	
	23					sk100			sk71	sk100	sk100	sk6a1	sk71												ok6	
	24					sk100				sk100	sk100															ok6
Thu	1					sk100	sk6a4			sk100	sk100	sk41	sk6a4	sk73								kk1	nk10	nn100		
	2			sk41		sk100	sk6a4		sk73	sk100	sk100															
	3			sk41		sk100	sk6a4		sk73	sk100	sk100	sk41														
	4					sk100			sk73	sk100	sk100	sk6a4	sk73											nn100		
	5					sk100				sk100	sk100											kk4	nk9	sp3		
	6									sk100											sk100			nn100		
	7				sk54					sk100	sk81	sk54	sk72	sk81							sk100					
	8				sk54	sk100		sk6a2	sk72	sk100	sk81	sk6a2														
	9				sk54	sk100		sk6a2	sk72		sk81	sk32									sk100	nk4		nn100		
	10		sk32		sk54	sk100		sk6a2	sk72		sk81	sk6a3	sk7a1													
	11		sk32		sk54	sk100	sk6a3	sk6a2	sk72	sk7a1	sk81	sk34	sk6a2	sk72												
	12	sk34	sk32		sk54	sk100	sk6a3			sk7a1	sk81															
	13	sk34	sk32		sk54	sk100	sk6a3			sk7a1	sk81															
	14	sk34	sk32		sk54	sk100	sk6a3			sk7a1	sk81													nn100		
	15	sk34	sk32		sk54	sk100	sk6a3			sk7a1	sk81															
	16	sk34	sk32		sk54	sk100	sk6a3			sk7a1	sk81															
	17	sk34	sk32		sk54	sk100	sk6a3			sk7a1	sk81	sk6a1												nn100		
	18		sk32		sk54		sk6a3	sk6a1		sk7a1	sk81	sk34	sk6a3								sk100	sp3				
	19		sk32					sk6a1		sk7a1		sk32	sk54	sk71	sk81						sk100	nk9		nn100		
	20					sk100		sk6a1	sk71			sk7a1									sk100					
	21					sk100		sk6a1	sk71		sk100															
	22					sk100		sk6a1	sk71		sk100										sk100			nn100		
	23					sk100			sk71	sk100	sk100	sk31	sk6a1	sk71								lk2				
	24		sk31			sk100				sk100	sk100											kk4				

Illustration of 4-Week-Period for Shipping (continued)

Day	h	Stay at berth, Skandinavienkai										Ship movements from/to Skandinavienkai					Ship movements from/to other ports			Ostpreußenkai	
		No. 2	No. 3	No. 4	No. 5	No. 5 a	No. 6	No. 6a	No. 7	No. 7a	No. 8									Stay at berth	Move-ments
Fri	1		sk31			sk100	sk6a4			sk100	sk100	sk41	sk6a4	sk73					nn100		
	2		sk31	sk41		sk100	sk6a4		sk73	sk100	sk100										
	3		sk31	sk41		sk100	sk6a4		sk73	sk100	sk100	sk41									
	4		sk31			sk100			sk73	sk100	sk100	sk6a4	sk73						nn100		
	5		sk31			sk100				sk100	sk100						kk5				
	6		sk31							sk100	sk100					sk100	lk2	lk3	nn100		
	7		sk31		sk52					sk100		sk52	sk72			sk100	sk100				
	8		sk31		sk52	sk100		sk6a2	sk72	sk100		sk6a2					nk11				
	9		sk31		sk52	sk100		sk6a2	sk72							sk100	sk100	ct1		nn100		
	10		sk31		sk52	sk100		sk6a2	sk72		sk100	sk7a2									
	11		sk31		sk52	sk100		sk6a2	sk72	sk7a2	sk100	sk6a3	sk72								
	12	sk34			sk52	sk100	sk6a3			sk7a2	sk100	sk31	sk34	sk6a2							
	13	sk34			sk52	sk100	sk6a3			sk7a2	sk100										
	14	sk34			sk52	sk100	sk6a3			sk7a2	sk100								nn100		
	15	sk34			sk52	sk100	sk6a3			sk7a2	sk100										
	16	sk34			sk52	sk100	sk6a3			sk7a2	sk100										
	17	sk34			sk52	sk100	sk6a3			sk7a2	sk100	sk6a1							nn100		
	18				sk52		sk6a3	sk6a1		sk7a2	sk100	sk34	sk6a3			sk100					
	19							sk6a1		sk7a2	sk100	sk52	sk71			sk100			nn100		
	20					sk100		sk6a1	sk71	sk7a2		sk7a2				sk100					
	21					sk100		sk6a1	sk71												
	22					sk100		sk6a1	sk71							sk100			nn100		
	23		sk33			sk100			sk71	sk100		sk33	sk6a1	sk71							
	24		sk33			sk100				sk100											
Sat	1		sk33			sk100	sk6a4			sk100		sk6a4	sk73				kk5	lk3	nn100		
	2			sk41		sk100	sk6a4		sk73	sk100		sk33	sk41								
	3			sk41		sk100	sk6a4		sk73	sk100											
	4					sk100			sk73	sk100		sk6a4	sk73				kk3		nn100		
	5					sk100				sk100		sk41					nk8	ct1			
	6									sk100						sk100	sk100		nn100		
	7				sk51					sk100	sk100	sk51	sk72			sk100	nk5				
	8				sk51	sk100		sk6a2	sk72	sk100	sk100	sk6a2					kk2				
	9				sk51	sk100		sk6a2	sk72		sk100	sk32				sk100			nn100		
	10		sk32		sk51	sk100		sk6a2	sk72		sk100	sk6a3	sk7a1								
	11		sk32		sk51	sk100	sk6a3	sk6a2	sk72	sk7a1	sk100	sk6a2									
	12	sk34	sk32		sk51	sk100	sk6a3		sk72	sk7a1	sk100	sk34									
	13	sk34	sk32		sk51	sk100	sk6a3		sk72	sk7a1	sk100		sk72								
	14	sk34	sk32		sk51	sk100	sk6a3			sk7a1	sk100	sk6a3					kk3		nn100		
	15	sk34	sk32		sk51	sk100				sk7a1	sk100										
	16	sk34	sk32		sk51	sk100				sk7a1	sk100										
	17	sk34	sk32		sk51	sk100				sk7a1		sk6a1				sk100	lk1		nn100		
	18		sk32		sk51			sk6a1		sk7a1		sk34				sk100	nk4	nk11			
	19		sk32					sk6a1		sk7a1		sk32	sk51	sk7a1		sk100			nn100	ok3	ok3
	20					sk100		sk6a1	sk71			sk71					kk2	nk8		ok3	
	21					sk100	sk6a4	sk6a1	sk71			sk6a4								ok3	
	22			sk42		sk100	sk6a4	sk6a1	sk71		sk82	sk42	sk82			sk100	nk5		nn100	ok3	
	23			sk42		sk100	sk6a4		sk71	sk100	sk82	sk6a1								ok3	
	24			sk42		sk100				sk100	sk82	sk6a4	sk71							ok3	
Sun	1			sk42		sk100				sk100	sk82	sk73							nn100	ok3	
	2			sk42		sk100			sk73	sk100	sk82						lk1			ok3	
	3			sk42		sk100			sk73	sk100	sk82									ok3	
	4					sk100			sk73	sk100	sk82	sk42	sk73						nn100	ok3	
	5					sk100				sk100	sk82						kk1			ok3	
	6									sk100	sk82					sk100			nn100	ok3	
	7				sk53					sk100	sk82	sk53				sk100	nk1			ok3	
	8				sk53	sk100		sk6a2		sk100		sk6a2	sk82							ok3	
	9				sk53	sk100		sk6a2				sk7a2				sk100	sk100		nn100	ok3	
	10				sk53	sk100		sk6a2	sk72	sk7a2	sk100	sk72					sp1			ok3	ok3
	11				sk53	sk100		sk6a2	sk72	sk7a2	sk100	sk6a2									
	12				sk53	sk100			sk72	sk7a2	sk100										
	13				sk53	sk100			sk72	sk7a2	sk100	sk72									
	14				sk53	sk100				sk7a2	sk100								nn100		
	15				sk53	sk100				sk7a2	sk100						kk1				
	16				sk53	sk100					sk100	sk7a2									
	17					sk100					sk100	sk53	sk6a1			sk100	kk4		nn100		
	18							sk6a1		sk100	sk100					sk100					
	19							sk6a1		sk100	sk100					sk100	nk1		nn100		
	20					sk100		sk6a1		sk100						sk100					
	21					sk100		sk6a1	sk71	sk100		sk71									
	22					sk100	sk6a4	sk6a1	sk71	sk100	sk81	sk6a4	sk81				nk3		nn100		
	23					sk100	sk6a4		sk71	sk100	sk81	sk54	sk6a1								
	24				sk54	sk100	sk6a4			sk100	sk81		sk71				lk3				
Mon	1			sk41	sk54	sk100	sk6a4			sk100	sk81	sk41	sk73						nn100		
	2			sk41	sk54	sk100	sk6a4		sk73	sk100	sk81	sk6a3									
	3			sk41	sk54	sk100	sk6a4	sk6a3	sk73	sk100	sk81										
	4				sk54	sk100	sk6a4	sk6a3	sk73		sk81	sk41	sk73			sk100			nn100		
	5				sk54	sk100	sk6a4	sk6a3				sk34	sk6a3	sk81			nk9	nk10			
	6		sk34		sk54		sk6a4					sk7a1				sk100			nn100		
	7		sk34		sk54		sk6a4			sk7a1						sk100	lk2				
	8		sk34		sk54	sk100	sk6a4	sk6a2	sk72	sk7a1		sk6a2	sk72								
	9		sk34		sk54	sk100	sk6a4	sk6a2	sk72	sk7a1						sk100			nn100		
	10		sk34		sk54	sk100	sk6a4	sk6a2	sk72	sk7a1	sk100										
	11		sk34		sk54	sk100	sk6a4	sk6a2	sk72	sk7a1	sk100	sk6a2									
	12		sk34		sk54	sk100	sk6a4		sk72	sk7a1	sk100										
	13		sk34		sk54	sk100	sk6a4		sk72	sk7a1	sk100						sp1				
	14		sk34		sk54	sk100	sk6a4		sk72	sk7a1	sk100								nn100		
	15		sk34		sk54	sk100	sk6a4		sk72	sk7a1	sk100										
	16		sk34		sk54	sk100	sk6a4		sk72	sk7a1	sk100										
	17		sk34		sk54	sk100	sk6a4		sk72	sk7a1	sk100	sk6a1					kk5	nk7	nn100		
	18				sk54		sk6a4	sk6a1	sk72	sk7a1	sk100	sk34	sk6a4			sk100				ok1	ok1
	19							sk6a1	sk72	sk7a1	sk100	sk54	sk7a1			sk100	nk3		nn100	ok1	
	20					sk100		sk6a1	sk72							sk100				ok1	
	21					sk100		sk6a1	sk72								lk3			ok1	
	22					sk100		sk6a1	sk72							sk100	lk2	nk9	nn100	ok1	
	23					sk100				sk100		sk6a1	sk72							ok1	
	24					sk100				sk100										ok1	

Illustration of 4-Week-Period for Shipping (continued)

Day	h	Stay at berth, Skandinavienkai										Ship movements from/to Skandinavienkai						Ship movements from/to other ports			Ostpreußenkai	
		No. 2	No. 3	No. 4	No. 5	No. 5 a	No. 6	No. 6a	No. 7	No. 7a	No. 8										Stay at berth	Move-ments
Tue	1					sk100	sk6a3			sk100		sk41	sk6a3	sk73				kk4	nk10	nn100	ok1	
	2			sk41		sk100	sk6a3		sk73	sk100											ok1	
	3			sk41		sk100	sk6a3		sk73	sk100		sk41									ok1	
	4					sk100			sk73	sk100		sk73	sk6a3							nn100	ok1	
	5					sk100				sk100								nk6			ok1	
	6									sk100							sk100			nn100	ok1	
	7				sk52					sk100		sk52					sk100				ok1	
	8				sk52	sk100		sk6a2	sk71	sk100		sk6a2	sk71								ok1	
	9		sk32		sk52	sk100		sk6a2	sk71			sk32				sk100	sk100			nn100	ok1	ok1
	10		sk32		sk52	sk100	sk6a4	sk6a2	sk71	sk7a2	sk100	sk6a4	sk7a2									
	11		sk32		sk52	sk100	sk6a4	sk6a2		sk7a2	sk100	sk34	sk6a2	sk71								
	12	sk34	sk32		sk52	sk100	sk6a4			sk7a2	sk100											
	13	sk34	sk32		sk52	sk100	sk6a4			sk7a2	sk100											
	14	sk34	sk32		sk52	sk100	sk6a4			sk7a2	sk100									nn100		
	15	sk34	sk32		sk52	sk100	sk6a4			sk7a2	sk100											
	16	sk34	sk32		sk52	sk100	sk6a4			sk7a2	sk100											
	17	sk34	sk32		sk52	sk100	sk6a4			sk7a2	sk100	sk6a1								nn100		
	18		sk32		sk52			sk6a1		sk7a2	sk100	sk34	sk6a4				sk100					
	19							sk6a1		sk7a2	sk100	sk32	sk52	sk72			sk100			nn100		
	20					sk100		sk6a1	sk72			sk7a2					sk100					
	21		sk33			sk100		sk6a1	sk72			sk33										
	22		sk33			sk100		sk6a1	sk72								sk100			nn100		
	23		sk33			sk100			sk72	sk100		sk6a1	sk72					nk7				
	24		sk33			sk100				sk100												
Wed	1		sk33			sk100	sk6a3			sk100		sk41	sk6a3	sk73				kk5		nn100		
	2			sk41		sk100	sk6a3		sk73	sk100		sk33										
	3			sk41		sk100	sk6a3		sk73	sk100		sk41										
	4					sk100			sk73	sk100		sk73	sk6a3							nn100		
	5					sk100				sk100								kk3				
	6									sk100							sk100			nn100		
	7			sk42	sk51					sk100	sk82	sk42	sk51	sk71	sk82		sk100	lk1				
	8			sk42	sk51	sk100		sk6a2	sk71	sk100	sk82	sk6a2										
	9			sk42	sk51	sk100		sk6a2	sk71		sk82						sk100	ct1		nn100		
	10			sk42	sk51	sk100	sk6a4	sk6a2	sk71		sk82	sk6a4	sk7a1									
	11			sk42	sk51	sk100	sk6a4	sk6a2	sk71	sk7a1	sk82	sk34	sk6a2	sk71								
	12	sk34		sk42	sk51	sk100	sk6a4			sk7a1	sk82											
	13	sk34		sk42	sk51	sk100	sk6a4			sk7a1	sk82											
	14	sk34		sk42	sk51	sk100	sk6a4			sk7a1	sk82									nn100		
	15	sk34		sk42	sk51	sk100	sk6a4			sk7a1	sk82											
	16	sk34		sk42	sk51	sk100	sk6a4			sk7a1	sk82							lk1				
	17	sk34		sk42	sk51	sk100	sk6a4			sk7a1	sk82	sk6a1								nn100		
	18			sk42	sk51			sk6a1		sk7a1	sk82	sk34	sk6a4	sk82			sk100					
	19			sk42				sk6a1		sk7a1		sk51	sk72			sk100	sk100			nn100		
	20					sk100		sk6a1	sk72		sk100	sk42	sk7a1									
	21					sk100		sk6a1	sk72		sk100							nk6				
	22					sk100		sk6a1	sk72		sk100						sk100			nn100		
	23					sk100			sk72	sk100	sk100	sk6a1	sk72									
	24					sk100				sk100	sk100											
Thu	1			sk41		sk100	sk6a3			sk100	sk100	sk41	sk6a3	sk73				kk3		nn100		
	2			sk41		sk100	sk6a3		sk73	sk100	sk100							ct1				
	3			sk41		sk100	sk6a3		sk73	sk100	sk100	sk6a3										
	4					sk100			sk73	sk100	sk100	sk41	sk73							nn100		
	5					sk100				sk100	sk100							kk1	nk8	sp3		
	6									sk100		sk81				sk100	sk100			nn100		
	7				sk53					sk100	sk81	sk53	sk71				sk100					
	8				sk53	sk100		sk6a2	sk71	sk100	sk81	sk6a2										
	9		sk32		sk53	sk100		sk6a2	sk71		sk81	sk32					sk100	nk4		nn100		
	10		sk32		sk53	sk100	sk6a4	sk6a2	sk71	sk7a2	sk81	sk6a4	sk7a2									
	11		sk32		sk53	sk100	sk6a4	sk6a2	sk71	sk7a2	sk81	sk34	sk71									
	12	sk34	sk32		sk53	sk100	sk6a4			sk7a2	sk81	sk6a2										
	13	sk34	sk32		sk53	sk100	sk6a4			sk7a2	sk81											
	14	sk34	sk32		sk53	sk100	sk6a4			sk7a2	sk81									nn100		
	15	sk34	sk32		sk53	sk100	sk6a4			sk7a2	sk81											
	16	sk34	sk32		sk53	sk100	sk6a4			sk7a2	sk81											
	17	sk34	sk32		sk53	sk100	sk6a4			sk7a2	sk81									nn100		
	18		sk32		sk53			sk6a1		sk7a2	sk81	sk34	sk6a1	sk6a4	sk81		sk100	sp3				
	19							sk6a1		sk7a2		sk32	sk53	sk72			sk100	nk8		nn100		
	20					sk100		sk6a1	sk72			sk7a2					sk100					
	21					sk100		sk6a1	sk72		sk100											
	22					sk100		sk6a1	sk72		sk100	sk31					sk100	lk2		nn100		
	23		sk31			sk100			sk72	sk100	sk100	sk6a1	sk72									
	24		sk31			sk100				sk100	sk100											
Fri	1		sk31			sk100	sk6a3			sk100	sk100	sk41	sk6a3	sk73				kk1		nn100		
	2		sk31	sk41		sk100	sk6a3		sk73	sk100	sk100											
	3		sk31	sk41		sk100	sk6a3		sk73	sk100	sk100	sk41										
	4		sk31			sk100			sk73	sk100	sk100	sk73	sk6a3							nn100		
	5		sk31			sk100				sk100	sk100							kk4				
	6		sk31							sk100	sk100						sk100	lk3		nn100		
	7		sk31		sk54					sk100		sk54	sk71			sk100	sk100	lk2				
	8		sk31		sk54	sk100		sk6a2	sk71	sk100		sk6a2										
	9		sk31		sk54	sk100		sk6a2	sk71							sk100	sk100	nk10		nn100		
	10		sk31		sk54	sk100	sk6a4	sk6a2	sk71		sk100	sk6a4	sk7a1									
	11				sk54	sk100	sk6a4	sk6a2	sk71	sk7a1	sk100	sk31	sk34	sk6a2	sk71							
	12	sk34			sk54	sk100	sk6a4			sk7a1	sk100							nk11				
	13	sk34			sk54	sk100	sk6a4			sk7a1	sk100											
	14	sk34			sk54	sk100	sk6a4			sk7a1	sk100									nn100		
	15	sk34			sk54	sk100	sk6a4			sk7a1	sk100											
	16	sk34			sk54	sk100	sk6a4			sk7a1	sk100											
	17	sk34			sk54	sk100	sk6a4			sk7a1	sk100	sk6a1	sk72							nn100		
	18				sk54			sk6a1	sk72	sk7a1	sk100	sk34	sk6a4				sk100					
	19							sk6a1	sk72	sk7a1	sk100	sk54	sk7a1				sk100			nn100		
	20					sk100		sk6a1	sk72								sk100	nk11				
	21		sk33			sk100		sk6a1	sk72			sk33	sk72									
	22		sk33			sk100		sk6a1									sk100			nn100		
	23		sk33			sk100				sk100		sk6a1										
	24		sk33			sk100				sk100								kk4				

Illustration of 4-Week-Period for Shipping (continued)

Day	h	Stay at berth, Skandinavienkai										Ship movements from/to Skandinavienkai						Ship movements from/to other ports			Ostpreußenkai	
		No. 2	No. 3	No. 4	No. 5	No. 5 a	No. 6	No. 6a	No. 7	No. 7a	No. 8										Stay at berth	Move-ments
Sat	1		sk33			sk100	sk6a3			sk100		sk41	sk6a3	sk73				lk3		nn100		
	2			sk41		sk100	sk6a3		sk73	sk100		sk33										
	3			sk41		sk100	sk6a3		sk73	sk100												
	4					sk100			sk73	sk100		sk41	sk6a3	sk73				kk5		nn100		
	5					sk100				sk100								kk2	nk9			
	6									sk100						sk100	sk100	nk5		nn100		
	7				sk52					sk100	sk100	sk52	sk71				sk100					
	8				sk52	sk100		sk6a2	sk71	sk100	sk100	sk6a2										
	9				sk52	sk100		sk6a2	sk71		sk100	sk32					sk100			nn100		
	10		sk32		sk52	sk100		sk6a2	sk71	sk7a2	sk100	sk6a4	sk7a2									
	11		sk32		sk52	sk100	sk6a4	sk6a2	sk71	sk7a2	sk100	sk34	sk6a2									
	12	sk34	sk32		sk52	sk100	sk6a4		sk71	sk7a2	sk100											
	13	sk34	sk32		sk52	sk100	sk6a4		sk71	sk7a2	sk100		sk71									
	14	sk34	sk32		sk52	sk100	sk6a4			sk7a2	sk100	sk6a4								nn100		
	15	sk34	sk32		sk52	sk100				sk7a2	sk100											
	16	sk34	sk32		sk52	sk100				sk7a2	sk100							kk5	nk10			
	17	sk34	sk32		sk52	sk100				sk7a2		sk6a1					sk100	lk1		nn100		
	18		sk32		sk52			sk6a1		sk7a2		sk34					sk100	nk4				
	19		sk32		sk52			sk6a1		sk7a2	sk82	sk32	sk52	sk72	sk82		sk100			nn100	ok3	ok3
	20					sk100		sk6a1	sk72		sk82	sk7a2						kk2	nk9		ok3	
	21					sk100		sk6a1	sk72		sk82	sk6a3						nk5			ok3	
	22			sk42		sk100	sk6a3	sk6a1	sk72		sk82	sk42					sk100			nn100	ok3	
	23			sk42		sk100	sk6a3		sk72	sk100	sk82	sk6a1	sk72								ok3	
	24			sk42		sk100	sk6a3			sk100	sk82	sk6a3									ok3	
Sun	1			sk42		sk100				sk100	sk82	sk73								nn100	ok3	
	2			sk42		sk100			sk73	sk100	sk82							lk1			ok3	
	3			sk42		sk100			sk73	sk100	sk82										ok3	
	4					sk100			sk73	sk100	sk82	sk42	sk73					kk3		nn100	ok3	
	5					sk100				sk100		sk82									ok3	
	6									sk100							sk100			nn100	ok3	
	7				sk51					sk100		sk51					sk100	nk2			ok7	ok3	ok7
	8				sk51	sk100		sk6a2		sk100		sk6a2									ok7	ok3	
	9				sk51	sk100		sk6a2	sk71			sk71	sk7a1			sk100	sk100			nn100	ok7	ok3	
	10				sk51	sk100		sk6a2	sk71	sk7a1	sk100							sp1			ok7	ok3	ok3
	11				sk51	sk100		sk6a2	sk71	sk7a1	sk100	sk34	sk6a2								ok7		
	12	sk34			sk51	sk100				sk7a1	sk100	sk71									ok7		
	13	sk34			sk51	sk100				sk7a1	sk100										ok7		
	14	sk34			sk51	sk100				sk7a1	sk100									nn100	ok7		
	15	sk34			sk51	sk100				sk7a1	sk100	sk7a1						kk1	kk3		ok7		
	16	sk34			sk51	sk100					sk100										ok7		
	17	sk34				sk100					sk100	sk51	sk6a1				sk100			nn100	ok7		
	18							sk6a1		sk100	sk100	sk34					sk100				ok7		
	19							sk6a1		sk100	sk100						sk100	nk2		nn100	ok7		
	20					sk100		sk6a1		sk100		sk72					sk100	sp2			ok7		ok7
	21					sk100		sk6a1	sk72	sk100	sk81	sk6a3	sk81					nk3					
	22				sk53	sk100	sk6a3	sk6a1	sk72	sk100	sk81	sk53								nn100			
	23				sk53	sk100	sk6a3		sk72	sk100	sk81	sk6a1	sk72										
	24				sk53	sk100	sk6a3			sk100	sk81												
Mon	1				sk53	sk100	sk6a3			sk100	sk81	sk73								nn100		
	2				sk53	sk100	sk6a3	sk6a4	sk73	sk100	sk81	sk6a4										
	3				sk53	sk100	sk6a3	sk6a4	sk73	sk100	sk81											
	4				sk53	sk100	sk6a3	sk6a4	sk73		sk81	sk73					sk100			nn100		
	5				sk53	sk100	sk6a3					sk6a4	sk81					ct1	nk8			
	6		sk34		sk53		sk6a3					sk34	sk7a2				sk100			nn100		
	7		sk34		sk53		sk6a3			sk7a2		sk41	sk71				sk100					
	8		sk34	sk41	sk53	sk100	sk6a3	sk6a2	sk71	sk7a2		sk6a2						lk2	lk3			
	9		sk34	sk41	sk53	sk100	sk6a3	sk6a2	sk71	sk7a2							sk100			nn100		
	10		sk34	sk41	sk53	sk100	sk6a3	sk6a2	sk71	sk7a2	sk100											
	11		sk34	sk41	sk53	sk100	sk6a3	sk6a2	sk71	sk7a2	sk100	sk6a2										
	12		sk34	sk41	sk53	sk100	sk6a3		sk71	sk7a2	sk100											
	13		sk34	sk41	sk53	sk100	sk6a3		sk71	sk7a2	sk100							sp1			ok5		ok5
	14		sk34	sk41	sk53	sk100	sk6a3		sk71	sk7a2	sk100									nn100	ok5		
	15		sk34	sk41	sk53	sk100	sk6a3		sk71	sk7a2	sk100							lk3			ok5		
	16		sk34	sk41	sk53	sk100	sk6a3		sk71	sk7a2	sk100										ok5		
	17		sk34	sk41	sk53	sk100	sk6a3		sk71	sk7a2	sk100	sk6a1						nk7		nn100	ok5		
	18			sk41	sk53		sk6a3	sk6a1	sk71	sk7a2	sk100	sk34	sk6a3				sk100	nk3			ok5		
	19			sk41				sk6a1	sk71	sk7a2	sk100	sk53	sk7a2				sk100			nn100	ok5		
	20			sk41		sk100		sk6a1	sk71								sk100				ok5		
	21			sk41		sk100		sk6a1	sk71									nk8			ok5		
	22			sk41		sk100		sk6a1	sk71								sk100			nn100	ok5		
	23					sk100			sk71	sk100		sk41	sk6a1	sk71				lk2			ok5		
	24					sk100				sk100											ok5		
Tue	1					sk100	sk6a4			sk100		sk6a4	sk73					ct1	kk1	nn100	ok5		
	2					sk100	sk6a4		sk73	sk100											ok5		
	3					sk100	sk6a4		sk73	sk100											ok5		
	4					sk100			sk73	sk100		sk6a4	sk73							nn100	ok5		
	5					sk100				sk100											ok5		
	6									sk100							sk100			nn100	ok5		ok5
	7				sk54					sk100		sk54	sk72				sk100						
	8				sk54	sk100		sk6a2	sk72	sk100		sk6a2											
	9				sk54	sk100		sk6a2	sk72			sk32				sk100	sk100			nn100			
	10		sk32		sk54	sk100		sk6a2	sk72		sk100	sk6a3	sk7a1										
	11		sk32		sk54	sk100	sk6a3	sk6a2	sk72	sk7a1	sk100	sk34	sk6a2	sk72									
	12	sk34	sk32		sk54	sk100	sk6a3			sk7a1	sk100												
	13	sk34	sk32		sk54	sk100	sk6a3			sk7a1	sk100												
	14	sk34	sk32		sk54	sk100	sk6a3			sk7a1	sk100									nn100			
	15	sk34	sk32		sk54	sk100	sk6a3			sk7a1	sk100												
	16	sk34	sk32		sk54	sk100	sk6a3			sk7a1	sk100												
	17	sk34	sk32		sk54	sk100	sk6a3			sk7a1	sk100	sk6a1								nn100			
	18		sk32		sk54		sk6a3	sk6a1		sk7a1	sk100	sk34	sk6a3				sk100						
	19		sk32					sk6a1		sk7a1	sk100	sk32	sk41	sk54	sk71		sk100	nk6		nn100			
	20			sk41		sk100		sk6a1	sk71			sk7a1					sk100						
	21			sk41		sk100		sk6a1	sk71														
	22			sk41		sk100		sk6a1	sk71								sk100			nn100			
	23					sk100			sk71	sk100		sk33	sk41	sk6a1	sk71			nk7					
	24		sk33			sk100				sk100													

Illustration of 4-Week-Period for Shipping (continued)

Day	h	Stay at berth, Skandinavienkai										Ship movements from/to Skandinavienkai								Ship movements from/to other ports			Ostpreußenkai	
		No. 2	No. 3	No. 4	No. 5	No. 5 a	No. 6	No. 6a	No. 7	No. 7a	No. 8												Stay at berth	Move-ments
Wed	1		sk33			sk100	sk6a4			sk100		sk6a4	sk73							sp1		nn100		
	2		sk33			sk100	sk6a4		sk73	sk100		sk33												
	3					sk100	sk6a4		sk73	sk100														
	4					sk100			sk73	sk100		sk6a4	sk73									nn100		
	5					sk100				sk100										kk5				
	6									sk100									sk100			nn100		
	7			sk42	sk52					sk100	sk82	sk42	sk52	sk72	sk82				sk100	lk1				
	8			sk42	sk52	sk100		sk6a2	sk72	sk100	sk82	sk6a2								nk10				
	9			sk42	sk52	sk100		sk6a2	sk72		sk82								sk100			nn100		
	10			sk42	sk52	sk100		sk6a2	sk72		sk82	sk6a3	sk7a2											
	11			sk42	sk52	sk100	sk6a3	sk6a2	sk72	sk7a2	sk82	sk34	sk6a2	sk72										
	12	sk34		sk42	sk52	sk100	sk6a3			sk7a2	sk82													
	13	sk34		sk42	sk52	sk100	sk6a3			sk7a2	sk82													
	14	sk34		sk42	sk52	sk100	sk6a3			sk7a2	sk82											nn100		
	15	sk34		sk42	sk52	sk100	sk6a3			sk7a2	sk82													
	16	sk34		sk42	sk52	sk100	sk6a3			sk7a2	sk82									lk1				
	17	sk34		sk42	sk52	sk100	sk6a3			sk7a2	sk82	sk6a1										nn100		
	18			sk42	sk52		sk6a3	sk6a1		sk7a2	sk82	sk34	sk6a3						sk100					
	19			sk42				sk6a1		sk7a2		sk41	sk52	sk71	sk82	sk100	sk100					nn100		
	20			sk41		sk100		sk6a1	sk71	sk7a2	sk100	sk42	sk7a2											
	21			sk41		sk100		sk6a1	sk71		sk100													
	22			sk41		sk100		sk6a1	sk71		sk100								sk100	nk6		nn100		
	23					sk100			sk71	sk100	sk100	sk41	sk6a1	sk71										
	24					sk100				sk100	sk100													
Thu	1					sk100	sk6a4			sk100	sk100	sk6a4	sk73							kk5	nk10	nn100		
	2					sk100	sk6a4		sk73	sk100	sk100													
	3					sk100	sk6a4		sk73	sk100	sk100													
	4					sk100			sk73	sk100	sk100	sk6a4	sk73									nn100		
	5					sk100				sk100	sk100									kk3	nk9	sp3		
	6									sk100		sk81					sk100	sk100				nn100		
	7				sk51					sk100	sk81	sk51	sk72						sk100					
	8				sk51	sk100		sk6a2	sk72	sk100	sk81	sk6a2												
	9		sk32		sk51	sk100		sk6a2	sk72		sk81	sk32							sk100			nn100		
	10		sk32		sk51	sk100		sk6a2	sk72		sk81	sk6a3	sk7a1											
	11		sk32		sk51	sk100	sk6a3	sk6a2	sk72	sk7a1	sk81	sk34	sk6a2	sk72										
	12	sk34	sk32		sk51	sk100	sk6a3			sk7a1	sk81													
	13	sk34	sk32		sk51	sk100	sk6a3			sk7a1	sk81													
	14	sk34	sk32		sk51	sk100	sk6a3			sk7a1	sk81											nn100		
	15	sk34	sk32		sk51	sk100	sk6a3			sk7a1	sk81									nk4				
	16	sk34	sk32		sk51	sk100	sk6a3			sk7a1	sk81													
	17	sk34	sk32		sk51	sk100	sk6a3			sk7a1	sk81	sk6a1										nn100		
	18		sk32		sk51		sk6a3	sk6a1		sk7a1	sk81	sk34	sk6a3	sk81					sk100					
	19							sk6a1		sk7a1		sk32	sk41	sk51	sk71	sk7a1	sk100			nk9	sp3	nn100		
	20			sk41		sk100		sk6a1	sk71								sk100							
	21			sk41		sk100		sk6a1	sk71		sk100													
	22			sk41		sk100		sk6a1	sk71		sk100								sk100			nn100		
	23					sk100			sk71	sk100	sk100	sk41	sk6a1	sk71										
	24					sk100				sk100	sk100									lk2				
Fri	1					sk100	sk6a4			sk100	sk100	sk6a4	sk73							kk3		nn100		
	2					sk100	sk6a4		sk73	sk100	sk100													
	3					sk100	sk6a4		sk73	sk100	sk100													
	4					sk100			sk73	sk100	sk100	sk6a4	sk73									nn100		
	5					sk100				sk100	sk100									kk1				
	6									sk100	sk100								sk100	lk3		nn100		
	7				sk53					sk100		sk53	sk72				sk100	sk100						
	8				sk53	sk100		sk6a2	sk72	sk100		sk6a2								ct1	lk2			
	9				sk53	sk100		sk6a2	sk72								sk100	sk100				nn100		
	10				sk53	sk100		sk6a2	sk72		sk100	sk6a3	sk7a2											
	11				sk53	sk100	sk6a3	sk6a2	sk72	sk7a2	sk100	sk34	sk6a2	sk72										
	12	sk34			sk53	sk100	sk6a3			sk7a2	sk100													
	13	sk34			sk53	sk100	sk6a3			sk7a2	sk100													
	14	sk34			sk53	sk100	sk6a3			sk7a2	sk100											nn100		
	15	sk34			sk53	sk100	sk6a3			sk7a2	sk100													
	16	sk34			sk53	sk100	sk6a3			sk7a2	sk100													
	17	sk34			sk53	sk100	sk6a3			sk7a2	sk100	sk6a1										nn100		
	18				sk53		sk6a3	sk6a1		sk7a2	sk100	sk34	sk6a3						sk100					
	19							sk6a1		sk7a2	sk100	sk41	sk53	sk71			sk100					nn100	ok2	ok2
	20			sk41		sk100		sk6a1	sk71	sk7a2		sk7a2					sk100						ok2	
	21			sk41		sk100		sk6a1	sk71														ok2	
	22		sk33	sk41		sk100		sk6a1	sk71			sk33					sk100					nn100	ok2	
	23		sk33			sk100			sk71	sk100		sk41	sk6a1	sk71						lk3			ok2	
	24		sk33			sk100				sk100													ok2	
Sat	1		sk33			sk100	sk6a4			sk100		sk6a4	sk73							kk1		nn100	ok2	
	2		sk33			sk100	sk6a4		sk73	sk100		sk33											ok2	
	3					sk100	sk6a4		sk73	sk100													ok2	
	4					sk100			sk73	sk100		sk6a4	sk73							sp1		nn100	ok2	
	5					sk100				sk100										nk5	nk8		ok2	
	6									sk100							sk100	sk100				nn100	ok2	
	7				sk54					sk100	sk100	sk54	sk72						sk100				ok2	
	8				sk54	sk100		sk6a2	sk72	sk100	sk100	sk6a2											ok2	
	9				sk54	sk100		sk6a2	sk72		sk100	sk32							sk100			nn100	ok2	
	10		sk32		sk54	sk100		sk6a2	sk72		sk100	sk6a3	sk7a1							kk2			ok2	
	11		sk32		sk54	sk100	sk6a3	sk6a2	sk72	sk7a1	sk100	sk34	sk6a2										ok2	
	12	sk34	sk32		sk54	sk100	sk6a3		sk72	sk7a1	sk100												ok2	
	13	sk34	sk32		sk54	sk100	sk6a3		sk72	sk7a1	sk100	sk72											ok2	
	14	sk34	sk32		sk54	sk100	sk6a3			sk7a1	sk100	sk6a3										nn100	ok2	
	15	sk34	sk32		sk54	sk100				sk7a1	sk100												ok2	
	16	sk34	sk32		sk54	sk100				sk7a1	sk100									sp1			ok2	
	17	sk34	sk32		sk54	sk100				sk7a1		sk6a1							sk100	lk1		nn100	ok2	
	18		sk32		sk54			sk6a1		sk7a1		sk32	sk34						sk100	ct1			ok2	
	19							sk6a1		sk7a1		sk41	sk54	sk71	sk7a1		sk100			nk4	nk8	nn100	ok2	
	20			sk41		sk100		sk6a1	sk71		sk82	sk82											ok2	
	21			sk41		sk100		sk6a1	sk71		sk82	sk6a4								kk2			ok2	
	22			sk41		sk100	sk6a4	sk6a1	sk71		sk82	sk42							sk100			nn100	ok2	
	23			sk42		sk100	sk6a4		sk71	sk100	sk82	sk41	sk6a1	sk71						nk5			ok2	
	24			sk42		sk100	sk6a4			sk100	sk82	sk6a4											ok2	

Illustration of 4-Week-Period for Shipping (continued)

Day	h	Stay at berth, Skandinavienkai									Ship movements from/to Skandinavienkai					Ship movements from/to other ports			Ostpreußenkai	
		No. 2	No. 3	No. 4	No. 5	No. 5 a	No. 6	No. 6a	No. 7	No. 7a	No. 8								Stay at berth	Move-ments
Sun	1			sk42		sk100				sk100	sk82	sk73						nn100	ok2	
	2			sk42		sk100			sk73	sk100	sk82						lk1		ok2	
	3			sk42		sk100			sk73	sk100	sk82								ok2	
	4			sk42		sk100			sk73	sk100	sk82	sk42	sk73				kk5	nn100	ok2	
	5					sk100				sk100		sk82							ok2	
	6									sk100						sk100		nn100	ok2	
	7				sk52					sk100		sk52				sk100	nk1		ok2	
	8				sk52	sk100		sk6a2		sk100		sk6a2							ok2	
	9				sk52	sk100		sk6a2	sk72			sk72	sk7a2		sk100	sk100	sp2	nn100	ok2	
	10				sk52	sk100		sk6a2	sk72	sk7a2	sk100								ok2	
	11				sk52	sk100		sk6a2	sk72	sk7a2	sk100	sk6a2							ok2	ok2
	12				sk52	sk100				sk7a2	sk100	sk72								
	13				sk52	sk100				sk7a2	sk100									
	14				sk52	sk100				sk7a2	sk100							nn100		
	15				sk52	sk100				sk7a2	sk100	sk7a2					kk5			
	16				sk52	sk100					sk100									
	17					sk100					sk100	sk52	sk6a1			sk100	kk3	nn100	ok2	ok2
	18							sk6a1		sk100	sk100					sk100			ok2	
	19							sk6a1		sk100	sk100					sk100	nk1	nn100	ok2	
	20					sk100		sk6a1		sk100		sk81				sk100			ok2	
	21			sk41		sk100		sk6a1	sk71	sk100	sk81	sk41	sk71				nk3		ok2	
	22			sk41	sk51	sk100	sk6a4	sk6a1	sk71	sk100	sk81	sk51	sk6a4					nn100	ok2	
	23			sk41	sk51	sk100	sk6a4		sk71	sk100	sk81	sk41	sk6a1				lk3		ok2	
	24				sk51	sk100	sk6a4			sk100	sk81		sk71						ok2	
Mon	1				sk51	sk100	sk6a4	sk6a3		sk100	sk81	sk6a3	sk73					nn100	ok2	
	2				sk51	sk100	sk6a4	sk6a3	sk73	sk100	sk81								ok2	
	3				sk51	sk100	sk6a4	sk6a3	sk73	sk100	sk81	sk51							ok2	
	4					sk100	sk6a4		sk73		sk81	sk6a3	sk73			sk100		nn100	ok2	
	5					sk100	sk6a4					sk81					nk9	nk10	ok2	
	6		sk34				sk6a4					sk34	sk7a1			sk100		nn100	ok2	
	7		sk34				sk6a4			sk7a1						sk100	lk2		ok2	
	8		sk34			sk100	sk6a4	sk6a2		sk7a1		sk6a2							ok2	
	9		sk34			sk100	sk6a4	sk6a2		sk7a1						sk100		nn100	ok2	
	10		sk34			sk100	sk6a4	sk6a2		sk7a1	sk100								ok2	
	11		sk34			sk100	sk6a4	sk6a2		sk7a1	sk100	sk6a2							ok2	
	12		sk34			sk100	sk6a4			sk7a1	sk100								ok2	
	13		sk34			sk100	sk6a4			sk7a1	sk100						sp2		ok2	
	14		sk34			sk100	sk6a4			sk7a1	sk100						lk2	nn100	ok2	
	15		sk34			sk100	sk6a4			sk7a1	sk100								ok2	
	16		sk34			sk100	sk6a4			sk7a1	sk100								ok2	
	17		sk34			sk100	sk6a4			sk7a1	sk100	sk6a1					kk1	nk7 nn100	ok2	
	18						sk6a4	sk6a1		sk7a1	sk100	sk34	sk6a4			sk100	nk3		ok2	
	19							sk6a1		sk7a1	sk100	sk41	sk7a1			sk100	lk3	nn100	ok2	
	20			sk41		sk100		sk6a1								sk100			ok2	
	21			sk41		sk100		sk6a1											ok2	
	22			sk41		sk100		sk6a1								sk100	nk9	nn100	ok2	
	23					sk100				sk100		sk41	sk6a1						ok2	
	24					sk100				sk100									ok2	
Tue	1					sk100	sk6a3			sk100		sk6a3	sk73				kk3	nk7 nn100	ok2	
	2					sk100	sk6a3		sk73	sk100									ok2	
	3					sk100	sk6a3		sk73	sk100									ok2	
	4					sk100			sk73	sk100		sk6a3	sk73					nn100	ok2	
	5					sk100				sk100									ok2	
	6									sk100						sk100		nn100	ok2	
	7				sk53					sk100		sk53	sk71			sk100			ok2	
	8				sk53	sk100		sk6a2	sk71	sk100		sk6a2							ok2	
	9				sk53	sk100		sk6a2	sk71			sk32			sk100	sk100		nn100	ok2	
	10		sk32		sk53	sk100		sk6a2	sk71	sk7a2	sk100	sk6a4	sk7a2						ok2	
	11		sk32		sk53	sk100	sk6a4	sk6a2	sk71	sk7a2	sk100	sk34	sk6a2	sk71					ok2	
	12	sk34	sk32		sk53	sk100	sk6a4			sk7a2	sk100								ok2	
	13	sk34	sk32		sk53	sk100	sk6a4			sk7a2	sk100								ok2	
	14	sk34	sk32		sk53	sk100	sk6a4			sk7a2	sk100							nn100	ok2	
	15	sk34	sk32		sk53	sk100	sk6a4			sk7a2	sk100								ok2	
	16	sk34	sk32		sk53	sk100	sk6a4			sk7a2	sk100								ok2	
	17	sk34	sk32		sk53	sk100	sk6a4			sk7a2	sk100	sk6a1						nn100	ok2	
	18		sk32		sk53		sk6a4	sk6a1		sk7a2	sk100	sk32	sk34	sk6a4		sk100			ok2	
	19							sk6a1		sk7a2	sk100	sk41	sk53			sk100	nk6	nn100	ok2	
	20			sk41		sk100		sk6a1				sk7a2				sk100			ok2	
	21			sk41		sk100		sk6a1				sk33							ok2	
	22		sk33	sk41		sk100		sk6a1								sk100	nk7	nn100	ok2	
	23		sk33			sk100				sk100		sk41	sk6a1						ok2	
	24		sk33			sk100				sk100									ok2	
Wed	1		sk33			sk100	sk6a3			sk100		sk33	sk6a3	sk73			kk1	nn100	ok2	
	2					sk100	sk6a3		sk73	sk100									ok2	
	3					sk100	sk6a3		sk73	sk100									ok2	
	4					sk100			sk73	sk100		sk6a3	sk73				sp1	nn100	ok2	
	5					sk100				sk100									ok2	
	6									sk100						sk100		nn100	ok2	
	7				sk54					sk100	sk82	sk54	sk71	sk82		sk100	lk1		ok2	
	8				sk54	sk100		sk6a2	sk71	sk100	sk82	sk6a2							ok2	
	9				sk54	sk100		sk6a2	sk71		sk82					sk100	ct1	nn100	ok2	
	10				sk54	sk100		sk6a2	sk71		sk82	sk6a4	sk7a1						ok2	
	11				sk54	sk100	sk6a4	sk6a2	sk71	sk7a1	sk82	sk34	sk71						ok2	
	12	sk34			sk54	sk100	sk6a4			sk7a1	sk82	sk6a2							ok2	
	13	sk34			sk54	sk100	sk6a4			sk7a1	sk82								ok2	
	14	sk34			sk54	sk100	sk6a4			sk7a1	sk82							nn100	ok2	
	15	sk34			sk54	sk100	sk6a4			sk7a1	sk82								ok2	
	16	sk34			sk54	sk100	sk6a4			sk7a1	sk82								ok2	
	17	sk34			sk54	sk100	sk6a4			sk7a1	sk82	sk6a1						nn100	ok2	
	18				sk54		sk6a4	sk6a1		sk7a1	sk82	sk34	sk6a4			sk100	lk1		ok2	
	19							sk6a1		sk7a1		sk41	sk54	sk7a1	sk82	sk100 sk100		nn100	ok2	
	20			sk41		sk100		sk6a1			sk100								ok2	
	21			sk41		sk100		sk6a1			sk100								ok2	
	22			sk41		sk100		sk6a1			sk100					sk100	nk6	nn100	ok2	
	23					sk100				sk100	sk100	sk41	sk6a1						ok2	
	24					sk100				sk100	sk100								ok2	

Illustration of 4-Week-Period for Shipping (continued)

Day	h	Stay at berth, Skandinavienkai										Ship movements from/to Skandinavienkai						Ship movements from/to other ports			Ostpreußenkai	
		No. 2	No. 3	No. 4	No. 5	No. 5 a	No. 6	No. 6a	No. 7	No. 7a	No. 8										Stay at berth	Move-ments
Thu	1					sk100	sk6a3			sk100	sk100	sk6a3	sk73									
	2					sk100	sk6a3		sk73	sk100	sk100							ct1		nn100	ok2	
	3					sk100	sk6a3		sk73	sk100	sk100										ok2	
	4					sk100			sk73	sk100	sk100	sk6a3	sk73							nn100	ok2	
	5					sk100				sk100	sk100							kk5	nk8	sp3	ok2	
	6									sk100						sk100	sk100			nn100	ok2	
	7				sk52					sk100	sk81	sk52	sk71	sk81			sk100				ok2	
	8				sk52	sk100		sk6a2	sk71	sk100	sk81	sk6a2									ok2	
	9				sk52	sk100		sk6a2	sk71		sk81	sk32					sk100			nn100	ok2	
	10		sk32		sk52	sk100		sk6a2	sk71	sk7a2	sk81	sk6a4	sk7a2								ok2	
	11		sk32		sk52	sk100	sk6a4	sk6a2	sk71	sk7a2	sk81	sk34	sk6a2	sk71							ok2	
	12	sk34	sk32		sk52	sk100	sk6a4			sk7a2	sk81							nk4			ok2	
	13	sk34	sk32		sk52	sk100	sk6a4			sk7a2	sk81										ok2	
	14	sk34	sk32		sk52	sk100	sk6a4			sk7a2	sk81									nn100	ok2	
	15	sk34	sk32		sk52	sk100	sk6a4			sk7a2	sk81										ok2	
	16	sk34	sk32		sk52	sk100	sk6a4			sk7a2	sk81										ok2	
	17	sk34	sk32		sk52	sk100	sk6a4			sk7a2	sk81	sk6a1								nn100	ok2	
	18		sk32		sk52		sk6a4	sk6a1		sk7a2	sk81	sk34	sk6a4	sk81			sk100	sp3			ok2	
	19		sk32					sk6a1		sk7a2		sk41	sk52				sk100			nn100	ok2	
	20		sk32	sk41		sk100		sk6a1				sk32	sk7a2				sk100				ok2	
	21			sk41		sk100		sk6a1			sk100							nk8			ok2	
	22			sk41		sk100		sk6a1			sk100						sk100			nn100	ok2	
	23					sk100				sk100	sk100	sk31	sk41	sk6a1							ok2	
	24		sk31			sk100				sk100	sk100							lk3			ok2	
Fri	1		sk31			sk100	sk6a3			sk100	sk100	sk6a3	sk73					kk5		nn100	ok2	
	2		sk31			sk100	sk6a3		sk73	sk100	sk100										ok2	
	3		sk31			sk100	sk6a3		sk73	sk100	sk100										ok2	
	4		sk31			sk100			sk73	sk100	sk100	sk6a3	sk73							nn100	ok2	
	5		sk31			sk100				sk100	sk100							kk3			ok2	
	6		sk31							sk100	sk100						sk100			nn100	ok2	
	7		sk31							sk100		sk42	sk71			sk100	sk100				ok2	
	8		sk31	sk42		sk100		sk6a2	sk71	sk100		sk6a2						nk10			ok2	
	9		sk31	sk42		sk100		sk6a2	sk71							sk100	sk100			nn100	ok2	
	10		sk31	sk42		sk100		sk6a2	sk71		sk100	sk6a4	sk7a1								ok2	
	11		sk31	sk42		sk100	sk6a4	sk6a2	sk71	sk7a1	sk100	sk34	sk6a2	sk71							ok2	
	12	sk34	sk31	sk42		sk100	sk6a4			sk7a1	sk100										ok2	
	13	sk34	sk31	sk42		sk100	sk6a4			sk7a1	sk100										ok2	
	14	sk34	sk31	sk42		sk100	sk6a4			sk7a1	sk100									nn100	ok2	
	15	sk34	sk31	sk42		sk100	sk6a4			sk7a1	sk100										ok2	
	16	sk34	sk31	sk42		sk100	sk6a4			sk7a1	sk100										ok2	
	17	sk34	sk31	sk42		sk100	sk6a4			sk7a1	sk100	sk6a1								nn100	ok2	
	18		sk31	sk42			sk6a4	sk6a1		sk7a1	sk100	sk31	sk34	sk6a4			sk100				ok2	
	19			sk42				sk6a1		sk7a1	sk100	sk41	sk7a1				sk100			nn100	ok2	
	20			sk41		sk100		sk6a1				sk42					sk100	lk3			ok2	
	21		sk33	sk41		sk100		sk6a1				sk33						nk4			ok2	
	22		sk33	sk41		sk100		sk6a1									sk100			nn100	ok2	
	23		sk33			sk100				sk100		sk41	sk6a1								ok2	
	24		sk33			sk100				sk100											ok2	
Sat	1		sk33			sk100	sk6a3			sk100		sk6a3	sk73					kk3		nn100	ok2	
	2		sk33			sk100	sk6a3		sk73	sk100											ok2	
	3					sk100	sk6a3		sk73	sk100		sk33									ok2	
	4					sk100			sk73	sk100		sk6a3	sk73					kk1		nn100	ok2	
	5					sk100				sk100								nk5	nk9		ok2	
	6									sk100						sk100	sk100			nn100	ok2	
	7				sk53					sk100	sk100	sk53	sk71				sk100				ok2	
	8				sk53	sk100		sk6a2	sk71	sk100	sk100	sk6a2									ok2	
	9				sk53	sk100		sk6a2	sk71		sk100	sk32					sk100	kk2		nn100	ok2	
	10		sk32		sk53	sk100		sk6a2	sk71	sk7a2	sk100	sk6a4	sk7a2								ok2	
	11		sk32		sk53	sk100	sk6a4	sk6a2	sk71	sk7a2	sk100	sk34	sk6a2								ok2	
	12	sk34	sk32		sk53	sk100	sk6a4		sk71	sk7a2	sk100										ok2	
	13	sk34	sk32		sk53	sk100	sk6a4		sk71	sk7a2	sk100	sk71									ok2	
	14	sk34	sk32		sk53	sk100	sk6a4			sk7a2	sk100	sk6a4								nn100	ok2	
	15	sk34	sk32		sk53	sk100				sk7a2	sk100										ok2	
	16	sk34	sk32		sk53	sk100				sk7a2	sk100							kk1			ok2	
	17	sk34	sk32		sk53	sk100				sk7a2		sk6a1					sk100	lk1		nn100	ok2	
	18		sk32		sk53			sk6a1		sk7a2		sk34					sk100	nk10			ok2	
	19		sk32					sk6a1		sk7a2		sk32	sk41	sk53	sk7a2	sk82	sk100			nn100	ok2	
	20			sk41		sk100		sk6a1			sk82							kk2	nk9		ok2	
	21			sk41		sk100		sk6a1			sk82	sk6a3						nk5			ok2	
	22			sk41		sk100	sk6a3	sk6a1			sk82						sk100			nn100	ok2	
	23					sk100	sk6a3			sk100	sk82	sk41	sk6a1								ok2	
	24					sk100	sk6a3			sk100	sk82	sk6a3									ok2	
Sun	1					sk100				sk100	sk82	sk73								nn100	ok2	
	2					sk100			sk73	sk100	sk82							lk1			ok2	
	3					sk100			sk73	sk100	sk82										ok2	
	4					sk100			sk73	sk100	sk82	sk73						sp1		nn100	ok2	
	5					sk100				sk100		sk82									ok2	
	6									sk100							sk100			nn100	ok2	
	7		sk37		sk54					sk100		sk54	sk37				sk100	nk2			ok2	
	8		sk37		sk54	sk100		sk6a2		sk100		sk6a2									ok2	
	9		sk37		sk54	sk100		sk6a2	sk71			sk71	sk7a1			sk100	sk100			nn100	ok2	
	10		sk37		sk54	sk100		sk6a2	sk71	sk7a1	sk100							sp2			ok2	ok2
	11		sk37		sk54	sk100		sk6a2	sk71	sk7a1	sk100	sk6a2										
	12		sk37		sk54	sk100				sk7a1	sk100	sk71										
	13		sk37		sk54	sk100				sk7a1	sk100											
	14		sk37		sk54	sk100				sk7a1	sk100									nn100		
	15		sk37		sk54	sk100				sk7a1	sk100	sk7a1						sp1				
	16		sk37		sk54	sk100					sk100							kk5			ok2	ok2
	17		sk37			sk100					sk100	sk54	sk6a1				sk100			nn100	ok2	
	18		sk37					sk6a1		sk100	sk100						sk100				ok2	
	19		sk37					sk6a1		sk100	sk100						sk100	nk2		nn100	ok2	
	20		sk37			sk100		sk6a1		sk100		sk81	sk37				sk100					ok2
	21			sk41		sk100		sk6a1		sk100	sk81	sk41	sk6a3									
	22			sk41		sk100	sk6a3	sk6a1		sk100	sk81									nn100		
	23			sk41	sk52	sk100	sk6a3			sk100	sk81	sk41	sk52	sk6a1				lk3				
	24				sk52	sk100	sk6a3			sk100	sk81											

A 3.4 Emission Factors

A 3.4.1 Main Engines at Sea According to ENTEC Study (Scenario 2, 2006)

Engine type	Fuel	Class	S-Content ENTEC	Fuel [g/kWh]	NOx [g/kWh]	SO_2 [g/kWh]	CO_2 [g/kWh]	HC [g/kWh]	Benzene*) [g/kWh]	PM_{10} [g/kWh]	Soot **) [g/kWh]
Diesel, low speed (60 – 300 rpm)	Marine Gas Oil	SSD/MGO	0.5 %	185	17.0	1.9	588	0.6	0.0114	0.3	0.12
	Marine Diesel Oil	SSD/MDO	1.0 %	185	17.0	3.7	588	0.6	0.0114	0.3	0.12
	Residual Oil	SSD/RO	1.5 %	195	18.1	5.9	620	0.6	0.0114	0.5	0.21
Diesel, medium speed (300 – 1.000 rpm)	Marine Gas Oil	MSD/MGO	0.5 %	203	13.2	2.0	645	0.5	0.0095	0.3	0.12
	Marine Diesel Oil	MSD/MDO	1.0 %	203	13.2	4.1	645	0.5	0.0095	0.3	0.12
	Residual Oil	MSD/RO	1.5 %	213	14.0	6.4	677	0.5	0.0095	0.5	0.21
Diesel, high speed (1.000 – 3.000 rpm)	Marine Gas Oil	HSD/MGO	0.5 %	203	12.0	2.0	645	0.2	0.0038	0.3	0.12
	Marine Diesel Oil	HSD/MDO	1.0 %	203	12.0	4.1	645	0.2	0.0038	0.3	0.12
	Residual Oil	HSD/RO	1.5 %	213	12.7	6.4	677	0.2	0.0038	0.5	0.21
Gas turbine	Marine Gas Oil	GT/MGO	0.5 %	290	5.7	2.9	922	0.1	0.0019	0.1	0.04
	Marine Diesel Oil	GT/MDO	1.0 %	290	5.7	5.8	922	0.1	0.0019	0.1	0.04
	Residual Oil	GT/RO	1.5 %	305	6.1	9.2	970	0.1	0.0019	0.2	0.08
Steam turbine	Marine Gas Oil	ST/MGO	0.5 %	290	2.0	2.9	922	0.1	0.0019	0.3	0.12
	Marine Diesel Oil	ST/MDO	1.0 %	290	2.0	5.8	922	0.1	0.0019	0.3	0.12
	Residual Oil	ST/RO	1.5 %	305	2.1	9.2	970	0.1	0.0019	0.5	0.21

*) derived from characteristic benzene content of total HC (1,9 %)

**) derived from characteristic fraction of PM_{10} (40 %)

A 3.4.2 Main Engines at Manoeuvring and in Port According to ENTEC Study (Scenario 2, 2006)

Engine type	Fuel	Class	S-Content ENTEC	Fuel [g/kWh]	NOx [g/kWh]	SO_2 [g/kWh]	CO_2 [g/kWh]	HC [g/kWh]	Benzene*) [g/kWh]	PM_{10} [g/kWh]	Soot **) [g/kWh]
Diesel, low speed (60 – 300 rpm)	Marine Gas Oil	SSD/MGO	0.5 %	204	13.6	2.0	647	1.8	0.0342	0.9	0.36
	Marine Diesel Oil	SSD/MDO	1.0 %	204	13.6	4.1	647	1.8	0.0342	0.9	0.36
	Residual Oil	SSD/RO	1.5 %	215	14.5	6.5	682	1.8	0.0342	1.6	0.62
Diesel, medium speed (300 – 1.000 rpm)	Marine Gas Oil	MSD/MGO	0.5 %	223	10.6	2.2	710	1.5	0.0285	0.9	0.36
	Marine Diesel Oil	MSD/MDO	1.0 %	223	10.6	4.5	710	1.5	0.0285	0.9	0.36
	Residual Oil	MSD/RO	1.5 %	234	11.2	7.0	745	1.5	0.0285	1.6	0.62
Diesel, high speed (1.000 – 3.000 rpm)	Marine Gas Oil	HSD/MGO	0.5 %	223	9.6	2.2	710	0.6	0.0114	0.9	0.36
	Marine Diesel Oil	HSD/MDO	1.0 %	223	9.6	4.5	710	0.6	0.0114	0.9	0.36
	Residual Oil	HSD/RO	1.5 %	234	10.2	7.0	745	0.6	0.0114	1.6	0.62
Gas turbine	Marine Gas Oil	GT/MGO	0.5 %	319	2.9	3.2	1,014	0.5	0.0095	0.5	0.20
	Marine Diesel Oil	GT/MDO	1.0 %	319	2.9	6.4	1,014	0.5	0.0095	0.5	0.20
	Residual Oil	GT/RO	1.5 %	336	3.1	10.1	1,067	0.5	0.0095	1.0	0.39
Steam turbine	Marine Gas Oil	ST/MGO	0.5 %	319	1.6	3.2	1,014	0.3	0.0057	0.9	0.36
	Marine Diesel Oil	ST/MDO	1.0 %	319	1.6	6.4	1,014	0.3	0.0057	0.9	0.36
	Residual Oil	ST/RO	1.5 %	336	1.7	10.1	1,067	0.3	0.0057	1.6	0.62

*) derived from characteristic benzene content of total HC (1,9 %)

**) derived from characteristic fraction of PM_{10} (40 %)

A 3.4.3 Auxiliary Engines at Sea, at Manoeuvring and in Port According to ENTEC Study (Scenario 2, 2006)

Engine type	Fuel	Class	S-Content ENTEC	Fuel [g/kWh]	NOx [g/kWh]	SO_2 [g/kWh]	CO_2 [g/kWh]	HC [g/kWh]	Benzene*) [g/kWh]	PM_{10} [g/kWh]	Soot **) [g/kWh]
Diesel, medium speed (300 – 1.000 rpm)	Marine Gas Oil	MSD/MGO	0.5 %	217	13.9	2.2	690	0.4	0.0076	0.3	0.12
	Marine Diesel Oil	MSD/MDO	1.0 %	217	13.9	4.3	690	0.4	0.0076	0.3	0.12
	Residual Oil	MSD/RO	1.5 %	227	14.7	6.8	722	0.4	0.0076	0.5	0.21
Diesel, high speed (1.000 – 3.000 rpm)	Marine Gas Oil	HSD/MGO	0.5 %	217	10.9	2.2	690	0.4	0.0076	0.3	0.12
	Marine Diesel Oil	HSD/MDO	1.0 %	217	10.9	4.3	690	0.4	0.0076	0.3	0.12
	Residual Oil	HSD/RO	1.5 %	227	11.6	6.8	722	0.4	0.0076	0.5	0.21

*) derived from characteristic benzene content of total HC (1,9 %)

**) derived from characteristic fraction of PM_{10} (40 %)

A 3.4.4 Global Approach for Ship Classes According to ENTEC Study (Scenario 2, 2006) (only for information)

Operation condition	Fuel	Class	S-Content ENTEC	Fuel [g/kWh]	NOx [g/kWh]	SO_2 [g/kWh]	CO_2 [g/kWh]	HC [g/kWh]	Benzene*) [g/kWh]	PM_{10} [g/kWh]	Soot **) [g/kWh]
At sea	General Cargo	A31	1.5 %	203	16.3	6.0	644	0.6	0.0114	0.5	0.20
	RoRo/Cargo	A35	1.5 %	207	15.6	6.2	659	0.5	0.0095	0.5	0.20
	Pass./RoRoC	A36	1.3 %	216	13.3	5.5	686	0.4	0.0076	0.5	0.20
	Pass.	A37	1.5 %	219	13.2	6.5	696	0.5	0.0095	0.5	0.20
Manoeuvring	General Cargo	A31	1.5 %	223	13.1	6.6	709	1.6	0.0304	1.4	0.56
	RoRo/Cargo	A35	1.5 %	228	12.5	6.8	724	1.5	0.0285	1.4	0.56
	Pass./RoRoC	A36	1.3 %	237	10.6	6.1	754	1.3	0.0247	1.4	0.56
	Pass.	A37	1.5 %	240	10.7	7.2	764	1.4	0.0266	1.5	0.60
In port	General Cargo	A31	1.5 %	225	13.3	6.7	716	0.9	0.0171	0.9	0.36
	RoRo/Cargo	A35	1.5 %	227	13.0	6.8	723	0.9	0.0171	0.9	0.36
	Pass./RoRoC	A36	1.3 %	235	11.3	6.3	746	1.0	0.0190	1.1	0.44
	Pass.	A37	1.5 %	236	11.6	7.0	750	1.0	0.0190	1.1	0.44

*) derived from characteristic benzene content of total HC (1,9 %)
**) derived from characteristic fraction of PM_{10} (40 %)

A 3.4.5 Auxiliary Boilers at Sea, at Manoeuvring and in Port According to Isensee

Engine type	Fuel	Efficiency	S-Content ENTEC	Fuel [g/kWh]	NOx [g/kWh]	SO_2 [g/kWh]	CO_2 [g/kWh]	HC [g/kWh]	Benzene*) [g/kWh]	PM_{10} **) [g/kWh]	Soot ***) [g/kWh]
Auxiliary boiler, small	MGO	0.80	0.5 %	105	1.0	1.1	336	0.2	0.0038	0.15	0.06
	MDO	0.80	1.0 %	105	1.0	2.2	335	0.2	0.0038	0.15	0.06
	RO	0.80	1.5 %	105	1.0	3.3	335	0.2	0.0038	0.15	0.06
Auxiliary boiler, large	MGO	0.85	0.5 %	99	1.0	1.0	316	0.2	0.0038	0.15	0.06
	MDO	0.85	1.0 %	99	1.0	2.0	316	0.2	0.0038	0.15	0.06
	RO	0.85	1.5 %	99	1.0	3.1	315	0.2	0.0038	0.15	0.06

*) derived from characteristic benzene content of total HC (1,9 %)
**) known values between 0,03 and 0,15 g/kWh
***) derived from characteristic fraction of PM_{10} (40 %)

A 3.4.6 Main Engines, Auxiliary Engines and Auxiliary Boilers According to EMISS (Isensee)

Engine type	Class	Density [kg/m³]	S-Content ENTEC	Smut content	Oil mud	C-Content	Energy [kJ/g]	Fuel [g/kWh]	Extra charge	SO_2 [g/kWh]	CO_2 [g/kWh]
Main engine, at sea	SSD/MGO	0.89	0.5 %	0.0 %	0.3 %	87.0 %	42.38	185	0.0 %	1.9	590
	SSD/MDO	0.90	1.0 %	0.5 %	0.8 %	86.8 %	41.87	185	0.0 %	3.8	589
	SSD/RO	0.92	1.5 %	1.0 %	1.5 %	86.7 %	41.23	195	0.0 %	6.1	620
	MSD/MGO	0.89	0.5 %	0.0 %	0.3 %	87.0 %	42.38	203	0.0 %	2.1	648
	MSD/MDO	0.90	1.0 %	0.5 %	0.8 %	86.8 %	41.87	203	0.0 %	4.2	646
	MSD/RO	0.92	1.5 %	1.0 %	1.5 %	86.7 %	41.23	213	0.0 %	6.7	677
Main engine, in port	SSD/MGO	0.89	0.5 %	0.0 %	0.3 %	87.0 %	42.38	204	0.0 %	2.1	651
	SSD/MDO	0.90	1.0 %	0.5 %	0.8 %	86.8 %	41.87	204	0.0 %	4.2	649
	SSD/RO	0.92	1.5 %	1.0 %	1.5 %	86.7 %	41.23	215	0.0 %	6.8	683
	MSD/MGO	0.89	0.5 %	0.0 %	0.3 %	87.0 %	42.38	223	0.0 %	2.3	712
	MSD/MDO	0.90	1.0 %	0.5 %	0.8 %	86.8 %	41.87	223	0.0 %	4.6	710
	MSD/RO	0.92	1.5 %	1.0 %	1.5 %	86.7 %	41.23	234	0.0 %	7.4	744
Auxialiary engine	MSD/MGO	0.89	0.5 %	0.0 %	0.3 %	87.0 %	42.38	217	0.0 %	2.2	692
	MSD/MDO	0.90	1.0 %	0.5 %	0.8 %	86.8 %	41.87	217	0.0 %	4.5	690
	MSD/RO	0.92	1.5 %	1.0 %	1.5 %	86.7 %	41.23	227	0.0 %	7.2	722
	HSD/MGO	0.89	0.5 %	0.0 %	0.3 %	87.0 %	42.38	217	0.0 %	2.2	692
	HSD/MDO	0.90	1.0 %	0.5 %	0.8 %	86.8 %	41.87	217	0.0 %	4.5	690
	HSD/RO	0.92	1.5 %	1.0 %	1.5 %	86.7 %	41.23	227	0.0 %	7.2	722
Auxiliary boiler, small	MGO	0.89	0.5 %	0.0 %	0.3 %	87.0 %	42.38	105	0.0 %	1.1	336
	MDO	0.90	1.0 %	0.5 %	0.8 %	86.8 %	41.87	105	0.0 %	2.2	335
	RO	0.92	1.5 %	1.0 %	1.5 %	86.7 %	41.23	105	0.0 %	3.3	335
Auxiliary boiler, large	MGO	0.89	0.5 %	0.0 %	0.3 %	87.0 %	42.38	99	0.0 %	1.0	316
	MDO	0.90	1.0 %	0.5 %	0.8 %	86.8 %	41.87	99	0.0 %	2.0	316
	RO	0.92	1.5 %	1.0 %	1.5 %	86.7 %	41.23	99	0.0 %	3.1	315

A 3.4.7 Comparison between ENTEC Study and EMISS (Isensee)

Engine type	Class	ENTEC		Isensee		Proportion Isensee/ENTEC	
		SO_2 [g/kWh]	CO_2 [g/kWh]	SO_2 [g/kWh]	CO_2 [g/kWh]	SO_2 [g/kWh]	CO_2 [g/kWh]
Main engine, at sea	SSD/MGO	1.9	588	1.9	590	0.98	1.00
	SSD/MDO	3.7	588	3.8	589	1.03	1.00
	SSD/RO	5.9	620	6.1	620	1.04	1.00
	MSD/MGO	2.0	645	2.1	648	1.03	1.00
	MSD/MDO	4.1	645	4.2	646	1.02	1.00
	MSD/RO	6.4	677	6.7	677	1.05	1.00
Main engine, in port	SSD/MGO	1.9	588	2.1	651	1.08	1.11
	SSD/MDO	3.7	588	4.2	649	1.13	1.10
	SSD/RO	5.9	620	6.8	683	1.15	1.10
	MSD/MGO	2.0	645	2.3	712	1.13	1.10
	MSD/MDO	4.1	645	4.6	710	1.12	1.10
	MSD/RO	6.4	677	7.4	744	1.15	1.10
Auxialiary engine	MSD/MGO	2.0	645	2.2	692	1.10	1.07
	MSD/MDO	4.1	645	4.5	690	1.09	1.07
	MSD/RO	6.4	677	7.2	722	1.12	1.07
	HSD/MGO	2.0	645	2.2	692	1.10	1.07
	HSD/MDO	4.1	645	4.5	690	1.09	1.07
	HSD/RO	6.4	677	7.2	722	1.12	1.07

A 3.5 Engine Loads

Engine type	Operation condition	Engine load					
		ENTEC	Isensee	Forecast scenario	Reduction concept 1a	1b	3
Main engine	At sea	80 %	85 %	**80 %**	80 %	80 %	80 %
	Manoeuvring	20 %	35 %	**20 %**	20 %	20 %	20 %
	In port	1 %	0 %	**1 %**	1 %	1 %	1 %
Auxiliary engine	At sea	30 %	0 %	**30 %**	30 %	30 %	30 %
	Manoeuvring	50 %	30 %	**50 %**	50 %	50 %	50 %
	In port	40 %	30 %	**40 %**	1 %	1 %	40 %
Auxiliary boiler	At sea	—	0 %	**0 %**	0 %	0 %	0 %
	Manoeuvring	—	30 %	**10 %**	10 %	10 %	10 %
	In port	—	25 %	**10 %**	10 %	1 %	10 %

A 3.6 Emissions of Sea Ships, Forecast Scenario

A 3.6.1 Specific Ship Data, General

Ship			Berth	Year of con-struction	Type	Class acc. to ENTEC	Loading capacity (TDW)	Number of pas-sengers and crew
No.	Name	Port					[t]	
1	ct1	CTL (Herrenhafen)	CTL	1980	RoRo/C	A35		
2	kk1	Konstinkai	KK6	2003	RoRo/C	A35	14201	
3	kk2	Konstinkai	KK6	1991	RoRo/C	A35	5409	
4	kk3	Konstinkai	KK8	1999	RoRo/C	A35	7441	
5	kk4	Konstinkai	KK8	1999	RoRo/C	A35	7261	
6	kk5	Konstinkai	KK8	2003	RoRo/C	A35	14201	
7	lk1	Lehmannkai	Lkai 1	1987	P/V/Trn.	A36	6321	120
8	lk2	Lehmannkai	Lkai 1	1972	Pax/Veh.	A36	5301	110
9	lk3	Lehmannkai	Lkai 2	1979	RoRo/C	A35	4451	
10	nk1	Nordlandkai	VH	1988	RoRo/C	A35	9000	12
11	nk2	Nordlandkai	VH	1990	RoRo/C	A35		
12	nk3	Nordlandkai	VH1	1984	RoRo/C	A35	12871	
13	nk4	Nordlandkai	VH1	1982	RoRo/C	A35	13091	
14	nk5	Nordlandkai	VH1	1990	Pax/Veh.	A36	10996	84
15	nk6	Nordlandkai	VH1	1981	Pax/Veh.	A36	11645	12
16	nk7	Nordlandkai	VH2	2001	RoRo/C	A35	8101	
17	nk8	Nordlandkai	VH2	2002	RoRo/C	A35	8001	
18	nk9	Nordlandkai	VH2	2002	RoRo/C	A35	11322	
19	nk10	Nordlandkai	VH4		RoRo/C	A35	7629	
20	nk11	Nordlandkai	VH4	1980	Gen.Cargo	A31		
21	ok1	Ostpreußenkai	OPK		Pax	A37		182
22	ok2	Ostpreußenkai	OPK		Pax	A37		184
23	ok3	Ostpreußenkai	OPK		Pax	A37		77
24	ok4	Ostpreußenkai	OPK		Pax	A37		184
25	ok5	Ostpreußenkai	OPK		Pax	A37		800
26	ok6	Ostpreußenkai	OPK		Pax	A37		492
27	ok7	Ostpreußenkai	OPK		Pax	A37		146
28	sp1	Schlutupkai	Schlutup 2	2003	RoRo/C	A35	8501	
29	sp2	Schlutupkai	Schlutup 2	1991	RoRo/C	A35	12968	
30	sp3	Schlutupkai	Schlutup 2	1987	RoRo/C	A35	11396	
31	sk31	Skandinavienkai	Skai 3	1988	RoRo/C	A35	9000	
32	sk32	Skandinavienkai	Skai 3	1991	RoRo/C	A35	5283	
33	sk33	Skandinavienkai	Skai 3	1990	*RoRo/C*	*A35*		
34	sk34	Skandinavienkai	Skai 3	1982	Pax/Veh.	A36		186
35	sk35	Skandinavienkai	Skai 3		Pax	A37		1071
36	sk36	Skandinavienkai	Skai 3		Pax	A37		2588
37	sk37	Skandinavienkai	Skai 3		Pax	A37		146
38	sk41	Skandinavienkai	Skai 4	1996	Pax/Veh.	A36		
39	sk42	Skandinavienkai	Skai 4	2000	Pax/Veh.	A36	31601	400
40	sk51	Skandinavienkai	Skai 4	1994	Pax/Veh.	A36	10701	114
41	sk52	Skandinavienkai	Skai 5	1995	Pax/Veh.	A36	11301	88
42	sk53	Skandinavienkai	Skai 5	1995	Pax/Veh.	A36	11682	90
43	sk54	Skandinavienkai	Skai 5	1994	Pax/Veh.	A36	11558	114
44	sk6a1	Skandinavienkai	Skai 6a	2001	Pax/Veh.	A36	7200	744
45	sk6a2	Skandinavienkai	Skai 6a	2001	Pax/Veh.	A36	7200	744
46	sk6a3	Skandinavienkai	Skai 6a	1995	Pax/Veh.	A36	6601	308
47	sk6a4	Skandinavienkai	Skai 6a	1995	Pax/Veh.	A36	6601	308
48	sk71	Skandinavienkai	Skai 7	1980	P/V/Trn.	A36	8702	240
49	sk72	Skandinavienkai	Skai 7	1980	*P/V/Trn.*	*A36*		
50	sk73	Skandinavienkai	Skai 7	1973	P/V/Trn.	A36		400
51	sk7a1	Skandinavienkai	Skai 7a	1977	RoRo/C	A35	8911	
52	sk7a2	Skandinavienkai	Skai 7a	1978	RoRo/C	A35	8698	
53	sk81	Skandinavienkai	Skai 8	1984	RoRo/C	A35	9887	
54	sk82	Skandinavienkai	Skai 8	1990	RoRo/C	A35	10141	
55	sk100	Skandinavienkai	Skai 5a,4,7,8		RoRo/C	A35		
56	nn100	other	other		RoRo/C	A35		

A 3.6.2 Specific Ship Data, Main Engines

Ship			Main engines (ME)					
			No.	Total installed power [kW]	Speed class	Fuel (capacity and type)		
No.	Name	Port				Amount	Type	S-con-tent
1	ct1	CTL (Herrenhafen)	1	14,480	*MSD*	445 to. hfo	RO	*1.50 %*
2	kk1	Konstinkai	2	25,200	*MSD*		*RO*	*1.50 %*
3	kk2	Konstinkai	1	4,500	*MSD*	600 to. hfo	RO	*1.50 %*
4	kk3	Konstinkai	1	11,030	*MSD*	798 to. hfo	RO	1.50 %
5	kk4	Konstinkai	1	15,600	*MSD*	926 to. hfo	RO	*1.50 %*
6	kk5	Konstinkai	2	16,200	*MSD*		*RO*	*1.50 %*
7	lk1	Lehmannkai	4	7,600	*MSD*	577 to. IFO 60	RO	*1.50 %*
8	lk2	Lehmannkai	2	7,600	*MSD*	670 to. hfo	RO	*1.50 %*
9	lk3	Lehmannkai	1	2,206	*MSD*	356 to. hfo	RO	*1.50 %*
10	nk1	Nordlandkai	2	14,390	*MSD*	*900 to. hfo*	RO	*1.50 %*
11	nk2	Nordlandkai	1	12,600	*MSD*	814,4 to. hfo	RO	*1.50 %*
12	nk3	Nordlandkai	2	13,198	*MSD*	1189 to. hfo	RO	*1.50 %*
13	nk4	Nordlandkai	1	14,390	*MSD*	1189 to.hfo	RO	*1.50 %*
14	nk5	Nordlandkai	2	14,400	*MSD*		RO	1.50 %
15	nk6	Nordlandkai	2	14,504	*MSD*	1305 to. hfo	RO	1.50 %
16	nk7	Nordlandkai	1	12,600	*MSD*	792 to. hfo	RO	*1.50 %*
17	nk8	Nordlandkai	2	18,900	*MSD*	949 to. hfo	RO	*1.50 %*
18	nk9	Nordlandkai	2	18,900	*MSD*	949 to. hfo	RO	*1.50 %*
19	nk10	Nordlandkai	1	14,480	*MSD*	1264 to. hfo	RO	*1.50 %*
20	nk11	Nordlandkai	1	1,800	*MSD*		*RO*	*1.50 %*
21	ok1	Ostpreußenkai	1	3,236	*MSD*		*MDO*	*1.00 %*
22	ok2	Ostpreußenkai	2	425	*MSD*		*MDO*	*1.00 %*
23	ok3	Ostpreußenkai	1	660	*MSD*		*MDO*	*1.00 %*
24	ok4	Ostpreußenkai	2	425	*MSD*		*MDO*	*1.00 %*
25	ok5	Ostpreußenkai	2	*20,000*	*MSD*		*RO*	*1.50 %*
26	ok6	Ostpreußenkai	1	11,700	*MSD*		*RO*	*1.50 %*
27	ok7	Ostpreußenkai	2	3,500	*MSD*		*MDO*	*1.00 %*
28	sp1	Schlutupkai	4	24,000	*MSD*		*RO*	*1.50 %*
29	sp2	Schlutupkai	1	7,693	*MSD*	960 to. hfo	RO	*1.50 %*
30	sp3	Schlutupkai	1	7,774	*MSD*	hfo	RO	*1.50 %*
31	sk31	Skandinavienkai	2	14,390	*MSD*	*900 to. hfo*	RO	*1.50 %*
32	sk32	Skandinavienkai	1	5,916	*MSD*	560 to. hfo	RO	*1.50 %*
33	sk33	Skandinavienkai	2	7,920	*MSD*	452 to. hfo	RO	*1.50 %*
34	sk34	Skandinavienkai	2	9,840	*MSD*	1198 to. hfo	RO	*1.50 %*
35	sk35	Skandinavienkai	4	13,400	*MSD*		*RO*	*1.50 %*
36	sk36	Skandinavienkai	2	47,750	*MSD*		*RO*	*1.50 %*
37	sk37	Skandinavienkai	2	3,500	*MSD*		*MDO*	*1.00 %*
38	sk41	Skandinavienkai	4	17,280	*MSD*	890 to. hfo	RO	*1.50 %*
39	sk42	Skandinavienkai	4	24,000	*MSD*		*RO*	*1.50 %*
40	sk51	Skandinavienkai	4	23,040	*MSD*	1490 to. hfo	RO	*1.50 %*
41	sk52	Skandinavienkai	4	23,040	*MSD*	1490 to. hfo	RO	*1.50 %*
42	sk53	Skandinavienkai	4	23,068	*MSD*	1490 hfo	RO	1.50 %
43	sk54	Skandinavienkai	4	23,036	*MSD*	1490 to. hfo	RO	*1.50 %*
44	sk6a1	Skandinavienkai	5	29,880	*MSD*	900 to do	MDO	0.30 %
45	sk6a2	Skandinavienkai	5	29,880	*MSD*	900 to do	MDO	0.30 %
46	sk6a3	Skandinavienkai	4	18,000	*MSD*	450 to do	MDO	0.30 %
47	sk6a4	Skandinavienkai	4	18,000	*MSD*	450 to do	MDO	0.30 %
48	sk71	Skandinavienkai	2	15,900	SSD	2868 to. hfo	RO	1.50 %
49	sk72	Skandinavienkai	2	15,900	SSD	2868 to. hfo	RO	1.50 %
50	sk73	Skandinavienkai	4	10,300	*MSD*		RO	0.49 %
51	sk7a1	Skandinavienkai	2	11,474	*MSD*	1623 hfo	RO	1.00 %
52	sk7a2	Skandinavienkai	2	11,474	*MSD*	1623 LS 180	RO	0.48 %
53	sk81	Skandinavienkai	2	15,999	*MSD*	888 to. hfo	RO	1.50 %
54	sk82	Skandinavienkai	2	16,290	*MSD*	814 to. hfo	RO	1.50 %
55	sk100	Skandinavienkai	2	*25,000*	*MSD*		*RO*	*1.50 %*
56	nn100	other	2	*25,000*	*MSD*		*RO*	*1.50 %*

A 3.6.3 Specific Ship Data, Auxiliary Engines

Ship			Auxiliary engines (AE)					
			No.	Total installed power [kW]	Speed class	Fuel (capacity and type)		
No.	Name	Port				Amount	Type	S-content
1	ct1	CTL (Herrenhafen)	2	1,562	*MSD*		*MDO*	*1.00 %*
2	kk1	Konstinkai	4	6,080	*MSD*		*MDO*	*1.00 %*
3	kk2	Konstinkai	3	1,256	*MSD*	47 to. do	MDO	*1.00 %*
4	kk3	Konstinkai	3	2,430	*MSD*	130 to. do	MDO	0.20 %
5	kk4	Konstinkai	3	2,468	*MSD*	129 to. do	MDO	*1.00 %*
6	kk5	Konstinkai	4	6,080	*MSD*		*MDO*	*1.00 %*
7	lk1	Lehmannkai	5	3,098	*MSD*	103 to. do	MDO	*1.00 %*
8	lk2	Lehmannkai	3	1,545	*MSD*	81 to. do	MDO	*1.00 %*
9	lk3	Lehmannkai	3	540	*MSD*	60 to. do	MDO	*1.00 %*
10	nk1	Nordlandkai	2	2,370	*MSD*	*200 to. do*	MDO	*1.00 %*
11	nk2	Nordlandkai	3	2,360	*MSD*	133,3 to. go	MGO	*0.50 %*
12	nk3	Nordlandkai	3	3,000	*MSD*	90 to. do	MDO	*1.00 %*
13	nk4	Nordlandkai	3	3,000	*MSD*	90 to. do	MDO	*1.00 %*
14	nk5	Nordlandkai	3	3,410	*MSD*		*MDO*	0.10 %
15	nk6	Nordlandkai	3	1,950	*MSD*	107 to. do	MDO	0.10 %
16	nk7	Nordlandkai	3	2,500	*MSD*	107,9 to. do	MDO	*1.00 %*
17	nk8	Nordlandkai	4	4,000	*MSD*	144 to. do	MDO	*1.00 %*
18	nk9	Nordlandkai	4	4,000	*MSD*	144 to. do	MDO	*1.00 %*
19	nk10	Nordlandkai	3	2,700	*MSD*	71 to. do	MDO	*1.00 %*
20	nk11	Nordlandkai	2	796	*MSD*		*MDO*	*1.00 %*
21	ok1	Ostpreußenkai	0	0	—	—	—	—
22	ok2	Ostpreußenkai	0	0	—	—	—	—
23	ok3	Ostpreußenkai	1	317	*MSD*		*MDO*	*1.00 %*
24	ok4	Ostpreußenkai	0	0	—	—	—	—
25	ok5	Ostpreußenkai	2	*4,000*	*MSD*		*MDO*	*1.00 %*
26	ok6	Ostpreußenkai	0	0	—	—	—	—
27	ok7	Ostpreußenkai	0	0	—	—	—	—
28	sp1	Schlutupkai	2	6,564	*MSD*		*MDO*	*1.00 %*
29	sp2	Schlutupkai	3	2,820	*MSD*	195 to. do	MDO	*1.00 %*
30	sp3	Schlutupkai	2	2,025	*MSD*	do	MDO	*1.00 %*
31	sk31	Skandinavienkai	3	2,370	*MSD*	*200 to. do*	MDO	*1.00 %*
32	sk32	Skandinavienkai	3	1,020	*MSD*	47 to. do	MDO	*1.00 %*
33	sk33	Skandinavienkai	4	1,560	*MSD*	105 to. do	MDO	*1.00 %*
34	sk34	Skandinavienkai	2	2,190	*MSD*	509 to. do	MDO	*1.00 %*
35	sk35	Skandinavienkai	0	0	—	—	—	—
36	sk36	Skandinavienkai	0	0	—	—	—	—
37	sk37	Skandinavienkai	0	0	—	—	—	—
38	sk41	Skandinavienkai	5	5,900	*MSD*	90 to. do	MDO	*1.00 %*
39	sk42	Skandinavienkai	5	6,564	*MSD*		*MDO*	*1.00 %*
40	sk51	Skandinavienkai	3	4,056	*MSD*	360 to. do	MDO	*1.00 %*
41	sk52	Skandinavienkai	3	4,056	*MSD*	360 to. do	MDO	*1.00 %*
42	sk53	Skandinavienkai	3	3,575	*MSD*	360 to. do	MDO	0.15 %
43	sk54	Skandinavienkai	4	5,312	*MSD*	360 to. do	MDO	*1.00 %*
44	sk6a1	Skandinavienkai	0	0	—	—	—	—
45	sk6a2	Skandinavienkai	0	0	—	—	—	—
46	sk6a3	Skandinavienkai	0	0	—	—	—	—
47	sk6a4	Skandinavienkai	0	0	—	—	—	—
48	sk71	Skandinavienkai	3	4,200	MSD	do	MDO	1.50 %
49	sk72	Skandinavienkai	3	4,200	MSD		MDO	1.50 %
50	sk73	Skandinavienkai	4	2,904	*MSD*		*MDO*	0.49 %
51	sk7a1	Skandinavienkai	3	3,120	*MSD*	164.5 to. do	MDO	1.00 %
52	sk7a2	Skandinavienkai	2	1,520	*MSD*	164.5 to. do	MDO	*1.00 %*
53	sk81	Skandinavienkai	4	3,904	*MSD*	147 to. do	MDO	0.15 %
54	sk82	Skandinavienkai	2	3,240	*MSD*	151 to. do	MDO	0.15 %
55	sk100	Skandinavienkai	2	*6,000*	*MSD*		*MDO*	*1.00 %*
56	nn100	other	2	*6,000*	*MSD*		*MDO*	*1.00 %*

A 3.6.4 Specific Ship Data, Auxiliary Boilers

Ship			Auxiliary boilers (AB)					
			No.	Total installed power	Satu-rated steam	Vapour pres-sure	Fuel	
No.	Name	Port		[kW]	[t/h]	[bar]	Type	S-con-tent
1	ct1	CTL (Herrenhafen)		*2,000*		*8*	*RO*	*1.50 %*
2	kk1	Konstinkai		3,180		*8*	*RO*	*1.50 %*
3	kk2	Konstinkai		1,690		*8*	*RO*	*1.50 %*
4	kk3	Konstinkai		2,040		*8*	*RO*	*1.50 %*
5	kk4	Konstinkai		*2,000*		*8*	*RO*	*1.50 %*
6	kk5	Konstinkai		3,180		*8*	*RO*	*1.50 %*
7	lk1	Lehmannkai		1,850		*8*	*RO*	*1.50 %*
8	lk2	Lehmannkai		1,680		*8*	*RO*	*1.50 %*
9	lk3	Lehmannkai		1,530		*8*	*RO*	*1.50 %*
10	nk1	Nordlandkai		*2,300*		*8*	*RO*	*1.50 %*
11	nk2	Nordlandkai		2,200		*8*	*RO*	*1.50 %*
12	nk3	Nordlandkai		2,960		*8*	*RO*	*1.50 %*
13	nk4	Nordlandkai		3,000		*8*	*RO*	*1.50 %*
14	nk5	Nordlandkai	1	2,640	3.4	8	*MDO*	0.10 %
15	nk6	Nordlandkai	1	2,750	4	*8*	MDO	0.10 %
16	nk7	Nordlandkai		2,150		*8*	*RO*	*1.50 %*
17	nk8	Nordlandkai		2,150		*8*	*RO*	*1.50 %*
18	nk9	Nordlandkai		2,700		*8*	*RO*	*1.50 %*
19	nk10	Nordlandkai		2,070		*8*	*RO*	*1.50 %*
20	nk11	Nordlandkai		*1,500*		*8*	*RO*	*1.50 %*
21	ok1	Ostpreußenkai		*4,680*	*6.1*	*8*	*MDO*	*1.00 %*
22	ok2	Ostpreußenkai		0	—	—	—	—
23	ok3	Ostpreußenkai		0	—	—	—	—
24	ok4	Ostpreußenkai		0	—	—	—	—
25	ok5	Ostpreußenkai		*7,530*	*9.8*	*8*	*RO*	*1.50 %*
26	ok6	Ostpreußenkai		*6,110*	*8.0*	*8*	*RO*	*1.50 %*
27	ok7	Ostpreußenkai		*4,510*	*5.9*	*8*	*MDO*	*1.00 %*
28	sp1	Schlutupkai		2,220		*8*	*RO*	*1.50 %*
29	sp2	Schlutupkai		2,970		*8*	*RO*	*1.50 %*
30	sp3	Schlutupkai		2,710		*8*	*RO*	*1.50 %*
31	sk31	Skandinavienkai		*2,300*		*8*	*RO*	*1.50 %*
32	sk32	Skandinavienkai		1,670		*8*	*RO*	*1.50 %*
33	sk33	Skandinavienkai		*2,700*		*8*	*RO*	*1.50 %*
34	sk34	Skandinavienkai		1,580		*8*	*RO*	*1.50 %*
35	sk35	Skandinavienkai		*8,780*	*11.4*	*8*	*RO*	*1.50 %*
36	sk36	Skandinavienkai		*15,770*	*20.5*	*8*	*RO*	*1.50 %*
37	sk37	Skandinavienkai		*4,510*	*5.9*	*8*	*MDO*	*1.00 %*
38	sk41	Skandinavienkai		2,490		*8*	*RO*	*1.50 %*
39	sk42	Skandinavienkai		6,120		*8*	*RO*	*1.50 %*
40	sk51	Skandinavienkai		2,600		*8*	*RO*	*1.50 %*
41	sk52	Skandinavienkai		2,690		*8*	*RO*	*1.50 %*
42	sk53	Skandinavienkai	5	2,750	10.2	*8*	MDO	0.15 %
43	sk54	Skandinavienkai		2,730		*8*	*RO*	*1.50 %*
44	sk6a1	Skandinavienkai		2,410		*8*	*MDO*	*0.30 %*
45	sk6a2	Skandinavienkai		2,410		*8*	*MDO*	*0.30 %*
46	sk6a3	Skandinavienkai		1,900		*8*	*MDO*	*0.30 %*
47	sk6a4	Skandinavienkai		1,900		*8*	*MDO*	*0.30 %*
48	sk71	Skandinavienkai		2,250		*8*	*RO*	*1.50 %*
49	sk72	Skandinavienkai		*2,250*		*8*	*RO*	*1.50 %*
50	sk73	Skandinavienkai		1,900		*8*	*RO*	*0.49 %*
51	sk7a1	Skandinavienkai	1	1,950		*8*	*MDO*	1.00 %
52	sk7a2	Skandinavienkai	1	1,000		*8*	*MDO*	*1.00 %*
53	sk81	Skandinavienkai	1	2,900		*8*	*MDO*	0.15 %
54	sk82	Skandinavienkai	1	2,900		*8*	*MDO*	0.15 %
55	sk100	Skandinavienkai	*1*	*3,000*		*8*	*MDO*	*1.00 %*
56	nn100	other	*1*	*3,000*		*8*	*MDO*	*1.00 %*

A 3.6.5 Global Emission Factors According to ENTEC, at Sea (only for Information)

Ship			Emission factors [g/kWh]								
			Global approach for ship classes according to ENTEC								
			At sea								
No.	Name	Port	Class	Fuel	NOx	SO2	CO2	HC	Benz.	PM10	Soot
1	ct1	CTL (Herrenhafen)	A35	207	15.6	6.2	659	0.5	0.0095	0.5	0.20
2	kk1	Konstinkai	A35	207	15.6	6.2	659	0.5	0.0095	0.5	0.20
3	kk2	Konstinkai	A35	207	15.6	6.2	659	0.5	0.0095	0.5	0.20
4	kk3	Konstinkai	A35	207	15.6	6.2	659	0.5	0.0095	0.5	0.20
5	kk4	Konstinkai	A35	207	15.6	6.2	659	0.5	0.0095	0.5	0.20
6	kk5	Konstinkai	A35	207	15.6	6.2	659	0.5	0.0095	0.5	0.20
7	lk1	Lehmannkai	A36	216	13.3	5.5	686	0.4	0.0076	0.5	0.20
8	lk2	Lehmannkai	A36	216	13.3	5.5	686	0.4	0.0076	0.5	0.20
9	lk3	Lehmannkai	A35	207	15.6	6.2	659	0.5	0.0095	0.5	0.20
10	nk1	Nordlandkai	A35	207	15.6	6.2	659	0.5	0.0095	0.5	0.20
11	nk2	Nordlandkai	A35	207	15.6	6.2	659	0.5	0.0095	0.5	0.20
12	nk3	Nordlandkai	A35	207	15.6	6.2	659	0.5	0.0095	0.5	0.20
13	nk4	Nordlandkai	A35	207	15.6	6.2	659	0.5	0.0095	0.5	0.20
14	nk5	Nordlandkai	A36	216	13.3	5.5	686	0.4	0.0076	0.5	0.20
15	nk6	Nordlandkai	A36	216	13.3	5.5	686	0.4	0.0076	0.5	0.20
16	nk7	Nordlandkai	A35	207	15.6	6.2	659	0.5	0.0095	0.5	0.20
17	nk8	Nordlandkai	A35	207	15.6	6.2	659	0.5	0.0095	0.5	0.20
18	nk9	Nordlandkai	A35	207	15.6	6.2	659	0.5	0.0095	0.5	0.20
19	nk10	Nordlandkai	A35	207	15.6	6.2	659	0.5	0.0095	0.5	0.20
20	nk11	Nordlandkai	A31	203	16.3	6.0	644	0.6	0.0114	0.5	0.20
21	ok1	Ostpreußenkai	A37	219	13.2	6.5	696	0.5	0.0095	0.5	0.20
22	ok2	Ostpreußenkai	A37	219	13.2	6.5	696	0.5	0.0095	0.5	0.20
23	ok3	Ostpreußenkai	A37	219	13.2	6.5	696	0.5	0.0095	0.5	0.20
24	ok4	Ostpreußenkai	A37	219	13.2	6.5	696	0.5	0.0095	0.5	0.20
25	ok5	Ostpreußenkai	A37	219	13.2	6.5	696	0.5	0.0095	0.5	0.20
26	ok6	Ostpreußenkai	A37	219	13.2	6.5	696	0.5	0.0095	0.5	0.20
27	ok7	Ostpreußenkai	A37	219	13.2	6.5	696	0.5	0.0095	0.5	0.20
28	sp1	Schlutupkai	A35	207	15.6	6.2	659	0.5	0.0095	0.5	0.20
29	sp2	Schlutupkai	A35	207	15.6	6.2	659	0.5	0.0095	0.5	0.20
30	sp3	Schlutupkai	A35	207	15.6	6.2	659	0.5	0.0095	0.5	0.20
31	sk31	Skandinavienkai	A35	207	15.6	6.2	659	0.5	0.0095	0.5	0.20
32	sk32	Skandinavienkai	A35	207	15.6	6.2	659	0.5	0.0095	0.5	0.20
33	sk33	Skandinavienkai	A35	207	15.6	6.2	659	0.5	0.0095	0.5	0.20
34	sk34	Skandinavienkai	A36	216	13.3	5.5	686	0.4	0.0076	0.5	0.20
35	sk35	Skandinavienkai	A37	219	13.2	6.5	696	0.5	0.0095	0.5	0.20
36	sk36	Skandinavienkai	A37	219	13.2	6.5	696	0.5	0.0095	0.5	0.20
37	sk37	Skandinavienkai	A37	219	13.2	6.5	696	0.5	0.0095	0.5	0.20
38	sk41	Skandinavienkai	A36	216	13.3	5.5	686	0.4	0.0076	0.5	0.20
39	sk42	Skandinavienkai	A36	216	13.3	5.5	686	0.4	0.0076	0.5	0.20
40	sk51	Skandinavienkai	A36	216	13.3	5.5	686	0.4	0.0076	0.5	0.20
41	sk52	Skandinavienkai	A36	216	13.3	5.5	686	0.4	0.0076	0.5	0.20
42	sk53	Skandinavienkai	A36	216	13.3	5.5	686	0.4	0.0076	0.5	0.20
43	sk54	Skandinavienkai	A36	216	13.3	5.5	686	0.4	0.0076	0.5	0.20
44	sk6a1	Skandinavienkai	A36	216	13.3	5.5	686	0.4	0.0076	0.5	0.20
45	sk6a2	Skandinavienkai	A36	216	13.3	5.5	686	0.4	0.0076	0.5	0.20
46	sk6a3	Skandinavienkai	A36	216	13.3	5.5	686	0.4	0.0076	0.5	0.20
47	sk6a4	Skandinavienkai	A36	216	13.3	5.5	686	0.4	0.0076	0.5	0.20
48	sk71	Skandinavienkai	A36	216	13.3	5.5	686	0.4	0.0076	0.5	0.20
49	sk72	Skandinavienkai	A36	216	13.3	5.5	686	0.4	0.0076	0.5	0.20
50	sk73	Skandinavienkai	A36	216	13.3	5.5	686	0.4	0.0076	0.5	0.20
51	sk7a1	Skandinavienkai	A35	207	15.6	6.2	659	0.5	0.0095	0.5	0.20
52	sk7a2	Skandinavienkai	A35	207	15.6	6.2	659	0.5	0.0095	0.5	0.20
53	sk81	Skandinavienkai	A35	207	15.6	6.2	659	0.5	0.0095	0.5	0.20
54	sk82	Skandinavienkai	A35	207	15.6	6.2	659	0.5	0.0095	0.5	0.20
55	sk100	Skandinavienkai	A35	207	15.6	6.2	659	0.5	0.0095	0.5	0.20
56	nn100	other	A35	207	15.6	6.2	659	0.5	0.0095	0.5	0.20

A 3.6.6 Global Emission Factors According to ENTEC, Manoeuvring (only for Information)

Ship			Emission factors [g/kWh]								
			Global approach for ship classes according to ENTEC								
			Manoeuvring								
No.	Name	Port	Class	Fuel	NOx	SO2	CO2	HC	Benz.	PM10	Soot
1	ct1	CTL (Herrenhafen)	A35	228	12.5	6.8	724	1.5	0.0285	1.4	0.56
2	kk1	Konstinkai	A35	228	12.5	6.8	724	1.5	0.0285	1.4	0.56
3	kk2	Konstinkai	A35	228	12.5	6.8	724	1.5	0.0285	1.4	0.56
4	kk3	Konstinkai	A35	228	12.5	6.8	724	1.5	0.0285	1.4	0.56
5	kk4	Konstinkai	A35	228	12.5	6.8	724	1.5	0.0285	1.4	0.56
6	kk5	Konstinkai	A35	228	12.5	6.8	724	1.5	0.0285	1.4	0.56
7	lk1	Lehmannkai	A36	237	10.6	6.1	754	1.3	0.0247	1.4	0.56
8	lk2	Lehmannkai	A36	237	10.6	6.1	754	1.3	0.0247	1.4	0.56
9	lk3	Lehmannkai	A35	228	12.5	6.8	724	1.5	0.0285	1.4	0.56
10	nk1	Nordlandkai	A35	228	12.5	6.8	724	1.5	0.0285	1.4	0.56
11	nk2	Nordlandkai	A35	228	12.5	6.8	724	1.5	0.0285	1.4	0.56
12	nk3	Nordlandkai	A35	228	12.5	6.8	724	1.5	0.0285	1.4	0.56
13	nk4	Nordlandkai	A35	228	12.5	6.8	724	1.5	0.0285	1.4	0.56
14	nk5	Nordlandkai	A36	237	10.6	6.1	754	1.3	0.0247	1.4	0.56
15	nk6	Nordlandkai	A36	237	10.6	6.1	754	1.3	0.0247	1.4	0.56
16	nk7	Nordlandkai	A35	228	12.5	6.8	724	1.5	0.0285	1.4	0.56
17	nk8	Nordlandkai	A35	228	12.5	6.8	724	1.5	0.0285	1.4	0.56
18	nk9	Nordlandkai	A35	228	12.5	6.8	724	1.5	0.0285	1.4	0.56
19	nk10	Nordlandkai	A35	228	12.5	6.8	724	1.5	0.0285	1.4	0.56
20	nk11	Nordlandkai	A31	223	13.1	6.6	709	1.6	0.0304	1.4	0.56
21	ok1	Ostpreußenkai	A37	240	10.7	7.2	764	1.4	0.0266	1.5	0.60
22	ok2	Ostpreußenkai	A37	240	10.7	7.2	764	1.4	0.0266	1.5	0.60
23	ok3	Ostpreußenkai	A37	240	10.7	7.2	764	1.4	0.0266	1.5	0.60
24	ok4	Ostpreußenkai	A37	240	10.7	7.2	764	1.4	0.0266	1.5	0.60
25	ok5	Ostpreußenkai	A37	240	10.7	7.2	764	1.4	0.0266	1.5	0.60
26	ok6	Ostpreußenkai	A37	240	10.7	7.2	764	1.4	0.0266	1.5	0.60
27	ok7	Ostpreußenkai	A37	240	10.7	7.2	764	1.4	0.0266	1.5	0.60
28	sp1	Schlutupkai	A35	228	12.5	6.8	724	1.5	0.0285	1.4	0.56
29	sp2	Schlutupkai	A35	228	12.5	6.8	724	1.5	0.0285	1.4	0.56
30	sp3	Schlutupkai	A35	228	12.5	6.8	724	1.5	0.0285	1.4	0.56
31	sk31	Skandinavienkai	A35	228	12.5	6.8	724	1.5	0.0285	1.4	0.56
32	sk32	Skandinavienkai	A35	228	12.5	6.8	724	1.5	0.0285	1.4	0.56
33	sk33	Skandinavienkai	A35	228	12.5	6.8	724	1.5	0.0285	1.4	0.56
34	sk34	Skandinavienkai	A36	237	10.6	6.1	754	1.3	0.0247	1.4	0.56
35	sk35	Skandinavienkai	A37	240	10.7	7.2	764	1.4	0.0266	1.5	0.60
36	sk36	Skandinavienkai	A37	240	10.7	7.2	764	1.4	0.0266	1.5	0.60
37	sk37	Skandinavienkai	A37	240	10.7	7.2	764	1.4	0.0266	1.5	0.60
38	sk41	Skandinavienkai	A36	237	10.6	6.1	754	1.3	0.0247	1.4	0.56
39	sk42	Skandinavienkai	A36	237	10.6	6.1	754	1.3	0.0247	1.4	0.56
40	sk51	Skandinavienkai	A36	237	10.6	6.1	754	1.3	0.0247	1.4	0.56
41	sk52	Skandinavienkai	A36	237	10.6	6.1	754	1.3	0.0247	1.4	0.56
42	sk53	Skandinavienkai	A36	237	10.6	6.1	754	1.3	0.0247	1.4	0.56
43	sk54	Skandinavienkai	A36	237	10.6	6.1	754	1.3	0.0247	1.4	0.56
44	sk6a1	Skandinavienkai	A36	237	10.6	6.1	754	1.3	0.0247	1.4	0.56
45	sk6a2	Skandinavienkai	A36	237	10.6	6.1	754	1.3	0.0247	1.4	0.56
46	sk6a3	Skandinavienkai	A36	237	10.6	6.1	754	1.3	0.0247	1.4	0.56
47	sk6a4	Skandinavienkai	A36	237	10.6	6.1	754	1.3	0.0247	1.4	0.56
48	sk71	Skandinavienkai	A36	237	10.6	6.1	754	1.3	0.0247	1.4	0.56
49	sk72	Skandinavienkai	A36	237	10.6	6.1	754	1.3	0.0247	1.4	0.56
50	sk73	Skandinavienkai	A36	237	10.6	6.1	754	1.3	0.0247	1.4	0.56
51	sk7a1	Skandinavienkai	A35	228	12.5	6.8	724	1.5	0.0285	1.4	0.56
52	sk7a2	Skandinavienkai	A35	228	12.5	6.8	724	1.5	0.0285	1.4	0.56
53	sk81	Skandinavienkai	A35	228	12.5	6.8	724	1.5	0.0285	1.4	0.56
54	sk82	Skandinavienkai	A35	228	12.5	6.8	724	1.5	0.0285	1.4	0.56
55	sk100	Skandinavienkai	A35	228	12.5	6.8	724	1.5	0.0285	1.4	0.56
56	nn100	other	A35	228	12.5	6.8	724	1.5	0.0285	1.4	0.56

A 3.6.7 Global Emission Factors According to ENTEC, in Port (only for Information)

Ship			Emission factors [g/kWh]								
			Global approach for ship classes according to ENTEC								
			In port								
No.	Name	Port	Class	Fuel	NOx	SO2	CO2	HC	Benz.	PM10	Soot
1	ct1	CTL (Herrenhafen)	A35	227	13.0	6.8	723	0.9	0.0171	0.9	0.36
2	kk1	Konstinkai	A35	227	13.0	6.8	723	0.9	0.0171	0.9	0.36
3	kk2	Konstinkai	A35	227	13.0	6.8	723	0.9	0.0171	0.9	0.36
4	kk3	Konstinkai	A35	227	13.0	6.8	723	0.9	0.0171	0.9	0.36
5	kk4	Konstinkai	A35	227	13.0	6.8	723	0.9	0.0171	0.9	0.36
6	kk5	Konstinkai	A35	227	13.0	6.8	723	0.9	0.0171	0.9	0.36
7	lk1	Lehmannkai	A36	235	11.3	6.3	746	1.0	0.0190	1.1	0.44
8	lk2	Lehmannkai	A36	235	11.3	6.3	746	1.0	0.0190	1.1	0.44
9	lk3	Lehmannkai	A35	227	13.0	6.8	723	0.9	0.0171	0.9	0.36
10	nk1	Nordlandkai	A35	227	13.0	6.8	723	0.9	0.0171	0.9	0.36
11	nk2	Nordlandkai	A35	227	13.0	6.8	723	0.9	0.0171	0.9	0.36
12	nk3	Nordlandkai	A35	227	13.0	6.8	723	0.9	0.0171	0.9	0.36
13	nk4	Nordlandkai	A35	227	13.0	6.8	723	0.9	0.0171	0.9	0.36
14	nk5	Nordlandkai	A36	235	11.3	6.3	746	1.0	0.0190	1.1	0.44
15	nk6	Nordlandkai	A36	235	11.3	6.3	746	1.0	0.0190	1.1	0.44
16	nk7	Nordlandkai	A35	227	13.0	6.8	723	0.9	0.0171	0.9	0.36
17	nk8	Nordlandkai	A35	227	13.0	6.8	723	0.9	0.0171	0.9	0.36
18	nk9	Nordlandkai	A35	227	13.0	6.8	723	0.9	0.0171	0.9	0.36
19	nk10	Nordlandkai	A35	227	13.0	6.8	723	0.9	0.0171	0.9	0.36
20	nk11	Nordlandkai	A31	225	13.3	6.7	716	0.9	0.0171	0.9	0.36
21	ok1	Ostpreußenkai	A37	236	11.6	7.0	750	1.0	0.0190	1.1	0.44
22	ok2	Ostpreußenkai	A37	236	11.6	7.0	750	1.0	0.0190	1.1	0.44
23	ok3	Ostpreußenkai	A37	236	11.6	7.0	750	1.0	0.0190	1.1	0.44
24	ok4	Ostpreußenkai	A37	236	11.6	7.0	750	1.0	0.0190	1.1	0.44
25	ok5	Ostpreußenkai	A37	236	11.6	7.0	750	1.0	0.0190	1.1	0.44
26	ok6	Ostpreußenkai	A37	236	11.6	7.0	750	1.0	0.0190	1.1	0.44
27	ok7	Ostpreußenkai	A37	236	11.6	7.0	750	1.0	0.0190	1.1	0.44
28	sp1	Schlutupkai	A35	227	13.0	6.8	723	0.9	0.0171	0.9	0.36
29	sp2	Schlutupkai	A35	227	13.0	6.8	723	0.9	0.0171	0.9	0.36
30	sp3	Schlutupkai	A35	227	13.0	6.8	723	0.9	0.0171	0.9	0.36
31	sk31	Skandinavienkai	A35	227	13.0	6.8	723	0.9	0.0171	0.9	0.36
32	sk32	Skandinavienkai	A35	227	13.0	6.8	723	0.9	0.0171	0.9	0.36
33	sk33	Skandinavienkai	A35	227	13.0	6.8	723	0.9	0.0171	0.9	0.36
34	sk34	Skandinavienkai	A36	235	11.3	6.3	746	1.0	0.0190	1.1	0.44
35	sk35	Skandinavienkai	A37	236	11.6	7.0	750	1.0	0.0190	1.1	0.44
36	sk36	Skandinavienkai	A37	236	11.6	7.0	750	1.0	0.0190	1.1	0.44
37	sk37	Skandinavienkai	A37	236	11.6	7.0	750	1.0	0.0190	1.1	0.44
38	sk41	Skandinavienkai	A36	235	11.3	6.3	746	1.0	0.0190	1.1	0.44
39	sk42	Skandinavienkai	A36	235	11.3	6.3	746	1.0	0.0190	1.1	0.44
40	sk51	Skandinavienkai	A36	235	11.3	6.3	746	1.0	0.0190	1.1	0.44
41	sk52	Skandinavienkai	A36	235	11.3	6.3	746	1.0	0.0190	1.1	0.44
42	sk53	Skandinavienkai	A36	235	11.3	6.3	746	1.0	0.0190	1.1	0.44
43	sk54	Skandinavienkai	A36	235	11.3	6.3	746	1.0	0.0190	1.1	0.44
44	sk6a1	Skandinavienkai	A36	235	11.3	6.3	746	1.0	0.0190	1.1	0.44
45	sk6a2	Skandinavienkai	A36	235	11.3	6.3	746	1.0	0.0190	1.1	0.44
46	sk6a3	Skandinavienkai	A36	235	11.3	6.3	746	1.0	0.0190	1.1	0.44
47	sk6a4	Skandinavienkai	A36	235	11.3	6.3	746	1.0	0.0190	1.1	0.44
48	sk71	Skandinavienkai	A36	235	11.3	6.3	746	1.0	0.0190	1.1	0.44
49	sk72	Skandinavienkai	A36	235	11.3	6.3	746	1.0	0.0190	1.1	0.44
50	sk73	Skandinavienkai	A36	235	11.3	6.3	746	1.0	0.0190	1.1	0.44
51	sk7a1	Skandinavienkai	A35	227	13.0	6.8	723	0.9	0.0171	0.9	0.36
52	sk7a2	Skandinavienkai	A35	227	13.0	6.8	723	0.9	0.0171	0.9	0.36
53	sk81	Skandinavienkai	A35	227	13.0	6.8	723	0.9	0.0171	0.9	0.36
54	sk82	Skandinavienkai	A35	227	13.0	6.8	723	0.9	0.0171	0.9	0.36
55	sk100	Skandinavienkai	A35	227	13.0	6.8	723	0.9	0.0171	0.9	0.36
56	nn100	other	A35	227	13.0	6.8	723	0.9	0.0171	0.9	0.36

A 3.6.8 Emission Factors According to ENTEC, Main Engines, at Sea

Ship			Emission factors [g/kWh] according to ENTEC								
			Main engines								
			At sea								
No.	Name	Port	Class	Fuel	NOx	SO2	CO2	HC	Benz.	PM10	Soot
1	ct1	CTL (Herrenhafen)	MSD/RO	213	14.0	6.4	677	0.5	0.0095	0.5	0.21
2	kk1	Konstinkai	MSD/RO	213	14.0	6.4	677	0.5	0.0095	0.5	0.21
3	kk2	Konstinkai	MSD/RO	213	14.0	6.4	677	0.5	0.0095	0.5	0.21
4	kk3	Konstinkai	MSD/RO	213	14.0	6.4	677	0.5	0.0095	0.5	0.21
5	kk4	Konstinkai	MSD/RO	213	14.0	6.4	677	0.5	0.0095	0.5	0.21
6	kk5	Konstinkai	MSD/RO	213	14.0	6.4	677	0.5	0.0095	0.5	0.21
7	lk1	Lehmannkai	MSD/RO	213	14.0	6.4	677	0.5	0.0095	0.5	0.21
8	lk2	Lehmannkai	MSD/RO	213	14.0	6.4	677	0.5	0.0095	0.5	0.21
9	lk3	Lehmannkai	MSD/RO	213	14.0	6.4	677	0.5	0.0095	0.5	0.21
10	nk1	Nordlandkai	MSD/RO	213	14.0	6.4	677	0.5	0.0095	0.5	0.21
11	nk2	Nordlandkai	MSD/RO	213	14.0	6.4	677	0.5	0.0095	0.5	0.21
12	nk3	Nordlandkai	MSD/RO	213	14.0	6.4	677	0.5	0.0095	0.5	0.21
13	nk4	Nordlandkai	MSD/RO	213	14.0	6.4	677	0.5	0.0095	0.5	0.21
14	nk5	Nordlandkai	MSD/RO	213	14.0	6.4	677	0.5	0.0095	0.5	0.21
15	nk6	Nordlandkai	MSD/RO	213	14.0	6.4	677	0.5	0.0095	0.5	0.21
16	nk7	Nordlandkai	MSD/RO	213	14.0	6.4	677	0.5	0.0095	0.5	0.21
17	nk8	Nordlandkai	MSD/RO	213	14.0	6.4	677	0.5	0.0095	0.5	0.21
18	nk9	Nordlandkai	MSD/RO	213	14.0	6.4	677	0.5	0.0095	0.5	0.21
19	nk10	Nordlandkai	MSD/RO	213	14.0	6.4	677	0.5	0.0095	0.5	0.21
20	nk11	Nordlandkai	MSD/RO	213	14.0	6.4	677	0.5	0.0095	0.5	0.21
21	ok1	Ostpreußenkai	MSD/MDO	203	13.2	4.1	645	0.5	0.0095	0.3	0.12
22	ok2	Ostpreußenkai	MSD/MDO	203	13.2	4.1	645	0.5	0.0095	0.3	0.12
23	ok3	Ostpreußenkai	MSD/MDO	203	13.2	4.1	645	0.5	0.0095	0.3	0.12
24	ok4	Ostpreußenkai	MSD/MDO	203	13.2	4.1	645	0.5	0.0095	0.3	0.12
25	ok5	Ostpreußenkai	MSD/RO	213	14.0	6.4	677	0.5	0.0095	0.5	0.21
26	ok6	Ostpreußenkai	MSD/RO	213	14.0	6.4	677	0.5	0.0095	0.5	0.21
27	ok7	Ostpreußenkai	MSD/MDO	203	13.2	4.1	645	0.5	0.0095	0.3	0.12
28	sp1	Schlutupkai	MSD/RO	213	14.0	6.4	677	0.5	0.0095	0.5	0.21
29	sp2	Schlutupkai	MSD/RO	213	14.0	6.4	677	0.5	0.0095	0.5	0.21
30	sp3	Schlutupkai	MSD/RO	213	14.0	6.4	677	0.5	0.0095	0.5	0.21
31	sk31	Skandinavienkai	MSD/RO	213	14.0	6.4	677	0.5	0.0095	0.5	0.21
32	sk32	Skandinavienkai	MSD/RO	213	14.0	6.4	677	0.5	0.0095	0.5	0.21
33	sk33	Skandinavienkai	MSD/RO	213	14.0	6.4	677	0.5	0.0095	0.5	0.21
34	sk34	Skandinavienkai	MSD/RO	213	14.0	6.4	677	0.5	0.0095	0.5	0.21
35	sk35	Skandinavienkai	MSD/RO	213	14.0	6.4	677	0.5	0.0095	0.5	0.21
36	sk36	Skandinavienkai	MSD/RO	213	14.0	6.4	677	0.5	0.0095	0.5	0.21
37	sk37	Skandinavienkai	MSD/MDO	203	13.2	4.1	645	0.5	0.0095	0.3	0.12
38	sk41	Skandinavienkai	MSD/RO	213	14.0	6.4	677	0.5	0.0095	0.5	0.21
39	sk42	Skandinavienkai	MSD/RO	213	14.0	6.4	677	0.5	0.0095	0.5	0.21
40	sk51	Skandinavienkai	MSD/RO	213	14.0	6.4	677	0.5	0.0095	0.5	0.21
41	sk52	Skandinavienkai	MSD/RO	213	14.0	6.4	677	0.5	0.0095	0.5	0.21
42	sk53	Skandinavienkai	MSD/RO	213	14.0	6.4	677	0.5	0.0095	0.5	0.21
43	sk54	Skandinavienkai	MSD/RO	213	14.0	6.4	677	0.5	0.0095	0.5	0.21
44	sk6a1	Skandinavienkai	MSD/MDO	203	13.2	1.2	645	0.5	0.0095	0.3	0.12
45	sk6a2	Skandinavienkai	MSD/MDO	203	13.2	1.2	645	0.5	0.0095	0.3	0.12
46	sk6a3	Skandinavienkai	MSD/MDO	203	13.2	1.2	645	0.5	0.0095	0.3	0.12
47	sk6a4	Skandinavienkai	MSD/MDO	203	13.2	1.2	645	0.5	0.0095	0.3	0.12
48	sk71	Skandinavienkai	SSD/RO	195	18.1	5.9	620	0.6	0.0114	0.5	0.21
49	sk72	Skandinavienkai	SSD/RO	195	18.1	5.9	620	0.6	0.0114	0.5	0.21
50	sk73	Skandinavienkai	MSD/RO	213	14.0	2.1	677	0.5	0.0095	0.5	0.21
51	sk7a1	Skandinavienkai	MSD/RO	213	14.0	4.3	677	0.5	0.0095	0.5	0.21
52	sk7a2	Skandinavienkai	MSD/RO	213	14.0	2.0	677	0.5	0.0095	0.5	0.21
53	sk81	Skandinavienkai	MSD/RO	213	14.0	6.4	677	0.5	0.0095	0.5	0.21
54	sk82	Skandinavienkai	MSD/RO	213	14.0	6.4	677	0.5	0.0095	0.5	0.21
55	sk100	Skandinavienkai	MSD/RO	213	14.0	6.4	677	0.5	0.0095	0.5	0.21
56	nn100	other	MSD/RO	213	14.0	6.4	677	0.5	0.0095	0.5	0.21

A 3.6.9 Emission Factors According to ENTEC, Main Engines, Manoeuvring and in Port

Ship			Emission factors [g/kWh] according to ENTEC								
			Main engines								
			Manoeuvring and in port								
No.	Name	Port	Class	Fuel	NOx	SO2	CO2	HC	Benz.	PM10	Soot
1	ct1	CTL (Herrenhafen)	MSD/RO	234	11.2	7.0	745	1.5	0.0285	1.6	0.62
2	kk1	Konstinkai	MSD/RO	234	11.2	7.0	745	1.5	0.0285	1.6	0.62
3	kk2	Konstinkai	MSD/RO	234	11.2	7.0	745	1.5	0.0285	1.6	0.62
4	kk3	Konstinkai	MSD/RO	234	11.2	7.0	745	1.5	0.0285	1.6	0.62
5	kk4	Konstinkai	MSD/RO	234	11.2	7.0	745	1.5	0.0285	1.6	0.62
6	kk5	Konstinkai	MSD/RO	234	11.2	7.0	745	1.5	0.0285	1.6	0.62
7	lk1	Lehmannkai	MSD/RO	234	11.2	7.0	745	1.5	0.0285	1.6	0.62
8	lk2	Lehmannkai	MSD/RO	234	11.2	7.0	745	1.5	0.0285	1.6	0.62
9	lk3	Lehmannkai	MSD/RO	234	11.2	7.0	745	1.5	0.0285	1.6	0.62
10	nk1	Nordlandkai	MSD/RO	234	11.2	7.0	745	1.5	0.0285	1.6	0.62
11	nk2	Nordlandkai	MSD/RO	234	11.2	7.0	745	1.5	0.0285	1.6	0.62
12	nk3	Nordlandkai	MSD/RO	234	11.2	7.0	745	1.5	0.0285	1.6	0.62
13	nk4	Nordlandkai	MSD/RO	234	11.2	7.0	745	1.5	0.0285	1.6	0.62
14	nk5	Nordlandkai	MSD/RO	234	11.2	7.0	745	1.5	0.0285	1.6	0.62
15	nk6	Nordlandkai	MSD/RO	234	11.2	7.0	745	1.5	0.0285	1.6	0.62
16	nk7	Nordlandkai	MSD/RO	234	11.2	7.0	745	1.5	0.0285	1.6	0.62
17	nk8	Nordlandkai	MSD/RO	234	11.2	7.0	745	1.5	0.0285	1.6	0.62
18	nk9	Nordlandkai	MSD/RO	234	11.2	7.0	745	1.5	0.0285	1.6	0.62
19	nk10	Nordlandkai	MSD/RO	234	11.2	7.0	745	1.5	0.0285	1.6	0.62
20	nk11	Nordlandkai	MSD/RO	234	11.2	7.0	745	1.5	0.0285	1.6	0.62
21	ok1	Ostpreußenkai	MSD/MDO	223	10.6	4.5	710	1.5	0.0285	0.9	0.36
22	ok2	Ostpreußenkai	MSD/MDO	223	10.6	4.5	710	1.5	0.0285	0.9	0.36
23	ok3	Ostpreußenkai	MSD/MDO	223	10.6	4.5	710	1.5	0.0285	0.9	0.36
24	ok4	Ostpreußenkai	MSD/MDO	223	10.6	4.5	710	1.5	0.0285	0.9	0.36
25	ok5	Ostpreußenkai	MSD/RO	234	11.2	7.0	745	1.5	0.0285	1.6	0.62
26	ok6	Ostpreußenkai	MSD/RO	234	11.2	7.0	745	1.5	0.0285	1.6	0.62
27	ok7	Ostpreußenkai	MSD/MDO	223	10.6	4.5	710	1.5	0.0285	0.9	0.36
28	sp1	Schlutupkai	MSD/RO	234	11.2	7.0	745	1.5	0.0285	1.6	0.62
29	sp2	Schlutupkai	MSD/RO	234	11.2	7.0	745	1.5	0.0285	1.6	0.62
30	sp3	Schlutupkai	MSD/RO	234	11.2	7.0	745	1.5	0.0285	1.6	0.62
31	sk31	Skandinavienkai	MSD/RO	234	11.2	7.0	745	1.5	0.0285	1.6	0.62
32	sk32	Skandinavienkai	MSD/RO	234	11.2	7.0	745	1.5	0.0285	1.6	0.62
33	sk33	Skandinavienkai	MSD/RO	234	11.2	7.0	745	1.5	0.0285	1.6	0.62
34	sk34	Skandinavienkai	MSD/RO	234	11.2	7.0	745	1.5	0.0285	1.6	0.62
35	sk35	Skandinavienkai	MSD/RO	234	11.2	7.0	745	1.5	0.0285	1.6	0.62
36	sk36	Skandinavienkai	MSD/RO	234	11.2	7.0	745	1.5	0.0285	1.6	0.62
37	sk37	Skandinavienkai	MSD/MDO	223	10.6	4.5	710	1.5	0.0285	0.9	0.36
38	sk41	Skandinavienkai	MSD/RO	234	11.2	7.0	745	1.5	0.0285	1.6	0.62
39	sk42	Skandinavienkai	MSD/RO	234	11.2	7.0	745	1.5	0.0285	1.6	0.62
40	sk51	Skandinavienkai	MSD/RO	234	11.2	7.0	745	1.5	0.0285	1.6	0.62
41	sk52	Skandinavienkai	MSD/RO	234	11.2	7.0	745	1.5	0.0285	1.6	0.62
42	sk53	Skandinavienkai	MSD/RO	234	11.2	7.0	745	1.5	0.0285	1.6	0.62
43	sk54	Skandinavienkai	MSD/RO	234	11.2	7.0	745	1.5	0.0285	1.6	0.62
44	sk6a1	Skandinavienkai	MSD/MDO	223	10.6	1.4	710	1.5	0.0285	0.9	0.36
45	sk6a2	Skandinavienkai	MSD/MDO	223	10.6	1.4	710	1.5	0.0285	0.9	0.36
46	sk6a3	Skandinavienkai	MSD/MDO	223	10.6	1.4	710	1.5	0.0285	0.9	0.36
47	sk6a4	Skandinavienkai	MSD/MDO	223	10.6	1.4	710	1.5	0.0285	0.9	0.36
48	sk71	Skandinavienkai	SSD/RO	215	14.5	6.5	682	1.8	0.0342	1.6	0.62
49	sk72	Skandinavienkai	SSD/RO	215	14.5	6.5	682	1.8	0.0342	1.6	0.62
50	sk73	Skandinavienkai	MSD/RO	234	11.2	2.3	745	1.5	0.0285	1.6	0.62
51	sk7a1	Skandinavienkai	MSD/RO	234	11.2	4.7	745	1.5	0.0285	1.6	0.62
52	sk7a2	Skandinavienkai	MSD/RO	234	11.2	2.2	745	1.5	0.0285	1.6	0.62
53	sk81	Skandinavienkai	MSD/RO	234	11.2	7.0	745	1.5	0.0285	1.6	0.62
54	sk82	Skandinavienkai	MSD/RO	234	11.2	7.0	745	1.5	0.0285	1.6	0.62
55	sk100	Skandinavienkai	MSD/RO	234	11.2	7.0	745	1.5	0.0285	1.6	0.62
56	nn100	other	MSD/RO	234	11.2	7.0	745	1.5	0.0285	1.6	0.62

A 3.6.10 Emission Factors According to ENTEC, Auxiliary Engines, at Sea, Manoeuvring and in Port

Ship			Emission factors [g/kWh] according to ENTEC								
			Auxiliary engines								
			At sea, manoeuvring and in port								
No.	Name	Port	Class	Fuel	NOx	SO2	CO2	HC	Benz.	PM10	Soot
1	ct1	CTL (Herrenhafen)	MSD/MDO	217	13.9	4.3	690	0.4	0.0076	0.3	0.12
2	kk1	Konstinkai	MSD/MDO	217	13.9	4.3	690	0.4	0.0076	0.3	0.12
3	kk2	Konstinkai	MSD/MDO	217	13.9	4.3	690	0.4	0.0076	0.3	0.12
4	kk3	Konstinkai	MSD/MDO	217	13.9	0.9	690	0.4	0.0076	0.3	0.12
5	kk4	Konstinkai	MSD/MDO	217	13.9	4.3	690	0.4	0.0076	0.3	0.12
6	kk5	Konstinkai	MSD/MDO	217	13.9	4.3	690	0.4	0.0076	0.3	0.12
7	lk1	Lehmannkai	MSD/MDO	217	13.9	4.3	690	0.4	0.0076	0.3	0.12
8	lk2	Lehmannkai	MSD/MDO	217	13.9	4.3	690	0.4	0.0076	0.3	0.12
9	lk3	Lehmannkai	MSD/MDO	217	13.9	4.3	690	0.4	0.0076	0.3	0.12
10	nk1	Nordlandkai	MSD/MDO	217	13.9	4.3	690	0.4	0.0076	0.3	0.12
11	nk2	Nordlandkai	MSD/MGO	217	13.9	2.2	690	0.4	0.0076	0.3	0.12
12	nk3	Nordlandkai	MSD/MDO	217	13.9	4.3	690	0.4	0.0076	0.3	0.12
13	nk4	Nordlandkai	MSD/MDO	217	13.9	4.3	690	0.4	0.0076	0.3	0.12
14	nk5	Nordlandkai	MSD/MDO	217	13.9	0.4	690	0.4	0.0076	0.3	0.12
15	nk6	Nordlandkai	MSD/MDO	217	13.9	0.4	690	0.4	0.0076	0.3	0.12
16	nk7	Nordlandkai	MSD/MDO	217	13.9	4.3	690	0.4	0.0076	0.3	0.12
17	nk8	Nordlandkai	MSD/MDO	217	13.9	4.3	690	0.4	0.0076	0.3	0.12
18	nk9	Nordlandkai	MSD/MDO	217	13.9	4.3	690	0.4	0.0076	0.3	0.12
19	nk10	Nordlandkai	MSD/MDO	217	13.9	4.3	690	0.4	0.0076	0.3	0.12
20	nk11	Nordlandkai	MSD/MDO	217	13.9	4.3	690	0.4	0.0076	0.3	0.12
21	ok1	Ostpreußenkai	-	0	0	0	0	0	0	0	0
22	ok2	Ostpreußenkai	-	0	0	0	0	0	0	0	0
23	ok3	Ostpreußenkai	MSD/MDO	217	13.9	4.3	690	0.4	0.0076	0.3	0.12
24	ok4	Ostpreußenkai	-	0	0	0	0	0	0	0	0
25	ok5	Ostpreußenkai	MSD/MDO	217	13.9	4.3	690	0.4	0.0076	0.3	0.12
26	ok6	Ostpreußenkai	-	0	0	0	0	0	0	0	0
27	ok7	Ostpreußenkai	-	0	0	0	0	0	0	0	0
28	sp1	Schlutupkai	MSD/MDO	217	13.9	4.3	690	0.4	0.0076	0.3	0.12
29	sp2	Schlutupkai	MSD/MDO	217	13.9	4.3	690	0.4	0.0076	0.3	0.12
30	sp3	Schlutupkai	MSD/MDO	217	13.9	4.3	690	0.4	0.0076	0.3	0.12
31	sk31	Skandinavienkai	MSD/MDO	217	13.9	4.3	690	0.4	0.0076	0.3	0.12
32	sk32	Skandinavienkai	MSD/MDO	217	13.9	4.3	690	0.4	0.0076	0.3	0.12
33	sk33	Skandinavienkai	MSD/MDO	217	13.9	4.3	690	0.4	0.0076	0.3	0.12
34	sk34	Skandinavienkai	MSD/MDO	217	13.9	4.3	690	0.4	0.0076	0.3	0.12
35	sk35	Skandinavienkai	-	0	0	0	0	0	0	0	0
36	sk36	Skandinavienkai	-	0	0	0	0	0	0	0	0
37	sk37	Skandinavienkai	-	0	0	0	0	0	0	0	0
38	sk41	Skandinavienkai	MSD/MDO	217	13.9	4.3	690	0.4	0.0076	0.3	0.12
39	sk42	Skandinavienkai	MSD/MDO	217	13.9	4.3	690	0.4	0.0076	0.3	0.12
40	sk51	Skandinavienkai	MSD/MDO	217	13.9	4.3	690	0.4	0.0076	0.3	0.12
41	sk52	Skandinavienkai	MSD/MDO	217	13.9	4.3	690	0.4	0.0076	0.3	0.12
42	sk53	Skandinavienkai	MSD/MDO	217	13.9	0.6	690	0.4	0.0076	0.3	0.12
43	sk54	Skandinavienkai	MSD/MDO	217	13.9	4.3	690	0.4	0.0076	0.3	0.12
44	sk6a1	Skandinavienkai	-	0	0	0	0	0	0	0	0
45	sk6a2	Skandinavienkai	-	0	0	0	0	0	0	0	0
46	sk6a3	Skandinavienkai	-	0	0	0	0	0	0	0	0
47	sk6a4	Skandinavienkai	-	0	0	0	0	0	0	0	0
48	sk71	Skandinavienkai	MSD/MDO	217	13.9	6.5	690	0.4	0.0076	0.3	0.12
49	sk72	Skandinavienkai	MSD/MDO	217	13.9	6.5	690	0.4	0.0076	0.3	0.12
50	sk73	Skandinavienkai	MSD/MDO	217	13.9	2.1	690	0.4	0.0076	0.3	0.12
51	sk7a1	Skandinavienkai	MSD/MDO	217	13.9	4.3	690	0.4	0.0076	0.3	0.12
52	sk7a2	Skandinavienkai	MSD/MDO	217	13.9	4.3	690	0.4	0.0076	0.3	0.12
53	sk81	Skandinavienkai	MSD/MDO	217	13.9	0.6	690	0.4	0.0076	0.3	0.12
54	sk82	Skandinavienkai	MSD/MDO	217	13.9	0.6	690	0.4	0.0076	0.3	0.12
55	sk100	Skandinavienkai	MSD/MDO	217	13.9	4.3	690	0.4	0.0076	0.3	0.12
56	nn100	other	MSD/MDO	217	13.9	4.3	690	0.4	0.0076	0.3	0.12

A 3.6.11 Emission Factors According to Isensee, Auxiliary Boilers, at Sea, Manoeuvring and in Port

Ship			Emission factors [g/kWh] according to Isensee									
			Auxiliary boilers									
			At sea, manoeuvring and in port									
No.	Name	Port	Type	Fuel type	Fuel	NOx	SO2	CO2	HC	Benz.	PM10	Soot
1	ct1	CTL (Herrenhafen)	large	RO	99	1.0	3.1	315	0.2	0.0038	0.15	0.06
2	kk1	Konstinkai	large	RO	99	1.0	3.1	315	0.2	0.0038	0.15	0.06
3	kk2	Konstinkai	large	RO	99	1.0	3.1	315	0.2	0.0038	0.15	0.06
4	kk3	Konstinkai	large	RO	99	1.0	3.1	315	0.2	0.0038	0.15	0.06
5	kk4	Konstinkai	large	RO	99	1.0	3.1	315	0.2	0.0038	0.15	0.06
6	kk5	Konstinkai	large	RO	99	1.0	3.1	315	0.2	0.0038	0.15	0.06
7	lk1	Lehmannkai	large	RO	99	1.0	3.1	315	0.2	0.0038	0.15	0.06
8	lk2	Lehmannkai	large	RO	99	1.0	3.1	315	0.2	0.0038	0.15	0.06
9	lk3	Lehmannkai	large	RO	99	1.0	3.1	315	0.2	0.0038	0.15	0.06
10	nk1	Nordlandkai	large	RO	99	1.0	3.1	315	0.2	0.0038	0.15	0.06
11	nk2	Nordlandkai	large	RO	99	1.0	3.1	315	0.2	0.0038	0.15	0.06
12	nk3	Nordlandkai	large	RO	99	1.0	3.1	315	0.2	0.0038	0.15	0.06
13	nk4	Nordlandkai	large	RO	99	1.0	3.1	315	0.2	0.0038	0.15	0.06
14	nk5	Nordlandkai	large	MDO	99	1.0	0.2	316	0.2	0.0038	0.15	0.06
15	nk6	Nordlandkai	large	MDO	99	1.0	0.2	316	0.2	0.0038	0.15	0.06
16	nk7	Nordlandkai	large	RO	99	1.0	3.1	315	0.2	0.0038	0.15	0.06
17	nk8	Nordlandkai	large	RO	99	1.0	3.1	315	0.2	0.0038	0.15	0.06
18	nk9	Nordlandkai	large	RO	99	1.0	3.1	315	0.2	0.0038	0.15	0.06
19	nk10	Nordlandkai	large	RO	99	1.0	3.1	315	0.2	0.0038	0.15	0.06
20	nk11	Nordlandkai	large	RO	99	1.0	3.1	315	0.2	0.0038	0.15	0.06
21	ok1	Ostpreußenkai	small	MDO	105	1.0	2.2	335	0.2	0.0038	0.15	0.06
22	ok2	Ostpreußenkai	-	-	0	0	0	0	0	0	0	0
23	ok3	Ostpreußenkai	-	-	0	0	0	0	0	0	0	0
24	ok4	Ostpreußenkai	-	-	0	0	0	0	0	0	0	0
25	ok5	Ostpreußenkai	large	RO	99	1.0	3.1	315	0.2	0.0038	0.15	0.06
26	ok6	Ostpreußenkai	large	RO	99	1.0	3.1	315	0.2	0.0038	0.15	0.06
27	ok7	Ostpreußenkai	small	MDO	105	1.0	2.2	335	0.2	0.0038	0.15	0.06
28	sp1	Schlutupkai	large	RO	99	1.0	3.1	315	0.2	0.0038	0.15	0.06
29	sp2	Schlutupkai	large	RO	99	1.0	3.1	315	0.2	0.0038	0.15	0.06
30	sp3	Schlutupkai	large	RO	99	1.0	3.1	315	0.2	0.0038	0.15	0.06
31	sk31	Skandinavienkai	large	RO	99	1.0	3.1	315	0.2	0.0038	0.15	0.06
32	sk32	Skandinavienkai	large	RO	99	1.0	3.1	315	0.2	0.0038	0.15	0.06
33	sk33	Skandinavienkai	large	RO	99	1.0	3.1	315	0.2	0.0038	0.15	0.06
34	sk34	Skandinavienkai	large	RO	99	1.0	3.1	315	0.2	0.0038	0.15	0.06
35	sk35	Skandinavienkai	large	RO	99	1.0	3.1	315	0.2	0.0038	0.15	0.06
36	sk36	Skandinavienkai	large	RO	99	1.0	3.1	315	0.2	0.0038	0.15	0.06
37	sk37	Skandinavienkai	small	MDO	105	1.0	2.2	335	0.2	0.0038	0.15	0.06
38	sk41	Skandinavienkai	large	RO	99	1.0	3.1	315	0.2	0.0038	0.15	0.06
39	sk42	Skandinavienkai	large	RO	99	1.0	3.1	315	0.2	0.0038	0.15	0.06
40	sk51	Skandinavienkai	large	RO	99	1.0	3.1	315	0.2	0.0038	0.15	0.06
41	sk52	Skandinavienkai	large	RO	99	1.0	3.1	315	0.2	0.0038	0.15	0.06
42	sk53	Skandinavienkai	large	MDO	99	1.0	0.3	316	0.2	0.0038	0.15	0.06
43	sk54	Skandinavienkai	large	RO	99	1.0	3.1	315	0.2	0.0038	0.15	0.06
44	sk6a1	Skandinavienkai	large	MDO	99	1.0	0.6	316	0.2	0.0038	0.15	0.06
45	sk6a2	Skandinavienkai	large	MDO	99	1.0	0.6	316	0.2	0.0038	0.15	0.06
46	sk6a3	Skandinavienkai	large	MDO	99	1.0	0.6	316	0.2	0.0038	0.15	0.06
47	sk6a4	Skandinavienkai	large	MDO	99	1.0	0.6	316	0.2	0.0038	0.15	0.06
48	sk71	Skandinavienkai	large	RO	99	1.0	3.1	315	0.2	0.0038	0.15	0.06
49	sk72	Skandinavienkai	large	RO	99	1.0	3.1	315	0.2	0.0038	0.15	0.06
50	sk73	Skandinavienkai	large	RO	99	1.0	1.0	315	0.2	0.0038	0.15	0.06
51	sk7a1	Skandinavienkai	large	MDO	99	1.0	2.0	316	0.2	0.0038	0.15	0.06
52	sk7a2	Skandinavienkai	small	MDO	105	1.0	2.2	335	0.2	0.0038	0.15	0.06
53	sk81	Skandinavienkai	large	MDO	99	1.0	0.3	316	0.2	0.0038	0.15	0.06
54	sk82	Skandinavienkai	large	MDO	99	1.0	0.3	316	0.2	0.0038	0.15	0.06
55	sk100	Skandinavienkai	large	MDO	99	1.0	2.0	316	0.2	0.0038	0.15	0.06
56	nn100	other	large	MDO	99	1.0	2.0	316	0.2	0.0038	0.15	0.06

A 3.6.12 Emissions per Hour, Main Engines, at Sea

Ship			Emissions per hour [kg/h] according to ENTEC									
			Main engines									
			At sea									
No.	Name	Port	Load	[kW]	Fuel	NOx	SO2	CO2	HC	Benz.	PM10	Soot
1	ct1	CTL (Herrenhafen)	80 %	11,584	2,467	162.2	74.1	7,842	5.79	0.110	6.02	2.43
2	kk1	Konstinkai	80 %	20,160	4,294	282.2	129.0	13,648	10.08	0.192	10.48	4.23
3	kk2	Konstinkai	80 %	3,600	767	50.4	23.0	2,437	1.80	0.034	1.87	0.76
4	kk3	Konstinkai	80 %	8,824	1,880	123.5	56.5	5,974	4.41	0.084	4.59	1.85
5	kk4	Konstinkai	80 %	12,480	2,658	174.7	79.9	8,449	6.24	0.119	6.49	2.62
6	kk5	Konstinkai	80 %	12,960	2,760	181.4	82.9	8,774	6.48	0.123	6.74	2.72
7	lk1	Lehmannkai	80 %	6,080	1,295	85.1	38.9	4,116	3.04	0.058	3.16	1.28
8	lk2	Lehmannkai	80 %	6,080	1,295	85.1	38.9	4,116	3.04	0.058	3.16	1.28
9	lk3	Lehmannkai	80 %	1,765	376	24.7	11.3	1,195	0.88	0.017	0.92	0.37
10	nk1	Nordlandkai	80 %	11,512	2,452	161.2	73.7	7,794	5.76	0.109	5.99	2.42
11	nk2	Nordlandkai	80 %	10,080	2,147	141.1	64.5	6,824	5.04	0.096	5.24	2.12
12	nk3	Nordlandkai	80 %	10,558	2,249	147.8	67.6	7,148	5.28	0.100	5.49	2.22
13	nk4	Nordlandkai	80 %	11,512	2,452	161.2	73.7	7,794	5.76	0.109	5.99	2.42
14	nk5	Nordlandkai	80 %	11,520	2,454	161.3	73.7	7,799	5.76	0.109	5.99	2.42
15	nk6	Nordlandkai	80 %	11,603	2,471	162.4	74.3	7,855	5.80	0.110	6.03	2.44
16	nk7	Nordlandkai	80 %	10,080	2,147	141.1	64.5	6,824	5.04	0.096	5.24	2.12
17	nk8	Nordlandkai	80 %	15,120	3,221	211.7	96.8	10,236	7.56	0.144	7.86	3.18
18	nk9	Nordlandkai	80 %	15,120	3,221	211.7	96.8	10,236	7.56	0.144	7.86	3.18
19	nk10	Nordlandkai	80 %	11,584	2,467	162.2	74.1	7,842	5.79	0.110	6.02	2.43
20	nk11	Nordlandkai	80 %	1,440	307	20.2	9.2	975	0.72	0.014	0.75	0.30
21	ok1	Ostpreußenkai	80 %	2,589	526	34.2	10.6	1,670	1.29	0.025	0.78	0.31
22	ok2	Ostpreußenkai	80 %	340	69	4.5	1.4	219	0.17	0.003	0.10	0.04
23	ok3	Ostpreußenkai	80 %	528	107	7.0	2.2	341	0.26	0.005	0.16	0.06
24	ok4	Ostpreußenkai	80 %	340	69	4.5	1.4	219	0.17	0.003	0.10	0.04
25	ok5	Ostpreußenkai	80 %	16,000	3,408	224.0	102.4	10,832	8.00	0.152	8.32	3.36
26	ok6	Ostpreußenkai	80 %	9,360	1,994	131.0	59.9	6,337	4.68	0.089	4.87	1.97
27	ok7	Ostpreußenkai	80 %	2,800	568	37.0	11.5	1,806	1.40	0.027	0.84	0.34
28	sp1	Schlutupkai	80 %	19,200	4,090	268.8	122.9	12,998	9.60	0.182	9.98	4.03
29	sp2	Schlutupkai	80 %	6,154	1,311	86.2	39.4	4,167	3.08	0.058	3.20	1.29
30	sp3	Schlutupkai	80 %	6,219	1,325	87.1	39.8	4,210	3.11	0.059	3.23	1.31
31	sk31	Skandinavienkai	80 %	11,512	2,452	161.2	73.7	7,794	5.76	0.109	5.99	2.42
32	sk32	Skandinavienkai	80 %	4,733	1,008	66.3	30.3	3,204	2.37	0.045	2.46	0.99
33	sk33	Skandinavienkai	80 %	6,336	1,350	88.7	40.6	4,289	3.17	0.060	3.29	1.33
34	sk34	Skandinavienkai	80 %	7,872	1,677	110.2	50.4	5,329	3.94	0.075	4.09	1.65
35	sk35	Skandinavienkai	80 %	10,720	2,283	150.1	68.6	7,257	5.36	0.102	5.57	2.25
36	sk36	Skandinavienkai	80 %	38,200	8,137	534.8	244.5	25,861	19.10	0.363	19.86	8.02
37	sk37	Skandinavienkai	80 %	2,800	568	37.0	11.5	1,806	1.40	0.027	0.84	0.34
38	sk41	Skandinavienkai	80 %	13,824	2,945	193.5	88.5	9,359	6.91	0.131	7.19	2.90
39	sk42	Skandinavienkai	80 %	19,200	4,090	268.8	122.9	12,998	9.60	0.182	9.98	4.03
40	sk51	Skandinavienkai	80 %	18,432	3,926	258.0	118.0	12,478	9.22	0.175	9.58	3.87
41	sk52	Skandinavienkai	80 %	18,432	3,926	258.0	118.0	12,478	9.22	0.175	9.58	3.87
42	sk53	Skandinavienkai	80 %	18,454	3,931	258.4	118.1	12,494	9.23	0.175	9.60	3.88
43	sk54	Skandinavienkai	80 %	18,429	3,925	258.0	117.9	12,476	9.21	0.175	9.58	3.87
44	sk6a1	Skandinavienkai	80 %	23,904	4,853	315.5	29.4	15,418	11.95	0.227	7.17	2.87
45	sk6a2	Skandinavienkai	80 %	23,904	4,853	315.5	29.4	15,418	11.95	0.227	7.17	2.87
46	sk6a3	Skandinavienkai	80 %	14,400	2,923	190.1	17.7	9,288	7.20	0.137	4.32	1.73
47	sk6a4	Skandinavienkai	80 %	14,400	2,923	190.1	17.7	9,288	7.20	0.137	4.32	1.73
48	sk71	Skandinavienkai	80 %	12,720	2,480	230.2	75.0	7,886	7.63	0.145	6.61	2.67
49	sk72	Skandinavienkai	80 %	12,720	2,480	230.2	75.0	7,886	7.63	0.145	6.61	2.67
50	sk73	Skandinavienkai	80 %	8,240	1,755	115.4	17.2	5,578	4.12	0.078	4.28	1.73
51	sk7a1	Skandinavienkai	80 %	9,179	1,955	128.5	39.2	6,214	4.59	0.087	4.77	1.93
52	sk7a2	Skandinavienkai	80 %	9,179	1,955	128.5	18.8	6,214	4.59	0.087	4.77	1.93
53	sk81	Skandinavienkai	80 %	12,799	2,726	179.2	81.9	8,665	6.40	0.122	6.66	2.69
54	sk82	Skandinavienkai	80 %	13,032	2,776	182.4	83.4	8,823	6.52	0.124	6.78	2.74
55	sk100	Skandinavienkai	80 %	20,000	4,260	280.0	128.0	13,540	10.00	0.190	10.40	4.20
56	nn100	other	80 %	20,000	4,260	280.0	128.0	13,540	10.00	0.190	10.40	4.20

A 3.6.13 Emissions per Hour, Main Engines, Manoeuvring

Ship			Emissions per hour [kg/h] according to ENTEC									
			Main engines									
			Manoeuvring									
No.	Name	Port	Load	[kW]	Fuel	NOx	SO2	CO2	HC	Benz.	PM10	Soot
1	ct1	CTL (Herrenhafen)	20 %	2,896	678	32.4	20.3	2,158	4.34	0.083	4.52	1.80
2	kk1	Konstinkai	20 %	5,040	1,179	56.4	35.3	3,755	7.56	0.144	7.86	3.12
3	kk2	Konstinkai	20 %	900	211	10.1	6.3	671	1.35	0.026	1.40	0.56
4	kk3	Konstinkai	20 %	2,206	516	24.7	15.4	1,643	3.31	0.063	3.44	1.37
5	kk4	Konstinkai	20 %	3,120	730	34.9	21.8	2,324	4.68	0.089	4.87	1.93
6	kk5	Konstinkai	20 %	3,240	758	36.3	22.7	2,414	4.86	0.092	5.05	2.01
7	lk1	Lehmannkai	20 %	1,520	356	17.0	10.6	1,132	2.28	0.043	2.37	0.94
8	lk2	Lehmannkai	20 %	1,520	356	17.0	10.6	1,132	2.28	0.043	2.37	0.94
9	lk3	Lehmannkai	20 %	441	103	4.9	3.1	329	0.66	0.013	0.69	0.27
10	nk1	Nordlandkai	20 %	2,878	673	32.2	20.1	2,144	4.32	0.082	4.49	1.78
11	nk2	Nordlandkai	20 %	2,520	590	28.2	17.6	1,877	3.78	0.072	3.93	1.56
12	nk3	Nordlandkai	20 %	2,640	618	29.6	18.5	1,967	3.96	0.075	4.12	1.64
13	nk4	Nordlandkai	20 %	2,878	673	32.2	20.1	2,144	4.32	0.082	4.49	1.78
14	nk5	Nordlandkai	30 %	4,320	1,011	48.4	30.2	3,218	6.48	0.123	6.74	2.68
15	nk6	Nordlandkai	30 %	4,351	1,018	48.7	30.5	3,242	6.53	0.124	6.79	2.70
16	nk7	Nordlandkai	20 %	2,520	590	28.2	17.6	1,877	3.78	0.072	3.93	1.56
17	nk8	Nordlandkai	20 %	3,780	885	42.3	26.5	2,816	5.67	0.108	5.90	2.34
18	nk9	Nordlandkai	20 %	3,780	885	42.3	26.5	2,816	5.67	0.108	5.90	2.34
19	nk10	Nordlandkai	20 %	2,896	678	32.4	20.3	2,158	4.34	0.083	4.52	1.80
20	nk11	Nordlandkai	20 %	360	84	4.0	2.5	268	0.54	0.010	0.56	0.22
21	ok1	Ostpreußenkai	20 %	647	144	6.9	2.9	460	0.97	0.018	0.58	0.23
22	ok2	Ostpreußenkai	20 %	85	19	0.9	0.4	60	0.13	0.002	0.08	0.03
23	ok3	Ostpreußenkai	60 %	396	88	4.2	1.8	281	0.59	0.011	0.36	0.14
24	ok4	Ostpreußenkai	20 %	85	19	0.9	0.4	60	0.13	0.002	0.08	0.03
25	ok5	Ostpreußenkai	20 %	4,000	936	44.8	28.0	2,980	6.00	0.114	6.24	2.48
26	ok6	Ostpreußenkai	20 %	2,340	548	26.2	16.4	1,743	3.51	0.067	3.65	1.45
27	ok7	Ostpreußenkai	60 %	2,100	468	22.3	9.5	1,491	3.15	0.060	1.89	0.76
28	sp1	Schlutupkai	20 %	4,800	1,123	53.8	33.6	3,576	7.20	0.137	7.49	2.98
29	sp2	Schlutupkai	20 %	1,539	360	17.2	10.8	1,146	2.31	0.044	2.40	0.95
30	sp3	Schlutupkai	20 %	1,555	364	17.4	10.9	1,158	2.33	0.044	2.43	0.96
31	sk31	Skandinavienkai	20 %	2,878	673	32.2	20.1	2,144	4.32	0.082	4.49	1.78
32	sk32	Skandinavienkai	20 %	1,183	277	13.3	8.3	881	1.77	0.034	1.85	0.73
33	sk33	Skandinavienkai	20 %	1,584	371	17.7	11.1	1,180	2.38	0.045	2.47	0.98
34	sk34	Skandinavienkai	20 %	1,968	461	22.0	13.8	1,466	2.95	0.056	3.07	1.22
35	sk35	Skandinavienkai	20 %	2,680	627	30.0	18.8	1,997	4.02	0.076	4.18	1.66
36	sk36	Skandinavienkai	20 %	9,550	2,235	107.0	66.9	7,115	14.33	0.272	14.90	5.92
37	sk37	Skandinavienkai	20 %	700	156	7.4	3.2	497	1.05	0.020	0.63	0.25
38	sk41	Skandinavienkai	20 %	3,456	809	38.7	24.2	2,575	5.18	0.098	5.39	2.14
39	sk42	Skandinavienkai	20 %	4,800	1,123	53.8	33.6	3,576	7.20	0.137	7.49	2.98
40	sk51	Skandinavienkai	20 %	4,608	1,078	51.6	32.3	3,433	6.91	0.131	7.19	2.86
41	sk52	Skandinavienkai	20 %	4,608	1,078	51.6	32.3	3,433	6.91	0.131	7.19	2.86
42	sk53	Skandinavienkai	20 %	4,614	1,080	51.7	32.3	3,437	6.92	0.131	7.20	2.86
43	sk54	Skandinavienkai	20 %	4,607	1,078	51.6	32.3	3,432	6.91	0.131	7.19	2.86
44	sk6a1	Skandinavienkai	20 %	5,976	1,333	63.3	8.1	4,243	8.96	0.170	5.38	2.15
45	sk6a2	Skandinavienkai	20 %	5,976	1,333	63.3	8.1	4,243	8.96	0.170	5.38	2.15
46	sk6a3	Skandinavienkai	20 %	3,600	803	38.2	4.9	2,556	5.40	0.103	3.24	1.30
47	sk6a4	Skandinavienkai	20 %	3,600	803	38.2	4.9	2,556	5.40	0.103	3.24	1.30
48	sk71	Skandinavienkai	40 %	6,360	1,367	92.2	41.3	4,338	11.45	0.218	9.92	3.94
49	sk72	Skandinavienkai	40 %	6,360	1,367	92.2	41.3	4,338	11.45	0.218	9.92	3.94
50	sk73	Skandinavienkai	20 %	2,060	482	23.1	4.7	1,535	3.09	0.059	3.21	1.28
51	sk7a1	Skandinavienkai	20 %	2,295	537	25.7	10.7	1,710	3.44	0.065	3.58	1.42
52	sk7a2	Skandinavienkai	20 %	2,295	537	25.7	5.1	1,710	3.44	0.065	3.58	1.42
53	sk81	Skandinavienkai	20 %	3,200	749	35.8	22.4	2,384	4.80	0.091	4.99	1.98
54	sk82	Skandinavienkai	20 %	3,258	762	36.5	22.8	2,427	4.89	0.093	5.08	2.02
55	sk100	Skandinavienkai	20 %	5,000	1,170	56.0	35.0	3,725	7.50	0.143	7.80	3.10
56	nn100	other	20 %	5,000	1,170	56.0	35.0	3,725	7.50	0.143	7.80	3.10

A 3.6.14 Emissions per Hour, Main Engines, in Port

Ship			Emissions per hour [kg/h] according to ENTEC									
			Main engines									
			In port									
No.	Name	Port	Load	[kW]	Fuel	NOx	SO2	CO2	HC	Benz.	PM10	Soot
1	ct1	CTL (Herrenhafen)	1 %	145	33.9	1.6	1.0	108	0.22	0.004	0.23	0.09
2	kk1	Konstinkai	1 %	252	59.0	2.8	1.8	188	0.38	0.007	0.39	0.16
3	kk2	Konstinkai	1 %	45	10.5	0.5	0.3	34	0.07	0.001	0.07	0.03
4	kk3	Konstinkai	1 %	110	25.8	1.2	0.8	82	0.17	0.003	0.17	0.07
5	kk4	Konstinkai	1 %	156	36.5	1.7	1.1	116	0.23	0.004	0.24	0.10
6	kk5	Konstinkai	1 %	162	37.9	1.8	1.1	121	0.24	0.005	0.25	0.10
7	lk1	Lehmannkai	1 %	76	17.8	0.9	0.5	57	0.11	0.002	0.12	0.05
8	lk2	Lehmannkai	1 %	76	17.8	0.9	0.5	57	0.11	0.002	0.12	0.05
9	lk3	Lehmannkai	1 %	22	5.2	0.2	0.2	16	0.03	0.001	0.03	0.01
10	nk1	Nordlandkai	1 %	144	33.7	1.6	1.0	107	0.22	0.004	0.22	0.09
11	nk2	Nordlandkai	1 %	126	29.5	1.4	0.9	94	0.19	0.004	0.20	0.08
12	nk3	Nordlandkai	1 %	132	30.9	1.5	0.9	98	0.20	0.004	0.21	0.08
13	nk4	Nordlandkai	1 %	144	33.7	1.6	1.0	107	0.22	0.004	0.22	0.09
14	nk5	Nordlandkai	1 %	144	33.7	1.6	1.0	107	0.22	0.004	0.22	0.09
15	nk6	Nordlandkai	1 %	145	33.9	1.6	1.0	108	0.22	0.004	0.23	0.09
16	nk7	Nordlandkai	1 %	126	29.5	1.4	0.9	94	0.19	0.004	0.20	0.08
17	nk8	Nordlandkai	1 %	189	44.2	2.1	1.3	141	0.28	0.005	0.29	0.12
18	nk9	Nordlandkai	1 %	189	44.2	2.1	1.3	141	0.28	0.005	0.29	0.12
19	nk10	Nordlandkai	1 %	145	33.9	1.6	1.0	108	0.22	0.004	0.23	0.09
20	nk11	Nordlandkai	1 %	18	4.2	0.2	0.1	13	0.03	0.001	0.03	0.01
21	ok1	Ostpreußenkai	40 %	1,294	288.7	13.7	5.8	919	1.94	0.037	1.16	0.47
22	ok2	Ostpreußenkai	40 %	170	37.9	1.8	0.8	121	0.26	0.005	0.15	0.06
23	ok3	Ostpreußenkai	1 %	7	1.5	0.1	0.0	5	0.01	0.000	0.01	0.00
24	ok4	Ostpreußenkai	1 %	4	0.9	0.0	0.0	3	0.01	0.000	0.00	0.00
25	ok5	Ostpreußenkai	5 %	1,000	234.0	11.2	7.0	745	1.50	0.029	1.56	0.62
26	ok6	Ostpreußenkai	5 %	585	136.9	6.6	4.1	436	0.88	0.017	0.91	0.36
27	ok7	Ostpreußenkai	40 %	1,400	312.2	14.8	6.3	994	2.10	0.040	1.26	0.50
28	sp1	Schlutupkai	1 %	240	56.2	2.7	1.7	179	0.36	0.007	0.37	0.15
29	sp2	Schlutupkai	1 %	77	18.0	0.9	0.5	57	0.12	0.002	0.12	0.05
30	sp3	Schlutupkai	1 %	78	18.2	0.9	0.5	58	0.12	0.002	0.12	0.05
31	sk31	Skandinavienkai	1 %	144	33.7	1.6	1.0	107	0.22	0.004	0.22	0.09
32	sk32	Skandinavienkai	1 %	59	13.8	0.7	0.4	44	0.09	0.002	0.09	0.04
33	sk33	Skandinavienkai	1 %	79	18.5	0.9	0.6	59	0.12	0.002	0.12	0.05
34	sk34	Skandinavienkai	1 %	98	23.0	1.1	0.7	73	0.15	0.003	0.15	0.06
35	sk35	Skandinavienkai	10 %	1,340	313.6	15.0	9.4	998	2.01	0.038	2.09	0.83
36	sk36	Skandinavienkai	5 %	2,388	558.7	26.7	16.7	1,779	3.58	0.068	3.72	1.48
37	sk37	Skandinavienkai	30 %	1,050	234.2	11.1	4.7	746	1.58	0.030	0.95	0.38
38	sk41	Skandinavienkai	1 %	173	40.4	1.9	1.2	129	0.26	0.005	0.27	0.11
39	sk42	Skandinavienkai	1 %	240	56.2	2.7	1.7	179	0.36	0.007	0.37	0.15
40	sk51	Skandinavienkai	1 %	230	53.9	2.6	1.6	172	0.35	0.007	0.36	0.14
41	sk52	Skandinavienkai	1 %	230	53.9	2.6	1.6	172	0.35	0.007	0.36	0.14
42	sk53	Skandinavienkai	1 %	231	54.0	2.6	1.6	172	0.35	0.007	0.36	0.14
43	sk54	Skandinavienkai	1 %	230	53.9	2.6	1.6	172	0.35	0.007	0.36	0.14
44	sk6a1	Skandinavienkai	10 %	2,988	666.3	31.7	4.0	2,121	4.48	0.085	2.69	1.08
45	sk6a2	Skandinavienkai	10 %	2,988	666.3	31.7	4.0	2,121	4.48	0.085	2.69	1.08
46	sk6a3	Skandinavienkai	10 %	1,800	401.4	19.1	2.4	1,278	2.70	0.051	1.62	0.65
47	sk6a4	Skandinavienkai	10 %	1,800	401.4	19.1	2.4	1,278	2.70	0.051	1.62	0.65
48	sk71	Skandinavienkai	1 %	159	34.2	2.3	1.0	108	0.29	0.005	0.25	0.10
49	sk72	Skandinavienkai	1 %	159	34.2	2.3	1.0	108	0.29	0.005	0.25	0.10
50	sk73	Skandinavienkai	1 %	103	24.1	1.2	0.2	77	0.15	0.003	0.16	0.06
51	sk7a1	Skandinavienkai	1 %	115	26.8	1.3	0.5	85	0.17	0.003	0.18	0.07
52	sk7a2	Skandinavienkai	1 %	115	26.8	1.3	0.3	85	0.17	0.003	0.18	0.07
53	sk81	Skandinavienkai	1 %	160	37.4	1.8	1.1	119	0.24	0.005	0.25	0.10
54	sk82	Skandinavienkai	1 %	163	38.1	1.8	1.1	121	0.24	0.005	0.25	0.10
55	sk100	Skandinavienkai	1 %	250	58.5	2.8	1.8	186	0.38	0.007	0.39	0.16
56	nn100	other	1 %	250	58.5	2.8	1.8	186	0.38	0.007	0.39	0.16

A 3.6.15 Emissions per Hour, Auxiliary Engines, at Sea

Ship			Emissions per hour [kg/h] according to ENTEC									
			Auxiliary engines									
			At sea									
No.	Name	Port	Load	[kW]	Fuel	NOx	SO2	CO2	HC	Benz.	PM10	Soot
1	ct1	CTL (Herrenhafen)	30 %	469	102	6.5	2.0	323	0.19	0.004	0.14	0.06
2	kk1	Konstinkai	30 %	1,824	396	25.4	7.8	1,259	0.73	0.014	0.55	0.22
3	kk2	Konstinkai	30 %	377	82	5.2	1.6	260	0.15	0.003	0.11	0.05
4	kk3	Konstinkai	30 %	729	158	10.1	0.6	503	0.29	0.006	0.22	0.09
5	kk4	Konstinkai	30 %	740	161	10.3	3.2	511	0.30	0.006	0.22	0.09
6	kk5	Konstinkai	30 %	1,824	396	25.4	7.8	1,259	0.73	0.014	0.55	0.22
7	lk1	Lehmannkai	30 %	929	202	12.9	4.0	641	0.37	0.007	0.28	0.11
8	lk2	Lehmannkai	30 %	464	101	6.4	2.0	320	0.19	0.004	0.14	0.06
9	lk3	Lehmannkai	30 %	162	35	2.3	0.7	112	0.06	0.001	0.05	0.02
10	nk1	Nordlandkai	30 %	711	154	9.9	3.1	491	0.28	0.005	0.21	0.09
11	nk2	Nordlandkai	30 %	708	154	9.8	1.6	489	0.28	0.005	0.21	0.08
12	nk3	Nordlandkai	30 %	900	195	12.5	3.9	621	0.36	0.007	0.27	0.11
13	nk4	Nordlandkai	30 %	900	195	12.5	3.9	621	0.36	0.007	0.27	0.11
14	nk5	Nordlandkai	30 %	1,023	222	14.2	0.4	706	0.41	0.008	0.31	0.12
15	nk6	Nordlandkai	30 %	585	127	8.1	0.3	404	0.23	0.004	0.18	0.07
16	nk7	Nordlandkai	30 %	750	163	10.4	3.2	518	0.30	0.006	0.23	0.09
17	nk8	Nordlandkai	30 %	1,200	260	16.7	5.2	828	0.48	0.009	0.36	0.14
18	nk9	Nordlandkai	30 %	1,200	260	16.7	5.2	828	0.48	0.009	0.36	0.14
19	nk10	Nordlandkai	30 %	810	176	11.3	3.5	559	0.32	0.006	0.24	0.10
20	nk11	Nordlandkai	30 %	239	52	3.3	1.0	165	0.10	0.002	0.07	0.03
21	ok1	Ostpreußenkai	30 %	0	0	0.0	0.0	0	0.00	0.000	0.00	0.00
22	ok2	Ostpreußenkai	30 %	0	0	0.0	0.0	0	0.00	0.000	0.00	0.00
23	ok3	Ostpreußenkai	30 %	95	21	1.3	0.4	66	0.04	0.001	0.03	0.01
24	ok4	Ostpreußenkai	30 %	0	0	0.0	0.0	0	0.00	0.000	0.00	0.00
25	ok5	Ostpreußenkai	30 %	1,200	260	16.7	5.2	828	0.48	0.009	0.36	0.14
26	ok6	Ostpreußenkai	30 %	0	0	0.0	0.0	0	0.00	0.000	0.00	0.00
27	ok7	Ostpreußenkai	30 %	0	0	0.0	0.0	0	0.00	0.000	0.00	0.00
28	sp1	Schlutupkai	30 %	1,969	427	27.4	8.5	1,359	0.79	0.015	0.59	0.24
29	sp2	Schlutupkai	30 %	846	184	11.8	3.6	584	0.34	0.006	0.25	0.10
30	sp3	Schlutupkai	30 %	608	132	8.4	2.6	419	0.24	0.005	0.18	0.07
31	sk31	Skandinavienkai	30 %	711	154	9.9	3.1	491	0.28	0.005	0.21	0.09
32	sk32	Skandinavienkai	30 %	306	66	4.3	1.3	211	0.12	0.002	0.09	0.04
33	sk33	Skandinavienkai	30 %	468	102	6.5	2.0	323	0.19	0.004	0.14	0.06
34	sk34	Skandinavienkai	30 %	657	143	9.1	2.8	453	0.26	0.005	0.20	0.08
35	sk35	Skandinavienkai	30 %	0	0	0.0	0.0	0	0.00	0.000	0.00	0.00
36	sk36	Skandinavienkai	30 %	0	0	0.0	0.0	0	0.00	0.000	0.00	0.00
37	sk37	Skandinavienkai	30 %	0	0	0.0	0.0	0	0.00	0.000	0.00	0.00
38	sk41	Skandinavienkai	30 %	1,770	384	24.6	7.6	1,221	0.71	0.013	0.53	0.21
39	sk42	Skandinavienkai	30 %	1,969	427	27.4	8.5	1,359	0.79	0.015	0.59	0.24
40	sk51	Skandinavienkai	30 %	1,217	264	16.9	5.2	840	0.49	0.009	0.37	0.15
41	sk52	Skandinavienkai	30 %	1,217	264	16.9	5.2	840	0.49	0.009	0.37	0.15
42	sk53	Skandinavienkai	30 %	1,073	233	14.9	0.7	740	0.43	0.008	0.32	0.13
43	sk54	Skandinavienkai	30 %	1,594	346	22.2	6.9	1,100	0.64	0.012	0.48	0.19
44	sk6a1	Skandinavienkai	0 %	0	0	0.0	0.0	0	0.00	0.000	0.00	0.00
45	sk6a2	Skandinavienkai	0 %	0	0	0.0	0.0	0	0.00	0.000	0.00	0.00
46	sk6a3	Skandinavienkai	0 %	0	0	0.0	0.0	0	0.00	0.000	0.00	0.00
47	sk6a4	Skandinavienkai	0 %	0	0	0.0	0.0	0	0.00	0.000	0.00	0.00
48	sk71	Skandinavienkai	30 %	1,260	273	17.5	8.1	869	0.50	0.010	0.38	0.15
49	sk72	Skandinavienkai	30 %	1,260	273	17.5	8.1	869	0.50	0.010	0.38	0.15
50	sk73	Skandinavienkai	30 %	871	189	12.1	1.8	601	0.35	0.007	0.26	0.10
51	sk7a1	Skandinavienkai	30 %	936	203	13.0	4.0	646	0.37	0.007	0.28	0.11
52	sk7a2	Skandinavienkai	30 %	456	99	6.3	2.0	315	0.18	0.003	0.14	0.05
53	sk81	Skandinavienkai	30 %	1,171	254	16.3	0.8	808	0.47	0.009	0.35	0.14
54	sk82	Skandinavienkai	30 %	972	211	13.5	0.6	671	0.39	0.007	0.29	0.12
55	sk100	Skandinavienkai	30 %	1,800	391	25.0	7.7	1,242	0.72	0.014	0.54	0.22
56	nn100	other	30 %	1,800	391	25.0	7.7	1,242	0.72	0.014	0.54	0.22

A 3.6.16 Emissions per Hour, Auxiliary Engines, Manoeuvring

Ship			Emissions per hour [kg/h] according to ENTEC									
			Auxiliary engines									
			Manoeuvring									
No.	Name	Port	Load	[kW]	Fuel	NOx	SO2	CO2	HC	Benz.	PM10	Soot
1	ct1	CTL (Herrenhafen)	50 %	781	169	10.9	3.4	539	0.31	0.006	0.23	0.09
2	kk1	Konstinkai	50 %	3,040	660	42.3	13.1	2,098	1.22	0.023	0.91	0.36
3	kk2	Konstinkai	50 %	628	136	8.7	2.7	433	0.25	0.005	0.19	0.08
4	kk3	Konstinkai	50 %	1,215	264	16.9	1.0	838	0.49	0.009	0.36	0.15
5	kk4	Konstinkai	50 %	1,234	268	17.2	5.3	851	0.49	0.009	0.37	0.15
6	kk5	Konstinkai	50 %	3,040	660	42.3	13.1	2,098	1.22	0.023	0.91	0.36
7	lk1	Lehmannkai	50 %	1,549	336	21.5	6.7	1,069	0.62	0.012	0.46	0.19
8	lk2	Lehmannkai	50 %	773	168	10.7	3.3	533	0.31	0.006	0.23	0.09
9	lk3	Lehmannkai	50 %	270	59	3.8	1.2	186	0.11	0.002	0.08	0.03
10	nk1	Nordlandkai	50 %	1,185	257	16.5	5.1	818	0.47	0.009	0.36	0.14
11	nk2	Nordlandkai	50 %	1,180	256	16.4	2.6	814	0.47	0.009	0.35	0.14
12	nk3	Nordlandkai	50 %	1,500	326	20.9	6.5	1,035	0.60	0.011	0.45	0.18
13	nk4	Nordlandkai	50 %	1,500	326	20.9	6.5	1,035	0.60	0.011	0.45	0.18
14	nk5	Nordlandkai	50 %	1,705	370	23.7	0.7	1,176	0.68	0.013	0.51	0.20
15	nk6	Nordlandkai	50 %	975	212	13.6	0.4	673	0.39	0.007	0.29	0.12
16	nk7	Nordlandkai	50 %	1,250	271	17.4	5.4	863	0.50	0.010	0.38	0.15
17	nk8	Nordlandkai	50 %	2,000	434	27.8	8.6	1,380	0.80	0.015	0.60	0.24
18	nk9	Nordlandkai	50 %	2,000	434	27.8	8.6	1,380	0.80	0.015	0.60	0.24
19	nk10	Nordlandkai	50 %	1,350	293	18.8	5.8	932	0.54	0.010	0.41	0.16
20	nk11	Nordlandkai	50 %	398	86	5.5	1.7	275	0.16	0.003	0.12	0.05
21	ok1	Ostpreußenkai	50 %	0	0	0.0	0.0	0	0.00	0.000	0.00	0.00
22	ok2	Ostpreußenkai	50 %	0	0	0.0	0.0	0	0.00	0.000	0.00	0.00
23	ok3	Ostpreußenkai	50 %	159	34	2.2	0.7	109	0.06	0.001	0.05	0.02
24	ok4	Ostpreußenkai	50 %	0	0	0.0	0.0	0	0.00	0.000	0.00	0.00
25	ok5	Ostpreußenkai	50 %	2,000	434	27.8	8.6	1,380	0.80	0.015	0.60	0.24
26	ok6	Ostpreußenkai	50 %	0	0	0.0	0.0	0	0.00	0.000	0.00	0.00
27	ok7	Ostpreußenkai	50 %	0	0	0.0	0.0	0	0.00	0.000	0.00	0.00
28	sp1	Schlutupkai	50 %	3,282	712	45.6	14.1	2,265	1.31	0.025	0.98	0.39
29	sp2	Schlutupkai	50 %	1,410	306	19.6	6.1	973	0.56	0.011	0.42	0.17
30	sp3	Schlutupkai	50 %	1,013	220	14.1	4.4	699	0.41	0.008	0.30	0.12
31	sk31	Skandinavienkai	50 %	1,185	257	16.5	5.1	818	0.47	0.009	0.36	0.14
32	sk32	Skandinavienkai	50 %	510	111	7.1	2.2	352	0.20	0.004	0.15	0.06
33	sk33	Skandinavienkai	50 %	780	169	10.8	3.4	538	0.31	0.006	0.23	0.09
34	sk34	Skandinavienkai	50 %	1,095	238	15.2	4.7	756	0.44	0.008	0.33	0.13
35	sk35	Skandinavienkai	50 %	0	0	0.0	0.0	0	0.00	0.000	0.00	0.00
36	sk36	Skandinavienkai	50 %	0	0	0.0	0.0	0	0.00	0.000	0.00	0.00
37	sk37	Skandinavienkai	50 %	0	0	0.0	0.0	0	0.00	0.000	0.00	0.00
38	sk41	Skandinavienkai	50 %	2,950	640	41.0	12.7	2,036	1.18	0.022	0.89	0.35
39	sk42	Skandinavienkai	50 %	3,282	712	45.6	14.1	2,265	1.31	0.025	0.98	0.39
40	sk51	Skandinavienkai	50 %	2,028	440	28.2	8.7	1,399	0.81	0.015	0.61	0.24
41	sk52	Skandinavienkai	50 %	2,028	440	28.2	8.7	1,399	0.81	0.015	0.61	0.24
42	sk53	Skandinavienkai	50 %	1,788	388	24.8	1.2	1,233	0.72	0.014	0.54	0.21
43	sk54	Skandinavienkai	50 %	2,656	576	36.9	11.4	1,833	1.06	0.020	0.80	0.32
44	sk6a1	Skandinavienkai	0 %	0	0	0.0	0.0	0	0.00	0.000	0.00	0.00
45	sk6a2	Skandinavienkai	0 %	0	0	0.0	0.0	0	0.00	0.000	0.00	0.00
46	sk6a3	Skandinavienkai	0 %	0	0	0.0	0.0	0	0.00	0.000	0.00	0.00
47	sk6a4	Skandinavienkai	0 %	0	0	0.0	0.0	0	0.00	0.000	0.00	0.00
48	sk71	Skandinavienkai	50 %	2,100	456	29.2	13.5	1,449	0.84	0.016	0.63	0.25
49	sk72	Skandinavienkai	50 %	2,100	456	29.2	13.5	1,449	0.84	0.016	0.63	0.25
50	sk73	Skandinavienkai	50 %	1,452	315	20.2	3.1	1,002	0.58	0.011	0.44	0.17
51	sk7a1	Skandinavienkai	50 %	1,560	339	21.7	6.7	1,076	0.62	0.012	0.47	0.19
52	sk7a2	Skandinavienkai	50 %	760	165	10.6	3.3	524	0.30	0.006	0.23	0.09
53	sk81	Skandinavienkai	50 %	1,952	424	27.1	1.3	1,347	0.78	0.015	0.59	0.23
54	sk82	Skandinavienkai	50 %	1,620	352	22.5	1.0	1,118	0.65	0.012	0.49	0.19
55	sk100	Skandinavienkai	50 %	3,000	651	41.7	12.9	2,070	1.20	0.023	0.90	0.36
56	nn100	other	50 %	3,000	651	41.7	12.9	2,070	1.20	0.023	0.90	0.36

A 3.6.17 Emissions per Hour, Auxiliary Engines, in Port

Ship			Emissions per hour [kg/h] according to ENTEC									
			Auxiliary engines									
			In port									
No.	Name	Port	Load	[kW]	Fuel	NOx	SO2	CO2	HC	Benz.	PM10	Soot
1	ct1	CTL (Herrenhafen)	40 %	625	136	8.7	2.7	431	0.25	0.005	0.19	0.07
2	kk1	Konstinkai	40 %	2,432	528	33.8	10.5	1,678	0.97	0.018	0.73	0.29
3	kk2	Konstinkai	40 %	502	109	7.0	2.2	347	0.20	0.004	0.15	0.06
4	kk3	Konstinkai	40 %	972	211	13.5	0.8	671	0.39	0.007	0.29	0.12
5	kk4	Konstinkai	40 %	987	214	13.7	4.2	681	0.39	0.008	0.30	0.12
6	kk5	Konstinkai	40 %	2,432	528	33.8	10.5	1,678	0.97	0.018	0.73	0.29
7	lk1	Lehmannkai	40 %	1,239	269	17.2	5.3	855	0.50	0.009	0.37	0.15
8	lk2	Lehmannkai	40 %	618	134	8.6	2.7	426	0.25	0.005	0.19	0.07
9	lk3	Lehmannkai	40 %	216	47	3.0	0.9	149	0.09	0.002	0.06	0.03
10	nk1	Nordlandkai	40 %	948	206	13.2	4.1	654	0.38	0.007	0.28	0.11
11	nk2	Nordlandkai	40 %	944	205	13.1	2.1	651	0.38	0.007	0.28	0.11
12	nk3	Nordlandkai	40 %	1,200	260	16.7	5.2	828	0.48	0.009	0.36	0.14
13	nk4	Nordlandkai	40 %	1,200	260	16.7	5.2	828	0.48	0.009	0.36	0.14
14	nk5	Nordlandkai	40 %	1,364	296	19.0	0.6	941	0.55	0.010	0.41	0.16
15	nk6	Nordlandkai	40 %	780	169	10.8	0.3	538	0.31	0.006	0.23	0.09
16	nk7	Nordlandkai	40 %	1,000	217	13.9	4.3	690	0.40	0.008	0.30	0.12
17	nk8	Nordlandkai	40 %	1,600	347	22.2	6.9	1,104	0.64	0.012	0.48	0.19
18	nk9	Nordlandkai	40 %	1,600	347	22.2	6.9	1,104	0.64	0.012	0.48	0.19
19	nk10	Nordlandkai	40 %	1,080	234	15.0	4.6	745	0.43	0.008	0.32	0.13
20	nk11	Nordlandkai	40 %	318	69	4.4	1.4	220	0.13	0.002	0.10	0.04
21	ok1	Ostpreußenkai	40 %	0	0	0.0	0.0	0	0.00	0.000	0.00	0.00
22	ok2	Ostpreußenkai	40 %	0	0	0.0	0.0	0	0.00	0.000	0.00	0.00
23	ok3	Ostpreußenkai	40 %	127	28	1.8	0.5	87	0.05	0.001	0.04	0.02
24	ok4	Ostpreußenkai	40 %	0	0	0.0	0.0	0	0.00	0.000	0.00	0.00
25	ok5	Ostpreußenkai	40 %	1,600	347	22.2	6.9	1,104	0.64	0.012	0.48	0.19
26	ok6	Ostpreußenkai	40 %	0	0	0.0	0.0	0	0.00	0.000	0.00	0.00
27	ok7	Ostpreußenkai	40 %	0	0	0.0	0.0	0	0.00	0.000	0.00	0.00
28	sp1	Schlutupkai	40 %	2,626	570	36.5	11.3	1,812	1.05	0.020	0.79	0.32
29	sp2	Schlutupkai	40 %	1,128	245	15.7	4.9	778	0.45	0.009	0.34	0.14
30	sp3	Schlutupkai	40 %	810	176	11.3	3.5	559	0.32	0.006	0.24	0.10
31	sk31	Skandinavienkai	40 %	948	206	13.2	4.1	654	0.38	0.007	0.28	0.11
32	sk32	Skandinavienkai	40 %	408	89	5.7	1.8	282	0.16	0.003	0.12	0.05
33	sk33	Skandinavienkai	40 %	624	135	8.7	2.7	431	0.25	0.005	0.19	0.07
34	sk34	Skandinavienkai	40 %	876	190	12.2	3.8	604	0.35	0.007	0.26	0.11
35	sk35	Skandinavienkai	40 %	0	0	0.0	0.0	0	0.00	0.000	0.00	0.00
36	sk36	Skandinavienkai	40 %	0	0	0.0	0.0	0	0.00	0.000	0.00	0.00
37	sk37	Skandinavienkai	40 %	0	0	0.0	0.0	0	0.00	0.000	0.00	0.00
38	sk41	Skandinavienkai	40 %	2,360	512	32.8	10.1	1,628	0.94	0.018	0.71	0.28
39	sk42	Skandinavienkai	40 %	2,626	570	36.5	11.3	1,812	1.05	0.020	0.79	0.32
40	sk51	Skandinavienkai	40 %	1,622	352	22.6	7.0	1,119	0.65	0.012	0.49	0.19
41	sk52	Skandinavienkai	40 %	1,622	352	22.6	7.0	1,119	0.65	0.012	0.49	0.19
42	sk53	Skandinavienkai	40 %	1,430	310	19.9	0.9	987	0.57	0.011	0.43	0.17
43	sk54	Skandinavienkai	40 %	2,125	461	29.5	9.1	1,466	0.85	0.016	0.64	0.25
44	sk6a1	Skandinavienkai	0 %	0	0	0.0	0.0	0	0.00	0.000	0.00	0.00
45	sk6a2	Skandinavienkai	0 %	0	0	0.0	0.0	0	0.00	0.000	0.00	0.00
46	sk6a3	Skandinavienkai	0 %	0	0	0.0	0.0	0	0.00	0.000	0.00	0.00
47	sk6a4	Skandinavienkai	0 %	0	0	0.0	0.0	0	0.00	0.000	0.00	0.00
48	sk71	Skandinavienkai	40 %	1,680	365	23.4	10.8	1,159	0.67	0.013	0.50	0.20
49	sk72	Skandinavienkai	40 %	1,680	365	23.4	10.8	1,159	0.67	0.013	0.50	0.20
50	sk73	Skandinavienkai	40 %	1,162	252	16.1	2.4	802	0.46	0.009	0.35	0.14
51	sk7a1	Skandinavienkai	40 %	1,248	271	17.3	5.4	861	0.50	0.009	0.37	0.15
52	sk7a2	Skandinavienkai	40 %	608	132	8.5	2.6	420	0.24	0.005	0.18	0.07
53	sk81	Skandinavienkai	40 %	1,562	339	21.7	1.0	1,078	0.62	0.012	0.47	0.19
54	sk82	Skandinavienkai	40 %	1,296	281	18.0	0.8	894	0.52	0.010	0.39	0.16
55	sk100	Skandinavienkai	40 %	2,400	521	33.4	10.3	1,656	0.96	0.018	0.72	0.29
56	nn100	other	40 %	2,400	521	33.4	10.3	1,656	0.96	0.018	0.72	0.29

A 3.6.18 Emissions per Hour, Auxiliary Boilers, at Sea

Ship			Emissions per hour [kg/h] according to Isensee									
			Auxiliary boilers									
			At sea									
No.	Name	Port	Load	[kW]	Fuel	NOx	SO2	CO2	HC	Benz.	PM10	Soot
1	ct1	CTL (Herrenhafen)	0 %	0	0.0	0.0	0.0	0	0.00	0.000	0.00	0.00
2	kk1	Konstinkai	0 %	0	0.0	0.0	0.0	0	0.00	0.000	0.00	0.00
3	kk2	Konstinkai	0 %	0	0.0	0.0	0.0	0	0.00	0.000	0.00	0.00
4	kk3	Konstinkai	0 %	0	0.0	0.0	0.0	0	0.00	0.000	0.00	0.00
5	kk4	Konstinkai	0 %	0	0.0	0.0	0.0	0	0.00	0.000	0.00	0.00
6	kk5	Konstinkai	0 %	0	0.0	0.0	0.0	0	0.00	0.000	0.00	0.00
7	lk1	Lehmannkai	0 %	0	0.0	0.0	0.0	0	0.00	0.000	0.00	0.00
8	lk2	Lehmannkai	0 %	0	0.0	0.0	0.0	0	0.00	0.000	0.00	0.00
9	lk3	Lehmannkai	0 %	0	0.0	0.0	0.0	0	0.00	0.000	0.00	0.00
10	nk1	Nordlandkai	0 %	0	0.0	0.0	0.0	0	0.00	0.000	0.00	0.00
11	nk2	Nordlandkai	0 %	0	0.0	0.0	0.0	0	0.00	0.000	0.00	0.00
12	nk3	Nordlandkai	0 %	0	0.0	0.0	0.0	0	0.00	0.000	0.00	0.00
13	nk4	Nordlandkai	0 %	0	0.0	0.0	0.0	0	0.00	0.000	0.00	0.00
14	nk5	Nordlandkai	0 %	0	0.0	0.0	0.0	0	0.00	0.000	0.00	0.00
15	nk6	Nordlandkai	0 %	0	0.0	0.0	0.0	0	0.00	0.000	0.00	0.00
16	nk7	Nordlandkai	0 %	0	0.0	0.0	0.0	0	0.00	0.000	0.00	0.00
17	nk8	Nordlandkai	0 %	0	0.0	0.0	0.0	0	0.00	0.000	0.00	0.00
18	nk9	Nordlandkai	0 %	0	0.0	0.0	0.0	0	0.00	0.000	0.00	0.00
19	nk10	Nordlandkai	0 %	0	0.0	0.0	0.0	0	0.00	0.000	0.00	0.00
20	nk11	Nordlandkai	0 %	0	0.0	0.0	0.0	0	0.00	0.000	0.00	0.00
21	ok1	Ostpreußenkai	0 %	0	0.0	0.0	0.0	0	0.00	0.000	0.00	0.00
22	ok2	Ostpreußenkai	0 %	0	0.0	0.0	0.0	0	0.00	0.000	0.00	0.00
23	ok3	Ostpreußenkai	0 %	0	0.0	0.0	0.0	0	0.00	0.000	0.00	0.00
24	ok4	Ostpreußenkai	0 %	0	0.0	0.0	0.0	0	0.00	0.000	0.00	0.00
25	ok5	Ostpreußenkai	0 %	0	0.0	0.0	0.0	0	0.00	0.000	0.00	0.00
26	ok6	Ostpreußenkai	0 %	0	0.0	0.0	0.0	0	0.00	0.000	0.00	0.00
27	ok7	Ostpreußenkai	0 %	0	0.0	0.0	0.0	0	0.00	0.000	0.00	0.00
28	sp1	Schlutupkai	0 %	0	0.0	0.0	0.0	0	0.00	0.000	0.00	0.00
29	sp2	Schlutupkai	0 %	0	0.0	0.0	0.0	0	0.00	0.000	0.00	0.00
30	sp3	Schlutupkai	0 %	0	0.0	0.0	0.0	0	0.00	0.000	0.00	0.00
31	sk31	Skandinavienkai	0 %	0	0.0	0.0	0.0	0	0.00	0.000	0.00	0.00
32	sk32	Skandinavienkai	0 %	0	0.0	0.0	0.0	0	0.00	0.000	0.00	0.00
33	sk33	Skandinavienkai	0 %	0	0.0	0.0	0.0	0	0.00	0.000	0.00	0.00
34	sk34	Skandinavienkai	0 %	0	0.0	0.0	0.0	0	0.00	0.000	0.00	0.00
35	sk35	Skandinavienkai	0 %	0	0.0	0.0	0.0	0	0.00	0.000	0.00	0.00
36	sk36	Skandinavienkai	0 %	0	0.0	0.0	0.0	0	0.00	0.000	0.00	0.00
37	sk37	Skandinavienkai	0 %	0	0.0	0.0	0.0	0	0.00	0.000	0.00	0.00
38	sk41	Skandinavienkai	0 %	0	0.0	0.0	0.0	0	0.00	0.000	0.00	0.00
39	sk42	Skandinavienkai	0 %	0	0.0	0.0	0.0	0	0.00	0.000	0.00	0.00
40	sk51	Skandinavienkai	0 %	0	0.0	0.0	0.0	0	0.00	0.000	0.00	0.00
41	sk52	Skandinavienkai	0 %	0	0.0	0.0	0.0	0	0.00	0.000	0.00	0.00
42	sk53	Skandinavienkai	0 %	0	0.0	0.0	0.0	0	0.00	0.000	0.00	0.00
43	sk54	Skandinavienkai	0 %	0	0.0	0.0	0.0	0	0.00	0.000	0.00	0.00
44	sk6a1	Skandinavienkai	0 %	0	0.0	0.0	0.0	0	0.00	0.000	0.00	0.00
45	sk6a2	Skandinavienkai	0 %	0	0.0	0.0	0.0	0	0.00	0.000	0.00	0.00
46	sk6a3	Skandinavienkai	0 %	0	0.0	0.0	0.0	0	0.00	0.000	0.00	0.00
47	sk6a4	Skandinavienkai	0 %	0	0.0	0.0	0.0	0	0.00	0.000	0.00	0.00
48	sk71	Skandinavienkai	0 %	0	0.0	0.0	0.0	0	0.00	0.000	0.00	0.00
49	sk72	Skandinavienkai	0 %	0	0.0	0.0	0.0	0	0.00	0.000	0.00	0.00
50	sk73	Skandinavienkai	0 %	0	0.0	0.0	0.0	0	0.00	0.000	0.00	0.00
51	sk7a1	Skandinavienkai	0 %	0	0.0	0.0	0.0	0	0.00	0.000	0.00	0.00
52	sk7a2	Skandinavienkai	0 %	0	0.0	0.0	0.0	0	0.00	0.000	0.00	0.00
53	sk81	Skandinavienkai	0 %	0	0.0	0.0	0.0	0	0.00	0.000	0.00	0.00
54	sk82	Skandinavienkai	0 %	0	0.0	0.0	0.0	0	0.00	0.000	0.00	0.00
55	sk100	Skandinavienkai	0 %	0	0.0	0.0	0.0	0	0.00	0.000	0.00	0.00
56	nn100	other	0 %	0	0.0	0.0	0.0	0	0.00	0.000	0.00	0.00

A 3.6.19 Emissions per Hour, Auxiliary Boilers, Manoeuvring

Ship			Emissions per hour [kg/h] according to Isensee									
			Auxiliary boilers									
			Manoeuvring									
No.	Name	Port	Load	[kW]	Fuel	NOx	SO2	CO2	HC	Benz.	PM10	Soot
1	ct1	CTL (Herrenhafen)	10 %	200	19.8	0.2	0.6	63	0.04	0.001	0.03	0.01
2	kk1	Konstinkai	10 %	318	31.5	0.3	1.0	100	0.06	0.001	0.05	0.02
3	kk2	Konstinkai	10 %	169	16.8	0.2	0.5	53	0.03	0.001	0.03	0.01
4	kk3	Konstinkai	10 %	204	20.2	0.2	0.6	64	0.04	0.001	0.03	0.01
5	kk4	Konstinkai	10 %	200	19.8	0.2	0.6	63	0.04	0.001	0.03	0.01
6	kk5	Konstinkai	10 %	318	31.5	0.3	1.0	100	0.06	0.001	0.05	0.02
7	lk1	Lehmannkai	10 %	185	18.3	0.2	0.6	58	0.04	0.001	0.03	0.01
8	lk2	Lehmannkai	10 %	168	16.7	0.2	0.5	53	0.03	0.001	0.03	0.01
9	lk3	Lehmannkai	10 %	153	15.2	0.2	0.5	48	0.03	0.001	0.02	0.01
10	nk1	Nordlandkai	10 %	230	22.8	0.2	0.7	73	0.05	0.001	0.03	0.01
11	nk2	Nordlandkai	10 %	220	21.8	0.2	0.7	69	0.04	0.001	0.03	0.01
12	nk3	Nordlandkai	10 %	296	29.4	0.3	0.9	93	0.06	0.001	0.04	0.02
13	nk4	Nordlandkai	10 %	300	29.8	0.3	0.9	95	0.06	0.001	0.05	0.02
14	nk5	Nordlandkai	10 %	264	26.2	0.3	0.1	83	0.05	0.001	0.04	0.02
15	nk6	Nordlandkai	10 %	275	27.3	0.3	0.1	87	0.06	0.001	0.04	0.02
16	nk7	Nordlandkai	10 %	215	21.3	0.2	0.7	68	0.04	0.001	0.03	0.01
17	nk8	Nordlandkai	10 %	215	21.3	0.2	0.7	68	0.04	0.001	0.03	0.01
18	nk9	Nordlandkai	10 %	270	26.8	0.3	0.8	85	0.05	0.001	0.04	0.02
19	nk10	Nordlandkai	10 %	207	20.5	0.2	0.6	65	0.04	0.001	0.03	0.01
20	nk11	Nordlandkai	10 %	150	14.9	0.2	0.5	47	0.03	0.001	0.02	0.01
21	ok1	Ostpreußenkai	10 %	468	49.3	0.5	1.0	157	0.09	0.002	0.07	0.03
22	ok2	Ostpreußenkai	10 %	0	0.0	0.0	0.0	0	0.00	0.000	0.00	0.00
23	ok3	Ostpreußenkai	10 %	0	0.0	0.0	0.0	0	0.00	0.000	0.00	0.00
24	ok4	Ostpreußenkai	10 %	0	0.0	0.0	0.0	0	0.00	0.000	0.00	0.00
25	ok5	Ostpreußenkai	10 %	753	74.7	0.8	2.4	237	0.15	0.003	0.11	0.05
26	ok6	Ostpreußenkai	10 %	611	60.6	0.6	1.9	193	0.12	0.002	0.09	0.04
27	ok7	Ostpreußenkai	10 %	451	47.5	0.5	1.0	151	0.09	0.002	0.07	0.03
28	sp1	Schlutupkai	10 %	222	22.0	0.2	0.7	70	0.04	0.001	0.03	0.01
29	sp2	Schlutupkai	10 %	297	29.5	0.3	0.9	94	0.06	0.001	0.04	0.02
30	sp3	Schlutupkai	10 %	271	26.9	0.3	0.8	85	0.05	0.001	0.04	0.02
31	sk31	Skandinavienkai	10 %	230	22.8	0.2	0.7	73	0.05	0.001	0.03	0.01
32	sk32	Skandinavienkai	10 %	167	16.6	0.2	0.5	53	0.03	0.001	0.03	0.01
33	sk33	Skandinavienkai	10 %	270	26.8	0.3	0.8	85	0.05	0.001	0.04	0.02
34	sk34	Skandinavienkai	10 %	158	15.7	0.2	0.5	50	0.03	0.001	0.02	0.01
35	sk35	Skandinavienkai	10 %	878	87.1	0.9	2.7	277	0.18	0.003	0.13	0.05
36	sk36	Skandinavienkai	10 %	1,577	156.4	1.6	4.9	497	0.32	0.006	0.24	0.09
37	sk37	Skandinavienkai	10 %	451	47.5	0.5	1.0	151	0.09	0.002	0.07	0.03
38	sk41	Skandinavienkai	10 %	249	24.7	0.2	0.8	78	0.05	0.001	0.04	0.01
39	sk42	Skandinavienkai	10 %	612	60.7	0.6	1.9	193	0.12	0.002	0.09	0.04
40	sk51	Skandinavienkai	10 %	260	25.8	0.3	0.8	82	0.05	0.001	0.04	0.02
41	sk52	Skandinavienkai	10 %	269	26.7	0.3	0.8	85	0.05	0.001	0.04	0.02
42	sk53	Skandinavienkai	10 %	275	27.3	0.3	0.1	87	0.06	0.001	0.04	0.02
43	sk54	Skandinavienkai	10 %	273	27.1	0.3	0.9	86	0.05	0.001	0.04	0.02
44	sk6a1	Skandinavienkai	10 %	241	23.9	0.2	0.1	76	0.05	0.001	0.04	0.01
45	sk6a2	Skandinavienkai	10 %	241	23.9	0.2	0.1	76	0.05	0.001	0.04	0.01
46	sk6a3	Skandinavienkai	10 %	190	18.8	0.2	0.1	60	0.04	0.001	0.03	0.01
47	sk6a4	Skandinavienkai	10 %	190	18.8	0.2	0.1	60	0.04	0.001	0.03	0.01
48	sk71	Skandinavienkai	10 %	225	22.3	0.2	0.7	71	0.05	0.001	0.03	0.01
49	sk72	Skandinavienkai	10 %	225	22.3	0.2	0.7	71	0.05	0.001	0.03	0.01
50	sk73	Skandinavienkai	10 %	190	18.8	0.2	0.2	60	0.04	0.001	0.03	0.01
51	sk7a1	Skandinavienkai	10 %	195	19.3	0.2	0.4	62	0.04	0.001	0.03	0.01
52	sk7a2	Skandinavienkai	10 %	100	10.5	0.1	0.2	34	0.02	0.000	0.02	0.01
53	sk81	Skandinavienkai	10 %	290	28.8	0.3	0.1	92	0.06	0.001	0.04	0.02
54	sk82	Skandinavienkai	10 %	290	28.8	0.3	0.1	92	0.06	0.001	0.04	0.02
55	sk100	Skandinavienkai	10 %	300	29.8	0.3	0.6	95	0.06	0.001	0.05	0.02
56	nn100	other	10 %	300	29.8	0.3	0.6	95	0.06	0.001	0.05	0.02

A 3.6.20 Emissions per Hour, Auxiliary Boilers, in Port

Ship			Emissions per hour [kg/h] according to Isensee									
			Auxiliary boilers									
			In port									
No.	Name	Port	Load	[kW]	Fuel	NOx	SO2	CO2	HC	Benz.	PM10	Soot
1	ct1	CTL (Herrenhafen)	10 %	200	19.8	0.2	0.6	63	0.04	0.001	0.03	0.01
2	kk1	Konstinkai	10 %	318	31.5	0.3	1.0	100	0.06	0.001	0.05	0.02
3	kk2	Konstinkai	10 %	169	16.8	0.2	0.5	53	0.03	0.001	0.03	0.01
4	kk3	Konstinkai	10 %	204	20.2	0.2	0.6	64	0.04	0.001	0.03	0.01
5	kk4	Konstinkai	10 %	200	19.8	0.2	0.6	63	0.04	0.001	0.03	0.01
6	kk5	Konstinkai	10 %	318	31.5	0.3	1.0	100	0.06	0.001	0.05	0.02
7	lk1	Lehmannkai	10 %	185	18.3	0.2	0.6	58	0.04	0.001	0.03	0.01
8	lk2	Lehmannkai	10 %	168	16.7	0.2	0.5	53	0.03	0.001	0.03	0.01
9	lk3	Lehmannkai	10 %	153	15.2	0.2	0.5	48	0.03	0.001	0.02	0.01
10	nk1	Nordlandkai	10 %	230	22.8	0.2	0.7	73	0.05	0.001	0.03	0.01
11	nk2	Nordlandkai	10 %	220	21.8	0.2	0.7	69	0.04	0.001	0.03	0.01
12	nk3	Nordlandkai	10 %	296	29.4	0.3	0.9	93	0.06	0.001	0.04	0.02
13	nk4	Nordlandkai	10 %	300	29.8	0.3	0.9	95	0.06	0.001	0.05	0.02
14	nk5	Nordlandkai	10 %	264	26.2	0.3	0.1	83	0.05	0.001	0.04	0.02
15	nk6	Nordlandkai	10 %	275	27.3	0.3	0.1	87	0.06	0.001	0.04	0.02
16	nk7	Nordlandkai	10 %	215	21.3	0.2	0.7	68	0.04	0.001	0.03	0.01
17	nk8	Nordlandkai	10 %	215	21.3	0.2	0.7	68	0.04	0.001	0.03	0.01
18	nk9	Nordlandkai	10 %	270	26.8	0.3	0.8	85	0.05	0.001	0.04	0.02
19	nk10	Nordlandkai	10 %	207	20.5	0.2	0.6	65	0.04	0.001	0.03	0.01
20	nk11	Nordlandkai	10 %	150	14.9	0.2	0.5	47	0.03	0.001	0.02	0.01
21	ok1	Ostpreußenkai	10 %	468	49.3	0.5	1.0	157	0.09	0.002	0.07	0.03
22	ok2	Ostpreußenkai	10 %	0	0.0	0.0	0.0	0	0.00	0.000	0.00	0.00
23	ok3	Ostpreußenkai	10 %	0	0.0	0.0	0.0	0	0.00	0.000	0.00	0.00
24	ok4	Ostpreußenkai	10 %	0	0.0	0.0	0.0	0	0.00	0.000	0.00	0.00
25	ok5	Ostpreußenkai	10 %	753	74.7	0.8	2.4	237	0.15	0.003	0.11	0.05
26	ok6	Ostpreußenkai	10 %	611	60.6	0.6	1.9	193	0.12	0.002	0.09	0.04
27	ok7	Ostpreußenkai	10 %	451	47.5	0.5	1.0	151	0.09	0.002	0.07	0.03
28	sp1	Schlutupkai	10 %	222	22.0	0.2	0.7	70	0.04	0.001	0.03	0.01
29	sp2	Schlutupkai	10 %	297	29.5	0.3	0.9	94	0.06	0.001	0.04	0.02
30	sp3	Schlutupkai	10 %	271	26.9	0.3	0.8	85	0.05	0.001	0.04	0.02
31	sk31	Skandinavienkai	10 %	230	22.8	0.2	0.7	73	0.05	0.001	0.03	0.01
32	sk32	Skandinavienkai	10 %	167	16.6	0.2	0.5	53	0.03	0.001	0.03	0.01
33	sk33	Skandinavienkai	10 %	270	26.8	0.3	0.8	85	0.05	0.001	0.04	0.02
34	sk34	Skandinavienkai	10 %	158	15.7	0.2	0.5	50	0.03	0.001	0.02	0.01
35	sk35	Skandinavienkai	10 %	878	87.1	0.9	2.7	277	0.18	0.003	0.13	0.05
36	sk36	Skandinavienkai	10 %	1,577	156.4	1.6	4.9	497	0.32	0.006	0.24	0.09
37	sk37	Skandinavienkai	10 %	451	47.5	0.5	1.0	151	0.09	0.002	0.07	0.03
38	sk41	Skandinavienkai	10 %	249	24.7	0.2	0.8	78	0.05	0.001	0.04	0.01
39	sk42	Skandinavienkai	10 %	612	60.7	0.6	1.9	193	0.12	0.002	0.09	0.04
40	sk51	Skandinavienkai	10 %	260	25.8	0.3	0.8	82	0.05	0.001	0.04	0.02
41	sk52	Skandinavienkai	10 %	269	26.7	0.3	0.8	85	0.05	0.001	0.04	0.02
42	sk53	Skandinavienkai	10 %	275	27.3	0.3	0.1	87	0.06	0.001	0.04	0.02
43	sk54	Skandinavienkai	10 %	273	27.1	0.3	0.9	86	0.05	0.001	0.04	0.02
44	sk6a1	Skandinavienkai	10 %	241	23.9	0.2	0.1	76	0.05	0.001	0.04	0.01
45	sk6a2	Skandinavienkai	10 %	241	23.9	0.2	0.1	76	0.05	0.001	0.04	0.01
46	sk6a3	Skandinavienkai	10 %	190	18.8	0.2	0.1	60	0.04	0.001	0.03	0.01
47	sk6a4	Skandinavienkai	10 %	190	18.8	0.2	0.1	60	0.04	0.001	0.03	0.01
48	sk71	Skandinavienkai	10 %	225	22.3	0.2	0.7	71	0.05	0.001	0.03	0.01
49	sk72	Skandinavienkai	10 %	225	22.3	0.2	0.7	71	0.05	0.001	0.03	0.01
50	sk73	Skandinavienkai	10 %	190	18.8	0.2	0.2	60	0.04	0.001	0.03	0.01
51	sk7a1	Skandinavienkai	10 %	195	19.3	0.2	0.4	62	0.04	0.001	0.03	0.01
52	sk7a2	Skandinavienkai	10 %	100	10.5	0.1	0.2	34	0.02	0.000	0.02	0.01
53	sk81	Skandinavienkai	10 %	290	28.8	0.3	0.1	92	0.06	0.001	0.04	0.02
54	sk82	Skandinavienkai	10 %	290	28.8	0.3	0.1	92	0.06	0.001	0.04	0.02
55	sk100	Skandinavienkai	10 %	300	29.8	0.3	0.6	95	0.06	0.001	0.05	0.02
56	nn100	other	10 %	300	29.8	0.3	0.6	95	0.06	0.001	0.05	0.02

A 3.6.21 Total Emissions per Hour, at Sea

Ship			Sum of all emissions from main engines, auxiliary engines and auxiliary boilers per hour [kg/h]							
			At sea							
No.	Name	Port	Fuel	NOx	SO2	CO2	HC	Benz.	PM10	Soot
1	ct1	CTL (Herrenhafen)	2,569	168.7	76.2	8,166	5.98	0.114	6.16	2.49
2	kk1	Konstinkai	4,690	307.6	136.9	14,907	10.81	0.205	11.03	4.45
3	kk2	Konstinkai	849	55.6	24.7	2,697	1.95	0.037	1.99	0.80
4	kk3	Konstinkai	2,038	133.7	57.1	6,477	4.70	0.089	4.81	1.94
5	kk4	Konstinkai	2,819	185.0	83.1	8,960	6.54	0.124	6.71	2.71
6	kk5	Konstinkai	3,156	206.8	90.8	10,032	7.21	0.137	7.29	2.94
7	lk1	Lehmannkai	1,497	98.0	42.9	4,757	3.41	0.065	3.44	1.39
8	lk2	Lehmannkai	1,396	91.6	40.9	4,436	3.23	0.061	3.30	1.33
9	lk3	Lehmannkai	411	27.0	12.0	1,307	0.95	0.018	0.97	0.39
10	nk1	Nordlandkai	2,606	171.1	76.7	8,284	6.04	0.115	6.20	2.50
11	nk2	Nordlandkai	2,301	151.0	66.1	7,313	5.32	0.101	5.45	2.20
12	nk3	Nordlandkai	2,444	160.3	71.4	7,769	5.64	0.107	5.76	2.33
13	nk4	Nordlandkai	2,647	173.7	77.5	8,415	6.12	0.116	6.26	2.53
14	nk5	Nordlandkai	2,676	175.5	74.2	8,505	6.17	0.117	6.30	2.54
15	nk6	Nordlandkai	2,598	170.6	74.5	8,259	6.04	0.115	6.21	2.51
16	nk7	Nordlandkai	2,310	151.5	67.7	7,342	5.34	0.101	5.47	2.21
17	nk8	Nordlandkai	3,481	228.4	101.9	11,064	8.04	0.153	8.22	3.32
18	nk9	Nordlandkai	3,481	228.4	101.9	11,064	8.04	0.153	8.22	3.32
19	nk10	Nordlandkai	2,643	173.4	77.6	8,401	6.12	0.116	6.27	2.53
20	nk11	Nordlandkai	359	23.5	10.2	1,140	0.82	0.015	0.82	0.33
21	ok1	Ostpreußenkai	526	34.2	10.6	1,670	1.29	0.025	0.78	0.31
22	ok2	Ostpreußenkai	69	4.5	1.4	219	0.17	0.003	0.10	0.04
23	ok3	Ostpreußenkai	128	8.3	2.6	406	0.30	0.006	0.19	0.07
24	ok4	Ostpreußenkai	69	4.5	1.4	219	0.17	0.003	0.10	0.04
25	ok5	Ostpreußenkai	3,668	240.7	107.6	11,660	8.48	0.161	8.68	3.50
26	ok6	Ostpreußenkai	1,994	131.0	59.9	6,337	4.68	0.089	4.87	1.97
27	ok7	Ostpreußenkai	568	37.0	11.5	1,806	1.40	0.027	0.84	0.34
28	sp1	Schlutupkai	4,517	296.2	131.3	14,357	10.39	0.197	10.57	4.27
29	sp2	Schlutupkai	1,494	97.9	43.0	4,750	3.42	0.065	3.45	1.39
30	sp3	Schlutupkai	1,457	95.5	42.4	4,630	3.35	0.064	3.42	1.38
31	sk31	Skandinavienkai	2,606	171.1	76.7	8,284	6.04	0.115	6.20	2.50
32	sk32	Skandinavienkai	1,074	70.5	31.6	3,415	2.49	0.047	2.55	1.03
33	sk33	Skandinavienkai	1,451	95.2	42.6	4,612	3.36	0.064	3.44	1.39
34	sk34	Skandinavienkai	1,819	119.3	53.2	5,783	4.20	0.080	4.29	1.73
35	sk35	Skandinavienkai	2,283	150.1	68.6	7,257	5.36	0.102	5.57	2.25
36	sk36	Skandinavienkai	8,137	534.8	244.5	25,861	19.10	0.363	19.86	8.02
37	sk37	Skandinavienkai	568	37.0	11.5	1,806	1.40	0.027	0.84	0.34
38	sk41	Skandinavienkai	3,329	218.1	96.1	10,580	7.62	0.145	7.72	3.12
39	sk42	Skandinavienkai	4,517	296.2	131.3	14,357	10.39	0.197	10.57	4.27
40	sk51	Skandinavienkai	4,190	275.0	123.2	13,318	9.70	0.184	9.95	4.02
41	sk52	Skandinavienkai	4,190	275.0	123.2	13,318	9.70	0.184	9.95	4.02
42	sk53	Skandinavienkai	4,164	273.3	118.8	13,234	9.66	0.183	9.92	4.00
43	sk54	Skandinavienkai	4,271	280.2	124.8	13,576	9.85	0.187	10.06	4.06
44	sk6a1	Skandinavienkai	4,853	315.5	29.4	15,418	11.95	0.227	7.17	2.87
45	sk6a2	Skandinavienkai	4,853	315.5	29.4	15,418	11.95	0.227	7.17	2.87
46	sk6a3	Skandinavienkai	2,923	190.1	17.7	9,288	7.20	0.137	4.32	1.73
47	sk6a4	Skandinavienkai	2,923	190.1	17.7	9,288	7.20	0.137	4.32	1.73
48	sk71	Skandinavienkai	2,754	247.7	83.2	8,756	8.14	0.155	6.99	2.82
49	sk72	Skandinavienkai	2,754	247.7	83.2	8,756	8.14	0.155	6.99	2.82
50	sk73	Skandinavienkai	1,944	127.5	19.1	6,180	4.47	0.085	4.55	1.83
51	sk7a1	Skandinavienkai	2,158	141.5	43.2	6,860	4.96	0.094	5.05	2.04
52	sk7a2	Skandinavienkai	2,054	134.8	20.8	6,529	4.77	0.091	4.91	1.98
53	sk81	Skandinavienkai	2,980	195.5	82.7	9,473	6.87	0.130	7.01	2.83
54	sk82	Skandinavienkai	2,987	196.0	84.0	9,493	6.90	0.131	7.07	2.85
55	sk100	Skandinavienkai	4,651	305.0	135.7	14,782	10.72	0.204	10.94	4.42
56	nn100	other	4,651	305.0	135.7	14,782	10.72	0.204	10.94	4.42

A 3.6.22 Total Emissions per Hour, Manoeuvring

Ship			Sum of all emissions from main engines, auxiliary engines and auxiliary boilers per hour [kg/h]							
			Manoeuvring							
No.	Name	Port	Fuel	NOx	SO2	CO2	HC	Benz.	PM10	Soot
1	ct1	CTL (Herrenhafen)	867	43.5	24.3	2,759	4.70	0.089	4.78	1.90
2	kk1	Konstinkai	1,871	99.0	49.3	5,953	8.84	0.168	8.82	3.51
3	kk2	Konstinkai	364	19.0	9.5	1,157	1.64	0.031	1.62	0.64
4	kk3	Konstinkai	800	41.8	17.1	2,546	3.84	0.073	3.84	1.53
5	kk4	Konstinkai	1,018	52.3	27.8	3,239	5.21	0.099	5.27	2.09
6	kk5	Konstinkai	1,449	78.9	36.7	4,612	6.14	0.117	6.01	2.39
7	lk1	Lehmannkai	710	38.7	17.9	2,260	2.94	0.056	2.86	1.14
8	lk2	Lehmannkai	540	27.9	14.5	1,718	2.62	0.050	2.63	1.05
9	lk3	Lehmannkai	177	8.8	4.7	563	0.80	0.015	0.79	0.32
10	nk1	Nordlandkai	953	48.9	26.0	3,034	4.84	0.092	4.88	1.94
11	nk2	Nordlandkai	868	44.8	20.9	2,761	4.30	0.082	4.32	1.72
12	nk3	Nordlandkai	973	50.7	25.9	3,095	4.62	0.088	4.61	1.83
13	nk4	Nordlandkai	1,029	53.4	27.5	3,274	4.98	0.095	4.98	1.98
14	nk5	Nordlandkai	1,407	72.3	31.0	4,478	7.21	0.137	7.29	2.90
15	nk6	Nordlandkai	1,257	62.6	30.9	4,001	6.97	0.132	7.12	2.83
16	nk7	Nordlandkai	882	45.8	23.7	2,808	4.32	0.082	4.34	1.73
17	nk8	Nordlandkai	1,340	70.4	35.7	4,264	6.51	0.124	6.53	2.60
18	nk9	Nordlandkai	1,345	70.4	35.9	4,281	6.52	0.124	6.54	2.60
19	nk10	Nordlandkai	991	51.4	26.7	3,154	4.93	0.094	4.95	1.97
20	nk11	Nordlandkai	185	9.7	4.7	590	0.73	0.014	0.70	0.28
21	ok1	Ostpreußenkai	194	7.3	3.9	616	1.06	0.020	0.65	0.26
22	ok2	Ostpreußenkai	19	0.9	0.4	60	0.13	0.002	0.08	0.03
23	ok3	Ostpreußenkai	123	6.4	2.5	391	0.66	0.012	0.40	0.16
24	ok4	Ostpreußenkai	19	0.9	0.4	60	0.13	0.002	0.08	0.03
25	ok5	Ostpreußenkai	1,445	73.4	39.0	4,597	6.95	0.132	6.95	2.77
26	ok6	Ostpreußenkai	608	26.8	18.3	1,936	3.63	0.069	3.74	1.49
27	ok7	Ostpreußenkai	516	22.7	10.4	1,642	3.24	0.062	1.96	0.78
28	sp1	Schlutupkai	1,857	99.6	48.4	5,911	8.56	0.163	8.51	3.38
29	sp2	Schlutupkai	695	37.1	17.8	2,213	2.93	0.056	2.87	1.14
30	sp3	Schlutupkai	610	31.8	16.1	1,942	2.79	0.053	2.77	1.10
31	sk31	Skandinavienkai	953	48.9	26.0	3,034	4.84	0.092	4.88	1.94
32	sk32	Skandinavienkai	404	20.5	11.0	1,286	2.01	0.038	2.02	0.80
33	sk33	Skandinavienkai	567	28.9	15.3	1,803	2.74	0.052	2.75	1.09
34	sk34	Skandinavienkai	714	37.4	19.0	2,272	3.42	0.065	3.42	1.36
35	sk35	Skandinavienkai	714	30.9	21.5	2,273	4.20	0.080	4.31	1.71
36	sk36	Skandinavienkai	2,391	108.5	71.8	7,612	14.64	0.278	15.13	6.02
37	sk37	Skandinavienkai	204	7.9	4.1	648	1.14	0.022	0.70	0.28
38	sk41	Skandinavienkai	1,474	80.0	37.7	4,689	6.41	0.122	6.31	2.51
39	sk42	Skandinavienkai	1,896	100.0	49.6	6,034	8.64	0.164	8.56	3.41
40	sk51	Skandinavienkai	1,544	80.1	41.8	4,914	7.78	0.148	7.84	3.12
41	sk52	Skandinavienkai	1,545	80.1	41.8	4,917	7.78	0.148	7.84	3.12
42	sk53	Skandinavienkai	1,495	76.8	33.5	4,757	7.69	0.146	7.77	3.09
43	sk54	Skandinavienkai	1,682	88.8	44.5	5,351	8.03	0.153	8.02	3.19
44	sk6a1	Skandinavienkai	1,357	63.6	8.2	4,319	9.01	0.171	5.41	2.17
45	sk6a2	Skandinavienkai	1,357	63.6	8.2	4,319	9.01	0.171	5.41	2.17
46	sk6a3	Skandinavienkai	822	38.4	5.0	2,616	5.44	0.103	3.27	1.31
47	sk6a4	Skandinavienkai	822	38.4	5.0	2,616	5.44	0.103	3.27	1.31
48	sk71	Skandinavienkai	1,845	121.6	55.6	5,857	12.33	0.234	10.59	4.21
49	sk72	Skandinavienkai	1,845	121.6	55.6	5,857	12.33	0.234	10.59	4.21
50	sk73	Skandinavienkai	816	43.4	8.0	2,596	3.71	0.070	3.68	1.46
51	sk7a1	Skandinavienkai	895	47.6	17.8	2,848	4.11	0.078	4.08	1.62
52	sk7a2	Skandinavienkai	712	36.4	8.6	2,268	3.77	0.072	3.82	1.52
53	sk81	Skandinavienkai	1,201	63.3	23.7	3,822	5.64	0.107	5.62	2.24
54	sk82	Skandinavienkai	1,143	59.3	23.9	3,637	5.59	0.106	5.61	2.23
55	sk100	Skandinavienkai	1,851	98.0	48.5	5,890	8.76	0.166	8.75	3.48
56	nn100	other	1,851	98.0	48.5	5,890	8.76	0.166	8.75	3.48

A 3.6.23 Total Emissions per Hour, in Port

Ship			Sum of all emissions from main engines, auxiliary engines and auxiliary boilers per hour [kg/h]							
			In port							
No.	Name	Port	Fuel	NOx	SO2	CO2	HC	Benz.	PM10	Soot
1	ct1	CTL (Herrenhafen)	189	10.5	4.3	602	0.51	0.010	0.44	0.18
2	kk1	Konstinkai	618	36.9	13.2	1,966	1.41	0.027	1.17	0.47
3	kk2	Konstinkai	136	7.7	3.0	433	0.30	0.006	0.25	0.10
4	kk3	Konstinkai	257	15.0	2.2	817	0.60	0.011	0.49	0.20
5	kk4	Konstinkai	271	15.7	6.0	860	0.67	0.013	0.57	0.23
6	kk5	Konstinkai	597	35.9	12.6	1,899	1.28	0.024	1.03	0.41
7	lk1	Lehmannkai	305	18.3	6.4	970	0.65	0.012	0.52	0.21
8	lk2	Lehmannkai	169	9.6	3.7	536	0.39	0.008	0.33	0.13
9	lk3	Lehmannkai	67	3.4	1.6	214	0.15	0.003	0.12	0.05
10	nk1	Nordlandkai	262	15.0	5.8	834	0.64	0.012	0.54	0.22
11	nk2	Nordlandkai	256	14.8	3.6	815	0.61	0.012	0.51	0.20
12	nk3	Nordlandkai	321	18.5	7.0	1,020	0.74	0.014	0.61	0.24
13	nk4	Nordlandkai	324	18.6	7.1	1,030	0.76	0.014	0.63	0.25
14	nk5	Nordlandkai	356	20.8	1.6	1,132	0.81	0.015	0.67	0.27
15	nk6	Nordlandkai	230	12.7	1.4	733	0.58	0.011	0.50	0.20
16	nk7	Nordlandkai	268	15.5	5.9	852	0.63	0.012	0.53	0.21
17	nk8	Nordlandkai	413	24.6	8.9	1,313	0.97	0.018	0.81	0.32
18	nk9	Nordlandkai	418	24.6	9.0	1,330	0.98	0.019	0.82	0.33
19	nk10	Nordlandkai	289	16.8	6.3	918	0.69	0.013	0.58	0.23
20	nk11	Nordlandkai	88	4.8	2.0	280	0.18	0.004	0.15	0.06
21	ok1	Ostpreußenkai	338	14.2	6.8	1,076	2.04	0.039	1.24	0.49
22	ok2	Ostpreußenkai	38	1.8	0.8	121	0.26	0.005	0.15	0.06
23	ok3	Ostpreußenkai	29	1.8	0.6	92	0.06	0.001	0.04	0.02
24	ok4	Ostpreußenkai	1	0.0	0.0	3	0.01	0.000	0.00	0.00
25	ok5	Ostpreußenkai	656	34.2	16.2	2,086	2.29	0.044	2.15	0.86
26	ok6	Ostpreußenkai	197	7.2	6.0	628	1.00	0.019	1.00	0.40
27	ok7	Ostpreußenkai	360	15.3	7.3	1,145	2.19	0.042	1.33	0.53
28	sp1	Schlutupkai	648	39.4	13.7	2,060	1.45	0.028	1.20	0.48
29	sp2	Schlutupkai	292	16.8	6.3	929	0.63	0.012	0.50	0.20
30	sp3	Schlutupkai	221	12.4	4.9	702	0.49	0.009	0.40	0.16
31	sk31	Skandinavienkai	262	15.0	5.8	834	0.64	0.012	0.54	0.22
32	sk32	Skandinavienkai	119	6.5	2.7	378	0.29	0.005	0.24	0.10
33	sk33	Skandinavienkai	181	9.8	4.1	575	0.42	0.008	0.35	0.14
34	sk34	Skandinavienkai	229	13.4	4.9	728	0.53	0.010	0.44	0.18
35	sk35	Skandinavienkai	401	15.9	12.1	1,275	2.19	0.042	2.22	0.88
36	sk36	Skandinavienkai	715	28.3	21.6	2,276	3.90	0.074	3.96	1.57
37	sk37	Skandinavienkai	282	11.6	5.7	897	1.67	0.032	1.01	0.41
38	sk41	Skandinavienkai	577	35.0	12.1	1,836	1.25	0.024	1.01	0.41
39	sk42	Skandinavienkai	687	39.8	14.9	2,183	1.53	0.029	1.25	0.50
40	sk51	Skandinavienkai	432	25.4	9.4	1,373	1.05	0.020	0.89	0.35
41	sk52	Skandinavienkai	433	25.4	9.4	1,376	1.05	0.020	0.89	0.35
42	sk53	Skandinavienkai	392	22.7	2.6	1,245	0.97	0.018	0.83	0.33
43	sk54	Skandinavienkai	542	32.4	11.6	1,724	1.25	0.024	1.04	0.41
44	sk6a1	Skandinavienkai	690	31.9	4.2	2,198	4.53	0.086	2.73	1.09
45	sk6a2	Skandinavienkai	690	31.9	4.2	2,198	4.53	0.086	2.73	1.09
46	sk6a3	Skandinavienkai	420	19.3	2.5	1,338	2.74	0.052	1.65	0.66
47	sk6a4	Skandinavienkai	420	19.3	2.5	1,338	2.74	0.052	1.65	0.66
48	sk71	Skandinavienkai	421	25.9	12.6	1,339	1.00	0.019	0.79	0.31
49	sk72	Skandinavienkai	421	25.9	12.6	1,339	1.00	0.019	0.79	0.31
50	sk73	Skandinavienkai	295	17.5	2.9	938	0.66	0.012	0.54	0.21
51	sk7a1	Skandinavienkai	317	18.8	6.3	1,008	0.71	0.013	0.58	0.23
52	sk7a2	Skandinavienkai	169	9.8	3.1	539	0.44	0.008	0.38	0.15
53	sk81	Skandinavienkai	405	23.8	2.2	1,288	0.92	0.018	0.76	0.30
54	sk82	Skandinavienkai	348	20.1	2.1	1,107	0.82	0.016	0.69	0.27
55	sk100	Skandinavienkai	609	36.5	12.7	1,937	1.40	0.027	1.16	0.46
56	nn100	other	609	36.5	12.7	1,937	1.40	0.027	1.16	0.46

A 3.7 Emissions of Sea Ships, Forecast Scenario, Reduction Concept 1a (Power Supply from Wharf, Boilers 10 %)

Total Emissions per Hour, in Port

Ship			Sum of all emissions from main engines, auxiliary engines and auxiliary boilers per hour [kg/h]							
			In port							
No.	Name	Port	Fuel	NOx	SO2	CO2	HC	Benz.	PM10	Soot
1	ct1	CTL (Herrenhafen)	57	2.0	1.7	182	0.26	0.005	0.26	0.10
2	kk1	Konstinkai	104	4.0	3.0	330	0.47	0.009	0.46	0.18
3	kk2	Konstinkai	30	0.8	0.9	95	0.11	0.002	0.10	0.04
4	kk3	Konstinkai	51	1.8	1.4	163	0.22	0.004	0.21	0.08
5	kk4	Konstinkai	62	2.3	1.8	196	0.28	0.005	0.28	0.11
6	kk5	Konstinkai	83	3.0	2.4	263	0.33	0.006	0.32	0.13
7	lk1	Lehmannkai	43	1.5	1.2	136	0.16	0.003	0.16	0.06
8	lk2	Lehmannkai	38	1.2	1.1	120	0.15	0.003	0.15	0.06
9	lk3	Lehmannkai	22	0.5	0.7	68	0.07	0.001	0.06	0.02
10	nk1	Nordlandkai	62	2.2	1.8	196	0.27	0.005	0.27	0.11
11	nk2	Nordlandkai	56	2.0	1.6	180	0.24	0.005	0.24	0.09
12	nk3	Nordlandkai	67	2.2	2.0	212	0.27	0.005	0.26	0.10
13	nk4	Nordlandkai	70	2.3	2.1	222	0.29	0.005	0.28	0.11
14	nk5	Nordlandkai	67	2.4	1.1	214	0.28	0.005	0.27	0.11
15	nk6	Nordlandkai	65	2.2	1.1	208	0.28	0.005	0.27	0.11
16	nk7	Nordlandkai	56	2.0	1.7	179	0.24	0.005	0.24	0.09
17	nk8	Nordlandkai	74	2.9	2.2	236	0.34	0.007	0.34	0.13
18	nk9	Nordlandkai	80	2.9	2.3	254	0.35	0.007	0.35	0.14
19	nk10	Nordlandkai	60	2.2	1.8	192	0.27	0.005	0.27	0.11
20	nk11	Nordlandkai	21	0.5	0.6	66	0.06	0.001	0.05	0.02
21	ok1	Ostpreußenkai	338	14.2	6.8	1,076	2.04	0.039	1.24	0.49
22	ok2	Ostpreußenkai	38	1.8	0.8	121	0.26	0.005	0.15	0.06
23	ok3	Ostpreußenkai	29	1.8	0.6	92	0.06	0.001	0.04	0.02
24	ok4	Ostpreußenkai	1	0.0	0.0	3	0.01	0.000	0.00	0.00
25	ok5	Ostpreußenkai	656	34.2	16.2	2,086	2.29	0.044	2.15	0.86
26	ok6	Ostpreußenkai	197	7.2	6.0	628	1.00	0.019	1.00	0.40
27	ok7	Ostpreußenkai	360	15.3	7.3	1,145	2.19	0.042	1.33	0.53
28	sp1	Schlutupkai	92	3.8	2.7	294	0.43	0.008	0.43	0.17
29	sp2	Schlutupkai	54	1.6	1.6	170	0.19	0.004	0.17	0.07
30	sp3	Schlutupkai	49	1.4	1.5	157	0.18	0.003	0.17	0.07
31	sk31	Skandinavienkai	62	2.2	1.8	196	0.27	0.005	0.27	0.11
32	sk32	Skandinavienkai	33	1.0	1.0	104	0.13	0.002	0.12	0.05
33	sk33	Skandinavienkai	49	1.4	1.5	155	0.18	0.003	0.17	0.07
34	sk34	Skandinavienkai	43	1.6	1.3	138	0.19	0.004	0.18	0.07
35	sk35	Skandinavienkai	118	2.4	3.7	377	0.38	0.007	0.34	0.14
36	sk36	Skandinavienkai	268	6.9	8.3	853	1.03	0.020	0.98	0.39
37	sk37	Skandinavienkai	55	0.8	1.1	176	0.14	0.003	0.10	0.04
38	sk41	Skandinavienkai	78	3.0	2.2	248	0.33	0.006	0.32	0.13
39	sk42	Skandinavienkai	131	4.2	3.9	417	0.51	0.010	0.49	0.19
40	sk51	Skandinavienkai	89	3.4	2.6	282	0.41	0.008	0.41	0.16
41	sk52	Skandinavienkai	89	3.4	2.6	284	0.42	0.008	0.41	0.16
42	sk53	Skandinavienkai	89	3.4	1.7	283	0.42	0.008	0.41	0.16
43	sk54	Skandinavienkai	93	3.6	2.7	294	0.42	0.008	0.42	0.17
44	sk6a1	Skandinavienkai	91	3.4	0.6	288	0.50	0.009	0.31	0.12
45	sk6a2	Skandinavienkai	91	3.4	0.6	288	0.50	0.009	0.31	0.12
46	sk6a3	Skandinavienkai	59	2.1	0.4	188	0.31	0.006	0.19	0.08
47	sk6a4	Skandinavienkai	59	2.1	0.4	188	0.31	0.006	0.19	0.08
48	sk71	Skandinavienkai	66	3.1	2.0	208	0.35	0.007	0.29	0.12
49	sk72	Skandinavienkai	66	3.1	2.0	208	0.35	0.007	0.29	0.12
50	sk73	Skandinavienkai	49	1.7	0.5	157	0.20	0.004	0.20	0.08
51	sk7a1	Skandinavienkai	53	1.9	1.1	169	0.22	0.004	0.22	0.09
52	sk7a2	Skandinavienkai	41	1.6	0.5	129	0.20	0.004	0.20	0.08
53	sk81	Skandinavienkai	75	2.6	1.2	238	0.31	0.006	0.30	0.12
54	sk82	Skandinavienkai	74	2.6	1.2	235	0.32	0.006	0.31	0.12
55	sk100	Skandinavienkai	101	3.9	2.6	322	0.46	0.009	0.45	0.18
56	nn100	sonstige	101	3.9	2.6	322	0.46	0.009	0.45	0.18

A 3.8 Emissions of Sea Ships, Forecast Scenario, Reduction Concept 1b (Power Supply from Wharf, Boilers 1 %)

Total Emissions per Hour, in Port

Ship			Sum of all emissions from main engines, auxiliary engines and auxiliary boilers per hour [kg/h]							
			In port							
No.	Name	Port	Fuel	NOx	SO2	CO2	HC	Benz.	PM10	Soot
1	ct1	CTL (Herrenhafen)	39	1.9	1.1	125	0.23	0.004	0.23	0.09
2	kk1	Konstinkai	75	3.7	2.1	240	0.41	0.008	0.42	0.17
3	kk2	Konstinkai	15	0.7	0.4	48	0.08	0.001	0.08	0.03
4	kk3	Konstinkai	33	1.6	0.9	105	0.18	0.003	0.18	0.07
5	kk4	Konstinkai	44	2.1	1.3	140	0.25	0.005	0.25	0.10
6	kk5	Konstinkai	54	2.7	1.5	173	0.27	0.005	0.28	0.11
7	lk1	Lehmannkai	26	1.3	0.7	84	0.13	0.002	0.13	0.05
8	lk2	Lehmannkai	23	1.1	0.7	73	0.12	0.002	0.13	0.05
9	lk3	Lehmannkai	8	0.3	0.2	25	0.04	0.001	0.04	0.02
10	nk1	Nordlandkai	41	2.0	1.2	131	0.23	0.004	0.24	0.09
11	nk2	Nordlandkai	37	1.8	1.0	117	0.20	0.004	0.21	0.08
12	nk3	Nordlandkai	40	1.9	1.1	128	0.22	0.004	0.22	0.09
13	nk4	Nordlandkai	43	2.1	1.2	137	0.23	0.004	0.24	0.09
14	nk5	Nordlandkai	44	2.1	1.0	139	0.23	0.004	0.24	0.09
15	nk6	Nordlandkai	41	1.9	1.0	130	0.23	0.004	0.24	0.09
16	nk7	Nordlandkai	37	1.8	1.1	118	0.20	0.004	0.21	0.08
17	nk8	Nordlandkai	55	2.7	1.6	175	0.30	0.006	0.31	0.12
18	nk9	Nordlandkai	56	2.7	1.6	177	0.30	0.006	0.31	0.12
19	nk10	Nordlandkai	42	2.0	1.2	133	0.23	0.004	0.24	0.09
20	nk11	Nordlandkai	7	0.3	0.2	24	0.03	0.001	0.03	0.01
21	ok1	Ostpreußenkai	338	14.2	6.8	1,076	2.04	0.039	1.24	0.49
22	ok2	Ostpreußenkai	38	1.8	0.8	121	0.26	0.005	0.15	0.06
23	ok3	Ostpreußenkai	29	1.8	0.6	92	0.06	0.001	0.04	0.02
24	ok4	Ostpreußenkai	1	0.0	0.0	3	0.01	0.000	0.00	0.00
25	ok5	Ostpreußenkai	656	34.2	16.2	2,086	2.29	0.044	2.15	0.86
26	ok6	Ostpreußenkai	197	7.2	6.0	628	1.00	0.019	1.00	0.40
27	ok7	Ostpreußenkai	360	15.3	7.3	1,145	2.19	0.042	1.33	0.53
28	sp1	Schlutupkai	73	3.6	2.0	231	0.39	0.007	0.40	0.16
29	sp2	Schlutupkai	27	1.3	0.8	86	0.13	0.003	0.13	0.05
30	sp3	Schlutupkai	25	1.2	0.7	80	0.13	0.002	0.13	0.05
31	sk31	Skandinavienkai	41	2.0	1.2	131	0.23	0.004	0.24	0.09
32	sk32	Skandinavienkai	18	0.8	0.5	56	0.10	0.002	0.10	0.04
33	sk33	Skandinavienkai	25	1.1	0.7	78	0.13	0.002	0.13	0.05
34	sk34	Skandinavienkai	29	1.4	0.8	93	0.16	0.003	0.16	0.06
35	sk35	Skandinavienkai	40	1.6	1.2	128	0.22	0.004	0.22	0.09
36	sk36	Skandinavienkai	127	5.5	3.8	405	0.75	0.014	0.77	0.31
37	sk37	Skandinavienkai	13	0.4	0.3	40	0.06	0.001	0.04	0.02
38	sk41	Skandinavienkai	56	2.8	1.5	177	0.29	0.005	0.29	0.12
39	sk42	Skandinavienkai	76	3.7	2.2	243	0.40	0.008	0.40	0.16
40	sk51	Skandinavienkai	65	3.2	1.9	208	0.37	0.007	0.38	0.15
41	sk52	Skandinavienkai	65	3.2	1.9	208	0.37	0.007	0.38	0.15
42	sk53	Skandinavienkai	64	3.1	1.6	205	0.37	0.007	0.37	0.15
43	sk54	Skandinavienkai	68	3.3	1.9	217	0.37	0.007	0.38	0.15
44	sk6a1	Skandinavienkai	69	3.2	0.4	220	0.45	0.009	0.27	0.11
45	sk6a2	Skandinavienkai	69	3.2	0.4	220	0.45	0.009	0.27	0.11
46	sk6a3	Skandinavienkai	42	1.9	0.3	134	0.27	0.005	0.16	0.07
47	sk6a4	Skandinavienkai	42	1.9	0.3	134	0.27	0.005	0.16	0.07
48	sk71	Skandinavienkai	46	2.9	1.4	145	0.31	0.006	0.26	0.10
49	sk72	Skandinavienkai	46	2.9	1.4	145	0.31	0.006	0.26	0.10
50	sk73	Skandinavienkai	32	1.6	0.3	103	0.17	0.003	0.17	0.07
51	sk7a1	Skandinavienkai	36	1.7	0.7	113	0.19	0.004	0.19	0.08
52	sk7a2	Skandinavienkai	31	1.5	0.3	99	0.18	0.003	0.19	0.07
53	sk81	Skandinavienkai	49	2.4	1.2	155	0.26	0.005	0.27	0.11
54	sk82	Skandinavienkai	48	2.3	1.2	153	0.26	0.005	0.27	0.11
55	sk100	Skandinavienkai	74	3.7	2.1	237	0.41	0.008	0.41	0.16
56	nn100	sonstige	74	3.7	2.1	237	0.41	0.008	0.41	0.16

A 3.9 Emissions of Sea Ships, Forecast Scenario, Reduction Concept 3 (Sulphur Content of Fuels in Port max. 0.1 %)

Total Emissions per Hour, in Port

Ship			Sum of all emissions from main engines, auxiliary engines and auxiliary boilers per hour [kg/h]							
			In port							
No.	Name	Port	Fuel	NOx	SO2	CO2	HC	Benz.	PM10	Soot
1	ct1	CTL (Herrenhafen)	188	10.4	0.3	597	0.51	0.010	0.35	0.14
2	kk1	Konstinkai	615	36.8	1.1	1,958	1.41	0.027	1.00	0.40
3	kk2	Konstinkai	136	7.6	0.3	432	0.30	0.006	0.22	0.09
4	kk3	Konstinkai	256	14.9	0.5	814	0.60	0.011	0.42	0.17
5	kk4	Konstinkai	269	15.6	0.5	855	0.67	0.013	0.47	0.19
6	kk5	Konstinkai	595	35.8	1.1	1,894	1.28	0.024	0.92	0.37
7	lk1	Lehmannkai	304	18.2	0.6	968	0.65	0.012	0.47	0.19
8	lk2	Lehmannkai	168	9.6	0.3	534	0.39	0.008	0.28	0.11
9	lk3	Lehmannkai	67	3.4	0.1	213	0.15	0.003	0.11	0.04
10	nk1	Nordlandkai	261	14.9	0.5	829	0.64	0.012	0.45	0.18
11	nk2	Nordlandkai	255	14.7	0.5	811	0.61	0.012	0.43	0.17
12	nk3	Nordlandkai	319	18.4	0.6	1,016	0.74	0.014	0.52	0.21
13	nk4	Nordlandkai	322	18.5	0.6	1,025	0.76	0.014	0.53	0.21
14	nk5	Nordlandkai	354	20.8	0.7	1,127	0.81	0.015	0.58	0.23
15	nk6	Nordlandkai	229	12.7	0.4	729	0.58	0.011	0.41	0.16
16	nk7	Nordlandkai	266	15.5	0.5	848	0.63	0.012	0.45	0.18
17	nk8	Nordlandkai	411	24.5	0.8	1,306	0.97	0.018	0.68	0.27
18	nk9	Nordlandkai	416	24.5	0.8	1,324	0.98	0.019	0.69	0.28
19	nk10	Nordlandkai	287	16.8	0.5	914	0.69	0.013	0.49	0.19
20	nk11	Nordlandkai	88	4.8	0.2	280	0.18	0.004	0.13	0.05
21	ok1	Ostpreußenkai	338	14.2	0.6	1,077	2.04	0.039	1.24	0.49
22	ok2	Ostpreußenkai	38	1.8	0.1	121	0.26	0.005	0.15	0.06
23	ok3	Ostpreußenkai	29	1.8	0.1	92	0.06	0.001	0.04	0.02
24	ok4	Ostpreußenkai	1	0.0	0.0	3	0.01	0.000	0.00	0.00
25	ok5	Ostpreußenkai	645	33.6	1.2	2,053	2.29	0.044	1.49	0.60
26	ok6	Ostpreußenkai	191	6.8	0.4	609	1.00	0.019	0.62	0.25
27	ok7	Ostpreußenkai	360	15.3	0.7	1,146	2.19	0.042	1.33	0.53
28	sp1	Schlutupkai	645	39.3	1.2	2,053	1.45	0.028	1.04	0.41
29	sp2	Schlutupkai	291	16.8	0.5	927	0.63	0.012	0.45	0.18
30	sp3	Schlutupkai	220	12.4	0.4	700	0.49	0.009	0.35	0.14
31	sk31	Skandinavienkai	261	14.9	0.5	829	0.64	0.012	0.45	0.18
32	sk32	Skandinavienkai	118	6.5	0.2	377	0.29	0.005	0.20	0.08
33	sk33	Skandinavienkai	180	9.8	0.3	573	0.42	0.008	0.30	0.12
34	sk34	Skandinavienkai	228	13.4	0.4	724	0.53	0.010	0.38	0.15
35	sk35	Skandinavienkai	386	15.1	0.7	1,230	2.19	0.042	1.34	0.54
36	sk36	Skandinavienkai	689	26.9	1.3	2,196	3.90	0.074	2.39	0.95
37	sk37	Skandinavienkai	282	11.6	0.5	898	1.67	0.032	1.01	0.41
38	sk41	Skandinavienkai	575	34.9	1.1	1,830	1.25	0.024	0.90	0.36
39	sk42	Skandinavienkai	684	39.7	1.3	2,176	1.53	0.029	1.10	0.44
40	sk51	Skandinavienkai	429	25.3	0.8	1,366	1.05	0.020	0.73	0.29
41	sk52	Skandinavienkai	430	25.3	0.8	1,368	1.05	0.020	0.73	0.29
42	sk53	Skandinavienkai	389	22.6	0.7	1,238	0.97	0.018	0.68	0.27
43	sk54	Skandinavienkai	540	32.2	1.0	1,716	1.25	0.024	0.89	0.35
44	sk6a1	Skandinavienkai	690	31.9	1.2	2,198	4.53	0.086	2.73	1.09
45	sk6a2	Skandinavienkai	690	31.9	1.2	2,198	4.53	0.086	2.73	1.09
46	sk6a3	Skandinavienkai	420	19.3	0.8	1,338	2.74	0.052	1.65	0.66
47	sk6a4	Skandinavienkai	420	19.3	0.8	1,338	2.74	0.052	1.65	0.66
48	sk71	Skandinavienkai	419	25.7	0.8	1,334	1.00	0.019	0.68	0.27
49	sk72	Skandinavienkai	419	25.7	0.8	1,334	1.00	0.019	0.68	0.27
50	sk73	Skandinavienkai	294	17.4	0.5	935	0.66	0.012	0.47	0.19
51	sk7a1	Skandinavienkai	316	18.8	0.6	1,005	0.71	0.013	0.51	0.20
52	sk7a2	Skandinavienkai	168	9.8	0.3	535	0.44	0.008	0.30	0.12
53	sk81	Skandinavienkai	403	23.7	0.7	1,283	0.92	0.018	0.66	0.26
54	sk82	Skandinavienkai	346	20.0	0.6	1,102	0.82	0.016	0.58	0.23
55	sk100	Skandinavienkai	606	36.3	1.1	1,929	1.40	0.027	0.99	0.40
56	nn100	sonstige	606	36.3	1.1	1,929	1.40	0.027	0.99	0.40

A 3.10 Emissions of Sea Ships, Forecast Scenario, Reduction Concepts 1a+ 3

Total Emissions per Hour, in Port

Ship			Sum of all emissions from main engines, auxiliary engines and auxiliary boilers per hour [kg/h]							
			In port							
No.	Name	Port	Fuel	NOx	SO2	CO2	HC	Benz.	PM10	Soot
1	ct1	CTL (Herrenhafen)	56	2.0	0.1	177	0.26	0.005	0.17	0.07
2	kk1	Konstinkai	101	3.8	0.2	322	0.47	0.009	0.29	0.12
3	kk2	Konstinkai	30	0.8	0.1	94	0.11	0.002	0.07	0.03
4	kk3	Konstinkai	50	1.7	0.1	160	0.22	0.004	0.14	0.05
5	kk4	Konstinkai	60	2.2	0.1	191	0.28	0.005	0.18	0.07
6	kk5	Konstinkai	81	2.9	0.2	258	0.33	0.006	0.21	0.08
7	lk1	Lehmannkai	42	1.4	0.1	134	0.16	0.003	0.11	0.04
8	lk2	Lehmannkai	37	1.2	0.1	118	0.15	0.003	0.10	0.04
9	lk3	Lehmannkai	21	0.5	0.0	68	0.07	0.001	0.04	0.02
10	nk1	Nordlandkai	60	2.1	0.1	192	0.27	0.005	0.17	0.07
11	nk2	Nordlandkai	55	1.9	0.1	176	0.24	0.005	0.15	0.06
12	nk3	Nordlandkai	65	2.1	0.1	208	0.27	0.005	0.17	0.07
13	nk4	Nordlandkai	68	2.2	0.1	218	0.29	0.005	0.18	0.07
14	nk5	Nordlandkai	66	2.3	0.1	210	0.28	0.005	0.18	0.07
15	nk6	Nordlandkai	64	2.1	0.1	204	0.28	0.005	0.18	0.07
16	nk7	Nordlandkai	55	1.9	0.1	175	0.24	0.005	0.15	0.06
17	nk8	Nordlandkai	72	2.8	0.1	230	0.34	0.007	0.21	0.09
18	nk9	Nordlandkai	78	2.8	0.1	248	0.35	0.007	0.22	0.09
19	nk10	Nordlandkai	59	2.1	0.1	187	0.27	0.005	0.17	0.07
20	nk11	Nordlandkai	21	0.5	0.0	66	0.06	0.001	0.04	0.02
21	ok1	Ostpreußenkai	338	14.2	0.6	1,077	2.04	0.039	1.24	0.49
22	ok2	Ostpreußenkai	38	1.8	0.1	121	0.26	0.005	0.15	0.06
23	ok3	Ostpreußenkai	29	1.8	0.1	92	0.06	0.001	0.04	0.02
24	ok4	Ostpreußenkai	1	0.0	0.0	3	0.01	0.000	0.00	0.00
25	ok5	Ostpreußenkai	645	33.6	1.2	2,053	2.29	0.044	1.49	0.60
26	ok6	Ostpreußenkai	191	6.8	0.4	609	1.00	0.019	0.62	0.25
27	ok7	Ostpreußenkai	360	15.3	0.7	1,146	2.19	0.042	1.33	0.53
28	sp1	Schlutupkai	90	3.7	0.2	286	0.43	0.008	0.27	0.11
29	sp2	Schlutupkai	53	1.5	0.1	168	0.19	0.004	0.12	0.05
30	sp3	Schlutupkai	49	1.4	0.1	155	0.18	0.003	0.12	0.05
31	sk31	Skandinavienkai	60	2.1	0.1	192	0.27	0.005	0.17	0.07
32	sk32	Skandinavienkai	32	0.9	0.1	102	0.13	0.002	0.08	0.03
33	sk33	Skandinavienkai	48	1.3	0.1	153	0.18	0.003	0.12	0.05
34	sk34	Skandinavienkai	42	1.5	0.1	135	0.19	0.004	0.12	0.05
35	sk35	Skandinavienkai	386	15.1	0.7	1,230	2.19	0.042	1.34	0.54
36	sk36	Skandinavienkai	689	26.9	1.3	2,196	3.90	0.074	2.39	0.95
37	sk37	Skandinavienkai	282	11.6	0.5	898	1.67	0.032	1.01	0.41
38	sk41	Skandinavienkai	76	2.9	0.1	242	0.33	0.006	0.21	0.08
39	sk42	Skandinavienkai	128	4.1	0.2	410	0.51	0.010	0.33	0.13
40	sk51	Skandinavienkai	86	3.3	0.2	274	0.41	0.008	0.26	0.10
41	sk52	Skandinavienkai	87	3.3	0.2	277	0.42	0.008	0.26	0.10
42	sk53	Skandinavienkai	86	3.2	0.2	276	0.42	0.008	0.26	0.10
43	sk54	Skandinavienkai	90	3.5	0.2	287	0.42	0.008	0.26	0.11
44	sk6a1	Skandinavienkai	690	31.9	1.2	2,198	4.53	0.086	2.73	1.09
45	sk6a2	Skandinavienkai	690	31.9	1.2	2,198	4.53	0.086	2.73	1.09
46	sk6a3	Skandinavienkai	420	19.3	0.8	1,338	2.74	0.052	1.65	0.66
47	sk6a4	Skandinavienkai	420	19.3	0.8	1,338	2.74	0.052	1.65	0.66
48	sk71	Skandinavienkai	64	3.0	0.1	203	0.35	0.007	0.19	0.08
49	sk72	Skandinavienkai	64	3.0	0.1	203	0.35	0.007	0.19	0.08
50	sk73	Skandinavienkai	48	1.7	0.1	154	0.20	0.004	0.13	0.05
51	sk7a1	Skandinavienkai	52	1.8	0.1	165	0.22	0.004	0.14	0.06
52	sk7a2	Skandinavienkai	39	1.5	0.1	126	0.20	0.004	0.12	0.05
53	sk81	Skandinavienkai	73	2.5	0.1	233	0.31	0.006	0.20	0.08
54	sk82	Skandinavienkai	72	2.5	0.1	230	0.32	0.006	0.20	0.08
55	sk100	Skandinavienkai	99	3.8	0.2	314	0.46	0.009	0.29	0.12
56	nn100	sonstige	99	3.8	0.2	314	0.46	0.009	0.29	0.12

A 3.11 Emissions of Sea Ships, Forecast Scenario, Reduction Concepts 1b+ 3

Total Emissions per Hour, in Port

Ship			Sum of all emissions from main engines, auxiliary engines and auxiliary boilers per hour [kg/h]							
			In port							
No.	Name	Port	Fuel	NOx	SO2	CO2	HC	Benz.	PM10	Soot
1	ct1	CTL (Herrenhafen)	38	1.8	0.1	120	0.23	0.004	0.14	0.06
2	kk1	Konstinkai	73	3.5	0.1	231	0.41	0.008	0.25	0.10
3	kk2	Konstinkai	14	0.7	0.0	46	0.08	0.001	0.05	0.02
4	kk3	Konstinkai	32	1.5	0.1	102	0.18	0.003	0.11	0.04
5	kk4	Konstinkai	42	2.0	0.1	134	0.25	0.005	0.15	0.06
6	kk5	Konstinkai	52	2.6	0.1	167	0.27	0.005	0.17	0.07
7	lk1	Lehmannkai	26	1.3	0.0	81	0.13	0.002	0.08	0.03
8	lk2	Lehmannkai	22	1.0	0.0	70	0.12	0.002	0.08	0.03
9	lk3	Lehmannkai	8	0.3	0.0	24	0.04	0.001	0.02	0.01
10	nk1	Nordlandkai	40	1.9	0.1	126	0.23	0.004	0.14	0.06
11	nk2	Nordlandkai	35	1.7	0.1	113	0.20	0.004	0.12	0.05
12	nk3	Nordlandkai	39	1.8	0.1	124	0.22	0.004	0.13	0.05
13	nk4	Nordlandkai	42	2.0	0.1	132	0.23	0.004	0.14	0.06
14	nk5	Nordlandkai	42	2.0	0.1	134	0.23	0.004	0.14	0.06
15	nk6	Nordlandkai	39	1.8	0.1	125	0.23	0.004	0.14	0.06
16	nk7	Nordlandkai	36	1.7	0.1	114	0.20	0.004	0.12	0.05
17	nk8	Nordlandkai	53	2.6	0.1	169	0.30	0.006	0.19	0.07
18	nk9	Nordlandkai	54	2.6	0.1	170	0.30	0.006	0.19	0.07
19	nk10	Nordlandkai	40	1.9	0.1	128	0.23	0.004	0.14	0.06
20	nk11	Nordlandkai	7	0.3	0.0	23	0.03	0.001	0.02	0.01
21	ok1	Ostpreußenkai	338	14.2	0.6	1,077	2.04	0.039	1.24	0.49
22	ok2	Ostpreußenkai	38	1.8	0.1	121	0.26	0.005	0.15	0.06
23	ok3	Ostpreußenkai	29	1.8	0.1	92	0.06	0.001	0.04	0.02
24	ok4	Ostpreußenkai	1	0.0	0.0	3	0.01	0.000	0.00	0.00
25	ok5	Ostpreußenkai	645	33.6	1.2	2,053	2.29	0.044	1.49	0.60
26	ok6	Ostpreußenkai	191	6.8	0.4	609	1.00	0.019	0.62	0.25
27	ok7	Ostpreußenkai	360	15.3	0.7	1,146	2.19	0.042	1.33	0.53
28	sp1	Schlutupkai	70	3.5	0.1	223	0.39	0.007	0.24	0.10
29	sp2	Schlutupkai	26	1.2	0.0	84	0.13	0.003	0.08	0.03
30	sp3	Schlutupkai	24	1.1	0.0	78	0.13	0.002	0.08	0.03
31	sk31	Skandinavienkai	40	1.9	0.1	126	0.23	0.004	0.14	0.06
32	sk32	Skandinavienkai	17	0.8	0.0	54	0.10	0.002	0.06	0.02
33	sk33	Skandinavienkai	24	1.1	0.0	76	0.13	0.002	0.08	0.03
34	sk34	Skandinavienkai	28	1.4	0.1	90	0.16	0.003	0.10	0.04
35	sk35	Skandinavienkai	308	14.3	0.6	979	2.03	0.039	1.22	0.49
36	sk36	Skandinavienkai	548	25.5	1.0	1,745	3.61	0.069	2.17	0.87
37	sk37	Skandinavienkai	239	11.2	0.4	761	1.58	0.030	0.95	0.38
38	sk41	Skandinavienkai	54	2.7	0.1	171	0.29	0.005	0.18	0.07
39	sk42	Skandinavienkai	74	3.5	0.1	235	0.40	0.008	0.24	0.10
40	sk51	Skandinavienkai	63	3.0	0.1	200	0.37	0.007	0.22	0.09
41	sk52	Skandinavienkai	63	3.0	0.1	200	0.37	0.007	0.22	0.09
42	sk53	Skandinavienkai	62	3.0	0.1	197	0.37	0.007	0.22	0.09
43	sk54	Skandinavienkai	66	3.2	0.1	209	0.37	0.007	0.23	0.09
44	sk6a1	Skandinavienkai	669	31.7	1.2	2,129	4.49	0.085	2.69	1.08
45	sk6a2	Skandinavienkai	669	31.7	1.2	2,129	4.49	0.085	2.69	1.08
46	sk6a3	Skandinavienkai	403	19.1	0.7	1,284	2.70	0.051	1.62	0.65
47	sk6a4	Skandinavienkai	403	19.1	0.7	1,284	2.70	0.051	1.62	0.65
48	sk71	Skandinavienkai	44	2.8	0.1	139	0.31	0.006	0.16	0.06
49	sk72	Skandinavienkai	44	2.8	0.1	139	0.31	0.006	0.16	0.06
50	sk73	Skandinavienkai	31	1.5	0.1	99	0.17	0.003	0.10	0.04
51	sk7a1	Skandinavienkai	34	1.7	0.1	109	0.19	0.004	0.12	0.05
52	sk7a2	Skandinavienkai	30	1.4	0.1	95	0.18	0.003	0.11	0.04
53	sk81	Skandinavienkai	47	2.3	0.1	150	0.26	0.005	0.16	0.06
54	sk82	Skandinavienkai	46	2.2	0.1	147	0.26	0.005	0.16	0.06
55	sk100	Skandinavienkai	72	3.5	0.1	228	0.41	0.008	0.25	0.10
56	nn100	sonstige	72	3.5	0.1	228	0.41	0.008	0.25	0.10

A 3.12 Estimations Concerning Plume Rise

A 3.12.1 Diffusion of Exhaust Gases, Main Engines

Ship			Dissipation of exhaust gases									
			Exhaust gases of main engines (for each chimney)									
No.	Name	Port	Height	Dia-meter	No. chim-neys	Tempe-rature	At sea		Manoeuvring		In port	
							v	R	v	R	v	R
			[m]	[m]		[°C]	[m/s]	[m³/s]	[m/s]	[m³/s]	[m/s]	[m³/s]
1	ct1	CTL (Herrenhafen)	*25*	*0.7*	*2*	*300*	22.5	4.11	6.2	1.13	0.3	0.06
2	kk1	Konstinkai	*25*	*0.7*	*2*	*300*	39.1	7.16	10.7	1.97	0.5	0.10
3	kk2	Konstinkai	*25*	*0.7*	*2*	*300*	7.0	1.28	1.9	0.35	0.1	0.02
4	kk3	Konstinkai	*25*	*0.7*	*2*	*300*	17.1	3.13	4.7	0.86	0.2	0.04
5	kk4	Konstinkai	*25*	*0.7*	*2*	*300*	24.2	4.43	6.6	1.22	0.3	0.06
6	kk5	Konstinkai	*25*	*0.7*	*2*	*300*	25.1	4.60	6.9	1.26	0.3	0.06
7	lk1	Lehmannkai	*25*	*0.7*	*2*	*300*	11.8	2.16	3.2	0.59	0.2	0.03
8	lk2	Lehmannkai	*25*	*0.7*	*2*	*300*	11.8	2.16	3.2	0.59	0.2	0.03
9	lk3	Lehmannkai	*25*	*0.7*	*2*	*300*	3.4	0.63	0.9	0.17	0.0	0.01
10	nk1	Nordlandkai	*25*	*0.7*	*2*	*300*	22.3	4.09	6.1	1.12	0.3	0.06
11	nk2	Nordlandkai	*25*	*0.7*	*2*	*300*	19.5	3.58	5.4	0.98	0.3	0.05
12	nk3	Nordlandkai	*25*	*0.7*	*2*	*300*	20.5	3.75	5.6	1.03	0.3	0.05
13	nk4	Nordlandkai	*25*	*0.7*	*2*	*300*	22.3	4.09	6.1	1.12	0.3	0.06
14	nk5	Nordlandkai	*25*	*0.7*	*2*	260	20.8	4.09	8.6	1.68	0.3	0.06
15	nk6	Nordlandkai	*25*	*0.7*	*2*	260	20.9	4.12	8.6	1.70	0.3	0.06
16	nk7	Nordlandkai	*25*	*0.7*	*2*	*300*	19.5	3.58	5.4	0.98	0.3	0.05
17	nk8	Nordlandkai	*25*	*0.7*	*2*	*300*	29.3	5.37	8.1	1.47	0.4	0.07
18	nk9	Nordlandkai	*25*	*0.7*	*2*	*300*	29.3	5.37	8.1	1.47	0.4	0.07
19	nk10	Nordlandkai	*25*	*0.7*	*2*	*300*	22.5	4.11	6.2	1.13	0.3	0.06
20	nk11	Nordlandkai	*25*	*0.7*	*2*	*300*	2.8	0.51	0.8	0.14	0.0	0.01
21	ok1	Ostpreußenkai	*25*	*0.7*	*2*	*300*	4.8	0.88	1.3	0.24	2.6	0.48
22	ok2	Ostpreußenkai	*25*	*0.7*	*2*	*300*	0.6	0.12	0.2	0.03	0.3	0.06
23	ok3	Ostpreußenkai	*25*	*0.7*	*2*	*300*	1.0	0.18	0.8	0.15	0.0	0.00
24	ok4	Ostpreußenkai	*25*	*0.7*	*2*	*300*	0.6	0.12	0.2	0.03	0.0	0.00
25	ok5	Ostpreußenkai	*25*	*0.7*	*2*	*300*	31.0	5.68	8.5	1.56	2.1	0.39
26	ok6	Ostpreußenkai	*25*	*0.7*	*2*	*300*	18.1	3.32	5.0	0.91	1.2	0.23
27	ok7	Ostpreußenkai	*25*	*0.7*	*2*	*300*	5.2	0.95	4.3	0.78	2.8	0.52
28	sp1	Schlutupkai	*25*	*0.7*	*2*	*300*	37.2	6.82	10.2	1.87	0.5	0.09
29	sp2	Schlutupkai	*25*	*0.7*	*2*	*300*	11.9	2.18	3.3	0.60	0.2	0.03
30	sp3	Schlutupkai	*25*	*0.7*	*2*	*300*	12.1	2.21	3.3	0.61	0.2	0.03
31	sk31	Skandinavienkai	*25*	*0.7*	*2*	*300*	22.3	4.09	6.1	1.12	0.3	0.06
32	sk32	Skandinavienkai	*25*	*0.7*	*2*	*300*	9.2	1.68	2.5	0.46	0.1	0.02
33	sk33	Skandinavienkai	*25*	*0.7*	*2*	*300*	12.3	2.25	3.4	0.62	0.2	0.03
34	sk34	Skandinavienkai	*25*	*0.7*	*2*	*300*	15.3	2.79	4.2	0.77	0.2	0.04
35	sk35	Skandinavienkai	*25*	*0.7*	*2*	*300*	20.8	3.81	5.7	1.05	2.9	0.52
36	sk36	Skandinavienkai	*25*	*0.7*	*2*	*300*	74.1	13.56	20.3	3.72	5.1	0.93
37	sk37	Skandinavienkai	*25*	*0.7*	*2*	*300*	5.2	0.95	1.4	0.26	2.1	0.39
38	sk41	Skandinavienkai	*25*	*0.7*	*2*	*300*	26.8	4.91	7.4	1.35	0.4	0.07
39	sk42	Skandinavienkai	*25*	*0.7*	*2*	*300*	37.2	6.82	10.2	1.87	0.5	0.09
40	sk51	Skandinavienkai	*25*	*0.7*	*2*	*300*	35.7	6.54	9.8	1.80	0.5	0.09
41	sk52	Skandinavienkai	*25*	*0.7*	*2*	*300*	35.7	6.54	9.8	1.80	0.5	0.09
42	sk53	Skandinavienkai	40	*0.7*	*2*	260	33.3	6.55	9.1	1.80	0.5	0.09
43	sk54	Skandinavienkai	*25*	*0.7*	*2*	*300*	35.7	6.54	9.8	1.80	0.5	0.09
44	sk6a1	Skandinavienkai	*25*	*0.7*	*2*	*300*	44.2	8.09	12.1	2.22	6.1	1.11
45	sk6a2	Skandinavienkai	*25*	*0.7*	*2*	*300*	44.2	8.09	12.1	2.22	6.1	1.11
46	sk6a3	Skandinavienkai	*25*	*0.7*	*2*	*300*	26.6	4.87	7.3	1.34	3.7	0.67
47	sk6a4	Skandinavienkai	*25*	*0.7*	*2*	*300*	26.6	4.87	7.3	1.34	3.7	0.67
48	sk71	Skandinavienkai	*25*	*0.7*	*2*	*300*	22.6	4.13	12.4	2.28	0.3	0.06
49	sk72	Skandinavienkai	*25*	*0.7*	*2*	*300*	22.6	4.13	12.4	2.28	0.3	0.06
50	sk73	Skandinavienkai	24	*0.7*	*2*	480	21.0	2.93	5.8	0.80	0.3	0.04
51	sk7a1	Skandinavienkai	30	*0.7*	*2*	350	19.3	3.26	5.3	0.89	0.3	0.04
52	sk7a2	Skandinavienkai	29.5	*0.7*	*2*	470	23.1	3.26	6.3	0.89	0.3	0.04
53	sk81	Skandinavienkai	32	*0.7*	*2*	250	22.6	4.54	6.2	1.25	0.3	0.06
54	sk82	Skandinavienkai	32	*0.7*	*2*	300	25.3	4.63	6.9	1.27	0.3	0.06
55	sk100	Skandinavienkai	*25*	*0.7*	*2*	*300*	38.8	7.10	10.6	1.95	0.5	0.10
56	nn100	other	*25*	*0.7*	*2*	*300*	38.8	7.10	10.6	1.95	0.5	0.10

A 3.12.2 Diffusion of Exhaust Gases, Auxiliary Engines

Ship			Dissipation of exhaust gases									
			Exhaust gases of auxiliary engines (for each chimney)									
No.	Name	Port	Height	Dia-meter	No. Chim-neys	Tempe-rature	At sea		Manoeuvring		In port	
							v	R	v	R	v	R
			[m]	[m]		[°C]	[m/s]	[m³/s]	[m/s]	[m³/s]	[m/s]	[m³/s]
1	ct1	CTL (Herrenhafen)	*25*	*0.7*	2	*300*	0.9	0.17	1.5	0.28	1.2	0.23
2	kk1	Konstinkai	*25*	*0.7*	2	*300*	3.6	0.66	6.0	1.10	4.8	0.88
3	kk2	Konstinkai	*25*	*0.7*	2	*300*	0.7	0.14	1.2	0.23	1.0	0.18
4	kk3	Konstinkai	*25*	*0.7*	2	*300*	1.4	0.26	2.4	0.44	1.9	0.35
5	kk4	Konstinkai	*25*	*0.7*	2	*300*	1.5	0.27	2.4	0.45	1.9	0.36
6	kk5	Konstinkai	*25*	*0.7*	2	*300*	3.6	0.66	6.0	1.10	4.8	0.88
7	lk1	Lehmannkai	*25*	*0.7*	2	*300*	1.8	0.34	3.1	0.56	2.4	0.45
8	lk2	Lehmannkai	*25*	*0.7*	2	*300*	0.9	0.17	1.5	0.28	1.2	0.22
9	lk3	Lehmannkai	*25*	*0.7*	2	*300*	0.3	0.06	0.5	0.10	0.4	0.08
10	nk1	Nordlandkai	*25*	*0.7*	2	*300*	1.4	0.26	2.3	0.43	1.9	0.34
11	nk2	Nordlandkai	*25*	*0.7*	2	*300*	1.4	0.26	2.3	0.43	1.9	0.34
12	nk3	Nordlandkai	*25*	*0.7*	2	*300*	1.8	0.33	3.0	0.54	2.4	0.43
13	nk4	Nordlandkai	*25*	*0.7*	2	*300*	1.8	0.33	3.0	0.54	2.4	0.43
14	nk5	Nordlandkai	*25*	*0.7*	2	*300*	2.0	0.37	3.4	0.62	2.7	0.49
15	nk6	Nordlandkai	*25*	*0.7*	2	*300*	1.2	0.21	1.9	0.35	1.5	0.28
16	nk7	Nordlandkai	*25*	*0.7*	2	*300*	1.5	0.27	2.5	0.45	2.0	0.36
17	nk8	Nordlandkai	*25*	*0.7*	2	*300*	2.4	0.43	4.0	0.72	3.2	0.58
18	nk9	Nordlandkai	*25*	*0.7*	2	*300*	2.4	0.43	4.0	0.72	3.2	0.58
19	nk10	Nordlandkai	*25*	*0.7*	2	*300*	1.6	0.29	2.7	0.49	2.1	0.39
20	nk11	Nordlandkai	*25*	*0.7*	2	*300*	0.5	0.09	0.8	0.14	0.6	0.12
21	ok1	Ostpreußenkai	*25*	*0.7*	2	*300*	0.0	0.00	0.0	0.00	0.0	0.00
22	ok2	Ostpreußenkai	*25*	*0.7*	2	*300*	0.0	0.00	0.0	0.00	0.0	0.00
23	ok3	Ostpreußenkai	*25*	*0.7*	2	*300*	0.2	0.03	0.3	0.06	0.3	0.05
24	ok4	Ostpreußenkai	*25*	*0.7*	2	*300*	0.0	0.00	0.0	0.00	0.0	0.00
25	ok5	Ostpreußenkai	*25*	*0.7*	2	*300*	2.4	0.43	4.0	0.72	3.2	0.58
26	ok6	Ostpreußenkai	*25*	*0.7*	2	*300*	0.0	0.00	0.0	0.00	0.0	0.00
27	ok7	Ostpreußenkai	*25*	*0.7*	2	*300*	0.0	0.00	0.0	0.00	0.0	0.00
28	sp1	Schlutupkai	*25*	*0.7*	2	*300*	3.9	0.71	6.5	1.19	5.2	0.95
29	sp2	Schlutupkai	*25*	*0.7*	2	*300*	1.7	0.31	2.8	0.51	2.2	0.41
30	sp3	Schlutupkai	*25*	*0.7*	2	*300*	1.2	0.22	2.0	0.37	1.6	0.29
31	sk31	Skandinavienkai	*25*	*0.7*	2	*300*	1.4	0.26	2.3	0.43	1.9	0.34
32	sk32	Skandinavienkai	*25*	*0.7*	2	*300*	0.6	0.11	1.0	0.18	0.8	0.15
33	sk33	Skandinavienkai	*25*	*0.7*	2	*300*	0.9	0.17	1.5	0.28	1.2	0.23
34	sk34	Skandinavienkai	*25*	*0.7*	2	*300*	1.3	0.24	2.2	0.40	1.7	0.32
35	sk35	Skandinavienkai	*25*	*0.7*	2	*300*	0.0	0.00	0.0	0.00	0.0	0.00
36	sk36	Skandinavienkai	*25*	*0.7*	2	*300*	0.0	0.00	0.0	0.00	0.0	0.00
37	sk37	Skandinavienkai	*25*	*0.7*	2	*300*	0.0	0.00	0.0	0.00	0.0	0.00
38	sk41	Skandinavienkai	*25*	*0.7*	2	*300*	3.5	0.64	5.8	1.07	4.7	0.85
39	sk42	Skandinavienkai	*25*	*0.7*	2	*300*	3.9	0.71	6.5	1.19	5.2	0.95
40	sk51	Skandinavienkai	*25*	*0.7*	2	*300*	2.4	0.44	4.0	0.73	3.2	0.59
41	sk52	Skandinavienkai	*25*	*0.7*	2	*300*	2.4	0.44	4.0	0.73	3.2	0.59
42	sk53	Skandinavienkai	*25*	*0.7*	2	*300*	2.1	0.39	3.5	0.65	2.8	0.52
43	sk54	Skandinavienkai	*25*	*0.7*	2	*300*	3.1	0.58	5.2	0.96	4.2	0.77
44	sk6a1	Skandinavienkai	*25*	*0.7*	2	*300*	0.0	0.00	0.0	0.00	0.0	0.00
45	sk6a2	Skandinavienkai	*25*	*0.7*	2	*300*	0.0	0.00	0.0	0.00	0.0	0.00
46	sk6a3	Skandinavienkai	*25*	*0.7*	2	*300*	0.0	0.00	0.0	0.00	0.0	0.00
47	sk6a4	Skandinavienkai	*25*	*0.7*	2	*300*	0.0	0.00	0.0	0.00	0.0	0.00
48	sk71	Skandinavienkai	*25*	*0.7*	2	*300*	2.5	0.46	4.1	0.76	3.3	0.61
49	sk72	Skandinavienkai	*25*	*0.7*	2	*300*	2.5	0.46	4.1	0.76	3.3	0.61
50	sk73	Skandinavienkai	*25*	*0.7*	2	*300*	1.7	0.32	2.9	0.53	2.3	0.42
51	sk7a1	Skandinavienkai	*25*	0.7	2	320	1.9	0.34	3.2	0.56	2.6	0.45
52	sk7a2	Skandinavienkai	*25*	*0.7*	2	*300*	0.9	0.16	1.5	0.27	1.2	0.22
53	sk81	Skandinavienkai	*25*	*0.7*	2	*300*	2.3	0.42	3.9	0.71	3.1	0.56
54	sk82	Skandinavienkai	*25*	*0.7*	2	*300*	1.9	0.35	3.2	0.59	2.6	0.47
55	sk100	Skandinavienkai	*25*	*0.7*	2	*300*	3.6	0.65	5.9	1.09	4.7	0.87
56	nn100	other	*25*	*0.7*	2	*300*	3.6	0.65	5.9	1.09	4.7	0.87

A 3.13 Total Emissions of Shipping

A 3.13.1 Forecast Scenario 2010 (Tons per Year)

Port	Total emissions within area under investigation per year [t/a]					
	CO_2	NOx	SO_2	Benzene	PM_{10}	Soot
Skandinavienkai						
Stay in port						
Berth 2	1,270	23.5	8.6	0.018	0.77	0.31
Berth 3	1,716	29.9	12.2	0.026	1.17	0.47
Berth 4	3,854	71.8	25.9	0.051	2.17	0.87
Berth 5	6,254	115.8	35.6	0.090	3.98	1.59
Berth 5a	14,140	266.2	92.6	0.193	8.43	3.37
Berth 6	5,215	75.1	9.9	0.203	6.43	2.57
Berth 6a	7,428	107.8	14.1	0.291	9.21	3.68
Berth 7	4,797	92.0	38.6	0.067	2.80	1.12
Berth 7a	9,719	182.2	62.3	0.134	5.86	2.34
Berth 8	9,634	180.1	50.8	0.132	5.77	2.30
Sum stay in port	**64,027**	**1,144.3**	**350.7**	**1.205**	**46.59**	**18.61**
Ship movements	16,480	276.8	111.5	0.530	24.43	9.73
Sum	**80,506**	**1,421.2**	**462.1**	**1.735**	**71.02**	**28.33**
Ostpreußenkai						
Stay in port	421	6.2	2.93	0.013	0.465	0.185
Ship movements	16	0.2	0.12	0.001	0.021	0.009
Sum	**437**	**6.4**	**3.05**	**0.013**	**0.486**	**0.194**
Other ports						
Ship movements	13,267	220.0	108.8	0.376	19.78	7.87
Total sum	**94,211**	**1,647.6**	**574.0**	**2.124**	**91.28**	**36.39**

A 3.13.2 Forecast Scenario, Reduction Concept 1a (Tons per year)

Port	Total emissions within area under investigation per year [t/a]					
	CO_2	NOx	SO_2	Benzene	PM_{10}	Soot
Skandinavienkai						
Stay in port						
Berth 2	241	2.7	2.2	0.006	0.32	0.13
Berth 3	425	4.2	4.0	0.010	0.52	0.21
Berth 4	632	6.9	5.8	0.015	0.77	0.31
Berth 5	1,250	15.0	10.5	0.035	1.80	0.72
Berth 5a	2,353	28.7	19.1	0.064	3.31	1.32
Berth 6	732	8.2	1.4	0.023	0.74	0.30
Berth 6a	976	11.5	1.9	0.032	1.03	0.41
Berth 7	758	10.7	6.2	0.023	1.05	0.42
Berth 7a	1,691	20.4	12.3	0.046	2.37	0.94
Berth 8	1,685	19.9	12.2	0.045	2.31	0.92
Sum stay in port	**10,743**	**128.3**	**75.6**	**0.298**	**14.22**	**5.66**
Ship movements	16,480	276.8	111.5	0.530	24.43	9.73
Sum	**27,222**	**405.1**	**187.1**	**0.828**	**38.66**	**15.39**
Ostpreußenkai						
Stay in port	421	6.2	2.9	0.013	0.46	0.19
Ship movements	16	0.2	0.1	0.001	0.02	0.01
Sum	**437**	**6.4**	**3.0**	**0.013**	**0.49**	**0.19**
Other ports						
Ship movements	13,267	220.0	108.8	0.376	19.78	7.87
Total sum	**40,926**	**631.5**	**298.9**	**1.217**	**58.92**	**23.45**

A 3.13.3 Forecast Scenario, Reduction Concept 1b (Tons per year)

Port	Total emissions within area under investigation per year [t/a]					
	CO_2	NOx	SO_2	Benzene	PM_{10}	Soot
Skandinavienkai						
Stay in port						
Berth 2	163	2.5	1.5	0.005	0.28	0.11
Berth 3	246	3.6	2.2	0.008	0.43	0.17
Berth 4	402	6.2	3.5	0.012	0.66	0.26
Berth 5	915	14.0	8.0	0.031	1.64	0.65
Berth 5a	1,731	26.7	15.1	0.056	3.01	1.20
Berth 6	522	7.5	1.0	0.020	0.64	0.26
Berth 6a	743	10.8	1.4	0.029	0.92	0.37
Berth 7	519	9.9	4.2	0.020	0.93	0.37
Berth 7a	1,233	19.0	9.4	0.040	2.16	0.86
Berth 8	1,197	18.4	10.0	0.039	2.08	0.83
Sum stay in port	**7,671**	**118.6**	**56.3**	**0.261**	**12.77**	**5.08**
Ship movements	16,480	276.8	111.5	0.530	24.43	9.73
Sum	**24,150**	**395.4**	**167.8**	**0.791**	**37.20**	**14.81**
Ostpreußenkai						
Stay in port	421	6.2	2.9	0.013	0.46	0.19
Ship movements	16	0.2	0.1	0.001	0.02	0.01
Sum	**437**	**6.4**	**3.0**	**0.013**	**0.49**	**0.19**
Other ports						
Ship movements	13,267	220.0	108.8	0.376	19.78	7.87
Total sum	**37,855**	**621.8**	**279.6**	**1.180**	**57.46**	**22.86**

A 3.13.4 Forecast Scenario, Reduction Concept 3 (Tons per year)

Port	Total emissions within area under investigation per year [t/a]					
	CO_2	NOx	SO_2	Benzene	PM_{10}	Soot
Skandinavienkai						
Stay in port						
Berth 2	1,265	23.4	0.7	0.018	0.65	0.26
Berth 3	1,707	29.7	1.0	0.026	0.96	0.38
Berth 4	3,842	71.6	2.2	0.051	1.91	0.77
Berth 5	6,222	115.2	3.6	0.090	3.31	1.33
Berth 5a	14,080	265.1	8.2	0.193	7.23	2.89
Berth 6	5,217	75.1	3.0	0.203	6.43	2.57
Berth 6a	7,429	107.8	4.2	0.291	9.21	3.68
Berth 7	4,779	91.6	2.8	0.067	2.43	0.97
Berth 7a	9,676	181.4	5.6	0.134	5.00	2.00
Berth 8	9,594	179.3	5.6	0.132	4.94	1.97
Sum stay in port	**63,811**	**1140.1**	**36.9**	**1.205**	**42.07**	**16.83**
Ship movements	16,480	276.8	111.5	0.530	24.43	9.73
Sum	**80,290**	**1416.9**	**148.4**	**1.735**	**66.50**	**26.55**
Ostpreußenkai						
Stay in port	419	6.13	0.24	0.013	0.410	0.164
Ship movements	16	0.24	0.12	0.001	0.021	0.009
Sum	**435**	**6.37**	**0.36**	**0.013**	**0.432**	**0.173**
Other ports						
Ship movements	13,267	220.0	108.7	0.376	19.78	7.87
Total sum	**93,992**	**1643.3**	**257.4**	**2.124**	**86.71**	**34.59**

A 3.13.5 Forecast Scenario, Reduction Concepts 1a+3 (Tons per year)

Port	Total emissions within area under investigation per year [t/a]					
	CO_2	NOx	SO_2	Benzene	PM_{10}	Soot
Skandinavienkai						
Stay in port						
Berth 2	236	2.6	0.1	0.006	0.21	0.08
Berth 3	418	4.0	0.2	0.010	0.34	0.14
Berth 4	620	6.7	0.4	0.015	0.51	0.20
Berth 5	1,217	14.4	0.7	0.035	1.14	0.46
Berth 5a	2,294	27.6	1.3	0.064	2.10	0.84
Berth 6	733	8.2	0.4	0.023	0.74	0.30
Berth 6a	978	11.5	0.6	0.032	1.03	0.41
Berth 7	741	10.2	0.5	0.023	0.68	0.27
Berth 7a	1,648	19.6	1.0	0.046	1.51	0.60
Berth 8	1,644	19.2	1.0	0.045	1.48	0.59
Sum stay in port	**10,529**	**124.1**	**6.2**	**0.298**	**9.74**	**3.90**
Ship movements	16,480	276.8	111.5	0.530	24.43	9.73
Sum	**27,008**	**400.9**	**117.6**	**0.828**	**34.18**	**13.62**
Ostpreußenkai						
Stay in port	419	6.13	0.24	0.013	0.410	0.164
Ship movements	16	0.24	0.12	0.001	0.021	0.009
Sum	**435**	**6.37**	**0.36**	**0.013**	**0.432**	**0.173**
Other ports						
Ship movements	13,267	220.0	108.7	0.376	19.78	7.87
Total sum	**40,710**	**627.3**	**226.7**	**1.217**	**54.38**	**21.66**

A 3.13.6 Forecast Scenario, Reduction Concepts 1b+3 (Tons per year)

Port	Total emissions within area under investigation per year [t/a]					
	CO_2	NOx	SO_2	Benzene	PM_{10}	Soot
Skandinavienkai						
Stay in port						
Berth 2	157	2.4	0.1	0.005	0.17	0.07
Berth 3	237	3.5	0.1	0.008	0.26	0.10
Berth 4	388	5.9	0.2	0.012	0.40	0.16
Berth 5	880	13.4	0.5	0.031	0.98	0.39
Berth 5a	1,668	25.7	0.9	0.056	1.81	0.72
Berth 6	522	7.5	0.3	0.020	0.64	0.26
Berth 6a	743	10.8	0.4	0.029	0.92	0.37
Berth 7	500	9.5	0.3	0.020	0.56	0.22
Berth 7a	1,187	18.2	0.7	0.040	1.29	0.52
Berth 8	1,153	17.6	0.7	0.039	1.25	0.50
Sum stay in port	**7,435**	**114.4**	**4.2**	**0.261**	**8.28**	**3.31**
Ship movements	16,480	276.8	111.5	0.530	24.43	9.73
Sum	**23,915**	**391.2**	**115.7**	**0.791**	**32.72**	**13.04**
Ostpreußenkai						
Stay in port	419	6.13	0.24	0.013	0.410	0.164
Ship movements	16	0.24	0.12	0.001	0.021	0.009
Sum	**435**	**6.37**	**0.36**	**0.013**	**0.432**	**0.173**
Other ports						
Ship movements	13,267	220.0	108.7	0.376	19.78	7.87
Total sum	**37,617**	**617.6**	**224.8**	**1.180**	**52.92**	**21.08**

A 4 Emissions of the Road Traffic

A 4.1 Summary of Traffic Volumes

A 4.1.1 General

In the following the traffic volumes for the main road network within the area under investigation have been summarized.

One finds the following abbreviations:

DTV: annual average daily traffic volume

p: truck fraction (vehicles > 2,8 t)

PC: passenger cars

LDT: light duty trucks (< 3,5 t)

HDT: heavy duty trucks (> 3,5 t)

Concerning the LDT fraction the following approach has been considered (average values of data from MOBILEV [21]):

LDT fraction according to MOBILEV	Urban (IO)	Rural (AO)	Highway (AB)
LDT referring to PC	2.0%	2.5%	3.0%
LDT referring to trucks > 2,8 t	13.0%	12.0%	7.0%

A 4.1.2 Actual Scenario

Sp	1	2	3	4	5	6	7
Ze	Name	Road lane	Traffic volume: actual scenario				
			DTV	p	PC	LDT	HDT
			veh./ 24h	%	veh./ 24h	veh./ 24h	veh./ 24h
1	str1	B 75, south of AS Skandinavienkai	19,000	17.0 %	15,376	782	2,842
2	str2	B 75, north of AS Skandinavienkai to B 76	11,000	7.0 %	9,974	348	678
3	str3	B 75/AS Skandinavienkai, connection to Travemünder Landstr.	8,500	32.0 %	5,635	471	2,394
4	str4	B 75/AS Skandinavienkai, exit from direction Hamburg	4,100	28.0 %	2,878	212	1,010
5	str5	B 75/AS Skandinavienkai, entry in direction Hamburg	4,100	32.0 %	2,718	227	1,155
6	str6	B 75/AS Skandinavienkai, exit from direction Travemünde	150	67.0 %	49	13	88
7	str7	B 75/AS Skandinavienkai, entry in direction Travemünde	160	63.0 %	57	14	89
8	str8	B 76, B 75 to Timmendorfer Landstraße	10,000	3.0 %	9,457	279	264
9	str9	B 76, north of Timmendorfer Landstraße	10,000	3.0 %	9,457	279	264
10	str10	Travemünder Landstraße, south of Ivendorfer Landstraße	2,800	20.0 %	2,184	123	493
11	str11	Travemünder Landstraße, Ivendorfer Landstr. to access to B 75	2,200	22.0 %	1,673	101	426
12	str12	Travemünder Landstraße, access to B 75 to Ovendorfer Straße	9,800	27.0 %	6,976	496	2,328
13	str13	Travemünder Landstraße, Ovendorfer Str. to southern port entry	9,600	27.0 %	6,833	486	2,281
14	str14	Travemünder Landstraße, between port entries	9,500	25.0 %	6,947	463	2,090
15	str15	Travemünder Landstr., northern port entry to Auf dem Baggersand	7,500	8.0 %	6,762	216	522
16	str16	Travemünder Landstraße, Auf dem Baggersand to Teutendorfer Weg	6,000	7.0 %	5,469	166	365
17	str17	Travemünder Landstraße, Teutendorfer Weg to Torstraße	4,100	9.0 %	3,656	123	321

Summary of traffic volumes (actual scenario, continued)

Sp	1	2	3	4	5	6	7
Ze	Name	Road lane	Traffic volume: actual scenario				
			DTV	p	PC	LDT	HDT
			veh./ 24h	%	veh./ 24h	veh./ 24h	veh./ 24h
18	str18	Gneversdorfer Weg, Torstraße to Vogteistraße	8,700	3.0 %	8,270	203	227
19	str19	Gneversdorfer Weg, Vogteistraße to Moorredder	11,000	8.0 %	9,917	317	766
20	str20	Gneversdorfer Weg, Moorredder to Howingsbrook	12,000	8.0 %	10,819	346	835
21	str21	Gneversdorfer Weg, Howingsbrook to B 76	14,100	8.0 %	12,713	406	981
22	str22	Ovendorfer Straße, east of Ivendorfer Landstraße	550	9.0 %	491	16	43
23	str23	Ovendorfer Straße, west of Ivendorfer Landstraße	330	12.0 %	285	11	34
24	str24	Ivendorfer Landstraße, south of Ovendorfer Straße	880	15.0 %	729	35	116
25	str25	Ivendorfer Landstraße, north of Ovendorfer Straße, Ivendorf	1,300	14.0 %	1,096	46	158
26	str26	Ivendorfer Landstraße, north of Ovendorfer Straße, rural	1,300	14.0 %	1,090	50	160
27	str27	Ivendorfer Landstraße, north of Ovendorfer Straße, Travemünde	1,700	11.0 %	1,482	55	163
28	str28	Teutendorfer Weg, east of Ivendorfer Landstraße	4,900	6.0 %	4,514	130	256
29	str29	Teutendorfer Weg, Ivendorfer Landstraße to Hollbeck	4,700	5.0 %	4,376	120	204
30	str30	Teutendorfer Weg,west of Hollbeck	1,200	5.0 %	1,111	36	53
31	str31	Auf dem Baggersand	5,100	5.0 %	4,748	130	222
32	str32	Torstraße/ Kirchenstraße	3,500	10.0 %	3,086	109	305
33	str33	St. Lorenz Straße	2,500	15.0 %	2,083	91	326
34	str34	Vogteistraße	2,500	4.0 %	2,352	61	87
35	str35	Mühlenberg, Gneversdorfer Weg to Rose	1,500	2.0 %	1,441	33	26
36	str36	Mühlenberg, Rose to Fehlingstraße	1,500	2.0 %	1,441	33	26
37	str37	Moorredder, Gneversdorfer Weg to Rose	9,000	6.0 %	8,291	239	470
38	str38	Moorredder, Rose to Steenkamp	9,000	6.0 %	8,291	239	470
39	str39	Howingsbrook, Gneversdorfer Weg to Nordmeerstraße	4,500	7.0 %	4,101	125	274
40	str40	Howingsbrook, Nordmeerstraße to Steenkamp	1,700	3.0 %	1,616	40	44
41	str41	Vorderreihe, St. Lorenz Straße to Rose	1,000	10.0 %	882	31	87
42	str42	Vorderreihe, Rose to Am Lotsenberg	500	5.0 %	465	13	22
43	str43	Außenallee, Am Lotsenberg to Trelleborgallee (north)	4,200	9.0 %	3,745	126	329
44	str44	Außenallee, Trelleborgallee (north) to Bertlingstraße	4,800	2.0 %	4,609	107	84
45	str45	Trelleborgallee	2,200	9.0 %	1,962	66	172
46	str46	Kurgartenstraße, St. Lorenz Straße to Rose	2,000	10.0 %	1,764	62	174
47	str47	Kurgartenstraße, Rose to Am Lotsenberg	2,000	10.0 %	1,764	62	174
48	str48	Am Lotsenberg, Vorderreihe to Kurgartenstraße	4,300	13.0 %	3,667	147	486
49	str49	Am Lotsenberg, Kurgartenstraße to new road	4,300	13.0 %	3,667	147	486
50	str50	new road	4,300	13.0 %	3,667	147	486
51	str51	Rose, Vorderreihe to Kurgartenstraße	1,000	10.0 %	882	31	87
52	str52	Rose, Kurgartenstraße to Vogteistraße	3,000	5.0 %	2,792	77	131
53	str53	Rose, Vogteistraße to Fehlingstraße	2,300	2.0 %	2,209	51	40
54	str54	Rose, Fehlingstraße to Mühlenberg	1,400	2.0 %	1,345	31	24
55	str55	Rose, Mühlenberg to Moorredder	1,500	2.0 %	1,441	33	26
56	str56	Fehlingstraße, Rose to Mühlenberg	1,300	1.0 %	1,262	27	11
57	str57	Fehlingstraße, Mühlenberg to Steenkamp	1,200	2.0 %	1,152	27	21
58	str58	Fehlingstraße, Steenkamp to Godewind	1,100	6.0 %	1,014	29	57
59	str59	Am Fahrenberg	6,800	5.0 %	6,331	173	296
60	str60	Bertlingstraße	6,800	8.0 %	6,131	196	473
61	str61	Godewind, Bertlingstraße to Fehlingstraße	6,400	9.0 %	5,708	191	501
62	str62	Godewind, Fehlingstraße to Am Fahrenkamp	6,300	7.0 %	5,741	175	384
63	str63	Godewind, north of Am Fahrenberg	1,300	8.0 %	1,173	37	90
64	str64	Steuerbord	1,300	8.0 %	1,173	37	90
65	str65	Kaiserallee, Bertlingstraße to Steuerbord	2,200	3.0 %	2,092	51	57
66	str66	Kaiserallee, Backbord to Strandredder	2,000	3.0 %	1,901	47	52
67	str67	Strandweg	1,000	1.0 %	970	21	9
68	str68	Strandredder, Strandweg to Alfred-Hagelstein-Straße	1,000	1.0 %	970	21	9
69	str69	Strandredder, Alfred-Hagelstein-Straße to Helldahl	1,000	1.0 %	970	21	9
70	str70	Alfred-Hagelstein-Straße	1,000	4.0 %	941	24	35
71	str71	Steenkamp, Fehlingstraße to Moorredder	1,000	7.0 %	911	28	61
72	str72	Steenkamp, Moorredder to Strandweg	2,800	3.0 %	2,662	65	73
73	str73	Steenkamp, Strandweg to Howingsbrook	2,200	4.0 %	2,069	54	77
74	str74	Steenkamp, Howingsbrook to Rödsaal	1,700	3.0 %	1,616	40	44
75	str75	Kowitzberg, Steenkamp to Alfred-Hagelstein-Straße	1,600	6.0 %	1,473	43	84
76	str76	Kowitzberg, north of Alfred-Hagelstein-Straße	1,000	1.0 %	970	21	9
77	str77	Wedenberg	1,000	4.0 %	936	29	35
78	str78	Rödsaal	1,300	7.0 %	1,179	41	80
79	str79	Timmendorfer Weg	1,000	3.0 %	946	28	26
80	str80	Timmendorfer Landstraße	1,000	3.0 %	946	28	26
81	str81	Mecklenburger Landstraße, Priwall ferry to Wiekstraße	3,200	5.0 %	2,979	82	139
82	str82	Mecklenburger Landstraße, east of Wiekstraße	2,700	4.0 %	2,540	66	94

A 4.1.3 Forecast Scenario 2010

Sp	1	2	3	4	5	6	7
Ze	Name	Road lane	Traffic volume: forecast scenario				
			DTV	p	PC	LDT	HDT
			veh./ 24h	%	veh./ 24h	veh./ 24h	veh./ 24h
1	str1	B 75, south of AS Skandinavienkai	27,000	17.5 %	21,718	1,124	4,158
2	str2	B 75, north of AS Skandinavienkai to B 76	19,000	8.0 %	17,043	619	1,338
3	str3	B 75/AS Skandinavienkai, connection to Travemünder Landstr.	11,200	36.0 %	6,989	663	3,548
4	str4	B 75/AS Skandinavienkai, exit from direction Hamburg	4,800	36.0 %	2,995	284	1,521
5	str5	B 75/AS Skandinavienkai, entry in direction Hamburg	4,800	39.0 %	2,855	298	1,647
6	str6	B 75/AS Skandinavienkai, exit from direction Travemünde	820	26.0 %	591	41	188
7	str7	B 75/AS Skandinavienkai, entry in direction Travemünde	840	26.0 %	606	42	192
8	str8	B 76, B 75 to Timmendorfer Landstraße	10,000	3.0 %	9,457	279	264
9	str9	B 76, north of Timmendorfer Landstraße	10,000	3.0 %	9,457	279	264
10	str10	Travemünder Landstraße, south of Ivendorfer Landstraße	2,400	25.0 %	1,755	117	528
11	str11	Travemünder Landstraße, Ivendorfer Landstr. to access to B 75	900	52.0 %	421	67	412
12	str12	Travemünder Landstraße, access to B 75 to Ovendorfer Straße	7,700	41.0 %	4,430	492	2,778
13	str13	Travemünder Landstraße, Ovendorfer Str. to southern port entry	7,700	41.0 %	4,430	492	2,778
14	str14	Travemünder Landstraße, between port entries	—	—	—	—	—
15	str15	Travemünder Landstr., northern port entry to Auf dem Baggersand	1,000	1.0 %	970	21	9
16	str16	Travemünder Landstraße, Auf dem Baggersand to Teutendorfer Weg	5,400	6.0 %	4,974	144	282
17	str17	Travemünder Landstraße, Teutendorfer Weg to Torstraße	7,300	8.0 %	6,582	210	508
18	str18	Gneversdorfer Weg, Torstraße to Vogteistraße	11,900	4.0 %	11,196	290	414
19	str19	Gneversdorfer Weg, Vogteistraße to Moorredder	15,100	8.0 %	13,614	435	1,051
20	str20	Gneversdorfer Weg, Moorredder to Howingsbrook	16,100	8.0 %	14,515	464	1,121
21	str21	Gneversdorfer Weg, Howingsbrook to B 76	18,200	8.0 %	16,409	524	1,267
22	str22	Ovendorfer Straße, east of Ivendorfer Landstraße	—	—	—	—	—
23	str23	Ovendorfer Straße, west of Ivendorfer Landstraße	600	9.0 %	535	18	47
24	str24	Ivendorfer Landstraße, south of Ovendorfer Straße	2,200	12.0 %	1,888	80	232
25	str25	Ivendorfer Landstraße, north of Ovendorfer Straße, Ivendorf	2,600	12.0 %	2,243	86	271
26	str26	Ivendorfer Landstraße, north of Ovendorfer Straße, rural	2,900	11.0 %	2,516	103	281
27	str27	Ivendorfer Landstraße, north of Ovendorfer Straße, Travemünde	3,100	10.0 %	2,734	96	270
28	str28	Teutendorfer Weg, east of Ivendorfer Landstraße	5,700	7.0 %	5,195	158	347
29	str29	Teutendorfer Weg, Ivendorfer Landstraße to Hollbeck	5,100	5.0 %	4,748	130	222
30	str30	Teutendorfer Weg,west of Hollbeck	1,200	5.0 %	1,111	36	53
31	str31	Auf dem Baggersand	5,300	5.0 %	4,934	135	231
32	str32	Torstraße/ Kirchenstraße	3,500	10.0 %	3,086	109	305
33	str33	St. Lorenz Straße	2,500	15.0 %	2,083	91	326
34	str34	Vogteistraße	4,000	4.0 %	3,763	98	139
35	str35	Mühlenberg, Gneversdorfer Weg to Rose	1,500	2.0 %	1,441	33	26
36	str36	Mühlenberg, Rose to Fehlingstraße	1,500	2.0 %	1,441	33	26
37	str37	Moorredder, Gneversdorfer Weg to Rose	9,000	6.0 %	8,291	239	470
38	str38	Moorredder, Rose to Steenkamp	9,000	6.0 %	8,291	239	470
39	str39	Howingsbrook, Gneversdorfer Weg to Nordmeerstraße	4,500	7.0 %	4,101	125	274
40	str40	Howingsbrook, Nordmeerstraße to Steenkamp	1,700	3.0 %	1,616	40	44
41	str41	Vorderreihe, St. Lorenz Straße to Rose	1,000	10.0 %	882	31	87
42	str42	Vorderreihe, Rose to Am Lotsenberg	500	5.0 %	465	13	22
43	str43	Außenallee, Am Lotsenberg to Trelleborgallee (north)	4,200	9.0 %	3,745	126	329
44	str44	Außenallee, Trelleborgallee (north) to Bertlingstraße	4,800	2.0 %	4,609	107	84
45	str45	Trelleborgallee	2,200	9.0 %	1,962	66	172
46	str46	Kurgartenstraße, St. Lorenz Straße to Rose	2,000	10.0 %	1,764	62	174
47	str47	Kurgartenstraße, Rose to Am Lotsenberg	2,000	10.0 %	1,764	62	174
48	str48	Am Lotsenberg, Vorderreihe to Kurgartenstraße	4,300	13.0 %	3,667	147	486
49	str49	Am Lotsenberg, Kurgartenstraße to new road	4,300	13.0 %	3,667	147	486
50	str50	new road	4,300	13.0 %	3,667	147	486
51	str51	Rose, Vorderreihe to Kurgartenstraße	1,000	10.0 %	882	31	87
52	str52	Rose, Kurgartenstraße to Vogteistraße	3,000	5.0 %	2,792	77	131
53	str53	Rose, Vogteistraße to Fehlingstraße	2,300	2.0 %	2,209	51	40
54	str54	Rose, Fehlingstraße to Mühlenberg	1,400	2.0 %	1,345	31	24
55	str55	Rose, Mühlenberg to Moorredder	1,500	2.0 %	1,441	33	26
56	str56	Fehlingstraße, Rose to Mühlenberg	1,300	1.0 %	1,262	27	11
57	str57	Fehlingstraße, Mühlenberg to Steenkamp	1,200	2.0 %	1,152	27	21
58	str58	Fehlingstraße, Steenkamp to Godewind	1,100	6.0 %	1,014	29	57
59	str59	Am Fahrenberg	6,800	5.0 %	6,331	173	296
60	str60	Bertlingstraße	6,800	8.0 %	6,131	196	473
61	str61	Godewind, Bertlingstraße to Fehlingstraße	6,400	9.0 %	5,708	191	501
62	str62	Godewind, Fehlingstraße to Am Fahrenkamp	6,300	7.0 %	5,741	175	384
63	str63	Godewind, north of Am Fahrenberg	1,300	8.0 %	1,173	37	90
64	str64	Steuerbord	1,300	8.0 %	1,173	37	90
65	str65	Kaiserallee, Bertlingstraße to Steuerbord	2,200	3.0 %	2,092	51	57
66	str66	Kaiserallee, Backbord to Strandredder	2,000	3.0 %	1,901	47	52
67	str67	Strandweg	1,000	1.0 %	970	21	9
68	str68	Strandredder, Strandweg to Alfred-Hagelstein-Straße	1,000	1.0 %	970	21	9
69	str69	Strandredder, Alfred-Hagelstein-Straße to Helldahl	1,000	1.0 %	970	21	9
70	str70	Alfred-Hagelstein-Straße	1,000	4.0 %	941	24	35

Summary of traffic volumes (forecast scenario, continued)

Sp	1	2	3	4	5	6	7
Ze	Name	Road lane	Traffic volume: forecast scenario				
			DTV	p	PC	LDT	HDT
			veh./ 24h	%	veh./ 24h	veh./ 24h	veh./ 24h
71	str71	Steenkamp, Fehlingstraße to Moorredder	1,000	7.0 %	911	28	61
72	str72	Steenkamp, Moorredder to Strandweg	2,800	3.0 %	2,662	65	73
73	str73	Steenkamp, Strandweg to Howingsbrook	2,200	4.0 %	2,069	54	77
74	str74	Steenkamp, Howingsbrook to Rödsaal	1,700	3.0 %	1,616	40	44
75	str75	Kowitzberg, Steenkamp to Alfred-Hagelstein-Straße	1,600	6.0 %	1,473	43	84
76	str76	Kowitzberg, north of Alfred-Hagelstein-Straße	1,000	1.0 %	970	21	9
77	str77	Wedenberg	1,000	4.0 %	936	29	35
78	str78	Rödsaal	1,300	7.0 %	1,179	41	80
79	str79	Timmendorfer Weg	1,000	3.0 %	946	28	26
80	str80	Timmendorfer Landstraße	1,000	3.0 %	946	28	26
81	str81	Mecklenburger Landstraße, Priwall ferry to Wiekstraße	3,200	5.0 %	2,979	82	139
82	str82	Mecklenburger Landstraße, east of Wiekstraße	2,700	4.0 %	2,540	66	94
83	str83	Planned road commercial area A	2,100	17.0 %	1,708	81	311
84	str84	Planned road commercial area B	2,800	17.0 %	2,278	108	414

A 4.2 Summary of Traffic Situations

Sp	1	2	3	4	5	6
Ze	Name	Road lane	Emissions model			
			Type	Traffic situation according to HBEFA		Dust resusp. model
1	str1	B 75, south of AS Skandinavienkai	AO	Highway	AB_100	PM_AB
2	str2	B 75, north of AS Skandinavienkai to B 76	AO	Highway	AB_100	PM_AB
3	str3	B 75/AS Skandinavienkai, connection to Travemünder Landstr.	AO	Rural	AO_2	PM_AO
4	str4	B 75/AS Skandinavienkai, exit from direction Hamburg	AO	Rural	AO_3	PM_AO
5	str5	B 75/AS Skandinavienkai, entry in direction Hamburg	AO	Rural	AO_3	PM_AO
6	str6	B 75/AS Skandinavienkai, exit from direction Travemünde	AO	Rural	AO_3	PM_AO
7	str7	B 75/AS Skandinavienkai, entry in direction Travemünde	AO	Rural	AO_2	PM_AO
8	str8	B 76, B 75 to Timmendorfer Landstraße	AO	Rural	AO_1	PM_AO
9	str9	B 76, north of Timmendorfer Landstraße	AO	Rural	AO_1	PM_AO
10	str10	Travemünder Landstraße, south of Ivendorfer Landstraße	AO	Rural	AO_1	PM_AO
11	str11	Travemünder Landstraße, Ivendorfer Landstr. to access to B 75	AO	Rural	AO_1	PM_AO
12	str12	Travemünder Landstraße, access to B 75 to Ovendorfer Straße	AO	Rural	AO_1	PM_AO
13	str13	Travemünder Landstraße, Ovendorfer Str. to southern port entry	AO	Rural	AO_1	PM_AO
14	str14	Travemünder Landstraße, between port entries	AO	Rural	AO_1	PM_AO
15	str15	Travemünder Landstr., northern port entry to Auf dem Baggersand	IO	Urban	IO_LSA1	PM_IOG
16	str16	Travemünder Landstraße, Auf dem Baggersand to Teutendorfer Weg	IO	Urban	IO_LSA1	PM_IOG
17	str17	Travemünder Landstraße, Teutendorfer Weg to Torstraße	IO	Urban	IO_LSA1	PM_IOG
18	str18	Gneversdorfer Weg, Torstraße to Vogteistraße	IO	Urban	IO_LSA1	PM_IOG
19	str19	Gneversdorfer Weg, Vogteistraße to Moorredder	IO	Urban	IO_LSA1	PM_IOG
20	str20	Gneversdorfer Weg, Moorredder to Howingsbrook	IO	Urban	IO_HVS1	PM_IOG
21	str21	Gneversdorfer Weg, Howingsbrook to B 76	IO	Urban	IO_HVS1	PM_IOG
22	str22	Ovendorfer Straße, east of Ivendorfer Landstraße	IO	Urban	IO_HVS1	PM_IOG
23	str23	Ovendorfer Straße, west of Ivendorfer Landstraße	IO	Urban	IO_HVS1	PM_IOG
24	str24	Ivendorfer Landstraße, south of Ovendorfer Straße	AO	Rural	AO_1	PM_AO
25	str25	Ivendorfer Landstraße, north of Ovendorfer Straße, Ivendorf	IO	Urban	IO_HVS1	PM_IOG

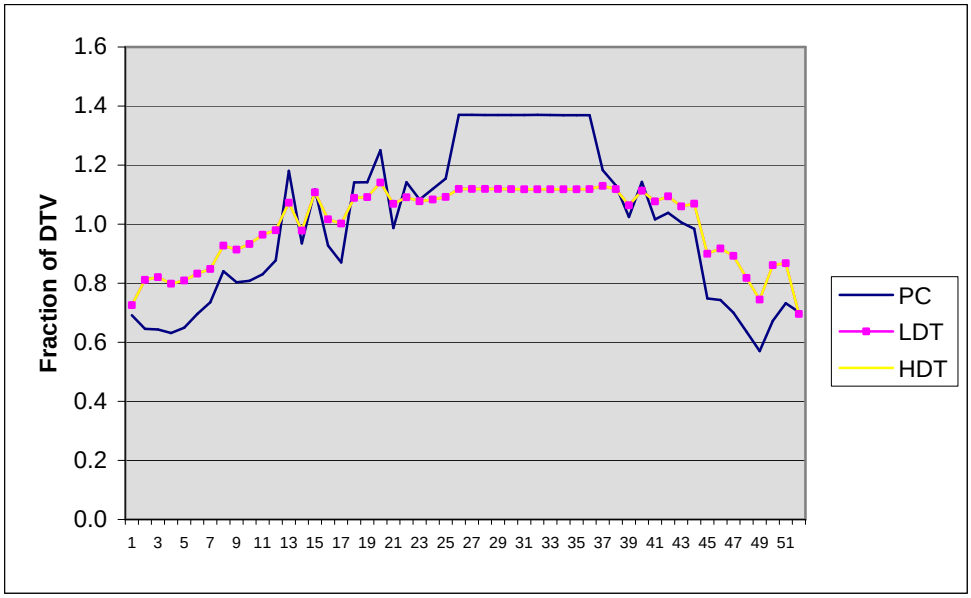
Sumary of traffic situations (continued)

Sp	1	2	3	4	5	6
Ze	Name	Road lane	Emissions model			
			Type	Traffic situation according to HBEFA		Dust resusp. model
26	str26	Ivendorfer Landstraße, north of Ovendorfer Straße, rural	AO	Rural	AO_1	PM_AO
27	str27	Ivendorfer Landstraße, north of Ovendorfer Straße, Travemünde	IO	Urban	IO_HVS1	PM_IOG
28	str28	Teutendorfer Weg, east of Ivendorfer Landstraße	IO	Urban	IO_HVS1	PM_IOG
29	str29	Teutendorfer Weg, Ivendorfer Landstraße to Hollbeck	IO	Urban	IO_HVS1	PM_IOG
30	str30	Teutendorfer Weg,west of Hollbeck	AO	Rural	AO_1	PM_AO
31	str31	Auf dem Baggersand	IO	Urban	IO_Kern	PM_IOG
32	str32	Torstraße/ Kirchenstraße	IO	Urban	IO_Kern	PM_IOG
33	str33	St. Lorenz Straße	IO	Urban	IO_Kern	PM_IOG
34	str34	Vogteistraße	IO	Urban	IO_Kern	PM_IOG
35	str35	Mühlenberg, Gneversdorfer Weg to Rose	IO	Urban	IO_Nebenstr_locker	PM_IOG
36	str36	Mühlenberg, Rose to Fehlingstraße	IO	Urban	IO_Nebenstr_locker	PM_IOG
37	str37	Moorredder, Gneversdorfer Weg to Rose	IO	Urban	IO_LSA1	PM_IOG
38	str38	Moorredder, Rose to Steenkamp	IO	Urban	IO_LSA1	PM_IOG
39	str39	Howingsbrook, Gneversdorfer Weg to Nordmeerstraße	IO	Urban	IO_HVS1	PM_IOG
40	str40	Howingsbrook, Nordmeerstraße to Steenkamp	IO	Urban	IO_HVS1	PM_IOG
41	str41	Vorderreihe, St. Lorenz Straße to Rose	IO	Urban	IO_Kern	PM_IOG
42	str42	Vorderreihe, Rose to Am Lotsenberg	IO	Urban	IO_Kern	PM_IOG
43	str43	Außenallee, Am Lotsenberg to Trelleborgallee (north)	IO	Urban	IO_HVS2	PM_IOG
44	str44	Außenallee, Trelleborgallee (north) to Bertlingstraße	IO	Urban	IO_HVS2	PM_IOG
45	str45	Trelleborgallee	IO	Urban	IO_Nebenstr_locker	PM_IOG
46	str46	Kurgartenstraße, St. Lorenz Straße to Rose	IO	Urban	IO_Kern	PM_IOG
47	str47	Kurgartenstraße, Rose to Am Lotsenberg	IO	Urban	IO_Kern	PM_IOG
48	str48	Am Lotsenberg, Vorderreihe to Kurgartenstraße	IO	Urban	IO_Kern	PM_IOG
49	str49	Am Lotsenberg, Kurgartenstraße to new road	IO	Urban	IO_Kern	PM_IOG
50	str50	new road	IO	Urban	IO_Kern	PM_IOG
51	str51	Rose, Vorderreihe to Kurgartenstraße	IO	Urban	IO_Kern	PM_IOG
52	str52	Rose, Kurgartenstraße to Vogteistraße	IO	Urban	IO_Kern	PM_IOG
53	str53	Rose, Vogteistraße to Fehlingstraße	IO	Urban	IO_Nebenstr_locker	PM_IOG
54	str54	Rose, Fehlingstraße to Mühlenberg	IO	Urban	IO_Nebenstr_locker	PM_IOG
55	str55	Rose, Mühlenberg to Moorredder	IO	Urban	IO_Nebenstr_locker	PM_IOG
56	str56	Fehlingstraße, Rose to Mühlenberg	IO	Urban	IO_Nebenstr_locker	PM_IOG
57	str57	Fehlingstraße, Mühlenberg to Steenkamp	IO	Urban	IO_Nebenstr_locker	PM_IOG
58	str58	Fehlingstraße, Steenkamp to Godewind	IO	Urban	IO_Nebenstr_locker	PM_IOG
59	str59	Am Fahrenberg	IO	Urban	IO_LSA1	PM_IOG
60	str60	Bertlingstraße	IO	Urban	IO_LSA1	PM_IOG
61	str61	Godewind, Bertlingstraße to Fehlingstraße	IO	Urban	IO_LSA1	PM_IOG
62	str62	Godewind, Fehlingstraße to Am Fahrenkamp	IO	Urban	IO_HVS3	PM_IOG
63	str63	Godewind, north of Am Fahrenberg	IO	Urban	IO_Nebenstr_locker	PM_IOG
64	str64	Steuerbord	IO	Urban	IO_Nebenstr_locker	PM_IOG
65	str65	Kaiserallee, Bertlingstraße to Steuerbord	IO	Urban	IO_HVS3	PM_IOG
66	str66	Kaiserallee, Backbord to Strandredder	IO	Urban	IO_Nebenstr_locker	PM_IOG
67	str67	Strandweg	IO	Urban	IO_Nebenstr_locker	PM_IOG
68	str68	Strandredder, Strandweg to Alfred-Hagelstein-Straße	IO	Urban	IO_Nebenstr_locker	PM_IOG
69	str69	Strandredder, Alfred-Hagelstein-Straße to Helldahl	IO	Urban	IO_Nebenstr_locker	PM_IOG
70	str70	Alfred-Hagelstein-Straße	IO	Urban	IO_Nebenstr_locker	PM_IOG
71	str71	Steenkamp, Fehlingstraße to Moorredder	IO	Urban	IO_LSA1	PM_IOG
72	str72	Steenkamp, Moorredder to Strandweg	IO	Urban	IO_HVS2	PM_IOG
73	str73	Steenkamp, Strandweg to Howingsbrook	IO	Urban	IO_HVS2	PM_IOG
74	str74	Steenkamp, Howingsbrook to Rödsaal	IO	Urban	IO_HVS1	PM_IOG
75	str75	Kowitzberg, Steenkamp to Alfred-Hagelstein-Straße	IO	Urban	IO_Nebenstr_locker	PM_IOG
76	str76	Kowitzberg, north of Alfred-Hagelstein-Straße	IO	Urban	IO_Nebenstr_locker	PM_IOG
77	str77	Wedenberg	AO	Rural	AO_1	PM_AO
78	str78	Rödsaal	AO	Rural	AO_1	PM_AO
79	str79	Timmendorfer Weg	AO	Rural	AO_2	PM_AO
80	str80	Timmendorfer Landstraße	AO	Rural	AO_1	PM_AO
81	str81	Mecklenburger Landstraße, Priwall ferry to Wiekstraße	IO	Urban	IO_HVS2	PM_IOG
82	str82	Mecklenburger Landstraße, east of Wiekstraße	IO	Urban	IO_HVS2	PM_IOG
83	str83	Planned road commercial area A	IO	Urban	IO_Nebenstr_locker	PM_IOG
84	str84	Planned road commercial area B	IO	Urban	IO_Nebenstr_locker	PM_IOG

A 4.3 Summary of Time Series' for Road Traffic

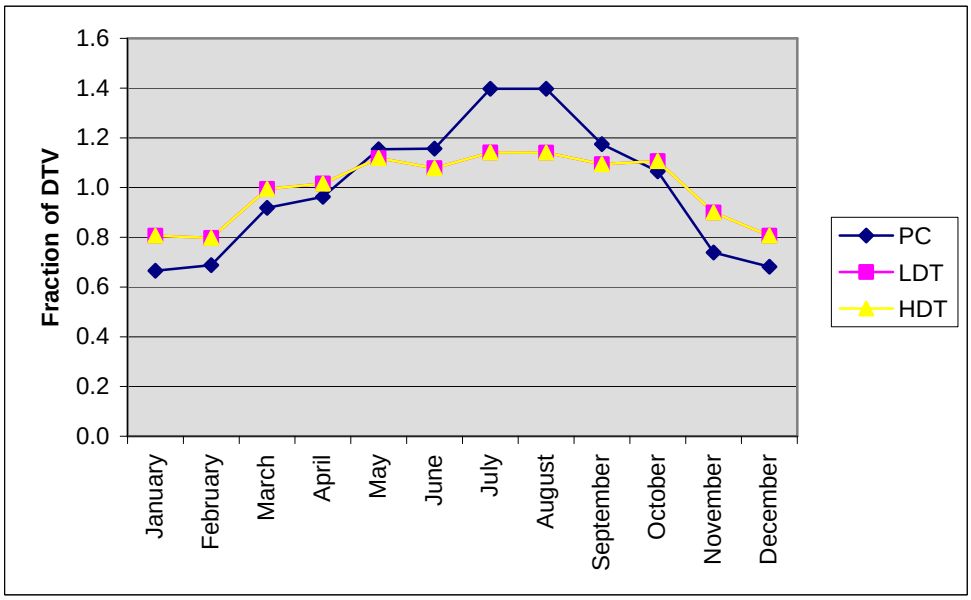
A 4.3.1 Annual Distributions According to BAST (weekly resolution)

PC: Type E, LDT and HDT: Type C



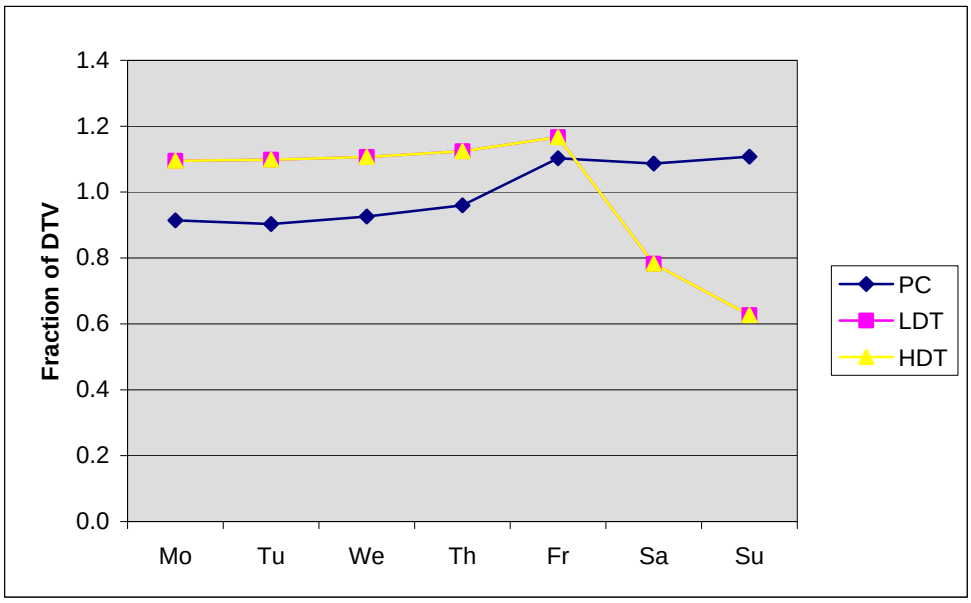
A 4.3.2 Annual Distribution According to BAST (monthly average)

PC: Type E, LDT and HDT: Type C



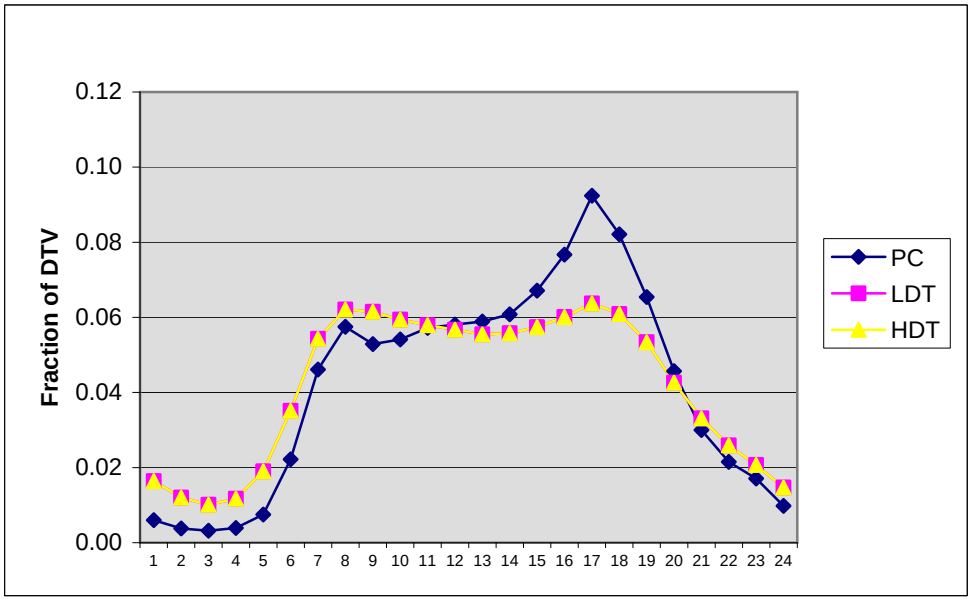
A 4.3.3 Weekly Distribution According to BAST

PC: Average Values of Type E and Type F, LDT and HDT: Type C



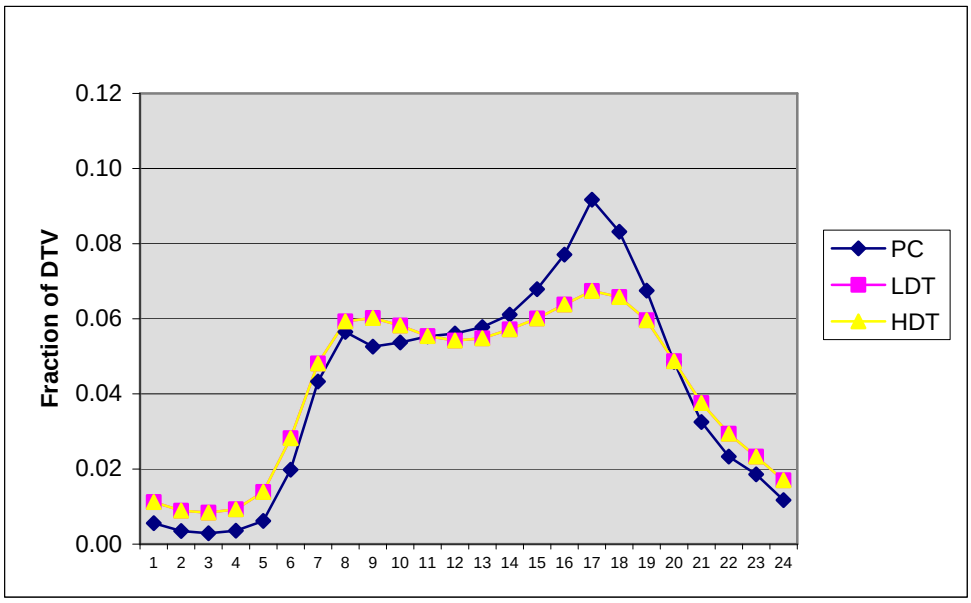
A 4.3.4 Traffic distributions on Monday According to BAST

PC: Type E, LDT and HDT: Type C



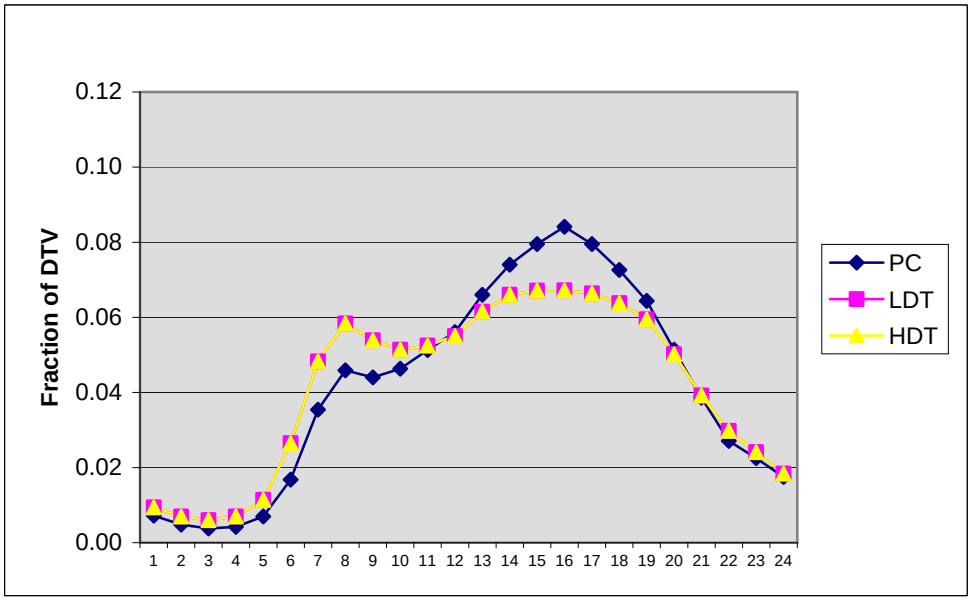
A 4.3.5 Traffic Distributions Tuesday to Thursday According to BAST

PC: Type E, LDT and HDT: Type C



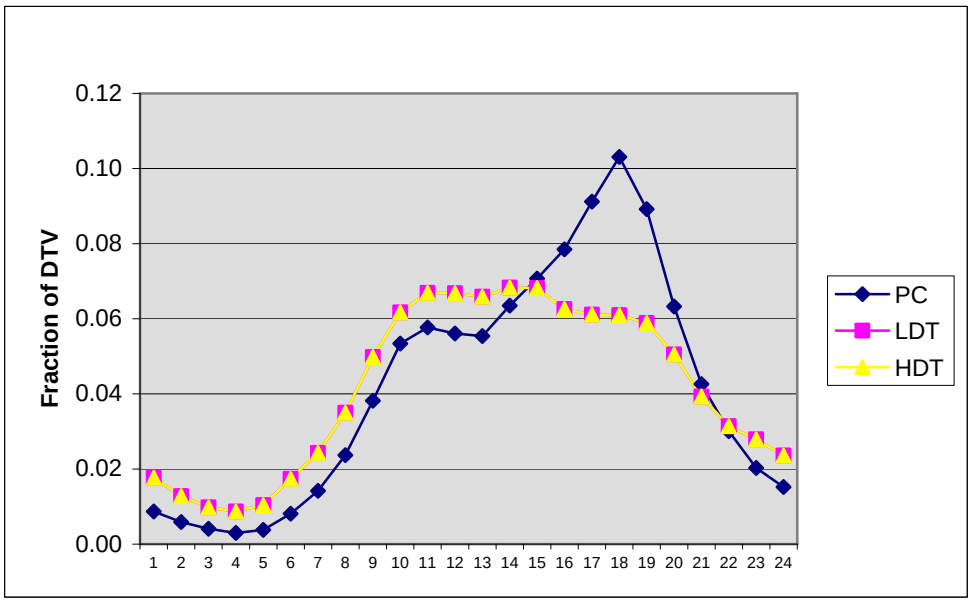
A 4.3.6 Traffic Distributions on Friday According to BAST

PC: Type E, LDT and HDT: Type C



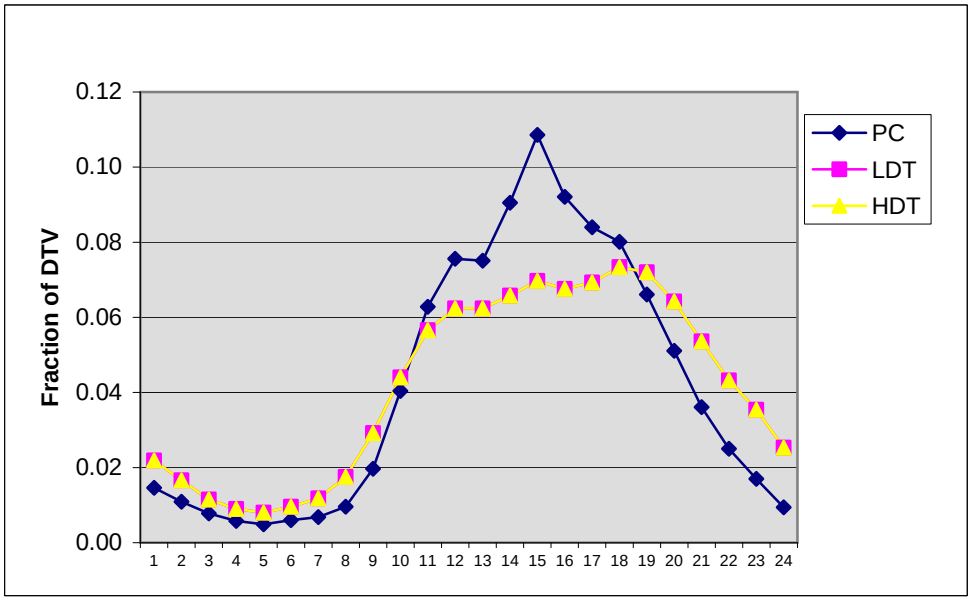
A 4.3.7 Traffic Distributions on Saturday According to BAST

PC: Type H, LDT and HDT: Type A



A 4.3.8 Traffic Distributions on Sunday According to BAST

PC: Type F, LDT and HDT: Type A



A 4.4 Basic Emission Factors

A 4.4.1 Exhaust Gases (Handbook Emission Factors), Reference Year 2004

Traffic situation	PC					
	v	Emission factor [g/km]				
	[km/h]	CO2	NOx	Benzene	Particles	SO2
AB_100	110.0	181.3	0.305	0.00289	0.01189	0.00091
AO_1	76.7	144.7	0.247	0.00332	0.00668	0.00073
AO_2	67.6	145.0	0.236	0.00346	0.00749	0.00073
AO_3	60.6	151.4	0.257	0.00425	0.00861	0.00076
IO_HVS1	58.4	146.1	0.239	0.00399	0.00869	0.00074
IO_HVS2	46.2	163.7	0.241	0.00440	0.00785	0.00083
IO_HVS3	39.1	174.3	0.251	0.00506	0.00806	0.00088
IO_LSA1	39.1	174.3	0.251	0.00506	0.00806	0.00088
IO_Kern	19.9	208.9	0.278	0.00749	0.00839	0.00105
IO_Nebenstr_locker	32.0	184.8	0.261	0.00572	0.00828	0.00093

Traffic situation	LDT					
	v	Emission factor [g/km]				
	[km/h]	CO2	NOx	Benzene	Particles	SO2
AB_100	110.0	268.2	0.949	0.00254	0.08909	0.00135
AO_1	76.7	190.7	0.573	0.00224	0.04439	0.00096
AO_2	67.6	189.0	0.545	0.00253	0.04577	0.00095
AO_3	60.6	196.0	0.554	0.00297	0.05154	0.00099
IO_HVS1	58.4	187.0	0.517	0.00311	0.04618	0.00094
IO_HVS2	46.2	195.9	0.525	0.00378	0.04275	0.00099
IO_HVS3	39.1	205.4	0.548	0.00440	0.04481	0.00104
IO_LSA1	39.1	205.4	0.548	0.00440	0.04481	0.00104
IO_Kern	19.9	418.7	1.089	0.00828	0.09016	0.00211
IO_Nebenstr_locker	32.0	215.0	0.570	0.00502	0.04687	0.00108

Traffic situation	HDT					
	v	Emission factor [g/km]				
	[km/h]	CO2	NOx	Benzene	Particles	SO2
AB_100	86.2	621.1	6.605	0.00501	0.13208	0.00313
AO_1	72.7	530.3	6.045	0.00463	0.13733	0.00267
AO_2	66.1	538.0	6.224	0.00466	0.13953	0.00271
AO_3	56.6	569.7	6.620	0.00560	0.15259	0.00287
IO_HVS1	53.3	493.5	5.774	0.00568	0.14276	0.00249
IO_HVS2	38.5	601.8	6.908	0.00841	0.19113	0.00303
IO_HVS3	32.9	664.6	7.548	0.00983	0.21851	0.00335
IO_LSA1	32.9	664.6	7.548	0.00983	0.21851	0.00335
IO_Kern	14.4	811.2	9.231	0.01708	0.34347	0.00409
IO_Nebenstr_locker	18.1	819.8	9.160	0.01394	0.29544	0.00413

A 4.4.2 Exhaust Gases (Handbook Emission Factors), Reference Year 2010

Traffic situation	PC					
	v	Emission factor [g/km]				
	[km/h]	CO2	NOx	Benzene	Particles	SO2
AB_100	110.0	166.9	0.201	0.00133	0.00896	0.00084
AO_1	76.7	128.7	0.148	0.00103	0.00575	0.00065
AO_2	67.5	129.4	0.149	0.00101	0.00602	0.00065
AO_3	60.6	134.4	0.160	0.00111	0.00661	0.00068
IO_HVS1	58.4	130.9	0.155	0.00110	0.00661	0.00066
IO_HVS2	46.2	145.2	0.148	0.00108	0.00626	0.00073
IO_HVS3	39.1	153.7	0.157	0.00122	0.00657	0.00077
IO_LSA1	39.1	153.7	0.157	0.00122	0.00657	0.00077
IO_Kern	19.9	175.9	0.174	0.00159	0.00668	0.00089
IO_Nebenstr_locker	32.0	162.2	0.166	0.00137	0.00689	0.00082

Traffic situation	LDT					
	v	Emission factor [g/km]				
	[km/h]	CO2	NOx	Benzene	Particles	SO2
AB_100	110.0	265.7	0.642	0.00120	0.04983	0.00134
AO_1	76.7	188.0	0.377	0.00077	0.02560	0.00095
AO_2	67.6	186.6	0.362	0.00090	0.02612	0.00094
AO_3	60.6	193.7	0.372	0.00109	0.02929	0.00098
IO_HVS1	58.4	184.9	0.346	0.00110	0.02618	0.00093
IO_HVS2	46.2	193.0	0.350	0.00125	0.02421	0.00097
IO_HVS3	39.1	202.1	0.366	0.00143	0.02540	0.00102
IO_LSA1	39.1	202.1	0.366	0.00143	0.02540	0.00102
IO_Kern	19.9	415.1	0.741	0.00288	0.05119	0.00209
IO_Nebenstr_locker	32.0	211.2	0.382	0.00162	0.02660	0.00106

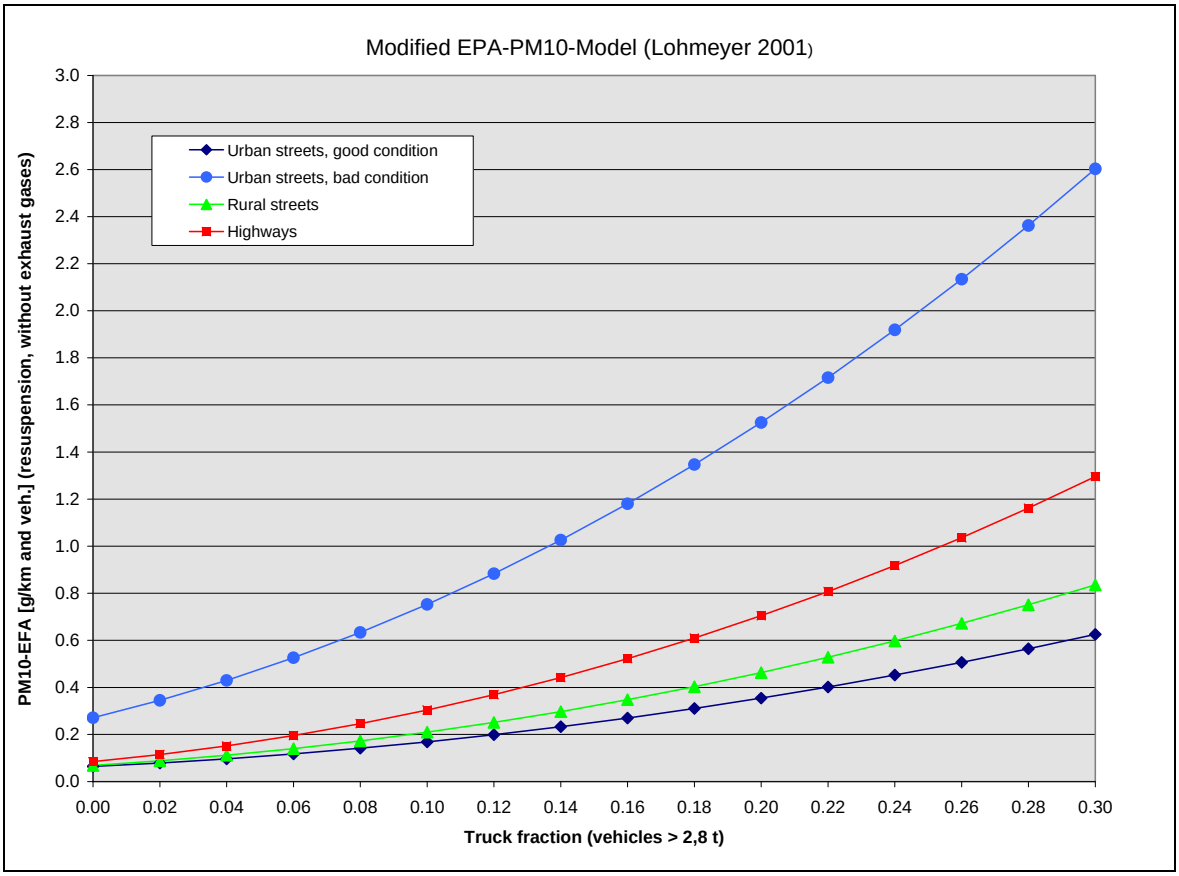
Traffic situation	HDT					
	v	Emission factor [g/km]				
	[km/h]	CO2	NOx	Benzene	Particles	SO2
AB_100	86.2	643.5	3.866	0.00546	0.07155	0.00324
AO_1	72.7	549.1	4.050	0.00444	0.07680	0.00277
AO_2	66.1	557.8	4.400	0.00435	0.08082	0.00281
AO_3	56.6	590.7	4.769	0.00516	0.09002	0.00298
IO_HVS1	53.3	503.8	4.158	0.00480	0.08274	0.00254
IO_HVS2	38.5	613.2	5.006	0.00699	0.11068	0.00309
IO_HVS3	32.9	676.7	5.463	0.00813	0.12601	0.00341
IO_LSA1	32.9	676.7	5.463	0.00813	0.12601	0.00341
IO_Kern	14.4	814.3	6.773	0.01378	0.19184	0.00410
IO_Nebenstr_locker	18.1	832.1	6.631	0.01140	0.16847	0.00419

A 4.4.3 Estimation of PM_{10} Emission Factors for Dust Resuspension on Paved Roads

Source		Parameters				Total factor from parameters	Input data for average weight W [t]		
		Correction factor a	Basic EFA [g/km]	Silt load sL [g/m²]	No. of rainy days		PC	LDT	HDT
Urban streets									
good condition	PM_IOG	0.8	0.18	0.2	100	0.0633	1.1	1.9	9.0
bad condition	PM_IOS	2.0	0.18	0.4	100	0.2270	1.1	1.9	9.0
Rural streets	PM_AO	1.0	0.18	0.1	100	0.0552	1.2	2.0	11.0
Highways	PM_AB	1.0	0.18	0.1	100	0.0552	1.3	2.1	13.0

Annotations:

1) The EPA formula is only valid for an average weight of vehicle fleet, not for separate vehicles (PC, trucks) !
2) For estimation of the emission factors for dust resuspension the following exhaust gas emissions of the reference year 2000 have to be subtracted:
   0.016 g/km for PC/LDT
   0.492 g/km for HDT



A 4.5 Emission Factors of Road Traffic

A 4.5.1 Actual Scenario

Road lane / traffic situation	Vehicle class	Speed [km/h]	Number	Emission factor per vehicle							
				CO2	NOx	Benzene	Soot	PM10 [g/km]			SO2
				[g/km]	[g/km]	[g/km]	[g/km]	exhaust	resusp.	total	[g/km]
B75	Veh.	106.4	19,000						0.5270		
Lane nstr1	PC	110.0	15,376	181.3	0.305	0.00289	0.00714	0.01189		0.5388	0.00091
AB_100	LDT	110.0	782	268.2	0.949	0.00254	0.05346	0.08909		0.6160	0.00135
PM_AB	HDT	86.2	2,842	621.1	6.605	0.00501	0.05283	0.13208		0.6590	0.00313
B75	Veh.	108.5	11,000						0.2102		
Lane nstr2	PC	110.0	9,974	181.3	0.305	0.00289	0.00714	0.01189		0.2221	0.00091
AB_100	LDT	110.0	348	268.2	0.949	0.00254	0.05346	0.08909		0.2993	0.00135
PM_AB	HDT	86.2	678	621.1	6.605	0.00501	0.05283	0.13208		0.3423	0.00313
B75/AS Skandikai	Veh.	67.1	8,500						0.9247		
Lane nstr3	PC	67.6	5,635	145.0	0.236	0.00346	0.00449	0.00749		0.9322	0.00073
AO_2	LDT	67.6	471	189.0	0.545	0.00253	0.02746	0.04577		0.9705	0.00095
PM_AO	HDT	66.1	2,394	538.0	6.224	0.00466	0.05581	0.13953		1.0642	0.00271
B75/AS Skandikai	Veh.	59.6	4,100						0.7510		
Lane nstr4	PC	60.6	2,878	151.4	0.257	0.00425	0.00517	0.00861		0.7596	0.00076
AO_3	LDT	60.6	212	196.0	0.554	0.00297	0.03092	0.05154		0.8025	0.00099
PM_AO	HDT	56.6	1,010	569.7	6.620	0.00560	0.06104	0.15259		0.9036	0.00287
B75/AS Skandikai	Veh.	59.5	4,100						0.9250		
Lane nstr5	PC	60.6	2,718	151.4	0.257	0.00425	0.00517	0.00861		0.9336	0.00076
AO_3	LDT	60.6	227	196.0	0.554	0.00297	0.03092	0.05154		0.9765	0.00099
PM_AO	HDT	56.6	1,155	569.7	6.620	0.00560	0.06104	0.15259		1.0776	0.00287
B75/AS Skandikai	Veh.	58.2	150						3.2763		
Lane nstr6	PC	60.6	49	151.4	0.257	0.00425	0.00517	0.00861		3.2849	0.00076
AO_3	LDT	60.6	13	196.0	0.554	0.00297	0.03092	0.05154		3.3278	0.00099
PM_AO	HDT	56.6	88	569.7	6.620	0.00560	0.06104	0.15259		3.4289	0.00287
B75/AS Skandikai	Veh.	66.7	160						2.9747		
Lane nstr7	PC	67.6	57	145.0	0.236	0.00346	0.00449	0.00749		2.9822	0.00073
AO_2	LDT	67.6	14	189.0	0.545	0.00253	0.02746	0.04577		3.0205	0.00095
PM_AO	HDT	66.1	89	538.0	6.224	0.00466	0.05581	0.13953		3.1142	0.00271
B76	Veh.	76.6	10,000						0.0993		
Lane nstr8	PC	76.7	9,457	144.7	0.247	0.00332	0.00401	0.00668		0.1060	0.00073
AO_1	LDT	76.7	279	190.7	0.573	0.00224	0.02664	0.04439		0.1437	0.00096
PM_AO	HDT	72.7	264	530.3	6.045	0.00463	0.05493	0.13733		0.2367	0.00267
B76	Veh.	76.6	10,000						0.0993		
Lane nstr9	PC	76.7	9,457	144.7	0.247	0.00332	0.00401	0.00668		0.1060	0.00073
AO_1	LDT	76.7	279	190.7	0.573	0.00224	0.02664	0.04439		0.1437	0.00096
PM_AO	HDT	72.7	264	530.3	6.045	0.00463	0.05493	0.13733		0.2367	0.00267
Travemünder Landstr.	Veh.	76.0	2,800						0.4634		
Lane nstr10	PC	76.7	2,184	144.7	0.247	0.00332	0.00401	0.00668		0.4700	0.00073
AO_1	LDT	76.7	123	190.7	0.573	0.00224	0.02664	0.04439		0.5077	0.00096
PM_AO	HDT	72.7	493	530.3	6.045	0.00463	0.05493	0.13733		0.6007	0.00267
Travemünder Landstr.	Veh.	75.9	2,200						0.5281		
Lane nstr11	PC	76.7	1,673	144.7	0.247	0.00332	0.00401	0.00668		0.5348	0.00073
AO_1	LDT	76.7	101	190.7	0.573	0.00224	0.02664	0.04439		0.5725	0.00096
PM_AO	HDT	72.7	426	530.3	6.045	0.00463	0.05493	0.13733		0.6654	0.00267
Travemünder Landstr.	Veh.	75.7	9,800						0.7107		
Lane nstr12	PC	76.7	6,976	144.7	0.247	0.00332	0.00401	0.00668		0.7174	0.00073
AO_1	LDT	76.7	496	190.7	0.573	0.00224	0.02664	0.04439		0.7551	0.00096
PM_AO	HDT	72.7	2,328	530.3	6.045	0.00463	0.05493	0.13733		0.8481	0.00267
Travemünder Landstr.	Veh.	75.7	9,600						0.7110		
Lane nstr13	PC	76.7	6,833	144.7	0.247	0.00332	0.00401	0.00668		0.7177	0.00073
AO_1	LDT	76.7	486	190.7	0.573	0.00224	0.02664	0.04439		0.7554	0.00096
PM_AO	HDT	72.7	2,281	530.3	6.045	0.00463	0.05493	0.13733		0.8483	0.00267
Travemünder Landstr.	Veh.	75.8	9,500						0.6341		
Lane nstr14	PC	76.7	6,947	144.7	0.247	0.00332	0.00401	0.00668		0.6408	0.00073
AO_1	LDT	76.7	463	190.7	0.573	0.00224	0.02664	0.04439		0.6785	0.00096
PM_AO	HDT	72.7	2,090	530.3	6.045	0.00463	0.05493	0.13733		0.7715	0.00267
Travemünder Landstr.	Veh.	38.7	7,500						0.1413		
Lane nstr15	PC	39.1	6,762	174.3	0.251	0.00506	0.00484	0.00806		0.1494	0.00088
IO_LSA1	LDT	39.1	216	205.4	0.548	0.00440	0.02689	0.04481		0.1861	0.00104
PM_IOG	HDT	32.9	522	664.6	7.548	0.00983	0.08740	0.21851		0.3598	0.00335
Travemünder Landstr.	Veh.	38.7	6,000						0.1288		
Lane nstr16	PC	39.1	5,469	174.3	0.251	0.00506	0.00484	0.00806		0.1368	0.00088
IO_LSA1	LDT	39.1	166	205.4	0.548	0.00440	0.02689	0.04481		0.1736	0.00104
PM_IOG	HDT	32.9	365	664.6	7.548	0.00983	0.08740	0.21851		0.3473	0.00335

Emission Factors of Road Traffic (Actual Scenario, continued)

Road lane / traffic situation	Vehicle class	Speed [km/h]	Number	Emission factor per vehicle							
				CO2	NOx	Benzene	Soot	PM10 [g/km]			SO2
				[g/km]	[g/km]	[g/km]	[g/km]	exhaust	resusp.	total	[g/km]
Travemünder Landstr.	Veh.	38.6	4,100						0.1545		
Lane nstr17	PC	39.1	3,656	174.3	0.251	0.00506	0.00484	0.00806		0.1626	0.00088
IO_LSA1	LDT	39.1	123	205.4	0.548	0.00440	0.02689	0.04481		0.1993	0.00104
PM_IOG	HDT	32.9	321	664.6	7.548	0.00983	0.08740	0.21851		0.3730	0.00335
Gneversdorfer Weg	Veh.	38.9	8,700						0.0872		
Lane nstr18	PC	39.1	8,270	174.3	0.251	0.00506	0.00484	0.00806		0.0952	0.00088
IO_LSA1	LDT	39.1	203	205.4	0.548	0.00440	0.02689	0.04481		0.1320	0.00104
PM_IOG	HDT	32.9	227	664.6	7.548	0.00983	0.08740	0.21851		0.3057	0.00335
Gneversdorfer Weg	Veh.	38.7	11,000						0.1413		
Lane nstr19	PC	39.1	9,917	174.3	0.251	0.00506	0.00484	0.00806		0.1494	0.00088
IO_LSA1	LDT	39.1	317	205.4	0.548	0.00440	0.02689	0.04481		0.1862	0.00104
PM_IOG	HDT	32.9	766	664.6	7.548	0.00983	0.08740	0.21851		0.3599	0.00335
Gneversdorfer Weg	Veh.	58.0	12,000						0.1413		
Lane nstr20	PC	58.4	10,819	146.1	0.239	0.00399	0.00522	0.00869		0.1500	0.00074
IO_HVS1	LDT	58.4	346	187.0	0.517	0.00311	0.02771	0.04618		0.1875	0.00094
PM_IOG	HDT	53.3	835	493.5	5.774	0.00568	0.05710	0.14276		0.2840	0.00249
Gneversdorfer Weg	Veh.	58.0	14,100						0.1413		
Lane nstr21	PC	58.4	12,713	146.1	0.239	0.00399	0.00522	0.00869		0.1499	0.00074
IO_HVS1	LDT	58.4	406	187.0	0.517	0.00311	0.02771	0.04618		0.1874	0.00094
PM_IOG	HDT	53.3	981	493.5	5.774	0.00568	0.05710	0.14276		0.2840	0.00249
Ovendorfer Straße	Veh.	58.0	550						0.1542		
Lane nstr22	PC	58.4	491	146.1	0.239	0.00399	0.00522	0.00869		0.1629	0.00074
IO_HVS1	LDT	58.4	16	187.0	0.517	0.00311	0.02771	0.04618		0.2003	0.00094
PM_IOG	HDT	53.3	43	493.5	5.774	0.00568	0.05710	0.14276		0.2969	0.00249
Ovendorfer Straße	Veh.	57.9	330						0.1966		
Lane nstr23	PC	58.4	285	146.1	0.239	0.00399	0.00522	0.00869		0.2053	0.00074
IO_HVS1	LDT	58.4	11	187.0	0.517	0.00311	0.02771	0.04618		0.2428	0.00094
PM_IOG	HDT	53.3	34	493.5	5.774	0.00568	0.05710	0.14276		0.3393	0.00249
Ivendorfer Landstraße	Veh.	76.2	880						0.3214		
Lane nstr24	PC	76.7	729	144.7	0.247	0.00332	0.00401	0.00668		0.3281	0.00073
AO_1	LDT	76.7	35	190.7	0.573	0.00224	0.02664	0.04439		0.3658	0.00096
PM_AO	HDT	72.7	116	530.3	6.045	0.00463	0.05493	0.13733		0.4587	0.00267
Ivendorfer Landstraße	Veh.	57.8	1,300						0.2323		
Lane nstr25	PC	58.4	1,096	146.1	0.239	0.00399	0.00522	0.00869		0.2410	0.00074
IO_HVS1	LDT	58.4	46	187.0	0.517	0.00311	0.02771	0.04618		0.2785	0.00094
PM_IOG	HDT	53.3	158	493.5	5.774	0.00568	0.05710	0.14276		0.3750	0.00249
Ivendorfer Landstraße	Veh.	76.2	1,300						0.2967		
Lane nstr26	PC	76.7	1,090	144.7	0.247	0.00332	0.00401	0.00668		0.3034	0.00073
AO_1	LDT	76.7	50	190.7	0.573	0.00224	0.02664	0.04439		0.3411	0.00096
PM_AO	HDT	72.7	160	530.3	6.045	0.00463	0.05493	0.13733		0.4340	0.00267
Ivendorfer Landstraße	Veh.	57.9	1,700						0.1837		
Lane nstr27	PC	58.4	1,482	146.1	0.239	0.00399	0.00522	0.00869		0.1924	0.00074
IO_HVS1	LDT	58.4	55	187.0	0.517	0.00311	0.02771	0.04618		0.2299	0.00094
PM_IOG	HDT	53.3	163	493.5	5.774	0.00568	0.05710	0.14276		0.3265	0.00249
Teutendorfer Weg	Veh.	58.1	4,900						0.1173		
Lane nstr28	PC	58.4	4,514	146.1	0.239	0.00399	0.00522	0.00869		0.1260	0.00074
IO_HVS1	LDT	58.4	130	187.0	0.517	0.00311	0.02771	0.04618		0.1635	0.00094
PM_IOG	HDT	53.3	256	493.5	5.774	0.00568	0.05710	0.14276		0.2601	0.00249
Teutendorfer Weg	Veh.	58.2	4,700						0.1063		
Lane nstr29	PC	58.4	4,376	146.1	0.239	0.00399	0.00522	0.00869		0.1150	0.00074
IO_HVS1	LDT	58.4	120	187.0	0.517	0.00311	0.02771	0.04618		0.1525	0.00094
PM_IOG	HDT	53.3	204	493.5	5.774	0.00568	0.05710	0.14276		0.2491	0.00249
Teutendorfer Weg	Veh.	76.5	1,200						0.1256		
Lane nstr30	PC	76.7	1,111	144.7	0.247	0.00332	0.00401	0.00668		0.1323	0.00073
AO_1	LDT	76.7	36	190.7	0.573	0.00224	0.02664	0.04439		0.1700	0.00096
PM_AO	HDT	72.7	53	530.3	6.045	0.00463	0.05493	0.13733		0.2629	0.00267
Auf dem Baggersand	Veh.	19.7	5,100						0.1065		
Lane nstr31	PC	19.9	4,748	208.9	0.278	0.00749	0.00503	0.00839		0.1149	0.00105
IO_Kern	LDT	19.9	130	418.7	1.089	0.00828	0.05409	0.09016		0.1966	0.00211
PM_IOG	HDT	14.4	222	811.2	9.231	0.01708	0.13739	0.34347		0.4499	0.00409
Torstraße/ Kirchenstr.	Veh.	19.4	3,500						0.1688		
Lane nstr32	PC	19.9	3,086	208.9	0.278	0.00749	0.00503	0.00839		0.1772	0.00105
IO_Kern	LDT	19.9	109	418.7	1.089	0.00828	0.05409	0.09016		0.2590	0.00211
PM_IOG	HDT	14.4	305	811.2	9.231	0.01708	0.13739	0.34347		0.5123	0.00409

Emission Factors of Road Traffic (Actual Scenario, continued)

Road lane / traffic situation	Vehicle class	Speed [km/h]	Number	Emission factor per vehicle							
				CO2	NOx	Benzene	Soot	PM10 [g/km]			SO2
				[g/km]	[g/km]	[g/km]	[g/km]	exhaust	resusp.	total	[g/km]
St .Lorenz Straße	Veh.	19.2	2,500						0.2507		
Lane nstr33	PC	19.9	2,083	208.9	0.278	0.00749	0.00503	0.00839		0.2591	0.00105
IO_Kern	LDT	19.9	91	418.7	1.089	0.00828	0.05409	0.09016		0.3409	0.00211
PM_IOG	HDT	14.4	326	811.2	9.231	0.01708	0.13739	0.34347		0.5942	0.00409
Vogteistraße	Veh.	19.7	2,500						0.0964		
Lane nstr34	PC	19.9	2,352	208.9	0.278	0.00749	0.00503	0.00839		0.1048	0.00105
IO_Kern	LDT	19.9	61	418.7	1.089	0.00828	0.05409	0.09016		0.1866	0.00211
PM_IOG	HDT	14.4	87	811.2	9.231	0.01708	0.13739	0.34347		0.4399	0.00409
Mühlenberg	Veh.	31.8	1,500						0.0786		
Lane nstr35	PC	32.0	1,441	184.8	0.261	0.00572	0.00497	0.00828		0.0869	0.00093
IO_Nebenstr_locker	LDT	32.0	33	215.0	0.570	0.00502	0.02812	0.04687		0.1255	0.00108
PM_IOG	HDT	18.1	26	819.8	9.160	0.01394	0.11817	0.29544		0.3740	0.00413
Mühlenberg	Veh.	31.8	1,500						0.0786		
Lane nstr36	PC	32.0	1,441	184.8	0.261	0.00572	0.00497	0.00828		0.0869	0.00093
IO_Nebenstr_locker	LDT	32.0	33	215.0	0.570	0.00502	0.02812	0.04687		0.1255	0.00108
PM_IOG	HDT	18.1	26	819.8	9.160	0.01394	0.11817	0.29544		0.3740	0.00413
Moorredder	Veh.	38.8	9,000						0.1173		
Lane nstr37	PC	39.1	8,291	174.3	0.251	0.00506	0.00484	0.00806		0.1253	0.00088
IO_LSA1	LDT	39.1	239	205.4	0.548	0.00440	0.02689	0.04481		0.1621	0.00104
PM_IOG	HDT	32.9	470	664.6	7.548	0.00983	0.08740	0.21851		0.3358	0.00335
Moorredder	Veh.	38.8	9,000						0.1173		
Lane nstr38	PC	39.1	8,291	174.3	0.251	0.00506	0.00484	0.00806		0.1253	0.00088
IO_LSA1	LDT	39.1	239	205.4	0.548	0.00440	0.02689	0.04481		0.1621	0.00104
PM_IOG	HDT	32.9	470	664.6	7.548	0.00983	0.08740	0.21851		0.3358	0.00335
Howingsbrook	Veh.	58.1	4,500						0.1289		
Lane nstr39	PC	58.4	4,101	146.1	0.239	0.00399	0.00522	0.00869		0.1376	0.00074
IO_HVS1	LDT	58.4	125	187.0	0.517	0.00311	0.02771	0.04618		0.1751	0.00094
PM_IOG	HDT	53.3	274	493.5	5.774	0.00568	0.05710	0.14276		0.2716	0.00249
Howingsbrook	Veh.	58.3	1,700						0.0870		
Lane nstr40	PC	58.4	1,616	146.1	0.239	0.00399	0.00522	0.00869		0.0957	0.00074
IO_HVS1	LDT	58.4	40	187.0	0.517	0.00311	0.02771	0.04618		0.1332	0.00094
PM_IOG	HDT	53.3	44	493.5	5.774	0.00568	0.05710	0.14276		0.2297	0.00249
Vorderreihe	Veh.	19.4	1,000						0.1685		
Lane nstr41	PC	19.9	882	208.9	0.278	0.00749	0.00503	0.00839		0.1769	0.00105
IO_Kern	LDT	19.9	31	418.7	1.089	0.00828	0.05409	0.09016		0.2587	0.00211
PM_IOG	HDT	14.4	87	811.2	9.231	0.01708	0.13739	0.34347		0.5120	0.00409
Vorderreihe	Veh.	19.7	500						0.1071		
Lane nstr42	PC	19.9	465	208.9	0.278	0.00749	0.00503	0.00839		0.1155	0.00105
IO_Kern	LDT	19.9	13	418.7	1.089	0.00828	0.05409	0.09016		0.1973	0.00211
PM_IOG	HDT	14.4	22	811.2	9.231	0.01708	0.13739	0.34347		0.4506	0.00409
Außenallee	Veh.	45.6	4,200						0.1546		
Lane nstr43	PC	46.2	3,745	163.7	0.241	0.00440	0.00471	0.00785		0.1624	0.00083
IO_HVS2	LDT	46.2	126	195.9	0.525	0.00378	0.02565	0.04275		0.1973	0.00099
PM_IOG	HDT	38.5	329	601.8	6.908	0.00841	0.07645	0.19113		0.3457	0.00303
Außenallee	Veh.	46.1	4,800						0.0788		
Lane nstr44	PC	46.2	4,609	163.7	0.241	0.00440	0.00471	0.00785		0.0867	0.00083
IO_HVS2	LDT	46.2	107	195.9	0.525	0.00378	0.02565	0.04275		0.1216	0.00099
PM_IOG	HDT	38.5	84	601.8	6.908	0.00841	0.07645	0.19113		0.2699	0.00303
Trelleborgallee	Veh.	30.9	2,200						0.1543		
Lane nstr45	PC	32.0	1,962	184.8	0.261	0.00572	0.00497	0.00828		0.1626	0.00093
IO_Nebenstr_locker	LDT	32.0	66	215.0	0.570	0.00502	0.02812	0.04687		0.2012	0.00108
PM_IOG	HDT	18.1	172	819.8	9.160	0.01394	0.11817	0.29544		0.4498	0.00413
Kurgartenstraße	Veh.	19.4	2,000						0.1685		
Lane nstr46	PC	19.9	1,764	208.9	0.278	0.00749	0.00503	0.00839		0.1769	0.00105
IO_Kern	LDT	19.9	62	418.7	1.089	0.00828	0.05409	0.09016		0.2587	0.00211
PM_IOG	HDT	14.4	174	811.2	9.231	0.01708	0.13739	0.34347		0.5120	0.00409
Kurgartenstraße	Veh.	19.4	2,000						0.1685		
Lane nstr47	PC	19.9	1,764	208.9	0.278	0.00749	0.00503	0.00839		0.1769	0.00105
IO_Kern	LDT	19.9	62	418.7	1.089	0.00828	0.05409	0.09016		0.2587	0.00211
PM_IOG	HDT	14.4	174	811.2	9.231	0.01708	0.13739	0.34347		0.5120	0.00409
Am Lotsenberg	Veh.	19.3	4,300						0.2153		
Lane nstr48	PC	19.9	3,667	208.9	0.278	0.00749	0.00503	0.00839		0.2237	0.00105
IO_Kern	LDT	19.9	147	418.7	1.089	0.00828	0.05409	0.09016		0.3055	0.00211
PM_IOG	HDT	14.4	486	811.2	9.231	0.01708	0.13739	0.34347		0.5588	0.00409

Emission Factors of Road Traffic (Actual Scenario, continued)

Road lane / traffic situation	Vehicle class	Speed [km/h]	Number	Emission factor per vehicle							
				CO2	NOx	Benzene	Soot	PM10 [g/km]			SO2
				[g/km]	[g/km]	[g/km]	[g/km]	exhaust	resusp.	total	[g/km]
Am Lotsenberg	Veh.	19.3	4,300						0.2153		
Lane nstr49	PC	19.9	3,667	208.9	0.278	0.00749	0.00503	0.00839		0.2237	0.00105
IO_Kern	LDT	19.9	147	418.7	1.089	0.00828	0.05409	0.09016		0.3055	0.00211
PM_IOG	HDT	14.4	486	811.2	9.231	0.01708	0.13739	0.34347		0.5588	0.00409
Straße Neu	Veh.	19.3	4,300						0.2153		
Lane nstr50	PC	19.9	3,667	208.9	0.278	0.00749	0.00503	0.00839		0.2237	0.00105
IO_Kern	LDT	19.9	147	418.7	1.089	0.00828	0.05409	0.09016		0.3055	0.00211
PM_IOG	HDT	14.4	486	811.2	9.231	0.01708	0.13739	0.34347		0.5588	0.00409
Rose	Veh.	19.4	1,000						0.1685		
Lane nstr51	PC	19.9	882	208.9	0.278	0.00749	0.00503	0.00839		0.1769	0.00105
IO_Kern	LDT	19.9	31	418.7	1.089	0.00828	0.05409	0.09016		0.2587	0.00211
PM_IOG	HDT	14.4	87	811.2	9.231	0.01708	0.13739	0.34347		0.5120	0.00409
Rose	Veh.	19.7	3,000						0.1067		
Lane nstr52	PC	19.9	2,792	208.9	0.278	0.00749	0.00503	0.00839		0.1151	0.00105
IO_Kern	LDT	19.9	77	418.7	1.089	0.00828	0.05409	0.09016		0.1968	0.00211
PM_IOG	HDT	14.4	131	811.2	9.231	0.01708	0.13739	0.34347		0.4501	0.00409
Rose	Veh.	31.8	2,300						0.0787		
Lane nstr53	PC	32.0	2,209	184.8	0.261	0.00572	0.00497	0.00828		0.0870	0.00093
IO_Nebenstr_locker	LDT	32.0	51	215.0	0.570	0.00502	0.02812	0.04687		0.1256	0.00108
PM_IOG	HDT	18.1	40	819.8	9.160	0.01394	0.11817	0.29544		0.3741	0.00413
Rose	Veh.	31.8	1,400						0.0785		
Lane nstr54	PC	32.0	1,345	184.8	0.261	0.00572	0.00497	0.00828		0.0867	0.00093
IO_Nebenstr_locker	LDT	32.0	31	215.0	0.570	0.00502	0.02812	0.04687		0.1253	0.00108
PM_IOG	HDT	18.1	24	819.8	9.160	0.01394	0.11817	0.29544		0.3739	0.00413
Rose	Veh.	31.8	1,500						0.0786		
Lane nstr55	PC	32.0	1,441	184.8	0.261	0.00572	0.00497	0.00828		0.0869	0.00093
IO_Nebenstr_locker	LDT	32.0	33	215.0	0.570	0.00502	0.02812	0.04687		0.1255	0.00108
PM_IOG	HDT	18.1	26	819.8	9.160	0.01394	0.11817	0.29544		0.3740	0.00413
Fehlingstraße	Veh.	31.9	1,300						0.0708		
Lane nstr56	PC	32.0	1,262	184.8	0.261	0.00572	0.00497	0.00828		0.0790	0.00093
IO_Nebenstr_locker	LDT	32.0	27	215.0	0.570	0.00502	0.02812	0.04687		0.1176	0.00108
PM_IOG	HDT	18.1	11	819.8	9.160	0.01394	0.11817	0.29544		0.3662	0.00413
Fehlingstraße	Veh.	31.8	1,200						0.0788		
Lane nstr57	PC	32.0	1,152	184.8	0.261	0.00572	0.00497	0.00828		0.0871	0.00093
IO_Nebenstr_locker	LDT	32.0	27	215.0	0.570	0.00502	0.02812	0.04687		0.1257	0.00108
PM_IOG	HDT	18.1	21	819.8	9.160	0.01394	0.11817	0.29544		0.3743	0.00413
Fehlingstraße	Veh.	31.3	1,100						0.1167		
Lane nstr58	PC	32.0	1,014	184.8	0.261	0.00572	0.00497	0.00828		0.1250	0.00093
IO_Nebenstr_locker	LDT	32.0	29	215.0	0.570	0.00502	0.02812	0.04687		0.1636	0.00108
PM_IOG	HDT	18.1	57	819.8	9.160	0.01394	0.11817	0.29544		0.4122	0.00413
Am Fahrenberg	Veh.	38.8	6,800						0.1065		
Lane nstr59	PC	39.1	6,331	174.3	0.251	0.00506	0.00484	0.00806		0.1145	0.00088
IO_LSA1	LDT	39.1	173	205.4	0.548	0.00440	0.02689	0.04481		0.1513	0.00104
PM_IOG	HDT	32.9	296	664.6	7.548	0.00983	0.08740	0.21851		0.3250	0.00335
Bertlingstraße	Veh.	38.7	6,800						0.1412		
Lane nstr60	PC	39.1	6,131	174.3	0.251	0.00506	0.00484	0.00806		0.1493	0.00088
IO_LSA1	LDT	39.1	196	205.4	0.548	0.00440	0.02689	0.04481		0.1860	0.00104
PM_IOG	HDT	32.9	473	664.6	7.548	0.00983	0.08740	0.21851		0.3597	0.00335
Godewind	Veh.	38.6	6,400						0.1545		
Lane nstr61	PC	39.1	5,708	174.3	0.251	0.00506	0.00484	0.00806		0.1625	0.00088
IO_LSA1	LDT	39.1	191	205.4	0.548	0.00440	0.02689	0.04481		0.1993	0.00104
PM_IOG	HDT	32.9	501	664.6	7.548	0.00983	0.08740	0.21851		0.3730	0.00335
Godewind	Veh.	38.7	6,300						0.1290		
Lane nstr62	PC	39.1	5,741	174.3	0.251	0.00506	0.00484	0.00806		0.1370	0.00088
IO_HVS3	LDT	39.1	175	205.4	0.548	0.00440	0.02689	0.04481		0.1738	0.00104
PM_IOG	HDT	32.9	384	664.6	7.548	0.00983	0.08740	0.21851		0.3475	0.00335
Godewind	Veh.	31.0	1,300						0.1407		
Lane nstr63	PC	32.0	1,173	184.8	0.261	0.00572	0.00497	0.00828		0.1490	0.00093
IO_Nebenstr_locker	LDT	32.0	37	215.0	0.570	0.00502	0.02812	0.04687		0.1876	0.00108
PM_IOG	HDT	18.1	90	819.8	9.160	0.01394	0.11817	0.29544		0.4361	0.00413
Steuerbord	Veh.	31.0	1,300						0.1407		
Lane nstr64	PC	32.0	1,173	184.8	0.261	0.00572	0.00497	0.00828		0.1490	0.00093
IO_Nebenstr_locker	LDT	32.0	37	215.0	0.570	0.00502	0.02812	0.04687		0.1876	0.00108
PM_IOG	HDT	18.1	90	819.8	9.160	0.01394	0.11817	0.29544		0.4361	0.00413
Kaiserallee	Veh.	38.9	2,200						0.0870		
Lane nstr65	PC	39.1	2,092	174.3	0.251	0.00506	0.00484	0.00806		0.0950	0.00088
IO_HVS3	LDT	39.1	51	205.4	0.548	0.00440	0.02689	0.04481		0.1318	0.00104
PM_IOG	HDT	32.9	57	664.6	7.548	0.00983	0.08740	0.21851		0.3055	0.00335

Emission Factors of Road Traffic (Actual Scenario, continued)

Road lane / traffic situation	Vehicle class	Speed [km/h]	Number	Emission factor per vehicle							
				CO2	NOx	Benzene	Soot	PM10 [g/km]			SO2
				[g/km]	[g/km]	[g/km]	[g/km]	exhaust	resusp.	total	[g/km]
Kaiserallee	Veh.	31.6	2,000						0.0871		
Lane nstr66	PC	32.0	1,901	184.8	0.261	0.00572	0.00497	0.00828		0.0954	0.00093
IO_Nebenstr_locker	LDT	32.0	47	215.0	0.570	0.00502	0.02812	0.04687		0.1340	0.00108
PM_IOG	HDT	18.1	52	819.8	9.160	0.01394	0.11817	0.29544		0.3825	0.00413
Strandweg	Veh.	31.9	1,000						0.0712		
Lane nstr67	PC	32.0	970	184.8	0.261	0.00572	0.00497	0.00828		0.0795	0.00093
IO_Nebenstr_locker	LDT	32.0	21	215.0	0.570	0.00502	0.02812	0.04687		0.1181	0.00108
PM_IOG	HDT	18.1	9	819.8	9.160	0.01394	0.11817	0.29544		0.3667	0.00413
Strandredder	Veh.	31.9	1,000						0.0712		
Lane nstr68	PC	32.0	970	184.8	0.261	0.00572	0.00497	0.00828		0.0795	0.00093
IO_Nebenstr_locker	LDT	32.0	21	215.0	0.570	0.00502	0.02812	0.04687		0.1181	0.00108
PM_IOG	HDT	18.1	9	819.8	9.160	0.01394	0.11817	0.29544		0.3667	0.00413
Strandredder	Veh.	31.9	1,000						0.0712		
Lane nstr69	PC	32.0	970	184.8	0.261	0.00572	0.00497	0.00828		0.0795	0.00093
IO_Nebenstr_locker	LDT	32.0	21	215.0	0.570	0.00502	0.02812	0.04687		0.1181	0.00108
PM_IOG	HDT	18.1	9	819.8	9.160	0.01394	0.11817	0.29544		0.3667	0.00413
Alfred-Hagelstein-Str.	Veh.	31.5	1,000						0.0966		
Lane nstr70	PC	32.0	941	184.8	0.261	0.00572	0.00497	0.00828		0.1048	0.00093
IO_Nebenstr_locker	LDT	32.0	24	215.0	0.570	0.00502	0.02812	0.04687		0.1434	0.00108
PM_IOG	HDT	18.1	35	819.8	9.160	0.01394	0.11817	0.29544		0.3920	0.00413
Steenkamp	Veh.	38.7	1,000						0.1291		
Lane nstr71	PC	39.1	911	174.3	0.251	0.00506	0.00484	0.00806		0.1371	0.00088
IO_LSA1	LDT	39.1	28	205.4	0.548	0.00440	0.02689	0.04481		0.1739	0.00104
PM_IOG	HDT	32.9	61	664.6	7.548	0.00983	0.08740	0.21851		0.3476	0.00335
Steenkamp	Veh.	46.0	2,800						0.0871		
Lane nstr72	PC	46.2	2,662	163.7	0.241	0.00440	0.00471	0.00785		0.0950	0.00083
IO_HVS2	LDT	46.2	65	195.9	0.525	0.00378	0.02565	0.04275		0.1299	0.00099
PM_IOG	HDT	38.5	73	601.8	6.908	0.00841	0.07645	0.19113		0.2783	0.00303
Steenkamp	Veh.	45.9	2,200						0.0967		
Lane nstr73	PC	46.2	2,069	163.7	0.241	0.00440	0.00471	0.00785		0.1045	0.00083
IO_HVS2	LDT	46.2	54	195.9	0.525	0.00378	0.02565	0.04275		0.1394	0.00099
PM_IOG	HDT	38.5	77	601.8	6.908	0.00841	0.07645	0.19113		0.2878	0.00303
Steenkamp	Veh.	58.3	1,700						0.0870		
Lane nstr74	PC	58.4	1,616	146.1	0.239	0.00399	0.00522	0.00869		0.0957	0.00074
IO_HVS1	LDT	58.4	40	187.0	0.517	0.00311	0.02771	0.04618		0.1332	0.00094
PM_IOG	HDT	53.3	44	493.5	5.774	0.00568	0.05710	0.14276		0.2297	0.00249
Kowitzberg	Veh.	31.3	1,600						0.1177		
Lane nstr75	PC	32.0	1,473	184.8	0.261	0.00572	0.00497	0.00828		0.1260	0.00093
IO_Nebenstr_locker	LDT	32.0	43	215.0	0.570	0.00502	0.02812	0.04687		0.1646	0.00108
PM_IOG	HDT	18.1	84	819.8	9.160	0.01394	0.11817	0.29544		0.4131	0.00413
Kowitzberg	Veh.	31.9	1,000						0.0712		
Lane nstr76	PC	32.0	970	184.8	0.261	0.00572	0.00497	0.00828		0.0795	0.00093
IO_Nebenstr_locker	LDT	32.0	21	215.0	0.570	0.00502	0.02812	0.04687		0.1181	0.00108
PM_IOG	HDT	18.1	9	819.8	9.160	0.01394	0.11817	0.29544		0.3667	0.00413
Wedenberg	Veh.	76.6	1,000						0.1115		
Lane nstr77	PC	76.7	936	144.7	0.247	0.00332	0.00401	0.00668		0.1182	0.00073
AO_1	LDT	76.7	29	190.7	0.573	0.00224	0.02664	0.04439		0.1559	0.00096
PM_AO	HDT	72.7	35	530.3	6.045	0.00463	0.05493	0.13733		0.2488	0.00267
Rödsaal	Veh.	76.5	1,300						0.1555		
Lane nstr78	PC	76.7	1,179	144.7	0.247	0.00332	0.00401	0.00668		0.1621	0.00073
AO_1	LDT	76.7	41	190.7	0.573	0.00224	0.02664	0.04439		0.1999	0.00096
PM_AO	HDT	72.7	80	530.3	6.045	0.00463	0.05493	0.13733		0.2928	0.00267
Timmendorfer Weg	Veh.	67.5	1,000						0.0988		
Lane nstr79	PC	67.6	946	145.0	0.236	0.00346	0.00449	0.00749		0.1063	0.00073
AO_2	LDT	67.6	28	189.0	0.545	0.00253	0.02746	0.04577		0.1446	0.00095
PM_AO	HDT	66.1	26	538.0	6.224	0.00466	0.05581	0.13953		0.2383	0.00271
Timmendorfer Landstr.	Veh.	76.6	1,000						0.0988		
Lane nstr80	PC	76.7	946	144.7	0.247	0.00332	0.00401	0.00668		0.1055	0.00073
AO_1	LDT	76.7	28	190.7	0.573	0.00224	0.02664	0.04439		0.1432	0.00096
PM_AO	HDT	72.7	26	530.3	6.045	0.00463	0.05493	0.13733		0.2361	0.00267
Mecklenburger Landstr.	Veh.	45.9	3,200						0.1064		
Lane nstr81	PC	46.2	2,979	163.7	0.241	0.00440	0.00471	0.00785		0.1142	0.00083
IO_HVS2	LDT	46.2	82	195.9	0.525	0.00378	0.02565	0.04275		0.1491	0.00099
PM_IOG	HDT	38.5	139	601.8	6.908	0.00841	0.07645	0.19113		0.2975	0.00303
Mecklenburger Landstr.	Veh.	45.9	2,700						0.0964		
Lane nstr82	PC	46.2	2,540	163.7	0.241	0.00440	0.00471	0.00785		0.1043	0.00083
IO_HVS2	LDT	46.2	66	195.9	0.525	0.00378	0.02565	0.04275		0.1392	0.00099
PM_IOG	HDT	38.5	94	601.8	6.908	0.00841	0.07645	0.19113		0.2876	0.00303

A 4.5.2 Forecast Scenario

Road lane / traffic situation	Vehicle class	Speed [km/h]	Number	Emission factor per vehicle							
				CO2	NOx	Benzene	Soot	PM10 [g/km]			SO2
				[g/km]	[g/km]	[g/km]	[g/km]	exhaust	resusp.	total	[g/km]
B75	Veh.	106.3	27,000						0.5473		
Lane nstr1	PC	110.0	21,718	166.9	0.201	0.00133	0.00537	0.00896		0.5562	0.00084
AB_100	LDT	110.0	1,124	265.7	0.642	0.00120	0.02990	0.04983		0.5971	0.00134
PM_AB	HDT	86.2	4,158	643.5	3.866	0.00546	0.02862	0.07155		0.6188	0.00324
B75	Veh.	108.3	19,000						0.2345		
Lane nstr2	PC	110.0	17,043	166.9	0.201	0.00133	0.00537	0.00896		0.2434	0.00084
AB_100	LDT	110.0	619	265.7	0.642	0.00120	0.02990	0.04983		0.2843	0.00134
PM_AB	HDT	86.2	1,338	643.5	3.866	0.00546	0.02862	0.07155		0.3060	0.00324
B75/AS Skandikai	Veh.	67.1	11,200						1.1174		
Lane nstr3	PC	67.5	6,989	129.4	0.149	0.00101	0.00361	0.00602		1.1234	0.00065
AO_2	LDT	67.6	663	186.6	0.362	0.00090	0.01567	0.02612		1.1435	0.00094
PM_AO	HDT	66.1	3,548	557.8	4.400	0.00435	0.03233	0.08082		1.1982	0.00281
B75/AS Skandikai	Veh.	59.3	4,800						1.1179		
Lane nstr4	PC	60.6	2,995	134.4	0.160	0.00111	0.00397	0.00661		1.1245	0.00068
AO_3	LDT	60.6	284	193.7	0.372	0.00109	0.01757	0.02929		1.1472	0.00098
PM_AO	HDT	56.6	1,521	590.7	4.769	0.00516	0.03601	0.09002		1.2079	0.00298
B75/AS Skandikai	Veh.	59.2	4,800						1.2750		
Lane nstr5	PC	60.6	2,855	134.4	0.160	0.00111	0.00397	0.00661		1.2816	0.00068
AO_3	LDT	60.6	298	193.7	0.372	0.00109	0.01757	0.02929		1.3043	0.00098
PM_AO	HDT	56.6	1,647	590.7	4.769	0.00516	0.03601	0.09002		1.3650	0.00298
B75/AS Skandikai	Veh.	59.7	820						0.6741		
Lane nstr6	PC	60.6	591	134.4	0.160	0.00111	0.00397	0.00661		0.6807	0.00068
AO_3	LDT	60.6	41	193.7	0.372	0.00109	0.01757	0.02929		0.7034	0.00098
PM_AO	HDT	56.6	188	590.7	4.769	0.00516	0.03601	0.09002		0.7641	0.00298
B75/AS Skandikai	Veh.	67.2	840						0.6711		
Lane nstr7	PC	67.5	606	129.4	0.149	0.00101	0.00361	0.00602		0.6771	0.00065
AO_2	LDT	67.6	42	186.6	0.362	0.00090	0.01567	0.02612		0.6972	0.00094
PM_AO	HDT	66.1	192	557.8	4.400	0.00435	0.03233	0.08082		0.7519	0.00281
B76	Veh.	76.6	10,000						0.0993		
Lane nstr8	PC	76.7	9,457	128.7	0.148	0.00103	0.00345	0.00575		0.1051	0.00065
AO_1	LDT	76.7	279	188.0	0.377	0.00077	0.01536	0.02560		0.1249	0.00095
PM_AO	HDT	72.7	264	549.1	4.050	0.00444	0.03072	0.07680		0.1761	0.00277
B76	Veh.	76.6	10,000						0.0993		
Lane nstr9	PC	76.7	9,457	128.7	0.148	0.00103	0.00345	0.00575		0.1051	0.00065
AO_1	LDT	76.7	279	188.0	0.377	0.00077	0.01536	0.02560		0.1249	0.00095
PM_AO	HDT	72.7	264	549.1	4.050	0.00444	0.03072	0.07680		0.1761	0.00277
Travemünder Landstr.	Veh.	75.8	2,400						0.6341		
Lane nstr10	PC	76.7	1,755	128.7	0.148	0.00103	0.00345	0.00575		0.6399	0.00065
AO_1	LDT	76.7	117	188.0	0.377	0.00077	0.01536	0.02560		0.6597	0.00095
PM_AO	HDT	72.7	528	549.1	4.050	0.00444	0.03072	0.07680		0.7109	0.00277
Travemünder Landstr.	Veh.	74.9	900						2.0935		
Lane nstr11	PC	76.7	421	128.7	0.148	0.00103	0.00345	0.00575		2.0993	0.00065
AO_1	LDT	76.7	67	188.0	0.377	0.00077	0.01536	0.02560		2.1191	0.00095
PM_AO	HDT	72.7	412	549.1	4.050	0.00444	0.03072	0.07680		2.1703	0.00277
Travemünder Landstr.	Veh.	75.2	7,700						1.3868		
Lane nstr12	PC	76.7	4,430	128.7	0.148	0.00103	0.00345	0.00575		1.3926	0.00065
AO_1	LDT	76.7	492	188.0	0.377	0.00077	0.01536	0.02560		1.4124	0.00095
PM_AO	HDT	72.7	2,778	549.1	4.050	0.00444	0.03072	0.07680		1.4636	0.00277
Travemünder Landstr.	Veh.	75.2	7,700						1.3868		
Lane nstr13	PC	76.7	4,430	128.7	0.148	0.00103	0.00345	0.00575		1.3926	0.00065
AO_1	LDT	76.7	492	188.0	0.377	0.00077	0.01536	0.02560		1.4124	0.00095
PM_AO	HDT	72.7	2,778	549.1	4.050	0.00444	0.03072	0.07680		1.4636	0.00277
Travemünder Landstr.	Veh.										
Lane nstr14	PC										
AO_1	LDT										
PM_AO	HDT										
Travemünder Landstr.	Veh.	39.0	1,000						0.0712		
Lane nstr15	PC	39.1	970	153.7	0.157	0.00122	0.00394	0.00657		0.0778	0.00077
IO_LSA1	LDT	39.1	21	202.1	0.366	0.00143	0.01524	0.02540		0.0966	0.00102
PM_IOG	HDT	32.9	9	676.7	5.463	0.00813	0.05041	0.12601		0.1973	0.00341
Travemünder Landstr.	Veh.	38.8	5,400						0.1173		
Lane nstr16	PC	39.1	4,974	153.7	0.157	0.00122	0.00394	0.00657		0.1239	0.00077
IO_LSA1	LDT	39.1	144	202.1	0.366	0.00143	0.01524	0.02540		0.1427	0.00102
PM_IOG	HDT	32.9	282	676.7	5.463	0.00813	0.05041	0.12601		0.2433	0.00341
Travemünder Landstr.	Veh.	38.7	7,300						0.1413		
Lane nstr17	PC	39.1	6,582	153.7	0.157	0.00122	0.00394	0.00657		0.1478	0.00077
IO_LSA1	LDT	39.1	210	202.1	0.366	0.00143	0.01524	0.02540		0.1667	0.00102
PM_IOG	HDT	32.9	508	676.7	5.463	0.00813	0.05041	0.12601		0.2673	0.00341

Emission Factors of Road Traffic (Forecast Scenario, continued)

Road lane / traffic situation	Vehicle class	Speed [km/h]	Number	Emission factor per vehicle							
				CO2	NOx	Benzene	Soot	PM10 [g/km]			SO2
				[g/km]	[g/km]	[g/km]	[g/km]	exhaust	resusp.	total	[g/km]
Gneversdorfer Weg	Veh.	38.9	11,900						0.0964		
Lane nstr18	PC	39.1	11,196	153.7	0.157	0.00122	0.00394	0.00657		0.1030	0.00077
IO_LSA1	LDT	39.1	290	202.1	0.366	0.00143	0.01524	0.02540		0.1218	0.00102
PM_IOG	HDT	32.9	414	676.7	5.463	0.00813	0.05041	0.12601		0.2224	0.00341
Gneversdorfer Weg	Veh.	38.7	15,100						0.1413		
Lane nstr19	PC	39.1	13,614	153.7	0.157	0.00122	0.00394	0.00657		0.1479	0.00077
IO_LSA1	LDT	39.1	435	202.1	0.366	0.00143	0.01524	0.02540		0.1667	0.00102
PM_IOG	HDT	32.9	1,051	676.7	5.463	0.00813	0.05041	0.12601		0.2673	0.00341
Gneversdorfer Weg	Veh.	58.0	16,100						0.1413		
Lane nstr20	PC	58.4	14,515	130.9	0.155	0.00110	0.00396	0.00661		0.1479	0.00066
IO_HVS1	LDT	58.4	464	184.9	0.346	0.00110	0.01571	0.02618		0.1675	0.00093
PM_IOG	HDT	53.3	1,121	503.8	4.158	0.00480	0.03310	0.08274		0.2241	0.00254
Gneversdorfer Weg	Veh.	58.0	18,200						0.1413		
Lane nstr21	PC	58.4	16,409	130.9	0.155	0.00110	0.00396	0.00661		0.1479	0.00066
IO_HVS1	LDT	58.4	524	184.9	0.346	0.00110	0.01571	0.02618		0.1675	0.00093
PM_IOG	HDT	53.3	1,267	503.8	4.158	0.00480	0.03310	0.08274		0.2241	0.00254
Gneversdorfer Weg	Veh.										
Lane nstr22	PC										
IO_HVS1	LDT										
PM_IOG	HDT										
Ovendorfer Straße	Veh.	58.0	600						0.1546		
Lane nstr23	PC	58.4	535	130.9	0.155	0.00110	0.00396	0.00661		0.1612	0.00066
IO_HVS1	LDT	58.4	18	184.9	0.346	0.00110	0.01571	0.02618		0.1808	0.00093
PM_IOG	HDT	53.3	47	503.8	4.158	0.00480	0.03310	0.08274		0.2373	0.00254
Ivendorfer Landstraße	Veh.	76.3	2,200						0.2505		
Lane nstr24	PC	76.7	1,888	128.7	0.148	0.00103	0.00345	0.00575		0.2563	0.00065
AO_1	LDT	76.7	80	188.0	0.377	0.00077	0.01536	0.02560		0.2761	0.00095
PM_AO	HDT	72.7	232	549.1	4.050	0.00444	0.03072	0.07680		0.3274	0.00277
Ivendorfer Landstraße	Veh.	57.9	2,600						0.1987		
Lane nstr25	PC	58.4	2,243	130.9	0.155	0.00110	0.00396	0.00661		0.2053	0.00066
IO_HVS1	LDT	58.4	86	184.9	0.346	0.00110	0.01571	0.02618		0.2249	0.00093
PM_IOG	HDT	53.3	271	503.8	4.158	0.00480	0.03310	0.08274		0.2814	0.00254
Ivendorfer Landstraße	Veh.	76.3	2,900						0.2298		
Lane nstr26	PC	76.7	2,516	128.7	0.148	0.00103	0.00345	0.00575		0.2356	0.00065
AO_1	LDT	76.7	103	188.0	0.377	0.00077	0.01536	0.02560		0.2554	0.00095
PM_AO	HDT	72.7	281	549.1	4.050	0.00444	0.03072	0.07680		0.3066	0.00277
Ivendorfer Landstraße	Veh.	58.0	3,100						0.1687		
Lane nstr27	PC	58.4	2,734	130.9	0.155	0.00110	0.00396	0.00661		0.1753	0.00066
IO_HVS1	LDT	58.4	96	184.9	0.346	0.00110	0.01571	0.02618		0.1949	0.00093
PM_IOG	HDT	53.3	270	503.8	4.158	0.00480	0.03310	0.08274		0.2514	0.00254
Teutendorfer Weg	Veh.	58.1	5,700						0.1288		
Lane nstr28	PC	58.4	5,195	130.9	0.155	0.00110	0.00396	0.00661		0.1355	0.00066
IO_HVS1	LDT	58.4	158	184.9	0.346	0.00110	0.01571	0.02618		0.1550	0.00093
PM_IOG	HDT	53.3	347	503.8	4.158	0.00480	0.03310	0.08274		0.2116	0.00254
Teutendorfer Weg	Veh.	58.2	5,100						0.1065		
Lane nstr29	PC	58.4	4,748	130.9	0.155	0.00110	0.00396	0.00661		0.1131	0.00066
IO_HVS1	LDT	58.4	130	184.9	0.346	0.00110	0.01571	0.02618		0.1327	0.00093
PM_IOG	HDT	53.3	222	503.8	4.158	0.00480	0.03310	0.08274		0.1892	0.00254
Teutendorfer Weg	Veh.	76.5	1,200						0.1256		
Lane nstr30	PC	76.7	1,111	128.7	0.148	0.00103	0.00345	0.00575		0.1313	0.00065
AO_1	LDT	76.7	36	188.0	0.377	0.00077	0.01536	0.02560		0.1512	0.00095
PM_AO	HDT	72.7	53	549.1	4.050	0.00444	0.03072	0.07680		0.2024	0.00277
Auf dem Baggersand	Veh.	19.7	5,300						0.1065		
Lane nstr31	PC	19.9	4,934	175.9	0.174	0.00159	0.00401	0.00668		0.1132	0.00089
IO_Kern	LDT	19.9	135	415.1	0.741	0.00288	0.03071	0.05119		0.1577	0.00209
PM_IOG	HDT	14.4	231	814.3	6.773	0.01378	0.07674	0.19184		0.2984	0.00410
Torstraße/ Kirchenstr.	Veh.	19.4	3,500						0.1688		
Lane nstr32	PC	19.9	3,086	175.9	0.174	0.00159	0.00401	0.00668		0.1755	0.00089
IO_Kern	LDT	19.9	109	415.1	0.741	0.00288	0.03071	0.05119		0.2200	0.00209
PM_IOG	HDT	14.4	305	814.3	6.773	0.01378	0.07674	0.19184		0.3606	0.00410
St .Lorenz Straße	Veh.	19.2	2,500						0.2507		
Lane nstr33	PC	19.9	2,083	175.9	0.174	0.00159	0.00401	0.00668		0.2574	0.00089
IO_Kern	LDT	19.9	91	415.1	0.741	0.00288	0.03071	0.05119		0.3019	0.00209
PM_IOG	HDT	14.4	326	814.3	6.773	0.01378	0.07674	0.19184		0.4426	0.00410
Vogteistraße	Veh.	19.7	4,000						0.0964		
Lane nstr34	PC	19.9	3,763	175.9	0.174	0.00159	0.00401	0.00668		0.1031	0.00089
IO_Kern	LDT	19.9	98	415.1	0.741	0.00288	0.03071	0.05119		0.1476	0.00209
PM_IOG	HDT	14.4	139	814.3	6.773	0.01378	0.07674	0.19184		0.2882	0.00410

Emission Factors of Road Traffic (Forecast Scenario, continued)

Road lane / traffic situation	Vehicle class	Speed [km/h]	Number	Emission factor per vehicle							
				CO2	NOx	Benzene	Soot	PM10 [g/km]			SO2
				[g/km]	[g/km]	[g/km]	[g/km]	exhaust	resusp.	total	[g/km]
Mühlenberg	Veh.	31.8	1,500						0.0786		
Lane nstr35	PC	32.0	1,441	162.2	0.166	0.00137	0.00413	0.00689		0.0855	0.00082
IO_Nebenstr_locker	LDT	32.0	33	211.2	0.382	0.00162	0.01596	0.02660		0.1052	0.00106
PM_IOG	HDT	18.1	26	832.1	6.631	0.01140	0.06739	0.16847		0.2471	0.00419
Mühlenberg	Veh.	31.8	1,500						0.0786		
Lane nstr36	PC	32.0	1,441	162.2	0.166	0.00137	0.00413	0.00689		0.0855	0.00082
IO_Nebenstr_locker	LDT	32.0	33	211.2	0.382	0.00162	0.01596	0.02660		0.1052	0.00106
PM_IOG	HDT	18.1	26	832.1	6.631	0.01140	0.06739	0.16847		0.2471	0.00419
Moorredder	Veh.	38.8	9,000						0.1173		
Lane nstr37	PC	39.1	8,291	153.7	0.157	0.00122	0.00394	0.00657		0.1239	0.00077
IO_LSA1	LDT	39.1	239	202.1	0.366	0.00143	0.01524	0.02540		0.1427	0.00102
PM_IOG	HDT	32.9	470	676.7	5.463	0.00813	0.05041	0.12601		0.2433	0.00341
Moorredder	Veh.	38.8	9,000						0.1173		
Lane nstr38	PC	39.1	8,291	153.7	0.157	0.00122	0.00394	0.00657		0.1239	0.00077
IO_LSA1	LDT	39.1	239	202.1	0.366	0.00143	0.01524	0.02540		0.1427	0.00102
PM_IOG	HDT	32.9	470	676.7	5.463	0.00813	0.05041	0.12601		0.2433	0.00341
Howingsbrook	Veh.	58.1	4,500						0.1289		
Lane nstr39	PC	58.4	4,101	130.9	0.155	0.00110	0.00396	0.00661		0.1355	0.00066
IO_HVS1	LDT	58.4	125	184.9	0.346	0.00110	0.01571	0.02618		0.1551	0.00093
PM_IOG	HDT	53.3	274	503.8	4.158	0.00480	0.03310	0.08274		0.2116	0.00254
Howingsbrook	Veh.	58.3	1,700						0.0870		
Lane nstr40	PC	58.4	1,616	130.9	0.155	0.00110	0.00396	0.00661		0.0936	0.00066
IO_HVS1	LDT	58.4	40	184.9	0.346	0.00110	0.01571	0.02618		0.1132	0.00093
PM_IOG	HDT	53.3	44	503.8	4.158	0.00480	0.03310	0.08274		0.1697	0.00254
Vorderreihe	Veh.	19.4	1,000						0.1685		
Lane nstr41	PC	19.9	882	175.9	0.174	0.00159	0.00401	0.00668		0.1752	0.00089
IO_Kern	LDT	19.9	31	415.1	0.741	0.00288	0.03071	0.05119		0.2197	0.00209
PM_IOG	HDT	14.4	87	814.3	6.773	0.01378	0.07674	0.19184		0.3604	0.00410
Vorderreihe	Veh.	19.7	500						0.1071		
Lane nstr42	PC	19.9	465	175.9	0.174	0.00159	0.00401	0.00668		0.1138	0.00089
IO_Kern	LDT	19.9	13	415.1	0.741	0.00288	0.03071	0.05119		0.1583	0.00209
PM_IOG	HDT	14.4	22	814.3	6.773	0.01378	0.07674	0.19184		0.2990	0.00410
Außenallee	Veh.	45.6	4,200						0.1546		
Lane nstr43	PC	46.2	3,745	145.2	0.148	0.00108	0.00376	0.00626		0.1608	0.00073
IO_HVS2	LDT	46.2	126	193.0	0.350	0.00125	0.01452	0.02421		0.1788	0.00097
PM_IOG	HDT	38.5	329	613.2	5.006	0.00699	0.04427	0.11068		0.2653	0.00309
Außenallee	Veh.	46.1	4,800						0.0788		
Lane nstr44	PC	46.2	4,609	145.2	0.148	0.00108	0.00376	0.00626		0.0851	0.00073
IO_HVS2	LDT	46.2	107	193.0	0.350	0.00125	0.01452	0.02421		0.1030	0.00097
PM_IOG	HDT	38.5	84	613.2	5.006	0.00699	0.04427	0.11068		0.1895	0.00309
Trelleborgallee	Veh.	30.9	2,200						0.1543		
Lane nstr45	PC	32.0	1,962	162.2	0.166	0.00137	0.00413	0.00689		0.1612	0.00082
IO_Nebenstr_locker	LDT	32.0	66	211.2	0.382	0.00162	0.01596	0.02660		0.1809	0.00106
PM_IOG	HDT	18.1	172	832.1	6.631	0.01140	0.06739	0.16847		0.3228	0.00419
Kurgartenstraße	Veh.	19.4	2,000						0.1685		
Lane nstr46	PC	19.9	1,764	175.9	0.174	0.00159	0.00401	0.00668		0.1752	0.00089
IO_Kern	LDT	19.9	62	415.1	0.741	0.00288	0.03071	0.05119		0.2197	0.00209
PM_IOG	HDT	14.4	174	814.3	6.773	0.01378	0.07674	0.19184		0.3604	0.00410
Kurgartenstraße	Veh.	19.4	2,000						0.1685		
Lane nstr47	PC	19.9	1,764	175.9	0.174	0.00159	0.00401	0.00668		0.1752	0.00089
IO_Kern	LDT	19.9	62	415.1	0.741	0.00288	0.03071	0.05119		0.2197	0.00209
PM_IOG	HDT	14.4	174	814.3	6.773	0.01378	0.07674	0.19184		0.3604	0.00410
Am Lotsenberg	Veh.	19.3	4,300						0.2153		
Lane nstr48	PC	19.9	3,667	175.9	0.174	0.00159	0.00401	0.00668		0.2220	0.00089
IO_Kern	LDT	19.9	147	415.1	0.741	0.00288	0.03071	0.05119		0.2665	0.00209
PM_IOG	HDT	14.4	486	814.3	6.773	0.01378	0.07674	0.19184		0.4072	0.00410
Am Lotsenberg	Veh.	19.3	4,300						0.2153		
Lane nstr49	PC	19.9	3,667	175.9	0.174	0.00159	0.00401	0.00668		0.2220	0.00089
IO_Kern	LDT	19.9	147	415.1	0.741	0.00288	0.03071	0.05119		0.2665	0.00209
PM_IOG	HDT	14.4	486	814.3	6.773	0.01378	0.07674	0.19184		0.4072	0.00410
Straße Neu	Veh.	19.3	4,300						0.2153		
Lane nstr50	PC	19.9	3,667	175.9	0.174	0.00159	0.00401	0.00668		0.2220	0.00089
IO_Kern	LDT	19.9	147	415.1	0.741	0.00288	0.03071	0.05119		0.2665	0.00209
PM_IOG	HDT	14.4	486	814.3	6.773	0.01378	0.07674	0.19184		0.4072	0.00410

Emission Factors of Road Traffic (Forecast Scenario, continued)

Road lane / traffic situation	Vehicle class	Speed [km/h]	Number	Emission factor per vehicle							
				CO2	NOx	Benzene	Soot	PM10 [g/km]			SO2
				[g/km]	[g/km]	[g/km]	[g/km]	exhaust	resusp.	total	[g/km]
Rose	Veh.	19.4	1,000						0.1685		
Lane nstr51	PC	19.9	882	175.9	0.174	0.00159	0.00401	0.00668		0.1752	0.00089
IO_Kern	LDT	19.9	31	415.1	0.741	0.00288	0.03071	0.05119		0.2197	0.00209
PM_IOG	HDT	14.4	87	814.3	6.773	0.01378	0.07674	0.19184		0.3604	0.00410
Rose	Veh.	19.7	3,000						0.1067		
Lane nstr52	PC	19.9	2,792	175.9	0.174	0.00159	0.00401	0.00668		0.1133	0.00089
IO_Kern	LDT	19.9	77	415.1	0.741	0.00288	0.03071	0.05119		0.1579	0.00209
PM_IOG	HDT	14.4	131	814.3	6.773	0.01378	0.07674	0.19184		0.2985	0.00410
Rose	Veh.	31.8	2,300						0.0787		
Lane nstr53	PC	32.0	2,209	162.2	0.166	0.00137	0.00413	0.00689		0.0856	0.00082
IO_Nebenstr_locker	LDT	32.0	51	211.2	0.382	0.00162	0.01596	0.02660		0.1053	0.00106
PM_IOG	HDT	18.1	40	832.1	6.631	0.01140	0.06739	0.16847		0.2472	0.00419
Rose	Veh.	31.8	1,400						0.0785		
Lane nstr54	PC	32.0	1,345	162.2	0.166	0.00137	0.00413	0.00689		0.0853	0.00082
IO_Nebenstr_locker	LDT	32.0	31	211.2	0.382	0.00162	0.01596	0.02660		0.1051	0.00106
PM_IOG	HDT	18.1	24	832.1	6.631	0.01140	0.06739	0.16847		0.2469	0.00419
Rose	Veh.	31.8	1,500						0.0786		
Lane nstr55	PC	32.0	1,441	162.2	0.166	0.00137	0.00413	0.00689		0.0855	0.00082
IO_Nebenstr_locker	LDT	32.0	33	211.2	0.382	0.00162	0.01596	0.02660		0.1052	0.00106
PM_IOG	HDT	18.1	26	832.1	6.631	0.01140	0.06739	0.16847		0.2471	0.00419
Fehlingstraße	Veh.	31.9	1,300						0.0708		
Lane nstr56	PC	32.0	1,262	162.2	0.166	0.00137	0.00413	0.00689		0.0776	0.00082
IO_Nebenstr_locker	LDT	32.0	27	211.2	0.382	0.00162	0.01596	0.02660		0.0974	0.00106
PM_IOG	HDT	18.1	11	832.1	6.631	0.01140	0.06739	0.16847		0.2392	0.00419
Fehlingstraße	Veh.	31.8	1,200						0.0788		
Lane nstr57	PC	32.0	1,152	162.2	0.166	0.00137	0.00413	0.00689		0.0857	0.00082
IO_Nebenstr_locker	LDT	32.0	27	211.2	0.382	0.00162	0.01596	0.02660		0.1054	0.00106
PM_IOG	HDT	18.1	21	832.1	6.631	0.01140	0.06739	0.16847		0.2473	0.00419
Fehlingstraße	Veh.	31.3	1,100						0.1167		
Lane nstr58	PC	32.0	1,014	162.2	0.166	0.00137	0.00413	0.00689		0.1236	0.00082
IO_Nebenstr_locker	LDT	32.0	29	211.2	0.382	0.00162	0.01596	0.02660		0.1433	0.00106
PM_IOG	HDT	18.1	57	832.1	6.631	0.01140	0.06739	0.16847		0.2852	0.00419
Am Fahrenberg	Veh.	38.8	6,800						0.1065		
Lane nstr59	PC	39.1	6,331	153.7	0.157	0.00122	0.00394	0.00657		0.1130	0.00077
IO_LSA1	LDT	39.1	173	202.1	0.366	0.00143	0.01524	0.02540		0.1319	0.00102
PM_IOG	HDT	32.9	296	676.7	5.463	0.00813	0.05041	0.12601		0.2325	0.00341
Bertlingstraße	Veh.	38.7	6,800						0.1412		
Lane nstr60	PC	39.1	6,131	153.7	0.157	0.00122	0.00394	0.00657		0.1478	0.00077
IO_LSA1	LDT	39.1	196	202.1	0.366	0.00143	0.01524	0.02540		0.1666	0.00102
PM_IOG	HDT	32.9	473	676.7	5.463	0.00813	0.05041	0.12601		0.2672	0.00341
Godewind	Veh.	38.6	6,400						0.1545		
Lane nstr61	PC	39.1	5,708	153.7	0.157	0.00122	0.00394	0.00657		0.1610	0.00077
IO_LSA1	LDT	39.1	191	202.1	0.366	0.00143	0.01524	0.02540		0.1799	0.00102
PM_IOG	HDT	32.9	501	676.7	5.463	0.00813	0.05041	0.12601		0.2805	0.00341
Godewind	Veh.	38.7	6,300						0.1290		
Lane nstr62	PC	39.1	5,741	153.7	0.157	0.00122	0.00394	0.00657		0.1355	0.00077
IO_HVS3	LDT	39.1	175	202.1	0.366	0.00143	0.01524	0.02540		0.1544	0.00102
PM_IOG	HDT	32.9	384	676.7	5.463	0.00813	0.05041	0.12601		0.2550	0.00341
Godewind	Veh.	31.0	1,300						0.1407		
Lane nstr63	PC	32.0	1,173	162.2	0.166	0.00137	0.00413	0.00689		0.1476	0.00082
IO_Nebenstr_locker	LDT	32.0	37	211.2	0.382	0.00162	0.01596	0.02660		0.1673	0.00106
PM_IOG	HDT	18.1	90	832.1	6.631	0.01140	0.06739	0.16847		0.3092	0.00419
Steuerbord	Veh.	31.0	1,300						0.1407		
Lane nstr64	PC	32.0	1,173	162.2	0.166	0.00137	0.00413	0.00689		0.1476	0.00082
IO_Nebenstr_locker	LDT	32.0	37	211.2	0.382	0.00162	0.01596	0.02660		0.1673	0.00106
PM_IOG	HDT	18.1	90	832.1	6.631	0.01140	0.06739	0.16847		0.3092	0.00419
Kaiserallee	Veh.	38.9	2,200						0.0870		
Lane nstr65	PC	39.1	2,092	153.7	0.157	0.00122	0.00394	0.00657		0.0935	0.00077
IO_HVS3	LDT	39.1	51	202.1	0.366	0.00143	0.01524	0.02540		0.1124	0.00102
PM_IOG	HDT	32.9	57	676.7	5.463	0.00813	0.05041	0.12601		0.2130	0.00341
Kaiserallee	Veh.	31.6	2,000						0.0871		
Lane nstr66	PC	32.0	1,901	162.2	0.166	0.00137	0.00413	0.00689		0.0940	0.00082
IO_Nebenstr_locker	LDT	32.0	47	211.2	0.382	0.00162	0.01596	0.02660		0.1137	0.00106
PM_IOG	HDT	18.1	52	832.1	6.631	0.01140	0.06739	0.16847		0.2556	0.00419
Strandweg	Veh.	31.9	1,000						0.0712		
Lane nstr67	PC	32.0	970	162.2	0.166	0.00137	0.00413	0.00689		0.0781	0.00082
IO_Nebenstr_locker	LDT	32.0	21	211.2	0.382	0.00162	0.01596	0.02660		0.0978	0.00106
PM_IOG	HDT	18.1	9	832.1	6.631	0.01140	0.06739	0.16847		0.2397	0.00419

Emission Factors of Road Traffic (Forecast Scenario, continued)

Road lane / traffic situation	Vehicle class	Speed [km/h]	Number	Emission factor per vehicle							
				CO2	NOx	Benzene	Soot	PM10 [g/km]			SO2
				[g/km]	[g/km]	[g/km]	[g/km]	exhaust	resusp.	total	[g/km]
Strandredder	Veh.	31.9	1,000						0.0712		
Lane nstr68	PC	32.0	970	162.2	0.166	0.00137	0.00413	0.00689		0.0781	0.00082
IO_Nebenstr_locker	LDT	32.0	21	211.2	0.382	0.00162	0.01596	0.02660		0.0978	0.00106
PM_IOG	HDT	18.1	9	832.1	6.631	0.01140	0.06739	0.16847		0.2397	0.00419
Strandredder	Veh.	31.9	1,000						0.0712		
Lane nstr69	PC	32.0	970	162.2	0.166	0.00137	0.00413	0.00689		0.0781	0.00082
IO_Nebenstr_locker	LDT	32.0	21	211.2	0.382	0.00162	0.01596	0.02660		0.0978	0.00106
PM_IOG	HDT	18.1	9	832.1	6.631	0.01140	0.06739	0.16847		0.2397	0.00419
Alfred-Hagelstein-Str.	Veh.	31.5	1,000						0.0966		
Lane nstr70	PC	32.0	941	162.2	0.166	0.00137	0.00413	0.00689		0.1035	0.00082
IO_Nebenstr_locker	LDT	32.0	24	211.2	0.382	0.00162	0.01596	0.02660		0.1232	0.00106
PM_IOG	HDT	18.1	35	832.1	6.631	0.01140	0.06739	0.16847		0.2650	0.00419
Steenkamp	Veh.	38.7	1,000						0.1291		
Lane nstr71	PC	39.1	911	153.7	0.157	0.00122	0.00394	0.00657		0.1356	0.00077
IO_LSA1	LDT	39.1	28	202.1	0.366	0.00143	0.01524	0.02540		0.1545	0.00102
PM_IOG	HDT	32.9	61	676.7	5.463	0.00813	0.05041	0.12601		0.2551	0.00341
Steenkamp	Veh.	46.0	2,800						0.0871		
Lane nstr72	PC	46.2	2,662	145.2	0.148	0.00108	0.00376	0.00626		0.0934	0.00073
IO_HVS2	LDT	46.2	65	193.0	0.350	0.00125	0.01452	0.02421		0.1113	0.00097
PM_IOG	HDT	38.5	73	613.2	5.006	0.00699	0.04427	0.11068		0.1978	0.00309
Steenkamp	Veh.	45.9	2,200						0.0967		
Lane nstr73	PC	46.2	2,069	145.2	0.148	0.00108	0.00376	0.00626		0.1029	0.00073
IO_HVS2	LDT	46.2	54	193.0	0.350	0.00125	0.01452	0.02421		0.1209	0.00097
PM_IOG	HDT	38.5	77	613.2	5.006	0.00699	0.04427	0.11068		0.2073	0.00309
Steenkamp	Veh.	58.3	1,700						0.0870		
Lane nstr74	PC	58.4	1,616	130.9	0.155	0.00110	0.00396	0.00661		0.0936	0.00066
IO_HVS1	LDT	58.4	40	184.9	0.346	0.00110	0.01571	0.02618		0.1132	0.00093
PM_IOG	HDT	53.3	44	503.8	4.158	0.00480	0.03310	0.08274		0.1697	0.00254
Kowitzberg	Veh.	31.3	1,600						0.1177		
Lane nstr75	PC	32.0	1,473	162.2	0.166	0.00137	0.00413	0.00689		0.1246	0.00082
IO_Nebenstr_locker	LDT	32.0	43	211.2	0.382	0.00162	0.01596	0.02660		0.1443	0.00106
PM_IOG	HDT	18.1	84	832.1	6.631	0.01140	0.06739	0.16847		0.2862	0.00419
Kowitzberg	Veh.	31.9	1,000						0.0712		
Lane nstr76	PC	32.0	970	162.2	0.166	0.00137	0.00413	0.00689		0.0781	0.00082
IO_Nebenstr_locker	LDT	32.0	21	211.2	0.382	0.00162	0.01596	0.02660		0.0978	0.00106
PM_IOG	HDT	18.1	9	832.1	6.631	0.01140	0.06739	0.16847		0.2397	0.00419
Wedenberg	Veh.	76.6	1,000						0.1115		
Lane nstr77	PC	76.7	936	128.7	0.148	0.00103	0.00345	0.00575		0.1173	0.00065
AO_1	LDT	76.7	29	188.0	0.377	0.00077	0.01536	0.02560		0.1371	0.00095
PM_AO	HDT	72.7	35	549.1	4.050	0.00444	0.03072	0.07680		0.1883	0.00277
Rödsaal	Veh.	76.5	1,300						0.1555		
Lane nstr78	PC	76.7	1,179	128.7	0.148	0.00103	0.00345	0.00575		0.1612	0.00065
AO_1	LDT	76.7	41	188.0	0.377	0.00077	0.01536	0.02560		0.1811	0.00095
PM_AO	HDT	72.7	80	549.1	4.050	0.00444	0.03072	0.07680		0.2323	0.00277
Timmendorfer Weg	Veh.	67.5	1,000						0.0988		
Lane nstr79	PC	67.5	946	129.4	0.149	0.00101	0.00361	0.00602		0.1048	0.00065
AO_2	LDT	67.6	28	186.6	0.362	0.00090	0.01567	0.02612		0.1249	0.00094
PM_AO	HDT	66.1	26	557.8	4.400	0.00435	0.03233	0.08082		0.1796	0.00281
Timmendorfer Landstr.	Veh.	76.6	1,000						0.0988		
Lane nstr80	PC	76.7	946	128.7	0.148	0.00103	0.00345	0.00575		0.1046	0.00065
AO_1	LDT	76.7	28	188.0	0.377	0.00077	0.01536	0.02560		0.1244	0.00095
PM_AO	HDT	72.7	26	549.1	4.050	0.00444	0.03072	0.07680		0.1756	0.00277
Mecklenburger Landstr.	Veh.	45.9	3,200						0.1064		
Lane nstr81	PC	46.2	2,979	145.2	0.148	0.00108	0.00376	0.00626		0.1127	0.00073
IO_HVS2	LDT	46.2	82	193.0	0.350	0.00125	0.01452	0.02421		0.1306	0.00097
PM_IOG	HDT	38.5	139	613.2	5.006	0.00699	0.04427	0.11068		0.2171	0.00309
Mecklenburger Landstr.	Veh.	45.9	2,700						0.0964		
Lane nstr82	PC	46.2	2,540	145.2	0.148	0.00108	0.00376	0.00626		0.1027	0.00073
IO_HVS2	LDT	46.2	66	193.0	0.350	0.00125	0.01452	0.02421		0.1206	0.00097
PM_IOG	HDT	38.5	94	613.2	5.006	0.00699	0.04427	0.11068		0.2071	0.00309
Straße Gewerbegebiet A	Veh.	29.9	2,100						0.2901		
Lane nstr83	PC	32.0	1,708	162.2	0.166	0.00137	0.00413	0.00689		0.2970	0.00082
IO_Nebenstr_locker	LDT	32.0	81	211.2	0.382	0.00162	0.01596	0.02660		0.3167	0.00106
PM_IOG	HDT	18.1	311	832.1	6.631	0.01140	0.06739	0.16847		0.4586	0.00419
Straße Gewerbegebiet B	Veh.	29.9	2,800						0.2896		
Lane nstr84	PC	32.0	2,278	162.2	0.166	0.00137	0.00413	0.00689		0.2965	0.00082
IO_Nebenstr_locker	LDT	32.0	108	211.2	0.382	0.00162	0.01596	0.02660		0.3162	0.00106
PM_IOG	HDT	18.1	414	832.1	6.631	0.01140	0.06739	0.16847		0.4581	0.00419

A 4.6 Total Annual Emissions of Road Traffic

A 4.6.1 Actual Scenario

Road lane / traffic situation	Vehicle class	Speed [km/h]	Number	Total annual emissions						
				Length	CO2	NOx	Benzol	Ruß	PM10	SO2
				[km]	[t/a]	[t/a]	[t/a]	[t/a]	[t/a]	[t/a]
B75	Veh.	106.4	19,000							
Lane nstr1	PC	110.0	15,376	0.507	515.83	0.8669	0.008229	0.020303	1.533226	0.002599
AB_100	LDT	110.0	782		38.81	0.1374	0.000367	0.007736	0.089150	0.000196
PM_AB	HDT	86.2	2,842		326.67	3.4736	0.002637	0.027786	0.346602	0.001646
B75	Veh.	108.5	11,000							
Lane nstr2	PC	110.0	9,974	3.883	2,562.69	4.3066	0.040880	0.100865	3.139174	0.012914
AB_100	LDT	110.0	348		132.28	0.4683	0.001252	0.026366	0.147605	0.000667
PM_AB	HDT	86.2	678		596.87	6.3466	0.004818	0.050768	0.328883	0.003008
B75/AS Skandikai	Veh.	67.1	8,500							
Lane nstr3	PC	67.6	5,635	0.784	233.87	0.3812	0.005587	0.007246	1.503185	0.001179
AO_2	LDT	67.6	471		25.47	0.0734	0.000341	0.003701	0.130802	0.000128
PM_AO	HDT	66.1	2,394		368.53	4.2638	0.003196	0.038235	0.729077	0.001857
B75/AS Skandikai	Veh.	59.6	4,100							
Lane nstr4	PC	60.6	2,878	0.409	65.04	0.1106	0.001827	0.002220	0.326363	0.000328
AO_3	LDT	60.6	212		6.20	0.0175	0.000094	0.000979	0.025399	0.000031
PM_AO	HDT	56.6	1,010		85.90	0.9982	0.000844	0.009203	0.136242	0.000433
B75/AS Skandikai	Veh.	59.5	4,100							
Lane nstr5	PC	60.6	2,718	0.608	91.31	0.1552	0.002565	0.003117	0.563136	0.000460
AO_3	LDT	60.6	227		9.87	0.0279	0.000150	0.001558	0.049194	0.000050
PM_AO	HDT	56.6	1,155		146.02	1.6969	0.001435	0.015645	0.276206	0.000736
B75/AS Skandikai	Veh.	58.2	150							
Lane nstr6	PC	60.6	49	0.579	1.57	0.0027	0.000044	0.000054	0.034017	0.000008
AO_3	LDT	60.6	13		0.54	0.0015	0.000008	0.000085	0.009143	0.000003
PM_AO	HDT	56.6	88		10.59	0.1231	0.000104	0.001135	0.063769	0.000053
B75/AS Skandikai	Veh.	66.7	160							
Lane nstr7	PC	67.6	57	0.360	1.09	0.0018	0.000026	0.000034	0.022336	0.000005
AO_2	LDT	67.6	14		0.35	0.0010	0.000005	0.000051	0.005556	0.000002
PM_AO	HDT	66.1	89		6.29	0.0728	0.000055	0.000653	0.036420	0.000032
B76	Veh.	76.6	10,000							
Lane nstr8	PC	76.7	9,457	0.985	491.82	0.8401	0.011282	0.013632	0.360471	0.002478
AO_1	LDT	76.7	279		19.13	0.0575	0.000225	0.002672	0.014417	0.000096
PM_AO	HDT	72.7	264		50.33	0.5738	0.000439	0.005214	0.022463	0.000254
B76	Veh.	76.6	10,000							
Lane nstr9	PC	76.7	9,457	0.694	346.52	0.5919	0.007949	0.009605	0.253977	0.001746
AO_1	LDT	76.7	279		13.48	0.0405	0.000158	0.001882	0.010158	0.000068
PM_AO	HDT	72.7	264		35.46	0.4043	0.000310	0.003673	0.015827	0.000179
Travemünder Landstr.	Veh.	76.0	2,800							
Lane nstr10	PC	76.7	2,184	0.736	84.87	0.1450	0.001947	0.002352	0.275777	0.000428
AO_1	LDT	76.7	123		6.30	0.0189	0.000074	0.000880	0.016777	0.000032
PM_AO	HDT	72.7	493		70.23	0.8006	0.000613	0.007275	0.079554	0.000354
Travemünder Landstr.	Veh.	75.9	2,200							
Lane nstr11	PC	76.7	1,673	0.604	53.35	0.0911	0.001224	0.001479	0.197238	0.000269
AO_1	LDT	76.7	101		4.25	0.0128	0.000050	0.000593	0.012747	0.000021
PM_AO	HDT	72.7	426		49.80	0.5677	0.000435	0.005159	0.062493	0.000251
Travemünder Landstr.	Veh.	75.7	9,800							
Lane nstr12	PC	76.7	6,976	0.365	134.43	0.2296	0.003084	0.003726	0.666765	0.000677
AO_1	LDT	76.7	496		12.60	0.0379	0.000148	0.001760	0.049899	0.000064
PM_AO	HDT	72.7	2,328		164.47	1.8749	0.001435	0.017037	0.263029	0.000829
Travemünder Landstr.	Veh.	75.7	9,600							
Lane nstr13	PC	76.7	6,833	0.181	65.30	0.1115	0.001498	0.001810	0.323974	0.000329
AO_1	LDT	76.7	486		6.12	0.0184	0.000072	0.000855	0.024254	0.000031
PM_AO	HDT	72.7	2,281		79.91	0.9110	0.000697	0.008278	0.127837	0.000403
Travemünder Landstr.	Veh.	75.8	9,500							
Lane nstr14	PC	76.7	6,947	1.896	695.42	1.1879	0.015953	0.019276	3.080812	0.003504
AO_1	LDT	76.7	463		61.12	0.1835	0.000718	0.008534	0.217411	0.000308
PM_AO	HDT	72.7	2,090		767.02	8.7435	0.006694	0.079449	1.115818	0.003865
Travemünder Landstr.	Veh.	38.7	7,500							
Lane nstr15	PC	39.1	6,762	0.354	152.26	0.2190	0.004420	0.004228	0.130494	0.000767
IO_LSA1	LDT	39.1	216		5.73	0.0153	0.000123	0.000750	0.005194	0.000029
PM_IOG	HDT	32.9	522		44.82	0.5091	0.000663	0.005895	0.024268	0.000226
Travemünder Landstr.	Veh.	38.7	6,000							
Lane nstr16	PC	39.1	5,469	0.285	99.14	0.1426	0.002878	0.002753	0.077852	0.000500
IO_LSA1	LDT	39.1	166		3.55	0.0095	0.000076	0.000464	0.002998	0.000018
PM_IOG	HDT	32.9	365		25.23	0.2866	0.000373	0.003319	0.013186	0.000127

Total Annual Emissions of Road Traffic (Actual Scenario, continued)

Road lane / traffic situation	Vehicle class	Speed [km/h]	Number	Total annual emissions						
				Length	CO2	NOx	Benzol	Ruß	PM10	SO2
				[km]	[t/a]	[t/a]	[t/a]	[t/a]	[t/a]	[t/a]
Travemünder Landstr.	Veh.	38.6	4,100							
Lane nstr17	PC	39.1	3,656	0.139	32.32	0.0465	0.000938	0.000898	0.030157	0.000163
IO_LSA1	LDT	39.1	123		1.28	0.0034	0.000027	0.000168	0.001244	0.000006
PM_IOG	HDT	32.9	321		10.82	0.1229	0.000160	0.001423	0.006075	0.000055
Gneversdorfer Weg	Veh.	38.9	8,700							
Lane nstr18	PC	39.1	8,270	0.100	52.60	0.0757	0.001527	0.001461	0.028745	0.000265
IO_LSA1	LDT	39.1	203		1.52	0.0041	0.000033	0.000199	0.000978	0.000008
PM_IOG	HDT	32.9	227		5.51	0.0625	0.000081	0.000724	0.002533	0.000028
Gneversdorfer Weg	Veh.	38.7	11,000							
Lane nstr19	PC	39.1	9,917	0.494	311.62	0.4483	0.009046	0.008652	0.267167	0.001570
IO_LSA1	LDT	39.1	317		11.74	0.0313	0.000252	0.001537	0.010640	0.000059
PM_IOG	HDT	32.9	766		91.79	1.0425	0.001358	0.012072	0.049703	0.000463
Gneversdorfer Weg	Veh.	58.0	12,000							
Lane nstr20	PC	58.4	10,819	0.640	369.15	0.6047	0.010078	0.013181	0.379009	0.001860
IO_HVS1	LDT	58.4	346		15.12	0.0418	0.000252	0.002240	0.015151	0.000076
PM_IOG	HDT	53.3	835		96.26	1.1262	0.001109	0.011138	0.055402	0.000485
Gneversdorfer Weg	Veh.	58.0	14,100							
Lane nstr21	PC	58.4	12,713	0.420	284.67	0.4663	0.007772	0.010165	0.292227	0.001435
IO_HVS1	LDT	58.4	406		11.64	0.0322	0.000194	0.001725	0.011666	0.000059
PM_IOG	HDT	53.3	981		74.22	0.8683	0.000855	0.008588	0.042711	0.000374
Ovendorfer Straße	Veh.	58.0	550							
Lane nstr22	PC	58.4	491	0.403	10.55	0.0173	0.000288	0.000377	0.011762	0.000053
IO_HVS1	LDT	58.4	16		0.44	0.0012	0.000007	0.000065	0.000472	0.000002
PM_IOG	HDT	53.3	43		3.12	0.0365	0.000036	0.000361	0.001878	0.000016
Ovendorfer Straße	Veh.	57.9	330							
Lane nstr23	PC	58.4	285	1.276	19.39	0.0318	0.000529	0.000692	0.027248	0.000098
IO_HVS1	LDT	58.4	11		0.96	0.0026	0.000016	0.000142	0.001244	0.000005
PM_IOG	HDT	53.3	34		7.81	0.0914	0.000090	0.000904	0.005374	0.000039
Ivendorfer Landstraße	Veh.	76.2	880							
Lane nstr24	PC	76.7	729	0.775	29.83	0.0510	0.000684	0.000827	0.067654	0.000150
AO_1	LDT	76.7	35		1.89	0.0057	0.000022	0.000264	0.003621	0.000010
PM_AO	HDT	72.7	116		17.40	0.1984	0.000152	0.001802	0.015052	0.000088
Ivendorfer Landstraße	Veh.	57.8	1,300							
Lane nstr25	PC	58.4	1,096	0.473	27.64	0.0453	0.000755	0.000987	0.045599	0.000139
IO_HVS1	LDT	58.4	46		1.49	0.0041	0.000025	0.000220	0.002212	0.000007
PM_IOG	HDT	53.3	158		13.46	0.1575	0.000155	0.001558	0.010231	0.000068
Ivendorfer Landstraße	Veh.	76.2	1,300							
Lane nstr26	PC	76.7	1,090	0.860	49.49	0.0845	0.001135	0.001372	0.103804	0.000249
AO_1	LDT	76.7	50		2.99	0.0090	0.000035	0.000418	0.005354	0.000015
PM_AO	HDT	72.7	160		26.63	0.3036	0.000232	0.002759	0.021799	0.000134
Ivendorfer Landstraße	Veh.	57.9	1,700							
Lane nstr27	PC	58.4	1,482	1.198	94.66	0.1551	0.002584	0.003380	0.124707	0.000477
IO_HVS1	LDT	58.4	55		4.50	0.0124	0.000075	0.000666	0.005530	0.000023
PM_IOG	HDT	53.3	163		35.18	0.4115	0.000405	0.004070	0.023272	0.000177
Teutendorfer Weg	Veh.	58.1	4,900							
Lane nstr28	PC	58.4	4,514	0.068	16.36	0.0268	0.000447	0.000584	0.014117	0.000082
IO_HVS1	LDT	58.4	130		0.60	0.0017	0.000010	0.000089	0.000528	0.000003
PM_IOG	HDT	53.3	256		3.14	0.0367	0.000036	0.000363	0.001652	0.000016
Teutendorfer Weg	Veh.	58.2	4,700							
Lane nstr29	PC	58.4	4,376	1.095	255.47	0.4185	0.006974	0.009122	0.201181	0.001287
IO_HVS1	LDT	58.4	120		8.97	0.0248	0.000149	0.001329	0.007315	0.000045
PM_IOG	HDT	53.3	204		40.24	0.4708	0.000463	0.004656	0.020309	0.000203
Teutendorfer Weg	Veh.	76.5	1,200							
Lane nstr30	PC	76.7	1,111	0.575	33.73	0.0576	0.000774	0.000935	0.030840	0.000170
AO_1	LDT	76.7	36		1.44	0.0043	0.000017	0.000201	0.001284	0.000007
PM_AO	HDT	72.7	53		5.90	0.0672	0.000051	0.000611	0.002924	0.000030
Auf dem Baggersand	Veh.	19.7	5,100							
Lane nstr31	PC	19.9	4,748	0.689	249.44	0.3317	0.008947	0.006012	0.137156	0.001257
IO_Kern	LDT	19.9	130		13.69	0.0356	0.000271	0.001769	0.006429	0.000069
PM_IOG	HDT	14.4	222		45.29	0.5153	0.000954	0.007670	0.025121	0.000228
Torstraße/ Kirchenstr.	Veh.	19.4	3,500							
Lane nstr32	PC	19.9	3,086	0.323	76.00	0.1011	0.002726	0.001832	0.064466	0.000383
IO_Kern	LDT	19.9	109		5.38	0.0140	0.000106	0.000695	0.003328	0.000027
PM_IOG	HDT	14.4	305		29.17	0.3319	0.000614	0.004940	0.018420	0.000147

Total Annual Emissions of Road Traffic (Actual Scenario, continued)

Road lane / traffic situation	Vehicle class	Speed [km/h]	Number	Total annual emissions						
				Length	CO2	NOx	Benzol	Ruß	PM10	SO2
				[km]	[t/a]	[t/a]	[t/a]	[t/a]	[t/a]	[t/a]
St .Lorenz Straße	Veh.	19.2	2,500							
Lane nstr33	PC	19.9	2,083	0.108	17.15	0.0228	0.000615	0.000413	0.021276	0.000086
IO_Kern	LDT	19.9	91		1.50	0.0039	0.000030	0.000194	0.001223	0.000008
PM_IOG	HDT	14.4	326		10.42	0.1186	0.000220	0.001766	0.007636	0.000053
Vogteistraße	Veh.	19.7	2,500							
Lane nstr34	PC	19.9	2,352	0.565	101.33	0.1347	0.003635	0.002442	0.050834	0.000511
IO_Kern	LDT	19.9	61		5.27	0.0137	0.000104	0.000680	0.002347	0.000027
PM_IOG	HDT	14.4	87		14.55	0.1656	0.000306	0.002465	0.007892	0.000073
Mühlenberg	Veh.	31.8	1,500							
Lane nstr35	PC	32.0	1,441	0.417	40.53	0.0572	0.001255	0.001089	0.019057	0.000204
IO_Nebenstr_locker	LDT	32.0	33		1.08	0.0029	0.000025	0.000141	0.000630	0.000005
PM_IOG	HDT	18.1	26		3.24	0.0363	0.000055	0.000468	0.001480	0.000016
Mühlenberg	Veh.	31.8	1,500							
Lane nstr36	PC	32.0	1,441	0.327	31.78	0.0448	0.000984	0.000854	0.014944	0.000160
IO_Nebenstr_locker	LDT	32.0	33		0.85	0.0022	0.000020	0.000111	0.000494	0.000004
PM_IOG	HDT	18.1	26		2.54	0.0284	0.000043	0.000367	0.001161	0.000013
Moorredder	Veh.	38.8	9,000							
Lane nstr37	PC	39.1	8,291	0.327	172.45	0.2481	0.005006	0.004788	0.124040	0.000869
IO_LSA1	LDT	39.1	239		5.86	0.0156	0.000126	0.000767	0.004624	0.000030
PM_IOG	HDT	32.9	470		37.28	0.4234	0.000552	0.004903	0.018837	0.000188
Moorredder	Veh.	38.8	9,000							
Lane nstr38	PC	39.1	8,291	0.587	309.57	0.4453	0.008987	0.008596	0.222665	0.001560
IO_LSA1	LDT	39.1	239		10.52	0.0280	0.000225	0.001377	0.008300	0.000053
PM_IOG	HDT	32.9	470		66.92	0.7601	0.000990	0.008802	0.033814	0.000337
Howingsbrook	Veh.	58.1	4,500							
Lane nstr39	PC	58.4	4,101	0.808	176.66	0.2894	0.004823	0.006308	0.166384	0.000890
IO_HVS1	LDT	58.4	125		6.90	0.0191	0.000115	0.001021	0.006453	0.000035
PM_IOG	HDT	53.3	274		39.88	0.4666	0.000459	0.004614	0.021950	0.000201
Howingsbrook	Veh.	58.3	1,700							
Lane nstr40	PC	58.4	1,616	0.350	30.15	0.0494	0.000823	0.001077	0.019752	0.000152
IO_HVS1	LDT	58.4	40		0.96	0.0026	0.000016	0.000142	0.000680	0.000005
PM_IOG	HDT	53.3	44		2.77	0.0325	0.000032	0.000321	0.001291	0.000014
Vorderreihe	Veh.	19.4	1,000							
Lane nstr41	PC	19.9	882	0.399	26.83	0.0357	0.000963	0.000647	0.022726	0.000135
IO_Kern	LDT	19.9	31		1.89	0.0049	0.000037	0.000244	0.001168	0.000010
PM_IOG	HDT	14.4	87		10.28	0.1170	0.000216	0.001741	0.006487	0.000052
Vorderreihe	Veh.	19.7	500							
Lane nstr42	PC	19.9	465	0.254	9.01	0.0120	0.000323	0.000217	0.004980	0.000045
IO_Kern	LDT	19.9	13		0.50	0.0013	0.000010	0.000065	0.000238	0.000003
PM_IOG	HDT	14.4	22		1.65	0.0188	0.000035	0.000280	0.000919	0.000008
Außenallee	Veh.	45.6	4,200							
Lane nstr43	PC	46.2	3,745	0.387	86.62	0.1273	0.002325	0.002492	0.085927	0.000437
IO_HVS2	LDT	46.2	126		3.49	0.0093	0.000067	0.000457	0.003512	0.000018
PM_IOG	HDT	38.5	329		27.97	0.3210	0.000391	0.003553	0.016066	0.000141
Außenallee	Veh.	46.1	4,800							
Lane nstr44	PC	46.2	4,609	0.372	102.47	0.1506	0.002751	0.002948	0.054230	0.000516
IO_HVS2	LDT	46.2	107		2.85	0.0076	0.000055	0.000373	0.001766	0.000014
PM_IOG	HDT	38.5	84		6.86	0.0788	0.000096	0.000872	0.003079	0.000035
Trelleborgallee	Veh.	30.9	2,200							
Lane nstr45	PC	32.0	1,962	0.464	61.40	0.0866	0.001901	0.001650	0.054037	0.000309
IO_Nebenstr_locker	LDT	32.0	66		2.40	0.0064	0.000056	0.000314	0.002249	0.000012
PM_IOG	HDT	18.1	172		23.88	0.2668	0.000406	0.003442	0.013102	0.000120
Kurgartenstraße	Veh.	19.4	2,000							
Lane nstr46	PC	19.9	1,764	0.354	47.61	0.0633	0.001708	0.001148	0.040326	0.000240
IO_Kern	LDT	19.9	62		3.35	0.0087	0.000066	0.000433	0.002072	0.000017
PM_IOG	HDT	14.4	174		18.24	0.2075	0.000384	0.003089	0.011511	0.000092
Kurgartenstraße	Veh.	19.4	2,000							
Lane nstr47	PC	19.9	1,764	0.242	32.55	0.0433	0.001168	0.000784	0.027568	0.000164
IO_Kern	LDT	19.9	62		2.29	0.0060	0.000045	0.000296	0.001417	0.000012
PM_IOG	HDT	14.4	174		12.47	0.1419	0.000263	0.002112	0.007869	0.000063
Am Lotsenberg	Veh.	19.3	4,300							
Lane nstr48	PC	19.9	3,667	0.084	23.49	0.0312	0.000842	0.000566	0.025154	0.000118
IO_Kern	LDT	19.9	147		1.89	0.0049	0.000037	0.000244	0.001377	0.000010
PM_IOG	HDT	14.4	486		12.09	0.1375	0.000255	0.002047	0.008327	0.000061

Total Annual Emissions of Road Traffic (Actual Scenario, continued)

Road lane / traffic situation	Vehicle class	Speed [km/h]	Number	Total annual emissions						
				Length	CO2	NOx	Benzol	Ruß	PM10	SO2
				[km]	[t/a]	[t/a]	[t/a]	[t/a]	[t/a]	[t/a]
Am Lotsenberg	Veh.	19.3	4,300							
Lane nstr49	PC	19.9	3,667	0.158	44.18	0.0587	0.001585	0.001065	0.047314	0.000223
IO_Kern	LDT	19.9	147		3.55	0.0092	0.000070	0.000459	0.002590	0.000018
PM_IOG	HDT	14.4	486		22.73	0.2587	0.000479	0.003851	0.015662	0.000115
Straße Neu	Veh.	19.3	4,300							
Lane nstr50	PC	19.9	3,667	0.237	66.27	0.0881	0.002377	0.001597	0.070970	0.000334
IO_Kern	LDT	19.9	147		5.32	0.0139	0.000105	0.000688	0.003885	0.000027
PM_IOG	HDT	14.4	486		34.10	0.3881	0.000718	0.005776	0.023493	0.000172
Rose	Veh.	19.4	1,000							
Lane nstr51	PC	19.9	882	0.059	3.97	0.0053	0.000142	0.000096	0.003361	0.000020
IO_Kern	LDT	19.9	31		0.28	0.0007	0.000006	0.000036	0.000173	0.000001
PM_IOG	HDT	14.4	87		1.52	0.0173	0.000032	0.000257	0.000959	0.000008
Rose	Veh.	19.7	3,000							
Lane nstr52	PC	19.9	2,792	0.102	21.71	0.0289	0.000779	0.000523	0.011960	0.000109
IO_Kern	LDT	19.9	77		1.20	0.0031	0.000024	0.000155	0.000564	0.000006
PM_IOG	HDT	14.4	131		3.96	0.0450	0.000083	0.000670	0.002195	0.000020
Rose	Veh.	31.8	2,300							
Lane nstr53	PC	32.0	2,209	0.087	12.96	0.0183	0.000401	0.000348	0.006100	0.000065
IO_Nebenstr_locker	LDT	32.0	51		0.35	0.0009	0.000008	0.000046	0.000203	0.000002
PM_IOG	HDT	18.1	40		1.04	0.0116	0.000018	0.000150	0.000475	0.000005
Rose	Veh.	31.8	1,400							
Lane nstr54	PC	32.0	1,345	0.212	19.23	0.0271	0.000596	0.000517	0.009027	0.000097
IO_Nebenstr_locker	LDT	32.0	31		0.52	0.0014	0.000012	0.000067	0.000301	0.000003
PM_IOG	HDT	18.1	24		1.52	0.0170	0.000026	0.000219	0.000694	0.000008
Rose	Veh.	31.8	1,500							
Lane nstr55	PC	32.0	1,441	0.314	30.52	0.0431	0.000945	0.000820	0.014350	0.000154
IO_Nebenstr_locker	LDT	32.0	33		0.81	0.0022	0.000019	0.000106	0.000475	0.000004
PM_IOG	HDT	18.1	26		2.44	0.0273	0.000042	0.000352	0.001115	0.000012
Fehlingstraße	Veh.	31.9	1,300							
Lane nstr56	PC	32.0	1,262	0.290	24.69	0.0348	0.000764	0.000663	0.010559	0.000124
IO_Nebenstr_locker	LDT	32.0	27		0.61	0.0016	0.000014	0.000080	0.000336	0.000003
PM_IOG	HDT	18.1	11		0.95	0.0107	0.000016	0.000138	0.000426	0.000005
Fehlingstraße	Veh.	31.8	1,200							
Lane nstr57	PC	32.0	1,152	0.345	26.81	0.0378	0.000830	0.000720	0.012637	0.000135
IO_Nebenstr_locker	LDT	32.0	27		0.73	0.0019	0.000017	0.000096	0.000427	0.000004
PM_IOG	HDT	18.1	21		2.17	0.0242	0.000037	0.000313	0.000990	0.000011
Fehlingstraße	Veh.	31.3	1,100							
Lane nstr58	PC	32.0	1,014	0.249	17.03	0.0240	0.000527	0.000458	0.011521	0.000086
IO_Nebenstr_locker	LDT	32.0	29		0.57	0.0015	0.000013	0.000074	0.000431	0.000003
PM_IOG	HDT	18.1	57		4.25	0.0475	0.000072	0.000612	0.002135	0.000021
Am Fahrenberg	Veh.	38.8	6,800							
Lane nstr59	PC	39.1	6,331	0.259	104.30	0.1500	0.003028	0.002896	0.068547	0.000526
IO_LSA1	LDT	39.1	173		3.36	0.0090	0.000072	0.000440	0.002474	0.000017
PM_IOG	HDT	32.9	296		18.60	0.2112	0.000275	0.002446	0.009094	0.000094
Bertlingstraße	Veh.	38.7	6,800							
Lane nstr60	PC	39.1	6,131	0.092	35.88	0.0516	0.001042	0.000996	0.030738	0.000181
IO_LSA1	LDT	39.1	196		1.35	0.0036	0.000029	0.000177	0.001224	0.000007
PM_IOG	HDT	32.9	473		10.56	0.1199	0.000156	0.001388	0.005714	0.000053
Godewind	Veh.	38.6	6,400							
Lane nstr61	PC	39.1	5,708	0.126	45.75	0.0658	0.001328	0.001270	0.042666	0.000231
IO_LSA1	LDT	39.1	191		1.80	0.0048	0.000039	0.000236	0.001750	0.000009
PM_IOG	HDT	32.9	501		15.31	0.1739	0.000227	0.002014	0.008594	0.000077
Godewind	Veh.	38.7	6,300							
Lane nstr62	PC	39.1	5,741	0.091	33.23	0.0478	0.000965	0.000923	0.026129	0.000167
IO_HVS3	LDT	39.1	175		1.19	0.0032	0.000026	0.000156	0.001010	0.000006
PM_IOG	HDT	32.9	384		8.48	0.0963	0.000125	0.001115	0.004432	0.000043
Godewind	Veh.	31.0	1,300							
Lane nstr63	PC	32.0	1,173	0.254	20.10	0.0284	0.000622	0.000540	0.016200	0.000101
IO_Nebenstr_locker	LDT	32.0	37		0.74	0.0020	0.000017	0.000096	0.000643	0.000004
PM_IOG	HDT	18.1	90		6.84	0.0764	0.000116	0.000986	0.003639	0.000034
Steuerbord	Veh.	31.0	1,300							
Lane nstr64	PC	32.0	1,173	0.408	32.28	0.0455	0.001000	0.000868	0.026022	0.000163
IO_Nebenstr_locker	LDT	32.0	37		1.18	0.0031	0.000028	0.000155	0.001033	0.000006
PM_IOG	HDT	18.1	90		10.99	0.1228	0.000187	0.001584	0.005845	0.000055
Kaiserallee	Veh.	38.9	2,200							
Lane nstr65	PC	39.1	2,092	0.642	85.43	0.1229	0.002480	0.002372	0.046582	0.000431
IO_HVS3	LDT	39.1	51		2.45	0.0065	0.000053	0.000321	0.001575	0.000012
PM_IOG	HDT	32.9	57		8.88	0.1008	0.000131	0.001167	0.004080	0.000045

Total Annual Emissions of Road Traffic (Actual Scenario, continued)

Road lane / traffic situation	Vehicle class	Speed [km/h]	Number	Total annual emissions						
				Length	CO2	NOx	Benzol	Ruß	PM10	SO2
				[km]	[t/a]	[t/a]	[t/a]	[t/a]	[t/a]	[t/a]
Kaiserallee	Veh.	31.6	2,000							
Lane nstr66	PC	32.0	1,901	0.404	51.80	0.0731	0.001604	0.001392	0.026735	0.000261
IO_Nebenstr_locker	LDT	32.0	47		1.49	0.0040	0.000035	0.000195	0.000928	0.000008
PM_IOG	HDT	18.1	52		6.29	0.0702	0.000107	0.000906	0.002933	0.000032
Strandweg	Veh.	31.9	1,000							
Lane nstr67	PC	32.0	970	0.652	42.66	0.0602	0.001321	0.001146	0.018355	0.000215
IO_Nebenstr_locker	LDT	32.0	21		1.07	0.0028	0.000025	0.000141	0.000590	0.000005
PM_IOG	HDT	18.1	9		1.76	0.0196	0.000030	0.000253	0.000785	0.000009
Strandredder	Veh.	31.9	1,000							
Lane nstr68	PC	32.0	970	0.277	18.12	0.0256	0.000561	0.000487	0.007798	0.000091
IO_Nebenstr_locker	LDT	32.0	21		0.46	0.0012	0.000011	0.000060	0.000251	0.000002
PM_IOG	HDT	18.1	9		0.75	0.0083	0.000013	0.000108	0.000334	0.000004
Strandredder	Veh.	31.9	1,000							
Lane nstr69	PC	32.0	970	0.103	6.74	0.0095	0.000209	0.000181	0.002900	0.000034
IO_Nebenstr_locker	LDT	32.0	21		0.17	0.0005	0.000004	0.000022	0.000093	0.000001
PM_IOG	HDT	18.1	9		0.28	0.0031	0.000005	0.000040	0.000124	0.000001
Alfred-Hagelstein-Str.	Veh.	31.5	1,000							
Lane nstr70	PC	32.0	941	0.284	18.03	0.0254	0.000558	0.000484	0.010227	0.000091
IO_Nebenstr_locker	LDT	32.0	24		0.53	0.0014	0.000013	0.000070	0.000357	0.000003
PM_IOG	HDT	18.1	35		2.97	0.0332	0.000051	0.000429	0.001422	0.000015
Steenkamp	Veh.	38.7	1,000							
Lane nstr71	PC	39.1	911	0.232	13.44	0.0193	0.000390	0.000373	0.010579	0.000068
IO_LSA1	LDT	39.1	28		0.49	0.0013	0.000010	0.000064	0.000412	0.000002
PM_IOG	HDT	32.9	61		3.43	0.0390	0.000051	0.000451	0.001795	0.000017
Steenkamp	Veh.	46.0	2,800							
Lane nstr72	PC	46.2	2,662	0.289	45.98	0.0676	0.001234	0.001323	0.026670	0.000232
IO_HVS2	LDT	46.2	65		1.34	0.0036	0.000026	0.000176	0.000891	0.000007
PM_IOG	HDT	38.5	73		4.63	0.0532	0.000065	0.000589	0.002143	0.000023
Steenkamp	Veh.	45.9	2,200							
Lane nstr73	PC	46.2	2,069	0.488	60.34	0.0887	0.001620	0.001736	0.038513	0.000304
IO_HVS2	LDT	46.2	54		1.88	0.0050	0.000036	0.000247	0.001341	0.000009
PM_IOG	HDT	38.5	77		8.25	0.0947	0.000115	0.001049	0.003947	0.000042
Steenkamp	Veh.	58.3	1,700							
Lane nstr74	PC	58.4	1,616	0.144	12.41	0.0203	0.000339	0.000443	0.008126	0.000063
IO_HVS1	LDT	58.4	40		0.39	0.0011	0.000007	0.000058	0.000280	0.000002
PM_IOG	HDT	53.3	44		1.14	0.0134	0.000013	0.000132	0.000531	0.000006
Kowitzberg	Veh.	31.3	1,600							
Lane nstr75	PC	32.0	1,473	0.691	68.65	0.0969	0.002126	0.001845	0.046799	0.000346
IO_Nebenstr_locker	LDT	32.0	43		2.33	0.0062	0.000054	0.000305	0.001785	0.000012
PM_IOG	HDT	18.1	84		17.37	0.1941	0.000295	0.002504	0.008753	0.000088
Kowitzberg	Veh.	31.9	1,000							
Lane nstr76	PC	32.0	970	0.319	20.87	0.0294	0.000646	0.000561	0.008981	0.000105
IO_Nebenstr_locker	LDT	32.0	21		0.53	0.0014	0.000012	0.000069	0.000289	0.000003
PM_IOG	HDT	18.1	9		0.86	0.0096	0.000015	0.000124	0.000384	0.000004
Wedenberg	Veh.	76.6	1,000							
Lane nstr77	PC	76.7	936	0.840	41.51	0.0709	0.000952	0.001151	0.033916	0.000209
AO_1	LDT	76.7	29		1.70	0.0051	0.000020	0.000237	0.001386	0.000009
PM_AO	HDT	72.7	35		5.69	0.0649	0.000050	0.000589	0.002670	0.000029
Rödsaal	Veh.	76.5	1,300							
Lane nstr78	PC	76.7	1,179	0.925	57.58	0.0984	0.001321	0.001596	0.064542	0.000290
AO_1	LDT	76.7	41		2.64	0.0079	0.000031	0.000369	0.002766	0.000013
PM_AO	HDT	72.7	80		14.32	0.1633	0.000125	0.001484	0.007908	0.000072
Timmendorfer Weg	Veh.	67.5	1,000							
Lane nstr79	PC	67.6	946	0.327	16.38	0.0267	0.000391	0.000507	0.012003	0.000083
AO_2	LDT	67.6	28		0.63	0.0018	0.000008	0.000092	0.000483	0.000003
PM_AO	HDT	66.1	26		1.67	0.0193	0.000014	0.000173	0.000740	0.000008
Timmendorfer Landstr.	Veh.	76.6	1,000							
Lane nstr80	PC	76.7	946	0.576	28.77	0.0491	0.000660	0.000797	0.020983	0.000145
AO_1	LDT	76.7	28		1.12	0.0034	0.000013	0.000157	0.000843	0.000006
PM_AO	HDT	72.7	26		2.90	0.0330	0.000025	0.000300	0.001291	0.000015
Mecklenburger Landstr.	Veh.	45.9	3,200							
Lane nstr81	PC	46.2	2,979	1.082	192.64	0.2831	0.005172	0.005543	0.134405	0.000971
IO_HVS2	LDT	46.2	82		6.34	0.0170	0.000122	0.000831	0.004830	0.000032
PM_IOG	HDT	38.5	139		33.04	0.3792	0.000462	0.004197	0.016332	0.000166
Mecklenburger Landstr.	Veh.	45.9	2,700							
Lane nstr82	PC	46.2	2,540	0.960	145.73	0.2142	0.003912	0.004193	0.092818	0.000734
IO_HVS2	LDT	46.2	66		4.53	0.0121	0.000087	0.000593	0.003219	0.000023
PM_IOG	HDT	38.5	94		19.82	0.2275	0.000277	0.002518	0.009472	0.000100

A 4.6.2 Forecast Scenario

Road lane / traffic situation	Vehicle class	Speed [km/h]	Number	Total annual emissions						
				Length	CO2	NOx	Benzol	Ruß	PM10	SO2
				[km]	[t/a]	[t/a]	[t/a]	[t/a]	[t/a]	[t/a]
B75	Veh.	106.3	27,000							
Lane nstr1	PC	110.0	21,718	0.507	670.84	0.8077	0.005349	0.021599	2.235498	0.003381
AB_100	LDT	110.0	1,124		55.26	0.1335	0.000249	0.006219	0.124199	0.000278
PM_AB	HDT	86.2	4,158		495.12	2.9744	0.004198	0.022023	0.476160	0.002495
B75	Veh.	108.3	19,000							
Lane nstr2	PC	110.0	17,043	3.883	4,031.84	4.8543	0.032147	0.129813	5.879673	0.020318
AB_100	LDT	110.0	619		233.09	0.5630	0.001050	0.026231	0.249409	0.001175
PM_AB	HDT	86.2	1,338		1,220.22	7.3305	0.010346	0.054276	0.580301	0.006149
B75/AS Skandikai	Veh.	67.1	11,200							
Lane nstr3	PC	67.5	6,989	0.784	258.81	0.2972	0.002012	0.007223	2.246840	0.001304
AO_2	LDT	67.6	663		35.40	0.0687	0.000170	0.002973	0.216956	0.000178
PM_AO	HDT	66.1	3,548		566.29	4.4670	0.004417	0.032823	1.216565	0.002854
B75/AS Skandikai	Veh.	59.3	4,800							
Lane nstr4	PC	60.6	2,995	0.409	60.08	0.0717	0.000495	0.001774	0.502785	0.000303
AO_3	LDT	60.6	284		8.21	0.0158	0.000046	0.000745	0.048638	0.000041
PM_AO	HDT	56.6	1,521		134.14	1.0828	0.001173	0.008176	0.274275	0.000676
B75/AS Skandikai	Veh.	59.2	4,800							
Lane nstr5	PC	60.6	2,855	0.608	85.13	0.1017	0.000702	0.002515	0.811988	0.000429
AO_3	LDT	60.6	298		12.81	0.0246	0.000072	0.001162	0.086253	0.000065
PM_AO	HDT	56.6	1,647		215.92	1.7429	0.001888	0.013161	0.498906	0.001088
B75/AS Skandikai	Veh.	59.7	820							
Lane nstr6	PC	60.6	591	0.579	16.78	0.0200	0.000138	0.000496	0.085021	0.000085
AO_3	LDT	60.6	41		1.68	0.0032	0.000009	0.000152	0.006095	0.000008
PM_AO	HDT	56.6	188		23.47	0.1895	0.000205	0.001431	0.030359	0.000118
B75/AS Skandikai	Veh.	67.2	840							
Lane nstr7	PC	67.5	606	0.360	10.30	0.0118	0.000080	0.000288	0.053917	0.000052
AO_2	LDT	67.6	42		1.03	0.0020	0.000005	0.000086	0.003848	0.000005
PM_AO	HDT	66.1	192		14.07	0.1110	0.000110	0.000816	0.018970	0.000071
B76	Veh.	76.6	10,000							
Lane nstr8	PC	76.7	9,457	0.985	437.50	0.5032	0.003513	0.011737	0.357313	0.002205
AO_1	LDT	76.7	279		18.86	0.0378	0.000077	0.001541	0.012532	0.000095
PM_AO	HDT	72.7	264		52.12	0.3844	0.000421	0.002916	0.016718	0.000263
B76	Veh.	76.6	10,000							
Lane nstr9	PC	76.7	9,457	0.694	308.25	0.3545	0.002475	0.008270	0.251751	0.001553
AO_1	LDT	76.7	279		13.29	0.0266	0.000055	0.001085	0.008830	0.000067
PM_AO	HDT	72.7	264		36.72	0.2709	0.000297	0.002054	0.011779	0.000185
Travemünder Landstr.	Veh.	75.8	2,400							
Lane nstr10	PC	76.7	1,755	0.736	60.67	0.0698	0.000487	0.001628	0.301688	0.000306
AO_1	LDT	76.7	117		5.91	0.0118	0.000024	0.000483	0.020736	0.000030
PM_AO	HDT	72.7	528		77.88	0.5745	0.000630	0.004358	0.100842	0.000392
Travemünder Landstr.	Veh.	74.9	900							
Lane nstr11	PC	76.7	421	0.604	11.94	0.0137	0.000096	0.000320	0.194843	0.000060
AO_1	LDT	76.7	67		2.78	0.0056	0.000011	0.000227	0.031301	0.000014
PM_AO	HDT	72.7	412		49.87	0.3679	0.000403	0.002790	0.197131	0.000251
Travemünder Landstr.	Veh.	75.2	7,700							
Lane nstr12	PC	76.7	4,430	0.365	75.94	0.0873	0.000610	0.002037	0.821884	0.000383
AO_1	LDT	76.7	492		12.33	0.0247	0.000051	0.001007	0.092580	0.000062
PM_AO	HDT	72.7	2,778		203.22	1.4991	0.001643	0.011370	0.541689	0.001024
Travemünder Landstr.	Veh.	75.2	7,700							
Lane nstr13	PC	76.7	4,430	0.181	37.66	0.0433	0.000302	0.001010	0.407564	0.000190
AO_1	LDT	76.7	492		6.11	0.0122	0.000025	0.000499	0.045909	0.000031
PM_AO	HDT	72.7	2,778		100.77	0.7434	0.000815	0.005638	0.268618	0.000508
Travemünder Landstr.	Veh.									
Lane nstr14	PC									
AO_1	LDT									
PM_AO	HDT									
Travemünder Landstr.	Veh.	39.0	1,000							
Lane nstr15	PC	39.1	970	0.354	19.26	0.0197	0.000153	0.000494	0.009752	0.000097
IO_LSA1	LDT	39.1	21		0.55	0.0010	0.000004	0.000041	0.000262	0.000003
PM_IOG	HDT	32.9	9		0.79	0.0064	0.000009	0.000059	0.000229	0.000004
Travemünder Landstr.	Veh.	38.8	5,400							
Lane nstr16	PC	39.1	4,974	0.285	79.51	0.0814	0.000634	0.002041	0.064095	0.000401
IO_LSA1	LDT	39.1	144		3.03	0.0055	0.000021	0.000228	0.002138	0.000015
PM_IOG	HDT	32.9	282		19.85	0.1603	0.000238	0.001479	0.007138	0.000100
Travemünder Landstr.	Veh.	38.7	7,300							
Lane nstr17	PC	39.1	6,582	0.139	51.31	0.0526	0.000409	0.001317	0.049370	0.000259
IO_LSA1	LDT	39.1	210		2.15	0.0039	0.000015	0.000162	0.001776	0.000011
PM_IOG	HDT	32.9	508		17.44	0.1408	0.000210	0.001299	0.006889	0.000088

Total Annual Emissions of Road Traffic (Forecast Scenario, continued)

Road lane / traffic situation	Vehicle class	Speed [km/h]	Number	Total annual emissions						
				Length	CO2	NOx	Benzol	Ruß	PM10	SO2
				[km]	[t/a]	[t/a]	[t/a]	[t/a]	[t/a]	[t/a]
Gneversdorfer Weg	Veh.	38.9	11,900							
Lane nstr18	PC	39.1	11,196	0.100	62.79	0.0643	0.000500	0.001612	0.042079	0.000316
IO_LSA1	LDT	39.1	290		2.14	0.0039	0.000015	0.000161	0.001289	0.000011
PM_IOG	HDT	32.9	414		10.23	0.0826	0.000123	0.000762	0.003361	0.000052
Gneversdorfer Weg	Veh.	38.7	15,100							
Lane nstr19	PC	39.1	13,614	0.494	377.20	0.3863	0.003006	0.009681	0.362978	0.001901
IO_LSA1	LDT	39.1	435		15.85	0.0287	0.000112	0.001195	0.013075	0.000080
PM_IOG	HDT	32.9	1,051		128.23	1.0353	0.001541	0.009552	0.050657	0.000646
Gneversdorfer Weg	Veh.	58.0	16,100							
Lane nstr20	PC	58.4	14,515	0.640	443.74	0.5246	0.003723	0.013441	0.501622	0.002236
IO_HVS1	LDT	58.4	464		20.04	0.0375	0.000120	0.001703	0.018157	0.000101
PM_IOG	HDT	53.3	1,121		131.92	1.0889	0.001258	0.008667	0.058678	0.000665
Gneversdorfer Weg	Veh.	58.0	18,200							
Lane nstr21	PC	58.4	16,409	0.420	329.20	0.3892	0.002762	0.009972	0.372086	0.001659
IO_HVS1	LDT	58.4	524		14.85	0.0278	0.000089	0.001262	0.013455	0.000075
PM_IOG	HDT	53.3	1,267		97.85	0.8077	0.000933	0.006429	0.043519	0.000493
Gneversdorfer Weg	Veh.									
Lane nstr22	PC									
IO_HVS1	LDT									
PM_IOG	HDT									
Ovendorfer Straße	Veh.	58.0	600							
Lane nstr23	PC	58.4	535	1.276	32.61	0.0385	0.000274	0.000988	0.040163	0.000164
IO_HVS1	LDT	58.4	18		1.55	0.0029	0.000009	0.000132	0.001515	0.000008
PM_IOG	HDT	53.3	47		11.03	0.0910	0.000105	0.000725	0.005195	0.000056
Ivendorfer Landstraße	Veh.	76.3	2,200							
Lane nstr24	PC	76.7	1,888	0.775	68.72	0.0790	0.000552	0.001844	0.136883	0.000346
AO_1	LDT	76.7	80		4.26	0.0085	0.000017	0.000348	0.006249	0.000021
PM_AO	HDT	72.7	232		36.04	0.2658	0.000291	0.002016	0.021483	0.000182
Ivendorfer Landstraße	Veh.	57.9	2,600							
Lane nstr25	PC	58.4	2,243	0.473	50.68	0.0599	0.000425	0.001535	0.079503	0.000255
IO_HVS1	LDT	58.4	86		2.75	0.0051	0.000016	0.000233	0.003339	0.000014
PM_IOG	HDT	53.3	271		23.57	0.1946	0.000225	0.001549	0.013168	0.000119
Ivendorfer Landstraße	Veh.	76.3	2,900							
Lane nstr26	PC	76.7	2,516	0.860	101.62	0.1169	0.000816	0.002726	0.186059	0.000512
AO_1	LDT	76.7	103		6.08	0.0122	0.000025	0.000497	0.008258	0.000031
PM_AO	HDT	72.7	281		48.43	0.3573	0.000392	0.002710	0.027047	0.000244
Ivendorfer Landstraße	Veh.	58.0	3,100							
Lane nstr27	PC	58.4	2,734	1.198	156.45	0.1850	0.001313	0.004739	0.209562	0.000788
IO_HVS1	LDT	58.4	96		7.76	0.0145	0.000046	0.000659	0.008180	0.000039
PM_IOG	HDT	53.3	270		59.48	0.4909	0.000567	0.003908	0.029685	0.000300
Teutendorfer Weg	Veh.	58.1	5,700							
Lane nstr28	PC	58.4	5,195	0.068	16.87	0.0199	0.000142	0.000511	0.017466	0.000085
IO_HVS1	LDT	58.4	158		0.73	0.0014	0.000004	0.000062	0.000608	0.000004
PM_IOG	HDT	53.3	347		4.34	0.0358	0.000041	0.000285	0.001822	0.000022
Teutendorfer Weg	Veh.	58.2	5,100							
Lane nstr29	PC	58.4	4,748	1.095	248.35	0.2936	0.002084	0.007523	0.214591	0.001252
IO_HVS1	LDT	58.4	130		9.61	0.0180	0.000057	0.000816	0.006893	0.000048
PM_IOG	HDT	53.3	222		44.70	0.3690	0.000426	0.002937	0.016789	0.000225
Teutendorfer Weg	Veh.	76.5	1,200							
Lane nstr30	PC	76.7	1,111	0.575	30.00	0.0345	0.000241	0.000805	0.030623	0.000151
AO_1	LDT	76.7	36		1.42	0.0028	0.000006	0.000116	0.001142	0.000007
PM_AO	HDT	72.7	53		6.11	0.0451	0.000049	0.000342	0.002251	0.000031
Auf dem Baggersand	Veh.	19.7	5,300							
Lane nstr31	PC	19.9	4,934	0.689	218.23	0.2158	0.001976	0.004974	0.140484	0.001100
IO_Kern	LDT	19.9	135		14.09	0.0252	0.000098	0.001043	0.005355	0.000071
PM_IOG	HDT	14.4	231		47.31	0.3935	0.000801	0.004458	0.017334	0.000238
Torstraße/ Kirchenstr.	Veh.	19.4	3,500							
Lane nstr32	PC	19.9	3,086	0.323	63.99	0.0633	0.000579	0.001458	0.063844	0.000322
IO_Kern	LDT	19.9	109		5.33	0.0095	0.000037	0.000395	0.002827	0.000027
PM_IOG	HDT	14.4	305		29.28	0.2435	0.000496	0.002759	0.012968	0.000148
St .Lorenz Straße	Veh.	19.2	2,500							
Lane nstr33	PC	19.9	2,083	0.108	14.44	0.0143	0.000131	0.000329	0.021136	0.000073
IO_Kern	LDT	19.9	91		1.49	0.0027	0.000010	0.000110	0.001083	0.000008
PM_IOG	HDT	14.4	326		10.46	0.0870	0.000177	0.000986	0.005687	0.000053
Vogteistraße	Veh.	19.7	4,000							
Lane nstr34	PC	19.9	3,763	0.565	136.48	0.1350	0.001236	0.003111	0.079973	0.000688
IO_Kern	LDT	19.9	98		8.39	0.0150	0.000058	0.000621	0.002982	0.000042
PM_IOG	HDT	14.4	139		23.34	0.1941	0.000395	0.002200	0.008262	0.000118

Total Annual Emissions of Road Traffic (Forecast Scenario, continued)

Road lane / traffic situation	Vehicle class	Speed [km/h]	Number	Total annual emissions						
				Length	CO2	NOx	Benzol	Ruß	PM10	SO2
				[km]	[t/a]	[t/a]	[t/a]	[t/a]	[t/a]	[t/a]
Mühlenberg	Veh.	31.8	1,500							
Lane nstr35	PC	32.0	1,441	0.417	35.57	0.0365	0.000300	0.000906	0.018752	0.000179
IO_Nebenstr_locker	LDT	32.0	33		1.06	0.0019	0.000008	0.000080	0.000528	0.000005
PM_IOG	HDT	18.1	26		3.29	0.0262	0.000045	0.000267	0.000978	0.000017
Mühlenberg	Veh.	31.8	1,500							
Lane nstr36	PC	32.0	1,441	0.327	27.89	0.0286	0.000235	0.000711	0.014704	0.000141
IO_Nebenstr_locker	LDT	32.0	33		0.83	0.0015	0.000006	0.000063	0.000414	0.000004
PM_IOG	HDT	18.1	26		2.58	0.0206	0.000035	0.000209	0.000767	0.000013
Moorredder	Veh.	38.8	9,000							
Lane nstr37	PC	39.1	8,291	0.327	152.06	0.1557	0.001212	0.003903	0.122564	0.000766
IO_LSA1	LDT	39.1	239		5.76	0.0104	0.000041	0.000435	0.004070	0.000029
PM_IOG	HDT	32.9	470		37.96	0.3065	0.000456	0.002828	0.013648	0.000191
Moorredder	Veh.	38.8	9,000							
Lane nstr38	PC	39.1	8,291	0.587	272.96	0.2795	0.002175	0.007006	0.220015	0.001376
IO_LSA1	LDT	39.1	239		10.35	0.0187	0.000073	0.000780	0.007306	0.000052
PM_IOG	HDT	32.9	470		68.14	0.5502	0.000819	0.005076	0.024500	0.000343
Howingsbrook	Veh.	58.1	4,500							
Lane nstr39	PC	58.4	4,101	0.808	158.28	0.1871	0.001328	0.004795	0.163862	0.000798
IO_HVS1	LDT	58.4	125		6.82	0.0127	0.000041	0.000579	0.005716	0.000034
PM_IOG	HDT	53.3	274		40.71	0.3360	0.000388	0.002675	0.017101	0.000205
Howingsbrook	Veh.	58.3	1,700							
Lane nstr40	PC	58.4	1,616	0.350	27.02	0.0319	0.000227	0.000818	0.019321	0.000136
IO_HVS1	LDT	58.4	40		0.94	0.0018	0.000006	0.000080	0.000578	0.000005
PM_IOG	HDT	53.3	44		2.83	0.0234	0.000027	0.000186	0.000954	0.000014
Vorderreihe	Veh.	19.4	1,000							
Lane nstr41	PC	19.9	882	0.399	22.59	0.0223	0.000205	0.000515	0.022506	0.000114
IO_Kern	LDT	19.9	31		1.87	0.0033	0.000013	0.000139	0.000992	0.000009
PM_IOG	HDT	14.4	87		10.32	0.0858	0.000175	0.000972	0.004566	0.000052
Vorderreihe	Veh.	19.7	500							
Lane nstr42	PC	19.9	465	0.254	7.58	0.0075	0.000069	0.000173	0.004906	0.000038
IO_Kern	LDT	19.9	13		0.50	0.0009	0.000003	0.000037	0.000191	0.000003
PM_IOG	HDT	14.4	22		1.66	0.0138	0.000028	0.000157	0.000610	0.000008
Außenallee	Veh.	45.6	4,200							
Lane nstr43	PC	46.2	3,745	0.387	76.79	0.0785	0.000572	0.001987	0.085084	0.000387
IO_HVS2	LDT	46.2	126		3.43	0.0062	0.000022	0.000258	0.003182	0.000017
PM_IOG	HDT	38.5	329		28.50	0.2327	0.000325	0.002057	0.012327	0.000144
Außenallee	Veh.	46.1	4,800							
Lane nstr44	PC	46.2	4,609	0.372	90.84	0.0929	0.000677	0.002351	0.053233	0.000458
IO_HVS2	LDT	46.2	107		2.80	0.0051	0.000018	0.000211	0.001497	0.000014
PM_IOG	HDT	38.5	84		6.99	0.0571	0.000080	0.000505	0.002161	0.000035
Trelleborgallee	Veh.	30.9	2,200							
Lane nstr45	PC	32.0	1,962	0.464	53.88	0.0553	0.000454	0.001373	0.053575	0.000272
IO_Nebenstr_locker	LDT	32.0	66		2.36	0.0043	0.000018	0.000178	0.002023	0.000012
PM_IOG	HDT	18.1	172		24.24	0.1932	0.000332	0.001963	0.009404	0.000122
Kurgartenstraße	Veh.	19.4	2,000							
Lane nstr46	PC	19.9	1,764	0.354	40.09	0.0396	0.000363	0.000914	0.039936	0.000202
IO_Kern	LDT	19.9	62		3.33	0.0059	0.000023	0.000246	0.001760	0.000017
PM_IOG	HDT	14.4	174		18.31	0.1523	0.000310	0.001725	0.008102	0.000092
Kurgartenstraße	Veh.	19.4	2,000							
Lane nstr47	PC	19.9	1,764	0.242	27.40	0.0271	0.000248	0.000625	0.027301	0.000138
IO_Kern	LDT	19.9	62		2.27	0.0041	0.000016	0.000168	0.001203	0.000011
PM_IOG	HDT	14.4	174		12.52	0.1041	0.000212	0.001179	0.005539	0.000063
Am Lotsenberg	Veh.	19.3	4,300							
Lane nstr48	PC	19.9	3,667	0.084	19.77	0.0196	0.000179	0.000451	0.024962	0.000100
IO_Kern	LDT	19.9	147		1.87	0.0033	0.000013	0.000138	0.001201	0.000009
PM_IOG	HDT	14.4	486		12.13	0.1009	0.000205	0.001143	0.006067	0.000061
Am Lotsenberg	Veh.	19.3	4,300							
Lane nstr49	PC	19.9	3,667	0.158	37.19	0.0368	0.000337	0.000848	0.046952	0.000187
IO_Kern	LDT	19.9	147		3.52	0.0063	0.000024	0.000260	0.002259	0.000018
PM_IOG	HDT	14.4	486		22.82	0.1898	0.000386	0.002151	0.011412	0.000115
Straße Neu	Veh.	19.3	4,300							
Lane nstr50	PC	19.9	3,667	0.237	55.79	0.0552	0.000505	0.001272	0.070428	0.000281
IO_Kern	LDT	19.9	147		5.28	0.0094	0.000037	0.000391	0.003389	0.000027
PM_IOG	HDT	14.4	486		34.23	0.2847	0.000580	0.003226	0.017118	0.000173

Total Annual Emissions of Road Traffic (Forecast Scenario, continued)

Road lane / traffic situation	Vehicle class	Speed [km/h]	Number	Total annual emissions						
				Length	CO2	NOx	Benzol	Ruß	PM10	SO2
				[km]	[t/a]	[t/a]	[t/a]	[t/a]	[t/a]	[t/a]
Rose	Veh.	19.4	1,000							
Lane nstr51	PC	19.9	882	0.059	3.34	0.0033	0.000030	0.000076	0.003328	0.000017
IO_Kern	LDT	19.9	31		0.28	0.0005	0.000002	0.000021	0.000147	0.000001
PM_IOG	HDT	14.4	87		1.53	0.0127	0.000026	0.000144	0.000675	0.000008
Rose	Veh.	19.7	3,000							
Lane nstr52	PC	19.9	2,792	0.102	18.28	0.0181	0.000165	0.000417	0.011782	0.000092
IO_Kern	LDT	19.9	77		1.19	0.0021	0.000008	0.000088	0.000453	0.000006
PM_IOG	HDT	14.4	131		3.97	0.0330	0.000067	0.000374	0.001456	0.000020
Rose	Veh.	31.8	2,300							
Lane nstr53	PC	32.0	2,209	0.087	11.37	0.0117	0.000096	0.000290	0.006003	0.000057
IO_Nebenstr_locker	LDT	32.0	51		0.34	0.0006	0.000003	0.000026	0.000171	0.000002
PM_IOG	HDT	18.1	40		1.06	0.0084	0.000014	0.000086	0.000314	0.000005
Rose	Veh.	31.8	1,400							
Lane nstr54	PC	32.0	1,345	0.212	16.88	0.0173	0.000142	0.000430	0.008882	0.000085
IO_Nebenstr_locker	LDT	32.0	31		0.51	0.0009	0.000004	0.000038	0.000252	0.000003
PM_IOG	HDT	18.1	24		1.55	0.0123	0.000021	0.000125	0.000459	0.000008
Rose	Veh.	31.8	1,500							
Lane nstr55	PC	32.0	1,441	0.314	26.78	0.0275	0.000226	0.000682	0.014120	0.000135
IO_Nebenstr_locker	LDT	32.0	33		0.80	0.0014	0.000006	0.000060	0.000398	0.000004
PM_IOG	HDT	18.1	26		2.48	0.0198	0.000034	0.000201	0.000736	0.000012
Fehlingstraße	Veh.	31.9	1,300							
Lane nstr56	PC	32.0	1,262	0.290	21.66	0.0222	0.000183	0.000552	0.010373	0.000109
IO_Nebenstr_locker	LDT	32.0	27		0.60	0.0011	0.000005	0.000046	0.000278	0.000003
PM_IOG	HDT	18.1	11		0.97	0.0077	0.000013	0.000078	0.000279	0.000005
Fehlingstraße	Veh.	31.8	1,200							
Lane nstr57	PC	32.0	1,152	0.345	23.52	0.0241	0.000198	0.000599	0.012435	0.000119
IO_Nebenstr_locker	LDT	32.0	27		0.72	0.0013	0.000006	0.000054	0.000358	0.000004
PM_IOG	HDT	18.1	21		2.20	0.0175	0.000030	0.000178	0.000654	0.000011
Fehlingstraße	Veh.	31.3	1,100							
Lane nstr58	PC	32.0	1,014	0.249	14.94	0.0153	0.000126	0.000381	0.011393	0.000075
IO_Nebenstr_locker	LDT	32.0	29		0.56	0.0010	0.000004	0.000042	0.000378	0.000003
PM_IOG	HDT	18.1	57		4.31	0.0344	0.000059	0.000349	0.001477	0.000022
Am Fahrenberg	Veh.	38.8	6,800							
Lane nstr59	PC	39.1	6,331	0.259	91.97	0.0942	0.000733	0.002360	0.067655	0.000463
IO_LSA1	LDT	39.1	173		3.30	0.0060	0.000023	0.000249	0.002157	0.000017
PM_IOG	HDT	32.9	296		18.94	0.1529	0.000228	0.001410	0.006505	0.000095
Bertlingstraße	Veh.	38.7	6,800							
Lane nstr60	PC	39.1	6,131	0.092	31.64	0.0324	0.000252	0.000812	0.030431	0.000159
IO_LSA1	LDT	39.1	196		1.33	0.0024	0.000009	0.000100	0.001097	0.000007
PM_IOG	HDT	32.9	473		10.75	0.0868	0.000129	0.000801	0.004245	0.000054
Godewind	Veh.	38.6	6,400							
Lane nstr61	PC	39.1	5,708	0.126	40.34	0.0413	0.000321	0.001035	0.042275	0.000203
IO_LSA1	LDT	39.1	191		1.78	0.0032	0.000013	0.000134	0.001580	0.000009
PM_IOG	HDT	32.9	501		15.59	0.1259	0.000187	0.001161	0.006463	0.000079
Godewind	Veh.	38.7	6,300							
Lane nstr62	PC	39.1	5,741	0.091	29.30	0.0300	0.000234	0.000752	0.025845	0.000148
IO_HVS3	LDT	39.1	175		1.17	0.0021	0.000008	0.000089	0.000897	0.000006
PM_IOG	HDT	32.9	384		8.63	0.0697	0.000104	0.000643	0.003252	0.000043
Godewind	Veh.	31.0	1,300							
Lane nstr63	PC	32.0	1,173	0.254	17.63	0.0181	0.000149	0.000449	0.016049	0.000089
IO_Nebenstr_locker	LDT	32.0	37		0.72	0.0013	0.000006	0.000055	0.000574	0.000004
PM_IOG	HDT	18.1	90		6.94	0.0553	0.000095	0.000562	0.002580	0.000035
Steuerbord	Veh.	31.0	1,300							
Lane nstr64	PC	32.0	1,173	0.408	28.33	0.0291	0.000239	0.000722	0.025779	0.000143
IO_Nebenstr_locker	LDT	32.0	37		1.16	0.0021	0.000009	0.000088	0.000922	0.000006
PM_IOG	HDT	18.1	90		11.15	0.0889	0.000153	0.000903	0.004144	0.000056
Kaiserallee	Veh.	38.9	2,200							
Lane nstr65	PC	39.1	2,092	0.642	75.33	0.0771	0.000600	0.001933	0.045851	0.000380
IO_HVS3	LDT	39.1	51		2.41	0.0044	0.000017	0.000182	0.001343	0.000012
PM_IOG	HDT	32.9	57		9.04	0.0730	0.000109	0.000673	0.002845	0.000046
Kaiserallee	Veh.	31.6	2,000							
Lane nstr66	PC	32.0	1,901	0.404	45.46	0.0466	0.000383	0.001158	0.026345	0.000229
IO_Nebenstr_locker	LDT	32.0	47		1.46	0.0027	0.000011	0.000111	0.000788	0.000007
PM_IOG	HDT	18.1	52		6.38	0.0508	0.000087	0.000517	0.001960	0.000032
Strandweg	Veh.	31.9	1,000							
Lane nstr67	PC	32.0	970	0.652	37.43	0.0384	0.000316	0.000954	0.018034	0.000189
IO_Nebenstr_locker	LDT	32.0	21		1.06	0.0019	0.000008	0.000080	0.000489	0.000005
PM_IOG	HDT	18.1	9		1.78	0.0142	0.000024	0.000144	0.000513	0.000009

Total Annual Emissions of Road Traffic (Forecast Scenario, continued)

Road lane / traffic situation	Vehicle class	Speed [km/h]	Number	Total annual emissions						
				Length	CO2	NOx	Benzol	Ruß	PM10	SO2
				[km]	[t/a]	[t/a]	[t/a]	[t/a]	[t/a]	[t/a]
Strandredder	Veh.	31.9	1,000							
Lane nstr68	PC	32.0	970	0.277	15.90	0.0163	0.000134	0.000405	0.007662	0.000080
IO_Nebenstr_locker	LDT	32.0	21		0.45	0.0008	0.000003	0.000034	0.000208	0.000002
PM_IOG	HDT	18.1	9		0.76	0.0060	0.000010	0.000061	0.000218	0.000004
Strandredder	Veh.	31.9	1,000							
Lane nstr69	PC	32.0	970	0.103	5.91	0.0061	0.000050	0.000151	0.002849	0.000030
IO_Nebenstr_locker	LDT	32.0	21		0.17	0.0003	0.000001	0.000013	0.000077	0.000001
PM_IOG	HDT	18.1	9		0.28	0.0022	0.000004	0.000023	0.000081	0.000001
Alfred-Hagelstein-Str.	Veh.	31.5	1,000							
Lane nstr70	PC	32.0	941	0.284	15.82	0.0162	0.000133	0.000403	0.010091	0.000080
IO_Nebenstr_locker	LDT	32.0	24		0.53	0.0010	0.000004	0.000040	0.000306	0.000003
PM_IOG	HDT	18.1	35		3.02	0.0241	0.000041	0.000244	0.000962	0.000015
Steenkamp	Veh.	38.7	1,000							
Lane nstr71	PC	39.1	911	0.232	11.85	0.0121	0.000094	0.000304	0.010464	0.000060
IO_LSA1	LDT	39.1	28		0.48	0.0009	0.000003	0.000036	0.000366	0.000002
PM_IOG	HDT	32.9	61		3.50	0.0282	0.000042	0.000260	0.001318	0.000018
Steenkamp	Veh.	46.0	2,800							
Lane nstr72	PC	46.2	2,662	0.289	40.76	0.0417	0.000304	0.001055	0.026223	0.000205
IO_HVS2	LDT	46.2	65		1.32	0.0024	0.000009	0.000100	0.000763	0.000007
PM_IOG	HDT	38.5	73		4.72	0.0386	0.000054	0.000341	0.001523	0.000024
Steenkamp	Veh.	45.9	2,200							
Lane nstr73	PC	46.2	2,069	0.488	53.50	0.0547	0.000399	0.001384	0.037927	0.000270
IO_HVS2	LDT	46.2	54		1.86	0.0034	0.000012	0.000140	0.001162	0.000009
PM_IOG	HDT	38.5	77		8.41	0.0687	0.000096	0.000607	0.002844	0.000042
Steenkamp	Veh.	58.3	1,700							
Lane nstr74	PC	58.4	1,616	0.144	11.12	0.0131	0.000093	0.000337	0.007949	0.000056
IO_HVS1	LDT	58.4	40		0.39	0.0007	0.000002	0.000033	0.000238	0.000002
PM_IOG	HDT	53.3	44		1.17	0.0096	0.000011	0.000077	0.000393	0.000006
Kowitzberg	Veh.	31.3	1,600							
Lane nstr75	PC	32.0	1,473	0.691	60.24	0.0618	0.000508	0.001535	0.046282	0.000304
IO_Nebenstr_locker	LDT	32.0	43		2.29	0.0041	0.000018	0.000173	0.001565	0.000012
PM_IOG	HDT	18.1	84		17.63	0.1405	0.000242	0.001428	0.006063	0.000089
Kowitzberg	Veh.	31.9	1,000							
Lane nstr76	PC	32.0	970	0.319	18.31	0.0188	0.000154	0.000467	0.008823	0.000092
IO_Nebenstr_locker	LDT	32.0	21		0.52	0.0009	0.000004	0.000039	0.000239	0.000003
PM_IOG	HDT	18.1	9		0.87	0.0069	0.000012	0.000071	0.000251	0.000004
Wedenberg	Veh.	76.6	1,000							
Lane nstr77	PC	76.7	936	0.840	36.93	0.0425	0.000297	0.000991	0.033649	0.000186
AO_1	LDT	76.7	29		1.67	0.0034	0.000007	0.000137	0.001219	0.000008
PM_AO	HDT	72.7	35		5.89	0.0435	0.000048	0.000330	0.002021	0.000030
Rödsaal	Veh.	76.5	1,300							
Lane nstr78	PC	76.7	1,179	0.925	51.22	0.0589	0.000411	0.001374	0.064172	0.000258
AO_1	LDT	76.7	41		2.60	0.0052	0.000011	0.000213	0.002506	0.000013
PM_AO	HDT	72.7	80		14.83	0.1094	0.000120	0.000830	0.006273	0.000075
Timmendorfer Weg	Veh.	67.5	1,000							
Lane nstr79	PC	67.5	946	0.327	14.61	0.0168	0.000114	0.000408	0.011837	0.000074
AO_2	LDT	67.6	28		0.62	0.0012	0.000003	0.000052	0.000418	0.000003
PM_AO	HDT	66.1	26		1.73	0.0137	0.000014	0.000100	0.000557	0.000009
Timmendorfer Landstr.	Veh.	76.6	1,000							
Lane nstr80	PC	76.7	946	0.576	25.59	0.0294	0.000205	0.000687	0.020798	0.000129
AO_1	LDT	76.7	28		1.11	0.0022	0.000005	0.000090	0.000732	0.000006
PM_AO	HDT	72.7	26		3.00	0.0221	0.000024	0.000168	0.000960	0.000015
Mecklenburger Landstr.	Veh.	45.9	3,200							
Lane nstr81	PC	46.2	2,979	1.082	170.78	0.1746	0.001272	0.004419	0.132532	0.000861
IO_HVS2	LDT	46.2	82		6.25	0.0113	0.000040	0.000470	0.004229	0.000031
PM_IOG	HDT	38.5	139		33.66	0.2748	0.000384	0.002430	0.011916	0.000170
Mecklenburger Landstr.	Veh.	45.9	2,700							
Lane nstr82	PC	46.2	2,540	0.960	129.20	0.1321	0.000963	0.003343	0.091401	0.000651
IO_HVS2	LDT	46.2	66		4.46	0.0081	0.000029	0.000336	0.002790	0.000022
PM_IOG	HDT	38.5	94		20.20	0.1649	0.000230	0.001458	0.006822	0.000102
Straße Gewerbegebiet A	Veh.	29.9	2,100							
Lane nstr83	PC	32.0	1,708	0.411	41.55	0.0426	0.000350	0.001059	0.076106	0.000209
IO_Nebenstr_locker	LDT	32.0	81		2.57	0.0046	0.000020	0.000194	0.003849	0.000013
PM_IOG	HDT	18.1	311		38.82	0.3094	0.000532	0.003144	0.021396	0.000196
Straße Gewerbegebiet B	Veh.	29.9	2,800							
Lane nstr84	PC	32.0	2,278	0.890	120.00	0.1231	0.001012	0.003057	0.219400	0.000605
IO_Nebenstr_locker	LDT	32.0	108		7.41	0.0134	0.000057	0.000560	0.011093	0.000037
PM_IOG	HDT	18.1	414		111.91	0.8918	0.001534	0.009063	0.061604	0.000564

A 4.7 Total Emissions of Road Traffic

A 4.7.1 Actual Scenario (Tons per Year)

Source	Total emissions within area under investigation per year [t/a]					
	CO_2	NOx	SO_2	Benzene	PM_{10}	Soot
Road network						
Sources set 1	6,182	26.03	0.031	0.095	10.17	0.354
Sources set 2	4,307	22.27	0.022	0.085	8.27	0.268
Sources set 3	713	2.73	0.004	0.016	0.76	0.039
Sources set 4	2,256	7.39	0.011	0.065	1.53	0.120
Sources set 5	1,225	3.52	0.006	0.032	0.78	0.056
Sum	**14,683**	**61.94**	**0.074**	**0.293**	**21.51**	**0.836**

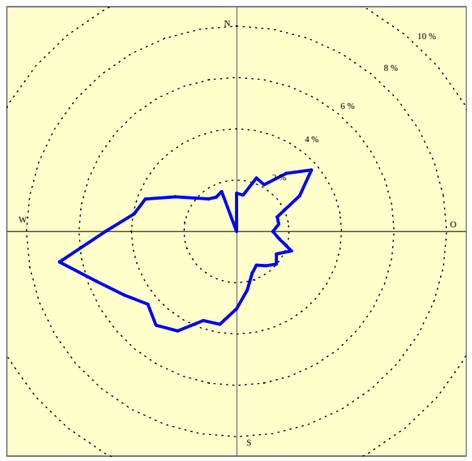
A 4.7.2 Forecast Scenario (Tons per Year)

Source	Total emissions within area under investigation per year [t/a]					
	CO_2	NOx	SO_2	Benzene	PM_{10}	Soot
Road network						
Sources set 1	9,017	26.45	0.045	0.072	16.30	0.362
Sources set 2	2,878	9.56	0.015	0.025	5.05	0.119
Sources set 3	1,212	3.77	0.006	0.011	1.36	0.051
Sources set 4	2,096	5.28	0.011	0.020	1.48	0.082
Sources set 5	1,108	2.39	0.006	0.009	0.75	0.039
Sum	**16,312**	**47.45**	**0.082**	**0.137**	**24.94**	**0.652**

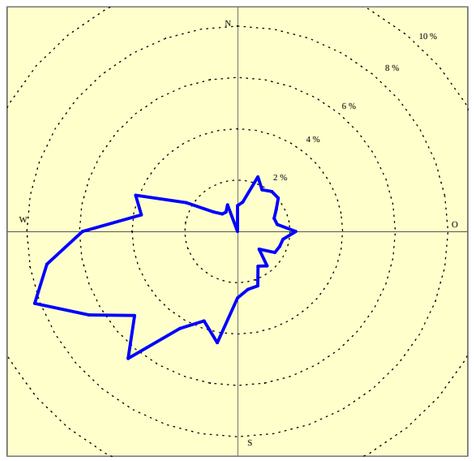
A 5 Preliminary Investigations concerning Variations due to Meteorological Parameters (model years 1997 to 2002)

A 5.1 Distributions of Wind Directions

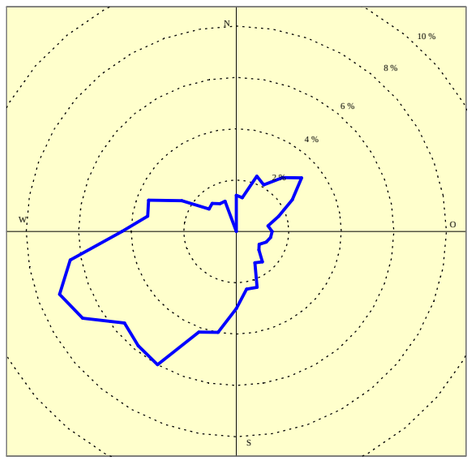
AKTerm 1997



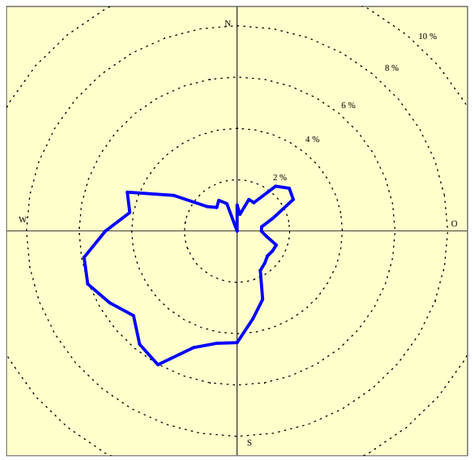
AKTerm 1998



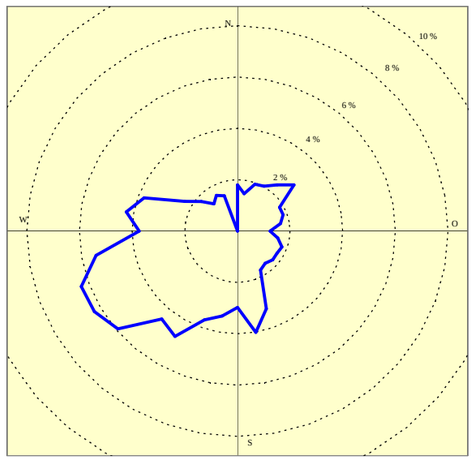
AKTerm 1999



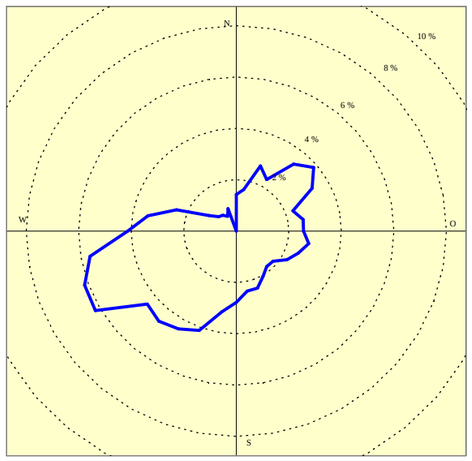
AKTerm 2000



AKTerm 2001



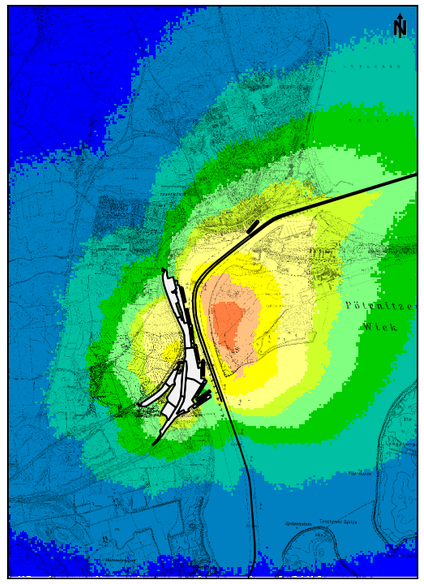
AKTerm 2002



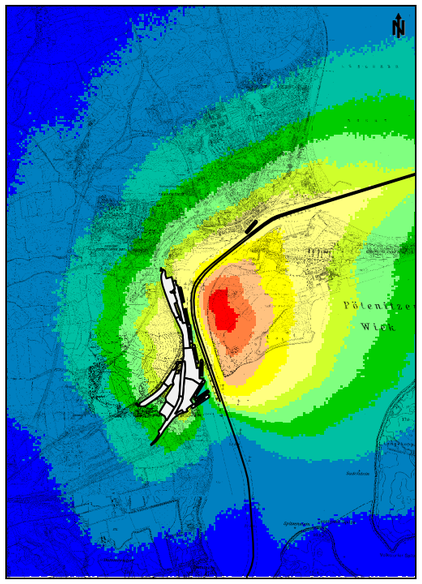
A 5.2 Exemplary Pollution Maps

A 5.2.1 Additional Sulphur Dioxide Pollution due to Shipping, Annual Average Value (J00)

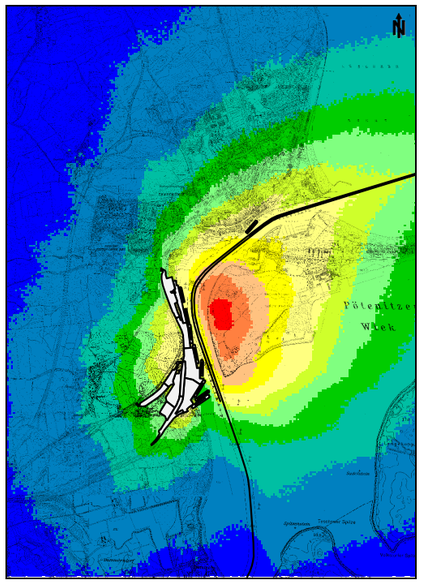
AKTerm 1997



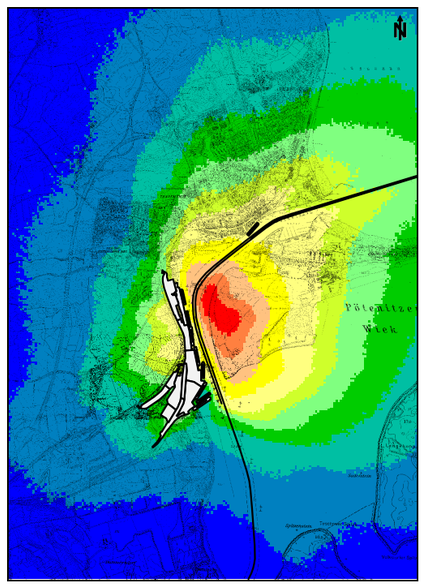
AKTerm 1998



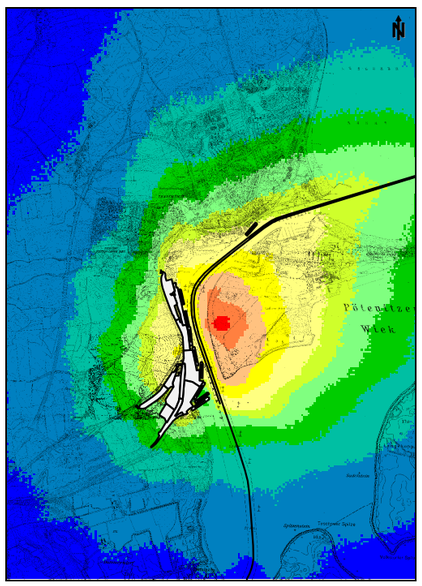
AKTerm 1999



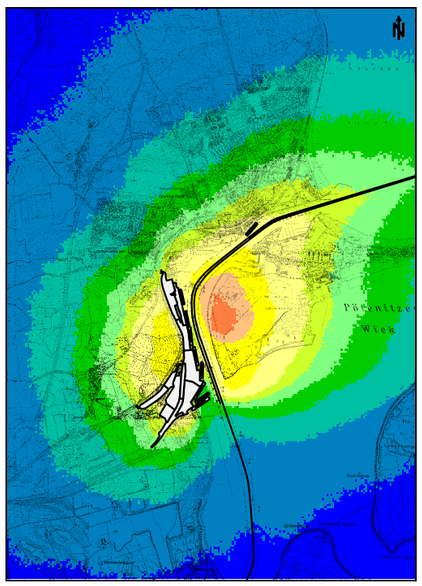
AKTerm 2000

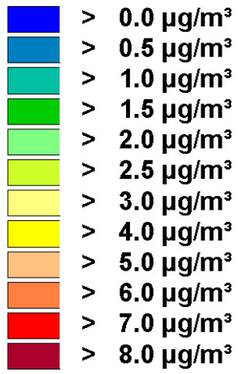


AKTerm 2001



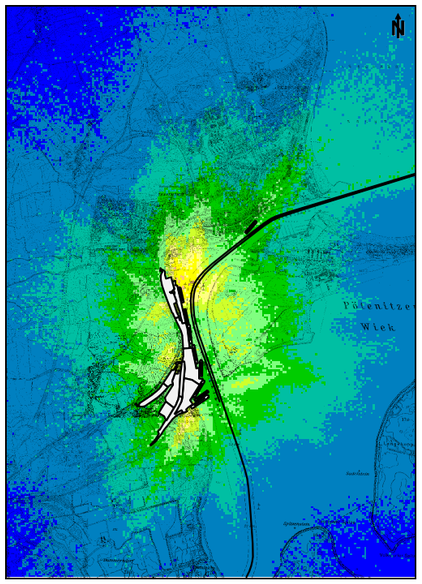
AKTerm 2002



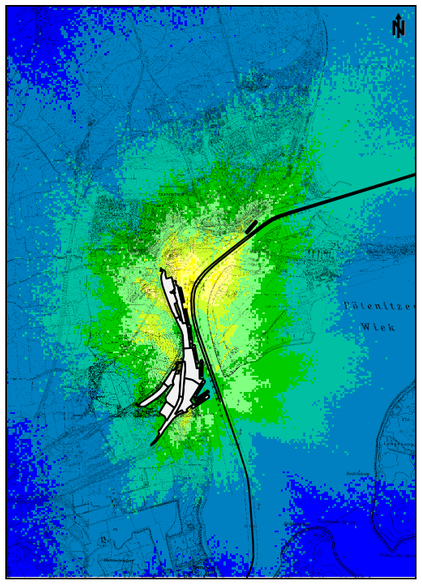


A 5.2.2 Additional Sulphur Dioxide Pollution due to Shipping, 24 Hours Value (T03)

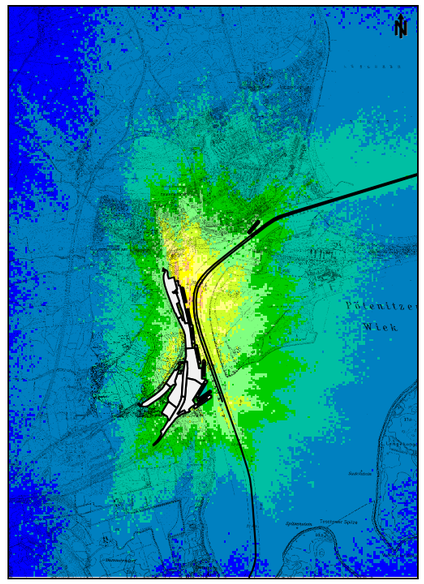
AKTerm 1997



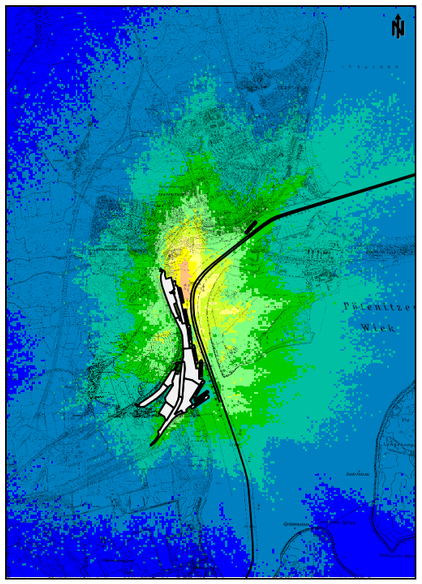
AKTerm 1998



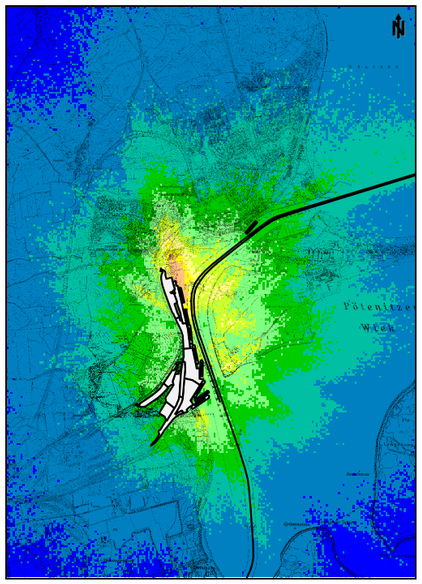
AKTerm 1999



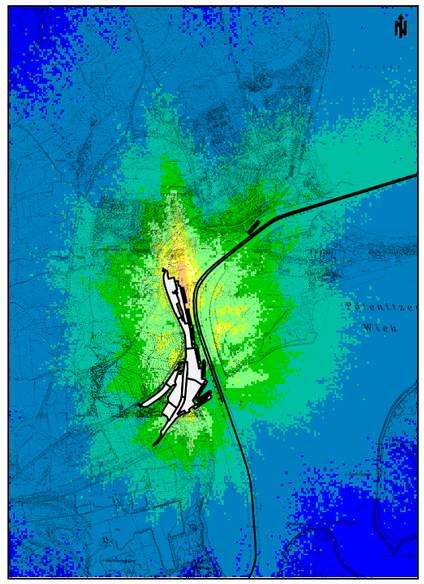
AKTerm 2000

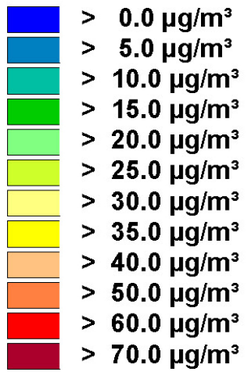


AKTerm 2001



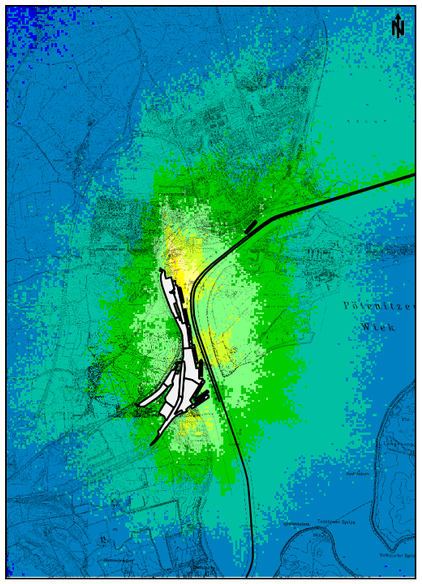
AKTerm 2002



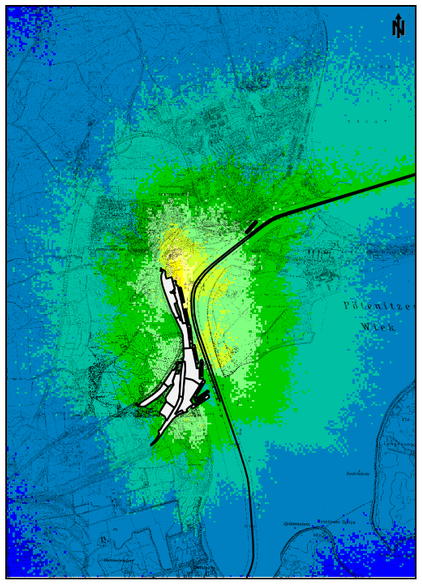


A 5.2.3 Additional Sulphur Dioxide Pollution due to Shipping, 1 Hour Value (S24)

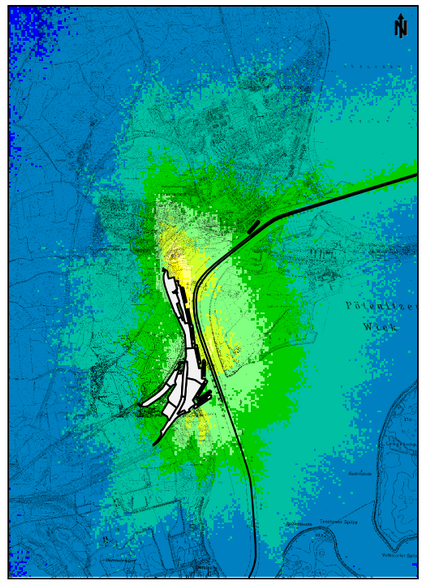
AKTerm 1997



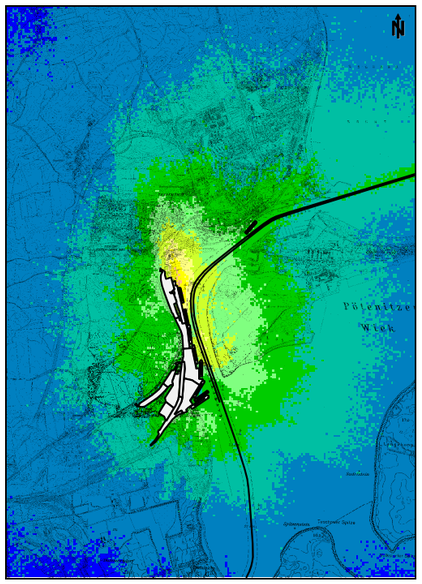
AKTerm 1998



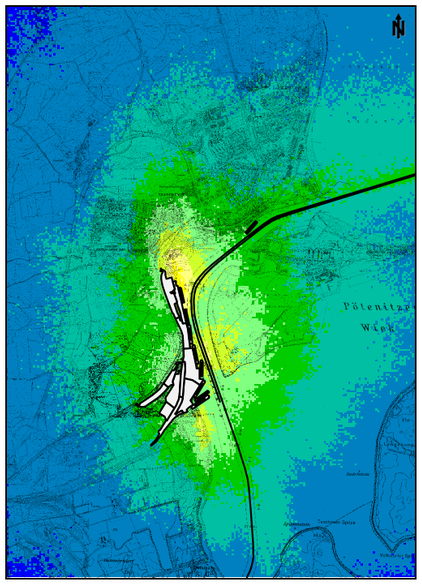
AKTerm 1999



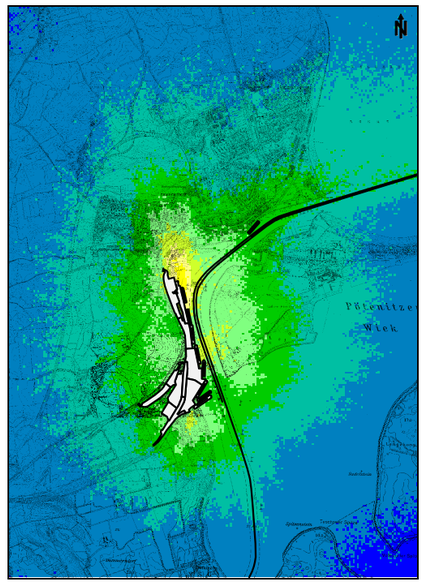
AKTerm 2000

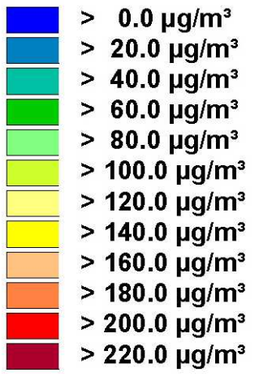


AKTerm 2001



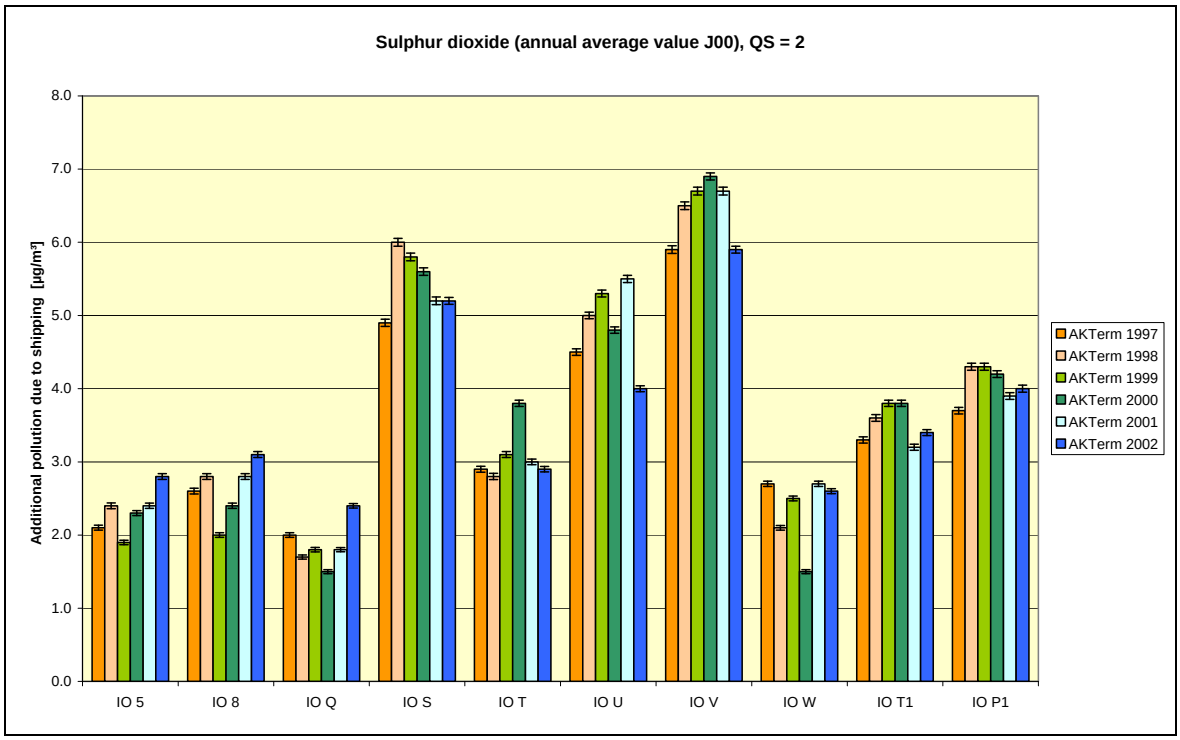
AKTerm 2002

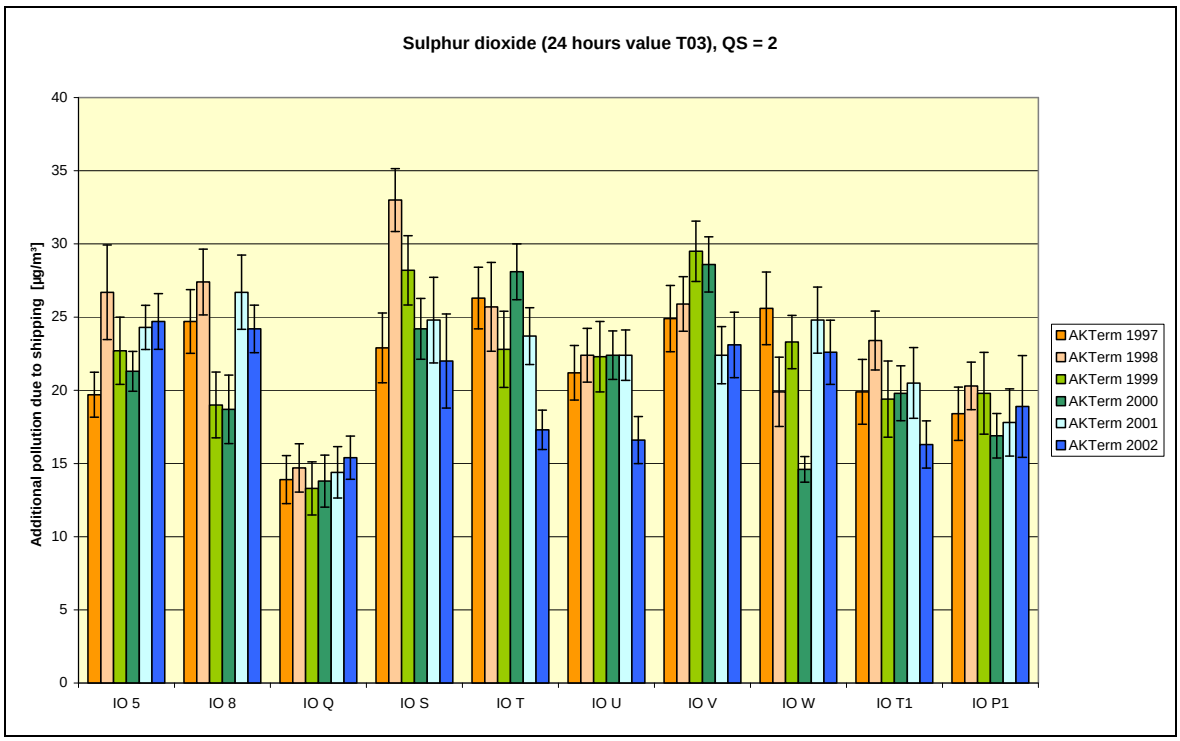


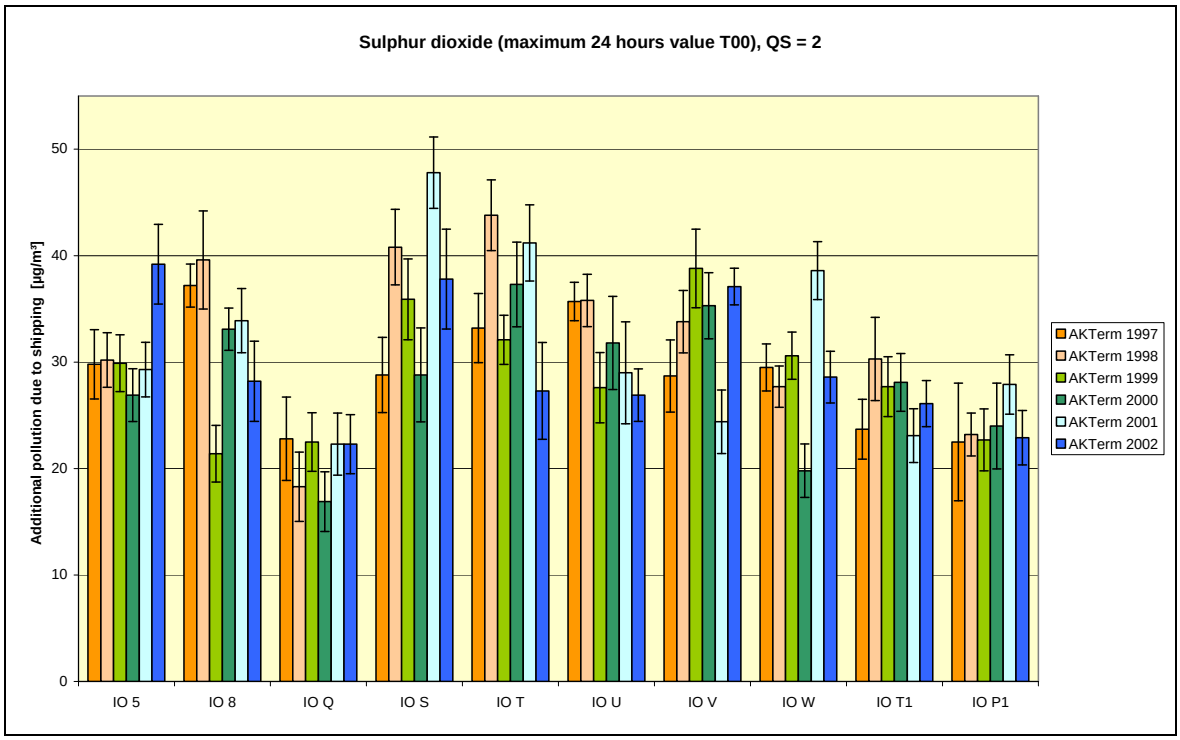


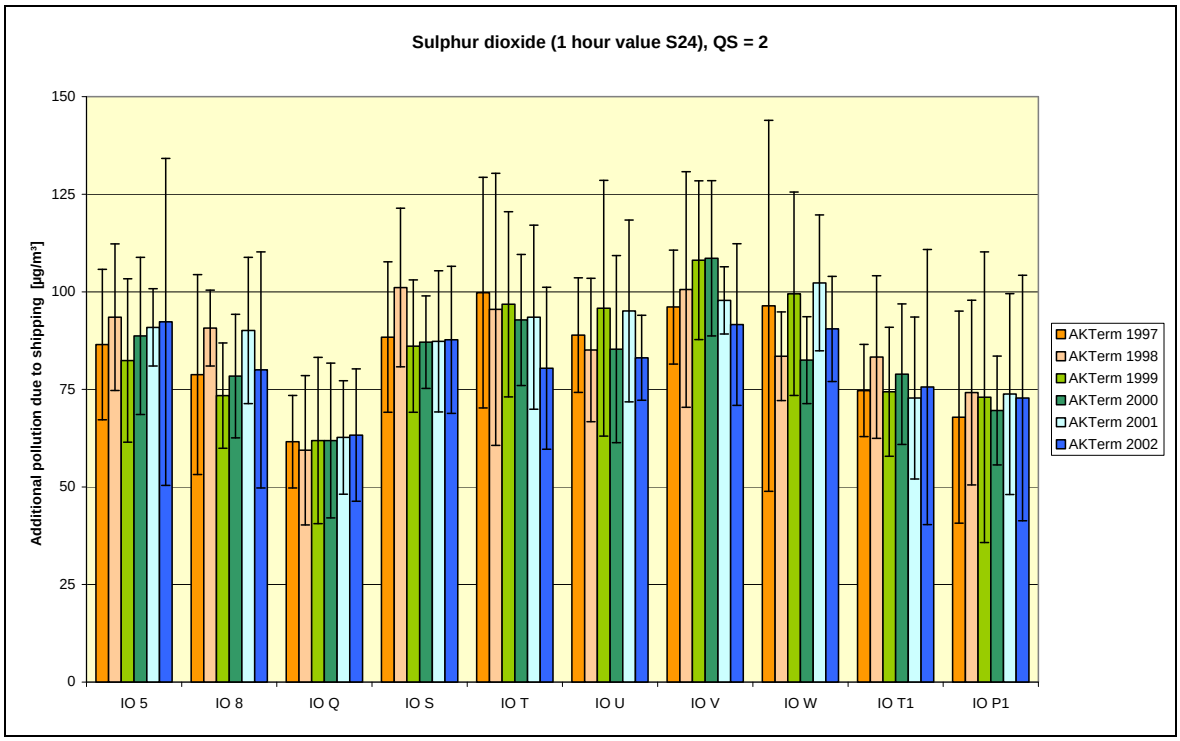
A 5.3 Analysis at Monitor Points (Preliminary Studies)

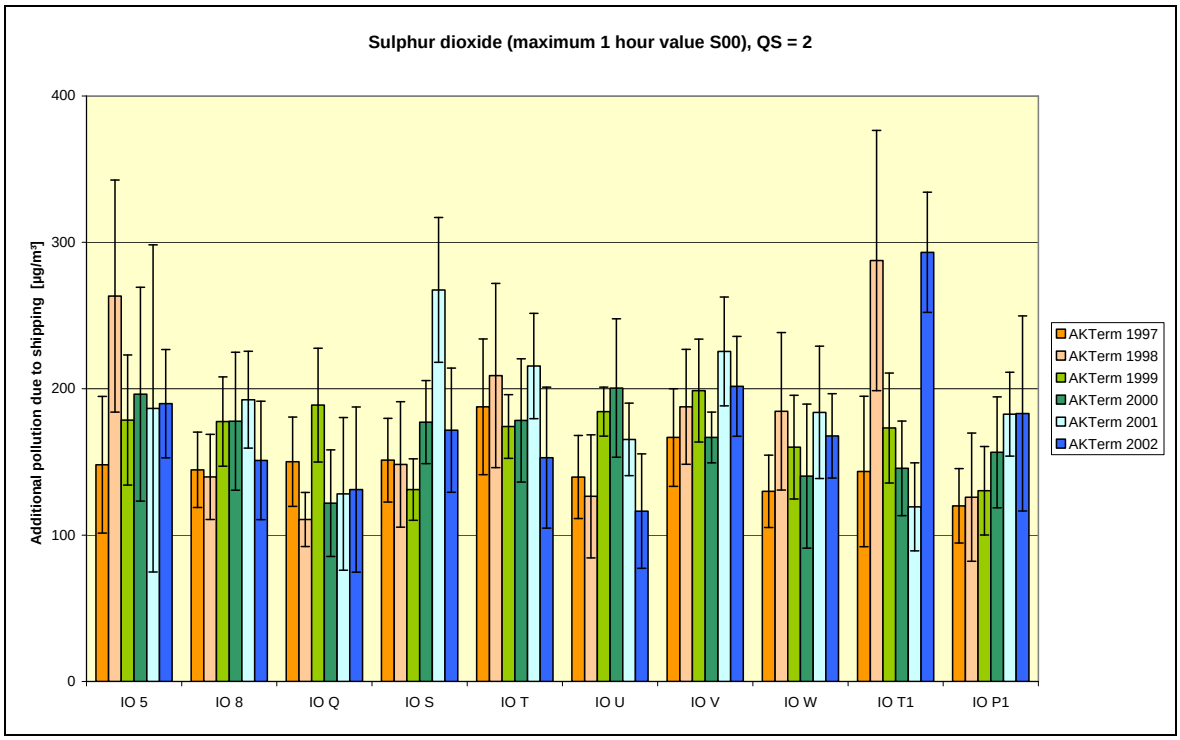
A 5.3.1 Additional Sulphur Dioxide Pollution due to Shipping



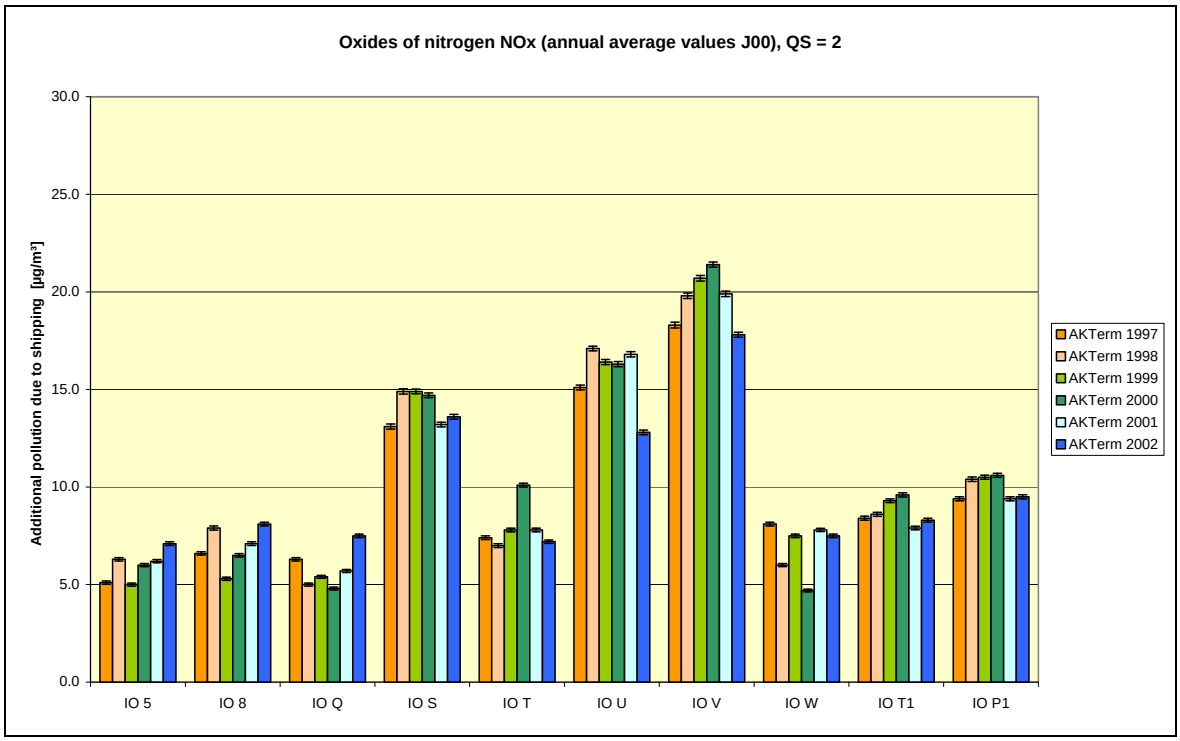



Sulphur dioxide (maximum 24 hours value T00), QS = 2
Additional pollution due to shipping [µg/m³]
0
10
20
30
40
50
IO 5
IO 8
IO Q
IO S
IO T
IO U
IO V
IO W
IO T1
IO P1
AKTerm 1997
AKTerm 1998
AKTerm 1999
AKTerm 2000
AKTerm 2001
AKTerm 2002

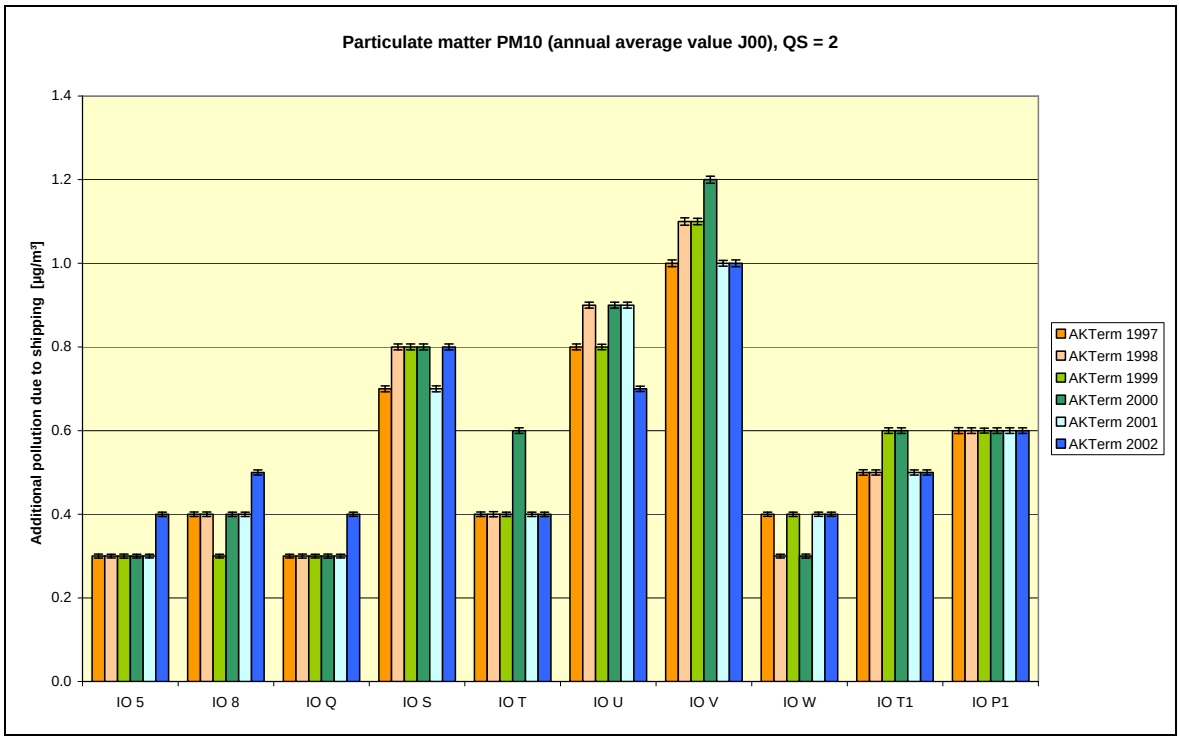

Sulphur dioxide (1 hour value S24), QS = 2
Additional pollution due to shipping [µg/m³]
0
25
50
75
100
125
150
IO 5
IO 8
IO Q
IO S
IO T
IO U
IO V
IO W
IO T1
IO P1
AKTerm 1997
AKTerm 1998
AKTerm 1999
AKTerm 2000
AKTerm 2001
AKTerm 2002

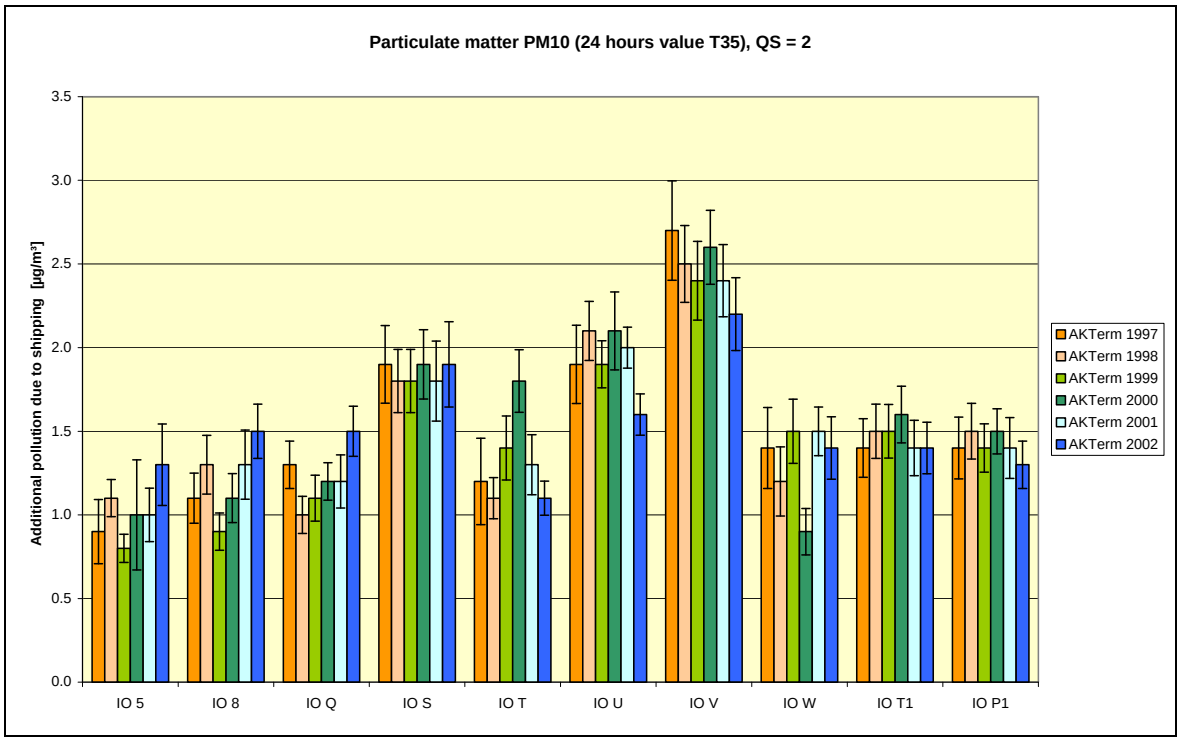


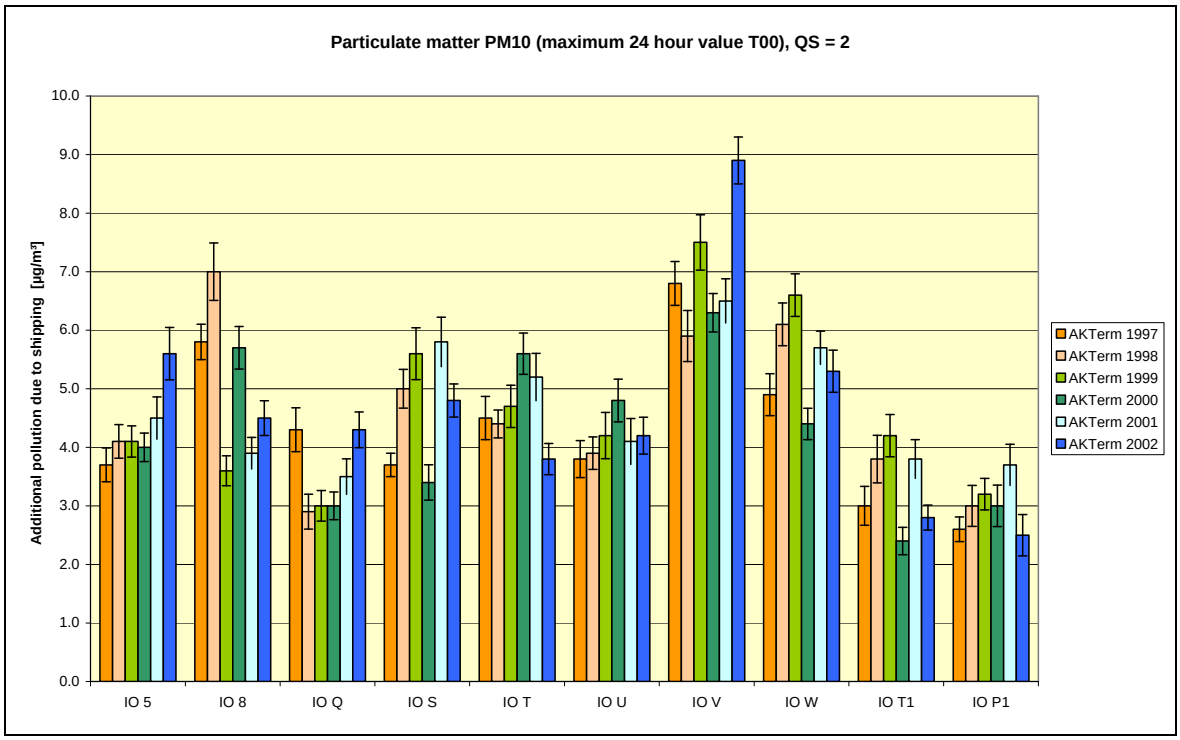
A 5.3.2 Additional Nitrogen Oxides Pollution due to Shipping



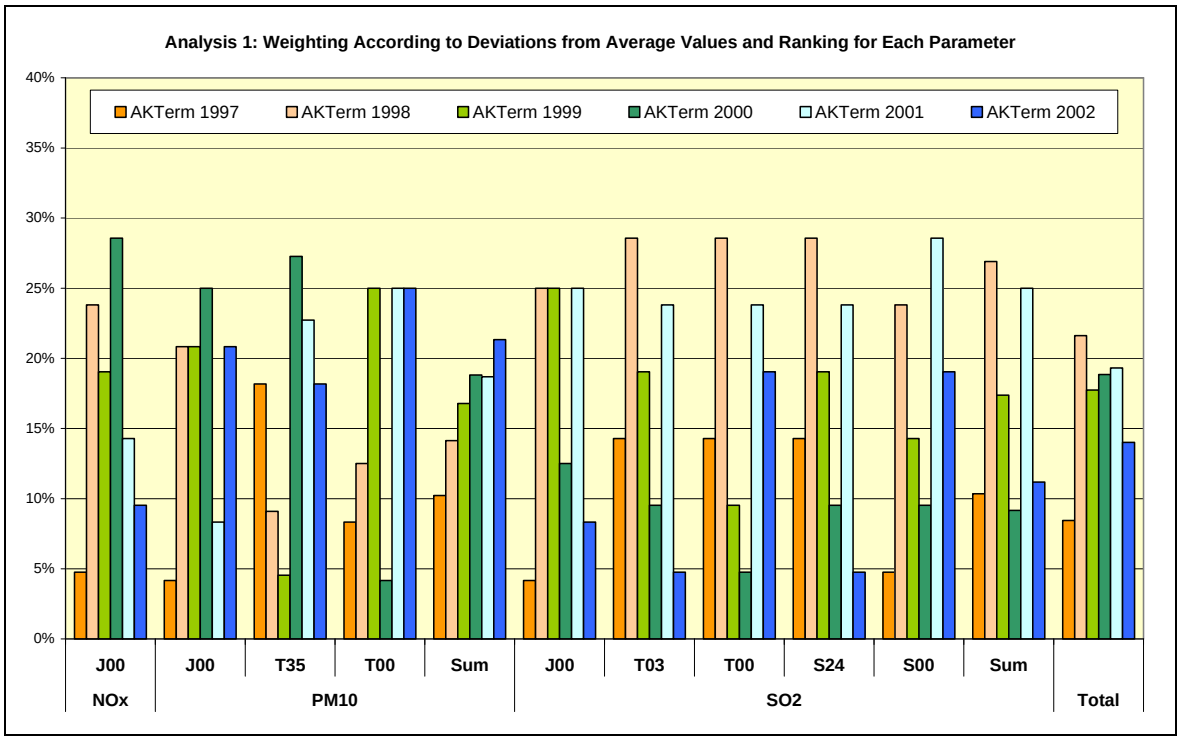
A 5.3.3 Additional Particle (PM_{10}) Pollution due to Shipping

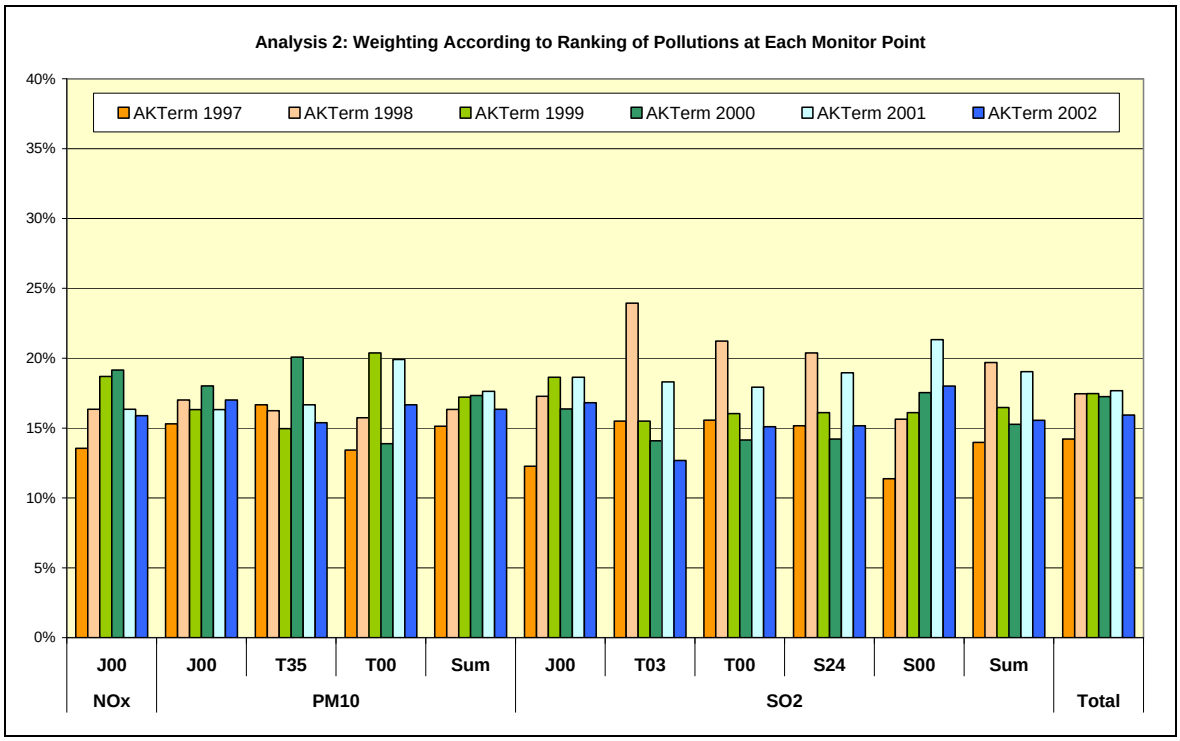





Particulate matter PM10 (maximum 24 hour value T00), QS = 2
Additional pollution due to shipping [µg/m³]
10.0
9.0
8.0
7.0
6.0
5.0
4.0
3.0
2.0
1.0
0.0
IO 5
IO 8
IO Q
IO S
IO T
IO U
IO V
IO W
IO T1
IO P1
AKTerm 1997
AKTerm 1998
AKTerm 1999
AKTerm 2000
AKTerm 2001
AKTerm 2002

A 5.3.4 Analysis and Evaluation of Reference Year





A 6 Additional Pollutions

A 6.1 Shipping, Actual Scenario (Polluter Analysis)

A 6.1.1 Additional NOx Pollution (Annual Average Value J00)

Immission point (monitor point)		Additonal NOx pollution (annual average value J00) [µg/m³]													
		Ship movements Skandinavienkai	Ship movements Ostpreußenkai	Ship movements other ports	Sum ship movements	Stay at berth Skandinavienkai	Stay at berth Ostpreußenkai	Sum stay at berth	Total shipping	Reduction concept 1a	Comparison with Actual Scenario	Reduction concept 1b	Comparison with Actual Scenario	Reduction concept 2	Comparison with Actual Scenario
IO 1	Teutendorfer Weg/ An der Bak	1.2	0.0	0.4	1.4	4.0	0.0	4.0	**5.5**	2.0	-64 %	1.9	-65 %	5.5	0 %
IO 2	St. Jürgen-Straße	1.0	0.0	0.3	1.2	4.0	0.0	4.0	**5.4**	1.8	-67 %	1.7	-69 %	5.4	0 %
IO 3	Rönnauer Ring	1.0	0.0	0.3	1.2	4.0	0.0	4.0	**5.2**	1.7	-67 %	1.7	-67 %	5.2	0 %
IO 4	Rönnauer Weg/ Ivendorfer Landstr.	1.0	0.0	0.3	1.2	4.7	0.0	4.7	**6.0**	1.8	-70 %	1.6	-73 %	6.0	0 %
IO 5	Rönnauer Weg/ Ivendorfer Landstr.	1.1	0.0	0.3	1.2	5.1	0.0	5.2	**6.3**	1.9	-70 %	1.9	-70 %	6.3	0 %
IO 6	Rönnauer Weg/ Ivendorfer Landstr.	0.9	0.0	0.3	1.2	4.8	0.0	4.8	**5.9**	1.8	-69 %	1.7	-71 %	5.9	0 %
IO 7	Ostseestraße/ Pommernzentrum	1.0	0.0	0.3	1.2	6.2	0.0	6.2	**7.4**	1.9	-74 %	1.9	-74 %	7.4	0 %
IO 8	Ostseestraße/ Pommernzentrum	1.0	0.0	0.3	1.2	6.5	0.0	6.5	**7.9**	2.0	-75 %	2.0	-75 %	7.9	0 %
IO 9	Ostseestraße/ Pommernzentrum	0.9	0.0	0.3	1.2	5.6	0.0	5.6	**6.7**	1.8	-73 %	1.8	-73 %	6.7	0 %
IO A	Ivendorf/ Ovendorfer Straße	0.4	0.0	0.2	0.6	3.5	0.0	3.5	**4.2**	1.1	-74 %	1.0	-76 %	4.2	0 %
IO B	Ivendorf/ Ovendorfer Straße	0.5	0.0	0.2	0.7	3.6	0.0	3.6	**4.2**	1.0	-76 %	1.0	-76 %	4.2	0 %
IO C	Ivendorf/ Ivendorfer Landstraße	0.5	0.0	0.2	0.6	3.6	0.0	3.6	**4.1**	1.1	-73 %	1.1	-73 %	4.1	0 %
IO D	Ivendorf/ Ivendorfer Landstraße	0.4	0.0	0.2	0.6	3.2	0.0	3.2	**3.7**	0.9	-76 %	0.9	-76 %	3.7	0 %
IO E	Ivendorf/ Ivendorfer Landstraße	0.3	0.0	0.2	0.5	2.4	0.0	2.4	**3.0**	0.8	-73 %	0.8	-73 %	3.0	0 %
IO F	Ivendorf/ Ivendorfer Landstraße	0.3	0.0	0.2	0.4	2.1	0.0	2.2	**2.7**	0.7	-74 %	0.7	-74 %	2.7	0 %
IO G	Ivendorf/ Ivendorfer Landstraße	0.3	0.0	0.2	0.4	1.8	0.0	1.8	**2.2**	0.6	-73 %	0.6	-73 %	2.2	0 %
IO H	Ivendorf/ Ivendorfer Landstraße	0.2	0.0	0.1	0.4	1.6	0.0	1.6	**1.9**	0.6	-68 %	0.5	-74 %	1.9	0 %
IO I	Blessenacker/ Travemünder Landstr.	0.2	0.0	0.1	0.3	1.0	0.0	1.0	**1.3**	0.4	-69 %	0.4	-69 %	1.3	0 %
IO L	Travemünder Landstr.	0.2	0.0	0.1	0.3	1.3	0.0	1.3	**1.6**	0.5	-69 %	0.4	-75 %	1.6	0 %
IO N	Boldwiesenkoppel	0.2	0.0	0.2	0.4	1.5	0.0	1.5	**1.9**	0.5	-74 %	0.5	-74 %	1.9	0 %
IO P	Scheidekoppel	0.2	0.0	0.2	0.4	1.9	0.0	1.9	**2.3**	0.6	-74 %	0.6	-74 %	2.3	0 %
IO Q	Borndiek	0.5	0.0	0.2	0.7	4.3	0.0	4.4	**5.0**	1.2	-76 %	1.2	-76 %	5.0	0 %
IO S	Priwall/ Traveufer	2.7	0.0	0.8	3.0	11.8	0.1	11.9	**14.9**	4.5	-70 %	4.4	-70 %	14.9	0 %
IO T	Auf dem Baggersand	1.7	0.0	0.4	1.8	5.2	0.0	5.2	**7.0**	2.5	-64 %	2.4	-66 %	7.0	0 %
IO U	Priwall/ Traveufer	1.1	0.0	0.3	1.1	16.0	0.0	16.1	**17.1**	2.9	-83 %	2.8	-84 %	17.1	0 %
IO V	Priwall/ Traveufer	2.0	0.0	0.4	1.8	17.8	0.0	17.9	**19.8**	4.0	-80 %	3.8	-81 %	19.8	0 %
IO W	Dummersdorfer Ufer	0.7	0.0	0.4	0.9	5.0	0.0	5.0	**6.0**	1.5	-75 %	1.5	-75 %	6.0	0 %
IO X	Dummersdorfer Ufer	0.5	0.0	0.3	0.8	5.5	0.0	5.6	**6.2**	1.5	-76 %	1.4	-77 %	6.2	0 %
IO Y	Dummersdorfer Ufer	0.6	0.0	0.3	0.9	5.1	0.0	5.1	**5.9**	1.4	-76 %	1.4	-76 %	5.9	0 %
IO Z	Vorderreihe/ Priwallfähre	2.3	0.0	0.6	2.4	5.7	0.1	5.7	**8.0**	3.2	-60 %	3.1	-61 %	8.0	0 %
IO T1	Vorderreihe/ Ostpreußenkai	2.5	0.0	0.7	2.7	5.9	0.1	6.0	**8.6**	3.4	-60 %	3.4	-60 %	8.6	0 %
IO T2	Yachthafen/ Kaiserbrücke	2.8	0.0	0.7	3.0	4.5	0.2	4.7	**7.6**	3.7	-51 %	3.6	-53 %	7.6	0 %
IO P1	Priwall/ Fähre	3.1	0.0	0.8	3.3	7.0	0.0	7.0	**10.4**	4.2	-60 %	4.1	-61 %	10.4	0 %
IO P2	Priwall/ Passathafen	2.8	0.0	0.9	3.5	5.5	0.2	5.7	**9.1**	4.1	-55 %	4.2	-54 %	9.1	0 %
IO P3	Priwall/ Passathafen	3.0	0.0	0.9	3.5	4.7	0.1	4.8	**8.3**	4.1	-51 %	4.2	-49 %	8.3	0 %
IO P4	Priwall/ Traveufer	1.6	0.0	0.4	1.5	17.0	0.0	17.0	**18.5**	3.4	-82 %	3.2	-83 %	18.5	0 %
IO P5	Priwall/ Traveufer	2.5	0.0	0.6	2.6	14.9	0.1	14.9	**17.4**	4.4	-75 %	4.2	-76 %	17.4	0 %
IO P6	Priwall/ Kläranlage	2.6	0.0	0.7	2.8	16.4	0.1	16.5	**19.4**	4.8	-75 %	4.6	-76 %	19.4	0 %
IO P7	Priwall/ Weggabelung Teich	2.4	0.0	0.7	2.8	17.2	0.0	17.2	**20.0**	4.8	-76 %	4.7	-77 %	20.0	0 %
IO P8	Priwall/ Rosenhof	2.8	0.0	0.8	3.2	10.8	0.1	10.8	**14.1**	4.4	-69 %	4.3	-70 %	14.1	0 %
IO P9	Priwall/ Rosenhof	2.6	0.0	0.7	3.1	9.7	0.0	9.7	**12.8**	4.2	-67 %	4.1	-68 %	12.8	0 %
IO P10	Priwall/ Rosenhof	3.1	0.0	0.8	3.4	7.7	0.0	7.7	**11.1**	4.3	-61 %	4.2	-62 %	11.1	0 %
IO P11	Priwall/ Fliegerweg	2.3	0.0	0.7	2.9	8.1	0.0	8.1	**11.0**	3.8	-65 %	3.7	-66 %	11.0	0 %
IO P12	Priwall/ Pötenitzer Weg	1.9	0.0	0.6	2.5	7.3	0.0	7.3	**9.8**	3.3	-66 %	3.3	-66 %	9.8	0 %
IO P13	Priwall/ Pötenitzer Weg	1.7	0.0	0.6	2.2	8.4	0.0	8.4	**10.6**	3.1	-71 %	3.1	-71 %	10.6	0 %
IO P14	Priwall/ Seemannsschule	1.5	0.0	0.6	2.0	6.4	0.0	6.4	**8.4**	2.7	-68 %	2.7	-68 %	8.4	0 %
IO P15	Priwall/ Krankenhaus	2.2	0.0	0.7	2.7	6.3	0.1	6.4	**9.1**	3.5	-62 %	3.4	-63 %	9.1	0 %
IO P16	Priwall/ Krankenhaus	1.9	0.0	0.6	2.4	5.5	0.0	5.5	**8.0**	3.1	-61 %	3.0	-63 %	8.0	0 %
IO P17	Priwall/ Haus des Kurgastes	1.8	0.0	0.6	2.3	4.2	0.1	4.3	**6.6**	2.8	-58 %	2.8	-58 %	6.6	0 %
IO T3	Marina Baltica	1.3	0.0	0.4	1.4	6.7	0.0	6.7	**8.1**	2.2	-73 %	2.2	-73 %	8.1	0 %
IO T4	Fischereihafen	1.4	0.0	0.4	1.6	5.4	0.0	5.4	**6.9**	2.3	-67 %	2.2	-68 %	6.9	0 %
IO T5	Torstraße	1.8	0.0	0.5	2.0	4.9	0.0	4.9	**6.9**	2.6	-62 %	2.5	-64 %	6.9	0 %
IO T6	Kirchenstraße	2.0	0.0	0.5	2.2	5.0	0.1	5.1	**7.2**	2.8	-61 %	2.7	-63 %	7.2	0 %
IO T7	Kurgartenstraße	2.4	0.0	0.6	2.6	5.2	0.1	5.2	**7.9**	3.3	-58 %	3.2	-59 %	7.9	0 %
IO T8	Vorderreihe/ Prinzenbrücke	2.7	0.0	0.7	2.9	4.9	0.1	5.0	**7.9**	3.5	-56 %	3.4	-57 %	7.9	0 %
IO T9	Am Lotsenberg	2.5	0.0	0.7	2.8	4.2	0.0	4.3	**7.1**	3.2	-55 %	3.1	-56 %	7.1	0 %
IO T10	Rose	2.1	0.0	0.6	2.3	4.2	0.1	4.2	**6.6**	2.9	-56 %	2.8	-58 %	6.6	0 %
IO T11	Rose	1.8	0.0	0.5	2.1	3.6	0.0	3.6	**5.8**	2.5	-57 %	2.5	-57 %	5.8	0 %
IO T12	Rose	1.2	0.0	0.4	1.6	3.0	0.0	3.0	**4.7**	1.9	-60 %	1.9	-60 %	4.7	0 %
IO T13	Boelckestraße	1.8	0.0	0.5	2.1	3.8	0.0	3.8	**5.9**	2.5	-58 %	2.5	-58 %	5.9	0 %
IO T14	Fehlingstraße	1.9	0.0	0.5	2.3	3.7	0.0	3.7	**6.0**	2.7	-55 %	2.6	-57 %	6.0	0 %
IO T15	Fehlingstraße	1.6	0.0	0.5	1.9	2.9	0.0	3.0	**4.8**	2.2	-54 %	2.3	-52 %	4.8	0 %
IO T16	Mühlenberg/ Ziegenhorst	1.7	0.0	0.5	2.0	3.1	0.1	3.2	**5.1**	2.3	-55 %	2.4	-53 %	5.1	0 %
IO T17	Gneversdorfer Weg	1.2	0.0	0.4	1.6	3.4	0.1	3.4	**5.0**	2.0	-60 %	1.9	-62 %	5.0	0 %
IO T18	Gneversdorfer Weg	1.1	0.0	0.3	1.3	2.8	0.0	2.9	**4.3**	1.7	-60 %	1.7	-60 %	4.3	0 %
IO T19	Gneversdorfer Weg	0.8	0.0	0.3	1.0	2.1	0.0	2.1	**3.1**	1.2	-61 %	1.2	-61 %	3.1	0 %
IO T20	Gneversdorfer Weg/ Moorredder	1.0	0.0	0.3	1.2	2.8	0.0	2.8	**4.1**	1.6	-61 %	1.5	-63 %	4.1	0 %
IO T21	Moorredder	1.0	0.0	0.3	1.3	2.7	0.0	2.7	**4.1**	1.6	-61 %	1.6	-61 %	4.1	0 %
IO T22	Moorredder	1.2	0.0	0.4	1.4	2.4	0.0	2.4	**4.0**	1.7	-58 %	1.7	-58 %	4.0	0 %
IO T23	Am Fahrenberg	1.3	0.0	0.4	1.5	2.2	0.0	2.2	**3.8**	1.8	-53 %	1.8	-53 %	3.8	0 %
IO T24	Parkallee/ Kurhaus	2.3	0.0	0.6	2.7	3.5	0.1	3.5	**6.2**	3.1	-50 %	3.1	-50 %	6.2	0 %
IO T25	Kurpark	2.0	0.0	0.5	2.3	3.4	0.0	3.4	**5.7**	2.7	-53 %	2.7	-53 %	5.7	0 %
IO T26	Steenkamp	1.3	0.0	0.4	1.6	2.4	0.0	2.3	**4.0**	1.8	-55 %	1.8	-55 %	4.0	0 %
IO T27	Steenkamp	1.1	0.0	0.4	1.4	2.1	0.0	2.1	**3.5**	1.6	-54 %	1.6	-54 %	3.5	0 %
IO T28	Steenkamp	0.9	0.0	0.3	1.1	1.9	0.0	1.9	**3.1**	1.4	-55 %	1.3	-58 %	3.1	0 %
IO T29	Steenkamp/ Kleingärten	0.8	0.0	0.2	1.1	1.8	0.0	1.8	**2.8**	1.2	-57 %	1.2	-57 %	2.8	0 %
IO T30	Schwedenstraße	0.8	0.0	0.3	1.1	2.2	0.0	2.2	**3.3**	1.4	-58 %	1.4	-58 %	3.3	0 %
IO T31	Grönlandstraße	0.7	0.0	0.2	0.9	1.7	0.0	1.8	**2.6**	1.1	-58 %	1.1	-58 %	2.6	0 %
IO T32	Kaiserallee	1.5	0.0	0.4	1.9	2.7	0.0	2.7	**4.7**	2.3	-51 %	2.3	-51 %	4.7	0 %
IO T33	Kaiserallee	1.2	0.0	0.4	1.6	2.2	0.0	2.3	**3.8**	1.8	-53 %	1.8	-53 %	3.8	0 %
IO T34	Kaiserallee	1.0	0.0	0.3	1.2	1.9	0.0	1.9	**3.1**	1.4	-55 %	1.4	-55 %	3.1	0 %
IO T35	Steuerbord	1.2	0.0	0.3	1.4	2.1	0.0	2.1	**3.5**	1.6	-54 %	1.6	-54 %	3.5	0 %
IO T36	Achterdeck	1.1	0.0	0.4	1.4	2.1	0.0	2.0	**3.5**	1.7	-51 %	1.7	-51 %	3.5	0 %
IO T37	Strandweg	1.0	0.0	0.3	1.3	1.9	0.0	1.9	**3.1**	1.5	-52 %	1.5	-52 %	3.1	0 %
IO T38	Alfred-Hagelstein-Straße	0.8	0.0	0.2	1.0	1.5	0.0	1.5	**2.4**	1.2	-50 %	1.1	-54 %	2.4	0 %
IO T39	Scheteligstraße	0.8	0.0	0.3	1.1	1.6	0.0	1.6	**2.7**	1.3	-52 %	1.3	-52 %	2.7	0 %
IO T40	Gneversdorfer Kamp	0.6	0.0	0.2	0.8	1.7	0.0	1.7	**2.4**	1.0	-58 %	1.0	-58 %	2.4	0 %
IO T41	Teutendorfer Weg	0.7	0.0	0.2	0.8	2.4	0.0	2.4	**3.2**	1.2	-63 %	1.1	-66 %	3.2	0 %
IO T42	Am Krautacker	0.7	0.0	0.2	1.0	2.9	0.0	2.9	**3.8**	1.3	-66 %	1.2	-68 %	3.8	0 %
IO T43	Hollbeck	0.5	0.0	0.2	0.7	1.9	0.0	1.9	**2.6**	0.9	-65 %	0.9	-65 %	2.6	0 %
IO T44	Teutendorf	0.4	0.0	0.2	0.6	1.6	0.0	1.6	**2.0**	0.7	-65 %	0.7	-65 %	2.0	0 %
IO MP1	Meas. point Skandinavienkai (2000)	0.8	0.0	0.3	1.0	6.3	0.0	6.3	**7.2**	1.8	-75 %	1.8	-75 %	7.2	0 %
IO MP2	Measuring point Priwall ferry (2000)	2.1	0.0	0.6	2.2	6.4	0.1	6.4	**8.9**	3.1	-65 %	3.0	-66 %	8.9	0 %
IO MP3	Meauring point Kurpark (2000)	2.1	0.0	0.6	2.5	3.6	0.0	3.7	**6.3**	2.9	-54 %	2.9	-54 %	6.3	0 %

A 6.1.2 Additional SO_2 Pollution (Annual Average Value J00)

Immission point (monitor point)		Additonal SO_2 pollution (annual average value J00) [µg/m³]													
		Ship movements Skandinavienkai	Ship movements Ostpreußenkai	Ship movements other ports	Sum ship movements	Stay at berth Skandinavienkai	Stay at berth Ostpreußenkai	Sum stay at berth	Total shipping	Reduction concept 1a	Comparison with actual scenario	Reduction concept 1b	Comparison with actual scenario	Reduction concept 2	Comparison with actual scenario
IO 1	Teutendorfer Weg/ An der Bak	0.6	0.0	0.3	0.8	1.3	0.0	1.4	**2.1**	1.3	-38 %	1.1	-48 %	1.5	-29 %
IO 2	St. Jürgen-Straße	0.5	0.0	0.3	0.7	1.4	0.0	1.4	**2.1**	1.2	-43 %	1.0	-52 %	1.4	-33 %
IO 3	Rönnauer Ring	0.5	0.0	0.2	0.7	1.4	0.0	1.4	**2.0**	1.1	-45 %	1.0	-50 %	1.4	-30 %
IO 4	Rönnauer Weg/ Ivendorfer Landstr.	0.5	0.0	0.3	0.7	1.5	0.0	1.5	**2.3**	1.2	-48 %	1.0	-57 %	1.6	-30 %
IO 5	Rönnauer Weg/ Ivendorfer Landstr.	0.6	0.0	0.3	0.7	1.7	0.0	1.7	**2.4**	1.3	-46 %	1.2	-50 %	1.7	-29 %
IO 6	Rönnauer Weg/ Ivendorfer Landstr.	0.5	0.0	0.2	0.7	1.5	0.0	1.5	**2.3**	1.2	-48 %	1.0	-57 %	1.6	-30 %
IO 7	Ostseestraße/ Pommernzentrum	0.5	0.0	0.3	0.7	2.0	0.0	2.0	**2.7**	1.4	-48 %	1.1	-59 %	1.9	-30 %
IO 8	Ostseestraße/ Pommernzentrum	0.5	0.0	0.3	0.7	2.1	0.0	2.1	**2.8**	1.4	-50 %	1.2	-57 %	2.1	-25 %
IO 9	Ostseestraße/ Pommernzentrum	0.5	0.0	0.3	0.7	1.7	0.0	1.7	**2.4**	1.3	-46 %	1.1	-54 %	1.8	-25 %
IO A	Ivendorf/ Ovendorfer Straße	0.2	0.0	0.1	0.4	1.0	0.0	1.0	**1.4**	0.7	-50 %	0.6	-57 %	1.0	-29 %
IO B	Ivendorf/ Ovendorfer Straße	0.2	0.0	0.2	0.4	1.1	0.0	1.1	**1.4**	0.7	-50 %	0.6	-57 %	1.0	-29 %
IO C	Ivendorf/ Ivendorfer Landstraße	0.2	0.0	0.2	0.4	1.1	0.0	1.1	**1.4**	0.7	-50 %	0.6	-57 %	1.0	-29 %
IO D	Ivendorf/ Ivendorfer Landstraße	0.2	0.0	0.2	0.3	1.0	0.0	1.0	**1.3**	0.6	-54 %	0.5	-62 %	0.9	-31 %
IO E	Ivendorf/ Ivendorfer Landstraße	0.2	0.0	0.1	0.3	0.8	0.0	0.8	**1.1**	0.6	-45 %	0.4	-64 %	0.8	-27 %
IO F	Ivendorf/ Ivendorfer Landstraße	0.1	0.0	0.1	0.3	0.7	0.0	0.7	**0.9**	0.5	-44 %	0.4	-56 %	0.7	-22 %
IO G	Ivendorf/ Ivendorfer Landstraße	0.1	0.0	0.1	0.3	0.5	0.0	0.5	**0.8**	0.4	-50 %	0.4	-50 %	0.6	-25 %
IO H	Ivendorf/ Ivendorfer Landstraße	0.1	0.0	0.1	0.2	0.5	0.0	0.5	**0.7**	0.4	-43 %	0.3	-57 %	0.5	-29 %
IO I	Blessenacker/ Travemünder Landstr.	0.1	0.0	0.1	0.2	0.3	0.0	0.3	**0.5**	0.2	-60 %	0.2	-60 %	0.3	-40 %
IO L	Travemünder Landstr.	0.1	0.0	0.1	0.2	0.4	0.0	0.4	**0.6**	0.3	-50 %	0.3	-50 %	0.4	-33 %
IO N	Boldwiesenkoppel	0.1	0.0	0.1	0.2	0.4	0.0	0.4	**0.6**	0.4	-33 %	0.3	-50 %	0.4	-33 %
IO P	Scheidekoppel	0.1	0.0	0.2	0.2	0.5	0.0	0.6	**0.8**	0.4	-50 %	0.4	-50 %	0.5	-38 %
IO Q	Borndiek	0.2	0.0	0.2	0.4	1.2	0.0	1.2	**1.7**	0.8	-53 %	0.7	-59 %	1.2	-29 %
IO S	Priwall/ Traveufer	1.4	0.0	0.6	1.7	4.2	0.0	4.3	**6.0**	3.2	-47 %	2.7	-55 %	4.2	-30 %
IO T	Auf dem Baggersand	0.9	0.0	0.3	1.1	1.8	0.0	1.8	**2.8**	1.7	-39 %	1.4	-50 %	1.9	-32 %
IO U	Priwall/ Traveufer	0.5	0.0	0.3	0.6	4.4	0.0	4.4	**5.0**	1.7	-66 %	1.4	-72 %	3.7	-26 %
IO V	Priwall/ Traveufer	1.0	0.0	0.3	1.0	5.4	0.0	5.4	**6.5**	2.9	-55 %	2.3	-65 %	4.8	-26 %
IO W	Dummersdorfer Ufer	0.3	0.0	0.3	0.6	1.5	0.0	1.5	**2.1**	0.9	-57 %	0.8	-62 %	1.5	-29 %
IO X	Dummersdorfer Ufer	0.3	0.0	0.2	0.5	1.6	0.0	1.6	**2.1**	0.9	-57 %	0.8	-62 %	1.5	-29 %
IO Y	Dummersdorfer Ufer	0.3	0.0	0.3	0.5	1.4	0.0	1.4	**2.0**	0.9	-55 %	0.8	-60 %	1.4	-30 %
IO Z	Vorderreihe/ Priwallfähre	1.1	0.0	0.5	1.4	2.0	0.0	2.0	**3.3**	2.1	-36 %	1.8	-45 %	2.3	-30 %
IO T1	Vorderreihe/ Ostpreußenkai	1.3	0.0	0.5	1.5	2.1	0.0	2.1	**3.6**	2.3	-36 %	2.0	-44 %	2.4	-33 %
IO T2	Yachthafen/ Kaiserbrücke	1.4	0.0	0.5	1.7	1.5	0.1	1.6	**3.3**	2.3	-30 %	2.1	-36 %	2.1	-36 %
IO P1	Priwall/ Fähre	1.6	0.0	0.6	1.9	2.4	0.0	2.4	**4.3**	2.7	-37 %	2.4	-44 %	2.9	-33 %
IO P2	Priwall/ Passathafen	1.4	0.0	0.7	2.0	1.8	0.1	1.9	**3.9**	2.6	-33 %	2.4	-38 %	2.4	-38 %
IO P3	Priwall/ Passathafen	1.5	0.0	0.7	2.0	1.5	0.1	1.6	**3.5**	2.5	-29 %	2.4	-31 %	2.2	-37 %
IO P4	Priwall/ Traveufer	0.8	0.0	0.3	0.9	4.1	0.0	4.1	**5.0**	1.8	-64 %	1.6	-68 %	3.8	-24 %
IO P5	Priwall/ Traveufer	1.2	0.0	0.5	1.4	5.4	0.0	5.5	**6.8**	3.4	-50 %	2.7	-60 %	4.9	-28 %
IO P6	Priwall/ Kläranlage	1.3	0.0	0.5	1.6	5.7	0.0	5.7	**7.4**	3.6	-51 %	2.9	-61 %	5.4	-27 %
IO P7	Priwall/ Weggabelung Teich	1.2	0.0	0.6	1.6	5.3	0.0	5.3	**6.9**	3.3	-52 %	2.8	-59 %	5.0	-28 %
IO P8	Priwall/ Rosenhof	1.4	0.0	0.6	1.8	3.8	0.0	3.8	**5.7**	3.1	-46 %	2.6	-54 %	3.9	-32 %
IO P9	Priwall/ Rosenhof	1.3	0.0	0.6	1.7	3.2	0.0	3.2	**5.0**	2.8	-44 %	2.5	-50 %	3.5	-30 %
IO P10	Priwall/ Rosenhof	1.5	0.0	0.6	1.9	2.7	0.0	2.7	**4.6**	2.8	-39 %	2.5	-46 %	3.1	-33 %
IO P11	Priwall/ Fliegerweg	1.2	0.0	0.5	1.6	2.6	0.0	2.6	**4.2**	2.5	-40 %	2.2	-48 %	2.9	-31 %
IO P12	Priwall/ Pötenitzer Weg	0.9	0.0	0.5	1.4	2.3	0.0	2.3	**3.7**	2.1	-43 %	1.9	-49 %	2.5	-32 %
IO P13	Priwall/ Pötenitzer Weg	0.8	0.0	0.5	1.3	2.6	0.0	2.6	**3.9**	2.1	-46 %	1.8	-54 %	2.7	-31 %
lO P14	Priwall/ Seemannsschule	0.8	0.0	0.4	1.2	1.9	0.0	2.0	**3.1**	1.7	-45 %	1.6	-48 %	2.1	-32 %
lO P15	Priwall/ Krankenhaus	1.1	0.0	0.6	1.5	2.0	0.0	2.0	**3.6**	2.2	-39 %	2.0	-44 %	2.4	-33 %
IO P16	Priwall/ Krankenhaus	0.9	0.0	0.5	1.4	1.7	0.0	1.7	**3.2**	2.0	-38 %	1.8	-44 %	2.1	-34 %
IO P17	Priwall/ Haus des Kurgastes	0.9	0.0	0.5	1.3	1.3	0.1	1.4	**2.7**	1.8	-33 %	1.6	-41 %	1.7	-37 %
IO T3	Marina Baltica	0.6	0.0	0.3	0.8	2.3	0.0	2.3	**3.2**	1.6	-50 %	1.4	-56 %	2.2	-31 %
IO T4	Fischereihafen	0.7	0.0	0.3	0.9	1.8	0.0	1.8	**2.7**	1.6	-41 %	1.3	-52 %	1.9	-30 %
IO T5	Torstraße	0.9	0.0	0.4	1.1	1.6	0.0	1.7	**2.8**	1.7	-39 %	1.5	-46 %	1.9	-32 %
IO T6	Kirchenstraße	1.0	0.0	0.4	1.3	1.6	0.0	1.7	**2.9**	1.8	-38 %	1.6	-45 %	2.0	-31 %
IO T7	Kurgartenstraße	1.2	0.0	0.5	1.5	1.8	0.0	1.8	**3.3**	2.1	-36 %	1.9	-42 %	2.1	-36 %
IO T8	Vorderreihe/ Prinzenbrücke	1.4	0.0	0.5	1.6	1.7	0.0	1.7	**3.4**	2.2	-35 %	2.0	-41 %	2.1	-38 %
IO T9	Am Lotsenberg	1.3	0.0	0.5	1.6	1.4	0.0	1.5	**3.0**	2.0	-33 %	1.8	-40 %	2.0	-33 %
lO T10	Rose	1.1	0.0	0.4	1.3	1.4	0.0	1.4	**2.8**	1.8	-36 %	1.6	-43 %	1.8	-36 %
IO T11	Rose	0.9	0.0	0.4	1.2	1.2	0.0	1.2	**2.4**	1.5	-38 %	1.4	-42 %	1.6	-33 %
IO T12	Rose	0.6	0.0	0.3	0.9	0.9	0.0	1.0	**1.9**	1.2	-37 %	1.1	-42 %	1.2	-37 %
IO T13	Boelckestraße	0.9	0.0	0.4	1.2	1.2	0.0	1.2	**2.4**	1.6	-33 %	1.5	-38 %	1.6	-33 %
IO T14	Fehlingstraße	1.0	0.0	0.4	1.3	1.2	0.0	1.3	**2.6**	1.7	-35 %	1.5	-42 %	1.6	-38 %
lO T15	Fehlingstraße	0.8	0.0	0.4	1.1	1.0	0.0	1.0	**2.1**	1.4	-33 %	1.3	-38 %	1.3	-38 %
IO T16	Mühlenberg/ Ziegenhorst	0.9	0.0	0.4	1.1	1.0	0.0	1.0	**2.2**	1.5	-32 %	1.4	-36 %	1.4	-36 %
IO T17	Gneversdorfer Weg	0.6	0.0	0.3	0.9	1.1	0.0	1.1	**2.0**	1.3	-35 %	1.1	-45 %	1.3	-35 %
IO T18	Gneversdorfer Weg	0.5	0.0	0.3	0.7	1.0	0.0	1.0	**1.7**	1.1	-35 %	1.0	-41 %	1.2	-29 %
IO T19	Gneversdorfer Weg	0.4	0.0	0.2	0.6	0.7	0.0	0.7	**1.3**	0.8	-38 %	0.7	-46 %	0.9	-31 %
lO T20	Gneversdorfer Weg/ Moorredder	0.5	0.0	0.2	0.7	0.9	0.0	0.9	**1.7**	1.0	-41 %	0.9	-47 %	1.1	-35 %
IO T21	Moorredder	0.5	0.0	0.2	0.8	0.9	0.0	0.9	**1.7**	1.0	-41 %	1.0	-41 %	1.1	-35 %
IO T22	Moorredder	0.6	0.0	0.3	0.8	0.8	0.0	0.8	**1.7**	1.1	-35 %	1.0	-41 %	1.0	-41 %
IO T23	Am Fahrenberg	0.6	0.0	0.3	0.9	0.7	0.0	0.7	**1.6**	1.1	-31 %	1.0	-38 %	1.1	-31 %
IO T24	Parkallee/ Kurhaus	1.2	0.0	0.5	1.5	1.2	0.0	1.2	**2.7**	1.9	-30 %	1.8	-33 %	1.7	-37 %
lO T25	Kurpark	1.0	0.0	0.4	1.3	1.1	0.0	1.1	**2.4**	1.7	-29 %	1.6	-33 %	1.5	-38 %
IO T26	Steenkamp	0.7	0.0	0.3	0.9	0.8	0.0	0.8	**1.7**	1.1	-35 %	1.0	-41 %	1.1	-35 %
IO T27	Steenkamp	0.6	0.0	0.3	0.8	0.7	0.0	0.7	**1.5**	1.0	-33 %	0.9	-40 %	0.9	-40 %
IO T28	Steenkamp	0.5	0.0	0.2	0.6	0.6	0.0	0.6	**1.3**	0.9	-31 %	0.8	-38 %	0.8	-38 %
IO T29	Steenkamp/ Kleingärten	0.4	0.0	0.2	0.6	0.6	0.0	0.6	**1.1**	0.7	-36 %	0.7	-36 %	0.8	-27 %
lO T30	Schwedenstraße	0.4	0.0	0.2	0.6	0.7	0.0	0.7	**1.3**	0.9	-31 %	0.8	-38 %	0.9	-31 %
IO T31	Grönlandstraße	0.3	0.0	0.2	0.5	0.6	0.0	0.6	**1.0**	0.7	-30 %	0.6	-40 %	0.7	-30 %
IO T32	Kaiserallee	0.8	0.0	0.4	1.1	0.9	0.0	0.9	**2.0**	1.4	-30 %	1.3	-35 %	1.3	-35 %
IO T33	Kaiserallee	0.6	0.0	0.3	0.9	0.7	0.0	0.7	**1.6**	1.1	-31 %	1.1	-31 %	1.0	-38 %
IO T34	Kaiserallee	0.5	0.0	0.2	0.7	0.6	0.0	0.6	**1.3**	0.9	-31 %	0.8	-38 %	0.9	-31 %
lO T35	Steuerbord	0.6	0.0	0.3	0.8	0.7	0.0	0.7	**1.5**	1.0	-33 %	0.9	-40 %	0.9	-40 %
IO T36	Achterdeck	0.6	0.0	0.3	0.8	0.7	0.0	0.7	**1.5**	1.1	-27 %	1.0	-33 %	0.9	-40 %
IO T37	Strandweg	0.5	0.0	0.2	0.7	0.6	0.0	0.6	**1.3**	1.0	-23 %	0.9	-31 %	0.9	-31 %
IO T38	Alfred-Hagelstein-Straße	0.4	0.0	0.2	0.6	0.5	0.0	0.5	**1.0**	0.7	-30 %	0.7	-30 %	0.7	-30 %
IO T39	Scheteligstraße	0.4	0.0	0.2	0.6	0.5	0.0	0.5	**1.2**	0.8	-33 %	0.7	-42 %	0.8	-33 %
IO T40	Gneversdorfer Kamp	0.3	0.0	0.2	0.5	0.6	0.0	0.6	**0.9**	0.6	-33 %	0.6	-33 %	0.6	-33 %
lO T41	Teutendorfer Weg	0.4	0.0	0.2	0.5	0.8	0.0	0.8	**1.3**	0.8	-38 %	0.7	-46 %	0.8	-38 %
IO T42	Am Krautacker	0.4	0.0	0.2	0.6	0.9	0.0	0.9	**1.5**	0.9	-40 %	0.7	-53 %	1.0	-33 %
IO T43	Hollbeck	0.2	0.0	0.1	0.4	0.6	0.0	0.6	**1.0**	0.6	-40 %	0.6	-40 %	0.7	-30 %
IO T44	Teutendorf	0.2	0.0	0.1	0.4	0.5	0.0	0.5	**0.8**	0.5	-38 %	0.4	-50 %	0.5	-38 %
IO MP1	Meas. point Skandinavienkai (2000)	0.4	0.0	0.3	0.6	1.7	0.0	1.7	**2.2**	1.1	-50 %	1.0	-55 %	1.7	-23 %
IO MP2	Measuring point Priwall ferry (2000)	1.1	0.0	0.4	1.3	2.2	0.0	2.2	**3.6**	2.1	-42 %	1.8	-50 %	2.4	-33 %
IO MP3	Meauring point Kurpark (2000)	1.1	0.0	0.4	1.4	1.2	0.0	1.3	**2.7**	1.8	-33 %	1.7	-37 %	1.7	-37 %

A 6.1.3 Additional SO_2 Pollution (24 Hours Value T03)

Immission point (monitor point)		Additonal SO_2 pollution (24 hours value T03) [µg/m³]													
		Ship movements Skandinavienkai	Ship movements Ostpreußenkai	Ship movements other ports	Sum ship movements	Stay at berth Skandinavienkai	Stay at berth Ostpreußenkai	Sum stay at berth	Total shipping	Reduction concept 1a	Comparison with actual scenario	Reduction concept 1b	Comparison with actual scenario	Reduction concept 2	Comparison with actual scenario
IO 1	Teutendorfer Weg/ An der Bak	4.0	0.0	2.2	5.5	17.0	0.3	17.0	**22.1**	9.4	-57 %	8.1	-63 %	16.4	-26 %
IO 2	St. Jürgen-Straße	4.9	0.0	3.1	6.2	20.2	0.2	20.2	**23.1**	10.8	-53 %	8.5	-63 %	15.9	-31 %
IO 3	Rönnauer Ring	4.8	0.0	3.1	5.3	21.6	0.2	21.6	**20.9**	9.7	-54 %	8.5	-59 %	15.7	-25 %
IO 4	Rönnauer Weg/ Ivendorfer Landstr.	4.9	0.0	3.1	6.3	19.1	0.2	19.1	**23.8**	13.1	-45 %	9.9	-58 %	16.7	-30 %
IO 5	Rönnauer Weg/ Ivendorfer Landstr.	5.2	0.0	2.5	7.2	23.3	0.2	23.2	**26.7**	11.7	-56 %	11.3	-58 %	19.8	-26 %
IO 6	Rönnauer Weg/ Ivendorfer Landstr.	4.6	0.0	2.5	6.6	20.6	0.2	20.6	**22.8**	11.2	-51 %	10.3	-55 %	17.1	-25 %
IO 7	Ostseestraße/ Pommernzentrum	5.3	0.0	2.4	5.4	27.2	0.1	27.0	**29.2**	13.8	-53 %	9.4	-68 %	24.6	-16 %
IO 8	Ostseestraße/ Pommernzentrum	4.6	0.0	2.8	6.0	23.2	0.1	23.2	**27.4**	12.3	-55 %	10.0	-64 %	20.6	-25 %
IO 9	Ostseestraße/ Pommernzentrum	4.2	0.0	2.5	5.8	17.0	0.1	17.0	**22.0**	10.1	-54 %	8.3	-62 %	15.6	-29 %
IO A	Ivendorf/ Ovendorfer Straße	2.3	0.0	1.7	3.2	9.5	0.1	9.7	**13.3**	5.8	-56 %	5.2	-61 %	9.6	-28 %
IO B	Ivendorf/ Ovendorfer Straße	2.6	0.0	1.4	3.2	9.8	0.1	9.8	**12.3**	5.4	-56 %	4.3	-65 %	8.4	-32 %
IO C	Ivendorf/ Ivendorfer Landstraße	2.5	0.0	1.8	3.1	11.0	0.1	10.2	**14.6**	6.8	-53 %	5.1	-65 %	10.6	-27 %
IO D	Ivendorf/ Ivendorfer Landstraße	2.7	0.0	1.6	2.7	8.8	0.1	8.8	**10.6**	5.5	-48 %	4.9	-54 %	7.6	-28 %
IO E	Ivendorf/ Ivendorfer Landstraße	2.0	0.0	1.5	3.3	7.2	0.1	7.2	**9.5**	5.2	-45 %	4.0	-58 %	6.5	-32 %
IO F	Ivendorf/ Ivendorfer Landstraße	1.8	0.0	1.4	2.5	7.3	0.1	7.3	**9.6**	4.2	-56 %	4.3	-55 %	6.1	-36 %
IO G	Ivendorf/ Ivendorfer Landstraße	1.7	0.0	1.6	3.1	6.0	0.1	6.0	**8.4**	4.2	-50 %	3.7	-56 %	5.3	-37 %
IO H	Ivendorf/ Ivendorfer Landstraße	1.9	0.0	1.0	2.6	6.2	0.1	6.2	**6.6**	3.6	-45 %	3.8	-42 %	5.8	-12 %
IO I	Blessenacker/ Travemünder Landstr.	1.2	0.0	1.2	1.7	4.3	0.0	4.2	**5.5**	2.6	-53 %	2.3	-58 %	3.8	-31 %
IO L	Travemünder Landstr.	1.4	0.0	1.1	2.9	4.7	0.1	4.8	**6.3**	3.1	-51 %	2.6	-59 %	4.3	-32 %
IO N	Boldwiesenkoppel	1.5	0.0	1.9	2.2	5.3	0.1	5.2	**7.3**	3.5	-52 %	3.5	-52 %	3.9	-47 %
IO P	Scheidekoppel	2.0	0.0	1.5	2.5	7.7	0.0	7.7	**8.6**	4.7	-45 %	3.9	-55 %	7.6	-12 %
IO Q	Borndiek	2.5	0.0	1.5	3.2	12.3	0.1	12.3	**14.7**	7.7	-48 %	6.7	-54 %	10.9	-26 %
IO S	Priwall/ Traveufer	3.6	0.0	2.3	5.1	29.2	0.3	29.2	**33.0**	12.7	-62 %	10.0	-70 %	21.2	-36 %
IO T	Auf dem Baggersand	5.4	0.0	2.8	7.1	20.2	0.4	19.5	**25.7**	11.8	-54 %	10.1	-61 %	17.9	-30 %
IO U	Priwall/ Traveufer	2.8	0.0	2.6	3.8	21.2	0.1	21.2	**22.4**	8.0	-64 %	6.3	-72 %	15.9	-29 %
IO V	Priwall/ Traveufer	3.9	0.0	2.1	4.8	24.2	0.2	24.3	**25.9**	9.1	-65 %	6.8	-74 %	17.9	-31 %
IO W	Dummersdorfer Ufer	3.6	0.0	2.0	4.5	16.7	0.1	16.7	**19.9**	7.7	-61 %	7.4	-63 %	13.8	-31 %
IO X	Dummersdorfer Ufer	2.9	0.0	2.0	4.2	15.1	0.1	15.1	**19.5**	8.4	-57 %	5.8	-70 %	11.8	-39 %
IO Y	Dummersdorfer Ufer	3.6	0.0	1.8	4.6	20.0	0.1	20.0	**21.9**	8.8	-60 %	8.1	-63 %	16.4	-25 %
IO Z	Vorderreihe/ Priwallfähre	6.2	0.0	2.6	7.3	19.6	0.7	19.6	**24.6**	14.7	-40 %	10.7	-57 %	16.9	-31 %
IO T1	Vorderreihe/ Ostpreußenkai	6.8	0.0	3.3	7.0	22.9	0.5	22.9	**23.4**	11.8	-50 %	8.8	-62 %	18.9	-19 %
IO T2	Yachthafen/ Kaiserbrücke	7.6	0.0	3.4	8.1	13.8	1.0	14.7	**17.8**	11.2	-37 %	9.8	-45 %	13.0	-27 %
IO P1	Priwall/ Fähre	4.7	0.0	2.3	5.4	16.6	0.1	16.6	**20.3**	10.4	-49 %	7.5	-63 %	14.8	-27 %
IO P2	Priwall/ Passathafen	4.3	0.0	3.0	5.3	12.4	2.5	12.6	**16.4**	8.2	-50 %	7.3	-55 %	11.0	-33 %
IO P3	Priwall/ Passathafen	4.5	0.0	2.4	5.8	10.9	1.1	11.5	**13.7**	8.9	-35 %	7.5	-45 %	9.1	-34 %
IO P4	Priwall/ Traveufer	3.5	0.0	2.6	4.2	20.7	0.0	20.7	**22.6**	7.0	-69 %	5.5	-76 %	15.6	-31 %
IO P5	Priwall/ Traveufer	3.5	0.0	2.6	4.5	30.2	0.2	30.2	**34.2**	13.0	-62 %	9.1	-73 %	23.9	-30 %
IO P6	Priwall/ Kläranlage	3.7	0.0	2.3	4.8	28.4	0.2	28.4	**31.8**	12.6	-60 %	9.0	-72 %	23.7	-25 %
IO P7	Priwall/ Weggabelung Teich	3.2	0.0	1.9	4.9	20.3	0.1	20.3	**23.4**	10.6	-55 %	7.4	-68 %	18.1	-23 %
IO P8	Priwall/ Rosenhof	3.5	0.0	2.0	4.3	24.2	0.2	24.2	**25.4**	11.8	-54 %	7.9	-69 %	18.9	-26 %
IO P9	Priwall/ Rosenhof	3.5	0.0	1.9	4.4	20.3	0.0	20.3	**23.1**	9.0	-61 %	7.0	-70 %	16.3	-29 %
IO P10	Priwall/ Rosenhof	5.3	0.0	2.7	5.4	17.5	0.1	17.5	**20.1**	9.9	-51 %	8.4	-58 %	13.9	-31 %
IO P11	Priwall/ Fliegerweg	3.0	0.0	2.1	4.1	15.7	0.0	15.7	**17.8**	7.4	-58 %	6.0	-66 %	12.5	-30 %
IO P12	Priwall/ Pötenitzer Weg	3.0	0.0	1.8	3.9	10.6	0.2	10.6	**13.3**	6.7	-50 %	4.9	-63 %	9.1	-32 %
IO P13	Priwall/ Pötenitzer Weg	2.8	0.0	1.6	3.7	12.4	0.0	12.4	**14.7**	6.2	-58 %	5.1	-65 %	11.1	-24 %
IO P14	Priwall/ Seemannsschule	3.2	0.0	1.6	3.7	9.3	0.2	9.3	**10.3**	5.8	-44 %	4.9	-52 %	7.6	-26 %
IO P15	Priwall/ Krankenhaus	3.8	0.0	2.0	4.0	10.9	0.5	13.5	**14.0**	7.7	-45 %	5.5	-61 %	9.9	-29 %
IO P16	Priwall/ Krankenhaus	3.1	0.0	1.9	4.3	9.2	0.5	9.5	**12.0**	6.8	-43 %	5.1	-58 %	7.9	-34 %
IO P17	Priwall/ Haus des Kurgastes	3.2	0.0	1.9	4.4	8.2	0.3	8.5	**11.6**	5.1	-56 %	5.1	-56 %	7.4	-36 %
IO T3	Marina Baltica	5.3	0.0	2.9	7.4	29.3	0.1	29.3	**34.0**	16.5	-51 %	13.7	-60 %	23.4	-31 %
IO T4	Fischereihafen	5.2	0.0	2.9	6.8	26.8	0.5	26.8	**27.8**	13.8	-50 %	10.4	-63 %	21.8	-22 %
IO T5	Torstraße	5.9	0.0	3.1	8.3	16.0	0.3	16.0	**21.4**	12.1	-43 %	8.9	-58 %	15.8	-26 %
IO T6	Kirchenstraße	5.5	0.0	2.9	6.9	16.3	0.9	16.3	**21.1**	11.6	-45 %	9.5	-55 %	15.4	-27 %
IO T7	Kurgartenstraße	6.5	0.0	2.7	7.2	19.0	0.6	19.0	**23.9**	12.0	-50 %	9.2	-62 %	16.1	-33 %
IO T8	Vorderreihe/ Prinzenbrücke	7.3	0.0	3.1	7.9	17.6	1.1	17.6	**22.6**	13.6	-40 %	8.7	-62 %	14.9	-34 %
IO T9	Am Lotsenberg	5.6	0.0	2.6	6.8	16.0	0.4	16.0	**19.6**	9.8	-50 %	9.7	-51 %	14.0	-29 %
IO T10	Rose	6.1	0.0	2.6	6.6	16.9	0.5	16.9	**21.1**	9.4	-55 %	8.2	-61 %	12.8	-39 %
IO T11	Rose	4.5	0.0	2.6	6.2	13.5	0.4	13.5	**19.3**	9.1	-53 %	7.6	-61 %	12.3	-36 %
IO T12	Rose	3.6	0.0	2.6	5.4	11.7	0.3	11.7	**16.9**	8.0	-53 %	7.1	-58 %	11.3	-33 %
IO T13	Boelckestraße	4.6	0.0	2.5	6.3	13.6	0.4	13.6	**19.1**	10.4	-46 %	9.7	-49 %	13.6	-29 %
IO T14	Fehlingstraße	5.1	0.0	2.8	7.0	11.1	0.4	11.1	**17.1**	9.9	-42 %	8.7	-49 %	11.8	-31 %
IO T15	Fehlingstraße	5.1	0.0	2.5	5.8	9.6	0.3	9.6	**14.3**	7.7	-46 %	7.4	-48 %	10.1	-29 %
IO T16	Mühlenberg/ Ziegenhorst	4.5	0.0	2.5	6.2	10.7	0.4	10.7	**16.1**	9.6	-40 %	8.3	-48 %	10.4	-35 %
IO T17	Gneversdorfer Weg	4.2	0.0	2.7	5.7	14.2	0.3	14.2	**20.4**	9.3	-54 %	8.3	-59 %	12.8	-37 %
IO T18	Gneversdorfer Weg	4.0	0.0	2.1	4.7	13.5	0.2	13.5	**15.6**	7.8	-50 %	7.4	-53 %	11.2	-28 %
IO T19	Gneversdorfer Weg	2.8	0.0	2.1	5.2	8.8	0.1	8.8	**12.8**	7.1	-45 %	6.1	-52 %	8.3	-35 %
IO T20	Gneversdorfer Weg/ Moorredder	4.4	0.0	2.7	6.0	10.9	0.2	10.9	**14.5**	8.5	-41 %	7.5	-48 %	9.7	-33 %
IO T21	Moorredder	3.5	0.0	2.3	5.3	12.0	0.1	11.6	**14.5**	7.0	-52 %	6.5	-55 %	9.9	-32 %
IO T22	Moorredder	4.0	0.0	2.6	4.6	9.5	0.3	9.5	**14.1**	6.6	-53 %	6.9	-51 %	9.3	-34 %
IO T23	Am Fahrenberg	3.8	0.0	2.4	4.5	8.8	0.1	8.6	**13.5**	6.8	-50 %	6.3	-53 %	9.5	-30 %
IO T24	Parkallee/ Kurhaus	6.3	0.0	2.6	7.0	13.3	0.7	13.3	**16.1**	9.5	-41 %	9.4	-42 %	11.9	-26 %
IO T25	Kurpark	5.0	0.0	2.3	5.5	12.5	0.2	12.5	**18.7**	9.5	-49 %	9.2	-51 %	12.2	-35 %
IO T26	Steenkamp	4.0	0.0	2.7	5.2	8.6	0.2	8.6	**14.6**	6.9	-53 %	5.9	-60 %	8.5	-42 %
IO T27	Steenkamp	3.7	0.0	2.1	4.5	9.0	0.1	9.0	**12.7**	7.2	-43 %	6.2	-51 %	9.9	-22 %
IO T28	Steenkamp	3.2	0.0	1.9	4.2	8.5	0.2	8.5	**11.2**	6.2	-45 %	5.0	-55 %	8.0	-29 %
IO T29	Steenkamp/ Kleingärten	3.4	0.0	1.6	4.5	7.1	0.1	7.1	**10.5**	5.1	-51 %	4.9	-53 %	8.6	-18 %
IO T30	Schwedenstraße	3.2	0.0	2.0	4.5	8.7	0.3	8.6	**10.9**	5.9	-46 %	5.4	-50 %	8.7	-20 %
IO T31	Grönlandstraße	2.7	0.0	2.3	3.9	6.3	0.2	6.3	**9.1**	5.8	-36 %	4.7	-48 %	7.4	-19 %
IO T32	Kaiserallee	4.3	0.0	2.3	5.1	11.8	0.2	11.8	**14.7**	8.1	-45 %	7.9	-46 %	11.8	-20 %
IO T33	Kaiserallee	4.5	0.0	2.0	5.7	9.4	0.1	9.4	**11.9**	6.7	-44 %	5.8	-51 %	8.0	-33 %
IO T34	Kaiserallee	4.6	0.0	1.6	3.9	7.5	0.0	7.5	**12.0**	6.5	-46 %	5.1	-58 %	8.1	-33 %
IO T35	Steuerbord	4.9	0.0	1.9	5.4	6.7	0.1	6.7	**11.7**	6.7	-43 %	5.6	-52 %	7.7	-34 %
IO T36	Achterdeck	3.7	0.0	2.7	5.0	8.6	0.1	8.1	**12.9**	8.8	-32 %	6.9	-47 %	7.6	-41 %
IO T37	Strandweg	4.0	0.0	1.8	5.1	7.3	0.1	7.3	**11.2**	7.1	-37 %	5.8	-48 %	7.6	-32 %
IO T38	Alfred-Hagelstein-Straße	2.9	0.0	1.6	4.3	5.6	0.0	5.6	**7.9**	4.9	-38 %	4.8	-39 %	6.2	-22 %
IO T39	Scheteligstraße	3.6	0.0	1.9	5.4	5.8	0.1	6.0	**11.6**	5.6	-52 %	5.0	-57 %	6.9	-41 %
IO T40	Gneversdorfer Kamp	3.5	0.0	1.7	4.2	9.1	0.0	9.1	**8.3**	5.6	-33 %	5.8	-30 %	7.4	-11 %
IO T41	Teutendorfer Weg	3.0	0.0	2.4	4.7	10.8	0.1	10.8	**12.5**	7.1	-43 %	5.5	-56 %	10.0	-20 %
IO T42	Am Krautacker	3.9	0.0	2.7	5.6	16.0	0.1	16.0	**17.7**	9.6	-46 %	7.8	-56 %	12.7	-28 %
IO T43	Hollbeck	3.1	0.0	1.5	4.0	9.7	0.1	9.7	**13.1**	6.2	-53 %	7.1	-46 %	9.0	-31 %
IO T44	Teutendorf	2.9	0.0	2.1	4.5	7.1	0.1	7.1	**8.6**	4.9	-43 %	5.1	-41 %	8.2	-5 %
IO MP1	Meas. point Skandinavienkai (2000)	4.9	0.0	2.1	5.3	15.2	0.1	15.2	**17.4**	9.0	-48 %	7.7	-56 %	13.5	-22 %
IO MP2	Measuring point Priwall ferry (2000)	5.9	0.0	3.3	7.1	22.4	0.7	22.4	**24.9**	10.5	-58 %	9.9	-60 %	17.5	-30 %
IO MP3	Meauring point Kurpark (2000)	5.3	0.0	2.4	8.2	12.5	0.2	12.5	**20.7**	11.3	-45 %	9.2	-56 %	14.6	-29 %

A 6.1.4 Additional SO_2 Pollution (1 Hour Value S24)

Immission point (monitor point)		Additonal SO_2 pollution (1 hour value S24) [µg/m³]													
		Ship movements Skandinavienkai	Ship movements Ostpreußenkai	Ship movements other ports	Sum ship movements	Stay at berth Skandinavienkai	Stay at berth Ostpreußenkai	Sum stay at berth	Total shipping	Reduction concept 1a	Comparison with Actual Scenario	Reduction concept 1b	Comparison with Actual Scenario	Reduction concept 2	Comparison with Actual Scenario
IO 1	Teutendorfer Weg/ An der Bak	28.8	0.0	19.7	32.3	87.2	0.7	87.2	**99.8**	48.6	-51 %	46.4	-54 %	79.0	-21 %
IO 2	St. Jürgen-Straße	25.6	0.0	18.8	34.5	92.8	0.3	92.8	**98.0**	48.1	-51 %	40.3	-59 %	74.1	-24 %
IO 3	Rönnauer Ring	21.9	0.0	15.8	32.2	86.0	0.2	82.8	**98.9**	45.0	-54 %	38.7	-61 %	70.1	-29 %
IO 4	Rönnauer Weg/ Ivendorfer Landstr.	26.9	0.0	17.4	33.7	79.6	0.6	82.0	**92.9**	44.4	-52 %	36.5	-61 %	73.5	-21 %
IO 5	Rönnauer Weg/ Ivendorfer Landstr.	28.4	0.0	15.8	29.0	82.3	0.6	83.6	**93.5**	45.4	-51 %	39.1	-58 %	75.3	-19 %
IO 6	Rönnauer Weg/ Ivendorfer Landstr.	23.4	0.0	14.1	30.7	76.1	0.5	76.5	**91.1**	40.7	-55 %	36.1	-60 %	63.5	-30 %
IO 7	Ostseestraße/ Pommernzentrum	23.5	0.0	15.8	29.6	83.8	0.4	83.8	**90.5**	41.2	-54 %	36.4	-60 %	72.1	-20 %
IO 8	Ostseestraße/ Pommernzentrum	27.0	0.0	17.2	33.4	86.3	0.3	86.3	**90.7**	43.8	-52 %	41.5	-54 %	71.5	-21 %
IO 9	Ostseestraße/ Pommernzentrum	30.6	0.0	16.4	33.6	70.3	0.5	70.3	**81.5**	37.4	-54 %	37.4	-54 %	63.0	-23 %
IO A	Ivendorf/ Ovendorfer Straße	12.3	0.0	8.4	17.4	44.8	0.1	44.8	**51.1**	29.5	-42 %	23.4	-54 %	37.2	-27 %
IO B	Ivendorf/ Ovendorfer Straße	14.4	0.0	9.6	17.1	48.2	0.1	48.2	**58.9**	21.5	-63 %	20.7	-65 %	36.2	-39 %
IO C	Ivendorf/ Ivendorfer Landstraße	14.6	0.0	9.7	18.4	45.4	0.1	45.0	**49.8**	27.6	-45 %	26.2	-47 %	38.6	-22 %
IO D	Ivendorf/ Ivendorfer Landstraße	12.0	0.0	10.3	16.5	42.8	0.2	42.2	**50.3**	23.9	-52 %	21.2	-58 %	34.2	-32 %
IO E	Ivendorf/ Ivendorfer Landstraße	10.6	0.0	8.9	16.2	36.0	0.1	36.0	**46.1**	22.6	-51 %	17.9	-61 %	31.1	-33 %
IO F	Ivendorf/ Ivendorfer Landstraße	10.7	0.0	7.4	14.2	34.1	0.1	34.1	**43.5**	19.1	-56 %	17.6	-60 %	27.9	-36 %
IO G	Ivendorf/ Ivendorfer Landstraße	10.2	0.0	8.4	14.4	27.2	0.1	26.5	**31.1**	19.3	-38 %	18.1	-42 %	26.2	-16 %
IO H	Ivendorf/ Ivendorfer Landstraße	10.1	0.0	7.9	12.1	25.6	0.2	25.8	**31.3**	17.2	-45 %	15.3	-51 %	23.2	-26 %
IO I	Blessenacker/ Travemünder Landstr.	6.9	0.0	5.9	10.6	17.8	0.1	17.7	**24.7**	13.3	-46 %	11.6	-53 %	15.4	-38 %
IO L	Travemünder Landstr.	7.9	0.0	7.5	12.5	21.8	0.1	21.8	**27.5**	17.5	-36 %	13.6	-51 %	19.8	-28 %
IO N	Boldwiesenkoppel	8.3	0.0	8.5	14.5	20.5	0.1	20.2	**26.6**	17.0	-36 %	15.8	-41 %	17.7	-33 %
IO P	Scheidekoppel	9.4	0.0	9.2	13.4	29.2	0.0	29.2	**36.8**	16.8	-54 %	14.0	-62 %	27.7	-25 %
IO Q	Borndiek	14.9	0.0	10.3	17.9	51.6	0.2	51.8	**59.4**	29.1	-51 %	24.3	-59 %	43.8	-26 %
IO S	Priwall/ Traveufer	23.4	0.0	15.7	29.2	88.7	2.0	88.7	**101.1**	42.2	-58 %	35.0	-65 %	69.7	-31 %
IO T	Auf dem Baggersand	36.5	0.0	19.9	41.1	77.7	0.4	77.5	**95.5**	51.4	-46 %	43.0	-55 %	64.3	-33 %
IO U	Priwall/ Traveufer	16.5	0.0	16.5	22.5	81.1	0.0	81.5	**85.1**	36.7	-57 %	30.4	-64 %	58.1	-32 %
IO V	Priwall/ Traveufer	27.4	0.0	15.7	26.6	99.0	0.3	99.0	**100.6**	36.8	-63 %	32.0	-68 %	71.6	-29 %
IO W	Dummersdorfer Ufer	19.1	0.0	13.8	21.7	77.9	0.0	77.9	**83.5**	33.9	-59 %	31.2	-63 %	63.5	-24 %
IO X	Dummersdorfer Ufer	15.6	0.0	11.8	19.3	74.7	0.0	74.6	**79.8**	29.5	-63 %	27.5	-66 %	51.1	-36 %
IO Y	Dummersdorfer Ufer	18.8	0.0	12.3	24.0	76.4	0.0	76.4	**81.9**	31.6	-61 %	27.2	-67 %	56.4	-31 %
IO Z	Vorderreihe/ Priwallfähre	38.7	0.0	23.2	45.3	62.8	1.9	62.8	**78.5**	53.7	-32 %	46.8	-40 %	59.9	-24 %
IO T1	Vorderreihe/ Ostpreußenkai	47.2	0.0	27.1	49.7	67.5	1.6	67.5	**83.3**	52.3	-37 %	50.2	-40 %	55.7	-33 %
IO T2	Yachthafen/ Kaiserbrücke	53.3	0.0	23.3	55.3	47.8	9.1	49.8	**73.6**	60.6	-18 %	58.9	-20 %	47.3	-36 %
IO P1	Priwall/ Fähre	35.6	0.0	18.2	33.7	63.7	0.1	63.7	**74.2**	41.6	-44 %	39.0	-47 %	54.0	-27 %
IO P2	Priwall/ Passathafen	26.3	0.0	17.5	33.6	51.5	3.2	52.9	**64.4**	38.4	-40 %	35.8	-44 %	43.7	-32 %
IO P3	Priwall/ Passathafen	30.4	0.0	17.5	36.1	43.1	3.8	45.0	**51.5**	39.4	-23 %	36.9	-28 %	40.4	-22 %
IO P4	Priwall/ Traveufer	21.9	0.0	18.2	22.9	92.7	0.1	92.7	**100.4**	32.0	-68 %	27.7	-72 %	67.8	-32 %
IO P5	Priwall/ Traveufer	23.8	0.0	14.8	26.8	96.3	1.0	96.1	**103.2**	43.4	-58 %	32.8	-68 %	74.1	-28 %
IO P6	Priwall/ Kläranlage	25.6	0.0	15.3	29.9	91.0	1.1	91.0	**105.5**	43.9	-58 %	33.2	-69 %	78.6	-25 %
IO P7	Priwall/ Weggabelung Teich	24.5	0.0	14.8	27.4	85.0	0.0	85.0	**92.8**	38.7	-58 %	32.8	-65 %	65.0	-30 %
IO P8	Priwall/ Rosenhof	25.0	0.0	15.3	26.2	81.7	0.7	81.7	**87.4**	37.5	-57 %	31.1	-64 %	63.9	-27 %
IO P9	Priwall/ Rosenhof	24.7	0.0	14.2	26.8	70.3	0.0	68.3	**76.0**	35.9	-53 %	30.3	-60 %	54.4	-28 %
IO P10	Priwall/ Rosenhof	29.4	0.0	18.2	31.7	66.0	0.1	63.5	**73.9**	39.6	-46 %	37.4	-49 %	57.8	-22 %
IO P11	Priwall/ Fliegerweg	23.2	0.0	14.2	24.9	54.2	0.0	54.2	**61.8**	29.4	-52 %	25.9	-58 %	48.0	-22 %
IO P12	Priwall/ Pötenitzer Weg	20.4	0.0	12.9	24.9	45.8	0.1	45.9	**50.9**	26.0	-49 %	25.7	-50 %	37.4	-27 %
IO P13	Priwall/ Pötenitzer Weg	19.5	0.0	14.2	27.6	48.5	0.0	49.5	**59.6**	27.8	-53 %	26.8	-55 %	43.1	-28 %
IO P14	Priwall/ Seemannsschule	19.5	0.0	12.6	22.4	41.5	0.1	42.5	**52.4**	23.4	-55 %	22.2	-58 %	32.7	-38 %
IO P15	Priwall/ Krankenhaus	22.1	0.0	13.8	24.2	46.1	1.6	48.9	**51.6**	29.2	-43 %	29.1	-44 %	38.4	-26 %
IO P16	Priwall/ Krankenhaus	20.9	0.0	13.5	24.9	38.3	0.9	38.8	**46.1**	28.1	-39 %	27.0	-41 %	33.0	-28 %
IO P17	Priwall/ Haus des Kurgastes	23.6	0.0	15.0	24.7	32.4	1.1	33.0	**40.8**	27.0	-34 %	27.7	-32 %	27.6	-32 %
IO T3	Marina Baltica	32.5	0.0	20.5	37.5	139.9	0.8	139.7	**153.9**	61.6	-60 %	50.0	-68 %	109.7	-29 %
IO T4	Fischereihafen	27.3	0.0	19.3	41.0	104.1	0.6	104.1	**106.0**	52.1	-51 %	41.9	-60 %	83.7	-21 %
IO T5	Torstraße	38.6	0.0	19.2	39.7	74.5	0.8	74.5	**84.5**	52.0	-38 %	44.7	-47 %	64.8	-23 %
IO T6	Kirchenstraße	40.5	0.0	20.3	44.1	65.0	2.3	65.0	**92.4**	53.6	-42 %	49.2	-47 %	61.4	-34 %
IO T7	Kurgartenstraße	41.7	0.0	22.8	49.2	57.6	1.6	57.6	**76.8**	51.8	-33 %	49.5	-36 %	51.4	-33 %
IO T8	Vorderreihe/ Prinzenbrücke	45.8	0.0	24.5	50.4	54.5	3.0	54.5	**75.8**	59.5	-22 %	55.6	-27 %	46.9	-38 %
IO T9	Am Lotsenberg	40.0	0.0	23.9	41.2	48.0	2.2	48.0	**66.8**	46.1	-31 %	44.1	-34 %	43.2	-35 %
IO T10	Rose	35.5	0.0	20.3	37.1	55.8	2.0	55.8	**71.0**	47.1	-34 %	42.7	-40 %	50.7	-29 %
IO T11	Rose	34.6	0.0	16.7	32.7	53.2	1.5	53.2	**71.9**	41.4	-42 %	38.7	-46 %	47.2	-34 %
IO T12	Rose	24.8	0.0	17.8	33.9	42.1	0.6	42.8	**71.0**	39.0	-45 %	38.4	-46 %	43.6	-39 %
IO T13	Boelckestraße	30.6	0.0	18.6	40.6	57.6	0.7	57.6	**76.6**	43.1	-44 %	41.6	-46 %	52.5	-31 %
IO T14	Fehlingstraße	30.5	0.0	18.0	38.5	51.0	1.5	51.0	**71.1**	39.9	-44 %	38.0	-47 %	45.1	-37 %
IO T15	Fehlingstraße	30.1	0.0	18.8	38.2	39.9	0.3	39.9	**58.9**	41.4	-30 %	41.2	-30 %	40.7	-31 %
IO T16	Mühlenberg/ Ziegenhorst	31.5	0.0	17.4	37.6	41.4	1.2	43.4	**63.9**	42.5	-33 %	39.6	-38 %	42.7	-33 %
IO T17	Gneversdorfer Weg	27.5	0.0	17.4	34.7	59.6	0.7	59.6	**74.1**	41.7	-44 %	41.4	-44 %	54.6	-26 %
IO T18	Gneversdorfer Weg	25.3	0.0	18.3	30.7	51.2	0.3	51.4	**66.2**	36.4	-45 %	33.8	-49 %	51.7	-22 %
IO T19	Gneversdorfer Weg	17.4	0.0	12.7	23.9	47.3	0.1	47.3	**53.2**	27.7	-48 %	27.2	-49 %	41.6	-22 %
IO T20	Gneversdorfer Weg/ Moorredder	25.9	0.0	15.4	25.7	50.3	0.1	50.8	**65.1**	37.5	-42 %	30.6	-53 %	42.0	-35 %
IO T21	Moorredder	24.1	0.0	14.9	28.1	49.2	0.1	49.2	**60.8**	33.3	-45 %	37.5	-38 %	44.2	-27 %
IO T22	Moorredder	23.5	0.0	17.3	28.8	40.7	0.5	40.7	**57.3**	33.4	-42 %	37.9	-34 %	37.4	-35 %
IO T23	Am Fahrenberg	23.6	0.0	17.4	28.4	36.9	0.1	36.9	**54.0**	33.6	-38 %	30.5	-44 %	36.8	-32 %
IO T24	Parkallee/ Kurhaus	38.0	0.0	17.8	42.6	42.5	2.6	42.9	**61.3**	42.7	-30 %	38.5	-37 %	40.3	-34 %
IO T25	Kurpark	33.9	0.0	16.4	36.1	38.9	0.8	38.9	**62.6**	43.3	-31 %	43.6	-30 %	39.3	-37 %
IO T26	Steenkamp	26.0	0.0	16.0	29.8	35.6	0.1	35.4	**54.6**	30.2	-45 %	29.5	-46 %	38.9	-29 %
IO T27	Steenkamp	22.1	0.0	15.5	27.6	36.1	0.2	35.9	**49.8**	32.8	-34 %	30.6	-39 %	35.7	-28 %
IO T28	Steenkamp	19.3	0.0	12.9	23.4	35.4	0.2	35.2	**43.3**	29.4	-32 %	25.8	-40 %	32.6	-25 %
IO T29	Steenkamp/ Kleingärten	19.5	0.0	10.0	25.9	31.5	0.2	31.0	**42.5**	25.0	-41 %	25.3	-40 %	32.2	-24 %
IO T30	Schwedenstraße	19.7	0.0	13.4	29.1	45.9	0.3	46.1	**57.9**	32.8	-43 %	29.0	-50 %	39.9	-31 %
IO T31	Grönlandstraße	14.1	0.0	10.3	21.2	33.3	0.1	33.3	**41.8**	28.0	-33 %	23.2	-44 %	32.9	-21 %
IO T32	Kaiserallee	25.6	0.0	16.6	29.8	34.3	0.7	34.3	**48.7**	35.9	-26 %	36.8	-24 %	36.3	-25 %
IO T33	Kaiserallee	22.9	0.0	15.0	29.9	38.0	0.4	38.0	**53.6**	38.9	-27 %	35.0	-35 %	30.4	-43 %
IO T34	Kaiserallee	21.1	0.0	12.9	24.5	28.6	0.1	28.7	**51.9**	26.9	-48 %	27.8	-46 %	33.8	-35 %
IO T35	Steuerbord	22.7	0.0	12.7	24.7	33.2	0.2	32.4	**50.0**	31.2	-38 %	29.1	-42 %	30.5	-39 %
IO T36	Achterdeck	22.7	0.0	16.3	30.9	34.5	0.1	34.5	**48.1**	38.7	-20 %	31.2	-35 %	33.3	-31 %
IO T37	Strandweg	22.4	0.0	13.5	30.0	30.0	0.1	30.0	**45.1**	31.9	-29 %	29.3	-35 %	29.9	-34 %
IO T38	Alfred-Hagelstein-Straße	17.6	0.0	13.2	21.9	22.8	0.0	23.9	**36.8**	26.6	-28 %	24.2	-34 %	28.2	-23 %
IO T39	Scheteligstraße	19.2	0.0	11.5	26.2	29.4	0.1	29.5	**43.8**	30.9	-29 %	28.8	-34 %	33.5	-24 %
IO T40	Gneversdorfer Kamp	14.1	0.0	10.6	24.0	38.9	0.0	38.5	**49.0**	28.9	-41 %	29.1	-41 %	34.0	-31 %
IO T41	Teutendorfer Weg	18.6	0.0	12.4	24.7	49.6	0.2	49.6	**54.1**	29.0	-46 %	25.9	-52 %	45.3	-16 %
IO T42	Am Krautacker	21.8	0.0	11.8	26.0	58.4	0.1	59.2	**70.3**	33.8	-52 %	29.5	-58 %	49.7	-29 %
IO T43	Hollbeck	14.3	0.0	8.3	18.2	39.8	0.1	39.8	**44.8**	24.1	-46 %	26.0	-42 %	35.8	-20 %
IO T44	Teutendorf	15.2	0.0	9.9	18.6	30.8	0.2	30.8	**42.8**	24.8	-42 %	21.2	-50 %	32.2	-25 %
IO MP1	Meas. point Skandinavienkai (2000)	20.4	0.0	12.8	25.7	61.3	0.0	62.7	**68.1**	31.8	-53 %	29.4	-57 %	51.5	-24 %
IO MP2	Measuring point Priwall ferry (2000)	39.9	0.0	22.6	46.8	77.0	2.5	77.0	**94.9**	54.7	-42 %	50.8	-46 %	63.7	-33 %
IO MP3	Meauring point Kurpark (2000)	34.8	0.0	20.7	41.3	43.8	0.9	43.8	**62.4**	45.7	-27 %	42.9	-31 %	46.3	-26 %

A 6.1.5 Additional PM_{10} Pollution (Annual Average Value J00)

Immission point (monitor point)		Additonal PM_{10} pollution (annual average value J00) [µg/m³]													
		Ship movements Skandinavienkai	Ship movements Ostpreußenkai	Ship movements other ports	Sum ship movements	Stay at berth Skandinavienkai	Stay at berth Ostpreußenkai	Sum stay at berth	Total shipping	Reduction concept 1a	Comparison with Actual Scenario	Reduction concept 1b	Comparison with Actual Scenario	Reduction concept 2	Comparison with Actual Scenario
IO 1	Teutendorfer Weg/ An der Bak	0.1	0.0	0.0	0.1	0.2	0.0	0.2	**0.3**	0.2	-33 %	0.2	-33 %	0.3	0 %
IO 2	St. Jürgen-Straße	0.1	0.0	0.0	0.1	0.2	0.0	0.2	**0.3**	0.2	-33 %	0.2	-33 %	0.3	0 %
IO 3	Rönnauer Ring	0.1	0.0	0.0	0.1	0.2	0.0	0.2	**0.3**	0.2	-33 %	0.2	-33 %	0.3	0 %
IO 4	Rönnauer Weg/ Ivendorfer Landstr.	0.1	0.0	0.0	0.1	0.2	0.0	0.2	**0.3**	0.2	-33 %	0.2	-33 %	0.3	0 %
IO 5	Rönnauer Weg/ Ivendorfer Landstr.	0.1	0.0	0.0	0.1	0.2	0.0	0.2	**0.3**	0.2	-33 %	0.2	-33 %	0.3	0 %
IO 6	Rönnauer Weg/ Ivendorfer Landstr.	0.1	0.0	0.0	0.1	0.2	0.0	0.2	**0.3**	0.2	-33 %	0.2	-33 %	0.3	0 %
IO 7	Ostseestraße/ Pommernzentrum	0.1	0.0	0.0	0.1	0.3	0.0	0.3	**0.4**	0.2	-50 %	0.2	-50 %	0.4	0 %
IO 8	Ostseestraße/ Pommernzentrum	0.1	0.0	0.0	0.1	0.3	0.0	0.3	**0.4**	0.2	-50 %	0.2	-50 %	0.4	0 %
IO 9	Ostseestraße/ Pommernzentrum	0.1	0.0	0.0	0.1	0.2	0.0	0.2	**0.3**	0.2	-33 %	0.2	-33 %	0.3	0 %
IO A	Ivendorf/ Ovendorfer Straße	0.0	0.0	0.0	0.1	0.2	0.0	0.2	**0.2**	0.1	-50 %	0.1	-50 %	0.2	0 %
IO B	Ivendorf/ Ovendorfer Straße	0.0	0.0	0.0	0.1	0.1	0.0	0.2	**0.2**	0.1	-50 %	0.1	-50 %	0.2	0 %
IO C	Ivendorf/ Ivendorfer Landstraße	0.0	0.0	0.0	0.1	0.2	0.0	0.2	**0.2**	0.1	-50 %	0.1	-50 %	0.2	0 %
IO D	Ivendorf/ Ivendorfer Landstraße	0.0	0.0	0.0	0.1	0.1	0.0	0.1	**0.2**	0.1	-50 %	0.1	-50 %	0.2	0 %
IO E	Ivendorf/ Ivendorfer Landstraße	0.0	0.0	0.0	0.1	0.1	0.0	0.1	**0.1**	0.1	0 %	0.1	0 %	0.1	0 %
IO F	Ivendorf/ Ivendorfer Landstraße	0.0	0.0	0.0	0.0	0.1	0.0	0.1	**0.1**	0.1	0 %	0.1	0 %	0.1	0 %
IO G	Ivendorf/ Ivendorfer Landstraße	0.0	0.0	0.0	0.0	0.1	0.0	0.1	**0.1**	0.1	0 %	0.1	0 %	0.1	0 %
IO H	Ivendorf/ Ivendorfer Landstraße	0.0	0.0	0.0	0.0	0.1	0.0	0.1	**0.1**	0.1	0 %	0.1	0 %	0.1	0 %
IO I	Blessenacker/ Travemünder Landstr.	0.0	0.0	0.0	0.0	0.0	0.0	0.0	**0.1**	0.0	-100 %	0.0	-100 %	0.1	0 %
IO L	Travemünder Landstr.	0.0	0.0	0.0	0.0	0.1	0.0	0.1	**0.1**	0.0	-100 %	0.0	-100 %	0.1	0 %
IO N	Boldwiesenkoppel	0.0	0.0	0.0	0.0	0.1	0.0	0.1	**0.1**	0.1	0 %	0.1	0 %	0.1	0 %
IO P	Scheidekoppel	0.0	0.0	0.0	0.0	0.1	0.0	0.1	**0.1**	0.1	0 %	0.1	0 %	0.1	0 %
IO Q	Borndiek	0.0	0.0	0.0	0.1	0.2	0.0	0.2	**0.3**	0.1	-67 %	0.1	-67 %	0.3	0 %
IO S	Priwall/ Traveufer	0.3	0.0	0.1	0.3	0.5	0.0	0.5	**0.8**	0.5	-38 %	0.5	-38 %	0.8	0 %
IO T	Auf dem Baggersand	0.2	0.0	0.0	0.2	0.2	0.0	0.2	**0.4**	0.3	-25 %	0.3	-25 %	0.4	0 %
IO U	Priwall/ Traveufer	0.1	0.0	0.0	0.1	0.8	0.0	0.8	**0.9**	0.3	-67 %	0.3	-67 %	0.9	0 %
IO V	Priwall/ Traveufer	0.2	0.0	0.0	0.2	0.8	0.0	0.9	**1.1**	0.5	-55 %	0.5	-55 %	1.1	0 %
IO W	Dummersdorfer Ufer	0.1	0.0	0.0	0.1	0.2	0.0	0.2	**0.3**	0.2	-33 %	0.2	-33 %	0.3	0 %
IO X	Dummersdorfer Ufer	0.1	0.0	0.0	0.1	0.2	0.0	0.2	**0.3**	0.2	-33 %	0.1	-67 %	0.3	0 %
IO Y	Dummersdorfer Ufer	0.1	0.0	0.0	0.1	0.2	0.0	0.2	**0.3**	0.2	-33 %	0.2	-33 %	0.3	0 %
IO Z	Vorderreihe/ Priwallfähre	0.2	0.0	0.1	0.3	0.2	0.0	0.2	**0.5**	0.3	-40 %	0.3	-40 %	0.5	0 %
IO T1	Vorderreihe/ Ostpreußenkai	0.3	0.0	0.1	0.3	0.2	0.0	0.2	**0.5**	0.4	-20 %	0.4	-20 %	0.5	0 %
IO T2	Yachthafen/ Kaiserbrücke	0.3	0.0	0.1	0.3	0.2	0.0	0.2	**0.5**	0.4	-20 %	0.4	-20 %	0.5	0 %
IO P1	Priwall/ Fähre	0.3	0.0	0.1	0.4	0.3	0.0	0.3	**0.6**	0.5	-17 %	0.4	-33 %	0.6	0 %
IO P2	Priwall/ Passathafen	0.3	0.0	0.1	0.4	0.2	0.0	0.2	**0.6**	0.4	-33 %	0.4	-33 %	0.6	0 %
IO P3	Priwall/ Passathafen	0.3	0.0	0.1	0.4	0.2	0.0	0.2	**0.6**	0.4	-33 %	0.4	-33 %	0.6	0 %
IO P4	Priwall/ Traveufer	0.2	0.0	0.0	0.2	1.0	0.0	1.0	**1.1**	0.4	-64 %	0.3	-73 %	1.1	0 %
IO P5	Priwall/ Traveufer	0.3	0.0	0.1	0.3	0.6	0.0	0.6	**0.9**	0.5	-44 %	0.5	-44 %	0.9	0 %
IO P6	Priwall/ Kläranlage	0.3	0.0	0.1	0.3	0.7	0.0	0.7	**1.0**	0.6	-40 %	0.5	-50 %	1.0	0 %
IO P7	Priwall/ Weggabelung Teich	0.2	0.0	0.1	0.3	0.8	0.0	0.8	**1.1**	0.5	-55 %	0.5	-55 %	1.1	0 %
IO P8	Priwall/ Rosenhof	0.3	0.0	0.1	0.3	0.4	0.0	0.5	**0.8**	0.5	-38 %	0.5	-38 %	0.8	0 %
IO P9	Priwall/ Rosenhof	0.3	0.0	0.1	0.3	0.4	0.0	0.4	**0.7**	0.5	-29 %	0.5	-29 %	0.7	0 %
IO P10	Priwall/ Rosenhof	0.3	0.0	0.1	0.4	0.3	0.0	0.3	**0.7**	0.5	-29 %	0.5	-29 %	0.7	0 %
IO P11	Priwall/ Fliegerweg	0.2	0.0	0.1	0.3	0.3	0.0	0.3	**0.6**	0.4	-33 %	0.4	-33 %	0.6	0 %
IO P12	Priwall/ Pötenitzer Weg	0.2	0.0	0.1	0.3	0.3	0.0	0.3	**0.6**	0.3	-50 %	0.3	-50 %	0.6	0 %
IO P13	Priwall/ Pötenitzer Weg	0.2	0.0	0.1	0.2	0.4	0.0	0.4	**0.6**	0.3	-50 %	0.3	-50 %	0.6	0 %
lO P14	Priwall/ Seemannsschule	0.1	0.0	0.1	0.2	0.3	0.0	0.3	**0.5**	0.3	-40 %	0.3	-40 %	0.5	0 %
lO P15	Priwall/ Krankenhaus	0.2	0.0	0.1	0.3	0.3	0.0	0.3	**0.6**	0.4	-33 %	0.4	-33 %	0.6	0 %
IO P16	Priwall/ Krankenhaus	0.2	0.0	0.1	0.2	0.2	0.0	0.2	**0.5**	0.3	-40 %	0.3	-40 %	0.5	0 %
IO P17	Priwall/ Haus des Kurgastes	0.2	0.0	0.1	0.2	0.2	0.0	0.2	**0.4**	0.3	-25 %	0.3	-25 %	0.4	0 %
IO T3	Marina Baltica	0.1	0.0	0.0	0.1	0.3	0.0	0.3	**0.4**	0.2	-50 %	0.2	-50 %	0.4	0 %
IO T4	Fischereihafen	0.1	0.0	0.0	0.2	0.2	0.0	0.2	**0.4**	0.2	-50 %	0.2	-50 %	0.4	0 %
IO T5	Torstraße	0.2	0.0	0.1	0.2	0.2	0.0	0.2	**0.4**	0.3	-25 %	0.3	-25 %	0.4	0 %
IO T6	Kirchenstraße	0.2	0.0	0.1	0.2	0.2	0.0	0.2	**0.4**	0.3	-25 %	0.3	-25 %	0.4	0 %
IO T7	Kurgartenstraße	0.2	0.0	0.1	0.3	0.2	0.0	0.2	**0.5**	0.3	-40 %	0.3	-40 %	0.5	0 %
IO T8	Vorderreihe/ Prinzenbrücke	0.3	0.0	0.1	0.3	0.2	0.0	0.2	**0.5**	0.4	-20 %	0.4	-20 %	0.5	0 %
IO T9	Am Lotsenberg	0.2	0.0	0.1	0.3	0.2	0.0	0.2	**0.4**	0.3	-25 %	0.3	-25 %	0.4	0 %
lO T10	Rose	0.2	0.0	0.1	0.2	0.2	0.0	0.2	**0.4**	0.3	-25 %	0.3	-25 %	0.4	0 %
IO T11	Rose	0.2	0.0	0.1	0.2	0.1	0.0	0.1	**0.4**	0.3	-25 %	0.3	-25 %	0.4	0 %
IO T12	Rose	0.1	0.0	0.0	0.2	0.1	0.0	0.1	**0.3**	0.2	-33 %	0.2	-33 %	0.3	0 %
IO T13	Boelckestraße	0.2	0.0	0.1	0.2	0.1	0.0	0.1	**0.4**	0.3	-25 %	0.3	-25 %	0.4	0 %
IO T14	Fehlingstraße	0.2	0.0	0.1	0.2	0.1	0.0	0.1	**0.4**	0.3	-25 %	0.3	-25 %	0.4	0 %
lO T15	Fehlingstraße	0.2	0.0	0.1	0.2	0.1	0.0	0.1	**0.3**	0.2	-33 %	0.2	-33 %	0.3	0 %
IO T16	Mühlenberg/ Ziegenhorst	0.2	0.0	0.0	0.2	0.1	0.0	0.1	**0.3**	0.2	-33 %	0.2	-33 %	0.3	0 %
IO T17	Gneversdorfer Weg	0.1	0.0	0.0	0.2	0.1	0.0	0.1	**0.3**	0.2	-33 %	0.2	-33 %	0.3	0 %
IO T18	Gneversdorfer Weg	0.1	0.0	0.0	0.1	0.1	0.0	0.1	**0.2**	0.2	0 %	0.2	0 %	0.2	0 %
IO T19	Gneversdorfer Weg	0.1	0.0	0.0	0.1	0.1	0.0	0.1	**0.2**	0.1	-50 %	0.1	-50 %	0.2	0 %
lO T20	Gneversdorfer Weg/ Moorredder	0.1	0.0	0.0	0.1	0.1	0.0	0.1	**0.2**	0.2	0 %	0.2	0 %	0.2	0 %
IO T21	Moorredder	0.1	0.0	0.0	0.1	0.1	0.0	0.1	**0.2**	0.2	0 %	0.2	0 %	0.2	0 %
IO T22	Moorredder	0.1	0.0	0.0	0.1	0.1	0.0	0.1	**0.2**	0.2	0 %	0.2	0 %	0.2	0 %
IO T23	Am Fahrenberg	0.1	0.0	0.0	0.1	0.1	0.0	0.1	**0.2**	0.2	0 %	0.2	0 %	0.2	0 %
IO T24	Parkallee/ Kurhaus	0.2	0.0	0.1	0.3	0.1	0.0	0.1	**0.4**	0.3	-25 %	0.3	-25 %	0.4	0 %
lO T25	Kurpark	0.2	0.0	0.1	0.2	0.1	0.0	0.1	**0.4**	0.3	-25 %	0.3	-25 %	0.4	0 %
IO T26	Steenkamp	0.1	0.0	0.0	0.2	0.1	0.0	0.1	**0.2**	0.2	0 %	0.2	0 %	0.2	0 %
IO T27	Steenkamp	0.1	0.0	0.0	0.1	0.1	0.0	0.1	**0.2**	0.2	0 %	0.2	0 %	0.2	0 %
IO T28	Steenkamp	0.1	0.0	0.0	0.1	0.1	0.0	0.1	**0.2**	0.1	-50 %	0.1	-50 %	0.2	0 %
IO T29	Steenkamp/ Kleingärten	0.1	0.0	0.0	0.1	0.1	0.0	0.1	**0.2**	0.1	-50 %	0.1	-50 %	0.2	0 %
lO T30	Schwedenstraße	0.1	0.0	0.0	0.1	0.1	0.0	0.1	**0.2**	0.1	-50 %	0.1	-50 %	0.2	0 %
IO T31	Grönlandstraße	0.1	0.0	0.0	0.1	0.1	0.0	0.1	**0.1**	0.1	0 %	0.1	0 %	0.1	0 %
IO T32	Kaiserallee	0.1	0.0	0.0	0.2	0.1	0.0	0.1	**0.3**	0.2	-33 %	0.2	-33 %	0.3	0 %
IO T33	Kaiserallee	0.1	0.0	0.0	0.2	0.1	0.0	0.1	**0.2**	0.2	0 %	0.2	0 %	0.2	0 %
IO T34	Kaiserallee	0.1	0.0	0.0	0.1	0.1	0.0	0.1	**0.2**	0.1	-50 %	0.1	-50 %	0.2	0 %
lO T35	Steuerbord	0.1	0.0	0.0	0.1	0.1	0.0	0.1	**0.2**	0.2	0 %	0.2	0 %	0.2	0 %
IO T36	Achterdeck	0.1	0.0	0.0	0.1	0.1	0.0	0.1	**0.2**	0.2	0 %	0.2	0 %	0.2	0 %
IO T37	Strandweg	0.1	0.0	0.0	0.1	0.1	0.0	0.1	**0.2**	0.1	-50 %	0.1	-50 %	0.2	0 %
IO T38	Alfred-Hagelstein-Straße	0.1	0.0	0.0	0.1	0.1	0.0	0.1	**0.1**	0.1	0 %	0.1	0 %	0.1	0 %
IO T39	Scheteligstraße	0.1	0.0	0.0	0.1	0.1	0.0	0.1	**0.2**	0.1	-50 %	0.1	-50 %	0.2	0 %
IO T40	Gneversdorfer Kamp	0.0	0.0	0.0	0.1	0.1	0.0	0.1	**0.1**	0.1	0 %	0.1	0 %	0.1	0 %
lO T41	Teutendorfer Weg	0.1	0.0	0.0	0.1	0.1	0.0	0.1	**0.2**	0.1	-50 %	0.1	-50 %	0.2	0 %
IO T42	Am Krautacker	0.1	0.0	0.0	0.1	0.1	0.0	0.1	**0.2**	0.1	-50 %	0.1	-50 %	0.2	0 %
IO T43	Hollbeck	0.0	0.0	0.0	0.1	0.1	0.0	0.1	**0.1**	0.1	0 %	0.1	0 %	0.1	0 %
IO T44	Teutendorf	0.0	0.0	0.0	0.1	0.1	0.0	0.1	**0.1**	0.1	0 %	0.1	0 %	0.1	0 %
IO MP1	Meas. point Skandinavienkai (2000)	0.1	0.0	0.0	0.1	0.3	0.0	0.3	**0.4**	0.2	-50 %	0.2	-50 %	0.4	0 %
IO MP2	Measuring point Priwall ferry (2000)	0.2	0.0	0.1	0.2	0.3	0.0	0.3	**0.5**	0.3	-40 %	0.3	-40 %	0.5	0 %
IO MP3	Meauring point Kurpark (2000)	0.2	0.0	0.1	0.2	0.1	0.0	0.1	**0.4**	0.3	-25 %	0.3	-25 %	0.4	0 %

A 6.1.6 Additional PM_{10} Pollution (24 Hours Value T35)

Immission point (monitor point)		Additonal PM_{10} pollution (24 hours value T35) [µg/m³]													
		Ship movements Skandinavienkai	Ship movements Ostpreußenkai	Ship movements other ports	Sum ship movements	Stay at berth Skandinavienkai	Stay at berth Ostpreußenkai	Sum stay at berth	Total shipping	Reduction concept 1a	Comparison with Actual Scenario	Reduction concept 1b	Comparison with Actual Scenario	Reduction concept 2	Comparison with Actual Scenario
IO 1	Teutendorfer Weg/ An der Bak	0.4	0.0	0.1	0.5	0.6	0.0	0.6	**0.9**	0.7	-22 %	0.6	-33 %	0.9	0 %
IO 2	St. Jürgen-Straße	0.4	0.0	0.1	0.5	0.6	0.0	0.6	**1.0**	0.6	-40 %	0.6	-40 %	1.0	0 %
IO 3	Rönnauer Ring	0.4	0.0	0.1	0.5	0.5	0.0	0.5	**0.9**	0.6	-33 %	0.6	-33 %	0.9	0 %
IO 4	Rönnauer Weg/ Ivendorfer Landstr.	0.4	0.0	0.1	0.5	0.5	0.0	0.5	**1.0**	0.7	-30 %	0.7	-30 %	1.0	0 %
IO 5	Rönnauer Weg/ Ivendorfer Landstr.	0.4	0.0	0.1	0.5	0.7	0.0	0.7	**1.1**	0.8	-27 %	0.7	-36 %	1.1	0 %
IO 6	Rönnauer Weg/ Ivendorfer Landstr.	0.3	0.0	0.1	0.4	0.6	0.0	0.6	**1.0**	0.7	-30 %	0.7	-30 %	1.0	0 %
IO 7	Ostseestraße/ Pommernzentrum	0.3	0.0	0.1	0.5	0.8	0.0	0.9	**1.2**	0.8	-33 %	0.8	-33 %	1.2	0 %
IO 8	Ostseestraße/ Pommernzentrum	0.4	0.0	0.1	0.5	0.9	0.0	0.9	**1.3**	0.8	-38 %	0.8	-38 %	1.3	0 %
IO 6	Rönnauer Weg/ Ivendorfer Landstr.	0.4	0.0	0.1	0.5	0.8	0.0	0.8	**1.2**	0.8	-33 %	0.7	-42 %	1.2	0 %
IO A	Ivendorf/ Ovendorfer Straße	0.1	0.0	0.1	0.2	0.6	0.0	0.6	**0.8**	0.4	-50 %	0.4	-50 %	0.8	0 %
IO B	Ivendorf/ Ovendorfer Straße	0.2	0.0	0.1	0.2	0.6	0.0	0.6	**0.8**	0.4	-50 %	0.4	-50 %	0.8	0 %
IO C	Ivendorf/ Ivendorfer Landstraße	0.2	0.0	0.1	0.2	0.6	0.0	0.6	**0.8**	0.5	-38 %	0.4	-50 %	0.8	0 %
IO D	Ivendorf/ Ivendorfer Landstraße	0.1	0.0	0.1	0.2	0.5	0.0	0.5	**0.7**	0.4	-43 %	0.4	-43 %	0.7	0 %
IO E	Ivendorf/ Ivendorfer Landstraße	0.1	0.0	0.1	0.2	0.4	0.0	0.4	**0.6**	0.3	-50 %	0.3	-50 %	0.6	0 %
IO F	Ivendorf/ Ivendorfer Landstraße	0.1	0.0	0.1	0.2	0.3	0.0	0.3	**0.5**	0.3	-40 %	0.3	-40 %	0.5	0 %
IO 6	Rönnauer Weg/ Ivendorfer Landstr.	0.1	0.0	0.1	0.1	0.3	0.0	0.3	**0.4**	0.2	-50 %	0.3	-25 %	0.4	0 %
IO 7	Ostseestraße/ Pommernzentrum	0.1	0.0	0.1	0.1	0.2	0.0	0.2	**0.4**	0.2	-50 %	0.2	-50 %	0.4	0 %
IO 8	Ostseestraße/ Pommernzentrum	0.1	0.0	0.0	0.1	0.2	0.0	0.2	**0.3**	0.1	-67 %	0.1	-67 %	0.3	0 %
IO 6	Rönnauer Weg/ Ivendorfer Landstr.	0.1	0.0	0.0	0.1	0.2	0.0	0.2	**0.3**	0.2	-33 %	0.2	-33 %	0.3	0 %
IO N	Boldwiesenkoppel	0.1	0.0	0.1	0.1	0.2	0.0	0.2	**0.3**	0.2	-33 %	0.2	-33 %	0.3	0 %
IO P	Scheidekoppel	0.1	0.0	0.1	0.1	0.2	0.0	0.2	**0.4**	0.2	-50 %	0.2	-50 %	0.4	0 %
IO Q	Borndiek	0.2	0.0	0.1	0.3	0.7	0.0	0.7	**1.0**	0.5	-50 %	0.5	-50 %	1.0	0 %
IO S	Priwall/ Traveufer	0.5	0.0	0.2	0.6	1.4	0.0	1.4	**1.8**	1.0	-44 %	1.0	-44 %	1.8	0 %
IO T	Auf dem Baggersand	0.5	0.0	0.2	0.6	0.7	0.0	0.7	**1.1**	0.8	-27 %	0.8	-27 %	1.1	0 %
IO U	Priwall/ Traveufer	0.3	0.0	0.1	0.3	2.0	0.0	2.0	**2.1**	0.7	-67 %	0.7	-67 %	2.1	0 %
IO V	Priwall/ Traveufer	0.4	0.0	0.1	0.4	2.2	0.0	2.2	**2.5**	0.9	-64 %	0.8	-68 %	2.5	0 %
IO W	Dummersdorfer Ufer	0.3	0.0	0.1	0.3	0.8	0.0	0.8	**1.2**	0.6	-50 %	0.7	-42 %	1.2	0 %
IO X	Dummersdorfer Ufer	0.2	0.0	0.1	0.3	1.1	0.0	1.1	**1.2**	0.6	-50 %	0.6	-50 %	1.2	0 %
IO Y	Dummersdorfer Ufer	0.2	0.0	0.1	0.3	0.8	0.0	0.8	**1.0**	0.5	-50 %	0.5	-50 %	1.0	0 %
IO Z	Vorderreihe/ Priwallfähre	0.6	0.0	0.2	0.7	0.9	0.0	0.9	**1.5**	1.0	-33 %	1.0	-33 %	1.5	0 %
IO T1	Vorderreihe/ Ostpreußenkai	0.7	0.0	0.2	0.8	0.8	0.0	0.8	**1.5**	1.0	-33 %	1.0	-33 %	1.5	0 %
IO T2	Yachthafen/ Kaiserbrücke	0.8	0.0	0.2	0.9	0.6	0.0	0.6	**1.4**	1.0	-29 %	1.0	-29 %	1.4	0 %
IO P1	Priwall/ Fähre	0.6	0.0	0.2	0.7	0.9	0.0	0.9	**1.5**	0.9	-40 %	0.9	-40 %	1.5	0 %
IO P2	Priwall/ Passathafen	0.5	0.0	0.2	0.7	0.7	0.0	0.8	**1.2**	0.8	-33 %	0.8	-33 %	1.2	0 %
IO P3	Priwall/ Passathafen	0.6	0.0	0.2	0.7	0.6	0.0	0.7	**1.2**	0.8	-33 %	0.8	-33 %	1.2	0 %
IO P4	Priwall/ Traveufer	0.4	0.0	0.1	0.4	2.2	0.0	2.2	**2.4**	0.8	-67 %	0.7	-71 %	2.4	0 %
IO P5	Priwall/ Traveufer	0.5	0.0	0.2	0.5	1.8	0.0	1.8	**2.2**	1.1	-50 %	1.0	-55 %	2.2	0 %
IO P6	Priwall/ Kläranlage	0.5	0.0	0.2	0.5	1.8	0.0	1.8	**2.2**	1.1	-50 %	1.1	-50 %	2.2	0 %
IO P7	Priwall/ Weggabelung Teich	0.4	0.0	0.2	0.5	2.1	0.0	2.1	**2.3**	1.0	-57 %	1.0	-57 %	2.3	0 %
IO P8	Priwall/ Rosenhof	0.5	0.0	0.2	0.6	1.4	0.0	1.4	**1.9**	1.0	-47 %	0.9	-53 %	1.9	0 %
IO P9	Priwall/ Rosenhof	0.5	0.0	0.2	0.6	1.2	0.0	1.2	**1.5**	0.9	-40 %	0.8	-47 %	1.5	0 %
IO P10	Priwall/ Rosenhof	0.6	0.0	0.2	0.7	1.0	0.0	1.0	**1.5**	0.9	-40 %	0.9	-40 %	1.5	0 %
IO P11	Priwall/ Fliegerweg	0.4	0.0	0.2	0.5	1.1	0.0	1.1	**1.4**	0.7	-50 %	0.7	-50 %	1.4	0 %
IO P12	Priwall/ Pötenitzer Weg	0.4	0.0	0.1	0.5	0.9	0.0	0.9	**1.3**	0.6	-54 %	0.6	-54 %	1.3	0 %
IO P13	Priwall/ Pötenitzer Weg	0.3	0.0	0.1	0.4	1.0	0.0	1.0	**1.3**	0.7	-46 %	0.6	-54 %	1.3	0 %
IO P14	Priwall/ Seemannsschule	0.3	0.0	0.1	0.4	0.8	0.0	0.8	**1.1**	0.6	-45 %	0.6	-45 %	1.1	0 %
IO P15	Priwall/ Krankenhaus	0.5	0.0	0.2	0.5	0.8	0.0	0.9	**1.2**	0.7	-42 %	0.6	-50 %	1.2	0 %
IO P16	Priwall/ Krankenhaus	0.4	0.0	0.1	0.5	0.7	0.0	0.7	**1.0**	0.6	-40 %	0.6	-40 %	1.0	0 %
IO P17	Priwall/ Haus des Kurgastes	0.4	0.0	0.2	0.4	0.5	0.0	0.6	**0.8**	0.6	-25 %	0.6	-25 %	0.8	0 %
IO T3	Marina Baltica	0.4	0.0	0.1	0.5	1.0	0.0	1.0	**1.4**	0.9	-36 %	0.8	-43 %	1.4	0 %
IO T4	Fischereihafen	0.5	0.0	0.1	0.6	0.8	0.0	0.8	**1.2**	0.8	-33 %	0.7	-42 %	1.2	0 %
IO T5	Torstraße	0.6	0.0	0.2	0.6	0.7	0.0	0.7	**1.3**	0.8	-38 %	0.8	-38 %	1.3	0 %
IO T6	Kirchenstraße	0.6	0.0	0.2	0.6	0.7	0.0	0.7	**1.3**	0.9	-31 %	0.9	-31 %	1.3	0 %
IO T7	Kurgartenstraße	0.6	0.0	0.2	0.7	0.7	0.0	0.7	**1.4**	0.9	-36 %	1.0	-29 %	1.4	0 %
IO T8	Vorderreihe/ Prinzenbrücke	0.7	0.0	0.2	0.8	0.7	0.0	0.7	**1.4**	1.0	-29 %	1.0	-29 %	1.4	0 %
IO T9	Am Lotsenberg	0.6	0.0	0.2	0.7	0.5	0.0	0.5	**1.2**	0.9	-25 %	0.9	-25 %	1.2	0 %
IO T10	Rose	0.6	0.0	0.2	0.7	0.6	0.0	0.6	**1.2**	0.9	-25 %	0.9	-25 %	1.2	0 %
IO T11	Rose	0.5	0.0	0.2	0.6	0.5	0.0	0.5	**1.0**	0.8	-20 %	0.8	-20 %	1.0	0 %
IO T12	Rose	0.4	0.0	0.1	0.5	0.4	0.0	0.4	**0.9**	0.6	-33 %	0.6	-33 %	0.9	0 %
IO T13	Boelckestraße	0.5	0.0	0.2	0.6	0.5	0.0	0.5	**1.1**	0.8	-27 %	0.8	-27 %	1.1	0 %
IO T14	Fehlingstraße	0.6	0.0	0.2	0.7	0.5	0.0	0.5	**1.0**	0.8	-20 %	0.8	-20 %	1.0	0 %
IO T15	Fehlingstraße	0.4	0.0	0.2	0.6	0.4	0.0	0.4	**0.9**	0.7	-22 %	0.7	-22 %	0.9	0 %
IO T16	Mühlenberg/ Ziegenhorst	0.5	0.0	0.2	0.6	0.5	0.0	0.5	**0.9**	0.7	-22 %	0.7	-22 %	0.9	0 %
IO T17	Gneversdorfer Weg	0.4	0.0	0.1	0.5	0.4	0.0	0.4	**0.9**	0.6	-33 %	0.6	-33 %	0.9	0 %
IO T18	Gneversdorfer Weg	0.4	0.0	0.1	0.5	0.3	0.0	0.4	**0.7**	0.5	-29 %	0.5	-29 %	0.7	0 %
IO T19	Gneversdorfer Weg	0.3	0.0	0.1	0.4	0.2	0.0	0.3	**0.6**	0.4	-33 %	0.4	-33 %	0.6	0 %
IO T20	Gneversdorfer Weg/ Moorredder	0.4	0.0	0.1	0.4	0.3	0.0	0.3	**0.7**	0.5	-29 %	0.5	-29 %	0.7	0 %
IO T21	Moorredder	0.4	0.0	0.1	0.4	0.4	0.0	0.4	**0.7**	0.5	-29 %	0.5	-29 %	0.7	0 %
IO T22	Moorredder	0.4	0.0	0.1	0.5	0.3	0.0	0.3	**0.7**	0.5	-29 %	0.5	-29 %	0.7	0 %
IO T23	Am Fahrenberg	0.4	0.0	0.1	0.5	0.3	0.0	0.3	**0.7**	0.5	-29 %	0.5	-29 %	0.7	0 %
IO T24	Parkallee/ Kurhaus	0.5	0.0	0.2	0.7	0.5	0.0	0.5	**1.1**	0.8	-27 %	0.8	-27 %	1.1	0 %
IO T25	Kurpark	0.5	0.0	0.2	0.6	0.5	0.0	0.5	**1.0**	0.8	-20 %	0.8	-20 %	1.0	0 %
IO T26	Steenkamp	0.4	0.0	0.1	0.5	0.3	0.0	0.3	**0.7**	0.6	-14 %	0.5	-29 %	0.7	0 %
IO T27	Steenkamp	0.4	0.0	0.1	0.4	0.3	0.0	0.3	**0.7**	0.5	-29 %	0.5	-29 %	0.7	0 %
IO T28	Steenkamp	0.3	0.0	0.1	0.4	0.2	0.0	0.2	**0.6**	0.4	-33 %	0.4	-33 %	0.6	0 %
IO T29	Steenkamp/ Kleingärten	0.2	0.0	0.1	0.3	0.2	0.0	0.2	**0.5**	0.4	-20 %	0.4	-20 %	0.5	0 %
IO T30	Schwedenstraße	0.3	0.0	0.1	0.4	0.3	0.0	0.3	**0.6**	0.5	-17 %	0.5	-17 %	0.6	0 %
IO T31	Grönlandstraße	0.2	0.0	0.1	0.3	0.2	0.0	0.2	**0.5**	0.3	-40 %	0.3	-40 %	0.5	0 %
IO T32	Kaiserallee	0.4	0.0	0.1	0.5	0.4	0.0	0.4	**0.8**	0.6	-25 %	0.6	-25 %	0.8	0 %
IO T33	Kaiserallee	0.3	0.0	0.1	0.5	0.3	0.0	0.3	**0.7**	0.6	-14 %	0.5	-29 %	0.7	0 %
IO T34	Kaiserallee	0.3	0.0	0.1	0.4	0.2	0.0	0.2	**0.6**	0.4	-33 %	0.4	-33 %	0.6	0 %
IO T35	Steuerbord	0.3	0.0	0.1	0.4	0.3	0.0	0.3	**0.7**	0.5	-29 %	0.5	-29 %	0.7	0 %
IO T36	Achterdeck	0.3	0.0	0.1	0.5	0.3	0.0	0.3	**0.6**	0.5	-17 %	0.5	-17 %	0.6	0 %
IO T37	Strandweg	0.3	0.0	0.1	0.4	0.3	0.0	0.3	**0.6**	0.5	-17 %	0.5	-17 %	0.6	0 %
IO T38	Alfred-Hagelstein-Straße	0.2	0.0	0.1	0.3	0.2	0.0	0.2	**0.5**	0.4	-20 %	0.4	-20 %	0.5	0 %
IO T39	Scheteligstraße	0.3	0.0	0.1	0.4	0.2	0.0	0.2	**0.5**	0.4	-20 %	0.4	-20 %	0.5	0 %
IO T40	Gneversdorfer Kamp	0.2	0.0	0.1	0.3	0.2	0.0	0.2	**0.5**	0.3	-40 %	0.3	-40 %	0.5	0 %
IO T41	Teutendorfer Weg	0.3	0.0	0.1	0.3	0.3	0.0	0.3	**0.6**	0.4	-33 %	0.4	-33 %	0.6	0 %
IO T42	Am Krautacker	0.3	0.0	0.1	0.3	0.3	0.0	0.3	**0.6**	0.4	-33 %	0.4	-33 %	0.6	0 %
IO T43	Hollbeck	0.2	0.0	0.1	0.2	0.2	0.0	0.2	**0.4**	0.3	-25 %	0.3	-25 %	0.4	0 %
IO T44	Teutendorf	0.1	0.0	0.0	0.2	0.2	0.0	0.2	**0.4**	0.3	-25 %	0.2	-50 %	0.4	0 %
IO MP1	Meas. point Skandinavienkai (2000)	0.3	0.0	0.1	0.4	1.1	0.0	1.1	**1.6**	0.6	-63 %	0.6	-63 %	1.6	0 %
IO MP2	Measuring point Priwall ferry (2000)	0.6	0.0	0.2	0.7	0.9	0.0	0.9	**1.7**	1.0	-41 %	0.9	-47 %	1.7	0 %
IO MP3	Meauring point Kurpark (2000)	0.5	0.0	0.2	0.7	0.5	0.0	0.5	**1.1**	0.8	-27 %	0.7	-36 %	1.1	0 %

A 6.1.7 Additional Soot Pollution (Annual Average Value J00)

Immission point (monitor point)		Addtitional soot pollution (annual average value J00) [µg/m³]													
		Ship movements Skandinavienkai	Ship movements Ostpreußenkai	Ship movements other ports	Sum ship movements	Stay at berth Skandinavienkai	Stay at berth Ostpreußenkai	Sum stay at berth	Total shipping	Reduction concept 1a	Comparison with Actual Scenario	Reduction concept 1b	Comparison with Actual Scenario	Reduction concept 2	Comparison with Actual Scenario
IO 1	Teutendorfer Weg/ An der Bak	0.0	0.0	0.0	0.1	0.1	0.0	0.1	**0.1**	0.1	0 %	0.1	0 %	0.1	0 %
IO 2	St. Jürgen-Straße	0.0	0.0	0.0	0.0	0.1	0.0	0.1	**0.1**	0.1	0 %	0.1	0 %	0.1	0 %
IO 3	Rönnauer Ring	0.0	0.0	0.0	0.0	0.1	0.0	0.1	**0.1**	0.1	0 %	0.1	0 %	0.1	0 %
IO 4	Rönnauer Weg/ Ivendorfer Landstr.	0.0	0.0	0.0	0.0	0.1	0.0	0.1	**0.1**	0.1	0 %	0.1	0 %	0.1	0 %
IO 5	Rönnauer Weg/ Ivendorfer Landstr.	0.0	0.0	0.0	0.1	0.1	0.0	0.1	**0.1**	0.1	0 %	0.1	0 %	0.1	0 %
IO 6	Rönnauer Weg/ Ivendorfer Landstr.	0.0	0.0	0.0	0.0	0.1	0.0	0.1	**0.1**	0.1	0 %	0.1	0 %	0.1	0 %
IO 7	Ostseestraße/ Pommernzentrum	0.0	0.0	0.0	0.0	0.1	0.0	0.1	**0.1**	0.1	0 %	0.1	0 %	0.1	0 %
IO 8	Ostseestraße/ Pommernzentrum	0.0	0.0	0.0	0.1	0.1	0.0	0.1	**0.2**	0.1	-50 %	0.1	-50 %	0.2	0 %
IO 9	Ostseestraße/ Pommernzentrum	0.0	0.0	0.0	0.0	0.1	0.0	0.1	**0.1**	0.1	0 %	0.1	0 %	0.1	0 %
IO A	Ivendorf/ Ovendorfer Straße	0.0	0.0	0.0	0.0	0.1	0.0	0.1	**0.1**	0.0	-100 %	0.0	-100 %	0.1	0 %
IO B	Ivendorf/ Ovendorfer Straße	0.0	0.0	0.0	0.0	0.1	0.0	0.1	**0.1**	0.0	-100 %	0.0	-100 %	0.1	0 %
IO C	Ivendorf/ Ivendorfer Landstraße	0.0	0.0	0.0	0.0	0.1	0.0	0.1	**0.1**	0.0	-100 %	0.0	-100 %	0.1	0 %
IO D	Ivendorf/ Ivendorfer Landstraße	0.0	0.0	0.0	0.0	0.1	0.0	0.1	**0.1**	0.0	-100 %	0.0	-100 %	0.1	0 %
IO E	Ivendorf/ Ivendorfer Landstraße	0.0	0.0	0.0	0.0	0.0	0.0	0.0	**0.1**	0.0	-100 %	0.0	-100 %	0.1	0 %
IO F	Ivendorf/ Ivendorfer Landstraße	0.0	0.0	0.0	0.0	0.0	0.0	0.0	**0.1**	0.0	-100 %	0.0	-100 %	0.1	0 %
IO G	Ivendorf/ Ivendorfer Landstraße	0.0	0.0	0.0	0.0	0.0	0.0	0.0	**0.0**	0.0	—	0.0	—	0.0	—
IO H	Ivendorf/ Ivendorfer Landstraße	0.0	0.0	0.0	0.0	0.0	0.0	0.0	**0.0**	0.0	—	0.0	—	0.0	—
IO I	Blessenacker/ Travemünder Landstr.	0.0	0.0	0.0	0.0	0.0	0.0	0.0	**0.0**	0.0	—	0.0	—	0.0	—
IO L	Travemünder Landstr.	0.0	0.0	0.0	0.0	0.0	0.0	0.0	**0.0**	0.0	—	0.0	—	0.0	—
IO N	Boldwiesenkoppel	0.0	0.0	0.0	0.0	0.0	0.0	0.0	**0.0**	0.0	—	0.0	—	0.0	—
IO P	Scheidekoppel	0.0	0.0	0.0	0.0	0.0	0.0	0.0	**0.0**	0.0	—	0.0	—	0.0	—
IO Q	Borndiek	0.0	0.0	0.0	0.0	0.1	0.0	0.1	**0.1**	0.1	0 %	0.0	-100 %	0.1	0 %
IO S	Priwall/ Traveufer	0.1	0.0	0.0	0.1	0.2	0.0	0.2	**0.3**	0.2	-33 %	0.2	-33 %	0.3	0 %
IO T	Auf dem Baggersand	0.1	0.0	0.0	0.1	0.1	0.0	0.1	**0.2**	0.1	-50 %	0.1	-50 %	0.2	0 %
IO U	Priwall/ Traveufer	0.0	0.0	0.0	0.0	0.3	0.0	0.3	**0.4**	0.1	-75 %	0.1	-75 %	0.4	0 %
IO V	Priwall/ Traveufer	0.1	0.0	0.0	0.1	0.3	0.0	0.3	**0.4**	0.2	-50 %	0.2	-50 %	0.4	0 %
IO W	Dummersdorfer Ufer	0.0	0.0	0.0	0.0	0.1	0.0	0.1	**0.1**	0.1	0 %	0.1	0 %	0.1	0 %
IO X	Dummersdorfer Ufer	0.0	0.0	0.0	0.0	0.1	0.0	0.1	**0.1**	0.1	0 %	0.1	0 %	0.1	0 %
IO Y	Dummersdorfer Ufer	0.0	0.0	0.0	0.0	0.1	0.0	0.1	**0.1**	0.1	0 %	0.1	0 %	0.1	0 %
IO Z	Vorderreihe/ Priwallfähre	0.1	0.0	0.0	0.1	0.1	0.0	0.1	**0.2**	0.1	-50 %	0.1	-50 %	0.2	0 %
IO T1	Vorderreihe/ Ostpreußenkai	0.1	0.0	0.0	0.1	0.1	0.0	0.1	**0.2**	0.1	-50 %	0.1	-50 %	0.2	0 %
IO T2	Yachthafen/ Kaiserbrücke	0.1	0.0	0.0	0.1	0.1	0.0	0.1	**0.2**	0.2	0 %	0.2	0 %	0.2	0 %
IO P1	Priwall/ Fähre	0.1	0.0	0.0	0.1	0.1	0.0	0.1	**0.3**	0.2	-33 %	0.2	-33 %	0.3	0 %
IO P2	Priwall/ Passathafen	0.1	0.0	0.0	0.1	0.1	0.0	0.1	**0.2**	0.2	0 %	0.2	0 %	0.2	0 %
IO P3	Priwall/ Passathafen	0.1	0.0	0.0	0.1	0.1	0.0	0.1	**0.2**	0.2	0 %	0.2	0 %	0.2	0 %
IO P4	Priwall/ Traveufer	0.1	0.0	0.0	0.1	0.4	0.0	0.4	**0.5**	0.1	-80 %	0.1	-80 %	0.5	0 %
IO P5	Priwall/ Traveufer	0.1	0.0	0.0	0.1	0.2	0.0	0.2	**0.4**	0.2	-50 %	0.2	-50 %	0.4	0 %
IO P6	Priwall/ Kläranlage	0.1	0.0	0.0	0.1	0.3	0.0	0.3	**0.4**	0.2	-50 %	0.2	-50 %	0.4	0 %
IO P7	Priwall/ Weggabelung Teich	0.1	0.0	0.0	0.1	0.3	0.0	0.3	**0.4**	0.2	-50 %	0.2	-50 %	0.4	0 %
IO P8	Priwall/ Rosenhof	0.1	0.0	0.0	0.1	0.2	0.0	0.2	**0.3**	0.2	-33 %	0.2	-33 %	0.3	0 %
IO P9	Priwall/ Rosenhof	0.1	0.0	0.0	0.1	0.2	0.0	0.2	**0.3**	0.2	-33 %	0.2	-33 %	0.3	0 %
IO P10	Priwall/ Rosenhof	0.1	0.0	0.0	0.1	0.1	0.0	0.1	**0.3**	0.2	-33 %	0.2	-33 %	0.3	0 %
IO P11	Priwall/ Fliegerweg	0.1	0.0	0.0	0.1	0.1	0.0	0.1	**0.3**	0.2	-33 %	0.2	-33 %	0.3	0 %
IO P12	Priwall/ Pötenitzer Weg	0.1	0.0	0.0	0.1	0.1	0.0	0.1	**0.2**	0.1	-50 %	0.1	-50 %	0.2	0 %
IO P13	Priwall/ Pötenitzer Weg	0.1	0.0	0.0	0.1	0.1	0.0	0.1	**0.2**	0.1	-50 %	0.1	-50 %	0.2	0 %
IO P14	Priwall/ Seemannsschule	0.1	0.0	0.0	0.1	0.1	0.0	0.1	**0.2**	0.1	-50 %	0.1	-50 %	0.2	0 %
IO P15	Priwall/ Krankenhaus	0.1	0.0	0.0	0.1	0.1	0.0	0.1	**0.2**	0.1	-50 %	0.1	-50 %	0.2	0 %
IO P16	Priwall/ Krankenhaus	0.1	0.0	0.0	0.1	0.1	0.0	0.1	**0.2**	0.1	-50 %	0.1	-50 %	0.2	0 %
IO P17	Priwall/ Haus des Kurgastes	0.1	0.0	0.0	0.1	0.1	0.0	0.1	**0.2**	0.1	-50 %	0.1	-50 %	0.2	0 %
IO T3	Marina Baltica	0.1	0.0	0.0	0.1	0.1	0.0	0.1	**0.2**	0.1	-50 %	0.1	-50 %	0.2	0 %
IO T4	Fischereihafen	0.1	0.0	0.0	0.1	0.1	0.0	0.1	**0.1**	0.1	0 %	0.1	0 %	0.1	0 %
IO T5	Torstraße	0.1	0.0	0.0	0.1	0.1	0.0	0.1	**0.2**	0.1	-50 %	0.1	-50 %	0.2	0 %
IO T6	Kirchenstraße	0.1	0.0	0.0	0.1	0.1	0.0	0.1	**0.2**	0.1	-50 %	0.1	-50 %	0.2	0 %
IO T7	Kurgartenstraße	0.1	0.0	0.0	0.1	0.1	0.0	0.1	**0.2**	0.1	-50 %	0.1	-50 %	0.2	0 %
IO T8	Vorderreihe/ Prinzenbrücke	0.1	0.0	0.0	0.1	0.1	0.0	0.1	**0.2**	0.1	-50 %	0.1	-50 %	0.2	0 %
IO T9	Am Lotsenberg	0.1	0.0	0.0	0.1	0.1	0.0	0.1	**0.2**	0.1	-50 %	0.1	-50 %	0.2	0 %
IO T10	Rose	0.1	0.0	0.0	0.1	0.1	0.0	0.1	**0.2**	0.1	-50 %	0.1	-50 %	0.2	0 %
IO T11	Rose	0.1	0.0	0.0	0.1	0.1	0.0	0.1	**0.1**	0.1	0 %	0.1	0 %	0.1	0 %
IO T12	Rose	0.0	0.0	0.0	0.1	0.0	0.0	0.0	**0.1**	0.1	0 %	0.1	0 %	0.1	0 %
IO T13	Boelckestraße	0.1	0.0	0.0	0.1	0.1	0.0	0.1	**0.1**	0.1	0 %	0.1	0 %	0.1	0 %
IO T14	Fehlingstraße	0.1	0.0	0.0	0.1	0.1	0.0	0.1	**0.1**	0.1	0 %	0.1	0 %	0.1	0 %
IO T15	Fehlingstraße	0.1	0.0	0.0	0.1	0.0	0.0	0.0	**0.1**	0.1	0 %	0.1	0 %	0.1	0 %
IO T16	Mühlenberg/ Ziegenhorst	0.1	0.0	0.0	0.1	0.0	0.0	0.0	**0.1**	0.1	0 %	0.1	0 %	0.1	0 %
IO T17	Gneversdorfer Weg	0.0	0.0	0.0	0.1	0.1	0.0	0.1	**0.1**	0.1	0 %	0.1	0 %	0.1	0 %
IO T18	Gneversdorfer Weg	0.0	0.0	0.0	0.1	0.0	0.0	0.0	**0.1**	0.1	0 %	0.1	0 %	0.1	0 %
IO T19	Gneversdorfer Weg	0.0	0.0	0.0	0.0	0.0	0.0	0.0	**0.1**	0.0	-100 %	0.0	-100 %	0.1	0 %
IO T20	Gneversdorfer Weg/ Moorredder	0.0	0.0	0.0	0.0	0.0	0.0	0.0	**0.1**	0.1	0 %	0.1	0 %	0.1	0 %
IO T21	Moorredder	0.0	0.0	0.0	0.1	0.0	0.0	0.0	**0.1**	0.1	0 %	0.1	0 %	0.1	0 %
IO T22	Moorredder	0.0	0.0	0.0	0.1	0.0	0.0	0.0	**0.1**	0.1	0 %	0.1	0 %	0.1	0 %
IO T23	Am Fahrenberg	0.0	0.0	0.0	0.1	0.0	0.0	0.0	**0.1**	0.1	0 %	0.1	0 %	0.1	0 %
IO T24	Parkallee/ Kurhaus	0.1	0.0	0.0	0.1	0.1	0.0	0.1	**0.2**	0.1	-50 %	0.1	-50 %	0.2	0 %
IO T25	Kurpark	0.1	0.0	0.0	0.1	0.0	0.0	0.1	**0.1**	0.1	0 %	0.1	0 %	0.1	0 %
IO T26	Steenkamp	0.0	0.0	0.0	0.1	0.0	0.0	0.0	**0.1**	0.1	0 %	0.1	0 %	0.1	0 %
IO T27	Steenkamp	0.0	0.0	0.0	0.1	0.0	0.0	0.0	**0.1**	0.1	0 %	0.1	0 %	0.1	0 %
IO T28	Steenkamp	0.0	0.0	0.0	0.0	0.0	0.0	0.0	**0.1**	0.1	0 %	0.1	0 %	0.1	0 %
IO T29	Steenkamp/ Kleingärten	0.0	0.0	0.0	0.0	0.0	0.0	0.0	**0.1**	0.0	-100 %	0.0	-100 %	0.1	0 %
IO T30	Schwedenstraße	0.0	0.0	0.0	0.0	0.0	0.0	0.0	**0.1**	0.1	0 %	0.0	-100 %	0.1	0 %
IO T31	Grönlandstraße	0.0	0.0	0.0	0.0	0.0	0.0	0.0	**0.1**	0.0	-100 %	0.0	-100 %	0.1	0 %
IO T32	Kaiserallee	0.1	0.0	0.0	0.1	0.0	0.0	0.0	**0.1**	0.1	0 %	0.1	0 %	0.1	0 %
IO T33	Kaiserallee	0.0	0.0	0.0	0.1	0.0	0.0	0.0	**0.1**	0.1	0 %	0.1	0 %	0.1	0 %
IO T34	Kaiserallee	0.0	0.0	0.0	0.0	0.0	0.0	0.0	**0.1**	0.1	0 %	0.1	0 %	0.1	0 %
IO T35	Steuerbord	0.0	0.0	0.0	0.1	0.0	0.0	0.0	**0.1**	0.1	0 %	0.1	0 %	0.1	0 %
IO T36	Achterdeck	0.0	0.0	0.0	0.1	0.0	0.0	0.0	**0.1**	0.1	0 %	0.1	0 %	0.1	0 %
IO T37	Strandweg	0.0	0.0	0.0	0.0	0.0	0.0	0.0	**0.1**	0.1	0 %	0.1	0 %	0.1	0 %
IO T38	Alfred-Hagelstein-Straße	0.0	0.0	0.0	0.0	0.0	0.0	0.0	**0.1**	0.0	-100 %	0.0	-100 %	0.1	0 %
IO T39	Scheteligstraße	0.0	0.0	0.0	0.0	0.0	0.0	0.0	**0.1**	0.0	-100 %	0.0	-100 %	0.1	0 %
IO T40	Gneversdorfer Kamp	0.0	0.0	0.0	0.0	0.0	0.0	0.0	**0.1**	0.0	-100 %	0.0	-100 %	0.1	0 %
IO T41	Teutendorfer Weg	0.0	0.0	0.0	0.0	0.0	0.0	0.0	**0.1**	0.0	-100 %	0.0	-100 %	0.1	0 %
IO T42	Am Krautacker	0.0	0.0	0.0	0.0	0.0	0.0	0.0	**0.1**	0.1	0 %	0.1	0 %	0.1	0 %
IO T43	Hollbeck	0.0	0.0	0.0	0.0	0.0	0.0	0.0	**0.1**	0.0	-100 %	0.0	-100 %	0.1	0 %
IO T44	Teutendorf	0.0	0.0	0.0	0.0	0.0	0.0	0.0	**0.0**	0.0	—	0.0	—	0.0	—
IO MP1	Meas. point Skandinavienkai (2000)	0.0	0.0	0.0	0.0	0.1	0.0	0.1	**0.2**	0.1	-50 %	0.1	-50 %	0.2	0 %
IO MP2	Measuring point Priwall ferry (2000)	0.1	0.0	0.0	0.1	0.1	0.0	0.1	**0.2**	0.1	-50 %	0.1	-50 %	0.2	0 %
IO MP3	Meauring point Kurpark (2000)	0.1	0.0	0.0	0.1	0.1	0.0	0.1	**0.2**	0.1	-50 %	0.1	-50 %	0.2	0 %

A 6.2 Sum of Road Traffic and Shipping, Actual Scenario

A 6.2.1 Additional NOx Pollution (Annual Average Value J00)

Immission point (monitor point)		Additional NOx pollution (annual average value J00) [µg/m³]													
		Road traffic, sources set 1	Road traffic, sources set 2	Road traffic, sources set 3	Road traffic, sources set 4	Road traffic, sources set 5	Total road traffic	Total shipping	Sum	Reduction concept 1a	Comparison with Actual Scenario	Reduction concept 1b	Comparison with Actual Scenario	Reduction concept 2	Comparison with Actual Scenario
IO 1	Teutendorfer Weg/ An der Bak	0.4	1.8	6.8	0.4	0.0	9.4	5.5	**14.9**	11.4	-23 %	11.3	-24 %	14.9	0 %
IO 2	St. Jürgen-Straße	0.5	1.3	0.9	0.3	0.0	3.0	5.4	**8.4**	4.8	-43 %	4.7	-44 %	8.4	0 %
IO 3	Rönnauer Ring	0.5	1.3	0.8	0.2	0.0	2.8	5.2	**8.0**	4.5	-44 %	4.5	-44 %	8.0	0 %
IO 4	Rönnauer Weg/ Ivendorfer Landstr.	0.5	3.2	0.8	0.1	0.0	4.6	6.0	**10.6**	6.4	-40 %	6.2	-42 %	10.6	0 %
IO 5	Rönnauer Weg/ Ivendorfer Landstr.	0.5	5.0	0.9	0.1	0.0	6.5	6.3	**12.8**	8.4	-34 %	8.4	-34 %	12.8	0 %
IO 6	Rönnauer Weg/ Ivendorfer Landstr.	0.6	1.5	0.2	0.1	0.0	2.4	5.9	**8.3**	4.2	-49 %	4.1	-51 %	8.3	0 %
IO 7	Ostseestraße/ Pommernzentrum	0.6	2.2	0.4	0.1	0.0	3.3	7.4	**10.7**	5.2	-51 %	5.2	-51 %	10.7	0 %
IO 8	Ostseestraße/ Pommernzentrum	0.5	2.8	1.7	0.1	0.0	5.1	7.9	**13.0**	7.1	-45 %	7.1	-45 %	13.0	0 %
IO 9	Ostseestraße/ Pommernzentrum	0.6	1.3	0.2	0.1	0.0	2.2	6.7	**8.9**	4.0	-55 %	4.0	-55 %	8.9	0 %
IO A	Ivendorf/ Ovendorfer Straße	1.3	11.0	0.8	0.0	0.0	13.1	4.2	**17.3**	14.2	-18 %	14.1	-18 %	17.3	0 %
IO B	Ivendorf/ Ovendorfer Straße	1.4	4.8	0.5	0.0	0.0	6.7	4.2	**10.9**	7.7	-29 %	7.7	-29 %	10.9	0 %
IO C	Ivendorf/ Ivendorfer Landstraße	1.2	0.7	1.9	0.0	0.0	3.8	4.1	**7.9**	4.9	-38 %	4.9	-38 %	7.9	0 %
IO D	Ivendorf/ Ivendorfer Landstraße	1.4	0.9	1.8	0.0	0.0	4.1	3.7	**7.8**	5.0	-36 %	5.0	-36 %	7.8	0 %
IO E	Ivendorf/ Ivendorfer Landstraße	2.1	1.1	2.1	0.0	0.0	5.3	3.0	**8.3**	6.1	-27 %	6.1	-27 %	8.3	0 %
IO F	Ivendorf/ Ivendorfer Landstraße	2.9	1.3	1.1	0.0	0.0	5.3	2.7	**8.0**	6.0	-25 %	6.0	-25 %	8.0	0 %
IO G	Ivendorf/ Ivendorfer Landstraße	5.8	4.9	0.3	0.0	0.0	11.0	2.2	**13.2**	11.6	-12 %	11.6	-12 %	13.2	0 %
IO H	Ivendorf/ Ivendorfer Landstraße	7.2	2.7	1.5	0.0	0.0	11.4	1.9	**13.3**	12.0	-10 %	11.9	-11 %	13.3	0 %
IO I	Blessenacker/ Travemünder Landstr.	1.0	1.7	0.0	0.0	0.0	2.7	1.3	**4.0**	3.1	-23 %	3.1	-23 %	4.0	0 %
IO L	Travemünder Landstr.	3.1	3.0	0.1	0.0	0.0	6.2	1.6	**7.8**	6.7	-14 %	6.6	-15 %	7.8	0 %
IO N	Boldwiesenkoppel	1.7	0.6	0.0	0.0	0.0	2.3	1.9	**4.2**	2.8	-33 %	2.8	-33 %	4.2	0 %
IO P	Scheidekoppel	0.3	0.2	0.0	0.0	0.0	0.5	2.3	**2.8**	1.1	-61 %	1.1	-61 %	2.8	0 %
IO Q	Borndiek	0.9	4.1	0.1	0.0	0.0	5.1	5.0	**10.1**	6.3	-38 %	6.3	-38 %	10.1	0 %
IO S	Priwall/ Traveufer	0.3	0.7	0.0	0.1	0.0	1.1	14.9	**16.0**	5.6	-65 %	5.5	-66 %	16.0	0 %
IO T	Auf dem Baggersand	0.4	1.2	0.2	3.8	0.0	5.6	7.0	**12.6**	8.1	-36 %	8.0	-37 %	12.6	0 %
IO U	Priwall/ Traveufer	0.3	0.6	0.0	0.0	0.0	0.9	17.1	**18.0**	3.8	-79 %	3.7	-79 %	18.0	0 %
IO V	Priwall/ Traveufer	0.3	1.5	0.0	0.0	0.0	1.8	19.8	**21.6**	5.8	-73 %	5.6	-74 %	21.6	0 %
IO W	Dummersdorfer Ufer	0.4	0.5	0.0	0.0	0.0	0.9	6.0	**6.9**	2.4	-65 %	2.4	-65 %	6.9	0 %
IO X	Dummersdorfer Ufer	0.5	0.5	0.0	0.0	0.0	1.0	6.2	**7.2**	2.5	-65 %	2.4	-67 %	7.2	0 %
IO Y	Dummersdorfer Ufer	0.4	0.4	0.0	0.0	0.0	0.8	5.9	**6.7**	2.2	-67 %	2.2	-67 %	6.7	0 %
IO Z	Vorderreihe/ Priwallfähre	0.3	0.6	0.1	2.3	0.1	3.4	8.0	**11.4**	6.6	-42 %	6.5	-43 %	11.4	0 %
IO T1	Vorderreihe/ Ostpreußenkai	0.3	0.5	0.1	1.6	0.1	2.6	8.6	**11.2**	6.0	-46 %	6.0	-46 %	11.2	0 %
IO T2	Yachthafen/ Kaiserbrücke	0.2	0.4	0.0	2.3	0.1	3.0	7.6	**10.6**	6.7	-37 %	6.6	-38 %	10.6	0 %
IO P1	Priwall/ Fähre	0.2	0.5	0.0	0.3	0.5	1.5	10.4	**11.9**	5.7	-52 %	5.6	-53 %	11.9	0 %
IO P2	Priwall/ Passathafen	0.2	0.3	0.0	0.2	0.2	0.9	9.1	**10.0**	5.0	-50 %	5.1	-49 %	10.0	0 %
IO P3	Priwall/ Passathafen	0.2	0.3	0.0	0.2	0.1	0.8	8.3	**9.1**	4.9	-46 %	5.0	-45 %	9.1	0 %
IO P4	Priwall/ Traveufer	0.3	1.0	0.0	0.0	0.0	1.3	18.5	**19.8**	4.7	-76 %	4.5	-77 %	19.8	0 %
IO P5	Priwall/ Traveufer	0.3	1.0	0.1	0.1	0.0	1.5	17.4	**18.9**	5.9	-69 %	5.7	-70 %	18.9	0 %
IO P6	Priwall/ Kläranlage	0.3	1.0	0.0	0.1	0.0	1.4	19.4	**20.8**	6.2	-70 %	6.0	-71 %	20.8	0 %
IO P7	Priwall/ Weggabelung Teich	0.2	0.6	0.0	0.0	0.0	0.8	20.0	**20.8**	5.6	-73 %	5.5	-74 %	20.8	0 %
IO P8	Priwall/ Rosenhof	0.3	0.6	0.0	0.1	0.1	1.1	14.1	**15.2**	5.5	-64 %	5.4	-64 %	15.2	0 %
IO P9	Priwall/ Rosenhof	0.2	0.5	0.0	0.1	0.1	0.9	12.8	**13.7**	5.1	-63 %	5.0	-64 %	13.7	0 %
IO P10	Priwall/ Rosenhof	0.2	0.5	0.0	0.2	4.3	5.2	11.1	**16.3**	9.5	-42 %	9.4	-42 %	16.3	0 %
IO P11	Priwall/ Fliegerweg	0.2	0.4	0.0	0.1	0.2	0.9	11.0	**11.9**	4.7	-61 %	4.6	-61 %	11.9	0 %
IO P12	Priwall/ Pötenitzer Weg	0.2	0.3	0.0	0.1	0.1	0.7	9.8	**10.5**	4.0	-62 %	4.0	-62 %	10.5	0 %
IO P13	Priwall/ Pötenitzer Weg	0.2	0.3	0.0	0.0	0.0	0.5	10.6	**11.1**	3.6	-68 %	3.6	-68 %	11.1	0 %
IO P14	Priwall/ Seemannsschule	0.1	0.2	0.0	0.0	0.1	0.4	8.4	**8.8**	3.1	-65 %	3.1	-65 %	8.8	0 %
IO P15	Priwall/ Krankenhaus	0.2	0.3	0.0	0.1	0.7	1.3	9.1	**10.4**	4.8	-54 %	4.7	-55 %	10.4	0 %
IO P16	Priwall/ Krankenhaus	0.2	0.2	0.0	0.1	2.3	2.8	8.0	**10.8**	5.9	-45 %	5.8	-46 %	10.8	0 %
IO P17	Priwall/ Haus des Kurgastes	0.1	0.2	0.0	0.1	0.3	0.7	6.6	**7.3**	3.5	-52 %	3.5	-52 %	7.3	0 %
IO T3	Marina Baltica	0.5	2.8	0.2	0.1	0.0	3.6	8.1	**11.7**	5.8	-50 %	5.8	-50 %	11.7	0 %
IO T4	Fischereihafen	0.4	1.8	0.2	0.5	0.0	2.9	6.9	**9.8**	5.2	-47 %	5.1	-48 %	9.8	0 %
IO T5	Torstraße	0.3	1.2	0.2	3.6	0.0	5.3	6.9	**12.2**	7.9	-35 %	7.8	-36 %	12.2	0 %
IO T6	Kirchenstraße	0.3	0.9	0.1	7.5	0.0	8.8	7.2	**16.0**	11.6	-28 %	11.5	-28 %	16.0	0 %
IO T7	Kurgartenstraße	0.3	0.6	0.1	5.9	0.1	7.0	7.9	**14.9**	10.3	-31 %	10.2	-32 %	14.9	0 %
IO T8	Vorderreihe/ Prinzenbrücke	0.2	0.5	0.1	2.1	0.1	3.0	7.9	**10.9**	6.5	-40 %	6.4	-41 %	10.9	0 %
IO T9	Am Lotsenberg	0.2	0.5	0.0	5.9	0.1	6.7	7.1	**13.8**	9.9	-28 %	9.8	-29 %	13.8	0 %
IO T10	Rose	0.3	0.6	0.1	2.9	0.1	4.0	6.6	**10.6**	6.9	-35 %	6.8	-36 %	10.6	0 %
IO T11	Rose	0.3	0.8	0.1	1.8	0.1	3.1	5.8	**8.9**	5.6	-37 %	5.6	-37 %	8.9	0 %
IO T12	Rose	0.3	1.1	0.1	1.4	0.1	3.0	4.7	**7.7**	4.9	-36 %	4.9	-36 %	7.7	0 %
IO T13	Boelckestraße	0.3	0.9	0.1	1.0	0.1	2.4	5.9	**8.3**	4.9	-41 %	4.9	-41 %	8.3	0 %
IO T14	Fehlingstraße	0.3	0.6	0.1	2.5	0.1	3.6	6.0	**9.6**	6.3	-34 %	6.2	-35 %	9.6	0 %
IO T15	Fehlingstraße	0.3	0.5	0.0	1.9	0.1	2.8	4.8	**7.6**	5.0	-34 %	5.1	-33 %	7.6	0 %
IO T16	Mühlenberg/ Ziegenhorst	0.3	0.6	0.1	2.0	0.1	3.1	5.1	**8.2**	5.4	-34 %	5.5	-33 %	8.2	0 %
IO T17	Gneversdorfer Weg	0.4	19.3	0.2	0.5	0.0	20.4	5.0	**25.4**	22.4	-12 %	22.3	-12 %	25.4	0 %
IO T18	Gneversdorfer Weg	0.4	7.4	0.1	0.5	0.0	8.4	4.3	**12.7**	10.1	-20 %	10.1	-20 %	12.7	0 %
IO T19	Gneversdorfer Weg	0.4	6.3	0.1	0.2	0.0	7.0	3.1	**10.1**	8.2	-19 %	8.2	-19 %	10.1	0 %
IO T20	Gneversdorfer Weg/ Moorredder	0.4	8.8	0.1	2.9	0.0	12.2	4.1	**16.3**	13.8	-15 %	13.7	-16 %	16.3	0 %
IO T21	Moorredder	0.3	1.7	0.1	6.1	0.0	8.2	4.1	**12.3**	9.8	-20 %	9.8	-20 %	12.3	0 %
IO T22	Moorredder	0.3	0.6	0.0	12.8	0.1	13.8	4.0	**17.8**	15.5	-13 %	15.5	-13 %	17.8	0 %
IO T23	Am Fahrenberg	0.2	0.4	0.0	4.2	0.5	5.3	3.8	**9.1**	7.1	-22 %	7.1	-22 %	9.1	0 %
IO T24	Parkallee/ Kurhaus	0.2	0.3	0.0	1.1	0.2	1.8	6.2	**8.0**	4.9	-39 %	4.9	-39 %	8.0	0 %
IO T25	Kurpark	0.2	0.4	0.0	0.8	0.2	1.6	5.7	**7.3**	4.3	-41 %	4.3	-41 %	7.3	0 %
IO T26	Steenkamp	0.3	0.4	0.0	1.4	1.1	3.2	4.0	**7.2**	5.0	-31 %	5.0	-31 %	7.2	0 %
IO T27	Steenkamp	0.3	0.5	0.0	1.0	3.3	5.1	3.5	**8.6**	6.7	-22 %	6.7	-22 %	8.6	0 %
IO T28	Steenkamp	0.3	0.4	0.0	0.4	1.7	2.8	3.1	**5.9**	4.2	-29 %	4.1	-31 %	5.9	0 %
IO T29	Steenkamp/ Kleingärten	0.3	0.5	0.0	0.2	0.3	1.3	2.8	**4.1**	2.5	-39 %	2.5	-39 %	4.1	0 %
IO T30	Schwedenstraße	0.3	0.9	0.0	0.4	0.1	1.7	3.3	**5.0**	3.1	-38 %	3.1	-38 %	5.0	0 %
IO T31	Grönlandstraße	0.4	1.4	0.0	0.2	0.1	2.1	2.6	**4.7**	3.2	-32 %	3.2	-32 %	4.7	0 %
IO T32	Kaiserallee	0.2	0.3	0.0	0.6	1.7	2.8	4.7	**7.5**	5.1	-32 %	5.1	-32 %	7.5	0 %
IO T33	Kaiserallee	0.2	0.3	0.0	0.3	1.4	2.2	3.8	**6.0**	4.0	-33 %	4.0	-33 %	6.0	0 %
IO T34	Kaiserallee	0.2	0.2	0.0	0.2	1.3	1.9	3.1	**5.0**	3.3	-34 %	3.3	-34 %	5.0	0 %
IO T35	Steuerbord	0.2	0.3	0.0	0.3	2.0	2.8	3.5	**6.3**	4.4	-30 %	4.4	-30 %	6.3	0 %
IO T36	Achterdeck	0.2	0.4	0.0	0.6	0.4	1.6	3.5	**5.1**	3.3	-35 %	3.3	-35 %	5.1	0 %
IO T37	Strandweg	0.2	0.3	0.0	0.3	1.2	2.0	3.1	**5.1**	3.5	-31 %	3.5	-31 %	5.1	0 %
IO T38	Alfred-Hagelstein-Straße	0.2	0.2	0.0	0.1	1.7	2.2	2.4	**4.6**	3.4	-26 %	3.3	-28 %	4.6	0 %
IO T39	Scheteligstraße	0.2	0.3	0.0	0.2	0.3	1.0	2.7	**3.7**	2.3	-38 %	2.3	-38 %	3.7	0 %
IO T40	Gneversdorfer Kamp	0.7	2.6	0.0	0.1	0.0	3.4	2.4	**5.8**	4.4	-24 %	4.4	-24 %	5.8	0 %
IO T41	Teutendorfer Weg	0.7	0.4	7.1	0.1	0.0	8.3	3.2	**11.5**	9.5	-17 %	9.4	-18 %	11.5	0 %
IO T42	Am Krautacker	0.7	0.5	0.1	0.1	0.0	1.4	3.8	**5.2**	2.7	-48 %	2.6	-50 %	5.2	0 %
IO T43	Hollbeck	1.6	0.3	1.3	0.0	0.0	3.2	2.6	**5.8**	4.1	-29 %	4.1	-29 %	5.8	0 %
IO T44	Teutendorf	1.6	0.2	0.2	0.0	0.0	2.0	2.0	**4.0**	2.7	-33 %	2.7	-33 %	4.0	0 %
IO MP1	Meas. point Skandinavienkai (2000)	0.4	1.0	0.0	0.0	0.0	1.4	7.2	**8.6**	3.2	-63 %	3.2	-63 %	8.6	0 %
IO MP2	Measuring point Priwall ferry (2000)	0.3	0.7	0.1	1.0	0.0	2.1	8.9	**11.0**	5.2	-53 %	5.1	-54 %	11.0	0 %
IO MP3	Meauring point Kurpark (2000)	0.2	0.5	0.0	1.3	0.1	2.1	6.3	**8.4**	5.0	-40 %	5.0	-40 %	8.4	0 %

A 6.2.2 Additional PM_{10} Pollution (Annual Average Value J00)

Immission point (monitor point)		Additional PM_{10} pollution (annual average value J00) [µg/m³]													
		Road traffic, sources set 1	Road traffic, sources set 2	Road traffic, sources set 3	Road traffic, sources set 4	Road traffic, sources set 5	Total road traffic	Total shipping	Sum	Reduction concept 1a	Comparison with Actual Scenario	Reduction concept 1b	Comparison with Actual Scenario	Reduction concept 2	Comparison with Actual Scenario
IO 1	Teutendorfer Weg/ An der Bak	0.1	0.2	1.4	0.0	0.0	1.7	0.3	**2.0**	1.9	-5 %	1.9	-5 %	2.0	0 %
IO 2	St. Jürgen-Straße	0.1	0.2	0.1	0.0	0.0	0.4	0.3	**0.7**	0.6	-14 %	0.6	-14 %	0.7	0 %
IO 3	Rönnauer Ring	0.1	0.2	0.1	0.0	0.0	0.4	0.3	**0.7**	0.6	-14 %	0.6	-14 %	0.7	0 %
IO 4	Rönnauer Weg/ Ivendorfer Landstr.	0.1	0.7	0.1	0.0	0.0	0.9	0.3	**1.2**	1.1	-8 %	1.1	-8 %	1.2	0 %
IO 5	Rönnauer Weg/ Ivendorfer Landstr.	0.1	1.3	0.2	0.0	0.0	1.6	0.3	**1.9**	1.8	-5 %	1.8	-5 %	1.9	0 %
IO 6	Rönnauer Weg/ Ivendorfer Landstr.	0.1	0.3	0.0	0.0	0.0	0.4	0.3	**0.7**	0.6	-14 %	0.6	-14 %	0.7	0 %
IO 7	Ostseestraße/ Pommernzentrum	0.1	0.5	0.1	0.0	0.0	0.7	0.4	**1.1**	0.9	-18 %	0.9	-18 %	1.1	0 %
IO 8	Ostseestraße/ Pommernzentrum	0.1	0.7	0.3	0.0	0.0	1.1	0.4	**1.5**	1.3	-13 %	1.3	-13 %	1.5	0 %
IO 9	Ostseestraße/ Pommernzentrum	0.1	0.3	0.0	0.0	0.0	0.4	0.3	**0.7**	0.6	-14 %	0.6	-14 %	0.7	0 %
IO A	Ivendorf/ Ovendorfer Straße	0.3	3.3	0.2	0.0	0.0	3.8	0.2	**4.0**	3.9	-3 %	3.9	-3 %	4.0	0 %
IO B	Ivendorf/ Ovendorfer Straße	0.3	1.3	0.1	0.0	0.0	1.7	0.2	**1.9**	1.8	-5 %	1.8	-5 %	1.9	0 %
IO C	Ivendorf/ Ivendorfer Landstraße	0.2	0.1	0.4	0.0	0.0	0.7	0.2	**0.9**	0.8	-11 %	0.8	-11 %	0.9	0 %
IO D	Ivendorf/ Ivendorfer Landstraße	0.3	0.2	0.4	0.0	0.0	0.9	0.2	**1.1**	1.0	-9 %	1.0	-9 %	1.1	0 %
IO E	Ivendorf/ Ivendorfer Landstraße	0.5	0.2	0.6	0.0	0.0	1.3	0.1	**1.4**	1.4	0 %	1.4	0 %	1.4	0 %
IO F	Ivendorf/ Ivendorfer Landstraße	0.7	0.3	0.3	0.0	0.0	1.3	0.1	**1.4**	1.4	0 %	1.4	0 %	1.4	0 %
IO G	Ivendorf/ Ivendorfer Landstraße	1.7	1.4	0.1	0.0	0.0	3.2	0.1	**3.3**	3.3	0 %	3.3	0 %	3.3	0 %
IO H	Ivendorf/ Ivendorfer Landstraße	2.2	0.7	0.4	0.0	0.0	3.3	0.1	**3.4**	3.4	0 %	3.4	0 %	3.4	0 %
IO I	Blessenacker/ Travemünder Landstr.	0.3	0.5	0.0	0.0	0.0	0.8	0.1	**0.9**	0.8	-11 %	0.8	-11 %	0.9	0 %
IO L	Travemünder Landstr.	0.9	0.9	0.0	0.0	0.0	1.8	0.1	**1.9**	1.8	-5 %	1.8	-5 %	1.9	0 %
IO N	Boldwiesenkoppel	0.5	0.1	0.0	0.0	0.0	0.6	0.1	**0.7**	0.7	0 %	0.7	0 %	0.7	0 %
IO P	Scheidekoppel	0.1	0.0	0.0	0.0	0.0	0.1	0.1	**0.2**	0.2	0 %	0.2	0 %	0.2	0 %
IO Q	Borndiek	0.2	1.3	0.0	0.0	0.0	1.5	0.3	**1.8**	1.6	-11 %	1.6	-11 %	1.8	0 %
IO S	Priwall/ Traveufer	0.0	0.1	0.0	0.0	0.0	0.1	0.8	**0.9**	0.6	-33 %	0.6	-33 %	0.9	0 %
IO T	Auf dem Baggersand	0.1	0.2	0.0	0.6	0.0	0.9	0.4	**1.3**	1.2	-8 %	1.2	-8 %	1.3	0 %
IO U	Priwall/ Traveufer	0.1	0.2	0.0	0.0	0.0	0.3	0.9	**1.2**	0.6	-50 %	0.6	-50 %	1.2	0 %
IO V	Priwall/ Traveufer	0.1	0.4	0.0	0.0	0.0	0.5	1.1	**1.6**	1.0	-38 %	1.0	-38 %	1.6	0 %
IO W	Dummersdorfer Ufer	0.1	0.1	0.0	0.0	0.0	0.2	0.3	**0.5**	0.4	-20 %	0.4	-20 %	0.5	0 %
IO X	Dummersdorfer Ufer	0.1	0.1	0.0	0.0	0.0	0.2	0.3	**0.5**	0.4	-20 %	0.3	-40 %	0.5	0 %
IO Y	Dummersdorfer Ufer	0.1	0.1	0.0	0.0	0.0	0.2	0.3	**0.5**	0.4	-20 %	0.4	-20 %	0.5	0 %
IO Z	Vorderreihe/ Priwallfähre	0.0	0.1	0.0	0.4	0.0	0.5	0.5	**1.0**	0.8	-20 %	0.8	-20 %	1.0	0 %
IO T1	Vorderreihe/ Ostpreußenkai	0.0	0.1	0.0	0.2	0.0	0.3	0.5	**0.8**	0.7	-13 %	0.7	-13 %	0.8	0 %
IO T2	Yachthafen/ Kaiserbrücke	0.0	0.1	0.0	0.4	0.0	0.5	0.5	**1.0**	0.9	-10 %	0.9	-10 %	1.0	0 %
IO P1	Priwall/ Fähre	0.0	0.1	0.0	0.0	0.1	0.2	0.6	**0.8**	0.7	-13 %	0.6	-25 %	0.8	0 %
IO P2	Priwall/ Passathafen	0.0	0.1	0.0	0.0	0.0	0.1	0.6	**0.7**	0.5	-29 %	0.5	-29 %	0.7	0 %
IO P3	Priwall/ Passathafen	0.0	0.0	0.0	0.0	0.0	0.0	0.6	**0.6**	0.4	-33 %	0.4	-33 %	0.6	0 %
IO P4	Priwall/ Traveufer	0.1	0.3	0.0	0.0	0.0	0.4	1.1	**1.5**	0.8	-47 %	0.7	-53 %	1.5	0 %
IO P5	Priwall/ Traveufer	0.1	0.2	0.0	0.0	0.0	0.3	0.9	**1.2**	0.8	-33 %	0.8	-33 %	1.2	0 %
IO P6	Priwall/ Kläranlage	0.0	0.2	0.0	0.0	0.0	0.2	1.0	**1.2**	0.8	-33 %	0.7	-42 %	1.2	0 %
IO P7	Priwall/ Weggabelung Teich	0.0	0.2	0.0	0.0	0.0	0.2	1.1	**1.3**	0.7	-46 %	0.7	-46 %	1.3	0 %
IO P8	Priwall/ Rosenhof	0.0	0.1	0.0	0.0	0.0	0.1	0.8	**0.9**	0.6	-33 %	0.6	-33 %	0.9	0 %
IO P9	Priwall/ Rosenhof	0.0	0.1	0.0	0.0	0.0	0.1	0.7	**0.8**	0.6	-25 %	0.6	-25 %	0.8	0 %
IO P10	Priwall/ Rosenhof	0.0	0.1	0.0	0.0	0.9	1.0	0.7	**1.7**	1.5	-12 %	1.5	-12 %	1.7	0 %
IO P11	Priwall/ Fliegerweg	0.0	0.1	0.0	0.0	0.0	0.1	0.6	**0.7**	0.5	-29 %	0.5	-29 %	0.7	0 %
IO P12	Priwall/ Pötenitzer Weg	0.0	0.1	0.0	0.0	0.0	0.1	0.6	**0.7**	0.4	-43 %	0.4	-43 %	0.7	0 %
IO P13	Priwall/ Pötenitzer Weg	0.0	0.1	0.0	0.0	0.0	0.1	0.6	**0.7**	0.4	-43 %	0.4	-43 %	0.7	0 %
lO P14	Priwall/ Seemannsschule	0.0	0.0	0.0	0.0	0.0	0.0	0.5	**0.5**	0.3	-40 %	0.3	-40 %	0.5	0 %
lO P15	Priwall/ Krankenhaus	0.0	0.0	0.0	0.0	0.1	0.1	0.6	**0.7**	0.5	-29 %	0.5	-29 %	0.7	0 %
IO P16	Priwall/ Krankenhaus	0.0	0.0	0.0	0.0	0.4	0.4	0.5	**0.9**	0.7	-22 %	0.7	-22 %	0.9	0 %
IO P17	Priwall/ Haus des Kurgastes	0.0	0.0	0.0	0.0	0.0	0.0	0.4	**0.4**	0.3	-25 %	0.3	-25 %	0.4	0 %
IO T3	Marina Baltica	0.1	0.7	0.0	0.0	0.0	0.8	0.4	**1.2**	1.0	-17 %	1.0	-17 %	1.2	0 %
IO T4	Fischereihafen	0.1	0.3	0.0	0.1	0.0	0.5	0.4	**0.9**	0.7	-22 %	0.7	-22 %	0.9	0 %
IO T5	Torstraße	0.0	0.2	0.0	0.6	0.0	0.8	0.4	**1.2**	1.1	-8 %	1.1	-8 %	1.2	0 %
IO T6	Kirchenstraße	0.0	0.1	0.0	1.2	0.0	1.3	0.4	**1.7**	1.6	-6 %	1.6	-6 %	1.7	0 %
IO T7	Kurgartenstraße	0.0	0.1	0.0	1.0	0.0	1.1	0.5	**1.6**	1.4	-13 %	1.4	-13 %	1.6	0 %
IO T8	Vorderreihe/ Prinzenbrücke	0.0	0.1	0.0	0.3	0.0	0.4	0.5	**0.9**	0.8	-11 %	0.8	-11 %	0.9	0 %
IO T9	Am Lotsenberg	0.0	0.1	0.0	1.0	0.0	1.1	0.4	**1.5**	1.4	-7 %	1.4	-7 %	1.5	0 %
lO T10	Rose	0.0	0.1	0.0	0.5	0.0	0.6	0.4	**1.0**	0.9	-10 %	0.9	-10 %	1.0	0 %
IO T11	Rose	0.0	0.1	0.0	0.3	0.0	0.4	0.4	**0.8**	0.7	-13 %	0.7	-13 %	0.8	0 %
IO T12	Rose	0.0	0.1	0.0	0.2	0.0	0.3	0.3	**0.6**	0.5	-17 %	0.5	-17 %	0.6	0 %
IO T13	Boelckestraße	0.0	0.1	0.0	0.1	0.0	0.2	0.4	**0.6**	0.5	-17 %	0.5	-17 %	0.6	0 %
IO T14	Fehlingstraße	0.0	0.1	0.0	0.4	0.0	0.5	0.4	**0.9**	0.8	-11 %	0.8	-11 %	0.9	0 %
lO T15	Fehlingstraße	0.0	0.1	0.0	0.3	0.0	0.4	0.3	**0.7**	0.6	-14 %	0.6	-14 %	0.7	0 %
IO T16	Mühlenberg/ Ziegenhorst	0.0	0.1	0.0	0.3	0.0	0.4	0.3	**0.7**	0.6	-14 %	0.6	-14 %	0.7	0 %
IO T17	Gneversdorfer Weg	0.1	3.4	0.0	0.1	0.0	3.6	0.3	**3.9**	3.8	-3 %	3.8	-3 %	3.9	0 %
IO T18	Gneversdorfer Weg	0.1	1.2	0.0	0.1	0.0	1.4	0.2	**1.6**	1.6	0 %	1.6	0 %	1.6	0 %
IO T19	Gneversdorfer Weg	0.1	1.1	0.0	0.0	0.0	1.2	0.2	**1.4**	1.3	-7 %	1.3	-7 %	1.4	0 %
lO T20	Gneversdorfer Weg/ Moorredder	0.1	1.4	0.0	0.5	0.0	2.0	0.2	**2.2**	2.2	0 %	2.2	0 %	2.2	0 %
IO T21	Moorredder	0.0	0.2	0.0	1.1	0.0	1.3	0.2	**1.5**	1.5	0 %	1.5	0 %	1.5	0 %
IO T22	Moorredder	0.0	0.1	0.0	2.4	0.0	2.5	0.2	**2.7**	2.7	0 %	2.7	0 %	2.7	0 %
IO T23	Am Fahrenberg	0.0	0.1	0.0	0.7	0.1	0.9	0.2	**1.1**	1.1	0 %	1.1	0 %	1.1	0 %
IO T24	Parkallee/ Kurhaus	0.0	0.0	0.0	0.2	0.0	0.2	0.4	**0.6**	0.5	-17 %	0.5	-17 %	0.6	0 %
lO T25	Kurpark	0.0	0.1	0.0	0.1	0.0	0.2	0.4	**0.6**	0.5	-17 %	0.5	-17 %	0.6	0 %
IO T26	Steenkamp	0.0	0.1	0.0	0.2	0.2	0.5	0.2	**0.7**	0.7	0 %	0.7	0 %	0.7	0 %
IO T27	Steenkamp	0.0	0.1	0.0	0.1	0.7	0.9	0.2	**1.1**	1.1	0 %	1.1	0 %	1.1	0 %
IO T28	Steenkamp	0.0	0.1	0.0	0.0	0.3	0.4	0.2	**0.6**	0.5	-17 %	0.5	-17 %	0.6	0 %
IO T29	Steenkamp/ Kleingärten	0.0	0.1	0.0	0.0	0.0	0.1	0.2	**0.3**	0.2	-33 %	0.2	-33 %	0.3	0 %
lO T30	Schwedenstraße	0.0	0.1	0.0	0.0	0.0	0.1	0.2	**0.3**	0.2	-33 %	0.2	-33 %	0.3	0 %
IO T31	Grönlandstraße	0.1	0.2	0.0	0.0	0.0	0.3	0.1	**0.4**	0.4	0 %	0.4	0 %	0.4	0 %
IO T32	Kaiserallee	0.0	0.0	0.0	0.1	0.3	0.4	0.3	**0.7**	0.6	-14 %	0.6	-14 %	0.7	0 %
IO T33	Kaiserallee	0.0	0.0	0.0	0.0	0.2	0.2	0.2	**0.4**	0.4	0 %	0.4	0 %	0.4	0 %
IO T34	Kaiserallee	0.0	0.0	0.0	0.0	0.2	0.2	0.2	**0.4**	0.3	-25 %	0.3	-25 %	0.4	0 %
lO T35	Steuerbord	0.0	0.0	0.0	0.0	0.3	0.3	0.2	**0.5**	0.5	0 %	0.5	0 %	0.5	0 %
IO T36	Achterdeck	0.0	0.0	0.0	0.1	0.1	0.2	0.2	**0.4**	0.4	0 %	0.4	0 %	0.4	0 %
IO T37	Strandweg	0.0	0.0	0.0	0.0	0.2	0.2	0.2	**0.4**	0.3	-25 %	0.3	-25 %	0.4	0 %
IO T38	Alfred-Hagelstein-Straße	0.0	0.0	0.0	0.0	0.3	0.3	0.1	**0.4**	0.4	0 %	0.4	0 %	0.4	0 %
IO T39	Scheteligstraße	0.0	0.0	0.0	0.0	0.0	0.0	0.2	**0.2**	0.1	-50 %	0.1	-50 %	0.2	0 %
IO T40	Gneversdorfer Kamp	0.1	0.4	0.0	0.0	0.0	0.5	0.1	**0.6**	0.6	0 %	0.6	0 %	0.6	0 %
lO T41	Teutendorfer Weg	0.1	0.1	1.5	0.0	0.0	1.7	0.2	**1.9**	1.8	-5 %	1.8	-5 %	1.9	0 %
IO T42	Am Krautacker	0.1	0.1	0.0	0.0	0.0	0.2	0.2	**0.4**	0.3	-25 %	0.3	-25 %	0.4	0 %
IO T43	Hollbeck	0.3	0.0	0.2	0.0	0.0	0.5	0.1	**0.6**	0.6	0 %	0.6	0 %	0.6	0 %
IO T44	Teutendorf	0.3	0.0	0.0	0.0	0.0	0.3	0.1	**0.4**	0.4	0 %	0.4	0 %	0.4	0 %
IO MP1	Meas. point Skandinavienkai (2000)	0.1	0.3	0.0	0.0	0.0	0.4	0.4	**0.8**	0.6	-25 %	0.6	-25 %	0.8	0 %
IO MP2	Measuring point Priwall ferry (2000)	0.0	0.1	0.0	0.2	0.0	0.3	0.5	**0.8**	0.6	-25 %	0.6	-25 %	0.8	0 %
IO MP3	Meauring point Kurpark (2000)	0.0	0.1	0.0	0.2	0.0	0.3	0.4	**0.7**	0.6	-14 %	0.6	-14 %	0.7	0 %

A 6.2.3 Additional PM_{10} Pollution (24 Hours Value T35)

Immission point (monitor point)		Additional PM_{10} pollution (24 hours value T35) [µg/m³]													
		Road traffic, sources set 1	Road traffic, sources set 2	Road traffic, sources set 3	Road traffic, sources set 4	Road traffic, sources set 5	Total road traffic	Total shipping	Sum	Reduction concept 1a	Comparison with Actual Scenario	Reduction concept 1b	Comparison with Actual Scenario	Reduction concept 2	Comparison with Actual Scenario
IO 1	Teutendorfer Weg/ An der Bak	0.1	0.6	2.3	0.1	0.0	3.0	0.9	**3.9**	3.5	-10 %	3.4	-13 %	3.9	0 %
IO 2	St. Jürgen-Straße	0.1	0.4	0.4	0.1	0.0	0.9	1.0	**1.7**	1.4	-18 %	1.4	-18 %	1.7	0 %
IO 3	Rönnauer Ring	0.2	0.6	0.4	0.1	0.0	1.0	0.9	**1.8**	1.6	-11 %	1.6	-11 %	1.8	0 %
IO 4	Rönnauer Weg/ Ivendorfer Landstr.	0.2	2.4	0.4	0.0	0.0	2.9	1.0	**3.9**	3.5	-10 %	3.5	-10 %	3.9	0 %
IO 5	Rönnauer Weg/ Ivendorfer Landstr.	0.2	4.1	0.5	0.0	0.0	4.8	1.1	**5.8**	5.5	-5 %	5.5	-5 %	5.8	0 %
IO 6	Rönnauer Weg/ Ivendorfer Landstr.	0.2	1.0	0.1	0.0	0.0	1.2	1.0	**2.1**	1.9	-10 %	1.9	-10 %	2.1	0 %
IO 7	Ostseestraße/ Pommernzentrum	0.2	1.6	0.2	0.0	0.0	1.8	1.2	**3.1**	2.5	-19 %	2.5	-19 %	3.1	0 %
IO 8	Ostseestraße/ Pommernzentrum	0.2	2.1	0.8	0.0	0.0	2.9	1.3	**4.1**	3.6	-12 %	3.5	-15 %	4.1	0 %
IO 9	Ostseestraße/ Pommernzentrum	0.2	0.9	0.1	0.0	0.0	1.0	1.2	**2.1**	1.7	-19 %	1.7	-19 %	2.1	0 %
IO A	Ivendorf/ Ovendorfer Straße	0.9	7.4	0.3	0.0	0.0	7.8	0.8	**8.1**	8.0	-1 %	8.0	-1 %	8.1	0 %
IO B	Ivendorf/ Ovendorfer Straße	0.9	2.9	0.2	0.0	0.0	3.4	0.8	**3.6**	3.5	-3 %	3.5	-3 %	3.6	0 %
IO C	Ivendorf/ Ivendorfer Landstraße	0.5	0.4	0.9	0.0	0.0	1.5	0.8	**2.1**	1.8	-14 %	1.8	-14 %	2.1	0 %
IO D	Ivendorf/ Ivendorfer Landstraße	0.6	0.5	0.9	0.0	0.0	1.7	0.7	**2.1**	1.8	-14 %	1.8	-14 %	2.1	0 %
IO E	Ivendorf/ Ivendorfer Landstraße	1.0	0.7	1.1	0.0	0.0	2.3	0.6	**2.5**	2.4	-4 %	2.4	-4 %	2.5	0 %
IO F	Ivendorf/ Ivendorfer Landstraße	1.4	0.8	0.5	0.0	0.0	2.1	0.5	**2.3**	2.2	-4 %	2.2	-4 %	2.3	0 %
IO G	Ivendorf/ Ivendorfer Landstraße	2.9	2.8	0.1	0.0	0.0	5.6	0.4	**5.8**	5.7	-2 %	5.8	0 %	5.8	0 %
IO H	Ivendorf/ Ivendorfer Landstraße	3.6	1.5	0.7	0.0	0.0	5.3	0.4	**5.4**	5.3	-2 %	5.3	-2 %	5.4	0 %
IO I	Blessenacker/ Travemünder Landstr.	0.9	1.0	0.0	0.0	0.0	1.8	0.3	**2.1**	1.9	-10 %	1.9	-10 %	2.1	0 %
IO L	Travemünder Landstr.	2.4	1.8	0.1	0.0	0.0	4.0	0.3	**4.3**	4.2	-2 %	4.2	-2 %	4.3	0 %
IO N	Boldwiesenkoppel	1.4	0.3	0.0	0.0	0.0	1.7	0.3	**2.0**	1.9	-5 %	1.9	-5 %	2.0	0 %
IO P	Scheidekoppel	0.2	0.1	0.0	0.0	0.0	0.3	0.4	**0.6**	0.6	0 %	0.5	-17 %	0.6	0 %
IO Q	Borndiek	0.7	2.9	0.0	0.0	0.0	3.2	1.0	**3.8**	3.5	-8 %	3.5	-8 %	3.8	0 %
IO S	Priwall/ Traveufer	0.1	0.3	0.0	0.1	0.0	0.4	1.8	**2.2**	1.4	-36 %	1.3	-41 %	2.2	0 %
IO T	Auf dem Baggersand	0.1	0.4	0.1	1.0	0.0	1.4	1.1	**2.4**	1.9	-21 %	1.9	-21 %	2.4	0 %
IO U	Priwall/ Traveufer	0.2	0.4	0.0	0.0	0.0	0.6	2.1	**2.5**	1.1	-56 %	1.1	-56 %	2.5	0 %
IO V	Priwall/ Traveufer	0.1	0.8	0.0	0.0	0.0	0.9	2.5	**3.1**	1.6	-48 %	1.5	-52 %	3.1	0 %
IO W	Dummersdorfer Ufer	0.3	0.4	0.0	0.0	0.0	0.6	1.2	**1.5**	1.0	-33 %	1.0	-33 %	1.5	0 %
IO X	Dummersdorfer Ufer	0.4	0.4	0.0	0.0	0.0	0.7	1.2	**1.6**	1.0	-38 %	1.0	-38 %	1.6	0 %
IO Y	Dummersdorfer Ufer	0.3	0.3	0.0	0.0	0.0	0.5	1.0	**1.3**	0.9	-31 %	0.9	-31 %	1.3	0 %
IO Z	Vorderreihe/ Priwallfähre	0.1	0.2	0.0	0.6	0.0	0.9	1.5	**2.0**	1.6	-20 %	1.5	-25 %	2.0	0 %
IO T1	Vorderreihe/ Ostpreußenkai	0.1	0.2	0.0	0.5	0.0	0.7	1.5	**1.8**	1.4	-22 %	1.4	-22 %	1.8	0 %
IO T2	Yachthafen/ Kaiserbrücke	0.1	0.1	0.0	0.9	0.0	1.0	1.4	**1.9**	1.5	-21 %	1.5	-21 %	1.9	0 %
IO P1	Priwall/ Fähre	0.1	0.2	0.0	0.1	0.2	0.4	1.5	**1.8**	1.2	-33 %	1.2	-33 %	1.8	0 %
IO P2	Priwall/ Passathafen	0.1	0.1	0.0	0.1	0.0	0.3	1.2	**1.5**	1.0	-33 %	1.0	-33 %	1.5	0 %
IO P3	Priwall/ Passathafen	0.1	0.1	0.0	0.1	0.0	0.2	1.2	**1.4**	1.0	-29 %	1.0	-29 %	1.4	0 %
IO P4	Priwall/ Traveufer	0.1	0.6	0.0	0.0	0.0	0.8	2.4	**2.8**	1.2	-57 %	1.2	-57 %	2.8	0 %
IO P5	Priwall/ Traveufer	0.1	0.5	0.0	0.0	0.0	0.6	2.2	**2.6**	1.5	-42 %	1.5	-42 %	2.6	0 %
IO P6	Priwall/ Kläranlage	0.1	0.5	0.0	0.0	0.0	0.6	2.2	**2.6**	1.6	-38 %	1.6	-38 %	2.6	0 %
IO P7	Priwall/ Weggabelung Teich	0.1	0.3	0.0	0.0	0.0	0.4	2.3	**2.7**	1.4	-48 %	1.3	-52 %	2.7	0 %
IO P8	Priwall/ Rosenhof	0.1	0.3	0.0	0.1	0.0	0.4	1.9	**2.2**	1.2	-45 %	1.2	-45 %	2.2	0 %
IO P9	Priwall/ Rosenhof	0.1	0.2	0.0	0.0	0.0	0.3	1.5	**1.8**	1.1	-39 %	1.1	-39 %	1.8	0 %
IO P10	Priwall/ Rosenhof	0.1	0.2	0.0	0.1	1.5	1.7	1.5	**2.7**	2.2	-19 %	2.2	-19 %	2.7	0 %
IO P11	Priwall/ Fliegerweg	0.1	0.2	0.0	0.0	0.1	0.3	1.4	**1.7**	0.9	-47 %	0.9	-47 %	1.7	0 %
IO P12	Priwall/ Pötenitzer Weg	0.1	0.1	0.0	0.0	0.1	0.2	1.3	**1.4**	0.8	-43 %	0.8	-43 %	1.4	0 %
IO P13	Priwall/ Pötenitzer Weg	0.1	0.1	0.0	0.0	0.0	0.2	1.3	**1.5**	0.8	-47 %	0.8	-47 %	1.5	0 %
IO P14	Priwall/ Seemannsschule	0.1	0.1	0.0	0.0	0.0	0.2	1.1	**1.2**	0.7	-42 %	0.7	-42 %	1.2	0 %
IO P15	Priwall/ Krankenhaus	0.1	0.1	0.0	0.0	0.2	0.3	1.2	**1.5**	1.0	-33 %	0.9	-40 %	1.5	0 %
IO P16	Priwall/ Krankenhaus	0.1	0.1	0.0	0.0	0.7	0.9	1.0	**1.7**	1.3	-24 %	1.3	-24 %	1.7	0 %
IO P17	Priwall/ Haus des Kurgastes	0.1	0.1	0.0	0.0	0.1	0.2	0.8	**1.0**	0.7	-30 %	0.7	-30 %	1.0	0 %
IO T3	Marina Baltica	0.1	1.3	0.1	0.1	0.0	1.6	1.4	**2.2**	1.8	-18 %	1.8	-18 %	2.2	0 %
IO T4	Fischereihafen	0.1	0.5	0.1	0.2	0.0	0.8	1.2	**1.7**	1.3	-24 %	1.2	-29 %	1.7	0 %
IO T5	Torstraße	0.1	0.4	0.1	1.1	0.0	1.5	1.3	**2.3**	1.8	-22 %	1.8	-22 %	2.3	0 %
IO T6	Kirchenstraße	0.1	0.3	0.1	2.0	0.0	2.3	1.3	**3.2**	3.0	-6 %	2.9	-9 %	3.2	0 %
IO T7	Kurgartenstraße	0.1	0.2	0.0	1.7	0.0	1.8	1.4	**2.8**	2.3	-18 %	2.3	-18 %	2.8	0 %
IO T8	Vorderreihe/ Prinzenbrücke	0.1	0.2	0.0	0.6	0.0	0.7	1.4	**1.9**	1.5	-21 %	1.4	-26 %	1.9	0 %
IO T9	Am Lotsenberg	0.1	0.1	0.0	1.6	0.0	1.8	1.2	**2.7**	2.3	-15 %	2.3	-15 %	2.7	0 %
IO T10	Rose	0.1	0.2	0.0	0.9	0.0	1.0	1.2	**2.0**	1.7	-15 %	1.7	-15 %	2.0	0 %
IO T11	Rose	0.1	0.2	0.0	0.5	0.0	0.7	1.0	**1.8**	1.3	-28 %	1.4	-22 %	1.8	0 %
IO T12	Rose	0.1	0.3	0.0	0.4	0.0	0.8	0.9	**1.3**	1.0	-23 %	1.0	-23 %	1.3	0 %
IO T13	Boelckestraße	0.1	0.2	0.0	0.3	0.0	0.5	1.1	**1.4**	1.1	-21 %	1.1	-21 %	1.4	0 %
IO T14	Fehlingstraße	0.1	0.2	0.0	0.8	0.0	0.9	1.0	**1.9**	1.6	-16 %	1.6	-16 %	1.9	0 %
IO T15	Fehlingstraße	0.1	0.1	0.0	0.5	0.1	0.7	0.9	**1.4**	1.2	-14 %	1.3	-7 %	1.4	0 %
IO T16	Mühlenberg/ Ziegenhorst	0.1	0.2	0.0	0.6	0.0	0.8	0.9	**1.6**	1.3	-19 %	1.3	-19 %	1.6	0 %
IO T17	Gneversdorfer Weg	0.1	5.9	0.1	0.2	0.0	6.2	0.9	**6.5**	6.4	-2 %	6.4	-2 %	6.5	0 %
IO T18	Gneversdorfer Weg	0.1	3.4	0.0	0.2	0.0	3.7	0.7	**4.1**	4.1	0 %	4.0	-2 %	4.1	0 %
IO T19	Gneversdorfer Weg	0.1	2.1	0.0	0.1	0.0	2.3	0.6	**2.6**	2.4	-8 %	2.3	-12 %	2.6	0 %
IO T20	Gneversdorfer Weg/ Moorredder	0.1	2.7	0.0	1.2	0.0	3.4	0.7	**3.9**	3.6	-8 %	3.5	-10 %	3.9	0 %
IO T21	Moorredder	0.1	0.5	0.0	2.0	0.0	2.4	0.7	**2.9**	2.6	-10 %	2.6	-10 %	2.9	0 %
IO T22	Moorredder	0.1	0.2	0.0	4.0	0.1	4.2	0.7	**4.5**	4.4	-2 %	4.4	-2 %	4.5	0 %
IO T23	Am Fahrenberg	0.1	0.1	0.0	1.3	0.1	1.5	0.7	**2.0**	1.9	-5 %	1.9	-5 %	2.0	0 %
IO T24	Parkallee/ Kurhaus	0.1	0.1	0.0	0.3	0.1	0.5	1.1	**1.5**	1.2	-20 %	1.2	-20 %	1.5	0 %
IO T25	Kurpark	0.1	0.1	0.0	0.2	0.1	0.4	1.0	**1.2**	1.0	-17 %	1.1	-8 %	1.2	0 %
IO T26	Steenkamp	0.1	0.1	0.0	0.4	0.3	0.8	0.7	**1.3**	1.1	-15 %	1.1	-15 %	1.3	0 %
IO T27	Steenkamp	0.1	0.1	0.0	0.3	1.2	1.6	0.7	**2.1**	1.9	-10 %	1.9	-10 %	2.1	0 %
IO T28	Steenkamp	0.1	0.1	0.0	0.1	0.5	0.8	0.6	**1.3**	1.1	-15 %	1.1	-15 %	1.3	0 %
IO T29	Steenkamp/ Kleingärten	0.1	0.1	0.0	0.1	0.1	0.3	0.5	**0.8**	0.6	-25 %	0.6	-25 %	0.8	0 %
IO T30	Schwedenstraße	0.1	0.3	0.0	0.1	0.0	0.4	0.6	**0.9**	0.7	-22 %	0.7	-22 %	0.9	0 %
IO T31	Grönlandstraße	0.1	0.4	0.0	0.1	0.0	0.5	0.5	**0.8**	0.7	-13 %	0.7	-13 %	0.8	0 %
IO T32	Kaiserallee	0.1	0.1	0.0	0.2	0.4	0.7	0.8	**1.4**	1.2	-14 %	1.1	-21 %	1.4	0 %
IO T33	Kaiserallee	0.1	0.1	0.0	0.1	0.4	0.6	0.7	**1.1**	1.0	-9 %	0.9	-18 %	1.1	0 %
IO T34	Kaiserallee	0.1	0.1	0.0	0.1	0.4	0.5	0.6	**1.0**	0.8	-20 %	0.9	-10 %	1.0	0 %
IO T35	Steuerbord	0.1	0.1	0.0	0.1	0.5	0.7	0.7	**1.2**	1.0	-17 %	1.0	-17 %	1.2	0 %
IO T36	Achterdeck	0.1	0.1	0.0	0.2	0.1	0.4	0.6	**0.9**	0.8	-11 %	0.8	-11 %	0.9	0 %
IO T37	Strandweg	0.1	0.1	0.0	0.1	0.4	0.5	0.6	**1.0**	0.9	-10 %	0.9	-10 %	1.0	0 %
IO T38	Alfred-Hagelstein-Straße	0.1	0.1	0.0	0.0	0.5	0.6	0.5	**0.9**	0.8	-11 %	0.8	-11 %	0.9	0 %
IO T39	Scheteligstraße	0.1	0.1	0.0	0.1	0.1	0.2	0.5	**0.7**	0.6	-14 %	0.6	-14 %	0.7	0 %
IO T40	Gneversdorfer Kamp	0.2	0.9	0.0	0.0	0.0	1.0	0.5	**1.4**	1.3	-7 %	1.3	-7 %	1.4	0 %
IO T41	Teutendorfer Weg	0.2	0.2	2.5	0.0	0.0	2.7	0.6	**3.1**	2.9	-6 %	2.9	-6 %	3.1	0 %
IO T42	Am Krautacker	0.2	0.2	0.1	0.0	0.0	0.4	0.6	**0.9**	0.7	-22 %	0.7	-22 %	0.9	0 %
IO T43	Hollbeck	0.6	0.1	0.7	0.0	0.0	1.1	0.4	**1.4**	1.2	-14 %	1.2	-14 %	1.4	0 %
IO T44	Teutendorf	0.8	0.1	0.1	0.0	0.0	1.0	0.4	**1.3**	1.2	-8 %	1.2	-8 %	1.3	0 %
IO MP1	Meas. point Skandinavienkai (2000)	0.3	0.7	0.0	0.0	0.0	0.9	1.6	**1.9**	1.1	-42 %	1.1	-42 %	1.9	0 %
IO MP2	Measuring point Priwall ferry (2000)	0.1	0.3	0.0	0.5	0.0	0.7	1.7	**2.0**	1.4	-30 %	1.3	-35 %	2.0	0 %
IO MP3	Meauring point Kurpark (2000)	0.1	0.1	0.0	0.4	0.0	0.6	1.1	**1.6**	1.2	-25 %	1.2	-25 %	1.6	0 %

A 6.2.4 Additional Soot Pollution (Annual Average Value J00)

Immission point (monitor point)		Additional soot pollution (annual average value J00) [µg/m³]													
		Road traffic, sources set 1	Road traffic, sources set 2	Road traffic, sources set 3	Road traffic, sources set 4	Road traffic, sources set 5	Total road traffic	Total shipping	Sum	Reduction concept 1a	Comparison with Actual Scenario	Reduction concept 1b	Comparison with Actual Scenario	Reduction concept 2	Comparison with Actual Scenario
IO 1	Teutendorfer Weg/ An der Bak	0.0	0.0	0.1	0.0	0.0	0.1	0.1	**0.2**	0.2	0 %	0.2	0 %	0.2	0 %
IO 2	St. Jürgen-Straße	0.0	0.0	0.0	0.0	0.0	0.0	0.1	**0.1**	0.1	0 %	0.1	0 %	0.1	0 %
IO 3	Rönnauer Ring	0.0	0.0	0.0	0.0	0.0	0.0	0.1	**0.1**	0.1	0 %	0.1	0 %	0.1	0 %
IO 4	Rönnauer Weg/ Ivendorfer Landstr.	0.0	0.0	0.0	0.0	0.0	0.0	0.1	**0.1**	0.1	0 %	0.1	0 %	0.1	0 %
IO 5	Rönnauer Weg/ Ivendorfer Landstr.	0.0	0.0	0.0	0.0	0.0	0.0	0.1	**0.1**	0.1	0 %	0.1	0 %	0.1	0 %
IO 6	Rönnauer Weg/ Ivendorfer Landstr.	0.0	0.0	0.0	0.0	0.0	0.0	0.1	**0.1**	0.1	0 %	0.1	0 %	0.1	0 %
IO 7	Ostseestraße/ Pommernzentrum	0.0	0.0	0.0	0.0	0.0	0.0	0.1	**0.1**	0.1	0 %	0.1	0 %	0.1	0 %
IO 8	Ostseestraße/ Pommernzentrum	0.0	0.0	0.0	0.0	0.0	0.0	0.2	**0.2**	0.1	-50 %	0.1	-50 %	0.2	0 %
IO 9	Ostseestraße/ Pommernzentrum	0.0	0.0	0.0	0.0	0.0	0.0	0.1	**0.1**	0.1	0 %	0.1	0 %	0.1	0 %
IO A	Ivendorf/ Ovendorfer Straße	0.0	0.1	0.0	0.0	0.0	0.1	0.1	**0.2**	0.1	-50 %	0.1	-50 %	0.2	0 %
IO B	Ivendorf/ Ovendorfer Straße	0.0	0.0	0.0	0.0	0.0	0.0	0.1	**0.1**	0.0	-100 %	0.0	-100 %	0.1	0 %
IO C	Ivendorf/ Ivendorfer Landstraße	0.0	0.0	0.0	0.0	0.0	0.0	0.1	**0.1**	0.0	-100 %	0.0	-100 %	0.1	0 %
IO D	Ivendorf/ Ivendorfer Landstraße	0.0	0.0	0.0	0.0	0.0	0.0	0.1	**0.1**	0.0	-100 %	0.0	-100 %	0.1	0 %
IO E	Ivendorf/ Ivendorfer Landstraße	0.0	0.0	0.0	0.0	0.0	0.0	0.1	**0.1**	0.0	-100 %	0.0	-100 %	0.1	0 %
IO F	Ivendorf/ Ivendorfer Landstraße	0.0	0.0	0.0	0.0	0.0	0.0	0.1	**0.1**	0.0	-100 %	0.0	-100 %	0.1	0 %
IO G	Ivendorf/ Ivendorfer Landstraße	0.0	0.0	0.0	0.0	0.0	0.0	0.0	**0.0**	0.0	—	0.0	—	0.0	—
IO H	Ivendorf/ Ivendorfer Landstraße	0.0	0.0	0.0	0.0	0.0	0.0	0.0	**0.0**	0.0	—	0.0	—	0.0	—
IO I	Blessenacker/ Travemünder Landstr.	0.0	0.0	0.0	0.0	0.0	0.0	0.0	**0.0**	0.0	—	0.0	—	0.0	—
IO L	Travemünder Landstr.	0.0	0.0	0.0	0.0	0.0	0.0	0.0	**0.0**	0.0	—	0.0	—	0.0	—
IO N	Boldwiesenkoppel	0.0	0.0	0.0	0.0	0.0	0.0	0.0	**0.0**	0.0	—	0.0	—	0.0	—
IO P	Scheidekoppel	0.0	0.0	0.0	0.0	0.0	0.0	0.0	**0.0**	0.0	—	0.0	—	0.0	—
IO Q	Borndiek	0.0	0.0	0.0	0.0	0.0	0.0	0.1	**0.1**	0.1	0 %	0.0	-100 %	0.1	0 %
IO S	Priwall/ Traveufer	0.0	0.0	0.0	0.0	0.0	0.0	0.3	**0.3**	0.2	-33 %	0.2	-33 %	0.3	0 %
IO T	Auf dem Baggersand	0.0	0.0	0.0	0.0	0.0	0.0	0.2	**0.2**	0.1	-50 %	0.1	-50 %	0.2	0 %
IO U	Priwall/ Traveufer	0.0	0.0	0.0	0.0	0.0	0.0	0.4	**0.4**	0.1	-75 %	0.1	-75 %	0.4	0 %
IO V	Priwall/ Traveufer	0.0	0.0	0.0	0.0	0.0	0.0	0.4	**0.4**	0.2	-50 %	0.2	-50 %	0.4	0 %
IO W	Dummersdorfer Ufer	0.0	0.0	0.0	0.0	0.0	0.0	0.1	**0.1**	0.1	0 %	0.1	0 %	0.1	0 %
IO X	Dummersdorfer Ufer	0.0	0.0	0.0	0.0	0.0	0.0	0.1	**0.1**	0.1	0 %	0.1	0 %	0.1	0 %
IO Y	Dummersdorfer Ufer	0.0	0.0	0.0	0.0	0.0	0.0	0.1	**0.1**	0.1	0 %	0.1	0 %	0.1	0 %
IO Z	Vorderreihe/ Priwallfähre	0.0	0.0	0.0	0.0	0.0	0.0	0.2	**0.2**	0.1	-50 %	0.1	-50 %	0.2	0 %
IO T1	Vorderreihe/ Ostpreußenkai	0.0	0.0	0.0	0.0	0.0	0.0	0.2	**0.2**	0.1	-50 %	0.1	-50 %	0.2	0 %
IO T2	Yachthafen/ Kaiserbrücke	0.0	0.0	0.0	0.0	0.0	0.0	0.2	**0.2**	0.2	0 %	0.2	0 %	0.2	0 %
IO P1	Priwall/ Fähre	0.0	0.0	0.0	0.0	0.0	0.0	0.3	**0.3**	0.2	-33 %	0.2	-33 %	0.3	0 %
IO P2	Priwall/ Passathafen	0.0	0.0	0.0	0.0	0.0	0.0	0.2	**0.2**	0.2	0 %	0.2	0 %	0.2	0 %
IO P3	Priwall/ Passathafen	0.0	0.0	0.0	0.0	0.0	0.0	0.2	**0.2**	0.2	0 %	0.2	0 %	0.2	0 %
IO P4	Priwall/ Traveufer	0.0	0.0	0.0	0.0	0.0	0.0	0.5	**0.5**	0.1	-80 %	0.1	-80 %	0.5	0 %
IO P5	Priwall/ Traveufer	0.0	0.0	0.0	0.0	0.0	0.0	0.4	**0.4**	0.2	-50 %	0.2	-50 %	0.4	0 %
IO P6	Priwall/ Kläranlage	0.0	0.0	0.0	0.0	0.0	0.0	0.4	**0.4**	0.2	-50 %	0.2	-50 %	0.4	0 %
IO P7	Priwall/ Weggabelung Teich	0.0	0.0	0.0	0.0	0.0	0.0	0.4	**0.4**	0.2	-50 %	0.2	-50 %	0.4	0 %
IO P8	Priwall/ Rosenhof	0.0	0.0	0.0	0.0	0.0	0.0	0.3	**0.3**	0.2	-33 %	0.2	-33 %	0.3	0 %
IO P9	Priwall/ Rosenhof	0.0	0.0	0.0	0.0	0.0	0.0	0.3	**0.3**	0.2	-33 %	0.2	-33 %	0.3	0 %
IO P10	Priwall/ Rosenhof	0.0	0.0	0.0	0.0	0.1	0.1	0.3	**0.4**	0.3	-25 %	0.3	-25 %	0.4	0 %
IO P11	Priwall/ Fliegerweg	0.0	0.0	0.0	0.0	0.0	0.0	0.3	**0.3**	0.2	-33 %	0.2	-33 %	0.3	0 %
IO P12	Priwall/ Pötenitzer Weg	0.0	0.0	0.0	0.0	0.0	0.0	0.2	**0.2**	0.1	-50 %	0.1	-50 %	0.2	0 %
IO P13	Priwall/ Pötenitzer Weg	0.0	0.0	0.0	0.0	0.0	0.0	0.2	**0.2**	0.1	-50 %	0.1	-50 %	0.2	0 %
IO P14	Priwall/ Seemannsschule	0.0	0.0	0.0	0.0	0.0	0.0	0.2	**0.2**	0.1	-50 %	0.1	-50 %	0.2	0 %
IO P15	Priwall/ Krankenhaus	0.0	0.0	0.0	0.0	0.0	0.0	0.2	**0.2**	0.1	-50 %	0.1	-50 %	0.2	0 %
IO P16	Priwall/ Krankenhaus	0.0	0.0	0.0	0.0	0.0	0.0	0.2	**0.2**	0.1	-50 %	0.1	-50 %	0.2	0 %
IO P17	Priwall/ Haus des Kurgastes	0.0	0.0	0.0	0.0	0.0	0.0	0.2	**0.2**	0.1	-50 %	0.1	-50 %	0.2	0 %
IO T3	Marina Baltica	0.0	0.0	0.0	0.0	0.0	0.0	0.2	**0.2**	0.1	-50 %	0.1	-50 %	0.2	0 %
IO T4	Fischereihafen	0.0	0.0	0.0	0.0	0.0	0.0	0.1	**0.1**	0.1	0 %	0.1	0 %	0.1	0 %
IO T5	Torstraße	0.0	0.0	0.0	0.0	0.0	0.0	0.2	**0.2**	0.1	-50 %	0.1	-50 %	0.2	0 %
IO T6	Kirchenstraße	0.0	0.0	0.0	0.1	0.0	0.1	0.2	**0.3**	0.2	-33 %	0.2	-33 %	0.3	0 %
IO T7	Kurgartenstraße	0.0	0.0	0.0	0.1	0.0	0.1	0.2	**0.3**	0.2	-33 %	0.2	-33 %	0.3	0 %
IO T8	Vorderreihe/ Prinzenbrücke	0.0	0.0	0.0	0.0	0.0	0.0	0.2	**0.2**	0.1	-50 %	0.1	-50 %	0.2	0 %
IO T9	Am Lotsenberg	0.0	0.0	0.0	0.1	0.0	0.1	0.2	**0.3**	0.2	-33 %	0.2	-33 %	0.3	0 %
lO T10	Rose	0.0	0.0	0.0	0.0	0.0	0.0	0.2	**0.2**	0.1	-50 %	0.1	-50 %	0.2	0 %
IO T11	Rose	0.0	0.0	0.0	0.0	0.0	0.0	0.1	**0.1**	0.1	0 %	0.1	0 %	0.1	0 %
IO T12	Rose	0.0	0.0	0.0	0.0	0.0	0.0	0.1	**0.1**	0.1	0 %	0.1	0 %	0.1	0 %
IO T13	Boelckestraße	0.0	0.0	0.0	0.0	0.0	0.0	0.1	**0.1**	0.1	0 %	0.1	0 %	0.1	0 %
IO T14	Fehlingstraße	0.0	0.0	0.0	0.0	0.0	0.0	0.1	**0.1**	0.1	0 %	0.1	0 %	0.1	0 %
lO T15	Fehlingstraße	0.0	0.0	0.0	0.0	0.0	0.0	0.1	**0.1**	0.1	0 %	0.1	0 %	0.1	0 %
IO T16	Mühlenberg/ Ziegenhorst	0.0	0.0	0.0	0.0	0.0	0.0	0.1	**0.1**	0.1	0 %	0.1	0 %	0.1	0 %
IO T17	Gneversdorfer Weg	0.0	0.2	0.0	0.0	0.0	0.2	0.1	**0.3**	0.3	0 %	0.3	0 %	0.3	0 %
IO T18	Gneversdorfer Weg	0.0	0.1	0.0	0.0	0.0	0.1	0.1	**0.2**	0.2	0 %	0.2	0 %	0.2	0 %
IO T19	Gneversdorfer Weg	0.0	0.1	0.0	0.0	0.0	0.1	0.1	**0.2**	0.1	-50 %	0.1	-50 %	0.2	0 %
lO T20	Gneversdorfer Weg/ Moorredder	0.0	0.1	0.0	0.0	0.0	0.1	0.1	**0.2**	0.2	0 %	0.2	0 %	0.2	0 %
IO T21	Moorredder	0.0	0.0	0.0	0.1	0.0	0.1	0.1	**0.2**	0.2	0 %	0.2	0 %	0.2	0 %
IO T22	Moorredder	0.0	0.0	0.0	0.2	0.0	0.2	0.1	**0.3**	0.3	0 %	0.3	0 %	0.3	0 %
IO T23	Am Fahrenberg	0.0	0.0	0.0	0.0	0.0	0.0	0.1	**0.1**	0.1	0 %	0.1	0 %	0.1	0 %
IO T24	Parkallee/ Kurhaus	0.0	0.0	0.0	0.0	0.0	0.0	0.2	**0.2**	0.1	-50 %	0.1	-50 %	0.2	0 %
lO T25	Kurpark	0.0	0.0	0.0	0.0	0.0	0.0	0.1	**0.1**	0.1	0 %	0.1	0 %	0.1	0 %
IO T26	Steenkamp	0.0	0.0	0.0	0.0	0.0	0.0	0.1	**0.1**	0.1	0 %	0.1	0 %	0.1	0 %
IO T27	Steenkamp	0.0	0.0	0.0	0.0	0.0	0.0	0.1	**0.1**	0.1	0 %	0.1	0 %	0.1	0 %
IO T28	Steenkamp	0.0	0.0	0.0	0.0	0.0	0.0	0.1	**0.1**	0.1	0 %	0.1	0 %	0.1	0 %
IO T29	Steenkamp/ Kleingärten	0.0	0.0	0.0	0.0	0.0	0.0	0.1	**0.1**	0.0	-100 %	0.0	-100 %	0.1	0 %
lO T30	Schwedenstraße	0.0	0.0	0.0	0.0	0.0	0.0	0.1	**0.1**	0.1	0 %	0.0	-100 %	0.1	0 %
IO T31	Grönlandstraße	0.0	0.0	0.0	0.0	0.0	0.0	0.1	**0.1**	0.0	-100 %	0.0	-100 %	0.1	0 %
IO T32	Kaiserallee	0.0	0.0	0.0	0.0	0.0	0.0	0.1	**0.1**	0.1	0 %	0.1	0 %	0.1	0 %
IO T33	Kaiserallee	0.0	0.0	0.0	0.0	0.0	0.0	0.1	**0.1**	0.1	0 %	0.1	0 %	0.1	0 %
IO T34	Kaiserallee	0.0	0.0	0.0	0.0	0.0	0.0	0.1	**0.1**	0.1	0 %	0.1	0 %	0.1	0 %
lO T35	Steuerbord	0.0	0.0	0.0	0.0	0.0	0.0	0.1	**0.1**	0.1	0 %	0.1	0 %	0.1	0 %
IO T36	Achterdeck	0.0	0.0	0.0	0.0	0.0	0.0	0.1	**0.1**	0.1	0 %	0.1	0 %	0.1	0 %
IO T37	Strandweg	0.0	0.0	0.0	0.0	0.0	0.0	0.1	**0.1**	0.1	0 %	0.1	0 %	0.1	0 %
IO T38	Alfred-Hagelstein-Straße	0.0	0.0	0.0	0.0	0.0	0.0	0.1	**0.1**	0.0	-100 %	0.0	-100 %	0.1	0 %
IO T39	Scheteligstraße	0.0	0.0	0.0	0.0	0.0	0.0	0.1	**0.1**	0.0	-100 %	0.0	-100 %	0.1	0 %
IO T40	Gneversdorfer Kamp	0.0	0.0	0.0	0.0	0.0	0.0	0.1	**0.1**	0.0	-100 %	0.0	-100 %	0.1	0 %
lO T41	Teutendorfer Weg	0.0	0.0	0.1	0.0	0.0	0.1	0.1	**0.2**	0.1	-50 %	0.1	-50 %	0.2	0 %
IO T42	Am Krautacker	0.0	0.0	0.0	0.0	0.0	0.0	0.1	**0.1**	0.1	0 %	0.1	0 %	0.1	0 %
IO T43	Hollbeck	0.0	0.0	0.0	0.0	0.0	0.0	0.1	**0.1**	0.0	-100 %	0.0	-100 %	0.1	0 %
IO T44	Teutendorf	0.0	0.0	0.0	0.0	0.0	0.0	0.0	**0.0**	0.0	—	0.0	—	0.0	—
IO MP1	Meas. point Skandinavienkai (2000)	0.0	0.0	0.0	0.0	0.0	0.0	0.2	**0.2**	0.1	-50 %	0.1	-50 %	0.2	0 %
IO MP2	Measuring point Priwall ferry (2000)	0.0	0.0	0.0	0.0	0.0	0.0	0.2	**0.2**	0.1	-50 %	0.1	-50 %	0.2	0 %
IO MP3	Meauring point Kurpark (2000)	0.0	0.0	0.0	0.0	0.0	0.0	0.2	**0.2**	0.1	-50 %	0.1	-50 %	0.2	0 %

A 6.3 Sum of Road Traffic and Shipping, Forecast Scenario

A 6.3.1 Additional NOx Pollution (Annual Average Value J00)

Immission point (monitor point)		Additional NOx pollution (annual average value J00) [µg/m³]																	
		Road traffic, sources set 1	Road traffic, sources set 2	Road traffic, sources set 3	Road traffic, sources set 4	Road traffic, sources set 5	Total road traffic	Total shipping	Sum Forecast Sce.	Reduction concept 1a	Comparison with Forecast Sce.	Reduction concept 1b	Comparison with Forecast Sce.	Reduction concept 3	Comparison with Forecast Sce.	Reduction concepts 1a+3	Comparison with Forecast Sce.	Reduction concepts 1b+3	Comparison with Forecast Sce.
IO 1	Teutendorfer Weg/ An der Bak	0.4	1.0	5.5	0.3	0.0	7.2	9.7	16.9	10.7	-37 %	10.7	-37 %	16.8	-1 %	10.7	-37 %	10.5	-38 %
IO 2	St. Jürgen-Straße	0.5	0.5	0.9	0.2	0.0	2.1	9.3	11.4	5.3	-54 %	5.3	-54 %	11.7	3 %	5.5	-52 %	5.3	-54 %
IO 3	Rönnauer Ring	0.5	0.3	0.9	0.1	0.0	1.8	9.1	10.9	4.9	-55 %	4.8	-56 %	11.0	1 %	4.9	-55 %	4.8	-56 %
IO 4	Rönnauer Weg/ Ivendorfer Landstr.	0.6	0.2	1.0	0.1	0.0	1.9	10.3	12.2	5.1	-58 %	5.0	-59 %	12.1	-1 %	5.0	-59 %	5.0	-59 %
IO 5	Rönnauer Weg/ Ivendorfer Landstr.	0.6	0.2	1.1	0.1	0.0	2.0	10.7	12.7	5.3	-58 %	5.2	-59 %	12.9	2 %	5.2	-59 %	5.1	-60 %
IO 6	Rönnauer Weg/ Ivendorfer Landstr.	0.6	0.1	0.3	0.1	0.0	1.1	9.9	11.0	4.1	-63 %	4.1	-63 %	11.1	1 %	4.1	-63 %	4.0	-64 %
IO 7	Ostseestraße/ Pommernzentrum	0.6	0.1	0.5	0.1	0.0	1.3	12.9	14.2	4.9	-65 %	4.7	-67 %	13.6	-4 %	4.8	-66 %	4.7	-67 %
IO 8	Ostseestraße/ Pommernzentrum	0.6	0.1	2.1	0.0	0.0	2.8	13.3	16.1	6.6	-59 %	6.5	-60 %	16.0	-1 %	6.5	-60 %	6.4	-60 %
IO 9	Ostseestraße/ Pommernzentrum	0.7	0.1	0.3	0.0	0.0	1.1	11.2	12.3	4.3	-65 %	4.3	-65 %	12.3	0 %	4.4	-64 %	4.2	-66 %
IO A	Ivendorf/ Ovendorfer Straße	1.4	8.1	0.7	0.0	0.0	10.2	8.2	18.4	12.2	-34 %	12.1	-34 %	18.3	-1 %	12.2	-34 %	12.2	-34 %
IO B	Ivendorf/ Ovendorfer Straße	1.4	3.4	0.8	0.0	0.0	5.6	8.1	13.7	7.7	-44 %	7.6	-45 %	14.1	3 %	7.6	-45 %	7.6	-45 %
IO C	Ivendorf/ Ivendorfer Landstraße	1.2	0.3	2.4	0.0	0.0	3.9	7.9	11.8	5.9	-50 %	5.8	-51 %	11.8	0 %	5.9	-50 %	5.8	-51 %
IO D	Ivendorf/ Ivendorfer Landstraße	1.5	0.5	2.4	0.0	0.0	4.4	7.3	11.7	6.3	-46 %	6.2	-47 %	11.4	-3 %	6.1	-48 %	6.1	-48 %
IO E	Ivendorf/ Ivendorfer Landstraße	2.1	0.7	2.8	0.0	0.0	5.6	5.7	11.3	7.0	-38 %	7.1	-37 %	11.5	2 %	7.2	-36 %	7.1	-37 %
IO F	Ivendorf/ Ivendorfer Landstraße	3.0	0.9	1.5	0.0	0.0	5.4	5.0	10.4	6.9	-34 %	6.8	-35 %	10.4	0 %	6.7	-36 %	6.7	-36 %
IO G	Ivendorf/ Ivendorfer Landstraße	5.9	2.9	0.4	0.0	0.0	9.2	4.3	13.5	10.5	-22 %	10.4	-23 %	13.7	1 %	10.4	-23 %	10.3	-24 %
IO H	Ivendorf/ Ivendorfer Landstraße	7.3	1.6	2.1	0.0	0.0	11.0	3.8	14.8	12.0	-19 %	12.1	-18 %	15.0	1 %	12.1	-18 %	12.0	-19 %
IO I	Blessenacker/ Travemünder Landstr.	1.0	1.1	0.0	0.0	0.0	2.1	2.5	4.6	2.8	-39 %	2.9	-37 %	4.5	-2 %	2.8	-39 %	2.8	-39 %
IO L	Travemünder Landstr.	3.1	2.0	0.1	0.0	0.0	5.2	3.1	8.3	6.1	-27 %	6.1	-27 %	8.6	4 %	6.2	-25 %	6.1	-27 %
IO N	Boldwiesenkoppel	1.7	0.3	0.1	0.0	0.0	2.1	3.6	5.7	3.1	-46 %	3.1	-46 %	5.6	-2 %	3.1	-46 %	3.1	-46 %
IO P	Scheidekoppel	0.3	0.1	0.0	0.0	0.0	0.4	4.7	5.1	1.7	-67 %	1.7	-67 %	4.9	-4 %	1.7	-67 %	1.6	-69 %
IO Q	Borndiek	0.9	2.2	0.2	0.0	0.0	3.3	10.3	13.6	5.7	-58 %	5.6	-59 %	13.5	-1 %	5.6	-59 %	5.6	-59 %
IO S	Priwall/ Traveufer	0.3	0.1	0.1	0.1	0.0	0.6	24.2	24.8	8.4	-66 %	8.2	-67 %	24.2	-2 %	8.3	-67 %	8.0	-68 %
IO T	Auf dem Baggersand	0.4	0.5	0.2	2.8	0.0	3.9	12.3	16.2	8.3	-49 %	8.2	-49 %	16.2	0 %	8.2	-49 %	8.3	-49 %
IO U	Priwall/ Traveufer	0.3	0.1	0.1	0.0	0.0	0.5	35.2	35.7	6.3	-82 %	6.1	-83 %	35.9	1 %	6.3	-82 %	6.0	-83 %
IO V	Priwall/ Traveufer	0.3	0.1	0.1	0.0	0.0	0.5	36.3	36.8	7.7	-79 %	7.5	-80 %	36.7	0 %	7.5	-80 %	7.4	-80 %
IO W	Dummersdorfer Ufer	0.4	0.2	0.1	0.0	0.0	0.7	11.0	11.7	3.7	-68 %	3.5	-70 %	11.6	-1 %	3.5	-70 %	3.5	-70 %
IO X	Dummersdorfer Ufer	0.5	0.3	0.0	0.0	0.0	0.8	13.0	13.8	3.7	-73 %	3.6	-74 %	13.8	0 %	3.7	-73 %	3.5	-75 %
IO Y	Dummersdorfer Ufer	0.4	0.2	0.0	0.0	0.0	0.6	13.3	13.9	3.5	-75 %	3.5	-75 %	13.6	-2 %	3.5	-75 %	3.5	-75 %
IO Z	Vorderreihe/ Priwallfähre	0.3	0.2	0.1	1.6	0.0	2.2	14.0	16.2	7.8	-52 %	7.8	-52 %	16.1	-1 %	7.9	-51 %	7.8	-52 %
IO T1	Vorderreihe/ Ostpreußenkai	0.3	0.2	0.1	1.1	0.1	1.8	14.8	16.6	8.2	-51 %	8.0	-52 %	16.6	0 %	8.2	-51 %	8.0	-52 %
IO T2	Yachthafen/ Kaiserbrücke	0.2	0.2	0.0	1.7	0.1	2.2	13.8	16.0	8.8	-45 %	8.8	-45 %	16.3	2 %	9.0	-44 %	8.9	-44 %
IO P1	Priwall/ Fähre	0.3	0.1	0.1	0.2	0.3	1.0	17.9	18.9	8.7	-54 %	8.5	-55 %	19.1	1 %	8.5	-55 %	8.4	-56 %
IO P2	Priwall/ Passathafen	0.2	0.1	0.0	0.1	0.1	0.5	17.3	17.8	8.6	-52 %	8.5	-52 %	17.4	-2 %	8.4	-53 %	8.4	-53 %
IO P3	Priwall/ Passathafen	0.2	0.1	0.0	0.2	0.1	0.6	16.0	16.6	8.6	-48 %	8.6	-48 %	16.4	-1 %	8.5	-49 %	8.4	-49 %
IO P4	Priwall/ Traveufer	0.3	0.1	0.1	0.0	0.0	0.5	40.1	40.6	7.4	-82 %	7.0	-83 %	40.4	0 %	7.2	-82 %	6.9	-83 %
IO P5	Priwall/ Traveufer	0.3	0.1	0.1	0.1	0.0	0.6	26.8	27.4	8.0	-71 %	7.9	-71 %	27.7	1 %	7.8	-72 %	7.6	-72 %
IO P6	Priwall/ Kläranlage	0.3	0.1	0.1	0.0	0.0	0.5	30.7	31.2	8.7	-72 %	8.5	-73 %	31.1	0 %	8.4	-73 %	8.2	-74 %
IO P7	Priwall/ Weggabelung Teich	0.3	0.1	0.1	0.0	0.0	0.5	35.2	35.7	8.8	-75 %	8.8	-75 %	35.7	0 %	9.1	-75 %	8.7	-76 %
IO P8	Priwall/ Rosenhof	0.3	0.1	0.1	0.1	0.0	0.6	23.6	24.2	8.5	-65 %	8.4	-65 %	24.1	0 %	8.4	-65 %	8.2	-66 %
IO P9	Priwall/ Rosenhof	0.2	0.1	0.1	0.1	0.1	0.6	23.4	24.0	8.4	-65 %	8.2	-66 %	23.6	-2 %	8.2	-66 %	8.1	-66 %
IO P10	Priwall/ Rosenhof	0.3	0.1	0.1	0.2	2.9	3.6	19.1	22.7	11.4	-50 %	11.2	-51 %	23.1	2 %	11.4	-50 %	11.2	-51 %
IO P11	Priwall/ Fliegerweg	0.2	0.1	0.0	0.1	0.1	0.5	20.2	20.7	7.6	-63 %	7.5	-64 %	20.4	-1 %	7.5	-64 %	7.3	-65 %
IO P12	Priwall/ Pötenitzer Weg	0.2	0.1	0.0	0.0	0.1	0.4	18.6	19.0	6.6	-65 %	6.5	-66 %	18.6	-2 %	6.5	-66 %	6.4	-66 %
IO P13	Priwall/ Pötenitzer Weg	0.2	0.1	0.0	0.0	0.0	0.3	20.5	20.8	6.2	-70 %	6.1	-71 %	20.6	-1 %	6.1	-71 %	5.9	-72 %
IO P14	Priwall/ Seemannsschule	0.2	0.0	0.0	0.0	0.0	0.2	16.0	16.2	5.5	-66 %	5.4	-67 %	16.2	0 %	5.4	-67 %	5.3	-67 %
IO P15	Priwall/ Krankenhaus	0.2	0.1	0.0	0.1	0.5	0.9	16.8	17.7	7.5	-58 %	7.4	-58 %	17.3	-2 %	7.6	-57 %	7.5	-58 %
IO P16	Priwall/ Krankenhaus	0.2	0.1	0.0	0.0	1.6	1.9	15.2	17.1	7.9	-54 %	7.9	-54 %	17.1	0 %	7.6	-56 %	7.5	-56 %
IO P17	Priwall/ Haus des Kurgastes	0.1	0.1	0.0	0.0	0.2	0.4	12.9	13.3	5.8	-56 %	5.7	-57 %	13.3	0 %	5.8	-56 %	5.7	-57 %
IO T3	Marina Baltica	0.5	0.2	0.3	0.1	0.0	1.1	13.9	15.0	5.2	-65 %	5.0	-67 %	15.3	2 %	5.1	-66 %	5.0	-67 %
IO T4	Fischereihafen	0.4	0.4	0.2	0.4	0.0	1.4	12.2	13.6	5.5	-60 %	5.4	-60 %	13.4	-1 %	5.3	-61 %	5.2	-62 %
IO T5	Torstraße	0.4	0.7	0.2	2.6	0.0	3.9	12.5	16.4	8.7	-47 %	8.6	-48 %	16.4	0 %	8.6	-48 %	8.5	-48 %
IO T6	Kirchenstraße	0.3	0.4	0.1	5.4	0.0	6.2	12.4	18.6	11.3	-39 %	11.3	-39 %	18.7	1 %	11.3	-39 %	11.2	-40 %
IO T7	Kurgartenstraße	0.3	0.3	0.1	4.2	0.0	4.9	13.4	18.3	10.6	-42 %	10.6	-42 %	18.2	-1 %	10.7	-42 %	10.6	-42 %
IO T8	Vorderreihe/ Prinzenbrücke	0.3	0.2	0.1	1.5	0.1	2.2	14.0	16.2	8.5	-48 %	8.5	-48 %	16.3	1 %	8.7	-46 %	8.5	-48 %
IO T9	Am Lotsenberg	0.3	0.2	0.1	4.2	0.1	4.9	12.2	17.1	10.7	-37 %	10.6	-38 %	16.9	-1 %	10.7	-37 %	10.6	-38 %
IO T10	Rose	0.3	0.3	0.1	2.1	0.0	2.8	11.4	14.2	7.8	-45 %	7.8	-45 %	13.7	-4 %	7.8	-45 %	7.6	-46 %
IO T11	Rose	0.3	0.5	0.1	1.3	0.0	2.2	10.0	12.2	6.8	-44 %	6.7	-45 %	12.2	0 %	6.7	-45 %	6.7	-45 %
IO T12	Rose	0.3	0.8	0.1	1.0	0.0	2.2	8.1	10.3	5.7	-45 %	5.6	-46 %	10.1	-2 %	5.8	-44 %	5.8	-44 %
IO T13	Boelckestraße	0.3	0.5	0.1	0.8	0.0	1.7	10.7	12.4	6.2	-50 %	6.2	-50 %	12.1	-2 %	6.2	-50 %	6.1	-51 %
IO T14	Fehlingstraße	0.3	0.3	0.1	1.8	0.1	2.6	10.5	13.1	7.4	-44 %	7.5	-43 %	13.0	-1 %	7.3	-44 %	7.3	-44 %
IO T15	Fehlingstraße	0.3	0.3	0.0	1.3	0.1	2.0	8.6	10.6	6.3	-41 %	6.3	-41 %	10.8	2 %	6.2	-42 %	6.3	-41 %
IO T16	Mühlenberg/ Ziegenhorst	0.3	0.4	0.1	1.4	0.1	2.3	9.1	11.4	6.5	-43 %	6.5	-43 %	11.5	1 %	6.6	-42 %	6.6	-42 %
IO T17	Gneversdorfer Weg	0.4	18.1	0.2	0.4	0.0	19.1	8.6	27.7	22.7	-18 %	22.6	-18 %	28.2	2 %	22.7	-18 %	22.6	-18 %
IO T18	Gneversdorfer Weg	0.4	6.9	0.1	0.4	0.0	7.8	7.8	15.6	10.8	-31 %	10.9	-30 %	15.4	-1 %	10.8	-31 %	10.8	-31 %
IO T19	Gneversdorfer Weg	0.5	5.7	0.1	0.2	0.0	6.5	5.7	12.2	8.9	-27 %	8.7	-29 %	12.3	1 %	8.8	-28 %	8.7	-29 %
IO T20	Gneversdorfer Weg/ Moorredder	0.4	8.1	0.1	2.0	0.0	10.6	7.5	18.1	13.5	-25 %	13.5	-25 %	17.9	-1 %	13.5	-25 %	13.5	-25 %
IO T21	Moorredder	0.4	1.4	0.1	4.2	0.0	6.1	7.3	13.4	9.1	-32 %	9.1	-32 %	13.5	1 %	9.0	-33 %	8.9	-34 %
IO T22	Moorredder	0.3	0.4	0.0	8.8	0.1	9.6	7.3	16.9	12.8	-24 %	12.8	-24 %	16.7	-1 %	12.8	-24 %	12.7	-25 %
IO T23	Am Fahrenberg	0.2	0.2	0.0	2.9	0.4	3.7	6.9	10.6	6.9	-35 %	6.9	-35 %	10.7	1 %	7.0	-34 %	7.0	-34 %
IO T24	Parkallee/ Kurhaus	0.2	0.2	0.0	0.8	0.1	1.3	11.1	12.4	6.9	-44 %	6.9	-44 %	12.5	1 %	6.9	-44 %	6.9	-44 %
IO T25	Kurpark	0.2	0.2	0.0	0.6	0.1	1.1	9.8	10.9	5.9	-46 %	5.8	-47 %	11.0	1 %	6.0	-45 %	5.9	-46 %
IO T26	Steenkamp	0.3	0.3	0.0	1.0	0.7	2.3	7.3	9.6	5.8	-40 %	5.6	-42 %	9.6	0 %	5.6	-42 %	5.6	-42 %
IO T27	Steenkamp	0.3	0.3	0.0	0.7	2.2	3.5	6.3	9.8	6.4	-35 %	6.4	-35 %	9.8	0 %	6.4	-35 %	6.4	-35 %
IO T28	Steenkamp	0.3	0.3	0.0	0.2	1.2	2.0	5.7	7.7	4.7	-39 %	4.6	-40 %	7.8	1 %	4.5	-42 %	4.4	-43 %
IO T29	Steenkamp/ Kleingärten	0.3	0.4	0.0	0.1	0.2	1.0	5.3	6.3	3.3	-48 %	3.2	-49 %	6.3	0 %	3.2	-49 %	3.2	-49 %
IO T30	Schwedenstraße	0.4	0.7	0.0	0.3	0.0	1.4	6.2	7.6	3.9	-49 %	3.9	-49 %	7.3	-4 %	3.9	-49 %	3.9	-49 %
IO T31	Grönlandstraße	0.4	1.1	0.0	0.1	0.0	1.6	5.2	6.8	3.6	-47 %	3.6	-47 %	6.6	-3 %	3.6	-47 %	3.6	-47 %
IO T32	Kaiserallee	0.2	0.2	0.0	0.4	1.2	2.0	8.6	10.6	6.1	-42 %	6.1	-42 %	10.4	-2 %	6.1	-42 %	6.1	-42 %
IO T33	Kaiserallee	0.2	0.1	0.0	0.2	0.9	1.4	6.9	8.3	4.7	-43 %	4.7	-43 %	8.5	2 %	4.8	-42 %	4.6	-45 %
IO T34	Kaiserallee	0.2	0.1	0.0	0.1	0.9	1.3	5.5	6.8	4.0	-41 %	3.9	-43 %	6.7	-1 %	3.9	-43 %	3.9	-43 %
IO T35	Steuerbord	0.2	0.2	0.0	0.2	1.4	2.0	6.3	8.3	5.1	-39 %	5.1	-39 %	8.6	4 %	5.0	-40 %	5.0	-40 %
IO T36	Achterdeck	0.2	0.2	0.0	0.4	0.3	1.1	6.3	7.4	4.0	-46 %	4.0	-46 %	7.4	0 %	4.0	-46 %	4.1	-45 %
IO T37	Strandweg	0.2	0.2	0.0	0.2	0.8	1.4	5.7	7.1	4.1	-42 %	4.0	-44 %	7.0	-1 %	4.1	-42 %	4.1	-42 %
IO T38	Alfred-Hagelstein-Straße	0.2	0.1	0.0	0.1	1.2	1.6	4.6	6.2	3.8	-39 %	3.9	-37 %	6.2	0 %	3.8	-39 %	3.8	-39 %
IO T39	Scheteligstraße	0.2	0.2	0.0	0.1	0.2	0.7	5.1	5.8	2.9	-50 %	3.0	-48 %	5.7	-2 %	2.9	-50 %	2.9	-50 %
IO T40	Gneversdorfer Kamp	0.6	2.1	0.0	0.1	0.0	2.8	4.4	7.2	4.7	-35 %	4.6	-36 %	7.5	4 %	4.6	-36 %	4.5	-38 %
IO T41	Teutendorfer Weg	0.7	0.2	5.3	0.1	0.0	6.3	5.7	12.0	8.4	-30 %	8.5	-29 %	12.0	0 %	8.4	-30 %	8.4	-30 %
IO T42	Am Krautacker	0.8	0.1	0.1	0.1	0.0	1.1	6.4	7.5	3.4	-55 %	3.4	-55 %	7.7	3 %	3.5	-53 %	3.3	-56 %
IO T43	Hollbeck	1.8	0.1	0.9	0.0	0.0	2.8	4.7	7.5	4.4	-41 %	4.4	-41 %	7.5	0 %	4.5	-40 %	4.5	-40 %
IO T44	Teutendorf	1.9	0.1	0.1	0.0	0.0	2.1	3.6	5.7	3.4	-40 %	3.4	-40 %	5.7	0 %	3.5	-39 %	3.4	-40 %
IO MP1	Messort Skandinavienkai (2000)	0.4	0.3	0.1	0.0	0.0	0.8	13.3	14.1	4.2	-70 %	4.1	-71 %	14.3	1 %	4.1	-71 %	4.1	-71 %
IO MP2	Messort Priwallfähre (2000)	0.3	0.2	0.1	0.8	0.0	1.4	14.9	16.3	6.7	-59 %	6.7	-59 %	16.3	0 %	6.9	-58 %	6.7	-59 %
IO MP3	Messort Kurpark (2000)	0.3	0.2	0.0	1.0	0.1	1.6	10.8	12.4	6.8	-45 %	6.8	-45 %	12.4	0 %	6.9	-44 %	6.7	-46 %

A 6.3.2 Additional SO_2 Pollution (Annual Average Value J00)

Immission point (monitor point)		Additional SO_2 pollution (annual average value J00) [µg/m³]													
		Total road traffic	Total shipping	Sum Forecast Sce.	Reduction concept 1a	Comparison with Forecast Sce.	Reduction concept 1b	Comparison with Forecast Sce.	Reduction concept 3	Comparison with Forecast Sce.	Reduction concepts 1a+3	Comparison with Forecast Sce.	Reduction concepts 1b+3	Comparison with Forecast Sce.
IO 1	Teutendorfer Weg/ An der Bak	—	3.4	3.4	1.7	-50 %	1.5	-56 %	1.4	-59 %	1.2	-65 %	1.2	-65 %
IO 2	St. Jürgen-Straße	—	3.3	3.3	1.6	-52 %	1.4	-58 %	1.3	-61 %	1.2	-64 %	1.1	-67 %
IO 3	Rönnauer Ring	—	3.2	3.2	1.5	-53 %	1.3	-59 %	1.3	-59 %	1.0	-69 %	1.0	-69 %
IO 4	Rönnauer Weg/ Ivendorfer Landstr.	—	3.5	3.5	1.6	-54 %	1.4	-60 %	1.2	-66 %	1.0	-71 %	1.0	-71 %
IO 5	Rönnauer Weg/ Ivendorfer Landstr.	—	3.6	3.6	1.6	-56 %	1.5	-58 %	1.3	-64 %	1.0	-72 %	1.0	-72 %
IO 6	Rönnauer Weg/ Ivendorfer Landstr.	—	3.3	3.3	1.5	-55 %	1.3	-61 %	1.2	-64 %	1.0	-70 %	1.0	-70 %
IO 7	Ostseestraße/ Pommernzentrum	—	4.3	4.3	1.8	-58 %	1.6	-63 %	1.4	-67 %	1.1	-74 %	1.0	-77 %
IO 8	Ostseestraße/ Pommernzentrum	—	4.4	4.4	1.9	-57 %	1.7	-61 %	1.4	-68 %	1.1	-75 %	1.1	-75 %
IO 9	Ostseestraße/ Pommernzentrum	—	3.7	3.7	1.6	-57 %	1.5	-59 %	1.3	-65 %	1.0	-73 %	1.0	-73 %
IO A	Ivendorf/ Ovendorfer Straße	—	2.7	2.7	1.0	-63 %	0.9	-67 %	0.8	-70 %	0.6	-78 %	0.6	-78 %
IO B	Ivendorf/ Ovendorfer Straße	—	2.7	2.7	1.0	-63 %	0.9	-67 %	0.8	-70 %	0.6	-78 %	0.6	-78 %
IO C	Ivendorf/ Ivendorfer Landstraße	—	2.6	2.6	1.0	-62 %	0.9	-65 %	0.8	-69 %	0.6	-77 %	0.6	-77 %
IO D	Ivendorf/ Ivendorfer Landstraße	—	2.4	2.4	0.9	-63 %	0.8	-67 %	0.7	-71 %	0.5	-79 %	0.5	-79 %
IO E	Ivendorf/ Ivendorfer Landstraße	—	1.9	1.9	0.7	-63 %	0.7	-63 %	0.6	-68 %	0.5	-74 %	0.5	-74 %
IO F	Ivendorf/ Ivendorfer Landstraße	—	1.7	1.7	0.7	-59 %	0.6	-65 %	0.5	-71 %	0.4	-76 %	0.4	-76 %
IO G	Ivendorf/ Ivendorfer Landstraße	—	1.4	1.4	0.6	-57 %	0.6	-57 %	0.5	-64 %	0.4	-71 %	0.4	-71 %
IO H	Ivendorf/ Ivendorfer Landstraße	—	1.3	1.3	0.5	-62 %	0.5	-62 %	0.4	-69 %	0.4	-69 %	0.3	-77 %
IO I	Blessenacker/ Travemünder Landstr.	—	0.9	0.9	0.4	-56 %	0.4	-56 %	0.3	-67 %	0.2	-78 %	0.2	-78 %
IO L	Travemünder Landstr.	—	1.0	1.0	0.5	-50 %	0.4	-60 %	0.4	-60 %	0.3	-70 %	0.3	-70 %
IO N	Boldwiesenkoppel	—	1.2	1.2	0.5	-58 %	0.5	-58 %	0.4	-67 %	0.3	-75 %	0.3	-75 %
IO P	Scheidekoppel	—	1.6	1.6	0.6	-63 %	0.6	-63 %	0.5	-69 %	0.4	-75 %	0.4	-75 %
IO Q	Borndiek	—	3.3	3.3	1.2	-64 %	1.0	-70 %	0.9	-73 %	0.7	-79 %	0.6	-82 %
IO S	Priwall/ Traveufer	—	8.5	8.5	3.8	-55 %	3.5	-59 %	3.1	-64 %	2.6	-69 %	2.5	-71 %
IO T	Auf dem Baggersand	—	4.3	4.3	2.1	-51 %	1.9	-56 %	1.8	-58 %	1.5	-65 %	1.5	-65 %
IO U	Priwall/ Traveufer	—	10.8	10.8	2.9	-73 %	2.5	-77 %	2.0	-81 %	1.1	-90 %	1.1	-90 %
IO V	Priwall/ Traveufer	—	11.6	11.6	3.8	-67 %	3.2	-72 %	2.6	-78 %	1.7	-85 %	1.6	-86 %
IO W	Dummersdorfer Ufer	—	3.6	3.6	1.4	-61 %	1.3	-64 %	1.1	-69 %	0.8	-78 %	0.8	-78 %
IO X	Dummersdorfer Ufer	—	4.3	4.3	1.5	-65 %	1.3	-70 %	1.1	-74 %	0.8	-81 %	0.8	-81 %
IO Y	Dummersdorfer Ufer	—	4.4	4.4	1.5	-66 %	1.3	-70 %	1.1	-75 %	0.8	-82 %	0.8	-82 %
IO Z	Vorderreihe/ Priwallfähre	—	5.1	5.1	2.7	-47 %	2.5	-51 %	2.2	-57 %	2.0	-61 %	2.0	-61 %
IO T1	Vorderreihe/ Ostpreußenkai	—	5.4	5.4	3.0	-44 %	2.8	-48 %	2.5	-54 %	2.4	-56 %	2.3	-57 %
IO T2	Yachthafen/ Kaiserbrücke	—	5.1	5.1	3.1	-39 %	2.9	-43 %	2.7	-47 %	2.5	-51 %	2.4	-53 %
IO P1	Priwall/ Fähre	—	6.4	6.4	3.6	-44 %	3.4	-47 %	3.1	-52 %	2.8	-56 %	2.8	-56 %
IO P2	Priwall/ Passathafen	—	6.3	6.3	3.8	-40 %	3.6	-43 %	3.1	-51 %	2.9	-54 %	2.9	-54 %
IO P3	Priwall/ Passathafen	—	5.9	5.9	3.7	-37 %	3.6	-39 %	3.2	-46 %	2.9	-51 %	2.9	-51 %
IO P4	Priwall/ Traveufer	—	12.2	12.2	3.4	-72 %	2.9	-76 %	2.4	-80 %	1.4	-89 %	1.3	-89 %
IO P5	Priwall/ Traveufer	—	9.2	9.2	3.8	-59 %	3.3	-64 %	2.8	-70 %	2.2	-76 %	2.1	-77 %
IO P6	Priwall/ Kläranlage	—	10.4	10.4	4.2	-60 %	3.7	-64 %	3.1	-70 %	2.4	-77 %	2.3	-78 %
IO P7	Priwall/ Weggabelung Teich	—	11.4	11.4	4.2	-63 %	3.7	-68 %	3.3	-71 %	2.5	-78 %	2.4	-79 %
IO P8	Priwall/ Rosenhof	—	8.3	8.3	3.9	-53 %	3.5	-58 %	3.2	-61 %	2.7	-67 %	2.6	-69 %
IO P9	Priwall/ Rosenhof	—	8.2	8.2	3.8	-54 %	3.5	-57 %	3.1	-62 %	2.6	-68 %	2.6	-68 %
IO P10	Priwall/ Rosenhof	—	6.8	6.8	3.7	-46 %	3.4	-50 %	3.2	-53 %	2.9	-57 %	2.8	-59 %
IO P11	Priwall/ Fliegerweg	—	7.0	7.0	3.4	-51 %	3.1	-56 %	2.8	-60 %	2.5	-64 %	2.4	-66 %
IO P12	Priwall/ Pötenitzer Weg	—	6.4	6.4	3.0	-53 %	2.8	-56 %	2.4	-63 %	2.1	-67 %	2.1	-67 %
IO P13	Priwall/ Pötenitzer Weg	—	6.9	6.9	2.9	-58 %	2.6	-62 %	2.3	-67 %	1.9	-72 %	1.9	-72 %
lO P14	Priwall/ Seemannsschule	—	5.4	5.4	2.5	-54 %	2.3	-57 %	2.0	-63 %	1.8	-67 %	1.7	-69 %
lO P15	Priwall/ Krankenhaus	—	5.9	5.9	3.1	-47 %	2.9	-51 %	2.6	-56 %	2.4	-59 %	2.3	-61 %
IO P16	Priwall/ Krankenhaus	—	5.3	5.3	2.8	-47 %	2.7	-49 %	2.3	-57 %	2.0	-62 %	2.0	-62 %
IO P17	Priwall/ Haus des Kurgastes	—	4.6	4.6	2.6	-43 %	2.4	-48 %	2.2	-52 %	1.9	-59 %	1.9	-59 %
IO T3	Marina Baltica	—	4.8	4.8	2.1	-56 %	1.8	-63 %	1.6	-67 %	1.2	-75 %	1.2	-75 %
IO T4	Fischereihafen	—	4.2	4.2	2.0	-52 %	1.8	-57 %	1.6	-62 %	1.3	-69 %	1.3	-69 %
IO T5	Torstraße	—	4.4	4.4	2.3	-48 %	2.1	-52 %	1.9	-57 %	1.6	-64 %	1.6	-64 %
IO T6	Kirchenstraße	—	4.4	4.4	2.4	-45 %	2.3	-48 %	2.0	-55 %	1.8	-59 %	1.8	-59 %
IO T7	Kurgartenstraße	—	4.8	4.8	2.7	-44 %	2.5	-48 %	2.4	-50 %	2.1	-56 %	2.1	-56 %
IO T8	Vorderreihe/ Prinzenbrücke	—	5.1	5.1	2.9	-43 %	2.8	-45 %	2.7	-47 %	2.4	-53 %	2.4	-53 %
IO T9	Am Lotsenberg	—	4.5	4.5	2.7	-40 %	2.5	-44 %	2.4	-47 %	2.2	-51 %	2.2	-51 %
lO T10	Rose	—	4.1	4.1	2.4	-41 %	2.2	-46 %	2.0	-51 %	1.9	-54 %	1.8	-56 %
IO T11	Rose	—	3.6	3.6	2.1	-42 %	2.0	-44 %	1.9	-47 %	1.7	-53 %	1.7	-53 %
IO T12	Rose	—	2.9	2.9	1.7	-41 %	1.5	-48 %	1.4	-52 %	1.4	-52 %	1.4	-52 %
IO T13	Boelckestraße	—	3.8	3.8	2.1	-45 %	2.0	-47 %	1.9	-50 %	1.7	-55 %	1.7	-55 %
IO T14	Fehlingstraße	—	3.8	3.8	2.2	-42 %	2.2	-42 %	2.1	-45 %	1.8	-53 %	1.8	-53 %
lO T15	Fehlingstraße	—	3.1	3.1	2.0	-35 %	1.9	-39 %	1.7	-45 %	1.6	-48 %	1.6	-48 %
IO T16	Mühlenberg/ Ziegenhorst	—	3.3	3.3	2.0	-39 %	1.9	-42 %	1.8	-45 %	1.6	-52 %	1.6	-52 %
IO T17	Gneversdorfer Weg	—	3.1	3.1	1.7	-45 %	1.6	-48 %	1.5	-52 %	1.3	-58 %	1.3	-58 %
IO T18	Gneversdorfer Weg	—	2.7	2.7	1.4	-48 %	1.4	-48 %	1.2	-56 %	1.1	-59 %	1.1	-59 %
IO T19	Gneversdorfer Weg	—	2.0	2.0	1.1	-45 %	1.0	-50 %	0.9	-55 %	0.8	-60 %	0.8	-60 %
lO T20	Gneversdorfer Weg/ Moorredder	—	2.7	2.7	1.3	-52 %	1.3	-52 %	1.1	-59 %	1.0	-63 %	1.0	-63 %
IO T21	Moorredder	—	2.6	2.6	1.4	-46 %	1.3	-50 %	1.3	-50 %	1.1	-58 %	1.0	-62 %
IO T22	Moorredder	—	2.6	2.6	1.5	-42 %	1.4	-46 %	1.3	-50 %	1.2	-54 %	1.2	-54 %
IO T23	Am Fahrenberg	—	2.5	2.5	1.5	-40 %	1.4	-44 %	1.4	-44 %	1.3	-48 %	1.3	-48 %
IO T24	Parkallee/ Kurhaus	—	4.1	4.1	2.6	-37 %	2.5	-39 %	2.3	-44 %	2.2	-46 %	2.2	-46 %
lO T25	Kurpark	—	3.6	3.6	2.2	-39 %	2.1	-42 %	2.0	-44 %	1.9	-47 %	1.9	-47 %
IO T26	Steenkamp	—	2.7	2.7	1.6	-41 %	1.5	-44 %	1.4	-48 %	1.3	-52 %	1.3	-52 %
IO T27	Steenkamp	—	2.3	2.3	1.4	-39 %	1.3	-43 %	1.2	-48 %	1.1	-52 %	1.1	-52 %
IO T28	Steenkamp	—	2.0	2.0	1.2	-40 %	1.2	-40 %	1.1	-45 %	1.0	-50 %	0.9	-55 %
IO T29	Steenkamp/ Kleingärten	—	1.9	1.9	1.1	-42 %	1.0	-47 %	0.9	-53 %	0.8	-58 %	0.8	-58 %
lO T30	Schwedenstraße	—	2.1	2.1	1.2	-43 %	1.1	-48 %	1.0	-52 %	0.9	-57 %	0.9	-57 %
IO T31	Grönlandstraße	—	1.8	1.8	0.9	-50 %	0.9	-50 %	0.8	-56 %	0.7	-61 %	0.7	-61 %
IO T32	Kaiserallee	—	3.2	3.2	1.9	-41 %	1.8	-44 %	1.7	-47 %	1.6	-50 %	1.6	-50 %
IO T33	Kaiserallee	—	2.6	2.6	1.5	-42 %	1.4	-46 %	1.4	-46 %	1.3	-50 %	1.2	-54 %
IO T34	Kaiserallee	—	2.0	2.0	1.2	-40 %	1.2	-40 %	1.1	-45 %	1.0	-50 %	1.0	-50 %
lO T35	Steuerbord	—	2.3	2.3	1.4	-39 %	1.4	-39 %	1.3	-43 %	1.1	-52 %	1.1	-52 %
IO T36	Achterdeck	—	2.3	2.3	1.4	-39 %	1.3	-43 %	1.3	-43 %	1.1	-52 %	1.2	-48 %
IO T37	Strandweg	—	2.1	2.1	1.2	-43 %	1.2	-43 %	1.1	-48 %	1.0	-52 %	1.0	-52 %
IO T38	Alfred-Hagelstein-Straße	—	1.7	1.7	1.0	-41 %	1.0	-41 %	0.9	-47 %	0.9	-47 %	0.9	-47 %
IO T39	Scheteligstraße	—	1.9	1.9	1.0	-47 %	1.0	-47 %	1.0	-47 %	0.9	-53 %	0.9	-53 %
IO T40	Gneversdorfer Kamp	—	1.5	1.5	0.9	-40 %	0.8	-47 %	0.8	-47 %	0.7	-53 %	0.6	-60 %
lO T41	Teutendorfer Weg	—	2.0	2.0	1.0	-50 %	1.0	-50 %	0.9	-55 %	0.7	-65 %	0.8	-60 %
IO T42	Am Krautacker	—	2.2	2.2	1.1	-50 %	1.0	-55 %	1.0	-55 %	0.8	-64 %	0.8	-64 %
IO T43	Hollbeck	—	1.6	1.6	0.8	-50 %	0.7	-56 %	0.7	-56 %	0.6	-63 %	0.6	-63 %
IO T44	Teutendorf	—	1.2	1.2	0.6	-50 %	0.6	-50 %	0.5	-58 %	0.5	-58 %	0.5	-58 %
IO MP1	Messort Skandinavienkai (2000)	—	4.2	4.2	1.6	-62 %	1.4	-67 %	1.3	-69 %	1.0	-76 %	1.0	-76 %
IO MP2	Messort Priwallfähre (2000)	—	5.3	5.3	2.6	-51 %	2.4	-55 %	2.2	-58 %	1.9	-64 %	1.9	-64 %
IO MP3	Messort Kurpark (2000)	—	4.0	4.0	2.4	-40 %	2.3	-43 %	2.2	-45 %	2.0	-50 %	2.0	-50 %

A 6.3.3 Additional SO_2 Pollution (24 Hours Value T03)

Immission point (monitor point)		Additional SO_2 pollution (24 hours value T03) [µg/m³]													
		Total road traffic	Total shipping	Sum Forecast Sce.	Reduction concept 1a	Comparison with Forecast Sce.	Reduction concept 1b	Comparison with Forecast Sce.	Reduction concept 3	Comparison with Forecast Sce.	Reduction concepts 1a+3	Comparison with Forecast Sce.	Reduction concepts 1b+3	Comparison with Forecast Sce.
IO 1	Teutendorfer Weg/ An der Bak	—	37.1	37.1	13.7	-63 %	10.7	-71 %	9.5	-74 %	8.9	-76 %	8.6	-77 %
IO 2	St. Jürgen-Straße	—	32.9	32.9	12.7	-61 %	12.8	-61 %	11.5	-65 %	8.8	-73 %	9.3	-72 %
IO 3	Rönnauer Ring	—	35.1	35.1	13.4	-62 %	12.8	-64 %	11.4	-68 %	8.4	-76 %	7.5	-79 %
IO 4	Rönnauer Weg/ Ivendorfer Landstr.	—	35.1	35.1	15.0	-57 %	12.0	-66 %	10.3	-71 %	7.9	-77 %	8.3	-76 %
IO 5	Rönnauer Weg/ Ivendorfer Landstr.	—	34.3	34.3	13.0	-62 %	11.6	-66 %	10.9	-68 %	8.9	-74 %	7.7	-78 %
IO 6	Rönnauer Weg/ Ivendorfer Landstr.	—	39.9	39.9	14.6	-63 %	11.6	-71 %	12.3	-69 %	8.7	-78 %	9.2	-77 %
IO 7	Ostseestraße/ Pommernzentrum	—	46.3	46.3	15.2	-67 %	11.3	-76 %	10.3	-78 %	9.1	-80 %	8.3	-82 %
IO 8	Ostseestraße/ Pommernzentrum	—	50.5	50.5	15.8	-69 %	13.1	-74 %	11.9	-76 %	8.9	-82 %	9.6	-81 %
IO 9	Ostseestraße/ Pommernzentrum	—	37.4	37.4	12.3	-67 %	11.8	-68 %	9.7	-74 %	7.9	-79 %	7.6	-80 %
IO A	Ivendorf/ Ovendorfer Straße	—	22.7	22.7	7.2	-68 %	6.7	-70 %	5.8	-74 %	4.3	-81 %	4.5	-80 %
IO B	Ivendorf/ Ovendorfer Straße	—	23.1	23.1	7.3	-68 %	6.3	-73 %	5.2	-77 %	5.0	-78 %	5.0	-78 %
IO C	Ivendorf/ Ivendorfer Landstraße	—	22.6	22.6	9.2	-59 %	6.3	-72 %	6.0	-73 %	4.6	-80 %	4.8	-79 %
IO D	Ivendorf/ Ivendorfer Landstraße	—	22.0	22.0	7.8	-65 %	6.2	-72 %	5.8	-74 %	4.3	-80 %	3.9	-82 %
IO E	Ivendorf/ Ivendorfer Landstraße	—	16.7	16.7	5.8	-65 %	5.7	-66 %	5.1	-69 %	4.5	-73 %	4.4	-74 %
IO F	Ivendorf/ Ivendorfer Landstraße	—	15.9	15.9	6.8	-57 %	6.1	-62 %	6.3	-60 %	3.9	-75 %	4.1	-74 %
IO G	Ivendorf/ Ivendorfer Landstraße	—	14.9	14.9	6.8	-54 %	6.3	-58 %	4.4	-70 %	3.4	-77 %	3.8	-74 %
IO H	Ivendorf/ Ivendorfer Landstraße	—	13.1	13.1	4.6	-65 %	4.2	-68 %	4.1	-69 %	3.7	-72 %	3.0	-77 %
IO I	Blessenacker/ Travemünder Landstr.	—	9.8	9.8	3.4	-65 %	3.6	-63 %	3.3	-66 %	3.5	-64 %	2.5	-74 %
IO L	Travemünder Landstr.	—	10.8	10.8	4.3	-60 %	3.7	-66 %	4.0	-63 %	3.6	-67 %	3.2	-70 %
IO N	Boldwiesenkoppel	—	13.7	13.7	4.2	-69 %	4.7	-66 %	3.8	-72 %	3.0	-78 %	2.8	-80 %
IO P	Scheidekoppel	—	16.4	16.4	7.1	-57 %	6.1	-63 %	4.6	-72 %	4.0	-76 %	3.5	-79 %
IO Q	Borndiek	—	27.4	27.4	8.5	-69 %	7.6	-72 %	6.1	-78 %	4.8	-82 %	5.4	-80 %
IO S	Priwall/ Traveufer	—	44.3	44.3	12.9	-71 %	10.7	-76 %	8.2	-81 %	6.6	-85 %	6.4	-86 %
IO T	Auf dem Baggersand	—	38.4	38.4	14.7	-62 %	12.9	-66 %	11.4	-70 %	10.8	-72 %	10.6	-72 %
IO U	Priwall/ Traveufer	—	44.5	44.5	10.2	-77 %	9.1	-80 %	6.4	-86 %	5.2	-88 %	5.4	-88 %
IO V	Priwall/ Traveufer	—	52.7	52.7	12.7	-76 %	11.3	-79 %	9.8	-81 %	7.1	-87 %	6.7	-87 %
IO W	Dummersdorfer Ufer	—	35.8	35.8	12.8	-64 %	9.9	-72 %	8.9	-75 %	6.3	-82 %	6.3	-82 %
IO X	Dummersdorfer Ufer	—	35.2	35.2	11.2	-68 %	10.1	-71 %	8.3	-76 %	5.9	-83 %	5.6	-84 %
IO Y	Dummersdorfer Ufer	—	51.1	51.1	15.6	-69 %	13.8	-73 %	10.4	-80 %	6.8	-87 %	6.8	-87 %
IO Z	Vorderreihe/ Priwallfähre	—	34.2	34.2	15.0	-56 %	12.3	-64 %	11.0	-68 %	10.1	-70 %	10.5	-69 %
IO T1	Vorderreihe/ Ostpreußenkai	—	31.2	31.2	14.4	-54 %	12.1	-61 %	10.2	-67 %	8.9	-71 %	9.1	-71 %
IO T2	Yachthafen/ Kaiserbrücke	—	28.3	28.3	14.5	-49 %	15.2	-46 %	12.2	-57 %	11.7	-59 %	11.9	-58 %
IO P1	Priwall/ Fähre	—	29.8	29.8	11.4	-62 %	9.6	-68 %	8.9	-70 %	7.7	-74 %	7.4	-75 %
IO P2	Priwall/ Passathafen	—	22.4	22.4	10.7	-52 %	10.1	-55 %	7.2	-68 %	7.3	-67 %	6.7	-70 %
IO P3	Priwall/ Passathafen	—	18.5	18.5	11.4	-38 %	11.4	-38 %	7.7	-58 %	7.4	-60 %	6.7	-64 %
IO P4	Priwall/ Traveufer	—	43.0	43.0	10.2	-76 %	8.3	-81 %	7.3	-83 %	5.7	-87 %	6.0	-86 %
IO P5	Priwall/ Traveufer	—	47.8	47.8	14.8	-69 %	12.1	-75 %	10.8	-77 %	6.7	-86 %	6.3	-87 %
IO P6	Priwall/ Kläranlage	—	44.4	44.4	12.6	-72 %	11.3	-75 %	9.0	-80 %	6.0	-86 %	6.2	-86 %
IO P7	Priwall/ Weggabelung Teich	—	36.0	36.0	10.6	-71 %	8.9	-75 %	7.8	-78 %	5.5	-85 %	5.5	-85 %
IO P8	Priwall/ Rosenhof	—	39.8	39.8	12.8	-68 %	10.5	-74 %	7.9	-80 %	5.6	-86 %	5.4	-86 %
IO P9	Priwall/ Rosenhof	—	34.4	34.4	11.0	-68 %	9.6	-72 %	8.9	-74 %	5.6	-84 %	5.2	-85 %
IO P10	Priwall/ Rosenhof	—	29.2	29.2	9.7	-67 %	8.5	-71 %	8.6	-71 %	7.3	-75 %	6.7	-77 %
IO P11	Priwall/ Fliegerweg	—	24.5	24.5	8.8	-64 %	7.4	-70 %	6.0	-76 %	5.2	-79 %	4.9	-80 %
IO P12	Priwall/ Pötenitzer Weg	—	22.2	22.2	8.3	-63 %	8.1	-64 %	6.2	-72 %	5.3	-76 %	5.4	-76 %
IO P13	Priwall/ Pötenitzer Weg	—	24.3	24.3	8.0	-67 %	6.6	-73 %	5.6	-77 %	4.9	-80 %	4.7	-81 %
lO P14	Priwall/ Seemannsschule	—	19.4	19.4	8.0	-59 %	8.1	-58 %	5.8	-70 %	5.2	-73 %	5.0	-74 %
lO P15	Priwall/ Krankenhaus	—	21.3	21.3	7.7	-64 %	7.3	-66 %	6.1	-71 %	6.6	-69 %	6.1	-71 %
IO P16	Priwall/ Krankenhaus	—	19.3	19.3	7.2	-63 %	8.2	-58 %	6.4	-67 %	5.3	-73 %	5.7	-70 %
IO P17	Priwall/ Haus des Kurgastes	—	18.7	18.7	7.2	-61 %	7.2	-61 %	6.0	-68 %	5.5	-71 %	4.8	-74 %
IO T3	Marina Baltica	—	56.0	56.0	18.2	-68 %	16.1	-71 %	13.7	-76 %	10.7	-81 %	11.0	-80 %
IO T4	Fischereihafen	—	42.0	42.0	16.3	-61 %	13.3	-68 %	11.1	-74 %	9.0	-79 %	9.3	-78 %
IO T5	Torstraße	—	36.4	36.4	15.0	-59 %	13.3	-63 %	10.4	-71 %	9.4	-74 %	8.9	-76 %
IO T6	Kirchenstraße	—	34.0	34.0	14.5	-57 %	13.5	-60 %	10.9	-68 %	10.4	-69 %	9.4	-72 %
IO T7	Kurgartenstraße	—	33.3	33.3	13.8	-59 %	12.9	-61 %	11.3	-66 %	10.2	-69 %	10.7	-68 %
IO T8	Vorderreihe/ Prinzenbrücke	—	32.7	32.7	13.8	-58 %	12.3	-62 %	11.3	-65 %	10.5	-68 %	10.4	-68 %
IO T9	Am Lotsenberg	—	27.5	27.5	13.8	-50 %	12.2	-56 %	11.0	-60 %	9.3	-66 %	9.8	-64 %
lO T10	Rose	—	28.8	28.8	11.5	-60 %	11.8	-59 %	9.9	-66 %	8.5	-70 %	8.2	-72 %
IO T11	Rose	—	29.2	29.2	11.4	-61 %	10.3	-65 %	10.3	-65 %	8.9	-70 %	8.4	-71 %
IO T12	Rose	—	25.1	25.1	10.8	-57 %	9.3	-63 %	8.5	-66 %	7.7	-69 %	6.8	-73 %
IO T13	Boelckestraße	—	28.4	28.4	11.2	-61 %	11.9	-58 %	10.8	-62 %	8.3	-71 %	8.1	-71 %
IO T14	Fehlingstraße	—	25.9	25.9	11.4	-56 %	10.3	-60 %	9.8	-62 %	9.2	-64 %	9.4	-64 %
lO T15	Fehlingstraße	—	19.4	19.4	10.4	-46 %	9.1	-53 %	8.8	-55 %	8.2	-58 %	7.8	-60 %
IO T16	Mühlenberg/ Ziegenhorst	—	22.0	22.0	11.3	-49 %	10.9	-50 %	9.0	-59 %	8.4	-62 %	8.0	-64 %
IO T17	Gneversdorfer Weg	—	25.0	25.0	10.8	-57 %	10.9	-56 %	9.1	-64 %	8.3	-67 %	7.2	-71 %
IO T18	Gneversdorfer Weg	—	21.4	21.4	10.5	-51 %	9.1	-57 %	8.3	-61 %	7.2	-66 %	6.2	-71 %
IO T19	Gneversdorfer Weg	—	16.6	16.6	8.6	-48 %	6.9	-58 %	6.3	-62 %	6.0	-64 %	6.4	-61 %
lO T20	Gneversdorfer Weg/ Moorredder	—	19.7	19.7	9.4	-52 %	7.7	-61 %	6.6	-66 %	6.5	-67 %	6.4	-68 %
IO T21	Moorredder	—	21.9	21.9	9.2	-58 %	9.4	-57 %	8.7	-60 %	6.8	-69 %	6.0	-73 %
IO T22	Moorredder	—	21.5	21.5	9.9	-54 %	9.1	-58 %	7.8	-64 %	6.3	-71 %	6.7	-69 %
IO T23	Am Fahrenberg	—	17.9	17.9	7.7	-57 %	7.2	-60 %	8.5	-53 %	7.0	-61 %	6.9	-61 %
IO T24	Parkallee/ Kurhaus	—	21.4	21.4	12.0	-44 %	11.2	-48 %	10.8	-50 %	9.5	-56 %	9.8	-54 %
lO T25	Kurpark	—	23.4	23.4	10.6	-55 %	11.1	-53 %	9.3	-60 %	8.7	-63 %	8.3	-65 %
IO T26	Steenkamp	—	21.4	21.4	9.7	-55 %	9.3	-57 %	8.8	-59 %	6.6	-69 %	6.6	-69 %
IO T27	Steenkamp	—	17.2	17.2	8.6	-50 %	7.2	-58 %	7.7	-55 %	6.9	-60 %	6.3	-63 %
IO T28	Steenkamp	—	14.1	14.1	9.1	-35 %	8.7	-38 %	7.2	-49 %	6.1	-57 %	6.2	-56 %
IO T29	Steenkamp/ Kleingärten	—	18.8	18.8	8.0	-57 %	7.3	-61 %	6.7	-64 %	5.5	-71 %	4.9	-74 %
lO T30	Schwedenstraße	—	16.5	16.5	7.9	-52 %	7.5	-55 %	6.5	-61 %	6.2	-62 %	6.3	-62 %
IO T31	Grönlandstraße	—	14.5	14.5	7.3	-50 %	6.5	-55 %	6.1	-58 %	5.6	-61 %	5.5	-62 %
IO T32	Kaiserallee	—	22.8	22.8	9.1	-60 %	9.6	-58 %	8.4	-63 %	7.6	-67 %	7.4	-68 %
IO T33	Kaiserallee	—	18.1	18.1	10.0	-45 %	8.9	-51 %	8.7	-52 %	7.8	-57 %	7.3	-60 %
IO T34	Kaiserallee	—	15.1	15.1	8.5	-44 %	8.5	-44 %	7.9	-48 %	6.0	-60 %	6.2	-59 %
lO T35	Steuerbord	—	17.8	17.8	8.5	-52 %	8.7	-51 %	7.8	-56 %	6.8	-62 %	7.4	-58 %
IO T36	Achterdeck	—	19.1	19.1	7.2	-62 %	7.5	-61 %	7.6	-60 %	6.4	-66 %	6.4	-66 %
IO T37	Strandweg	—	15.4	15.4	8.2	-47 %	8.0	-48 %	7.6	-51 %	6.6	-57 %	6.6	-57 %
IO T38	Alfred-Hagelstein-Straße	—	13.0	13.0	7.2	-45 %	7.0	-46 %	6.2	-52 %	5.1	-61 %	5.0	-62 %
IO T39	Scheteligstraße	—	15.3	15.3	6.6	-57 %	7.0	-54 %	6.2	-59 %	6.1	-60 %	5.8	-62 %
IO T40	Gneversdorfer Kamp	—	16.5	16.5	8.1	-51 %	6.7	-59 %	6.3	-62 %	6.4	-61 %	5.8	-65 %
lO T41	Teutendorfer Weg	—	22.7	22.7	8.3	-63 %	7.7	-66 %	6.4	-72 %	5.9	-74 %	6.8	-70 %
IO T42	Am Krautacker	—	23.7	23.7	11.4	-52 %	9.2	-61 %	10.4	-56 %	8.8	-63 %	6.6	-72 %
IO T43	Hollbeck	—	24.6	24.6	6.8	-72 %	6.6	-73 %	7.9	-68 %	4.8	-80 %	5.0	-80 %
IO T44	Teutendorf	—	20.3	20.3	6.8	-67 %	7.3	-64 %	5.1	-75 %	5.4	-73 %	4.8	-76 %
IO MP1	Messort Skandinavienkai (2000)	—	35.4	35.4	11.8	-67 %	9.9	-72 %	9.8	-72 %	6.6	-81 %	6.8	-81 %
IO MP2	Messort Priwallfähre (2000)	—	37.6	37.6	13.0	-65 %	12.2	-68 %	11.2	-70 %	8.7	-77 %	8.0	-79 %
IO MP3	Messort Kurpark (2000)	—	28.7	28.7	11.9	-59 %	11.2	-61 %	10.2	-64 %	9.8	-66 %	10.6	-63 %

A 6.3.4 Additional SO_2 Pollution (1 Hour Value S24)

Immission point (monitor point)		Additional SO_2 pollution (1 hour value S24) [µg/m³]												
		Total road traffic	Total shipping	Sum Forecast Sce.	Reduction concept 1a	Comparison with Forecast Sce.	Reduction concept 1b	Comparison with Forecast Sce.	Reduction concept 3	Comparison with Forecast Sce.	Reduction concepts 1a+3	Comparison with Forecast Sce.	Reduction concepts 1b+3	Comparison with Forecast Sce.
IO 1	Teutendorfer Weg/ An der Bak	—	141.9	141.9	49.8	-65 %	46.8	-67 %	47.8	-66 %	40.1	-72 %	39.5	-72 %
IO 2	St. Jürgen-Straße	—	139.2	139.2	56.6	-59 %	46.3	-67 %	45.8	-67 %	43.3	-69 %	44.5	-68 %
IO 3	Rönnauer Ring	—	136.3	136.3	58.0	-57 %	51.5	-62 %	44.2	-68 %	40.3	-70 %	39.0	-71 %
IO 4	Rönnauer Weg/ Ivendorfer Landstr.	—	125.5	125.5	47.7	-62 %	46.2	-63 %	41.8	-67 %	36.4	-71 %	35.2	-72 %
IO 5	Rönnauer Weg/ Ivendorfer Landstr.	—	118.9	118.9	45.6	-62 %	42.7	-64 %	45.8	-61 %	38.1	-68 %	37.8	-68 %
IO 6	Rönnauer Weg/ Ivendorfer Landstr.	—	111.3	111.3	48.7	-56 %	43.4	-61 %	40.6	-64 %	36.4	-67 %	38.3	-66 %
IO 7	Ostseestraße/ Pommernzentrum	—	128.3	128.3	48.9	-62 %	45.5	-65 %	48.5	-62 %	43.9	-66 %	44.4	-65 %
IO 8	Ostseestraße/ Pommernzentrum	—	128.0	128.0	55.0	-57 %	55.3	-57 %	48.3	-62 %	46.2	-64 %	44.9	-65 %
IO 9	Ostseestraße/ Pommernzentrum	—	110.6	110.6	42.8	-61 %	45.6	-59 %	46.3	-58 %	38.9	-65 %	39.0	-65 %
IO A	Ivendorf/ Ovendorfer Straße	—	88.9	88.9	28.7	-68 %	27.3	-69 %	26.5	-70 %	23.3	-74 %	23.4	-74 %
IO B	Ivendorf/ Ovendorfer Straße	—	92.1	92.1	29.5	-68 %	25.7	-72 %	23.0	-75 %	21.1	-77 %	23.6	-74 %
IO C	Ivendorf/ Ivendorfer Landstraße	—	83.0	83.0	30.4	-63 %	30.8	-63 %	29.1	-65 %	26.6	-68 %	25.0	-70 %
IO D	Ivendorf/ Ivendorfer Landstraße	—	77.4	77.4	28.6	-63 %	26.8	-65 %	23.0	-70 %	21.0	-73 %	22.8	-71 %
IO E	Ivendorf/ Ivendorfer Landstraße	—	65.3	65.3	24.9	-62 %	25.4	-61 %	20.6	-68 %	20.4	-69 %	20.1	-69 %
IO F	Ivendorf/ Ivendorfer Landstraße	—	61.1	61.1	29.3	-52 %	27.6	-55 %	21.9	-64 %	16.4	-73 %	17.0	-72 %
IO G	Ivendorf/ Ivendorfer Landstraße	—	50.2	50.2	24.4	-51 %	23.6	-53 %	18.6	-63 %	18.1	-64 %	17.0	-66 %
IO H	Ivendorf/ Ivendorfer Landstraße	—	48.9	48.9	19.9	-59 %	20.6	-58 %	21.1	-57 %	21.1	-57 %	16.0	-67 %
IO I	Blessenacker/ Travemünder Landstr.	—	42.1	42.1	17.7	-58 %	17.3	-59 %	16.2	-62 %	13.2	-69 %	13.7	-67 %
IO L	Travemünder Landstr.	—	46.0	46.0	20.1	-56 %	16.8	-63 %	18.0	-61 %	14.0	-70 %	14.4	-69 %
IO N	Boldwiesenkoppel	—	50.8	50.8	23.5	-54 %	23.4	-54 %	17.9	-65 %	16.1	-68 %	19.3	-62 %
IO P	Scheidekoppel	—	62.1	62.1	21.3	-66 %	23.9	-62 %	18.1	-71 %	15.0	-76 %	15.6	-75 %
IO Q	Borndiek	—	96.0	96.0	35.2	-63 %	28.5	-70 %	26.4	-73 %	20.9	-78 %	21.4	-78 %
IO S	Priwall/ Traveufer	—	120.0	120.0	40.5	-66 %	41.1	-66 %	34.1	-72 %	32.7	-73 %	30.4	-75 %
IO T	Auf dem Baggersand	—	131.0	131.0	58.3	-55 %	56.6	-57 %	50.8	-61 %	46.6	-64 %	44.9	-66 %
IO U	Priwall/ Traveufer	—	141.1	141.1	38.1	-73 %	37.8	-73 %	30.6	-78 %	31.0	-78 %	30.7	-78 %
IO V	Priwall/ Traveufer	—	146.2	146.2	43.3	-70 %	40.2	-73 %	35.6	-76 %	31.6	-78 %	33.1	-77 %
IO W	Dummersdorfer Ufer	—	112.7	112.7	38.9	-65 %	35.8	-68 %	31.8	-72 %	25.7	-77 %	25.8	-77 %
IO X	Dummersdorfer Ufer	—	126.0	126.0	37.1	-71 %	32.0	-75 %	29.0	-77 %	27.8	-78 %	27.1	-78 %
IO Y	Dummersdorfer Ufer	—	141.9	141.9	41.8	-71 %	39.8	-72 %	32.8	-77 %	25.1	-82 %	27.3	-81 %
IO Z	Vorderreihe/ Priwallfähre	—	104.4	104.4	56.8	-46 %	57.7	-45 %	51.2	-51 %	57.1	-45 %	56.1	-46 %
IO T1	Vorderreihe/ Ostpreußenkai	—	100.7	100.7	62.1	-38 %	57.0	-43 %	58.4	-42 %	58.8	-42 %	57.6	-43 %
IO T2	Yachthafen/ Kaiserbrücke	—	97.7	97.7	76.9	-21 %	78.3	-20 %	66.4	-32 %	66.3	-32 %	64.2	-34 %
IO P1	Priwall/ Fähre	—	103.7	103.7	47.5	-54 %	43.7	-58 %	44.7	-57 %	43.5	-58 %	43.1	-58 %
IO P2	Priwall/ Passathafen	—	83.5	83.5	45.4	-46 %	41.5	-50 %	35.2	-58 %	33.1	-60 %	34.3	-59 %
IO P3	Priwall/ Passathafen	—	79.9	79.9	50.7	-37 %	48.8	-39 %	42.9	-46 %	43.5	-46 %	43.2	-46 %
IO P4	Priwall/ Traveufer	—	160.5	160.5	40.0	-75 %	36.2	-77 %	32.7	-80 %	31.0	-81 %	31.0	-81 %
IO P5	Priwall/ Traveufer	—	135.6	135.6	47.7	-65 %	41.2	-70 %	36.0	-73 %	30.6	-77 %	31.7	-77 %
IO P6	Priwall/ Kläranlage	—	122.8	122.8	43.7	-64 %	42.4	-65 %	35.7	-71 %	32.5	-74 %	29.0	-76 %
IO P7	Priwall/ Weggabelung Teich	—	128.0	128.0	39.5	-69 %	33.1	-74 %	33.3	-74 %	29.1	-77 %	28.6	-78 %
IO P8	Priwall/ Rosenhof	—	108.7	108.7	38.1	-65 %	39.9	-63 %	33.7	-69 %	32.1	-70 %	33.9	-69 %
IO P9	Priwall/ Rosenhof	—	104.3	104.3	38.2	-63 %	37.7	-64 %	33.3	-68 %	31.2	-70 %	29.7	-72 %
IO P10	Priwall/ Rosenhof	—	94.5	94.5	40.3	-57 %	40.8	-57 %	42.2	-55 %	42.2	-55 %	42.6	-55 %
IO P11	Priwall/ Fliegerweg	—	90.9	90.9	37.0	-59 %	33.6	-63 %	30.0	-67 %	29.7	-67 %	32.2	-65 %
IO P12	Priwall/ Pötenitzer Weg	—	84.2	84.2	35.4	-58 %	33.4	-60 %	28.5	-66 %	27.9	-67 %	30.0	-64 %
IO P13	Priwall/ Pötenitzer Weg	—	89.4	89.4	31.0	-65 %	28.6	-68 %	26.6	-70 %	28.2	-68 %	28.1	-69 %
lO P14	Priwall/ Seemannsschule	—	77.1	77.1	33.9	-56 %	31.9	-59 %	26.6	-65 %	25.5	-67 %	25.4	-67 %
lO P15	Priwall/ Krankenhaus	—	83.3	83.3	35.8	-57 %	35.1	-58 %	32.5	-61 %	33.0	-60 %	30.0	-64 %
IO P16	Priwall/ Krankenhaus	—	69.9	69.9	36.8	-47 %	35.5	-49 %	30.3	-57 %	27.9	-60 %	27.2	-61 %
IO P17	Priwall/ Haus des Kurgastes	—	65.7	65.7	32.2	-51 %	30.2	-54 %	27.8	-58 %	25.1	-62 %	25.7	-61 %
IO T3	Marina Baltica	—	192.7	192.7	71.5	-63 %	60.8	-68 %	60.0	-69 %	51.1	-73 %	49.1	-75 %
IO T4	Fischereihafen	—	160.0	160.0	63.0	-61 %	58.5	-63 %	53.5	-67 %	48.8	-70 %	46.3	-71 %
IO T5	Torstraße	—	117.1	117.1	60.7	-48 %	59.0	-50 %	51.2	-56 %	47.5	-59 %	48.0	-59 %
IO T6	Kirchenstraße	—	110.5	110.5	54.1	-51 %	54.9	-50 %	48.1	-56 %	50.2	-55 %	46.7	-58 %
IO T7	Kurgartenstraße	—	93.8	93.8	55.0	-41 %	53.4	-43 %	55.8	-41 %	54.7	-42 %	52.4	-44 %
IO T8	Vorderreihe/ Prinzenbrücke	—	103.9	103.9	60.6	-42 %	59.9	-42 %	62.4	-40 %	55.6	-46 %	57.7	-44 %
IO T9	Am Lotsenberg	—	86.5	86.5	51.8	-40 %	48.9	-43 %	47.1	-46 %	46.1	-47 %	45.1	-48 %
lO T10	Rose	—	96.0	96.0	53.2	-45 %	45.7	-52 %	43.6	-55 %	42.4	-56 %	42.5	-56 %
IO T11	Rose	—	88.4	88.4	46.2	-48 %	46.5	-47 %	44.6	-50 %	41.0	-54 %	40.8	-54 %
IO T12	Rose	—	94.1	94.1	45.1	-52 %	40.5	-57 %	42.2	-55 %	38.7	-59 %	44.6	-53 %
IO T13	Boelckestraße	—	98.7	98.7	51.4	-48 %	50.0	-49 %	47.9	-51 %	44.7	-55 %	40.3	-59 %
IO T14	Fehlingstraße	—	93.8	93.8	47.9	-49 %	49.6	-47 %	44.5	-53 %	41.2	-56 %	40.1	-57 %
lO T15	Fehlingstraße	—	76.7	76.7	49.3	-36 %	43.2	-44 %	42.0	-45 %	42.0	-45 %	43.8	-43 %
IO T16	Mühlenberg/ Ziegenhorst	—	88.5	88.5	47.9	-46 %	45.4	-49 %	44.5	-50 %	39.0	-56 %	41.4	-53 %
IO T17	Gneversdorfer Weg	—	103.1	103.1	52.2	-49 %	48.1	-53 %	41.1	-60 %	39.4	-62 %	38.0	-63 %
IO T18	Gneversdorfer Weg	—	110.3	110.3	50.5	-54 %	43.7	-60 %	39.2	-64 %	35.2	-68 %	37.2	-66 %
IO T19	Gneversdorfer Weg	—	82.7	82.7	36.7	-56 %	35.5	-57 %	32.8	-60 %	28.4	-66 %	29.0	-65 %
lO T20	Gneversdorfer Weg/ Moorredder	—	100.8	100.8	42.3	-58 %	41.2	-59 %	33.8	-66 %	33.0	-67 %	31.3	-69 %
IO T21	Moorredder	—	88.0	88.0	52.3	-41 %	44.1	-50 %	39.1	-56 %	32.5	-63 %	31.5	-64 %
IO T22	Moorredder	—	79.6	79.6	40.5	-49 %	41.2	-48 %	36.7	-54 %	33.5	-58 %	35.2	-56 %
IO T23	Am Fahrenberg	—	78.2	78.2	40.8	-48 %	37.7	-52 %	35.0	-55 %	33.3	-57 %	33.7	-57 %
IO T24	Parkallee/ Kurhaus	—	78.0	78.0	49.7	-36 %	47.4	-39 %	45.6	-42 %	48.9	-37 %	48.4	-38 %
lO T25	Kurpark	—	83.1	83.1	47.1	-43 %	45.3	-45 %	41.8	-50 %	42.5	-49 %	43.9	-47 %
IO T26	Steenkamp	—	76.0	76.0	46.9	-38 %	43.6	-43 %	36.7	-52 %	36.5	-52 %	36.9	-51 %
IO T27	Steenkamp	—	71.2	71.2	36.1	-49 %	34.3	-52 %	34.7	-51 %	30.7	-57 %	32.4	-54 %
IO T28	Steenkamp	—	70.2	70.2	38.3	-45 %	36.8	-48 %	32.2	-54 %	29.5	-58 %	28.9	-59 %
IO T29	Steenkamp/ Kleingärten	—	67.3	67.3	32.1	-52 %	34.3	-49 %	32.7	-51 %	30.9	-54 %	27.6	-59 %
lO T30	Schwedenstraße	—	83.3	83.3	36.6	-56 %	38.9	-53 %	32.8	-61 %	31.0	-63 %	28.6	-66 %
IO T31	Grönlandstraße	—	75.3	75.3	32.8	-56 %	32.4	-57 %	28.2	-63 %	28.5	-62 %	27.1	-64 %
IO T32	Kaiserallee	—	77.0	77.0	39.7	-48 %	37.4	-51 %	37.6	-51 %	35.4	-54 %	36.2	-53 %
IO T33	Kaiserallee	—	69.5	69.5	39.5	-43 %	38.3	-45 %	37.4	-46 %	37.5	-46 %	37.2	-46 %
IO T34	Kaiserallee	—	60.0	60.0	35.9	-40 %	35.0	-42 %	32.2	-46 %	32.4	-46 %	33.8	-44 %
lO T35	Steuerbord	—	71.8	71.8	36.3	-49 %	38.4	-47 %	34.1	-53 %	31.3	-56 %	33.5	-53 %
lO T36	Achterdeck	—	69.0	69.0	40.1	-42 %	36.7	-47 %	35.6	-48 %	32.1	-53 %	31.3	-55 %
IO T37	Strandweg	—	65.5	65.5	34.4	-47 %	33.9	-48 %	33.3	-49 %	33.1	-49 %	31.6	-52 %
IO T38	Alfred-Hagelstein-Straße	—	59.9	59.9	35.9	-40 %	33.4	-44 %	32.0	-47 %	28.9	-52 %	31.4	-48 %
IO T39	Scheteligstraße	—	64.6	64.6	32.3	-50 %	32.0	-50 %	32.7	-49 %	30.2	-53 %	32.9	-49 %
IO T40	Gneversdorfer Kamp	—	73.2	73.2	38.5	-47 %	33.9	-54 %	30.6	-58 %	29.4	-60 %	28.0	-62 %
lO T41	Teutendorfer Weg	—	87.9	87.9	37.8	-57 %	35.3	-60 %	29.0	-67 %	30.2	-66 %	32.4	-63 %
IO T42	Am Krautacker	—	91.1	91.1	39.9	-56 %	40.0	-56 %	35.8	-61 %	31.4	-66 %	29.1	-68 %
IO T43	Hollbeck	—	70.4	70.4	28.4	-60 %	28.7	-59 %	23.4	-67 %	25.3	-64 %	25.8	-63 %
IO T44	Teutendorf	—	59.0	59.0	28.3	-52 %	28.4	-52 %	25.6	-57 %	24.8	-58 %	21.9	-63 %
IO MP1	Messort Skandinavienkai (2000)	—	98.3	98.3	37.1	-62 %	33.7	-66 %	33.7	-66 %	29.2	-70 %	27.7	-72 %
IO MP2	Messort Priwallfähre (2000)	—	123.2	123.2	55.5	-55 %	55.0	-55 %	55.9	-55 %	51.8	-58 %	51.8	-58 %
IO MP3	Messort Kurpark (2000)	—	88.0	88.0	54.3	-38 %	50.4	-43 %	49.2	-44 %	46.0	-48 %	43.3	-51 %

A 6.3.5 Additional PM_{10} Pollution (Annual Average Value J00)

Immission point (monitor point)		Additional PM_{10} pollution (annual average value J00) [µg/m³]															
		Road traffic, sources set 1	Road traffic, sources set 2	Road traffic, sources set 3	Road traffic, sources set 4	Road traffic, sources set 5	Total road traffic	Total shipping	Sum Forecast Sce.	Reduction concept 1a	Comparison with Forecast Sce.	Reduction concept 1b	Comparison with Forecast Sce.	Reduction concept 3	Comparison with Forecast Sce.	Reduction concepts 1a+3	Comparison with Forecast Sce.	Reduction concepts 1b+3	Comparison with Forecast Sce.
IO 1	Teutendorfer Weg/ An der Bak	0.1	0.2	1.6	0.0	0.0	1.9	0.4	2.3	2.2	-4 %	2.1	-9 %	2.3	0 %	2.1	-9 %	2.1	-9 %
IO 2	St. Jürgen-Straße	0.1	0.1	0.2	0.0	0.0	0.4	0.4	0.8	0.6	-25 %	0.6	-25 %	0.8	0 %	0.6	-25 %	0.6	-25 %
IO 3	Rönnauer Ring	0.1	0.0	0.2	0.0	0.0	0.3	0.4	0.7	0.5	-29 %	0.5	-29 %	0.6	-14 %	0.5	-29 %	0.5	-29 %
IO 4	Rönnauer Weg/ Ivendorfer Landstr.	0.1	0.0	0.2	0.0	0.0	0.3	0.4	0.7	0.5	-29 %	0.5	-29 %	0.7	0 %	0.5	-29 %	0.5	-29 %
IO 5	Rönnauer Weg/ Ivendorfer Landstr.	0.1	0.0	0.3	0.0	0.0	0.4	0.4	0.8	0.7	-13 %	0.6	-25 %	0.8	0 %	0.6	-25 %	0.6	-25 %
IO 6	Rönnauer Weg/ Ivendorfer Landstr.	0.2	0.0	0.1	0.0	0.0	0.3	0.4	0.7	0.5	-29 %	0.5	-29 %	0.7	0 %	0.5	-29 %	0.5	-29 %
IO 7	Ostseestraße/ Pommernzentrum	0.2	0.0	0.1	0.0	0.0	0.3	0.5	0.8	0.6	-25 %	0.6	-25 %	0.8	0 %	0.5	-38 %	0.5	-38 %
IO 8	Ostseestraße/ Pommernzentrum	0.1	0.0	0.6	0.0	0.0	0.7	0.5	1.2	1.0	-17 %	1.0	-17 %	1.2	0 %	1.0	-17 %	0.9	-25 %
IO 9	Ostseestraße/ Pommernzentrum	0.2	0.0	0.1	0.0	0.0	0.3	0.5	0.8	0.5	-38 %	0.5	-38 %	0.7	-13 %	0.5	-38 %	0.5	-38 %
IO A	Ivendorf/ Ovendorfer Straße	0.5	4.8	0.1	0.0	0.0	5.4	0.3	5.7	5.6	-2 %	5.5	-4 %	5.7	0 %	5.5	-4 %	5.5	-4 %
IO B	Ivendorf/ Ovendorfer Straße	0.5	1.7	0.2	0.0	0.0	2.4	0.3	2.7	2.6	-4 %	2.5	-7 %	2.7	0 %	2.5	-7 %	2.5	-7 %
IO C	Ivendorf/ Ivendorfer Landstraße	0.4	0.1	0.7	0.0	0.0	1.2	0.3	1.5	1.4	-7 %	1.3	-13 %	1.5	0 %	1.3	-13 %	1.3	-13 %
IO D	Ivendorf/ Ivendorfer Landstraße	0.5	0.2	0.7	0.0	0.0	1.4	0.3	1.7	1.5	-12 %	1.5	-12 %	1.7	0 %	1.5	-12 %	1.5	-12 %
IO E	Ivendorf/ Ivendorfer Landstraße	0.8	0.3	1.1	0.0	0.0	2.2	0.2	2.4	2.3	-4 %	2.3	-4 %	2.4	0 %	2.3	-4 %	2.3	-4 %
IO F	Ivendorf/ Ivendorfer Landstraße	1.2	0.4	0.6	0.0	0.0	2.2	0.2	2.4	2.3	-4 %	2.3	-4 %	2.4	0 %	2.3	-4 %	2.3	-4 %
IO G	Ivendorf/ Ivendorfer Landstraße	2.6	2.2	0.1	0.0	0.0	4.9	0.2	5.1	5.0	-2 %	5.0	-2 %	5.1	0 %	5.0	-2 %	5.0	-2 %
IO H	Ivendorf/ Ivendorfer Landstraße	3.4	1.1	0.8	0.0	0.0	5.3	0.1	5.4	5.4	0 %	5.4	0 %	5.4	0 %	5.4	0 %	5.4	0 %
IO I	Blessenacker/ Travemünder Landstr.	0.4	0.5	0.0	0.0	0.0	0.9	0.1	1.0	0.9	-10 %	1.0	0 %	1.0	0 %	0.9	-10 %	0.9	-10 %
IO L	Travemünder Landstr.	1.4	1.0	0.0	0.0	0.0	2.4	0.1	2.5	2.5	0 %	2.5	0 %	2.5	0 %	2.5	0 %	2.5	0 %
IO N	Boldwiesenkoppel	0.7	0.2	0.0	0.0	0.0	0.9	0.1	1.0	1.0	0 %	1.0	0 %	1.0	0 %	1.0	0 %	1.0	0 %
IO P	Scheidekoppel	0.1	0.0	0.0	0.0	0.0	0.1	0.2	0.3	0.2	-33 %	0.2	-33 %	0.3	0 %	0.2	-33 %	0.2	-33 %
IO Q	Borndiek	0.4	1.4	0.0	0.0	0.0	1.8	0.4	2.2	2.0	-9 %	2.0	-9 %	2.2	0 %	2.0	-9 %	2.0	-9 %
IO S	Priwall/ Traveufer	0.1	0.0	0.0	0.0	0.0	0.1	1.1	1.2	0.7	-42 %	0.7	-42 %	1.1	-8 %	0.7	-42 %	0.6	-50 %
IO T	Auf dem Baggersand	0.1	0.1	0.0	0.6	0.0	0.8	0.5	1.3	1.1	-15 %	1.1	-15 %	1.3	0 %	1.1	-15 %	1.1	-15 %
IO U	Priwall/ Traveufer	0.1	0.1	0.0	0.0	0.0	0.2	1.4	1.6	0.7	-56 %	0.7	-56 %	1.5	-6 %	0.6	-63 %	0.6	-63 %
IO V	Priwall/ Traveufer	0.1	0.0	0.0	0.0	0.0	0.1	1.4	1.5	0.7	-53 %	0.7	-53 %	1.4	-7 %	0.6	-60 %	0.6	-60 %
IO W	Dummersdorfer Ufer	0.1	0.1	0.0	0.0	0.0	0.2	0.5	0.7	0.4	-43 %	0.4	-43 %	0.6	-14 %	0.4	-43 %	0.4	-43 %
IO X	Dummersdorfer Ufer	0.2	0.1	0.0	0.0	0.0	0.3	0.5	0.8	0.5	-38 %	0.5	-38 %	0.8	0 %	0.5	-38 %	0.5	-38 %
IO Y	Dummersdorfer Ufer	0.1	0.1	0.0	0.0	0.0	0.2	0.5	0.7	0.4	-43 %	0.4	-43 %	0.7	0 %	0.4	-43 %	0.4	-43 %
IO Z	Vorderreihe/ Priwallfähre	0.1	0.0	0.0	0.3	0.0	0.4	0.6	1.0	0.8	-20 %	0.8	-20 %	1.0	0 %	0.8	-20 %	0.8	-20 %
IO T1	Vorderreihe/ Ostpreußenkai	0.1	0.0	0.0	0.2	0.0	0.3	0.7	1.0	0.8	-20 %	0.8	-20 %	1.0	0 %	0.8	-20 %	0.7	-30 %
IO T2	Yachthafen/ Kaiserbrücke	0.1	0.0	0.0	0.4	0.0	0.5	0.7	1.2	1.0	-17 %	1.0	-17 %	1.2	0 %	1.0	-17 %	1.0	-17 %
IO P1	Priwall/ Fähre	0.1	0.0	0.0	0.0	0.1	0.2	0.8	1.0	0.8	-20 %	0.8	-20 %	1.0	0 %	0.8	-20 %	0.7	-30 %
IO P2	Priwall/ Passathafen	0.0	0.0	0.0	0.0	0.0	0.0	0.8	0.8	0.6	-25 %	0.6	-25 %	0.8	0 %	0.6	-25 %	0.6	-25 %
IO P3	Priwall/ Passathafen	0.0	0.0	0.0	0.0	0.0	0.0	0.8	0.8	0.6	-25 %	0.6	-25 %	0.8	0 %	0.6	-25 %	0.6	-25 %
IO P4	Priwall/ Traveufer	0.1	0.0	0.0	0.0	0.0	0.1	1.7	1.8	0.7	-61 %	0.7	-61 %	1.7	-6 %	0.6	-67 %	0.6	-67 %
IO P5	Priwall/ Traveufer	0.1	0.0	0.0	0.0	0.0	0.1	1.1	1.2	0.7	-42 %	0.7	-42 %	1.1	-8 %	0.6	-50 %	0.6	-50 %
IO P6	Priwall/ Kläranlage	0.1	0.0	0.0	0.0	0.0	0.1	1.2	1.3	0.8	-38 %	0.8	-38 %	1.3	0 %	0.7	-46 %	0.6	-54 %
IO P7	Priwall/ Weggabelung Teich	0.1	0.0	0.0	0.0	0.0	0.1	1.5	1.6	0.8	-50 %	0.8	-50 %	1.5	-6 %	0.7	-56 %	0.7	-56 %
IO P8	Priwall/ Rosenhof	0.1	0.0	0.0	0.0	0.0	0.1	1.0	1.1	0.7	-36 %	0.7	-36 %	1.1	0 %	0.7	-36 %	0.7	-36 %
IO P9	Priwall/ Rosenhof	0.1	0.0	0.0	0.0	0.0	0.1	1.0	1.1	0.7	-36 %	0.7	-36 %	1.0	-9 %	0.6	-45 %	0.6	-45 %
IO P10	Priwall/ Rosenhof	0.1	0.0	0.0	0.0	0.8	0.9	0.9	1.8	1.5	-17 %	1.5	-17 %	1.7	-6 %	1.5	-17 %	1.5	-17 %
IO P11	Priwall/ Fliegerweg	0.1	0.0	0.0	0.0	0.0	0.1	0.9	1.0	0.6	-40 %	0.6	-40 %	0.9	-10 %	0.6	-40 %	0.6	-40 %
IO P12	Priwall/ Pötenitzer Weg	0.0	0.0	0.0	0.0	0.0	0.0	0.8	0.8	0.5	-38 %	0.5	-38 %	0.7	-13 %	0.4	-50 %	0.4	-50 %
IO P13	Priwall/ Pötenitzer Weg	0.0	0.0	0.0	0.0	0.0	0.0	0.8	0.8	0.5	-38 %	0.4	-50 %	0.8	0 %	0.4	-50 %	0.4	-50 %
IO P14	Priwall/ Seemannsschule	0.0	0.0	0.0	0.0	0.0	0.0	0.7	0.7	0.4	-43 %	0.4	-43 %	0.6	-14 %	0.4	-43 %	0.3	-57 %
IO P15	Priwall/ Krankenhaus	0.0	0.0	0.0	0.0	0.1	0.1	0.8	0.9	0.6	-33 %	0.6	-33 %	0.8	-11 %	0.6	-33 %	0.6	-33 %
IO P16	Priwall/ Krankenhaus	0.0	0.0	0.0	0.0	0.4	0.4	0.7	1.1	0.8	-27 %	0.8	-27 %	1.0	-9 %	0.8	-27 %	0.8	-27 %
IO P17	Priwall/ Haus des Kurgastes	0.0	0.0	0.0	0.0	0.0	0.0	0.6	0.6	0.4	-33 %	0.4	-33 %	0.5	-17 %	0.4	-33 %	0.4	-33 %
IO T3	Marina Baltica	0.1	0.0	0.1	0.0	0.0	0.2	0.6	0.8	0.5	-38 %	0.5	-38 %	0.7	-13 %	0.5	-38 %	0.5	-38 %
IO T4	Fischereihafen	0.1	0.1	0.0	0.1	0.0	0.3	0.5	0.8	0.6	-25 %	0.6	-25 %	0.8	0 %	0.6	-25 %	0.6	-25 %
IO T5	Torstraße	0.1	0.1	0.0	0.5	0.0	0.7	0.5	1.2	1.1	-8 %	1.0	-17 %	1.2	0 %	1.0	-17 %	1.0	-17 %
IO T6	Kirchenstraße	0.1	0.1	0.0	1.2	0.0	1.4	0.6	2.0	1.8	-10 %	1.8	-10 %	1.9	-5 %	1.8	-10 %	1.8	-10 %
IO T7	Kurgartenstraße	0.1	0.0	0.0	0.9	0.0	1.0	0.6	1.6	1.4	-13 %	1.4	-13 %	1.6	0 %	1.4	-13 %	1.4	-13 %
IO T8	Vorderreihe/ Prinzenbrücke	0.1	0.0	0.0	0.3	0.0	0.4	0.7	1.1	0.9	-18 %	0.9	-18 %	1.0	-9 %	0.9	-18 %	0.8	-27 %
IO T9	Am Lotsenberg	0.1	0.0	0.0	0.9	0.0	1.0	0.6	1.6	1.4	-13 %	1.4	-13 %	1.6	0 %	1.4	-13 %	1.4	-13 %
IO T10	Rose	0.1	0.1	0.0	0.5	0.0	0.7	0.5	1.2	1.1	-8 %	1.1	-8 %	1.2	0 %	1.1	-8 %	1.0	-17 %
IO T11	Rose	0.1	0.1	0.0	0.3	0.0	0.5	0.5	1.0	0.8	-20 %	0.8	-20 %	0.9	-10 %	0.8	-20 %	0.8	-20 %
IO T12	Rose	0.1	0.2	0.0	0.2	0.0	0.5	0.4	0.9	0.8	-11 %	0.7	-22 %	0.8	-11 %	0.7	-22 %	0.7	-22 %
IO T13	Boelckestraße	0.1	0.1	0.0	0.1	0.0	0.3	0.5	0.8	0.6	-25 %	0.6	-25 %	0.8	0 %	0.6	-25 %	0.6	-25 %
IO T14	Fehlingstraße	0.1	0.1	0.0	0.4	0.0	0.6	0.5	1.1	1.0	-9 %	1.0	-9 %	1.1	0 %	0.9	-18 %	0.9	-18 %
IO T15	Fehlingstraße	0.1	0.1	0.0	0.3	0.0	0.5	0.4	0.9	0.8	-11 %	0.8	-11 %	0.9	0 %	0.8	-11 %	0.8	-11 %
IO T16	Mühlenberg/ Ziegenhorst	0.1	0.1	0.0	0.3	0.0	0.5	0.4	0.9	0.8	-11 %	0.8	-11 %	0.9	0 %	0.8	-11 %	0.8	-11 %
IO T17	Gneversdorfer Weg	0.1	4.4	0.0	0.1	0.0	4.6	0.4	5.0	4.9	-2 %	4.9	-2 %	5.0	0 %	4.8	-4 %	4.8	-4 %
IO T18	Gneversdorfer Weg	0.1	1.5	0.0	0.1	0.0	1.7	0.3	2.0	1.9	-5 %	1.9	-5 %	2.0	0 %	1.9	-5 %	1.9	-5 %
IO T19	Gneversdorfer Weg	0.1	1.4	0.0	0.0	0.0	1.5	0.2	1.7	1.7	0 %	1.7	0 %	1.7	0 %	1.6	-6 %	1.6	-6 %
IO T20	Gneversdorfer Weg/ Moorredder	0.1	1.8	0.0	0.5	0.0	2.4	0.3	2.7	2.6	-4 %	2.6	-4 %	2.7	0 %	2.6	-4 %	2.6	-4 %
IO T21	Moorredder	0.1	0.3	0.0	1.0	0.0	1.4	0.3	1.7	1.6	-6 %	1.6	-6 %	1.7	0 %	1.6	-6 %	1.6	-6 %
IO T22	Moorredder	0.1	0.1	0.0	2.3	0.0	2.5	0.3	2.8	2.7	-4 %	2.7	-4 %	2.8	0 %	2.7	-4 %	2.7	-4 %
IO T23	Am Fahrenberg	0.1	0.0	0.0	0.7	0.1	0.9	0.3	1.2	1.1	-8 %	1.1	-8 %	1.2	0 %	1.1	-8 %	1.1	-8 %
IO T24	Parkallee/ Kurhaus	0.0	0.0	0.0	0.2	0.0	0.2	0.5	0.7	0.6	-14 %	0.6	-14 %	0.7	0 %	0.6	-14 %	0.6	-14 %
IO T25	Kurpark	0.1	0.0	0.0	0.1	0.0	0.2	0.5	0.7	0.5	-29 %	0.5	-29 %	0.7	0 %	0.5	-29 %	0.5	-29 %
IO T26	Steenkamp	0.1	0.0	0.0	0.2	0.2	0.5	0.3	0.8	0.7	-13 %	0.7	-13 %	0.8	0 %	0.7	-13 %	0.7	-13 %
IO T27	Steenkamp	0.1	0.1	0.0	0.1	0.6	0.9	0.3	1.2	1.1	-8 %	1.1	-8 %	1.2	0 %	1.1	-8 %	1.1	-8 %
IO T28	Steenkamp	0.1	0.1	0.0	0.0	0.3	0.5	0.2	0.7	0.7	0 %	0.7	0 %	0.7	0 %	0.7	0 %	0.7	0 %
IO T29	Steenkamp/ Kleingärten	0.1	0.1	0.0	0.0	0.0	0.2	0.2	0.4	0.4	0 %	0.4	0 %	0.4	0 %	0.3	-25 %	0.3	-25 %
IO T30	Schwedenstraße	0.1	0.1	0.0	0.0	0.0	0.2	0.3	0.5	0.4	-20 %	0.4	-20 %	0.4	-20 %	0.4	-20 %	0.4	-20 %
IO T31	Grönlandstraße	0.1	0.2	0.0	0.0	0.0	0.3	0.2	0.5	0.4	-20 %	0.4	-20 %	0.5	0 %	0.4	-20 %	0.4	-20 %
IO T32	Kaiserallee	0.0	0.0	0.0	0.1	0.3	0.4	0.4	0.8	0.7	-13 %	0.7	-13 %	0.8	0 %	0.7	-13 %	0.7	-13 %
IO T33	Kaiserallee	0.0	0.0	0.0	0.0	0.2	0.2	0.3	0.5	0.4	-20 %	0.4	-20 %	0.5	0 %	0.4	-20 %	0.4	-20 %
IO T34	Kaiserallee	0.0	0.0	0.0	0.0	0.2	0.2	0.2	0.4	0.4	0 %	0.4	0 %	0.4	0 %	0.4	0 %	0.4	0 %
IO T35	Steuerbord	0.0	0.0	0.0	0.0	0.3	0.3	0.3	0.6	0.5	-17 %	0.5	-17 %	0.6	0 %	0.5	-17 %	0.5	-17 %
IO T36	Achterdeck	0.0	0.0	0.0	0.1	0.1	0.2	0.3	0.5	0.4	-20 %	0.4	-20 %	0.5	0 %	0.4	-20 %	0.4	-20 %
IO T37	Strandweg	0.0	0.0	0.0	0.0	0.2	0.2	0.2	0.4	0.4	0 %	0.4	0 %	0.4	0 %	0.4	0 %	0.4	0 %
IO T38	Alfred-Hagelstein-Straße	0.0	0.0	0.0	0.0	0.3	0.3	0.2	0.5	0.4	-20 %	0.4	-20 %	0.5	0 %	0.4	-20 %	0.4	-20 %
IO T39	Scheteligstraße	0.0	0.0	0.0	0.0	0.0	0.0	0.2	0.2	0.2	0 %	0.2	0 %	0.2	0 %	0.1	-50 %	0.1	-50 %
IO T40	Gneversdorfer Kamp	0.2	0.4	0.0	0.0	0.0	0.6	0.2	0.8	0.7	-13 %	0.7	-13 %	0.8	0 %	0.7	-13 %	0.7	-13 %
IO T41	Teutendorfer Weg	0.2	0.0	1.6	0.0	0.0	1.8	0.2	2.0	1.9	-5 %	2.0	0 %	2.0	0 %	1.9	-5 %	1.9	-5 %
IO T42	Am Krautacker	0.2	0.0	0.0	0.0	0.0	0.2	0.3	0.5	0.4	-20 %	0.4	-20 %	0.4	-20 %	0.4	-20 %	0.3	-40 %
IO T43	Hollbeck	0.6	0.0	0.3	0.0	0.0	0.9	0.2	1.1	1.0	-9 %	1.0	-9 %	1.1	0 %	1.0	-9 %	1.0	-9 %
IO T44	Teutendorf	0.5	0.0	0.0	0.0	0.0	0.5	0.1	0.6	0.6	0 %	0.6	0 %	0.6	0 %	0.6	0 %	0.6	0 %
IO MP1	Messort Skandinavienkai (2000)	0.2	0.1	0.0	0.0	0.0	0.3	0.6	0.9	0.6	-33 %	0.6	-33 %	0.9	0 %	0.5	-44 %	0.5	-44 %
IO MP2	Messort Priwallfähre (2000)	0.1	0.0	0.0	0.1	0.0	0.2	0.7	0.9	0.6	-33 %	0.6	-33 %	0.8	-11 %	0.6	-33 %	0.6	-33 %
IO MP3	Messort Kurpark (2000)	0.1	0.0	0.0	0.2	0.0	0.3	0.5	0.8	0.7	-13 %	0.7	-13 %	0.8	0 %	0.7	-13 %	0.7	-13 %

A 6.3.6 Additional PM_{10} Pollution (24 Hours Value T35)

Immission point (monitor point)		Additional PM_{10} pollution (24 hours value T35) [µg/m³]															
		Road traffic, sources set 1	Road traffic, sources set 2	Road traffic, sources set 3	Road traffic, sources set 4	Road traffic, sources set 5	Total road traffic	Total shipping	Sum Forecast Sce.	Reduction concept 1a	Comparison with Forecast Sce.	Reduction concept 1b	Comparison with Forecast Sce.	Reduction concept 3	Comparison with Forecast Sce.	Reduction concepts 1a+3	Comparison with Forecast Sce.	Reduction concepts 1b+3	Comparison with Forecast Sce.
IO 1	Teutendorfer Weg/ An der Bak	0.2	0.5	2.6	0.1	0.0	3.2	1.2	4.2	3.7	-12 %	3.8	-10 %	4.3	2 %	3.7	-12 %	3.7	-12 %
IO 2	St. Jürgen-Straße	0.2	0.2	0.5	0.1	0.0	0.8	1.2	2.0	1.5	-25 %	1.5	-25 %	2.0	0 %	1.5	-25 %	1.4	-30 %
IO 3	Rönnauer Ring	0.3	0.1	0.6	0.1	0.0	0.9	1.1	2.0	1.6	-20 %	1.5	-25 %	1.9	-5 %	1.5	-25 %	1.5	-25 %
IO 4	Rönnauer Weg/ Ivendorfer Landstr.	0.3	0.1	0.7	0.0	0.0	0.9	1.4	2.2	1.6	-27 %	1.6	-27 %	2.0	-9 %	1.5	-32 %	1.5	-32 %
IO 5	Rönnauer Weg/ Ivendorfer Landstr.	0.3	0.1	0.8	0.0	0.0	0.9	1.4	2.3	1.7	-26 %	1.7	-26 %	2.2	-4 %	1.6	-30 %	1.5	-35 %
IO 6	Rönnauer Weg/ Ivendorfer Landstr.	0.3	0.1	0.2	0.0	0.0	0.5	1.2	1.5	1.0	-33 %	1.1	-27 %	1.5	0 %	1.0	-33 %	1.0	-33 %
IO 7	Ostseestraße/ Pommernzentrum	0.3	0.1	0.3	0.0	0.0	0.6	1.5	1.8	1.3	-28 %	1.3	-28 %	1.8	0 %	1.2	-33 %	1.2	-33 %
IO 8	Ostseestraße/ Pommernzentrum	0.3	0.1	1.3	0.0	0.0	1.5	1.7	2.8	2.3	-18 %	2.2	-21 %	2.6	-7 %	2.2	-21 %	2.1	-25 %
IO 9	Ostseestraße/ Pommernzentrum	0.4	0.1	0.2	0.0	0.0	0.5	1.5	1.7	1.1	-35 %	1.2	-29 %	1.6	-6 %	1.1	-35 %	1.1	-35 %
IO A	Ivendorf/ Ovendorfer Straße	1.3	10.8	0.4	0.0	0.0	11.2	1.2	11.8	11.5	-3 %	11.5	-3 %	11.6	-2 %	11.5	-3 %	11.4	-3 %
IO B	Ivendorf/ Ovendorfer Straße	1.3	4.3	0.5	0.0	0.0	5.0	1.2	5.2	5.1	-2 %	5.0	-4 %	5.2	0 %	5.0	-4 %	5.0	-4 %
IO C	Ivendorf/ Ivendorfer Landstraße	0.8	0.3	1.6	0.0	0.0	2.2	1.1	2.9	2.6	-10 %	2.6	-10 %	2.9	0 %	2.6	-10 %	2.6	-10 %
IO D	Ivendorf/ Ivendorfer Landstraße	1.0	0.6	1.5	0.0	0.0	2.4	1.1	3.1	2.7	-13 %	2.7	-13 %	2.9	-6 %	2.6	-16 %	2.6	-16 %
IO E	Ivendorf/ Ivendorfer Landstraße	1.5	0.9	2.1	0.0	0.0	3.7	0.8	4.0	3.8	-5 %	3.8	-5 %	4.0	0 %	3.9	-3 %	3.9	-3 %
IO F	Ivendorf/ Ivendorfer Landstraße	2.2	1.2	1.0	0.0	0.0	3.4	0.7	3.7	3.5	-5 %	3.4	-8 %	3.7	0 %	3.5	-5 %	3.4	-8 %
IO G	Ivendorf/ Ivendorfer Landstraße	4.4	4.4	0.3	0.0	0.0	8.5	0.6	8.9	8.8	-1 %	8.7	-2 %	8.9	0 %	8.7	-2 %	8.7	-2 %
IO H	Ivendorf/ Ivendorfer Landstraße	5.7	2.4	1.4	0.0	0.0	8.3	0.5	8.6	8.4	-2 %	8.5	-1 %	8.6	0 %	8.4	-2 %	8.4	-2 %
IO I	Blessenacker/ Travemünder Landstr.	1.4	1.2	0.0	0.0	0.0	2.3	0.3	2.8	2.7	-4 %	2.5	-11 %	2.8	0 %	2.5	-11 %	2.5	-11 %
IO L	Travemünder Landstr.	3.6	2.0	0.1	0.0	0.0	5.5	0.4	5.7	5.7	0 %	5.6	-2 %	5.8	2 %	5.6	-2 %	5.6	-2 %
IO N	Boldwiesenkoppel	2.2	0.4	0.0	0.0	0.0	2.6	0.5	3.0	2.8	-7 %	2.8	-7 %	3.0	0 %	2.8	-7 %	2.8	-7 %
IO P	Scheidekoppel	0.4	0.1	0.0	0.0	0.0	0.4	0.6	0.9	0.7	-22 %	0.7	-22 %	0.9	0 %	0.6	-33 %	0.6	-33 %
IO Q	Borndiek	1.0	3.7	0.1	0.0	0.0	4.6	1.6	4.6	4.6	0 %	4.6	0 %	4.6	0 %	4.6	0 %	4.6	0 %
IO S	Priwall/ Traveufer	0.2	0.1	0.0	0.1	0.0	0.3	2.5	2.6	1.4	-46 %	1.3	-50 %	2.3	-12 %	1.2	-54 %	1.2	-54 %
IO T	Auf dem Baggersand	0.2	0.2	0.1	1.0	0.0	1.3	1.5	2.6	2.1	-19 %	2.0	-23 %	2.4	-8 %	1.9	-27 %	1.9	-27 %
IO U	Priwall/ Traveufer	0.3	0.2	0.0	0.0	0.0	0.5	3.2	3.5	1.3	-63 %	1.3	-63 %	3.2	-9 %	1.0	-71 %	1.0	-71 %
IO V	Priwall/ Traveufer	0.2	0.1	0.0	0.0	0.0	0.3	3.5	3.7	1.5	-59 %	1.4	-62 %	3.5	-5 %	1.3	-65 %	1.2	-68 %
IO W	Dummersdorfer Ufer	0.4	0.3	0.0	0.0	0.0	0.7	1.7	1.8	1.2	-33 %	1.1	-39 %	1.7	-6 %	1.1	-39 %	1.0	-44 %
IO X	Dummersdorfer Ufer	0.6	0.4	0.0	0.0	0.0	1.0	2.0	2.2	1.4	-36 %	1.3	-41 %	2.1	-5 %	1.2	-45 %	1.2	-45 %
IO Y	Dummersdorfer Ufer	0.5	0.3	0.0	0.0	0.0	0.7	1.6	1.9	1.1	-42 %	1.1	-42 %	1.6	-16 %	1.1	-42 %	1.0	-47 %
IO Z	Vorderreihe/ Priwallfähre	0.2	0.1	0.0	0.6	0.0	0.8	1.8	2.3	1.6	-30 %	1.6	-30 %	2.3	0 %	1.6	-30 %	1.6	-30 %
IO T1	Vorderreihe/ Ostpreußenkai	0.2	0.1	0.0	0.5	0.0	0.7	1.9	2.2	1.6	-27 %	1.6	-27 %	2.0	-9 %	1.5	-32 %	1.5	-32 %
IO T2	Yachthafen/ Kaiserbrücke	0.1	0.1	0.0	0.8	0.0	1.0	1.8	2.2	1.8	-18 %	1.8	-18 %	2.2	0 %	1.7	-23 %	1.7	-23 %
IO P1	Priwall/ Fähre	0.1	0.1	0.0	0.1	0.2	0.4	1.9	2.1	1.4	-33 %	1.4	-33 %	2.0	-5 %	1.3	-38 %	1.3	-38 %
IO P2	Priwall/ Passathafen	0.1	0.1	0.0	0.1	0.0	0.2	1.7	1.9	1.2	-37 %	1.2	-37 %	1.7	-11 %	1.2	-37 %	1.2	-37 %
IO P3	Priwall/ Passathafen	0.1	0.1	0.0	0.1	0.0	0.2	1.6	1.7	1.3	-24 %	1.3	-24 %	1.7	0 %	1.2	-29 %	1.2	-29 %
IO P4	Priwall/ Traveufer	0.2	0.1	0.0	0.0	0.0	0.4	3.3	3.5	1.2	-66 %	1.2	-66 %	3.4	-3 %	1.1	-69 %	1.0	-71 %
IO P5	Priwall/ Traveufer	0.2	0.1	0.0	0.0	0.0	0.3	2.7	2.9	1.5	-48 %	1.4	-52 %	2.7	-7 %	1.2	-59 %	1.2	-59 %
IO P6	Priwall/ Kläranlage	0.2	0.1	0.0	0.0	0.0	0.3	3.0	3.1	1.6	-48 %	1.5	-52 %	3.0	-3 %	1.3	-58 %	1.2	-61 %
IO P7	Priwall/ Weggabelung Teich	0.2	0.1	0.0	0.0	0.0	0.3	3.4	3.7	1.5	-59 %	1.4	-62 %	3.4	-8 %	1.3	-65 %	1.3	-65 %
IO P8	Priwall/ Rosenhof	0.2	0.1	0.0	0.0	0.0	0.2	2.3	2.5	1.4	-44 %	1.3	-48 %	2.3	-8 %	1.2	-52 %	1.1	-56 %
IO P9	Priwall/ Rosenhof	0.1	0.1	0.0	0.0	0.0	0.2	2.2	2.3	1.3	-43 %	1.2	-48 %	2.2	-4 %	1.1	-52 %	1.1	-52 %
IO P10	Priwall/ Rosenhof	0.1	0.1	0.0	0.1	1.4	1.6	2.0	2.9	2.3	-21 %	2.3	-21 %	2.8	-3 %	2.3	-21 %	2.2	-24 %
IO P11	Priwall/ Fliegerweg	0.1	0.0	0.0	0.0	0.1	0.2	2.0	2.2	1.1	-50 %	1.1	-50 %	2.0	-9 %	1.0	-55 %	0.9	-59 %
IO P12	Priwall/ Pötenitzer Weg	0.1	0.0	0.0	0.0	0.1	0.2	1.8	1.9	1.0	-47 %	1.0	-47 %	1.7	-11 %	0.9	-53 %	0.9	-53 %
IO P13	Priwall/ Pötenitzer Weg	0.1	0.0	0.0	0.0	0.0	0.2	1.8	1.9	1.0	-47 %	1.0	-47 %	1.8	-5 %	0.9	-53 %	0.8	-58 %
IO P14	Priwall/ Seemannsschule	0.1	0.0	0.0	0.0	0.0	0.2	1.4	1.5	0.9	-40 %	0.8	-47 %	1.5	0 %	0.8	-47 %	0.7	-53 %
IO P15	Priwall/ Krankenhaus	0.1	0.0	0.0	0.0	0.2	0.3	1.6	1.9	1.1	-42 %	1.1	-42 %	1.7	-11 %	1.1	-42 %	1.1	-42 %
IO P16	Priwall/ Krankenhaus	0.1	0.0	0.0	0.0	0.7	0.8	1.4	2.0	1.4	-30 %	1.4	-30 %	1.9	-5 %	1.4	-30 %	1.4	-30 %
IO P17	Priwall/ Haus des Kurgastes	0.1	0.0	0.0	0.0	0.1	0.2	1.2	1.3	0.9	-31 %	0.9	-31 %	1.2	-8 %	0.9	-31 %	0.8	-38 %
IO T3	Marina Baltica	0.3	0.1	0.1	0.1	0.0	0.5	1.8	1.9	1.2	-37 %	1.2	-37 %	1.9	0 %	1.1	-42 %	1.0	-47 %
IO T4	Fischereihafen	0.2	0.2	0.1	0.2	0.0	0.6	1.5	1.6	1.2	-25 %	1.2	-25 %	1.7	6 %	1.1	-31 %	1.1	-31 %
IO T5	Torstraße	0.2	0.4	0.1	1.0	0.0	1.4	1.8	2.5	2.0	-20 %	2.0	-20 %	2.4	-4 %	1.9	-24 %	1.9	-24 %
IO T6	Kirchenstraße	0.2	0.2	0.1	1.9	0.0	2.1	1.6	3.3	2.9	-12 %	2.9	-12 %	3.3	0 %	2.8	-15 %	2.8	-15 %
IO T7	Kurgartenstraße	0.2	0.1	0.0	1.6	0.0	1.7	1.8	3.0	2.4	-20 %	2.4	-20 %	2.9	-3 %	2.3	-23 %	2.3	-23 %
IO T8	Vorderreihe/ Prinzenbrücke	0.1	0.1	0.0	0.6	0.0	0.7	1.8	2.1	1.7	-19 %	1.6	-24 %	2.1	0 %	1.6	-24 %	1.6	-24 %
IO T9	Am Lotsenberg	0.1	0.1	0.0	1.5	0.0	1.7	1.5	2.8	2.4	-14 %	2.4	-14 %	2.8	0 %	2.4	-14 %	2.4	-14 %
IO T10	Rose	0.1	0.2	0.0	0.9	0.0	1.0	1.5	2.4	1.9	-21 %	1.8	-25 %	2.2	-8 %	1.8	-25 %	1.7	-29 %
IO T11	Rose	0.2	0.2	0.0	0.5	0.0	0.8	1.4	1.9	1.5	-21 %	1.5	-21 %	1.8	-5 %	1.5	-21 %	1.4	-26 %
IO T12	Rose	0.2	0.3	0.0	0.4	0.0	0.8	1.1	1.6	1.2	-25 %	1.2	-25 %	1.4	-13 %	1.2	-25 %	1.2	-25 %
IO T13	Boelckestraße	0.2	0.3	0.0	0.3	0.0	0.5	1.5	1.8	1.3	-28 %	1.3	-28 %	1.7	-6 %	1.2	-33 %	1.2	-33 %
IO T14	Fehlingstraße	0.1	0.1	0.0	0.7	0.0	0.8	1.5	2.1	1.7	-19 %	1.7	-19 %	2.1	0 %	1.7	-19 %	1.7	-19 %
IO T15	Fehlingstraße	0.1	0.1	0.0	0.5	0.1	0.7	1.2	1.7	1.4	-18 %	1.4	-18 %	1.7	0 %	1.3	-24 %	1.4	-18 %
IO T16	Mühlenberg/ Ziegenhorst	0.1	0.2	0.0	0.5	0.0	0.8	1.2	1.7	1.4	-18 %	1.4	-18 %	1.7	0 %	1.4	-18 %	1.4	-18 %
IO T17	Gneversdorfer Weg	0.2	7.7	0.1	0.2	0.0	7.9	1.2	8.3	8.2	-1 %	8.2	-1 %	8.4	1 %	8.2	-1 %	8.2	-1 %
IO T18	Gneversdorfer Weg	0.2	4.3	0.1	0.2	0.0	4.6	1.0	5.3	5.0	-6 %	5.0	-6 %	5.3	0 %	5.0	-6 %	5.1	-4 %
IO T19	Gneversdorfer Weg	0.2	2.7	0.0	0.1	0.0	2.9	0.8	3.2	3.1	-3 %	3.1	-3 %	3.2	0 %	3.0	-6 %	3.1	-3 %
IO T20	Gneversdorfer Weg/ Moorredder	0.2	3.4	0.0	1.1	0.0	4.0	1.0	4.6	4.4	-4 %	4.4	-4 %	4.5	-2 %	4.3	-7 %	4.3	-7 %
IO T21	Moorredder	0.2	0.6	0.0	1.9	0.0	2.4	1.0	3.0	2.6	-13 %	2.7	-10 %	3.1	3 %	2.6	-13 %	2.6	-13 %
IO T22	Moorredder	0.1	0.2	0.0	3.9	0.1	4.0	1.0	4.5	4.4	-2 %	4.4	-2 %	4.5	0 %	4.4	-2 %	4.3	-4 %
IO T23	Am Fahrenberg	0.1	0.1	0.0	1.2	0.1	1.4	0.9	2.2	2.0	-9 %	1.9	-14 %	2.1	-5 %	2.0	-9 %	1.9	-14 %
IO T24	Parkallee/ Kurhaus	0.1	0.1	0.0	0.3	0.1	0.4	1.4	1.7	1.5	-12 %	1.4	-18 %	1.8	6 %	1.4	-18 %	1.4	-18 %
IO T25	Kurpark	0.1	0.1	0.0	0.2	0.1	0.4	1.4	1.5	1.2	-20 %	1.2	-20 %	1.5	0 %	1.2	-20 %	1.2	-20 %
IO T26	Steenkamp	0.1	0.1	0.0	0.4	0.3	0.9	1.0	1.5	1.2	-20 %	1.2	-20 %	1.4	-7 %	1.2	-20 %	1.1	-27 %
IO T27	Steenkamp	0.1	0.1	0.0	0.3	1.2	1.5	0.9	2.2	2.0	-9 %	1.9	-14 %	2.2	0 %	2.0	-9 %	1.9	-14 %
IO T28	Steenkamp	0.1	0.1	0.0	0.1	0.5	0.8	0.8	1.4	1.2	-14 %	1.2	-14 %	1.4	0 %	1.2	-14 %	1.2	-14 %
IO T29	Steenkamp/ Kleingärten	0.1	0.1	0.0	0.1	0.1	0.3	0.7	0.9	0.8	-11 %	0.7	-22 %	0.9	0 %	0.7	-22 %	0.7	-22 %
IO T30	Schwedenstraße	0.2	0.3	0.0	0.1	0.0	0.5	0.9	1.1	0.9	-18 %	0.9	-18 %	1.1	0 %	0.9	-18 %	0.9	-18 %
IO T31	Grönlandstraße	0.2	0.4	0.0	0.1	0.0	0.6	0.7	1.1	0.9	-18 %	0.9	-18 %	1.0	-9 %	0.8	-27 %	0.8	-27 %
IO T32	Kaiserallee	0.1	0.1	0.0	0.2	0.4	0.7	1.2	1.7	1.4	-18 %	1.4	-18 %	1.6	-6 %	1.3	-24 %	1.3	-24 %
IO T33	Kaiserallee	0.1	0.1	0.0	0.1	0.4	0.6	1.0	1.3	1.0	-23 %	1.1	-15 %	1.3	0 %	1.0	-23 %	1.1	-15 %
IO T34	Kaiserallee	0.1	0.1	0.0	0.1	0.4	0.5	0.8	1.1	1.0	-9 %	0.9	-18 %	1.1	0 %	0.9	-18 %	0.9	-18 %
IO T35	Steuerbord	0.1	0.1	0.0	0.1	0.5	0.7	1.0	1.4	1.2	-14 %	1.2	-14 %	1.4	0 %	1.1	-21 %	1.1	-21 %
IO T36	Achterdeck	0.1	0.1	0.0	0.2	0.1	0.4	0.8	1.2	1.0	-17 %	0.9	-25 %	1.2	0 %	1.0	-17 %	0.9	-25 %
IO T37	Strandweg	0.1	0.1	0.0	0.1	0.4	0.5	0.8	1.2	1.0	-17 %	1.0	-17 %	1.1	-8 %	1.0	-17 %	1.0	-17 %
IO T38	Alfred-Hagelstein-Straße	0.1	0.1	0.0	0.0	0.4	0.5	0.7	1.1	0.9	-18 %	0.9	-18 %	1.1	0 %	0.9	-18 %	0.9	-18 %
IO T39	Scheteligstraße	0.1	0.1	0.0	0.1	0.1	0.3	0.7	0.9	0.7	-22 %	0.7	-22 %	0.9	0 %	0.7	-22 %	0.7	-22 %
IO T40	Gneversdorfer Kamp	0.4	0.9	0.0	0.0	0.0	1.1	0.6	1.7	1.4	-18 %	1.4	-18 %	1.6	-6 %	1.4	-18 %	1.4	-18 %
IO T41	Teutendorfer Weg	0.4	0.1	2.6	0.0	0.0	2.9	0.8	3.4	3.2	-6 %	3.2	-6 %	3.3	-3 %	3.2	-6 %	3.2	-6 %
IO T42	Am Krautacker	0.4	0.1	0.1	0.0	0.0	0.4	0.8	1.0	0.8	-20 %	0.8	-20 %	1.1	10 %	0.8	-20 %	0.7	-30 %
IO T43	Hollbeck	1.0	0.1	0.8	0.0	0.0	1.4	0.6	1.7	1.5	-12 %	1.5	-12 %	1.6	-6 %	1.5	-12 %	1.5	-12 %
IO T44	Teutendorf	1.6	0.1	0.1	0.0	0.0	1.7	0.4	2.2	2.0	-9 %	1.9	-14 %	2.1	-5 %	1.9	-14 %	1.9	-14 %
IO MP1	Messort Skandinavienkai (2000)	0.4	0.4	0.1	0.0	0.0	0.8	1.9	2.0	1.2	-40 %	1.2	-40 %	2.0	0 %	1.2	-40 %	1.2	-40 %
IO MP2	Messort Priwallfähre (2000)	0.2	0.1	0.1	0.4	0.0	0.6	2.2	2.3	1.5	-35 %	1.4	-39 %	2.2	-4 %	1.5	-35 %	1.4	-39 %
IO MP3	Messort Kurpark (2000)	0.1	0.1	0.0	0.4	0.0	0.5	1.4	1.8	1.4	-22 %	1.4	-22 %	1.7	-6 %	1.3	-28 %	1.3	-28 %

A 6.3.7 Additional Soot Pollution (Annual Average Value J00)

Immission point (monitor point)		Additional soot pollution (annual average value J00) [µg/m³]															
		Road traffic, sources set 1	Road traffic, sources set 2	Road traffic, sources set 3	Road traffic, sources set 4	Road traffic, sources set 5	Total road traffic	Total shipping	Sum Forecast Sce.	Reduction concept 1a	Comparison with Forecast Sce.	Reduction concept 1b	Comparison with Forecast Sce.	Reduction concept 3	Comparison with Forecast Sce.	Reduction concepts 1a+3	Comparison with Forecast Sce.	Reduction concepts 1b+3	Comparison with Forecast Sce.
IO 1	Teutendorfer Weg/ An der Bak	0.0	0.0	0.1	0.0	0.0	0.1	0.2	0.3	0.2	-33 %	0.2	-33 %	0.3	0 %	0.2	-33 %	0.2	-33 %
IO 2	St. Jürgen-Straße	0.0	0.0	0.0	0.0	0.0	0.0	0.2	0.2	0.1	-50 %	0.1	-50 %	0.1	-50 %	0.1	-50 %	0.1	-50 %
IO 3	Rönnauer Ring	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.1	0.1	0 %	0.1	0 %	0.1	0 %	0.1	0 %	0.1	0 %
IO 4	Rönnauer Weg/ Ivendorfer Landstr.	0.0	0.0	0.0	0.0	0.0	0.0	0.2	0.2	0.1	-50 %	0.1	-50 %	0.2	0 %	0.1	-50 %	0.1	-50 %
IO 5	Rönnauer Weg/ Ivendorfer Landstr.	0.0	0.0	0.0	0.0	0.0	0.0	0.2	0.2	0.1	-50 %	0.1	-50 %	0.2	0 %	0.1	-50 %	0.1	-50 %
IO 6	Rönnauer Weg/ Ivendorfer Landstr.	0.0	0.0	0.0	0.0	0.0	0.0	0.2	0.2	0.1	-50 %	0.1	-50 %	0.1	-50 %	0.1	-50 %	0.1	-50 %
IO 7	Ostseestraße/ Pommernzentrum	0.0	0.0	0.0	0.0	0.0	0.0	0.2	0.2	0.1	-50 %	0.1	-50 %	0.2	0 %	0.1	-50 %	0.1	-50 %
IO 8	Ostseestraße/ Pommernzentrum	0.0	0.0	0.0	0.0	0.0	0.0	0.2	0.2	0.1	-50 %	0.1	-50 %	0.2	0 %	0.1	-50 %	0.1	-50 %
IO 9	Ostseestraße/ Pommernzentrum	0.0	0.0	0.0	0.0	0.0	0.0	0.2	0.2	0.1	-50 %	0.1	-50 %	0.2	0 %	0.1	-50 %	0.1	-50 %
IO A	Ivendorf/ Ovendorfer Straße	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.1	0.1	0 %	0.1	0 %	0.1	0 %	0.1	0 %	0.1	0 %
IO B	Ivendorf/ Ovendorfer Straße	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.1	0.1	0 %	0.1	0 %	0.1	0 %	0.1	0 %	0.1	0 %
IO C	Ivendorf/ Ivendorfer Landstraße	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.1	0.1	0 %	0.1	0 %	0.1	0 %	0.1	0 %	0.0	-100 %
IO D	Ivendorf/ Ivendorfer Landstraße	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.1	0.1	0 %	0.1	0 %	0.1	0 %	0.0	-100 %	0.0	-100 %
IO E	Ivendorf/ Ivendorfer Landstraße	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.1	0.0	-100 %	0.0	-100 %	0.1	0 %	0.0	-100 %	0.0	-100 %
IO F	Ivendorf/ Ivendorfer Landstraße	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.1	0.0	-100 %	0.0	-100 %	0.1	0 %	0.0	-100 %	0.0	-100 %
IO G	Ivendorf/ Ivendorfer Landstraße	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.1	0.0	-100 %	0.0	-100 %	0.1	0 %	0.0	-100 %	0.0	-100 %
IO H	Ivendorf/ Ivendorfer Landstraße	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.1	0.0	-100 %	0.0	-100 %	0.1	0 %	0.0	-100 %	0.0	-100 %
IO I	Blessenacker/ Travemünder Landstr.	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	—	0.0	—	0.0	—	0.0	—	0.0	—
IO L	Travemünder Landstr.	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	—	0.0	—	0.0	—	0.0	—	0.0	—
IO N	Boldwiesenkoppel	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.1	0.0	-100 %	0.0	-100 %	0.1	0 %	0.0	-100 %	0.0	-100 %
IO P	Scheidekoppel	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.1	0.0	-100 %	0.0	-100 %	0.1	0 %	0.0	-100 %	0.0	-100 %
IO Q	Borndiek	0.0	0.0	0.0	0.0	0.0	0.0	0.2	0.2	0.1	-50 %	0.1	-50 %	0.1	-50 %	0.1	-50 %	0.1	-50 %
IO S	Priwall/ Traveufer	0.0	0.0	0.0	0.0	0.0	0.0	0.4	0.4	0.2	-50 %	0.2	-50 %	0.4	0 %	0.2	-50 %	0.2	-50 %
IO T	Auf dem Baggersand	0.0	0.0	0.0	0.0	0.0	0.0	0.2	0.2	0.1	-50 %	0.1	-50 %	0.2	0 %	0.1	-50 %	0.1	-50 %
IO U	Priwall/ Traveufer	0.0	0.0	0.0	0.0	0.0	0.0	0.6	0.6	0.2	-67 %	0.2	-67 %	0.5	-17 %	0.2	-67 %	0.1	-83 %
IO V	Priwall/ Traveufer	0.0	0.0	0.0	0.0	0.0	0.0	0.6	0.6	0.2	-67 %	0.2	-67 %	0.5	-17 %	0.2	-67 %	0.2	-67 %
IO W	Dummersdorfer Ufer	0.0	0.0	0.0	0.0	0.0	0.0	0.2	0.2	0.1	-50 %	0.1	-50 %	0.2	0 %	0.1	-50 %	0.1	-50 %
IO X	Dummersdorfer Ufer	0.0	0.0	0.0	0.0	0.0	0.0	0.2	0.2	0.1	-50 %	0.1	-50 %	0.2	0 %	0.1	-50 %	0.1	-50 %
IO Y	Dummersdorfer Ufer	0.0	0.0	0.0	0.0	0.0	0.0	0.2	0.2	0.1	-50 %	0.1	-50 %	0.2	0 %	0.1	-50 %	0.1	-50 %
IO Z	Vorderreihe/ Priwallfähre	0.0	0.0	0.0	0.0	0.0	0.0	0.3	0.3	0.2	-33 %	0.2	-33 %	0.2	-33 %	0.2	-33 %	0.2	-33 %
IO T1	Vorderreihe/ Ostpreußenkai	0.0	0.0	0.0	0.0	0.0	0.0	0.3	0.3	0.2	-33 %	0.2	-33 %	0.3	0 %	0.2	-33 %	0.2	-33 %
IO T2	Yachthafen/ Kaiserbrücke	0.0	0.0	0.0	0.0	0.0	0.0	0.3	0.3	0.2	-33 %	0.2	-33 %	0.3	0 %	0.2	-33 %	0.2	-33 %
IO P1	Priwall/ Fähre	0.0	0.0	0.0	0.0	0.0	0.0	0.3	0.3	0.2	-33 %	0.2	-33 %	0.3	0 %	0.2	-33 %	0.2	-33 %
IO P2	Priwall/ Passathafen	0.0	0.0	0.0	0.0	0.0	0.0	0.3	0.3	0.2	-33 %	0.2	-33 %	0.3	0 %	0.2	-33 %	0.2	-33 %
IO P3	Priwall/ Passathafen	0.0	0.0	0.0	0.0	0.0	0.0	0.3	0.3	0.2	-33 %	0.2	-33 %	0.3	0 %	0.2	-33 %	0.2	-33 %
IO P4	Priwall/ Traveufer	0.0	0.0	0.0	0.0	0.0	0.0	0.7	0.7	0.2	-71 %	0.2	-71 %	0.6	-14 %	0.2	-71 %	0.2	-71 %
IO P5	Priwall/ Traveufer	0.0	0.0	0.0	0.0	0.0	0.0	0.4	0.4	0.2	-50 %	0.2	-50 %	0.4	0 %	0.2	-50 %	0.2	-50 %
IO P6	Priwall/ Kläranlage	0.0	0.0	0.0	0.0	0.0	0.0	0.5	0.5	0.3	-40 %	0.3	-40 %	0.5	0 %	0.2	-60 %	0.2	-60 %
IO P7	Priwall/ Weggabelung Teich	0.0	0.0	0.0	0.0	0.0	0.0	0.6	0.6	0.3	-50 %	0.3	-50 %	0.5	-17 %	0.2	-67 %	0.2	-67 %
IO P8	Priwall/ Rosenhof	0.0	0.0	0.0	0.0	0.0	0.0	0.4	0.4	0.3	-25 %	0.2	-50 %	0.4	0 %	0.2	-50 %	0.2	-50 %
IO P9	Priwall/ Rosenhof	0.0	0.0	0.0	0.0	0.0	0.0	0.4	0.4	0.2	-50 %	0.2	-50 %	0.4	0 %	0.2	-50 %	0.2	-50 %
IO P10	Priwall/ Rosenhof	0.0	0.0	0.0	0.0	0.0	0.0	0.4	0.4	0.2	-50 %	0.2	-50 %	0.3	-25 %	0.2	-50 %	0.2	-50 %
IO P11	Priwall/ Fliegerweg	0.0	0.0	0.0	0.0	0.0	0.0	0.4	0.4	0.2	-50 %	0.2	-50 %	0.3	-25 %	0.2	-50 %	0.2	-50 %
IO P12	Priwall/ Pötenitzer Weg	0.0	0.0	0.0	0.0	0.0	0.0	0.3	0.3	0.2	-33 %	0.2	-33 %	0.3	0 %	0.2	-33 %	0.2	-33 %
IO P13	Priwall/ Pötenitzer Weg	0.0	0.0	0.0	0.0	0.0	0.0	0.3	0.3	0.2	-33 %	0.2	-33 %	0.3	0 %	0.2	-33 %	0.2	-33 %
IO P14	Priwall/ Seemannsschule	0.0	0.0	0.0	0.0	0.0	0.0	0.3	0.3	0.2	-33 %	0.2	-33 %	0.2	-33 %	0.1	-67 %	0.1	-67 %
IO P15	Priwall/ Krankenhaus	0.0	0.0	0.0	0.0	0.0	0.0	0.3	0.3	0.2	-33 %	0.2	-33 %	0.3	0 %	0.2	-33 %	0.2	-33 %
IO P16	Priwall/ Krankenhaus	0.0	0.0	0.0	0.0	0.0	0.0	0.3	0.3	0.2	-33 %	0.2	-33 %	0.3	0 %	0.2	-33 %	0.2	-33 %
IO P17	Priwall/ Haus des Kurgastes	0.0	0.0	0.0	0.0	0.0	0.0	0.2	0.2	0.2	0 %	0.2	0 %	0.2	0 %	0.1	-50 %	0.1	-50 %
IO T3	Marina Baltica	0.0	0.0	0.0	0.0	0.0	0.0	0.2	0.2	0.1	-50 %	0.1	-50 %	0.2	0 %	0.1	-50 %	0.1	-50 %
IO T4	Fischereihafen	0.0	0.0	0.0	0.0	0.0	0.0	0.2	0.2	0.1	-50 %	0.1	-50 %	0.2	0 %	0.1	-50 %	0.1	-50 %
IO T5	Torstraße	0.0	0.0	0.0	0.0	0.0	0.0	0.2	0.2	0.1	-50 %	0.1	-50 %	0.2	0 %	0.1	-50 %	0.1	-50 %
IO T6	Kirchenstraße	0.0	0.0	0.0	0.1	0.0	0.1	0.2	0.3	0.3	0 %	0.3	0 %	0.3	0 %	0.2	-33 %	0.2	-33 %
IO T7	Kurgartenstraße	0.0	0.0	0.0	0.0	0.0	0.0	0.2	0.2	0.2	0 %	0.2	0 %	0.2	0 %	0.2	0 %	0.2	0 %
IO T8	Vorderreihe/ Prinzenbrücke	0.0	0.0	0.0	0.0	0.0	0.0	0.3	0.3	0.2	-33 %	0.2	-33 %	0.3	0 %	0.2	-33 %	0.2	-33 %
IO T9	Am Lotsenberg	0.0	0.0	0.0	0.0	0.0	0.0	0.2	0.2	0.2	0 %	0.2	0 %	0.2	0 %	0.2	0 %	0.2	0 %
IO T10	Rose	0.0	0.0	0.0	0.0	0.0	0.0	0.2	0.2	0.2	0 %	0.2	0 %	0.2	0 %	0.1	-50 %	0.1	-50 %
IO T11	Rose	0.0	0.0	0.0	0.0	0.0	0.0	0.2	0.2	0.1	-50 %	0.1	-50 %	0.2	0 %	0.1	-50 %	0.1	-50 %
IO T12	Rose	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.1	0.1	0 %	0.1	0 %	0.1	0 %	0.1	0 %	0.1	0 %
IO T13	Boelckestraße	0.0	0.0	0.0	0.0	0.0	0.0	0.2	0.2	0.1	-50 %	0.1	-50 %	0.2	0 %	0.1	-50 %	0.1	-50 %
IO T14	Fehlingstraße	0.0	0.0	0.0	0.0	0.0	0.0	0.2	0.2	0.1	-50 %	0.1	-50 %	0.2	0 %	0.1	-50 %	0.1	-50 %
IO T15	Fehlingstraße	0.0	0.0	0.0	0.0	0.0	0.0	0.2	0.2	0.1	-50 %	0.1	-50 %	0.2	0 %	0.1	-50 %	0.1	-50 %
IO T16	Mühlenberg/ Ziegenhorst	0.0	0.0	0.0	0.0	0.0	0.0	0.2	0.2	0.1	-50 %	0.1	-50 %	0.2	0 %	0.1	-50 %	0.1	-50 %
IO T17	Gneversdorfer Weg	0.0	0.2	0.0	0.0	0.0	0.2	0.1	0.3	0.3	0 %	0.3	0 %	0.3	0 %	0.3	0 %	0.3	0 %
IO T18	Gneversdorfer Weg	0.0	0.1	0.0	0.0	0.0	0.1	0.1	0.2	0.2	0 %	0.2	0 %	0.2	0 %	0.2	0 %	0.2	0 %
IO T19	Gneversdorfer Weg	0.0	0.1	0.0	0.0	0.0	0.1	0.1	0.2	0.2	0 %	0.2	0 %	0.2	0 %	0.2	0 %	0.2	0 %
IO T20	Gneversdorfer Weg/ Moorredder	0.0	0.1	0.0	0.0	0.0	0.1	0.1	0.2	0.2	0 %	0.2	0 %	0.2	0 %	0.2	0 %	0.2	0 %
IO T21	Moorredder	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.1	0.1	0 %	0.1	0 %	0.1	0 %	0.1	0 %	0.1	0 %
IO T22	Moorredder	0.0	0.0	0.0	0.1	0.0	0.1	0.1	0.2	0.2	0 %	0.2	0 %	0.2	0 %	0.2	0 %	0.2	0 %
IO T23	Am Fahrenberg	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.1	0.1	0 %	0.1	0 %	0.1	0 %	0.1	0 %	0.1	0 %
IO T24	Parkallee/ Kurhaus	0.0	0.0	0.0	0.0	0.0	0.0	0.2	0.2	0.2	0 %	0.2	0 %	0.2	0 %	0.2	0 %	0.2	0 %
IO T25	Kurpark	0.0	0.0	0.0	0.0	0.0	0.0	0.2	0.2	0.1	-50 %	0.1	-50 %	0.2	0 %	0.1	-50 %	0.1	-50 %
IO T26	Steenkamp	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.1	0.1	0 %	0.1	0 %	0.1	0 %	0.1	0 %	0.1	0 %
IO T27	Steenkamp	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.1	0.1	0 %	0.1	0 %	0.1	0 %	0.1	0 %	0.1	0 %
IO T28	Steenkamp	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.1	0.1	0 %	0.1	0 %	0.1	0 %	0.1	0 %	0.1	0 %
IO T29	Steenkamp/ Kleingärten	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.1	0.1	0 %	0.1	0 %	0.1	0 %	0.1	0 %	0.1	0 %
IO T30	Schwedenstraße	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.1	0.1	0 %	0.1	0 %	0.1	0 %	0.1	0 %	0.1	0 %
IO T31	Grönlandstraße	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.1	0.1	0 %	0.1	0 %	0.1	0 %	0.0	-100 %	0.0	-100 %
IO T32	Kaiserallee	0.0	0.0	0.0	0.0	0.0	0.0	0.2	0.2	0.1	-50 %	0.1	-50 %	0.1	-50 %	0.1	-50 %	0.1	-50 %
IO T33	Kaiserallee	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.1	0.1	0 %	0.1	0 %	0.1	0 %	0.1	0 %	0.1	0 %
IO T34	Kaiserallee	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.1	0.1	0 %	0.1	0 %	0.1	0 %	0.1	0 %	0.1	0 %
IO T35	Steuerbord	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.1	0.1	0 %	0.1	0 %	0.1	0 %	0.1	0 %	0.1	0 %
IO T36	Achterdeck	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.1	0.1	0 %	0.1	0 %	0.1	0 %	0.1	0 %	0.1	0 %
IO T37	Strandweg	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.1	0.1	0 %	0.1	0 %	0.1	0 %	0.1	0 %	0.1	0 %
IO T38	Alfred-Hagelstein-Straße	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.1	0.1	0 %	0.1	0 %	0.1	0 %	0.1	0 %	0.1	0 %
IO T39	Scheteligstraße	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.1	0.1	0 %	0.1	0 %	0.1	0 %	0.1	0 %	0.1	0 %
IO T40	Gneversdorfer Kamp	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.1	0.0	-100 %	0.0	-100 %	0.1	0 %	0.0	-100 %	0.0	-100 %
IO T41	Teutendorfer Weg	0.0	0.0	0.1	0.0	0.0	0.1	0.1	0.2	0.2	0 %	0.2	0 %	0.2	0 %	0.2	0 %	0.2	0 %
IO T42	Am Krautacker	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.1	0.1	0 %	0.1	0 %	0.1	0 %	0.1	0 %	0.1	0 %
IO T43	Hollbeck	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.1	0.0	-100 %	0.0	-100 %	0.1	0 %	0.0	-100 %	0.0	-100 %
IO T44	Teutendorf	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.1	0.0	-100 %	0.0	-100 %	0.1	0 %	0.0	-100 %	0.0	-100 %
IO MP1	Messort Skandinavienkai (2000)	0.0	0.0	0.0	0.0	0.0	0.0	0.2	0.2	0.1	-50 %	0.1	-50 %	0.2	0 %	0.1	-50 %	0.1	-50 %
IO MP2	Messort Priwallfähre (2000)	0.0	0.0	0.0	0.0	0.0	0.0	0.3	0.3	0.2	-33 %	0.2	-33 %	0.2	-33 %	0.2	-33 %	0.2	-33 %
IO MP3	Messort Kurpark (2000)	0.0	0.0	0.0	0.0	0.0	0.0	0.2	0.2	0.2	0 %	0.2	0 %	0.2	0 %	0.1	-50 %	0.1	-50 %

A 7 Total Pollutions

A 7.1 Total Pollutions, Actual Scenario

A 7.1.1 Total NOx Pollution (Annual Average Value J00)

Immission point (monitor point)		Total NOx pollution (annual average value J00) [µg/m³]									
		Background pollution	Add. pollution road traffic	Add. pollution shipping	Sum Actual Scenario	Reduction concept 1a	Comparison with Actual Scenario	Reduction concept 1b	Comparison with Actual Scenario	Reduction concept 2	Comparison with Actual Scenario
IO 1	Teutendorfer Weg/ An der Bak	27.1	9.4	5.5	**42.0**	38.5	-8 %	38.4	-9 %	42.0	0 %
IO 2	St. Jürgen-Straße	27.1	3.0	5.4	**35.5**	31.9	-10 %	31.8	-10 %	35.5	0 %
IO 3	Rönnauer Ring	27.1	2.8	5.2	**35.1**	31.6	-10 %	31.6	-10 %	35.1	0 %
IO 4	Rönnauer Weg/ Ivendorfer Landstr.	27.1	4.6	6.0	**37.7**	33.5	-11 %	33.3	-12 %	37.7	0 %
IO 5	Rönnauer Weg/ Ivendorfer Landstr.	27.1	6.5	6.3	**39.9**	35.5	-11 %	35.5	-11 %	39.9	0 %
IO 6	Rönnauer Weg/ Ivendorfer Landstr.	27.1	2.4	5.9	**35.4**	31.3	-12 %	31.2	-12 %	35.4	0 %
IO 7	Ostseestraße/ Pommernzentrum	27.1	3.3	7.4	**37.8**	32.3	-15 %	32.3	-15 %	37.8	0 %
IO 8	Ostseestraße/ Pommernzentrum	27.1	5.1	7.9	**40.1**	34.2	-15 %	34.2	-15 %	40.1	0 %
IO 9	Ostseestraße/ Pommernzentrum	27.1	2.2	6.7	**36.0**	31.1	-14 %	31.1	-14 %	36.0	0 %
IO A	Ivendorf/ Ovendorfer Straße	27.1	13.1	4.2	**44.4**	41.3	-7 %	41.2	-7 %	44.4	0 %
IO B	Ivendorf/ Ovendorfer Straße	27.1	6.7	4.2	**38.0**	34.8	-8 %	34.8	-8 %	38.0	0 %
IO C	Ivendorf/ Ivendorfer Landstraße	27.1	3.8	4.1	**35.0**	32.0	-9 %	32.0	-9 %	35.0	0 %
IO D	Ivendorf/ Ivendorfer Landstraße	27.1	4.1	3.7	**34.9**	32.1	-8 %	32.1	-8 %	34.9	0 %
IO E	Ivendorf/ Ivendorfer Landstraße	27.1	5.3	3.0	**35.4**	33.2	-6 %	33.2	-6 %	35.4	0 %
IO F	Ivendorf/ Ivendorfer Landstraße	27.1	5.3	2.7	**35.1**	33.1	-6 %	33.1	-6 %	35.1	0 %
IO G	Ivendorf/ Ivendorfer Landstraße	27.1	11.0	2.2	**40.3**	38.7	-4 %	38.7	-4 %	40.3	0 %
IO H	Ivendorf/ Ivendorfer Landstraße	27.1	11.4	1.9	**40.4**	39.1	-3 %	39.0	-3 %	40.4	0 %
IO I	Blessenacker/ Travemünder Landstr.	27.1	2.7	1.3	**31.1**	30.2	-3 %	30.2	-3 %	31.1	0 %
IO L	Travemünder Landstr.	27.1	6.2	1.6	**34.9**	33.8	-3 %	33.7	-3 %	34.9	0 %
IO N	Boldwiesenkoppel	27.1	2.3	1.9	**31.3**	29.9	-4 %	29.9	-4 %	31.3	0 %
IO P	Scheidekoppel	27.1	0.5	2.3	**29.9**	28.2	-6 %	28.2	-6 %	29.9	0 %
IO Q	Borndiek	27.1	5.1	5.0	**37.2**	33.4	-10 %	33.4	-10 %	37.2	0 %
IO S	Priwall/ Traveufer	27.1	1.1	14.9	**43.1**	32.7	-24 %	32.6	-24 %	43.1	0 %
IO T	Auf dem Baggersand	27.1	5.6	7.0	**39.7**	35.2	-11 %	35.1	-12 %	39.7	0 %
IO U	Priwall/ Traveufer	27.1	0.9	17.1	**45.1**	30.9	-31 %	30.8	-32 %	45.1	0 %
IO V	Priwall/ Traveufer	27.1	1.8	19.8	**48.7**	32.9	-32 %	32.7	-33 %	48.7	0 %
IO W	Dummersdorfer Ufer	27.1	0.9	6.0	**34.0**	29.5	-13 %	29.5	-13 %	34.0	0 %
IO X	Dummersdorfer Ufer	27.1	1.0	6.2	**34.3**	29.6	-14 %	29.5	-14 %	34.3	0 %
IO Y	Dummersdorfer Ufer	27.1	0.8	5.9	**33.8**	29.3	-13 %	29.3	-13 %	33.8	0 %
IO Z	Vorderreihe/ Priwallfähre	27.1	3.4	8.0	**38.5**	33.7	-12 %	33.6	-13 %	38.5	0 %
IO T1	Vorderreihe/ Ostpreußenkai	27.1	2.6	8.6	**38.3**	33.1	-14 %	33.1	-14 %	38.3	0 %
IO T2	Yachthafen/ Kaiserbrücke	27.1	3.0	7.6	**37.7**	33.8	-10 %	33.7	-11 %	37.7	0 %
IO P1	Priwall/ Fähre	27.1	1.5	10.4	**39.0**	32.8	-16 %	32.7	-16 %	39.0	0 %
IO P2	Priwall/ Passathafen	27.1	0.9	9.1	**37.1**	32.1	-13 %	32.2	-13 %	37.1	0 %
IO P3	Priwall/ Passathafen	27.1	0.8	8.3	**36.2**	32.0	-12 %	32.1	-11 %	36.2	0 %
IO P4	Priwall/ Traveufer	27.1	1.3	18.5	**46.9**	31.8	-32 %	31.6	-33 %	46.9	0 %
IO P5	Priwall/ Traveufer	27.1	1.5	17.4	**46.0**	33.0	-28 %	32.8	-29 %	46.0	0 %
IO P6	Priwall/ Kläranlage	27.1	1.4	19.4	**47.9**	33.3	-30 %	33.1	-31 %	47.9	0 %
IO P7	Priwall/ Weggabelung Teich	27.1	0.8	20.0	**47.9**	32.7	-32 %	32.6	-32 %	47.9	0 %
IO P8	Priwall/ Rosenhof	27.1	1.1	14.1	**42.3**	32.6	-23 %	32.5	-23 %	42.3	0 %
IO P9	Priwall/ Rosenhof	27.1	0.9	12.8	**40.8**	32.2	-21 %	32.1	-21 %	40.8	0 %
IO P10	Priwall/ Rosenhof	27.1	5.2	11.1	**43.4**	36.6	-16 %	36.5	-16 %	43.4	0 %
IO P11	Priwall/ Fliegerweg	27.1	0.9	11.0	**39.0**	31.8	-18 %	31.7	-19 %	39.0	0 %
IO P12	Priwall/ Pötenitzer Weg	27.1	0.7	9.8	**37.6**	31.1	-17 %	31.1	-17 %	37.6	0 %
IO P13	Priwall/ Pötenitzer Weg	27.1	0.5	10.6	**38.2**	30.7	-20 %	30.7	-20 %	38.2	0 %
IO P14	Priwall/ Seemannsschule	27.1	0.4	8.4	**35.9**	30.2	-16 %	30.2	-16 %	35.9	0 %
IO P15	Priwall/ Krankenhaus	27.1	1.3	9.1	**37.5**	31.9	-15 %	31.8	-15 %	37.5	0 %
IO P16	Priwall/ Krankenhaus	27.1	2.8	8.0	**37.9**	33.0	-13 %	32.9	-13 %	37.9	0 %
IO P17	Priwall/ Haus des Kurgastes	27.1	0.7	6.6	**34.4**	30.6	-11 %	30.6	-11 %	34.4	0 %
IO T3	Marina Baltica	27.1	3.6	8.1	**38.8**	32.9	-15 %	32.9	-15 %	38.8	0 %
IO T4	Fischereihafen	27.1	2.9	6.9	**36.9**	32.3	-12 %	32.2	-13 %	36.9	0 %
IO T5	Torstraße	27.1	5.3	6.9	**39.3**	35.0	-11 %	34.9	-11 %	39.3	0 %
IO T6	Kirchenstraße	27.1	8.8	7.2	**43.1**	38.7	-10 %	38.6	-10 %	43.1	0 %
IO T7	Kurgartenstraße	27.1	7.0	7.9	**42.0**	37.4	-11 %	37.3	-11 %	42.0	0 %
IO T8	Vorderreihe/ Prinzenbrücke	27.1	3.0	7.9	**38.0**	33.6	-12 %	33.5	-12 %	38.0	0 %
IO T9	Am Lotsenberg	27.1	6.7	7.1	**40.9**	37.0	-10 %	36.9	-10 %	40.9	0 %
IO T10	Rose	27.1	4.0	6.6	**37.7**	34.0	-10 %	33.9	-10 %	37.7	0 %
IO T11	Rose	27.1	3.1	5.8	**36.0**	32.7	-9 %	32.7	-9 %	36.0	0 %
IO T12	Rose	27.1	3.0	4.7	**34.8**	32.0	-8 %	32.0	-8 %	34.8	0 %
IO T13	Boelckestraße	27.1	2.4	5.9	**35.4**	32.0	-10 %	32.0	-10 %	35.4	0 %
IO T14	Fehlingstraße	27.1	3.6	6.0	**36.7**	33.4	-9 %	33.3	-9 %	36.7	0 %
IO T15	Fehlingstraße	27.1	2.8	4.8	**34.7**	32.1	-7 %	32.2	-7 %	34.7	0 %
IO T16	Mühlenberg/ Ziegenhorst	27.1	3.1	5.1	**35.3**	32.5	-8 %	32.6	-8 %	35.3	0 %
IO T17	Gneversdorfer Weg	27.1	20.4	5.0	**52.5**	49.5	-6 %	49.4	-6 %	52.5	0 %
IO T18	Gneversdorfer Weg	27.1	8.4	4.3	**39.8**	37.2	-7 %	37.2	-7 %	39.8	0 %
IO T19	Gneversdorfer Weg	27.1	7.0	3.1	**37.2**	35.3	-5 %	35.3	-5 %	37.2	0 %
IO T20	Gneversdorfer Weg/ Moorredder	27.1	12.2	4.1	**43.4**	40.9	-6 %	40.8	-6 %	43.4	0 %
IO T21	Moorredder	27.1	8.2	4.1	**39.4**	36.9	-6 %	36.9	-6 %	39.4	0 %
IO T22	Moorredder	27.1	13.8	4.0	**44.9**	42.6	-5 %	42.6	-5 %	44.9	0 %
IO T23	Am Fahrenberg	27.1	5.3	3.8	**36.2**	34.2	-6 %	34.2	-6 %	36.2	0 %
IO T24	Parkallee/ Kurhaus	27.1	1.8	6.2	**35.1**	32.0	-9 %	32.0	-9 %	35.1	0 %
IO T25	Kurpark	27.1	1.6	5.7	**34.4**	31.4	-9 %	31.4	-9 %	34.4	0 %
IO T26	Steenkamp	27.1	3.2	4.0	**34.3**	32.1	-6 %	32.1	-6 %	34.3	0 %
IO T27	Steenkamp	27.1	5.1	3.5	**35.7**	33.8	-5 %	33.8	-5 %	35.7	0 %
IO T28	Steenkamp	27.1	2.8	3.1	**33.0**	31.3	-5 %	31.2	-5 %	33.0	0 %
IO T29	Steenkamp/ Kleingärten	27.1	1.3	2.8	**31.2**	29.6	-5 %	29.6	-5 %	31.2	0 %
IO T30	Schwedenstraße	27.1	1.7	3.3	**32.1**	30.2	-6 %	30.2	-6 %	32.1	0 %
IO T31	Grönlandstraße	27.1	2.1	2.6	**31.8**	30.3	-5 %	30.3	-5 %	31.8	0 %
IO T32	Kaiserallee	27.1	2.8	4.7	**34.6**	32.2	-7 %	32.2	-7 %	34.6	0 %
IO T33	Kaiserallee	27.1	2.2	3.8	**33.1**	31.1	-6 %	31.1	-6 %	33.1	0 %
IO T34	Kaiserallee	27.1	1.9	3.1	**32.1**	30.4	-5 %	30.4	-5 %	32.1	0 %
IO T35	Steuerbord	27.1	2.8	3.5	**33.4**	31.5	-6 %	31.5	-6 %	33.4	0 %
IO T36	Achterdeck	27.1	1.6	3.5	**32.2**	30.4	-6 %	30.4	-6 %	32.2	0 %
IO T37	Strandweg	27.1	2.0	3.1	**32.2**	30.6	-5 %	30.6	-5 %	32.2	0 %
IO T38	Alfred-Hagelstein-Straße	27.1	2.2	2.4	**31.7**	30.5	-4 %	30.4	-4 %	31.7	0 %
IO T39	Scheteligstraße	27.1	1.0	2.7	**30.8**	29.4	-5 %	29.4	-5 %	30.8	0 %
IO T40	Gneversdorfer Kamp	27.1	3.4	2.4	**32.9**	31.5	-4 %	31.5	-4 %	32.9	0 %
IO T41	Teutendorfer Weg	27.1	8.3	3.2	**38.6**	36.6	-5 %	36.5	-5 %	38.6	0 %
IO T42	Am Krautacker	27.1	1.4	3.8	**32.3**	29.8	-8 %	29.7	-8 %	32.3	0 %
IO T43	Hollbeck	27.1	3.2	2.6	**32.9**	31.2	-5 %	31.2	-5 %	32.9	0 %
IO T44	Teutendorf	27.1	2.0	2.0	**31.1**	29.8	-4 %	29.8	-4 %	31.1	0 %
IO MP1	Meas. point Skandinavienkai (2000)	27.1	1.4	7.2	**35.7**	30.3	-15 %	30.3	-15 %	35.7	0 %
IO MP2	Measuring point Priwall ferry (2000)	27.1	2.1	8.9	**38.1**	32.3	-15 %	32.2	-15 %	38.1	0 %
IO MP3	Meauring point Kurpark (2000)	27.1	2.1	6.3	**35.5**	32.1	-10 %	32.1	-10 %	35.5	0 %

A 7.1.2 Total NOx Pollution (98 Percentile)

Immission point (monitor point)		Total NOx pollution (98 percentile) [µg/m³]									
		Background pollution	Add. pollution road traffic	Add. pollution shipping	Sum Actual Scenario	Reduction concept 1a	Comparison with Actual Scenario	Reduction concept 1b	Comparison with Actual Scenario	Reduction concept 2	Comparison with Actual Scenario
IO 1	Teutendorfer Weg/ An der Bak	89.8	46.3	80.5	**150.2**	118.3	-21 %	118.3	-21 %	150.2	0 %
IO 2	St. Jürgen-Straße	89.8	19.1	68.4	**139.4**	101.5	-27 %	101.5	-27 %	139.4	0 %
IO 3	Rönnauer Ring	89.8	19.8	73.6	**134.4**	100.7	-25 %	100.7	-25 %	134.4	0 %
IO 4	Rönnauer Weg/ Ivendorfer Landstr.	89.8	33.8	90.1	**159.3**	112.2	-30 %	112.2	-30 %	159.3	0 %
IO 5	Rönnauer Weg/ Ivendorfer Landstr.	89.8	47.0	99.0	**175.6**	120.6	-31 %	120.6	-31 %	175.6	0 %
IO 6	Rönnauer Weg/ Ivendorfer Landstr.	89.8	16.6	85.9	**142.0**	101.0	-29 %	101.0	-29 %	142.0	0 %
IO 7	Ostseestraße/ Pommernzentrum	89.8	22.0	109.0	**161.5**	103.5	-36 %	103.5	-36 %	161.5	0 %
IO 8	Ostseestraße/ Pommernzentrum	89.8	32.4	115.0	**172.5**	108.7	-37 %	108.7	-37 %	172.5	0 %
IO 9	Ostseestraße/ Pommernzentrum	89.8	14.4	101.9	**150.1**	98.3	-35 %	98.3	-35 %	150.1	0 %
IO A	Ivendorf/ Ovendorfer Straße	89.8	75.1	62.4	**150.0**	131.0	-13 %	131.0	-13 %	150.0	0 %
IO B	Ivendorf/ Ovendorfer Straße	89.8	40.3	62.8	**129.8**	106.6	-18 %	106.6	-18 %	129.8	0 %
IO C	Ivendorf/ Ivendorfer Landstraße	89.8	21.5	63.9	**121.3**	98.4	-19 %	98.4	-19 %	121.3	0 %
IO D	Ivendorf/ Ivendorfer Landstraße	89.8	23.9	54.0	**119.0**	98.5	-17 %	98.5	-17 %	119.0	0 %
IO E	Ivendorf/ Ivendorfer Landstraße	89.8	29.6	46.9	**117.3**	101.5	-13 %	101.5	-13 %	117.3	0 %
IO F	Ivendorf/ Ivendorfer Landstraße	89.8	28.2	41.8	**111.2**	101.1	-9 %	101.1	-9 %	111.2	0 %
IO G	Ivendorf/ Ivendorfer Landstraße	89.8	59.1	34.8	**123.9**	119.9	-3 %	119.9	-3 %	123.9	0 %
IO H	Ivendorf/ Ivendorfer Landstraße	89.8	55.5	30.9	**121.8**	117.3	-4 %	117.3	-4 %	121.8	0 %
IO I	Blessenacker/ Travemünder Landstr.	89.8	17.4	19.8	**101.4**	97.1	-4 %	97.1	-4 %	101.4	0 %
IO L	Travemünder Landstr.	89.8	34.5	25.3	**112.6**	104.2	-7 %	104.2	-7 %	112.6	0 %
IO N	Boldwiesenkoppel	89.8	15.3	29.7	**105.3**	97.3	-8 %	97.3	-8 %	105.3	0 %
IO P	Scheidekoppel	89.8	4.3	36.1	**101.3**	91.3	-10 %	91.3	-10 %	101.3	0 %
IO Q	Borndiek	89.8	26.8	75.5	**131.6**	102.5	-22 %	102.5	-22 %	131.6	0 %
IO S	Priwall/ Traveufer	89.8	8.4	137.4	**179.3**	99.4	-45 %	99.4	-45 %	179.3	0 %
IO T	Auf dem Baggersand	89.8	25.5	107.5	**154.4**	105.7	-32 %	105.7	-32 %	154.4	0 %
IO U	Priwall/ Traveufer	89.8	6.6	141.9	**176.5**	95.4	-46 %	95.4	-46 %	176.5	0 %
IO V	Priwall/ Traveufer	89.8	11.4	142.8	**177.8**	99.1	-44 %	99.1	-44 %	177.8	0 %
IO W	Dummersdorfer Ufer	89.8	7.1	88.1	**139.5**	94.7	-32 %	94.7	-32 %	139.5	0 %
IO X	Dummersdorfer Ufer	89.8	8.0	98.8	**139.2**	93.4	-33 %	93.4	-33 %	139.2	0 %
IO Y	Dummersdorfer Ufer	89.8	6.2	93.2	**141.6**	94.2	-33 %	94.2	-33 %	141.6	0 %
IO Z	Vorderreihe/ Priwallfähre	89.8	14.8	96.2	**144.2**	103.8	-28 %	103.8	-28 %	144.2	0 %
IO T1	Vorderreihe/ Ostpreußenkai	89.8	12.2	94.1	**137.6**	104.4	-24 %	104.4	-24 %	137.6	0 %
IO T2	Yachthafen/ Kaiserbrücke	89.8	14.7	81.2	**128.8**	107.4	-17 %	107.4	-17 %	128.8	0 %
IO P1	Priwall/ Fähre	89.8	8.7	96.9	**141.6**	99.4	-30 %	99.4	-30 %	141.6	0 %
IO P2	Priwall/ Passathafen	89.8	5.4	72.8	**123.8**	97.9	-21 %	97.9	-21 %	123.8	0 %
IO P3	Priwall/ Passathafen	89.8	4.9	68.3	**122.7**	98.4	-20 %	98.4	-20 %	122.7	0 %
IO P4	Priwall/ Traveufer	89.8	8.6	144.9	**182.0**	97.0	-47 %	97.0	-47 %	182.0	0 %
IO P5	Priwall/ Traveufer	89.8	9.6	155.7	**196.3**	98.4	-50 %	98.4	-50 %	196.3	0 %
IO P6	Priwall/ Kläranlage	89.8	9.3	161.6	**198.6**	100.0	-50 %	100.0	-50 %	198.6	0 %
IO P7	Priwall/ Weggabelung Teich	89.8	6.7	147.2	**185.8**	98.7	-47 %	98.7	-47 %	185.8	0 %
IO P8	Priwall/ Rosenhof	89.8	7.4	129.3	**166.9**	98.6	-41 %	98.6	-41 %	166.9	0 %
IO P9	Priwall/ Rosenhof	89.8	6.0	103.9	**145.8**	98.6	-32 %	98.6	-32 %	145.8	0 %
IO P10	Priwall/ Rosenhof	89.8	22.8	102.8	**150.5**	104.2	-31 %	104.2	-31 %	150.5	0 %
IO P11	Priwall/ Fliegerweg	89.8	5.2	92.7	**136.3**	97.0	-29 %	97.0	-29 %	136.3	0 %
IO P12	Priwall/ Pötenitzer Weg	89.8	4.0	82.6	**126.8**	95.1	-25 %	95.1	-25 %	126.8	0 %
IO P13	Priwall/ Pötenitzer Weg	89.8	3.7	87.1	**131.8**	95.1	-28 %	95.1	-28 %	131.8	0 %
lO P14	Priwall/ Seemannsschule	89.8	3.4	71.1	**121.6**	93.4	-23 %	93.4	-23 %	121.6	0 %
lO P15	Priwall/ Krankenhaus	89.8	6.3	78.0	**124.6**	96.3	-23 %	96.3	-23 %	124.6	0 %
IO P16	Priwall/ Krankenhaus	89.8	12.7	66.2	**121.6**	97.2	-20 %	97.2	-20 %	121.6	0 %
IO P17	Priwall/ Haus des Kurgastes	89.8	3.5	54.9	**110.1**	95.4	-13 %	95.4	-13 %	110.1	0 %
IO T3	Marina Baltica	89.8	19.1	124.2	**168.6**	101.6	-40 %	101.6	-40 %	168.6	0 %
IO T4	Fischereihafen	89.8	15.6	108.3	**154.8**	101.1	-35 %	101.1	-35 %	154.8	0 %
IO T5	Torstraße	89.8	24.0	97.6	**150.5**	105.7	-30 %	105.7	-30 %	150.5	0 %
IO T6	Kirchenstraße	89.8	37.3	93.2	**148.9**	114.4	-23 %	114.4	-23 %	148.9	0 %
IO T7	Kurgartenstraße	89.8	27.9	92.8	**145.3**	107.9	-26 %	107.9	-26 %	145.3	0 %
IO T8	Vorderreihe/ Prinzenbrücke	89.8	13.1	89.5	**137.3**	104.0	-24 %	104.0	-24 %	137.3	0 %
IO T9	Am Lotsenberg	89.8	29.0	81.0	**135.4**	109.4	-19 %	109.4	-19 %	135.4	0 %
lO T10	Rose	89.8	19.4	77.7	**134.3**	101.6	-24 %	101.6	-24 %	134.3	0 %
IO T11	Rose	89.8	14.9	71.6	**126.8**	100.7	-21 %	100.7	-21 %	126.8	0 %
IO T12	Rose	89.8	14.1	60.5	**122.9**	99.1	-19 %	99.1	-19 %	122.9	0 %
IO T13	Boelckestraße	89.8	12.0	74.3	**132.8**	101.1	-24 %	101.1	-24 %	132.8	0 %
IO T14	Fehlingstraße	89.8	17.7	73.3	**128.8**	101.5	-21 %	101.5	-21 %	128.8	0 %
lO T15	Fehlingstraße	89.8	13.4	59.8	**118.4**	98.9	-16 %	98.9	-16 %	118.4	0 %
IO T16	Mühlenberg/ Ziegenhorst	89.8	15.1	65.0	**123.6**	100.9	-18 %	100.9	-18 %	123.6	0 %
IO T17	Gneversdorfer Weg	89.8	93.8	75.9	**188.6**	150.6	-20 %	150.6	-20 %	188.6	0 %
IO T18	Gneversdorfer Weg	89.8	59.5	60.3	**149.1**	124.8	-16 %	124.8	-16 %	149.1	0 %
IO T19	Gneversdorfer Weg	89.8	36.4	45.9	**123.6**	105.3	-15 %	105.3	-15 %	123.6	0 %
lO T20	Gneversdorfer Weg/ Moorredder	89.8	55.4	59.6	**143.8**	117.7	-18 %	117.7	-18 %	143.8	0 %
IO T21	Moorredder	89.8	39.6	57.8	**133.6**	108.8	-19 %	108.8	-19 %	133.6	0 %
IO T22	Moorredder	89.8	57.9	54.7	**134.9**	120.2	-11 %	120.2	-11 %	134.9	0 %
IO T23	Am Fahrenberg	89.8	24.5	48.9	**116.9**	102.8	-12 %	102.8	-12 %	116.9	0 %
IO T24	Parkallee/ Kurhaus	89.8	9.9	69.4	**122.2**	100.0	-18 %	100.0	-18 %	122.2	0 %
lO T25	Kurpark	89.8	8.8	65.8	**121.2**	100.6	-17 %	100.6	-17 %	121.2	0 %
IO T26	Steenkamp	89.8	14.2	49.6	**114.0**	98.2	-14 %	98.2	-14 %	114.0	0 %
IO T27	Steenkamp	89.8	24.6	45.8	**116.0**	100.9	-13 %	100.9	-13 %	116.0	0 %
IO T28	Steenkamp	89.8	14.5	43.1	**109.9**	97.1	-12 %	97.1	-12 %	109.9	0 %
IO T29	Steenkamp/ Kleingärten	89.8	7.7	40.0	**105.9**	94.1	-11 %	94.1	-11 %	105.9	0 %
lO T30	Schwedenstraße	89.8	10.6	46.2	**112.8**	96.6	-14 %	96.6	-14 %	112.8	0 %
IO T31	Grönlandstraße	89.8	11.6	39.7	**108.9**	95.2	-13 %	95.2	-13 %	108.9	0 %
IO T32	Kaiserallee	89.8	13.3	57.3	**115.4**	99.5	-14 %	99.5	-14 %	115.4	0 %
IO T33	Kaiserallee	89.8	10.4	47.4	**109.8**	96.1	-12 %	96.1	-12 %	109.8	0 %
IO T34	Kaiserallee	89.8	10.2	43.4	**107.1**	96.0	-10 %	96.0	-10 %	107.1	0 %
lO T35	Steuerbord	89.8	12.9	47.3	**109.2**	95.5	-13 %	95.5	-13 %	109.2	0 %
IO T36	Achterdeck	89.8	10.3	46.3	**109.7**	97.4	-11 %	97.4	-11 %	109.7	0 %
IO T37	Strandweg	89.8	10.1	43.4	**106.8**	96.0	-10 %	96.0	-10 %	106.8	0 %
IO T38	Alfred-Hagelstein-Straße	89.8	10.5	34.7	**103.5**	94.5	-9 %	94.5	-9 %	103.5	0 %
IO T39	Scheteligstraße	89.8	6.8	37.8	**105.2**	94.7	-10 %	94.7	-10 %	105.2	0 %
IO T40	Gneversdorfer Kamp	89.8	21.5	34.4	**112.9**	99.3	-12 %	99.3	-12 %	112.9	0 %
lO T41	Teutendorfer Weg	89.8	35.2	43.8	**125.0**	105.8	-15 %	105.8	-15 %	125.0	0 %
IO T42	Am Krautacker	89.8	9.0	58.3	**119.1**	96.6	-19 %	96.6	-19 %	119.1	0 %
IO T43	Hollbeck	89.8	17.6	41.3	**113.8**	96.7	-15 %	96.7	-15 %	113.8	0 %
IO T44	Teutendorf	89.8	17.1	28.8	**108.0**	97.6	-10 %	97.6	-10 %	108.0	0 %
IO MP1	Meas. point Skandinavienkai (2000)	89.8	9.0	103.2	**143.0**	95.1	-33 %	95.1	-33 %	143.0	0 %
IO MP2	Measuring point Priwall ferry (2000)	89.8	12.4	103.6	**148.5**	102.8	-31 %	102.8	-31 %	148.5	0 %
IO MP3	Meauring point Kurpark (2000)	89.8	11.8	72.5	**125.2**	101.0	-19 %	101.0	-19 %	125.2	0 %

A 7.1.3 Total NO_2 Pollution (Annual Average Value J00)

Immission point (monitor point)		Total NO_2 pollution (annual average value J00) [µg/m³]									
		Background pollution	Add. pollution road traffic	Add. pollution shipping	Sum Actual Scenario	Reduction concept 1a	Comparison with Actual Scenario	Reduction concept 1b	Comparison with Actual Scenario	Reduction concept 2	Comparison with Actual Scenario
IO 1	Teutendorfer Weg/ An der Bak	17.8	7.0	4.2	**25.4**	23.7	-6 %	23.7	-7 %	25.4	0 %
IO 2	St. Jürgen-Straße	17.8	2.3	4.1	**22.3**	20.5	-8 %	20.4	-8 %	22.3	0 %
IO 3	Rönnauer Ring	17.8	2.2	4.0	**22.1**	20.3	-8 %	20.3	-8 %	22.1	0 %
IO 4	Rönnauer Weg/ Ivendorfer Landstr.	17.8	3.5	4.6	**23.3**	21.3	-9 %	21.2	-9 %	23.3	0 %
IO 5	Rönnauer Weg/ Ivendorfer Landstr.	17.8	4.9	4.8	**24.4**	22.3	-9 %	22.3	-9 %	24.4	0 %
IO 6	Rönnauer Weg/ Ivendorfer Landstr.	17.8	1.9	4.5	**22.2**	20.1	-9 %	20.1	-10 %	22.2	0 %
IO 7	Ostseestraße/ Pommernzentrum	17.8	2.6	5.6	**23.4**	20.7	-12 %	20.7	-12 %	23.4	0 %
IO 8	Ostseestraße/ Pommernzentrum	17.8	3.9	5.9	**24.5**	21.6	-12 %	21.6	-12 %	24.5	0 %
IO 9	Ostseestraße/ Pommernzentrum	17.8	1.7	5.1	**22.5**	20.0	-11 %	20.0	-11 %	22.5	0 %
IO A	Ivendorf/ Ovendorfer Straße	17.8	9.5	3.2	**26.4**	25.0	-5 %	25.0	-5 %	26.4	0 %
IO B	Ivendorf/ Ovendorfer Straße	17.8	5.1	3.2	**23.5**	21.9	-7 %	21.9	-7 %	23.5	0 %
IO C	Ivendorf/ Ivendorfer Landstraße	17.8	2.9	3.2	**22.0**	20.5	-7 %	20.5	-7 %	22.0	0 %
IO D	Ivendorf/ Ivendorfer Landstraße	17.8	3.2	2.9	**22.0**	20.6	-6 %	20.6	-6 %	22.0	0 %
IO E	Ivendorf/ Ivendorfer Landstraße	17.8	4.1	2.3	**22.2**	21.1	-5 %	21.1	-5 %	22.2	0 %
IO F	Ivendorf/ Ivendorfer Landstraße	17.8	4.1	2.1	**22.1**	21.1	-5 %	21.1	-5 %	22.1	0 %
IO G	Ivendorf/ Ivendorfer Landstraße	17.8	8.1	1.7	**24.6**	23.8	-3 %	23.8	-3 %	24.6	0 %
IO H	Ivendorf/ Ivendorfer Landstraße	17.8	8.4	1.5	**24.6**	24.0	-2 %	24.0	-3 %	24.6	0 %
IO I	Blessenacker/ Travemünder Landstr.	17.8	2.1	1.0	**20.0**	19.6	-2 %	19.6	-2 %	20.0	0 %
IO L	Travemünder Landstr.	17.8	4.7	1.3	**22.0**	21.4	-3 %	21.4	-3 %	22.0	0 %
IO N	Boldwiesenkoppel	17.8	1.8	1.5	**20.1**	19.4	-4 %	19.4	-4 %	20.1	0 %
IO P	Scheidekoppel	17.8	0.4	1.8	**19.4**	18.5	-5 %	18.5	-5 %	19.4	0 %
IO Q	Borndiek	17.8	3.9	3.8	**23.1**	21.2	-8 %	21.2	-8 %	23.1	0 %
IO S	Priwall/ Traveufer	17.8	0.9	10.7	**25.9**	20.9	-19 %	20.8	-20 %	25.9	0 %
IO T	Auf dem Baggersand	17.8	4.3	5.3	**24.3**	22.1	-9 %	22.1	-9 %	24.3	0 %
IO U	Priwall/ Traveufer	17.8	0.7	12.1	**26.8**	19.9	-25 %	19.9	-26 %	26.8	0 %
IO V	Priwall/ Traveufer	17.8	1.4	13.7	**28.3**	21.0	-26 %	20.9	-26 %	28.3	0 %
IO W	Dummersdorfer Ufer	17.8	0.7	4.6	**21.5**	19.2	-11 %	19.2	-11 %	21.5	0 %
IO X	Dummersdorfer Ufer	17.8	0.8	4.7	**21.7**	19.3	-11 %	19.2	-11 %	21.7	0 %
IO Y	Dummersdorfer Ufer	17.8	0.6	4.5	**21.4**	19.1	-11 %	19.1	-11 %	21.4	0 %
IO Z	Vorderreihe/ Priwallfähre	17.8	2.6	6.0	**23.7**	21.4	-10 %	21.3	-10 %	23.7	0 %
IO T1	Vorderreihe/ Ostpreußenkai	17.8	2.0	6.4	**23.6**	21.1	-11 %	21.1	-11 %	23.6	0 %
IO T2	Yachthafen/ Kaiserbrücke	17.8	2.3	5.7	**23.3**	21.4	-8 %	21.4	-8 %	23.3	0 %
IO P1	Priwall/ Fähre	17.8	1.2	7.7	**24.0**	20.9	-13 %	20.9	-13 %	24.0	0 %
IO P2	Priwall/ Passathafen	17.8	0.7	6.8	**23.1**	20.6	-11 %	20.6	-11 %	23.1	0 %
IO P3	Priwall/ Passathafen	17.8	0.6	6.2	**22.6**	20.5	-9 %	20.6	-9 %	22.6	0 %
IO P4	Priwall/ Traveufer	17.8	1.0	12.9	**27.5**	20.4	-26 %	20.3	-26 %	27.5	0 %
IO P5	Priwall/ Traveufer	17.8	1.2	12.2	**27.2**	21.0	-23 %	20.9	-23 %	27.2	0 %
IO P6	Priwall/ Kläranlage	17.8	1.1	13.5	**28.0**	21.2	-24 %	21.1	-25 %	28.0	0 %
IO P7	Priwall/ Weggabelung Teich	17.8	0.6	13.8	**28.0**	20.9	-25 %	20.8	-26 %	28.0	0 %
IO P8	Priwall/ Rosenhof	17.8	0.9	10.1	**25.5**	20.8	-18 %	20.8	-19 %	25.5	0 %
IO P9	Priwall/ Rosenhof	17.8	0.7	9.3	**24.8**	20.6	-17 %	20.6	-17 %	24.8	0 %
IO P10	Priwall/ Rosenhof	17.8	4.0	8.2	**26.0**	22.8	-12 %	22.8	-12 %	26.0	0 %
IO P11	Priwall/ Fliegerweg	17.8	0.7	8.1	**24.0**	20.4	-15 %	20.4	-15 %	24.0	0 %
IO P12	Priwall/ Pötenitzer Weg	17.8	0.6	7.3	**23.3**	20.0	-14 %	20.0	-14 %	23.3	0 %
IO P13	Priwall/ Pötenitzer Weg	17.8	0.4	7.8	**23.6**	19.8	-16 %	19.8	-16 %	23.6	0 %
lO P14	Priwall/ Seemannsschule	17.8	0.3	6.3	**22.5**	19.6	-13 %	19.6	-13 %	22.5	0 %
lO P15	Priwall/ Krankenhaus	17.8	1.0	6.8	**23.2**	20.5	-12 %	20.4	-12 %	23.2	0 %
IO P16	Priwall/ Krankenhaus	17.8	2.2	6.0	**23.4**	21.0	-10 %	21.0	-11 %	23.4	0 %
IO P17	Priwall/ Haus des Kurgastes	17.8	0.6	5.0	**21.7**	19.8	-9 %	19.8	-9 %	21.7	0 %
IO T3	Marina Baltica	17.8	2.8	6.1	**23.9**	21.0	-12 %	21.0	-12 %	23.9	0 %
IO T4	Fischereihafen	17.8	2.3	5.2	**23.0**	20.7	-10 %	20.6	-10 %	23.0	0 %
IO T5	Torstraße	17.8	4.1	5.2	**24.1**	22.0	-9 %	22.0	-9 %	24.1	0 %
IO T6	Kirchenstraße	17.8	6.6	5.4	**25.9**	23.8	-8 %	23.8	-8 %	25.9	0 %
IO T7	Kurgartenstraße	17.8	5.3	5.9	**25.4**	23.2	-9 %	23.2	-9 %	25.4	0 %
IO T8	Vorderreihe/ Prinzenbrücke	17.8	2.3	5.9	**23.5**	21.3	-9 %	21.3	-9 %	23.5	0 %
IO T9	Am Lotsenberg	17.8	5.1	5.4	**24.9**	23.0	-7 %	23.0	-8 %	24.9	0 %
lO T10	Rose	17.8	3.1	5.0	**23.3**	21.5	-8 %	21.5	-8 %	23.3	0 %
IO T11	Rose	17.8	2.4	4.4	**22.5**	20.9	-7 %	20.9	-7 %	22.5	0 %
IO T12	Rose	17.8	2.3	3.6	**21.9**	20.5	-6 %	20.5	-6 %	21.9	0 %
IO T13	Boelckestraße	17.8	1.9	4.5	**22.2**	20.5	-8 %	20.5	-8 %	22.2	0 %
IO T14	Fehlingstraße	17.8	2.8	4.6	**22.9**	21.2	-7 %	21.2	-7 %	22.9	0 %
lO T15	Fehlingstraße	17.8	2.2	3.7	**21.9**	20.6	-6 %	20.6	-6 %	21.9	0 %
IO T16	Mühlenberg/ Ziegenhorst	17.8	2.4	3.9	**22.2**	20.8	-6 %	20.8	-6 %	22.2	0 %
IO T17	Gneversdorfer Weg	17.8	14.1	3.8	**29.9**	28.7	-4 %	28.6	-4 %	29.9	0 %
IO T18	Gneversdorfer Weg	17.8	6.3	3.3	**24.3**	23.1	-5 %	23.1	-5 %	24.3	0 %
IO T19	Gneversdorfer Weg	17.8	5.3	2.4	**23.1**	22.2	-4 %	22.2	-4 %	23.1	0 %
lO T20	Gneversdorfer Weg/ Moorredder	17.8	8.9	3.2	**26.0**	24.9	-4 %	24.8	-5 %	26.0	0 %
IO T21	Moorredder	17.8	6.2	3.2	**24.2**	23.0	-5 %	23.0	-5 %	24.2	0 %
IO T22	Moorredder	17.8	10.0	3.1	**26.7**	25.6	-4 %	25.6	-4 %	26.7	0 %
IO T23	Am Fahrenberg	17.8	4.1	2.9	**22.6**	21.6	-4 %	21.6	-4 %	22.6	0 %
IO T24	Parkallee/ Kurhaus	17.8	1.4	4.7	**22.1**	20.5	-7 %	20.5	-7 %	22.1	0 %
lO T25	Kurpark	17.8	1.3	4.4	**21.7**	20.2	-7 %	20.2	-7 %	21.7	0 %
IO T26	Steenkamp	17.8	2.5	3.1	**21.7**	20.6	-5 %	20.6	-5 %	21.7	0 %
IO T27	Steenkamp	17.8	3.9	2.7	**22.4**	21.4	-4 %	21.4	-4 %	22.4	0 %
IO T28	Steenkamp	17.8	2.2	2.4	**21.0**	20.1	-4 %	20.1	-4 %	21.0	0 %
IO T29	Steenkamp/ Kleingärten	17.8	1.0	2.2	**20.1**	19.3	-4 %	19.3	-4 %	20.1	0 %
lO T30	Schwedenstraße	17.8	1.3	2.6	**20.6**	19.6	-5 %	19.6	-5 %	20.6	0 %
IO T31	Grönlandstraße	17.8	1.6	2.0	**20.4**	19.6	-4 %	19.6	-4 %	20.4	0 %
IO T32	Kaiserallee	17.8	2.2	3.6	**21.8**	20.6	-6 %	20.6	-6 %	21.8	0 %
IO T33	Kaiserallee	17.8	1.7	2.9	**21.1**	20.0	-5 %	20.0	-5 %	21.1	0 %
IO T34	Kaiserallee	17.8	1.5	2.4	**20.6**	19.7	-4 %	19.7	-4 %	20.6	0 %
lO T35	Steuerbord	17.8	2.2	2.7	**21.2**	20.2	-5 %	20.2	-5 %	21.2	0 %
IO T36	Achterdeck	17.8	1.3	2.7	**20.6**	19.7	-5 %	19.7	-5 %	20.6	0 %
IO T37	Strandweg	17.8	1.6	2.4	**20.6**	19.8	-4 %	19.8	-4 %	20.6	0 %
IO T38	Alfred-Hagelstein-Straße	17.8	1.7	1.9	**20.4**	19.7	-3 %	19.7	-3 %	20.4	0 %
IO T39	Scheteligstraße	17.8	0.8	2.1	**19.9**	19.1	-4 %	19.1	-4 %	19.9	0 %
lO T40	Gneversdorfer Kamp	17.8	2.6	1.9	**21.0**	20.2	-3 %	20.2	-3 %	21.0	0 %
lO T41	Teutendorfer Weg	17.8	6.2	2.5	**23.8**	22.8	-4 %	22.8	-4 %	23.8	0 %
IO T42	Am Krautacker	17.8	1.1	2.9	**20.7**	19.4	-6 %	19.3	-7 %	20.7	0 %
IO T43	Hollbeck	17.8	2.5	2.0	**21.0**	20.1	-4 %	20.1	-4 %	21.0	0 %
IO T44	Teutendorf	17.8	1.6	1.6	**20.0**	19.4	-3 %	19.4	-3 %	20.0	0 %
IO MP1	Meas. point Skandinavienkai (2000)	17.8	1.1	5.4	**22.4**	19.6	-12 %	19.6	-12 %	22.4	0 %
IO MP2	Measuring point Priwall ferry (2000)	17.8	1.6	6.6	**23.5**	20.7	-12 %	20.6	-12 %	23.5	0 %
IO MP3	Meauring point Kurpark (2000)	17.8	1.6	4.8	**22.3**	20.6	-8 %	20.6	-8 %	22.3	0 %

A 7.1.4 Total NO_2 Pollution (98 Percentile)

Immission point (monitor point)		Total NO_2 pollution (98 percentile) [µg/m³]								
		Background pollution	Add. pollution road traffic	Add. pollution shipping	Sum Actual Scenario	Reduction concept 1a	Comparison with Actual Scenario	Reduction concept 1b	Comparison with Actual Scenario	Reduction concept 2	Comparison with Actual Scenario
IO 1	Teutendorfer Weg/ An der Bak	48.0	32.9	47.9	67.8	59.9	-12 %	59.9	-12 %	67.8	0 %
IO 2	St. Jürgen-Straße	48.0	16.1	43.2	65.3	55.1	-16 %	55.1	-16 %	65.3	0 %
IO 3	Rönnauer Ring	48.0	16.6	45.3	64.1	54.8	-15 %	54.8	-15 %	64.1	0 %
IO 4	Rönnauer Weg/ Ivendorfer Landstr.	48.0	25.9	51.3	69.7	58.2	-16 %	58.2	-16 %	69.7	0 %
IO 5	Rönnauer Weg/ Ivendorfer Landstr.	48.0	33.3	54.3	73.0	60.6	-17 %	60.6	-17 %	73.0	0 %
IO 6	Rönnauer Weg/ Ivendorfer Landstr.	48.0	14.2	49.9	65.9	54.9	-17 %	54.9	-17 %	65.9	0 %
IO 7	Ostseestraße/ Pommernzentrum	48.0	18.2	57.3	70.2	55.7	-21 %	55.7	-21 %	70.2	0 %
IO 8	Ostseestraße/ Pommernzentrum	48.0	25.0	59.0	72.4	57.2	-21 %	57.2	-21 %	72.4	0 %
IO 9	Ostseestraße/ Pommernzentrum	48.0	12.5	55.2	67.8	54.0	-20 %	54.0	-20 %	67.8	0 %
IO A	Ivendorf/ Ovendorfer Straße	48.0	45.9	40.6	67.7	63.3	-7 %	63.3	-7 %	67.7	0 %
IO B	Ivendorf/ Ovendorfer Straße	48.0	29.7	40.8	63.0	56.6	-10 %	56.6	-10 %	63.0	0 %
IO C	Ivendorf/ Ivendorfer Landstraße	48.0	17.8	41.3	60.8	54.1	-11 %	54.1	-11 %	60.8	0 %
IO D	Ivendorf/ Ivendorfer Landstraße	48.0	19.5	36.8	60.1	54.1	-10 %	54.1	-10 %	60.1	0 %
IO E	Ivendorf/ Ivendorfer Landstraße	48.0	23.3	33.2	59.7	55.1	-8 %	55.1	-8 %	59.7	0 %
IO F	Ivendorf/ Ivendorfer Landstraße	48.0	22.4	30.5	58.0	54.9	-5 %	54.9	-5 %	58.0	0 %
IO G	Ivendorf/ Ivendorfer Landstraße	48.0	39.1	26.5	61.5	60.4	-2 %	60.4	-2 %	61.5	0 %
IO H	Ivendorf/ Ivendorfer Landstraße	48.0	37.5	24.1	60.9	59.7	-2 %	59.7	-2 %	60.9	0 %
IO I	Blessenacker/ Travemünder Landstr.	48.0	14.8	16.6	55.0	53.7	-2 %	53.7	-2 %	55.0	0 %
IO L	Travemünder Landstr.	48.0	26.3	20.4	58.4	55.9	-4 %	55.9	-4 %	58.4	0 %
IO N	Boldwiesenkoppel	48.0	13.2	23.3	56.2	53.7	-4 %	53.7	-4 %	56.2	0 %
IO P	Scheidekoppel	48.0	4.0	27.2	55.0	51.8	-6 %	51.8	-6 %	55.0	0 %
IO Q	Borndiek	48.0	21.4	46.0	63.4	55.4	-13 %	55.4	-13 %	63.4	0 %
IO S	Priwall/ Traveufer	48.0	7.6	64.8	73.7	54.4	-26 %	54.4	-26 %	73.7	0 %
IO T	Auf dem Baggersand	48.0	20.6	56.9	68.7	56.3	-18 %	56.3	-18 %	68.7	0 %
IO U	Priwall/ Traveufer	48.0	6.1	65.9	73.2	53.1	-27 %	53.1	-27 %	73.2	0 %
IO V	Priwall/ Traveufer	48.0	10.1	66.1	73.4	54.3	-26 %	54.3	-26 %	73.4	0 %
IO W	Dummersdorfer Ufer	48.0	6.5	50.6	65.3	52.9	-19 %	52.9	-19 %	65.3	0 %
IO X	Dummersdorfer Ufer	48.0	7.3	54.2	65.3	52.5	-20 %	52.5	-20 %	65.3	0 %
IO Y	Dummersdorfer Ufer	48.0	5.7	52.4	65.8	52.7	-20 %	52.7	-20 %	65.8	0 %
IO Z	Vorderreihe/ Priwallfähre	48.0	12.9	53.4	66.4	55.8	-16 %	55.8	-16 %	66.4	0 %
IO T1	Vorderreihe/ Ostpreußenkai	48.0	10.8	52.7	64.9	55.9	-14 %	55.9	-14 %	64.9	0 %
IO T2	Yachthafen/ Kaiserbrücke	48.0	12.8	48.2	62.7	56.8	-9 %	56.8	-9 %	62.7	0 %
IO P1	Priwall/ Fähre	48.0	7.9	53.6	65.8	54.4	-17 %	54.4	-17 %	65.8	0 %
IO P2	Priwall/ Passathafen	48.0	5.0	45.0	61.4	53.9	-12 %	53.9	-12 %	61.4	0 %
IO P3	Priwall/ Passathafen	48.0	4.6	43.1	61.1	54.1	-12 %	54.1	-12 %	61.1	0 %
IO P4	Priwall/ Traveufer	48.0	7.8	66.6	74.2	53.6	-28 %	53.6	-28 %	74.2	0 %
IO P5	Priwall/ Traveufer	48.0	8.7	69.0	76.8	54.1	-30 %	54.1	-30 %	76.8	0 %
IO P6	Priwall/ Kläranlage	48.0	8.4	70.2	77.2	54.6	-29 %	54.6	-29 %	77.2	0 %
IO P7	Priwall/ Weggabelung Teich	48.0	6.2	67.1	74.9	54.2	-28 %	54.2	-28 %	74.9	0 %
IO P8	Priwall/ Rosenhof	48.0	6.8	62.9	71.3	54.1	-24 %	54.1	-24 %	71.3	0 %
IO P9	Priwall/ Rosenhof	48.0	5.6	55.8	66.8	54.1	-19 %	54.1	-19 %	66.8	0 %
IO P10	Priwall/ Rosenhof	48.0	18.7	55.5	67.9	55.9	-18 %	55.9	-18 %	67.9	0 %
IO P11	Priwall/ Fliegerweg	48.0	4.9	52.2	64.6	53.6	-17 %	53.6	-17 %	64.6	0 %
IO P12	Priwall/ Pötenitzer Weg	48.0	3.8	48.7	62.2	53.0	-15 %	53.0	-15 %	62.2	0 %
IO P13	Priwall/ Pötenitzer Weg	48.0	3.5	50.3	63.5	53.0	-16 %	53.0	-16 %	63.5	0 %
lO P14	Priwall/ Seemannsschule	48.0	3.2	44.3	60.8	52.5	-14 %	52.5	-14 %	60.8	0 %
lO P15	Priwall/ Krankenhaus	48.0	5.8	47.0	61.6	53.4	-13 %	53.4	-13 %	61.6	0 %
IO P16	Priwall/ Krankenhaus	48.0	11.2	42.3	60.8	53.7	-12 %	53.7	-12 %	60.8	0 %
IO P17	Priwall/ Haus des Kurgastes	48.0	3.3	37.2	57.6	53.1	-8 %	53.1	-8 %	57.6	0 %
IO T3	Marina Baltica	48.0	16.1	61.5	71.6	55.1	-23 %	55.1	-23 %	71.6	0 %
IO T4	Fischereihafen	48.0	13.5	57.1	68.8	54.9	-20 %	54.9	-20 %	68.8	0 %
IO T5	Torstraße	48.0	19.6	53.8	67.9	56.3	-17 %	56.3	-17 %	67.9	0 %
IO T6	Kirchenstraße	48.0	27.9	52.4	67.5	58.9	-13 %	58.9	-13 %	67.5	0 %
IO T7	Kurgartenstraße	48.0	22.2	52.3	66.7	57.0	-15 %	57.0	-15 %	66.7	0 %
IO T8	Vorderreihe/ Prinzenbrücke	48.0	11.5	51.1	64.8	55.8	-14 %	55.8	-14 %	64.8	0 %
IO T9	Am Lotsenberg	48.0	22.9	48.1	64.4	57.4	-11 %	57.4	-11 %	64.4	0 %
lO T10	Rose	48.0	16.3	46.9	64.1	55.1	-14 %	55.1	-14 %	64.1	0 %
IO T11	Rose	48.0	12.9	44.5	62.2	54.8	-12 %	54.8	-12 %	62.2	0 %
IO T12	Rose	48.0	12.3	39.8	61.2	54.3	-11 %	54.3	-11 %	61.2	0 %
IO T13	Boelckestraße	48.0	10.6	45.6	63.7	54.9	-14 %	54.9	-14 %	63.7	0 %
IO T14	Fehlingstraße	48.0	15.1	45.2	62.7	55.1	-12 %	55.1	-12 %	62.7	0 %
lO T15	Fehlingstraße	48.0	11.8	39.4	60.0	54.2	-10 %	54.2	-10 %	60.0	0 %
IO T16	Mühlenberg/ Ziegenhorst	48.0	13.1	41.7	61.4	54.9	-11 %	54.9	-11 %	61.4	0 %
IO T17	Gneversdorfer Weg	48.0	52.6	46.2	75.4	67.9	-10 %	67.9	-10 %	75.4	0 %
IO T18	Gneversdorfer Weg	48.0	39.3	39.7	67.5	61.7	-9 %	61.7	-9 %	67.5	0 %
IO T19	Gneversdorfer Weg	48.0	27.4	32.7	61.4	56.2	-8 %	56.2	-8 %	61.4	0 %
lO T20	Gneversdorfer Weg/ Moorredder	48.0	37.4	39.3	66.3	59.8	-10 %	59.8	-10 %	66.3	0 %
IO T21	Moorredder	48.0	29.3	38.6	63.9	57.3	-10 %	57.3	-10 %	63.9	0 %
IO T22	Moorredder	48.0	38.6	37.1	64.2	60.5	-6 %	60.5	-6 %	64.2	0 %
IO T23	Am Fahrenberg	48.0	19.9	34.2	59.6	55.5	-7 %	55.5	-7 %	59.6	0 %
IO T24	Parkallee/ Kurhaus	48.0	8.9	43.6	61.0	54.6	-11 %	54.6	-11 %	61.0	0 %
lO T25	Kurpark	48.0	8.0	42.1	60.7	54.8	-10 %	54.8	-10 %	60.7	0 %
IO T26	Steenkamp	48.0	12.4	34.6	58.8	54.0	-8 %	54.0	-8 %	58.8	0 %
IO T27	Steenkamp	48.0	20.0	32.6	59.3	54.9	-7 %	54.9	-7 %	59.3	0 %
IO T28	Steenkamp	48.0	12.6	31.2	57.6	53.7	-7 %	53.7	-7 %	57.6	0 %
IO T29	Steenkamp/ Kleingärten	48.0	7.0	29.5	56.4	52.7	-7 %	52.7	-7 %	56.4	0 %
lO T30	Schwedenstraße	48.0	9.5	32.8	58.4	53.5	-8 %	53.5	-8 %	58.4	0 %
IO T31	Grönlandstraße	48.0	10.3	29.3	57.3	53.0	-7 %	53.0	-7 %	57.3	0 %
IO T32	Kaiserallee	48.0	11.7	38.3	59.1	54.4	-8 %	54.4	-8 %	59.1	0 %
IO T33	Kaiserallee	48.0	9.3	33.5	57.6	53.3	-7 %	53.3	-7 %	57.6	0 %
IO T34	Kaiserallee	48.0	9.2	31.4	56.8	53.3	-6 %	53.3	-6 %	56.8	0 %
lO T35	Steuerbord	48.0	11.4	33.4	57.4	53.1	-7 %	53.1	-7 %	57.4	0 %
IO T36	Achterdeck	48.0	9.2	32.9	57.5	53.8	-7 %	53.8	-7 %	57.5	0 %
IO T37	Strandweg	48.0	9.1	31.4	56.7	53.3	-6 %	53.3	-6 %	56.7	0 %
IO T38	Alfred-Hagelstein-Straße	48.0	9.4	26.4	55.7	52.8	-5 %	52.8	-5 %	55.7	0 %
IO T39	Scheteligstraße	48.0	6.3	28.2	56.2	52.9	-6 %	52.9	-6 %	56.2	0 %
IO T40	Gneversdorfer Kamp	48.0	17.8	26.2	58.4	54.4	-7 %	54.4	-7 %	58.4	0 %
lO T41	Teutendorfer Weg	48.0	26.7	31.6	61.7	56.4	-9 %	56.4	-9 %	61.7	0 %
IO T42	Am Krautacker	48.0	8.2	38.8	60.2	53.5	-11 %	53.5	-11 %	60.2	0 %
IO T43	Hollbeck	48.0	15.0	30.2	58.7	53.5	-9 %	53.5	-9 %	58.7	0 %
IO T44	Teutendorf	48.0	14.6	22.8	57.0	53.8	-6 %	53.8	-6 %	57.0	0 %
IO MP1	Meas. point Skandinavienkai (2000)	48.0	8.2	55.6	66.2	53.0	-20 %	53.0	-20 %	66.2	0 %
IO MP2	Measuring point Priwall ferry (2000)	48.0	11.0	55.7	67.4	55.5	-18 %	55.5	-18 %	67.4	0 %
IO MP3	Meauring point Kurpark (2000)	48.0	10.5	44.8	61.8	54.9	-11 %	54.9	-11 %	61.8	0 %

A 7.1.5 Total NO_2 Pollution (1 Hour Value S18)

Immission point (monitor point)		Total NO_2 pollution (1 hour value S18) [µg/m³]									
		Background pollution	Add. pollution road traffic	Add. pollution shipping	Sum Actual Scenario	Reduction concept 1a	Comparison with Actual Scenario	Reduction concept 1b	Comparison with Actual Scenario	Reduction concept 2	Comparison with Actual Scenario
IO 1	Teutendorfer Weg/ An der Bak	65.5	46.2	67.3	95.1	84.1	-12 %	84.1	-12 %	95.1	0 %
IO 2	St. Jürgen-Straße	65.5	22.6	60.6	91.7	77.3	-16 %	77.3	-16 %	91.7	0 %
IO 3	Rönnauer Ring	65.5	23.3	63.6	90.0	76.9	-15 %	76.9	-15 %	90.0	0 %
IO 4	Rönnauer Weg/ Ivendorfer Landstr.	65.5	36.3	72.0	97.9	81.7	-16 %	81.7	-16 %	97.9	0 %
IO 5	Rönnauer Weg/ Ivendorfer Landstr.	65.5	46.7	76.2	102.5	85.0	-17 %	85.0	-17 %	102.5	0 %
IO 6	Rönnauer Weg/ Ivendorfer Landstr.	65.5	20.0	70.0	92.5	77.0	-17 %	77.0	-17 %	92.5	0 %
IO 7	Ostseestraße/ Pommernzentrum	65.5	25.5	80.4	98.5	78.1	-21 %	78.1	-21 %	98.5	0 %
IO 8	Ostseestraße/ Pommernzentrum	65.5	35.1	82.9	101.6	80.3	-21 %	80.3	-21 %	101.6	0 %
IO 9	Ostseestraße/ Pommernzentrum	65.5	17.6	77.4	95.1	75.9	-20 %	75.9	-20 %	95.1	0 %
IO A	Ivendorf/ Ovendorfer Straße	65.5	64.4	57.0	95.1	88.8	-7 %	88.8	-7 %	95.1	0 %
IO B	Ivendorf/ Ovendorfer Straße	65.5	41.6	57.3	88.4	79.4	-10 %	79.4	-10 %	88.4	0 %
IO C	Ivendorf/ Ivendorfer Landstraße	65.5	25.0	57.9	85.3	75.9	-11 %	75.9	-11 %	85.3	0 %
IO D	Ivendorf/ Ivendorfer Landstraße	65.5	27.4	51.6	84.4	75.9	-10 %	75.9	-10 %	84.4	0 %
IO E	Ivendorf/ Ivendorfer Landstraße	65.5	32.7	46.6	83.8	77.3	-8 %	77.3	-8 %	83.8	0 %
IO F	Ivendorf/ Ivendorfer Landstraße	65.5	31.4	42.8	81.3	77.1	-5 %	77.1	-5 %	81.3	0 %
IO G	Ivendorf/ Ivendorfer Landstraße	65.5	54.9	37.2	86.2	84.8	-2 %	84.8	-2 %	86.2	0 %
IO H	Ivendorf/ Ivendorfer Landstraße	65.5	52.6	33.8	85.5	83.8	-2 %	83.8	-2 %	85.5	0 %
IO I	Blessenacker/ Travemünder Landstr.	65.5	20.8	23.3	77.2	75.3	-2 %	75.3	-2 %	77.2	0 %
IO L	Travemünder Landstr.	65.5	36.9	28.7	81.9	78.4	-4 %	78.4	-4 %	81.9	0 %
IO N	Boldwiesenkoppel	65.5	18.6	32.7	78.9	75.4	-4 %	75.4	-4 %	78.9	0 %
IO P	Scheidekoppel	65.5	5.7	38.2	77.2	72.6	-6 %	72.6	-6 %	77.2	0 %
IO Q	Borndiek	65.5	30.1	64.6	89.0	77.7	-13 %	77.7	-13 %	89.0	0 %
IO S	Priwall/ Traveufer	65.5	10.7	91.0	103.5	76.3	-26 %	76.3	-26 %	103.5	0 %
IO T	Auf dem Baggersand	65.5	28.9	79.8	96.4	79.1	-18 %	79.1	-18 %	96.4	0 %
IO U	Priwall/ Traveufer	65.5	8.5	92.5	102.7	74.5	-27 %	74.5	-27 %	102.7	0 %
IO V	Priwall/ Traveufer	65.5	14.2	92.8	103.1	76.2	-26 %	76.2	-26 %	103.1	0 %
IO W	Dummersdorfer Ufer	65.5	9.2	71.1	91.7	74.2	-19 %	74.2	-19 %	91.7	0 %
IO X	Dummersdorfer Ufer	65.5	10.3	76.1	91.6	73.6	-20 %	73.6	-20 %	91.6	0 %
IO Y	Dummersdorfer Ufer	65.5	8.1	73.5	92.4	74.0	-20 %	74.0	-20 %	92.4	0 %
IO Z	Vorderreihe/ Priwallfähre	65.5	18.0	74.9	93.2	78.3	-16 %	78.3	-16 %	93.2	0 %
IO T1	Vorderreihe/ Ostpreußenkai	65.5	15.2	73.9	91.1	78.5	-14 %	78.5	-14 %	91.1	0 %
IO T2	Yachthafen/ Kaiserbrücke	65.5	17.9	67.6	88.0	79.8	-9 %	79.8	-9 %	88.0	0 %
IO P1	Priwall/ Fähre	65.5	11.1	75.2	92.4	76.3	-17 %	76.3	-17 %	92.4	0 %
IO P2	Priwall/ Passathafen	65.5	7.1	63.1	86.2	75.7	-12 %	75.7	-12 %	86.2	0 %
IO P3	Priwall/ Passathafen	65.5	6.4	60.5	85.8	75.9	-12 %	75.9	-12 %	85.8	0 %
IO P4	Priwall/ Traveufer	65.5	11.0	93.5	104.2	75.3	-28 %	75.3	-28 %	104.2	0 %
IO P5	Priwall/ Traveufer	65.5	12.2	96.8	107.7	75.9	-30 %	75.9	-30 %	107.7	0 %
IO P6	Priwall/ Kläranlage	65.5	11.8	98.6	108.3	76.6	-29 %	76.6	-29 %	108.3	0 %
IO P7	Priwall/ Weggabelung Teich	65.5	8.7	94.2	105.1	76.0	-28 %	76.0	-28 %	105.1	0 %
IO P8	Priwall/ Rosenhof	65.5	9.5	88.2	100.1	76.0	-24 %	76.0	-24 %	100.1	0 %
IO P9	Priwall/ Rosenhof	65.5	7.8	78.3	93.8	76.0	-19 %	76.0	-19 %	93.8	0 %
IO P10	Priwall/ Rosenhof	65.5	26.3	77.9	95.2	78.4	-18 %	78.4	-18 %	95.2	0 %
IO P11	Priwall/ Fliegerweg	65.5	6.8	73.3	90.6	75.3	-17 %	75.3	-17 %	90.6	0 %
IO P12	Priwall/ Pötenitzer Weg	65.5	5.3	68.3	87.3	74.4	-15 %	74.4	-15 %	87.3	0 %
IO P13	Priwall/ Pötenitzer Weg	65.5	4.9	70.6	89.1	74.4	-16 %	74.4	-16 %	89.1	0 %
lO P14	Priwall/ Seemannsschule	65.5	4.5	62.2	85.4	73.6	-14 %	73.6	-14 %	85.4	0 %
lO P15	Priwall/ Krankenhaus	65.5	8.2	65.9	86.5	75.0	-13 %	75.0	-13 %	86.5	0 %
IO P16	Priwall/ Krankenhaus	65.5	15.7	59.3	85.4	75.4	-12 %	75.4	-12 %	85.4	0 %
IO P17	Priwall/ Haus des Kurgastes	65.5	4.6	52.2	80.9	74.5	-8 %	74.5	-8 %	80.9	0 %
IO T3	Marina Baltica	65.5	22.6	86.4	100.6	77.3	-23 %	77.3	-23 %	100.6	0 %
IO T4	Fischereihafen	65.5	18.9	80.2	96.6	77.1	-20 %	77.1	-20 %	96.6	0 %
IO T5	Torstraße	65.5	27.5	75.5	95.2	79.1	-17 %	79.1	-17 %	95.2	0 %
IO T6	Kirchenstraße	65.5	39.2	73.5	94.7	82.6	-13 %	82.6	-13 %	94.7	0 %
IO T7	Kurgartenstraße	65.5	31.1	73.3	93.6	80.0	-15 %	80.0	-15 %	93.6	0 %
IO T8	Vorderreihe/ Prinzenbrücke	65.5	16.2	71.8	91.0	78.3	-14 %	78.3	-14 %	91.0	0 %
IO T9	Am Lotsenberg	65.5	32.1	67.5	90.3	80.6	-11 %	80.6	-11 %	90.3	0 %
lO T10	Rose	65.5	22.9	65.8	90.0	77.3	-14 %	77.3	-14 %	90.0	0 %
IO T11	Rose	65.5	18.2	62.4	87.3	76.9	-12 %	76.9	-12 %	87.3	0 %
IO T12	Rose	65.5	17.3	55.8	85.9	76.2	-11 %	76.2	-11 %	85.9	0 %
IO T13	Boelckestraße	65.5	14.9	64.0	89.4	77.1	-14 %	77.1	-14 %	89.4	0 %
IO T14	Fehlingstraße	65.5	21.1	63.4	88.0	77.3	-12 %	77.3	-12 %	88.0	0 %
lO T15	Fehlingstraße	65.5	16.5	55.4	84.2	76.1	-10 %	76.1	-10 %	84.2	0 %
IO T16	Mühlenberg/ Ziegenhorst	65.5	18.4	58.6	86.1	77.0	-11 %	77.0	-11 %	86.1	0 %
IO T17	Gneversdorfer Weg	65.5	73.8	64.8	105.8	95.3	-10 %	95.3	-10 %	105.8	0 %
IO T18	Gneversdorfer Weg	65.5	55.2	55.7	94.8	86.6	-9 %	86.6	-9 %	94.8	0 %
IO T19	Gneversdorfer Weg	65.5	38.5	45.9	86.1	78.9	-8 %	78.9	-8 %	86.1	0 %
lO T20	Gneversdorfer Weg/ Moorredder	65.5	52.5	55.2	93.1	83.9	-10 %	83.9	-10 %	93.1	0 %
IO T21	Moorredder	65.5	41.1	54.1	89.7	80.4	-10 %	80.4	-10 %	89.7	0 %
IO T22	Moorredder	65.5	54.2	52.0	90.2	84.9	-6 %	84.9	-6 %	90.2	0 %
IO T23	Am Fahrenberg	65.5	27.9	48.0	83.6	77.8	-7 %	77.8	-7 %	83.6	0 %
IO T24	Parkallee/ Kurhaus	65.5	12.5	61.2	85.6	76.6	-11 %	76.6	-11 %	85.6	0 %
lO T25	Kurpark	65.5	11.2	59.1	85.2	76.9	-10 %	76.9	-10 %	85.2	0 %
IO T26	Steenkamp	65.5	17.4	48.5	82.5	75.8	-8 %	75.8	-8 %	82.5	0 %
IO T27	Steenkamp	65.5	28.0	45.8	83.2	77.0	-7 %	77.0	-7 %	83.2	0 %
IO T28	Steenkamp	65.5	17.7	43.8	80.8	75.3	-7 %	75.3	-7 %	80.8	0 %
IO T29	Steenkamp/ Kleingärten	65.5	9.9	41.4	79.2	73.9	-7 %	73.9	-7 %	79.2	0 %
lO T30	Schwedenstraße	65.5	13.3	46.1	82.0	75.1	-8 %	75.1	-8 %	82.0	0 %
IO T31	Grönlandstraße	65.5	14.5	41.1	80.4	74.5	-7 %	74.5	-7 %	80.4	0 %
IO T32	Kaiserallee	65.5	16.4	53.8	83.0	76.4	-8 %	76.4	-8 %	83.0	0 %
IO T33	Kaiserallee	65.5	13.1	47.0	80.8	74.9	-7 %	74.9	-7 %	80.8	0 %
IO T34	Kaiserallee	65.5	12.9	44.0	79.7	74.8	-6 %	74.8	-6 %	79.7	0 %
lO T35	Steuerbord	65.5	15.9	46.9	80.5	74.6	-7 %	74.6	-7 %	80.5	0 %
IO T36	Achterdeck	65.5	13.0	46.2	80.7	75.5	-7 %	75.5	-7 %	80.7	0 %
IO T37	Strandweg	65.5	12.7	44.0	79.5	74.8	-6 %	74.8	-6 %	79.5	0 %
IO T38	Alfred-Hagelstein-Straße	65.5	13.2	37.1	78.1	74.1	-5 %	74.1	-5 %	78.1	0 %
IO T39	Scheteligstraße	65.5	8.8	39.6	78.9	74.2	-6 %	74.2	-6 %	78.9	0 %
IO T40	Gneversdorfer Kamp	65.5	25.0	36.8	82.0	76.3	-7 %	76.3	-7 %	82.0	0 %
lO T41	Teutendorfer Weg	65.5	37.5	44.3	86.7	79.1	-9 %	79.1	-9 %	86.7	0 %
IO T42	Am Krautacker	65.5	11.4	54.4	84.4	75.1	-11 %	75.1	-11 %	84.4	0 %
IO T43	Hollbeck	65.5	21.0	42.4	82.4	75.1	-9 %	75.1	-9 %	82.4	0 %
IO T44	Teutendorf	65.5	20.5	31.9	80.0	75.5	-6 %	75.5	-6 %	80.0	0 %
IO MP1	Meas. point Skandinavienkai (2000)	65.5	11.4	78.0	92.9	74.4	-20 %	74.4	-20 %	92.9	0 %
IO MP2	Measuring point Priwall ferry (2000)	65.5	15.4	78.2	94.6	77.8	-18 %	77.8	-18 %	94.6	0 %
IO MP3	Meauring point Kurpark (2000)	65.5	14.7	62.9	86.7	77.0	-11 %	77.0	-11 %	86.7	0 %

A 7.1.6 Total SO_2 Pollution (Annual Average Value J00)

Immission point (monitor point)		Total SO_2 pollution (annual average value J00) [µg/m³]									
		Background pollution	Add. pollution road traffic	Add. pollution shipping	Sum Actual Scenario	Reduction concept 1a	Comparison with Actual Scenario	Reduction concept 1b	Comparison with Actual Scenario	Reduction concept 2	Comparison with Actual Scenario
IO 1	Teutendorfer Weg/ An der Bak	3.5	—	2.1	**5.6**	4.8	-14 %	4.6	-18 %	5.0	-11 %
IO 2	St. Jürgen-Straße	3.5	—	2.1	**5.6**	4.7	-16 %	4.5	-20 %	4.9	-13 %
IO 3	Rönnauer Ring	3.5	—	2.0	**5.5**	4.6	-16 %	4.5	-18 %	4.9	-11 %
IO 4	Rönnauer Weg/ Ivendorfer Landstr.	3.5	—	2.3	**5.8**	4.7	-19 %	4.5	-22 %	5.1	-12 %
IO 5	Rönnauer Weg/ Ivendorfer Landstr.	3.5	—	2.4	**5.9**	4.8	-19 %	4.7	-20 %	5.2	-12 %
IO 6	Rönnauer Weg/ Ivendorfer Landstr.	3.5	—	2.3	**5.8**	4.7	-19 %	4.5	-22 %	5.1	-12 %
IO 7	Ostseestraße/ Pommernzentrum	3.5	—	2.7	**6.2**	4.9	-21 %	4.6	-26 %	5.4	-13 %
IO 8	Ostseestraße/ Pommernzentrum	3.5	—	2.8	**6.3**	4.9	-22 %	4.7	-25 %	5.6	-11 %
IO 9	Ostseestraße/ Pommernzentrum	3.5	—	2.4	**5.9**	4.8	-19 %	4.6	-22 %	5.3	-10 %
IO A	Ivendorf/ Ovendorfer Straße	3.5	—	1.4	**4.9**	4.2	-14 %	4.1	-16 %	4.5	-8 %
IO B	Ivendorf/ Ovendorfer Straße	3.5	—	1.4	**4.9**	4.2	-14 %	4.1	-16 %	4.5	-8 %
IO C	Ivendorf/ Ivendorfer Landstraße	3.5	—	1.4	**4.9**	4.2	-14 %	4.1	-16 %	4.5	-8 %
IO D	Ivendorf/ Ivendorfer Landstraße	3.5	—	1.3	**4.8**	4.1	-15 %	4.0	-17 %	4.4	-8 %
IO E	Ivendorf/ Ivendorfer Landstraße	3.5	—	1.1	**4.6**	4.1	-11 %	3.9	-15 %	4.3	-7 %
IO F	Ivendorf/ Ivendorfer Landstraße	3.5	—	0.9	**4.4**	4.0	-9 %	3.9	-11 %	4.2	-5 %
IO G	Ivendorf/ Ivendorfer Landstraße	3.5	—	0.8	**4.3**	3.9	-9 %	3.9	-9 %	4.1	-5 %
IO H	Ivendorf/ Ivendorfer Landstraße	3.5	—	0.7	**4.2**	3.9	-7 %	3.8	-10 %	4.0	-5 %
IO I	Blessenacker/ Travemünder Landstr.	3.5	—	0.5	**4.0**	3.7	-8 %	3.7	-8 %	3.8	-5 %
IO L	Travemünder Landstr.	3.5	—	0.6	**4.1**	3.8	-7 %	3.8	-7 %	3.9	-5 %
IO N	Boldwiesenkoppel	3.5	—	0.6	**4.1**	3.9	-5 %	3.8	-7 %	3.9	-5 %
IO P	Scheidekoppel	3.5	—	0.8	**4.3**	3.9	-9 %	3.9	-9 %	4.0	-7 %
IO Q	Borndiek	3.5	—	1.7	**5.2**	4.3	-17 %	4.2	-19 %	4.7	-10 %
IO S	Priwall/ Traveufer	3.5	—	6.0	**9.5**	6.7	-29 %	6.2	-35 %	7.7	-19 %
IO T	Auf dem Baggersand	3.5	—	2.8	**6.3**	5.2	-17 %	4.9	-22 %	5.4	-14 %
IO U	Priwall/ Traveufer	3.5	—	5.0	**8.5**	5.2	-39 %	4.9	-42 %	7.2	-15 %
IO V	Priwall/ Traveufer	3.5	—	6.5	**10.0**	6.4	-36 %	5.8	-42 %	8.3	-17 %
IO W	Dummersdorfer Ufer	3.5	—	2.1	**5.6**	4.4	-21 %	4.3	-23 %	5.0	-11 %
IO X	Dummersdorfer Ufer	3.5	—	2.1	**5.6**	4.4	-21 %	4.3	-23 %	5.0	-11 %
IO Y	Dummersdorfer Ufer	3.5	—	2.0	**5.5**	4.4	-20 %	4.3	-22 %	4.9	-11 %
IO Z	Vorderreihe/ Priwallfähre	3.5	—	3.3	**6.8**	5.6	-18 %	5.3	-22 %	5.8	-15 %
IO T1	Vorderreihe/ Ostpreußenkai	3.5	—	3.6	**7.1**	5.8	-18 %	5.5	-23 %	5.9	-17 %
IO T2	Yachthafen/ Kaiserbrücke	3.5	—	3.3	**6.8**	5.8	-15 %	5.6	-18 %	5.6	-18 %
IO P1	Priwall/ Fähre	3.5	—	4.3	**7.8**	6.2	-21 %	5.9	-24 %	6.4	-18 %
IO P2	Priwall/ Passathafen	3.5	—	3.9	**7.4**	6.1	-18 %	5.9	-20 %	5.9	-20 %
IO P3	Priwall/ Passathafen	3.5	—	3.5	**7.0**	6.0	-14 %	5.9	-16 %	5.7	-19 %
IO P4	Priwall/ Traveufer	3.5	—	5.0	**8.5**	5.3	-38 %	5.1	-40 %	7.3	-14 %
IO P5	Priwall/ Traveufer	3.5	—	6.8	**10.3**	6.9	-33 %	6.2	-40 %	8.4	-18 %
IO P6	Priwall/ Kläranlage	3.5	—	7.4	**10.9**	7.1	-35 %	6.4	-41 %	8.9	-18 %
IO P7	Priwall/ Weggabelung Teich	3.5	—	6.9	**10.4**	6.8	-35 %	6.3	-39 %	8.5	-18 %
IO P8	Priwall/ Rosenhof	3.5	—	5.7	**9.2**	6.6	-28 %	6.1	-34 %	7.4	-20 %
IO P9	Priwall/ Rosenhof	3.5	—	5.0	**8.5**	6.3	-26 %	6.0	-29 %	7.0	-18 %
IO P10	Priwall/ Rosenhof	3.5	—	4.6	**8.1**	6.3	-22 %	6.0	-26 %	6.6	-19 %
IO P11	Priwall/ Fliegerweg	3.5	—	4.2	**7.7**	6.0	-22 %	5.7	-26 %	6.4	-17 %
IO P12	Priwall/ Pötenitzer Weg	3.5	—	3.7	**7.2**	5.6	-22 %	5.4	-25 %	6.0	-17 %
IO P13	Priwall/ Pötenitzer Weg	3.5	—	3.9	**7.4**	5.6	-24 %	5.3	-28 %	6.2	-16 %
lO P14	Priwall/ Seemannsschule	3.5	—	3.1	**6.6**	5.2	-21 %	5.1	-23 %	5.6	-15 %
lO P15	Priwall/ Krankenhaus	3.5	—	3.6	**7.1**	5.7	-20 %	5.5	-23 %	5.9	-17 %
IO P16	Priwall/ Krankenhaus	3.5	—	3.2	**6.7**	5.5	-18 %	5.3	-21 %	5.6	-16 %
IO P17	Priwall/ Haus des Kurgastes	3.5	—	2.7	**6.2**	5.3	-15 %	5.1	-18 %	5.2	-16 %
IO T3	Marina Baltica	3.5	—	3.2	**6.7**	5.1	-24 %	4.9	-27 %	5.7	-15 %
IO T4	Fischereihafen	3.5	—	2.7	**6.2**	5.1	-18 %	4.8	-23 %	5.4	-13 %
IO T5	Torstraße	3.5	—	2.8	**6.3**	5.2	-17 %	5.0	-21 %	5.4	-14 %
IO T6	Kirchenstraße	3.5	—	2.9	**6.4**	5.3	-17 %	5.1	-20 %	5.5	-14 %
IO T7	Kurgartenstraße	3.5	—	3.3	**6.8**	5.6	-18 %	5.4	-21 %	5.6	-18 %
IO T8	Vorderreihe/ Prinzenbrücke	3.5	—	3.4	**6.9**	5.7	-17 %	5.5	-20 %	5.6	-19 %
IO T9	Am Lotsenberg	3.5	—	3.0	**6.5**	5.5	-15 %	5.3	-18 %	5.5	-15 %
lO T10	Rose	3.5	—	2.8	**6.3**	5.3	-16 %	5.1	-19 %	5.3	-16 %
IO T11	Rose	3.5	—	2.4	**5.9**	5.0	-15 %	4.9	-17 %	5.1	-14 %
IO T12	Rose	3.5	—	1.9	**5.4**	4.7	-13 %	4.6	-15 %	4.7	-13 %
IO T13	Boelckestraße	3.5	—	2.4	**5.9**	5.1	-14 %	5.0	-15 %	5.1	-14 %
IO T14	Fehlingstraße	3.5	—	2.6	**6.1**	5.2	-15 %	5.0	-18 %	5.1	-16 %
lO T15	Fehlingstraße	3.5	—	2.1	**5.6**	4.9	-13 %	4.8	-14 %	4.8	-14 %
IO T16	Mühlenberg/ Ziegenhorst	3.5	—	2.2	**5.7**	5.0	-12 %	4.9	-14 %	4.9	-14 %
IO T17	Gneversdorfer Weg	3.5	—	2.0	**5.5**	4.8	-13 %	4.6	-16 %	4.8	-13 %
IO T18	Gneversdorfer Weg	3.5	—	1.7	**5.2**	4.6	-12 %	4.5	-13 %	4.7	-10 %
IO T19	Gneversdorfer Weg	3.5	—	1.3	**4.8**	4.3	-10 %	4.2	-13 %	4.4	-8 %
lO T20	Gneversdorfer Weg/ Moorredder	3.5	—	1.7	**5.2**	4.5	-13 %	4.4	-15 %	4.6	-12 %
IO T21	Moorredder	3.5	—	1.7	**5.2**	4.5	-13 %	4.5	-13 %	4.6	-12 %
IO T22	Moorredder	3.5	—	1.7	**5.2**	4.6	-12 %	4.5	-13 %	4.5	-13 %
IO T23	Am Fahrenberg	3.5	—	1.6	**5.1**	4.6	-10 %	4.5	-12 %	4.6	-10 %
IO T24	Parkallee/ Kurhaus	3.5	—	2.7	**6.2**	5.4	-13 %	5.3	-15 %	5.2	-16 %
lO T25	Kurpark	3.5	—	2.4	**5.9**	5.2	-12 %	5.1	-14 %	5.0	-15 %
IO T26	Steenkamp	3.5	—	1.7	**5.2**	4.6	-12 %	4.5	-13 %	4.6	-12 %
IO T27	Steenkamp	3.5	—	1.5	**5.0**	4.5	-10 %	4.4	-12 %	4.4	-12 %
IO T28	Steenkamp	3.5	—	1.3	**4.8**	4.4	-8 %	4.3	-10 %	4.3	-10 %
IO T29	Steenkamp/ Kleingärten	3.5	—	1.1	**4.6**	4.2	-9 %	4.2	-9 %	4.3	-7 %
IO T30	Schwedenstraße	3.5	—	1.3	**4.8**	4.4	-8 %	4.3	-10 %	4.4	-8 %
IO T31	Grönlandstraße	3.5	—	1.0	**4.5**	4.2	-7 %	4.1	-9 %	4.2	-7 %
IO T32	Kaiserallee	3.5	—	2.0	**5.5**	4.9	-11 %	4.8	-13 %	4.8	-13 %
IO T33	Kaiserallee	3.5	—	1.6	**5.1**	4.6	-10 %	4.6	-10 %	4.5	-12 %
IO T34	Kaiserallee	3.5	—	1.3	**4.8**	4.4	-8 %	4.3	-10 %	4.4	-8 %
lO T35	Steuerbord	3.5	—	1.5	**5.0**	4.5	-10 %	4.4	-12 %	4.4	-12 %
IO T36	Achterdeck	3.5	—	1.5	**5.0**	4.6	-8 %	4.5	-10 %	4.4	-12 %
IO T37	Strandweg	3.5	—	1.3	**4.8**	4.5	-6 %	4.4	-8 %	4.4	-8 %
IO T38	Alfred-Hagelstein-Straße	3.5	—	1.0	**4.5**	4.2	-7 %	4.2	-7 %	4.2	-7 %
IO T39	Scheteligstraße	3.5	—	1.2	**4.7**	4.3	-9 %	4.2	-11 %	4.3	-9 %
IO T40	Gneversdorfer Kamp	3.5	—	0.9	**4.4**	4.1	-7 %	4.1	-7 %	4.1	-7 %
lO T41	Teutendorfer Weg	3.5	—	1.3	**4.8**	4.3	-10 %	4.2	-13 %	4.3	-10 %
IO T42	Am Krautacker	3.5	—	1.5	**5.0**	4.4	-12 %	4.2	-16 %	4.5	-10 %
IO T43	Hollbeck	3.5	—	1.0	**4.5**	4.1	-9 %	4.1	-9 %	4.2	-7 %
IO T44	Teutendorf	3.5	—	0.8	**4.3**	4.0	-7 %	3.9	-9 %	4.0	-7 %
IO MP1	Meas. point Skandinavienkai (2000)	3.5	—	2.2	**5.7**	4.6	-19 %	4.5	-21 %	5.2	-9 %
IO MP2	Measuring point Priwall ferry (2000)	3.5	—	3.6	**7.1**	5.6	-21 %	5.3	-25 %	5.9	-17 %
IO MP3	Meauring point Kurpark (2000)	3.5	—	2.7	**6.2**	5.3	-15 %	5.2	-16 %	5.2	-16 %

A 7.1.7 Total SO_2 Pollution (24 Hours Value T03)

Immission point (monitor point)		Total SO_2 pollution (24 hours value T03) [µg/m³]									
		Background pollution	Add. pollution road traffic	Add. pollution shipping	Sum Actual Scenario	Reduction concept 1a	Comparison with Actual Scenario	Reduction concept 1b	Comparison with Actual Scenario	Reduction concept 2	Comparison with Actual Scenario
IO 1	Teutendorfer Weg/ An der Bak	17.0	—	22.1	**29.1**	17.1	-41 %	17.1	-41 %	22.0	-24 %
IO 2	St. Jürgen-Straße	17.0	—	23.1	**31.6**	17.9	-43 %	17.9	-43 %	23.3	-26 %
IO 3	Rönnauer Ring	17.0	—	20.9	**29.5**	17.1	-42 %	17.1	-42 %	24.6	-17 %
IO 4	Rönnauer Weg/ Ivendorfer Landstr.	17.0	—	23.8	**30.4**	17.1	-44 %	17.1	-44 %	26.8	-12 %
IO 5	Rönnauer Weg/ Ivendorfer Landstr.	17.0	—	26.7	**30.9**	17.1	-45 %	17.1	-45 %	24.6	-20 %
IO 6	Rönnauer Weg/ Ivendorfer Landstr.	17.0	—	22.8	**27.6**	18.3	-34 %	18.3	-34 %	23.8	-14 %
IO 7	Ostseestraße/ Pommernzentrum	17.0	—	29.2	**33.3**	17.1	-49 %	17.1	-49 %	28.4	-15 %
IO 8	Ostseestraße/ Pommernzentrum	17.0	—	27.4	**30.4**	17.1	-44 %	17.1	-44 %	24.0	-21 %
IO 9	Ostseestraße/ Pommernzentrum	17.0	—	22.0	**25.2**	17.1	-32 %	17.1	-32 %	20.9	-17 %
IO A	Ivendorf/ Ovendorfer Straße	17.0	—	13.3	**17.7**	17.0	-4 %	17.0	-4 %	17.2	-3 %
IO B	Ivendorf/ Ovendorfer Straße	17.0	—	12.3	**17.7**	17.0	-4 %	17.0	-4 %	17.6	-1 %
IO C	Ivendorf/ Ivendorfer Landstraße	17.0	—	14.6	**18.2**	17.0	-7 %	17.0	-7 %	17.0	-7 %
IO D	Ivendorf/ Ivendorfer Landstraße	17.0	—	10.6	**17.7**	17.0	-4 %	17.0	-4 %	17.0	-4 %
IO E	Ivendorf/ Ivendorfer Landstraße	17.0	—	9.5	**17.0**	17.0	0 %	17.0	0 %	17.0	0 %
IO F	Ivendorf/ Ivendorfer Landstraße	17.0	—	9.6	**17.0**	17.0	0 %	17.0	0 %	17.0	0 %
IO G	Ivendorf/ Ivendorfer Landstraße	17.0	—	8.4	**17.0**	17.0	0 %	17.0	0 %	17.0	0 %
IO H	Ivendorf/ Ivendorfer Landstraße	17.0	—	6.6	**17.0**	17.0	0 %	17.0	0 %	17.0	0 %
IO I	Blessenacker/ Travemünder Landstr.	17.0	—	5.5	**17.0**	17.0	0 %	17.0	0 %	17.0	0 %
IO L	Travemünder Landstr.	17.0	—	6.3	**17.0**	17.0	0 %	17.0	0 %	17.0	0 %
IO N	Boldwiesenkoppel	17.0	—	7.3	**17.0**	17.0	0 %	17.0	0 %	17.0	0 %
IO P	Scheidekoppel	17.0	—	8.6	**17.0**	17.0	0 %	17.0	0 %	17.0	0 %
IO Q	Borndiek	17.0	—	14.7	**18.4**	17.1	-7 %	17.1	-7 %	17.8	-3 %
IO S	Priwall/ Traveufer	17.0	—	33.0	**35.4**	18.7	-47 %	18.7	-47 %	26.9	-24 %
IO T	Auf dem Baggersand	17.0	—	25.7	**30.6**	19.2	-37 %	19.2	-37 %	25.7	-16 %
IO U	Priwall/ Traveufer	17.0	—	22.4	**25.8**	17.7	-31 %	17.7	-31 %	21.5	-17 %
IO V	Priwall/ Traveufer	17.0	—	25.9	**28.9**	19.4	-33 %	19.4	-33 %	23.6	-18 %
IO W	Dummersdorfer Ufer	17.0	—	19.9	**23.2**	17.1	-26 %	17.1	-26 %	18.7	-19 %
IO X	Dummersdorfer Ufer	17.0	—	19.5	**22.0**	17.0	-23 %	17.0	-23 %	18.7	-15 %
IO Y	Dummersdorfer Ufer	17.0	—	21.9	**26.3**	17.1	-35 %	17.1	-35 %	20.7	-21 %
IO Z	Vorderreihe/ Priwallfähre	17.0	—	24.6	**26.7**	19.0	-29 %	19.0	-29 %	21.2	-21 %
IO T1	Vorderreihe/ Ostpreußenkai	17.0	—	23.4	**26.2**	19.9	-24 %	19.9	-24 %	21.3	-19 %
IO T2	Yachthafen/ Kaiserbrücke	17.0	—	17.8	**24.5**	21.8	-11 %	21.8	-11 %	19.9	-19 %
IO P1	Priwall/ Fähre	17.0	—	20.3	**24.5**	18.0	-27 %	18.0	-27 %	20.1	-18 %
IO P2	Priwall/ Passathafen	17.0	—	16.4	**20.9**	20.3	-3 %	20.3	-3 %	18.3	-12 %
IO P3	Priwall/ Passathafen	17.0	—	13.7	**20.4**	19.8	-3 %	19.8	-3 %	17.8	-13 %
IO P4	Priwall/ Traveufer	17.0	—	22.6	**28.5**	18.3	-36 %	18.3	-36 %	22.7	-20 %
IO P5	Priwall/ Traveufer	17.0	—	34.2	**37.8**	18.9	-50 %	18.9	-50 %	27.8	-26 %
IO P6	Priwall/ Kläranlage	17.0	—	31.8	**37.6**	19.7	-48 %	19.7	-48 %	28.1	-25 %
IO P7	Priwall/ Weggabelung Teich	17.0	—	23.4	**31.3**	20.4	-35 %	20.4	-35 %	23.9	-24 %
IO P8	Priwall/ Rosenhof	17.0	—	25.4	**32.5**	19.3	-41 %	19.3	-41 %	22.2	-32 %
IO P9	Priwall/ Rosenhof	17.0	—	23.1	**27.8**	19.5	-30 %	19.5	-30 %	20.8	-25 %
IO P10	Priwall/ Rosenhof	17.0	—	20.1	**25.4**	18.3	-28 %	18.3	-28 %	20.4	-20 %
IO P11	Priwall/ Fliegerweg	17.0	—	17.8	**22.6**	17.8	-21 %	17.8	-21 %	19.3	-15 %
IO P12	Priwall/ Pötenitzer Weg	17.0	—	13.3	**21.2**	19.0	-10 %	19.0	-10 %	19.7	-7 %
IO P13	Priwall/ Pötenitzer Weg	17.0	—	14.7	**23.6**	19.6	-17 %	19.6	-17 %	20.1	-15 %
IO P14	Priwall/ Seemannsschule	17.0	—	10.3	**19.9**	18.6	-7 %	18.6	-7 %	20.2	2 %
IO P15	Priwall/ Krankenhaus	17.0	—	14.0	**21.2**	18.0	-15 %	18.0	-15 %	19.0	-10 %
IO P16	Priwall/ Krankenhaus	17.0	—	12.0	**20.8**	17.8	-14 %	17.8	-14 %	18.6	-11 %
IO P17	Priwall/ Haus des Kurgastes	17.0	—	11.6	**19.2**	19.3	1 %	19.3	1 %	17.8	-7 %
IO T3	Marina Baltica	17.0	—	34.0	**45.1**	19.3	-57 %	19.3	-57 %	32.1	-29 %
IO T4	Fischereihafen	17.0	—	27.8	**33.3**	17.5	-47 %	17.5	-47 %	27.5	-17 %
IO T5	Torstraße	17.0	—	21.4	**29.9**	17.2	-42 %	17.2	-42 %	24.6	-18 %
IO T6	Kirchenstraße	17.0	—	21.1	**26.4**	17.3	-34 %	17.3	-34 %	22.4	-15 %
IO T7	Kurgartenstraße	17.0	—	23.9	**26.3**	18.7	-29 %	18.7	-29 %	20.1	-24 %
IO T8	Vorderreihe/ Prinzenbrücke	17.0	—	22.6	**24.8**	18.8	-24 %	18.8	-24 %	19.9	-20 %
IO T9	Am Lotsenberg	17.0	—	19.6	**22.8**	18.4	-19 %	18.4	-19 %	19.8	-13 %
IO T10	Rose	17.0	—	21.1	**24.6**	17.6	-28 %	17.6	-28 %	20.2	-18 %
IO T11	Rose	17.0	—	19.3	**23.6**	17.2	-27 %	17.2	-27 %	19.8	-16 %
IO T12	Rose	17.0	—	16.9	**24.6**	17.1	-30 %	17.1	-30 %	18.9	-23 %
IO T13	Boelckestraße	17.0	—	19.1	**22.7**	17.2	-24 %	17.2	-24 %	20.1	-11 %
IO T14	Fehlingstraße	17.0	—	17.1	**22.7**	17.6	-22 %	17.6	-22 %	19.0	-16 %
IO T15	Fehlingstraße	17.0	—	14.3	**20.7**	17.5	-15 %	17.5	-15 %	19.1	-8 %
IO T16	Mühlenberg/ Ziegenhorst	17.0	—	16.1	**20.3**	17.4	-14 %	17.4	-14 %	17.7	-13 %
IO T17	Gneversdorfer Weg	17.0	—	20.4	**26.1**	17.1	-34 %	17.1	-34 %	19.4	-26 %
IO T18	Gneversdorfer Weg	17.0	—	15.6	**24.8**	17.1	-31 %	17.1	-31 %	19.8	-20 %
IO T19	Gneversdorfer Weg	17.0	—	12.8	**19.1**	17.1	-10 %	17.1	-10 %	17.1	-10 %
IO T20	Gneversdorfer Weg/ Moorredder	17.0	—	14.5	**23.7**	17.1	-28 %	17.1	-28 %	18.8	-21 %
IO T21	Moorredder	17.0	—	14.5	**19.6**	17.1	-13 %	17.1	-13 %	18.8	-4 %
IO T22	Moorredder	17.0	—	14.1	**20.3**	17.2	-15 %	17.2	-15 %	17.1	-16 %
IO T23	Am Fahrenberg	17.0	—	13.5	**18.7**	17.2	-8 %	17.2	-8 %	17.1	-9 %
IO T24	Parkallee/ Kurhaus	17.0	—	16.1	**21.3**	19.7	-8 %	19.7	-8 %	19.1	-10 %
IO T25	Kurpark	17.0	—	18.7	**21.3**	18.1	-15 %	18.1	-15 %	18.8	-12 %
IO T26	Steenkamp	17.0	—	14.6	**19.9**	17.3	-13 %	17.3	-13 %	17.1	-14 %
IO T27	Steenkamp	17.0	—	12.7	**19.6**	17.2	-12 %	17.2	-12 %	17.1	-13 %
IO T28	Steenkamp	17.0	—	11.2	**19.9**	17.2	-14 %	17.2	-14 %	17.1	-14 %
IO T29	Steenkamp/ Kleingärten	17.0	—	10.5	**17.1**	17.1	0 %	17.1	0 %	17.1	0 %
IO T30	Schwedenstraße	17.0	—	10.9	**19.6**	17.1	-13 %	17.1	-13 %	18.6	-5 %
IO T31	Grönlandstraße	17.0	—	9.1	**17.1**	17.1	0 %	17.1	0 %	17.1	0 %
IO T32	Kaiserallee	17.0	—	14.7	**20.2**	17.9	-11 %	17.9	-11 %	18.4	-9 %
IO T33	Kaiserallee	17.0	—	11.9	**19.4**	17.5	-10 %	17.5	-10 %	18.2	-6 %
IO T34	Kaiserallee	17.0	—	12.0	**19.2**	17.3	-10 %	17.3	-10 %	17.2	-10 %
IO T35	Steuerbord	17.0	—	11.7	**18.2**	17.3	-5 %	17.3	-5 %	17.5	-4 %
IO T36	Achterdeck	17.0	—	12.9	**18.7**	17.3	-7 %	17.3	-7 %	17.2	-8 %
IO T37	Strandweg	17.0	—	11.2	**17.1**	17.1	0 %	17.1	0 %	17.1	0 %
IO T38	Alfred-Hagelstein-Straße	17.0	—	7.9	**17.2**	17.2	0 %	17.2	0 %	17.1	-1 %
IO T39	Scheteligstraße	17.0	—	11.6	**18.9**	17.2	-9 %	17.2	-9 %	17.1	-10 %
IO T40	Gneversdorfer Kamp	17.0	—	8.3	**17.1**	17.1	0 %	17.1	0 %	17.1	0 %
IO T41	Teutendorfer Weg	17.0	—	12.5	**19.3**	17.1	-11 %	17.1	-11 %	17.1	-11 %
IO T42	Am Krautacker	17.0	—	17.7	**24.4**	17.1	-30 %	17.1	-30 %	19.1	-22 %
IO T43	Hollbeck	17.0	—	13.1	**20.5**	17.1	-17 %	17.1	-17 %	18.4	-10 %
IO T44	Teutendorf	17.0	—	8.6	**18.5**	17.1	-8 %	17.1	-8 %	18.4	-1 %
IO MP1	Meas. point Skandinavienkai (2000)	17.0	—	17.4	**21.3**	17.1	-20 %	17.1	-20 %	20.2	-5 %
IO MP2	Measuring point Priwall ferry (2000)	17.0	—	24.9	**28.0**	17.6	-37 %	17.6	-37 %	22.7	-19 %
IO MP3	Meauring point Kurpark (2000)	17.0	—	20.7	**23.6**	18.3	-22 %	18.3	-22 %	18.6	-21 %

A 7.1.8 Total SO_2 Pollution (1 Hour Value S24)

Immission point (monitor point)		Total SO_2 pollution (1 hour value S24) [µg/m³]									
		Background pollution	Add. pollution road traffic	Add. pollution shipping	Sum Actual Scenario	Reduction concept 1a	Comparison with Actual Scenario	Reduction concept 1b	Comparison with Actual Scenario	Reduction concept 2	Comparison with Actual Scenario
IO 1	Teutendorfer Weg/ An der Bak	20.1	—	99.8	**103.5**	51.2	-51 %	51.2	-51 %	81.2	-22 %
IO 2	St. Jürgen-Straße	20.1	—	98.0	**101.0**	44.5	-56 %	44.5	-56 %	79.8	-21 %
IO 3	Rönnauer Ring	20.1	—	98.9	**105.9**	44.1	-58 %	44.1	-58 %	75.9	-28 %
IO 4	Rönnauer Weg/ Ivendorfer Landstr.	20.1	—	92.9	**95.5**	41.6	-56 %	41.6	-56 %	75.8	-21 %
IO 5	Rönnauer Weg/ Ivendorfer Landstr.	20.1	—	93.5	**97.8**	47.9	-51 %	47.9	-51 %	80.3	-18 %
IO 6	Rönnauer Weg/ Ivendorfer Landstr.	20.1	—	91.1	**95.3**	40.0	-58 %	40.0	-58 %	66.1	-31 %
IO 7	Ostseestraße/ Pommernzentrum	20.1	—	90.5	**93.5**	41.8	-55 %	41.8	-55 %	76.6	-18 %
IO 8	Ostseestraße/ Pommernzentrum	20.1	—	90.7	**93.5**	44.5	-52 %	44.5	-52 %	75.1	-20 %
IO 9	Ostseestraße/ Pommernzentrum	20.1	—	81.5	**83.5**	42.2	-49 %	42.2	-49 %	68.8	-18 %
IO A	Ivendorf/ Ovendorfer Straße	20.1	—	51.1	**55.2**	30.5	-45 %	30.5	-45 %	40.0	-28 %
IO B	Ivendorf/ Ovendorfer Straße	20.1	—	58.9	**61.0**	27.0	-56 %	27.0	-56 %	41.3	-32 %
IO C	Ivendorf/ Ivendorfer Landstraße	20.1	—	49.8	**53.9**	31.1	-42 %	31.1	-42 %	42.2	-22 %
IO D	Ivendorf/ Ivendorfer Landstraße	20.1	—	50.3	**55.1**	28.0	-49 %	28.0	-49 %	39.5	-28 %
IO E	Ivendorf/ Ivendorfer Landstraße	20.1	—	46.1	**52.0**	26.1	-50 %	26.1	-50 %	36.0	-31 %
IO F	Ivendorf/ Ivendorfer Landstraße	20.1	—	43.5	**46.1**	25.6	-44 %	25.6	-44 %	32.8	-29 %
IO G	Ivendorf/ Ivendorfer Landstraße	20.1	—	31.1	**34.0**	27.0	-21 %	27.0	-21 %	30.6	-10 %
IO H	Ivendorf/ Ivendorfer Landstraße	20.1	—	31.3	**36.4**	23.1	-37 %	23.1	-37 %	28.0	-23 %
IO I	Blessenacker/ Travemünder Landstr.	20.1	—	24.7	**29.7**	22.0	-26 %	22.0	-26 %	25.0	-16 %
IO L	Travemünder Landstr.	20.1	—	27.5	**32.9**	25.1	-24 %	25.1	-24 %	27.0	-18 %
IO N	Boldwiesenkoppel	20.1	—	26.6	**31.7**	27.0	-15 %	27.0	-15 %	27.0	-15 %
IO P	Scheidekoppel	20.1	—	36.8	**40.7**	25.0	-39 %	25.0	-39 %	32.0	-21 %
IO Q	Borndiek	20.1	—	59.4	**61.8**	30.2	-51 %	30.2	-51 %	47.5	-23 %
IO S	Priwall/ Traveufer	20.1	—	101.1	**105.9**	39.0	-63 %	39.0	-63 %	75.4	-29 %
IO T	Auf dem Baggersand	20.1	—	95.5	**98.2**	48.5	-51 %	48.5	-51 %	70.3	-28 %
IO U	Priwall/ Traveufer	20.1	—	85.1	**87.2**	36.5	-58 %	36.5	-58 %	61.9	-29 %
IO V	Priwall/ Traveufer	20.1	—	100.6	**104.9**	37.9	-64 %	37.9	-64 %	74.4	-29 %
IO W	Dummersdorfer Ufer	20.1	—	83.5	**88.3**	36.2	-59 %	36.2	-59 %	66.1	-25 %
IO X	Dummersdorfer Ufer	20.1	—	79.8	**81.8**	31.1	-62 %	31.1	-62 %	54.2	-34 %
IO Y	Dummersdorfer Ufer	20.1	—	81.9	**84.1**	33.6	-60 %	33.6	-60 %	58.8	-30 %
IO Z	Vorderreihe/ Priwallfähre	20.1	—	78.5	**82.5**	51.5	-38 %	51.5	-38 %	67.7	-18 %
IO T1	Vorderreihe/ Ostpreußenkai	20.1	—	83.3	**87.1**	54.8	-37 %	54.8	-37 %	58.9	-32 %
IO T2	Yachthafen/ Kaiserbrücke	20.1	—	73.6	**81.7**	64.0	-22 %	64.0	-22 %	52.4	-36 %
IO P1	Priwall/ Fähre	20.1	—	74.2	**77.4**	42.7	-45 %	42.7	-45 %	59.6	-23 %
IO P2	Priwall/ Passathafen	20.1	—	64.4	**69.4**	40.2	-42 %	40.2	-42 %	47.3	-32 %
IO P3	Priwall/ Passathafen	20.1	—	51.5	**55.9**	43.8	-22 %	43.8	-22 %	44.5	-20 %
IO P4	Priwall/ Traveufer	20.1	—	100.4	**104.0**	33.9	-67 %	33.9	-67 %	72.0	-31 %
IO P5	Priwall/ Traveufer	20.1	—	103.2	**110.0**	39.7	-64 %	39.7	-64 %	79.4	-28 %
IO P6	Priwall/ Kläranlage	20.1	—	105.5	**107.7**	38.6	-64 %	38.6	-64 %	81.3	-25 %
IO P7	Priwall/ Weggabelung Teich	20.1	—	92.8	**96.2**	39.2	-59 %	39.2	-59 %	68.1	-29 %
IO P8	Priwall/ Rosenhof	20.1	—	87.4	**93.3**	35.9	-62 %	35.9	-62 %	68.9	-26 %
IO P9	Priwall/ Rosenhof	20.1	—	76.0	**80.6**	37.2	-54 %	37.2	-54 %	58.2	-28 %
IO P10	Priwall/ Rosenhof	20.1	—	73.9	**78.2**	42.0	-46 %	42.0	-46 %	61.1	-22 %
IO P11	Priwall/ Fliegerweg	20.1	—	61.8	**65.9**	32.0	-51 %	32.0	-51 %	51.0	-23 %
IO P12	Priwall/ Pötenitzer Weg	20.1	—	50.9	**55.2**	32.1	-42 %	32.1	-42 %	42.5	-23 %
IO P13	Priwall/ Pötenitzer Weg	20.1	—	59.6	**63.7**	32.4	-49 %	32.4	-49 %	48.5	-24 %
lO P14	Priwall/ Seemannsschule	20.1	—	52.4	**56.4**	31.5	-44 %	31.5	-44 %	39.2	-30 %
lO P15	Priwall/ Krankenhaus	20.1	—	51.6	**56.4**	33.7	-40 %	33.7	-40 %	42.6	-24 %
IO P16	Priwall/ Krankenhaus	20.1	—	46.1	**49.5**	33.1	-33 %	33.1	-33 %	37.7	-24 %
IO P17	Priwall/ Haus des Kurgastes	20.1	—	40.8	**45.7**	33.4	-27 %	33.4	-27 %	33.9	-26 %
IO T3	Marina Baltica	20.1	—	153.9	**156.0**	56.2	-64 %	56.2	-64 %	114.3	-27 %
IO T4	Fischereihafen	20.1	—	106.0	**111.5**	49.8	-55 %	49.8	-55 %	89.0	-20 %
IO T5	Torstraße	20.1	—	84.5	**88.5**	51.4	-42 %	51.4	-42 %	68.1	-23 %
IO T6	Kirchenstraße	20.1	—	92.4	**96.2**	54.0	-44 %	54.0	-44 %	67.9	-29 %
IO T7	Kurgartenstraße	20.1	—	76.8	**82.8**	53.2	-36 %	53.2	-36 %	55.5	-33 %
IO T8	Vorderreihe/ Prinzenbrücke	20.1	—	75.8	**78.9**	60.0	-24 %	60.0	-24 %	51.0	-35 %
IO T9	Am Lotsenberg	20.1	—	66.8	**69.4**	47.9	-31 %	47.9	-31 %	49.1	-29 %
lO T10	Rose	20.1	—	71.0	**73.5**	48.1	-35 %	48.1	-35 %	56.7	-23 %
IO T11	Rose	20.1	—	71.9	**78.2**	45.6	-42 %	45.6	-42 %	51.3	-34 %
IO T12	Rose	20.1	—	71.0	**78.2**	43.6	-44 %	43.6	-44 %	48.8	-38 %
IO T13	Boelckestraße	20.1	—	76.6	**79.5**	46.7	-41 %	46.7	-41 %	55.9	-30 %
IO T14	Fehlingstraße	20.1	—	71.1	**74.7**	43.0	-42 %	43.0	-42 %	48.5	-35 %
lO T15	Fehlingstraße	20.1	—	58.9	**62.1**	45.7	-26 %	45.7	-26 %	47.3	-24 %
IO T16	Mühlenberg/ Ziegenhorst	20.1	—	63.9	**67.8**	44.4	-35 %	44.4	-35 %	47.3	-30 %
IO T17	Gneversdorfer Weg	20.1	—	74.1	**76.7**	48.1	-37 %	48.1	-37 %	59.8	-22 %
IO T18	Gneversdorfer Weg	20.1	—	66.2	**73.2**	38.0	-48 %	38.0	-48 %	58.3	-20 %
IO T19	Gneversdorfer Weg	20.1	—	53.2	**58.1**	34.4	-41 %	34.4	-41 %	44.8	-23 %
lO T20	Gneversdorfer Weg/ Moorredder	20.1	—	65.1	**69.4**	37.7	-46 %	37.7	-46 %	48.6	-30 %
IO T21	Moorredder	20.1	—	60.8	**62.9**	43.2	-31 %	43.2	-31 %	49.5	-21 %
IO T22	Moorredder	20.1	—	57.3	**62.6**	42.2	-33 %	42.2	-33 %	43.9	-30 %
IO T23	Am Fahrenberg	20.1	—	54.0	**58.5**	36.9	-37 %	36.9	-37 %	40.3	-31 %
IO T24	Parkallee/ Kurhaus	20.1	—	61.3	**64.1**	45.7	-29 %	45.7	-29 %	45.9	-28 %
lO T25	Kurpark	20.1	—	62.6	**65.1**	48.3	-26 %	48.3	-26 %	46.3	-29 %
IO T26	Steenkamp	20.1	—	54.6	**58.9**	36.2	-39 %	36.2	-39 %	42.5	-28 %
IO T27	Steenkamp	20.1	—	49.8	**54.0**	39.1	-28 %	39.1	-28 %	39.1	-28 %
IO T28	Steenkamp	20.1	—	43.3	**48.6**	35.1	-28 %	35.1	-28 %	38.3	-21 %
IO T29	Steenkamp/ Kleingärten	20.1	—	42.5	**48.6**	31.1	-36 %	31.1	-36 %	37.3	-23 %
lO T30	Schwedenstraße	20.1	—	57.9	**60.6**	35.8	-41 %	35.8	-41 %	43.8	-28 %
IO T31	Grönlandstraße	20.1	—	41.8	**48.0**	32.4	-33 %	32.4	-33 %	40.0	-17 %
IO T32	Kaiserallee	20.1	—	48.7	**53.7**	44.4	-17 %	44.4	-17 %	41.2	-23 %
IO T33	Kaiserallee	20.1	—	53.6	**57.8**	39.5	-32 %	39.5	-32 %	36.8	-36 %
IO T34	Kaiserallee	20.1	—	51.9	**55.4**	33.9	-39 %	33.9	-39 %	40.5	-27 %
lO T35	Steuerbord	20.1	—	50.0	**55.2**	33.6	-39 %	33.6	-39 %	37.5	-32 %
IO T36	Achterdeck	20.1	—	48.1	**51.4**	39.1	-24 %	39.1	-24 %	37.4	-27 %
IO T37	Strandweg	20.1	—	45.1	**49.2**	35.3	-28 %	35.3	-28 %	37.4	-24 %
IO T38	Alfred-Hagelstein-Straße	20.1	—	36.8	**44.7**	32.0	-28 %	32.0	-28 %	32.5	-27 %
IO T39	Scheteligstraße	20.1	—	43.8	**48.3**	35.9	-26 %	35.9	-26 %	39.7	-18 %
IO T40	Gneversdorfer Kamp	20.1	—	49.0	**57.2**	34.2	-40 %	34.2	-40 %	39.8	-30 %
lO T41	Teutendorfer Weg	20.1	—	54.1	**57.4**	33.4	-42 %	33.4	-42 %	52.4	-9 %
IO T42	Am Krautacker	20.1	—	70.3	**72.8**	34.7	-52 %	34.7	-52 %	55.9	-23 %
IO T43	Hollbeck	20.1	—	44.8	**49.4**	31.5	-36 %	31.5	-36 %	40.7	-18 %
IO T44	Teutendorf	20.1	—	42.8	**49.1**	28.4	-42 %	28.4	-42 %	36.0	-27 %
IO MP1	Meas. point Skandinavienkai (2000)	20.1	—	68.1	**70.2**	35.3	-50 %	35.3	-50 %	56.5	-20 %
IO MP2	Measuring point Priwall ferry (2000)	20.1	—	94.9	**98.0**	55.6	-43 %	55.6	-43 %	67.1	-32 %
IO MP3	Meauring point Kurpark (2000)	20.1	—	62.4	**64.9**	48.5	-25 %	48.5	-25 %	50.0	-23 %

A 7.1.9 Total PM_{10} Pollution (Annual Average Value J00)

Immission point (monitor point)		Total PM_{10} pollution (annual average value J00) [µg/m³]									
		Background pollution	Add. pollution road traffic	Add. pollution shipping	Sum Actual Scenario	Reduction concept 1a	Comparison with Actual Scenario	Reduction concept 1b	Comparison with Actual Scenario	Reduction concept 2	Comparison with Actual Scenario
IO 1	Teutendorfer Weg/ An der Bak	19.7	1.7	0.3	**21.7**	21.6	0 %	21.6	0 %	21.7	0 %
IO 2	St. Jürgen-Straße	19.7	0.4	0.3	**20.4**	20.3	0 %	20.3	0 %	20.4	0 %
IO 3	Rönnauer Ring	19.7	0.4	0.3	**20.4**	20.3	0 %	20.3	0 %	20.4	0 %
IO 4	Rönnauer Weg/ Ivendorfer Landstr.	19.7	0.9	0.3	**20.9**	20.8	0 %	20.8	0 %	20.9	0 %
IO 5	Rönnauer Weg/ Ivendorfer Landstr.	19.7	1.6	0.3	**21.6**	21.5	0 %	21.5	0 %	21.6	0 %
IO 6	Rönnauer Weg/ Ivendorfer Landstr.	19.7	0.4	0.3	**20.4**	20.3	0 %	20.3	0 %	20.4	0 %
IO 7	Ostseestraße/ Pommernzentrum	19.7	0.7	0.4	**20.8**	20.6	-1 %	20.6	-1 %	20.8	0 %
IO 8	Ostseestraße/ Pommernzentrum	19.7	1.1	0.4	**21.2**	21.0	-1 %	21.0	-1 %	21.2	0 %
IO 9	Ostseestraße/ Pommernzentrum	19.7	0.4	0.3	**20.4**	20.3	0 %	20.3	0 %	20.4	0 %
IO A	Ivendorf/ Ovendorfer Straße	19.7	3.8	0.2	**23.7**	23.6	0 %	23.6	0 %	23.7	0 %
IO B	Ivendorf/ Ovendorfer Straße	19.7	1.7	0.2	**21.6**	21.5	0 %	21.5	0 %	21.6	0 %
IO C	Ivendorf/ Ivendorfer Landstraße	19.7	0.7	0.2	**20.6**	20.5	0 %	20.5	0 %	20.6	0 %
IO D	Ivendorf/ Ivendorfer Landstraße	19.7	0.9	0.2	**20.8**	20.7	0 %	20.7	0 %	20.8	0 %
IO E	Ivendorf/ Ivendorfer Landstraße	19.7	1.3	0.1	**21.1**	21.1	0 %	21.1	0 %	21.1	0 %
IO F	Ivendorf/ Ivendorfer Landstraße	19.7	1.3	0.1	**21.1**	21.1	0 %	21.1	0 %	21.1	0 %
IO G	Ivendorf/ Ivendorfer Landstraße	19.7	3.2	0.1	**23.0**	23.0	0 %	23.0	0 %	23.0	0 %
IO H	Ivendorf/ Ivendorfer Landstraße	19.7	3.3	0.1	**23.1**	23.1	0 %	23.1	0 %	23.1	0 %
IO I	Blessenacker/ Travemünder Landstr.	19.7	0.8	0.1	**20.6**	20.5	0 %	20.5	0 %	20.6	0 %
IO L	Travemünder Landstr.	19.7	1.8	0.1	**21.6**	21.5	0 %	21.5	0 %	21.6	0 %
IO N	Boldwiesenkoppel	19.7	0.6	0.1	**20.4**	20.4	0 %	20.4	0 %	20.4	0 %
IO P	Scheidekoppel	19.7	0.1	0.1	**19.9**	19.9	0 %	19.9	0 %	19.9	0 %
IO Q	Borndiek	19.7	1.5	0.3	**21.5**	21.3	-1 %	21.3	-1 %	21.5	0 %
IO S	Priwall/ Traveufer	19.7	0.1	0.8	**20.6**	20.3	-1 %	20.3	-1 %	20.6	0 %
IO T	Auf dem Baggersand	19.7	0.9	0.4	**21.0**	20.9	0 %	20.9	0 %	21.0	0 %
IO U	Priwall/ Traveufer	19.7	0.3	0.9	**20.9**	20.3	-3 %	20.3	-3 %	20.9	0 %
IO V	Priwall/ Traveufer	19.7	0.5	1.1	**21.3**	20.7	-3 %	20.7	-3 %	21.3	0 %
IO W	Dummersdorfer Ufer	19.7	0.2	0.3	**20.2**	20.1	0 %	20.1	0 %	20.2	0 %
IO X	Dummersdorfer Ufer	19.7	0.2	0.3	**20.2**	20.1	0 %	20.0	-1 %	20.2	0 %
IO Y	Dummersdorfer Ufer	19.7	0.2	0.3	**20.2**	20.1	0 %	20.1	0 %	20.2	0 %
IO Z	Vorderreihe/ Priwallfähre	19.7	0.5	0.5	**20.7**	20.5	-1 %	20.5	-1 %	20.7	0 %
IO T1	Vorderreihe/ Ostpreußenkai	19.7	0.3	0.5	**20.5**	20.4	0 %	20.4	0 %	20.5	0 %
IO T2	Yachthafen/ Kaiserbrücke	19.7	0.5	0.5	**20.7**	20.6	0 %	20.6	0 %	20.7	0 %
IO P1	Priwall/ Fähre	19.7	0.2	0.6	**20.5**	20.4	0 %	20.3	-1 %	20.5	0 %
IO P2	Priwall/ Passathafen	19.7	0.1	0.6	**20.4**	20.2	-1 %	20.2	-1 %	20.4	0 %
IO P3	Priwall/ Passathafen	19.7	0.0	0.6	**20.3**	20.1	-1 %	20.1	-1 %	20.3	0 %
IO P4	Priwall/ Traveufer	19.7	0.4	1.1	**21.2**	20.5	-3 %	20.4	-4 %	21.2	0 %
IO P5	Priwall/ Traveufer	19.7	0.3	0.9	**20.9**	20.5	-2 %	20.5	-2 %	20.9	0 %
IO P6	Priwall/ Kläranlage	19.7	0.2	1.0	**20.9**	20.5	-2 %	20.4	-2 %	20.9	0 %
IO P7	Priwall/ Weggabelung Teich	19.7	0.2	1.1	**21.0**	20.4	-3 %	20.4	-3 %	21.0	0 %
IO P8	Priwall/ Rosenhof	19.7	0.1	0.8	**20.6**	20.3	-1 %	20.3	-1 %	20.6	0 %
IO P9	Priwall/ Rosenhof	19.7	0.1	0.7	**20.5**	20.3	-1 %	20.3	-1 %	20.5	0 %
IO P10	Priwall/ Rosenhof	19.7	1.0	0.7	**21.4**	21.2	-1 %	21.2	-1 %	21.4	0 %
IO P11	Priwall/ Fliegerweg	19.7	0.1	0.6	**20.4**	20.2	-1 %	20.2	-1 %	20.4	0 %
IO P12	Priwall/ Pötenitzer Weg	19.7	0.1	0.6	**20.4**	20.1	-1 %	20.1	-1 %	20.4	0 %
IO P13	Priwall/ Pötenitzer Weg	19.7	0.1	0.6	**20.4**	20.1	-1 %	20.1	-1 %	20.4	0 %
IO P14	Priwall/ Seemannsschule	19.7	0.0	0.5	**20.2**	20.0	-1 %	20.0	-1 %	20.2	0 %
IO P15	Priwall/ Krankenhaus	19.7	0.1	0.6	**20.4**	20.2	-1 %	20.2	-1 %	20.4	0 %
IO P16	Priwall/ Krankenhaus	19.7	0.4	0.5	**20.6**	20.4	-1 %	20.4	-1 %	20.6	0 %
IO P17	Priwall/ Haus des Kurgastes	19.7	0.0	0.4	**20.1**	20.0	0 %	20.0	0 %	20.1	0 %
IO T3	Marina Baltica	19.7	0.8	0.4	**20.9**	20.7	-1 %	20.7	-1 %	20.9	0 %
IO T4	Fischereihafen	19.7	0.5	0.4	**20.6**	20.4	-1 %	20.4	-1 %	20.6	0 %
IO T5	Torstraße	19.7	0.8	0.4	**20.9**	20.8	0 %	20.8	0 %	20.9	0 %
IO T6	Kirchenstraße	19.7	1.3	0.4	**21.4**	21.3	0 %	21.3	0 %	21.4	0 %
IO T7	Kurgartenstraße	19.7	1.1	0.5	**21.3**	21.1	-1 %	21.1	-1 %	21.3	0 %
IO T8	Vorderreihe/ Prinzenbrücke	19.7	0.4	0.5	**20.6**	20.5	0 %	20.5	0 %	20.6	0 %
IO T9	Am Lotsenberg	19.7	1.1	0.4	**21.2**	21.1	0 %	21.1	0 %	21.2	0 %
IO T10	Rose	19.7	0.6	0.4	**20.7**	20.6	0 %	20.6	0 %	20.7	0 %
IO T11	Rose	19.7	0.4	0.4	**20.5**	20.4	0 %	20.4	0 %	20.5	0 %
IO T12	Rose	19.7	0.3	0.3	**20.3**	20.2	0 %	20.2	0 %	20.3	0 %
IO T13	Boelckestraße	19.7	0.2	0.4	**20.3**	20.2	0 %	20.2	0 %	20.3	0 %
IO T14	Fehlingstraße	19.7	0.5	0.4	**20.6**	20.5	0 %	20.5	0 %	20.6	0 %
IO T15	Fehlingstraße	19.7	0.4	0.3	**20.4**	20.3	0 %	20.3	0 %	20.4	0 %
IO T16	Mühlenberg/ Ziegenhorst	19.7	0.4	0.3	**20.4**	20.3	0 %	20.3	0 %	20.4	0 %
IO T17	Gneversdorfer Weg	19.7	3.6	0.3	**23.6**	23.5	0 %	23.5	0 %	23.6	0 %
IO T18	Gneversdorfer Weg	19.7	1.4	0.2	**21.3**	21.3	0 %	21.3	0 %	21.3	0 %
IO T19	Gneversdorfer Weg	19.7	1.2	0.2	**21.1**	21.0	0 %	21.0	0 %	21.1	0 %
IO T20	Gneversdorfer Weg/ Moorredder	19.7	2.0	0.2	**21.9**	21.9	0 %	21.9	0 %	21.9	0 %
IO T21	Moorredder	19.7	1.3	0.2	**21.2**	21.2	0 %	21.2	0 %	21.2	0 %
IO T22	Moorredder	19.7	2.5	0.2	**22.4**	22.4	0 %	22.4	0 %	22.4	0 %
IO T23	Am Fahrenberg	19.7	0.9	0.2	**20.8**	20.8	0 %	20.8	0 %	20.8	0 %
IO T24	Parkallee/ Kurhaus	19.7	0.2	0.4	**20.3**	20.2	0 %	20.2	0 %	20.3	0 %
IO T25	Kurpark	19.7	0.2	0.4	**20.3**	20.2	0 %	20.2	0 %	20.3	0 %
IO T26	Steenkamp	19.7	0.5	0.2	**20.4**	20.4	0 %	20.4	0 %	20.4	0 %
IO T27	Steenkamp	19.7	0.9	0.2	**20.8**	20.8	0 %	20.8	0 %	20.8	0 %
IO T28	Steenkamp	19.7	0.4	0.2	**20.3**	20.2	0 %	20.2	0 %	20.3	0 %
IO T29	Steenkamp/ Kleingärten	19.7	0.1	0.2	**20.0**	19.9	-1 %	19.9	-1 %	20.0	0 %
IO T30	Schwedenstraße	19.7	0.1	0.2	**20.0**	19.9	-1 %	19.9	-1 %	20.0	0 %
IO T31	Grönlandstraße	19.7	0.3	0.1	**20.1**	20.1	0 %	20.1	0 %	20.1	0 %
IO T32	Kaiserallee	19.7	0.4	0.3	**20.4**	20.3	0 %	20.3	0 %	20.4	0 %
IO T33	Kaiserallee	19.7	0.2	0.2	**20.1**	20.1	0 %	20.1	0 %	20.1	0 %
IO T34	Kaiserallee	19.7	0.2	0.2	**20.1**	20.0	0 %	20.0	0 %	20.1	0 %
IO T35	Steuerbord	19.7	0.3	0.2	**20.2**	20.2	0 %	20.2	0 %	20.2	0 %
IO T36	Achterdeck	19.7	0.2	0.2	**20.1**	20.1	0 %	20.1	0 %	20.1	0 %
IO T37	Strandweg	19.7	0.2	0.2	**20.1**	20.0	0 %	20.0	0 %	20.1	0 %
IO T38	Alfred-Hagelstein-Straße	19.7	0.3	0.1	**20.1**	20.1	0 %	20.1	0 %	20.1	0 %
IO T39	Scheteligstraße	19.7	0.0	0.2	**19.9**	19.8	-1 %	19.8	-1 %	19.9	0 %
IO T40	Gneversdorfer Kamp	19.7	0.5	0.1	**20.3**	20.3	0 %	20.3	0 %	20.3	0 %
IO T41	Teutendorfer Weg	19.7	1.7	0.2	**21.6**	21.5	0 %	21.5	0 %	21.6	0 %
IO T42	Am Krautacker	19.7	0.2	0.2	**20.1**	20.0	0 %	20.0	0 %	20.1	0 %
IO T43	Hollbeck	19.7	0.5	0.1	**20.3**	20.3	0 %	20.3	0 %	20.3	0 %
IO T44	Teutendorf	19.7	0.3	0.1	**20.1**	20.1	0 %	20.1	0 %	20.1	0 %
IO MP1	Meas. point Skandinavienkai (2000)	19.7	0.4	0.4	**20.5**	20.3	-1 %	20.3	-1 %	20.5	0 %
IO MP2	Measuring point Priwall ferry (2000)	19.7	0.3	0.5	**20.5**	20.3	-1 %	20.3	-1 %	20.5	0 %
IO MP3	Meauring point Kurpark (2000)	19.7	0.3	0.4	**20.4**	20.3	0 %	20.3	0 %	20.4	0 %

A 7.1.10 Total PM_{10} Pollution (24 Hours Value T35)

Immission point (monitor point)		Total PM_{10} pollution (24 hours value T35) [µg/m³]									
		Background pollution	Add. pollution road traffic	Add. pollution shipping	Sum Actual Scenario	Reduction concept 1a	Comparison with Actual Scenario	Reduction concept 1b	Comparison with Actual Scenario	Reduction concept 2	Comparison with Actual Scenario
IO 1	Teutendorfer Weg/ An der Bak	35.7	3.0	0.9	**37.1**	36.7	-1 %	36.8	-1 %	37.1	0 %
IO 2	St. Jürgen-Straße	35.7	0.9	1.0	**35.8**	35.7	0 %	35.7	0 %	35.8	0 %
IO 3	Rönnauer Ring	35.7	1.0	0.9	**35.7**	35.7	0 %	35.7	0 %	35.7	0 %
IO 4	Rönnauer Weg/ Ivendorfer Landstr.	35.7	2.9	1.0	**36.7**	36.3	-1 %	36.8	0 %	36.7	0 %
IO 5	Rönnauer Weg/ Ivendorfer Landstr.	35.7	4.8	1.1	**38.3**	38.2	0 %	38.2	0 %	38.3	0 %
IO 6	Rönnauer Weg/ Ivendorfer Landstr.	35.7	1.2	1.0	**36.4**	35.8	-2 %	35.8	-2 %	36.4	0 %
IO 7	Ostseestraße/ Pommernzentrum	35.7	1.8	1.2	**37.6**	36.1	-4 %	36.0	-4 %	37.6	0 %
IO 8	Ostseestraße/ Pommernzentrum	35.7	2.9	1.3	**39.1**	36.8	-6 %	36.9	-6 %	39.1	0 %
IO 9	Ostseestraße/ Pommernzentrum	35.7	1.0	1.2	**36.0**	35.8	-1 %	35.8	-1 %	36.0	0 %
IO A	Ivendorf/ Ovendorfer Straße	35.7	7.8	0.8	**40.6**	40.5	0 %	40.5	0 %	40.6	0 %
IO B	Ivendorf/ Ovendorfer Straße	35.7	3.4	0.8	**37.0**	37.0	0 %	36.9	0 %	37.0	0 %
IO C	Ivendorf/ Ivendorfer Landstraße	35.7	1.5	0.8	**36.0**	36.0	0 %	36.0	0 %	36.0	0 %
IO D	Ivendorf/ Ivendorfer Landstraße	35.7	1.7	0.7	**36.0**	36.0	0 %	36.0	0 %	36.0	0 %
IO E	Ivendorf/ Ivendorfer Landstraße	35.7	2.3	0.6	**36.4**	36.4	0 %	36.4	0 %	36.4	0 %
IO F	Ivendorf/ Ivendorfer Landstraße	35.7	2.1	0.5	**36.7**	36.4	-1 %	36.4	-1 %	36.7	0 %
IO G	Ivendorf/ Ivendorfer Landstraße	35.7	5.6	0.4	**38.8**	38.8	0 %	38.8	0 %	38.8	0 %
IO H	Ivendorf/ Ivendorfer Landstraße	35.7	5.3	0.4	**38.7**	38.7	0 %	38.7	0 %	38.7	0 %
IO I	Blessenacker/ Travemünder Landstr.	35.7	1.8	0.3	**35.8**	35.8	0 %	35.8	0 %	35.8	0 %
IO L	Travemünder Landstr.	35.7	4.0	0.3	**38.0**	37.8	-1 %	37.8	-1 %	38.0	0 %
IO N	Boldwiesenkoppel	35.7	1.7	0.3	**35.6**	35.6	0 %	35.6	0 %	35.6	0 %
IO P	Scheidekoppel	35.7	0.3	0.4	**35.6**	35.6	0 %	35.6	0 %	35.6	0 %
IO Q	Borndiek	35.7	3.2	1.0	**36.8**	36.7	0 %	36.7	0 %	36.8	0 %
IO S	Priwall/ Traveufer	35.7	0.4	1.8	**36.7**	36.3	-1 %	36.3	-1 %	36.7	0 %
IO T	Auf dem Baggersand	35.7	1.4	1.1	**36.4**	36.3	0 %	36.3	0 %	36.4	0 %
IO U	Priwall/ Traveufer	35.7	0.6	2.1	**37.0**	36.1	-2 %	35.9	-3 %	37.0	0 %
IO V	Priwall/ Traveufer	35.7	0.9	2.5	**37.3**	36.5	-2 %	36.6	-2 %	37.3	0 %
IO W	Dummersdorfer Ufer	35.7	0.6	1.2	**35.7**	35.7	0 %	35.7	0 %	35.7	0 %
IO X	Dummersdorfer Ufer	35.7	0.7	1.2	**35.7**	35.7	0 %	35.7	0 %	35.7	0 %
IO Y	Dummersdorfer Ufer	35.7	0.5	1.0	**35.6**	35.6	0 %	35.6	0 %	35.6	0 %
IO Z	Vorderreihe/ Priwallfähre	35.7	0.9	1.5	**36.5**	36.4	0 %	36.4	0 %	36.5	0 %
IO T1	Vorderreihe/ Ostpreußenkai	35.7	0.7	1.5	**36.4**	36.3	0 %	36.3	0 %	36.4	0 %
IO T2	Yachthafen/ Kaiserbrücke	35.7	1.0	1.4	**36.6**	36.3	-1 %	36.3	-1 %	36.6	0 %
IO P1	Priwall/ Fähre	35.7	0.4	1.5	**36.5**	36.2	-1 %	36.1	-1 %	36.5	0 %
IO P2	Priwall/ Passathafen	35.7	0.3	1.2	**36.3**	36.2	0 %	36.1	-1 %	36.3	0 %
IO P3	Priwall/ Passathafen	35.7	0.2	1.2	**36.3**	36.2	0 %	36.1	-1 %	36.3	0 %
IO P4	Priwall/ Traveufer	35.7	0.8	2.4	**37.5**	36.3	-3 %	36.3	-3 %	37.5	0 %
IO P5	Priwall/ Traveufer	35.7	0.6	2.2	**37.4**	36.6	-2 %	36.6	-2 %	37.4	0 %
IO P6	Priwall/ Kläranlage	35.7	0.6	2.2	**37.2**	36.4	-2 %	36.3	-2 %	37.2	0 %
IO P7	Priwall/ Weggabelung Teich	35.7	0.4	2.3	**37.2**	36.6	-2 %	36.5	-2 %	37.2	0 %
IO P8	Priwall/ Rosenhof	35.7	0.4	1.9	**37.0**	36.3	-2 %	36.2	-2 %	37.0	0 %
IO P9	Priwall/ Rosenhof	35.7	0.3	1.5	**36.7**	36.4	-1 %	36.3	-1 %	36.7	0 %
IO P10	Priwall/ Rosenhof	35.7	1.7	1.5	**37.2**	36.6	-2 %	36.6	-2 %	37.2	0 %
IO P11	Priwall/ Fliegerweg	35.7	0.3	1.4	**36.3**	36.1	-1 %	36.1	-1 %	36.3	0 %
IO P12	Priwall/ Pötenitzer Weg	35.7	0.2	1.3	**36.1**	36.0	0 %	36.0	0 %	36.1	0 %
IO P13	Priwall/ Pötenitzer Weg	35.7	0.2	1.3	**36.2**	35.9	-1 %	36.0	-1 %	36.2	0 %
lO P14	Priwall/ Seemannsschule	35.7	0.2	1.1	**36.1**	35.9	-1 %	35.9	-1 %	36.1	0 %
lO P15	Priwall/ Krankenhaus	35.7	0.3	1.2	**36.0**	36.0	0 %	36.0	0 %	36.0	0 %
IO P16	Priwall/ Krankenhaus	35.7	0.9	1.0	**36.2**	36.3	0 %	36.2	0 %	36.2	0 %
IO P17	Priwall/ Haus des Kurgastes	35.7	0.2	0.8	**36.0**	35.9	0 %	35.9	0 %	36.0	0 %
IO T3	Marina Baltica	35.7	1.6	1.4	**36.4**	36.3	0 %	36.3	0 %	36.4	0 %
IO T4	Fischereihafen	35.7	0.8	1.2	**36.1**	35.9	-1 %	35.9	-1 %	36.1	0 %
IO T5	Torstraße	35.7	1.5	1.3	**36.2**	36.0	-1 %	36.0	-1 %	36.2	0 %
IO T6	Kirchenstraße	35.7	2.3	1.3	**37.1**	37.0	0 %	37.0	0 %	37.1	0 %
IO T7	Kurgartenstraße	35.7	1.8	1.4	**36.9**	36.8	0 %	36.7	-1 %	36.9	0 %
IO T8	Vorderreihe/ Prinzenbrücke	35.7	0.7	1.4	**36.4**	36.3	0 %	36.3	0 %	36.4	0 %
IO T9	Am Lotsenberg	35.7	1.8	1.2	**36.9**	36.7	-1 %	36.7	-1 %	36.9	0 %
lO T10	Rose	35.7	1.0	1.2	**36.2**	36.1	0 %	36.1	0 %	36.2	0 %
IO T11	Rose	35.7	0.7	1.0	**36.1**	35.9	-1 %	36.0	0 %	36.1	0 %
IO T12	Rose	35.7	0.8	0.9	**35.9**	35.9	0 %	35.9	0 %	35.9	0 %
IO T13	Boelckestraße	35.7	0.5	1.1	**36.0**	36.0	0 %	36.0	0 %	36.0	0 %
IO T14	Fehlingstraße	35.7	0.9	1.0	**36.1**	36.1	0 %	36.1	0 %	36.1	0 %
lO T15	Fehlingstraße	35.7	0.7	0.9	**36.1**	36.1	0 %	36.0	0 %	36.1	0 %
IO T16	Mühlenberg/ Ziegenhorst	35.7	0.8	0.9	**36.2**	36.2	0 %	36.1	0 %	36.2	0 %
IO T17	Gneversdorfer Weg	35.7	6.2	0.9	**39.4**	39.1	-1 %	39.1	-1 %	39.4	0 %
IO T18	Gneversdorfer Weg	35.7	3.7	0.7	**36.5**	36.5	0 %	36.7	1 %	36.5	0 %
IO T19	Gneversdorfer Weg	35.7	2.3	0.6	**36.6**	36.5	0 %	36.5	0 %	36.6	0 %
lO T20	Gneversdorfer Weg/ Moorredder	35.7	3.4	0.7	**37.3**	37.0	-1 %	37.0	-1 %	37.3	0 %
IO T21	Moorredder	35.7	2.4	0.7	**36.8**	36.6	-1 %	36.6	-1 %	36.8	0 %
IO T22	Moorredder	35.7	4.2	0.7	**37.8**	37.6	-1 %	37.5	-1 %	37.8	0 %
IO T23	Am Fahrenberg	35.7	1.5	0.7	**36.3**	36.3	0 %	36.3	0 %	36.3	0 %
IO T24	Parkallee/ Kurhaus	35.7	0.5	1.1	**36.0**	35.9	0 %	35.9	0 %	36.0	0 %
lO T25	Kurpark	35.7	0.4	1.0	**35.9**	35.9	0 %	35.9	0 %	35.9	0 %
IO T26	Steenkamp	35.7	0.8	0.7	**36.0**	35.9	0 %	35.9	0 %	36.0	0 %
IO T27	Steenkamp	35.7	1.6	0.7	**36.2**	36.2	0 %	36.2	0 %	36.2	0 %
IO T28	Steenkamp	35.7	0.8	0.6	**35.9**	35.9	0 %	35.9	0 %	35.9	0 %
IO T29	Steenkamp/ Kleingärten	35.7	0.3	0.5	**35.7**	35.7	0 %	35.7	0 %	35.7	0 %
lO T30	Schwedenstraße	35.7	0.4	0.6	**35.7**	35.7	0 %	35.7	0 %	35.7	0 %
IO T31	Grönlandstraße	35.7	0.5	0.5	**35.8**	35.8	0 %	35.8	0 %	35.8	0 %
IO T32	Kaiserallee	35.7	0.7	0.8	**36.1**	36.1	0 %	36.1	0 %	36.1	0 %
IO T33	Kaiserallee	35.7	0.6	0.7	**35.9**	35.9	0 %	36.0	0 %	35.9	0 %
IO T34	Kaiserallee	35.7	0.5	0.6	**35.8**	35.8	0 %	35.8	0 %	35.8	0 %
lO T35	Steuerbord	35.7	0.7	0.7	**36.0**	36.0	0 %	36.0	0 %	36.0	0 %
IO T36	Achterdeck	35.7	0.4	0.6	**35.8**	35.8	0 %	35.8	0 %	35.8	0 %
IO T37	Strandweg	35.7	0.5	0.6	**35.8**	35.8	0 %	35.8	0 %	35.8	0 %
IO T38	Alfred-Hagelstein-Straße	35.7	0.6	0.5	**35.8**	35.8	0 %	35.8	0 %	35.8	0 %
IO T39	Scheteligstraße	35.7	0.2	0.5	**35.7**	35.7	0 %	35.7	0 %	35.7	0 %
IO T40	Gneversdorfer Kamp	35.7	1.0	0.5	**35.9**	35.9	0 %	35.9	0 %	35.9	0 %
lO T41	Teutendorfer Weg	35.7	2.7	0.6	**36.8**	36.8	0 %	36.8	0 %	36.8	0 %
IO T42	Am Krautacker	35.7	0.4	0.6	**35.7**	35.7	0 %	35.7	0 %	35.7	0 %
IO T43	Hollbeck	35.7	1.1	0.4	**35.9**	35.9	0 %	35.9	0 %	35.9	0 %
IO T44	Teutendorf	35.7	1.0	0.4	**35.6**	35.6	0 %	35.6	0 %	35.6	0 %
IO MP1	Meas. point Skandinavienkai (2000)	35.7	0.9	1.6	**35.8**	35.8	0 %	35.8	0 %	35.8	0 %
IO MP2	Measuring point Priwall ferry (2000)	35.7	0.7	1.7	**36.1**	36.1	0 %	36.1	0 %	36.1	0 %
IO MP3	Meauring point Kurpark (2000)	35.7	0.6	1.1	**36.1**	36.1	0 %	36.1	0 %	36.1	0 %

A 7.1.11 Total Soot Pollution (Annual Average Value J00)

Immission point (monitor point)		Total soot pollution (annual average value J00) [µg/m³]									
		Background pollution	Add. pollution road traffic	Add. pollution shipping	Sum Actual Scenario	Reduction concept 1a	Comparison with Actual Scenario	Reduction concept 1b	Comparison with Actual Scenario	Reduction concept 2	Comparison with Actual Scenario
IO 1	Teutendorfer Weg/ An der Bak	2.0	0.1	0.1	**2.2**	2.2	0 %	2.2	0 %	2.2	0 %
IO 2	St. Jürgen-Straße	2.0	0.0	0.1	**2.1**	2.1	0 %	2.1	0 %	2.1	0 %
IO 3	Rönnauer Ring	2.0	0.0	0.1	**2.1**	2.1	0 %	2.1	0 %	2.1	0 %
IO 4	Rönnauer Weg/ Ivendorfer Landstr.	2.0	0.0	0.1	**2.1**	2.1	0 %	2.1	0 %	2.1	0 %
IO 5	Rönnauer Weg/ Ivendorfer Landstr.	2.0	0.0	0.1	**2.1**	2.1	0 %	2.1	0 %	2.1	0 %
IO 6	Rönnauer Weg/ Ivendorfer Landstr.	2.0	0.0	0.1	**2.1**	2.1	0 %	2.1	0 %	2.1	0 %
IO 7	Ostseestraße/ Pommernzentrum	2.0	0.0	0.1	**2.1**	2.1	0 %	2.1	0 %	2.1	0 %
IO 8	Ostseestraße/ Pommernzentrum	2.0	0.0	0.2	**2.2**	2.1	-5 %	2.1	-5 %	2.2	0 %
IO 9	Ostseestraße/ Pommernzentrum	2.0	0.0	0.1	**2.1**	2.1	0 %	2.1	0 %	2.1	0 %
IO A	Ivendorf/ Ovendorfer Straße	2.0	0.1	0.1	**2.2**	2.1	-5 %	2.1	-5 %	2.2	0 %
IO B	Ivendorf/ Ovendorfer Straße	2.0	0.0	0.1	**2.1**	2.0	-5 %	2.0	-5 %	2.1	0 %
IO C	Ivendorf/ Ivendorfer Landstraße	2.0	0.0	0.1	**2.1**	2.0	-5 %	2.0	-5 %	2.1	0 %
IO D	Ivendorf/ Ivendorfer Landstraße	2.0	0.0	0.1	**2.1**	2.0	-5 %	2.0	-5 %	2.1	0 %
IO E	Ivendorf/ Ivendorfer Landstraße	2.0	0.0	0.1	**2.1**	2.0	-5 %	2.0	-5 %	2.1	0 %
IO F	Ivendorf/ Ivendorfer Landstraße	2.0	0.0	0.1	**2.1**	2.0	-5 %	2.0	-5 %	2.1	0 %
IO G	Ivendorf/ Ivendorfer Landstraße	2.0	0.0	0.0	**2.0**	2.0	0 %	2.0	0 %	2.0	0 %
IO H	Ivendorf/ Ivendorfer Landstraße	2.0	0.0	0.0	**2.0**	2.0	0 %	2.0	0 %	2.0	0 %
IO I	Blessenacker/ Travemünder Landstr.	2.0	0.0	0.0	**2.0**	2.0	0 %	2.0	0 %	2.0	0 %
IO L	Travemünder Landstr.	2.0	0.0	0.0	**2.0**	2.0	0 %	2.0	0 %	2.0	0 %
IO N	Boldwiesenkoppel	2.0	0.0	0.0	**2.0**	2.0	0 %	2.0	0 %	2.0	0 %
IO P	Scheidekoppel	2.0	0.0	0.0	**2.0**	2.0	0 %	2.0	0 %	2.0	0 %
IO Q	Borndiek	2.0	0.0	0.1	**2.1**	2.1	0 %	2.0	-5 %	2.1	0 %
IO S	Priwall/ Traveufer	2.0	0.0	0.3	**2.3**	2.2	-4 %	2.2	-4 %	2.3	0 %
IO T	Auf dem Baggersand	2.0	0.0	0.2	**2.2**	2.1	-5 %	2.1	-5 %	2.2	0 %
IO U	Priwall/ Traveufer	2.0	0.0	0.4	**2.4**	2.1	-13 %	2.1	-13 %	2.4	0 %
IO V	Priwall/ Traveufer	2.0	0.0	0.4	**2.4**	2.2	-8 %	2.2	-8 %	2.4	0 %
IO W	Dummersdorfer Ufer	2.0	0.0	0.1	**2.1**	2.1	0 %	2.1	0 %	2.1	0 %
IO X	Dummersdorfer Ufer	2.0	0.0	0.1	**2.1**	2.1	0 %	2.1	0 %	2.1	0 %
IO Y	Dummersdorfer Ufer	2.0	0.0	0.1	**2.1**	2.1	0 %	2.1	0 %	2.1	0 %
IO Z	Vorderreihe/ Priwallfähre	2.0	0.0	0.2	**2.2**	2.1	-5 %	2.1	-5 %	2.2	0 %
IO T1	Vorderreihe/ Ostpreußenkai	2.0	0.0	0.2	**2.2**	2.1	-5 %	2.1	-5 %	2.2	0 %
IO T2	Yachthafen/ Kaiserbrücke	2.0	0.0	0.2	**2.2**	2.2	0 %	2.2	0 %	2.2	0 %
IO P1	Priwall/ Fähre	2.0	0.0	0.3	**2.3**	2.2	-4 %	2.2	-4 %	2.3	0 %
IO P2	Priwall/ Passathafen	2.0	0.0	0.2	**2.2**	2.2	0 %	2.2	0 %	2.2	0 %
IO P3	Priwall/ Passathafen	2.0	0.0	0.2	**2.2**	2.2	0 %	2.2	0 %	2.2	0 %
IO P4	Priwall/ Traveufer	2.0	0.0	0.5	**2.5**	2.1	-16 %	2.1	-16 %	2.5	0 %
IO P5	Priwall/ Traveufer	2.0	0.0	0.4	**2.4**	2.2	-8 %	2.2	-8 %	2.4	0 %
IO P6	Priwall/ Kläranlage	2.0	0.0	0.4	**2.4**	2.2	-8 %	2.2	-8 %	2.4	0 %
IO P7	Priwall/ Weggabelung Teich	2.0	0.0	0.4	**2.4**	2.2	-8 %	2.2	-8 %	2.4	0 %
IO P8	Priwall/ Rosenhof	2.0	0.0	0.3	**2.3**	2.2	-4 %	2.2	-4 %	2.3	0 %
IO P9	Priwall/ Rosenhof	2.0	0.0	0.3	**2.3**	2.2	-4 %	2.2	-4 %	2.3	0 %
IO P10	Priwall/ Rosenhof	2.0	0.1	0.3	**2.4**	2.3	-4 %	2.3	-4 %	2.4	0 %
IO P11	Priwall/ Fliegerweg	2.0	0.0	0.3	**2.3**	2.2	-4 %	2.2	-4 %	2.3	0 %
IO P12	Priwall/ Pötenitzer Weg	2.0	0.0	0.2	**2.2**	2.1	-5 %	2.1	-5 %	2.2	0 %
IO P13	Priwall/ Pötenitzer Weg	2.0	0.0	0.2	**2.2**	2.1	-5 %	2.1	-5 %	2.2	0 %
IO P14	Priwall/ Seemannsschule	2.0	0.0	0.2	**2.2**	2.1	-5 %	2.1	-5 %	2.2	0 %
IO P15	Priwall/ Krankenhaus	2.0	0.0	0.2	**2.2**	2.1	-5 %	2.1	-5 %	2.2	0 %
IO P16	Priwall/ Krankenhaus	2.0	0.0	0.2	**2.2**	2.1	-5 %	2.1	-5 %	2.2	0 %
IO P17	Priwall/ Haus des Kurgastes	2.0	0.0	0.2	**2.2**	2.1	-5 %	2.1	-5 %	2.2	0 %
IO T3	Marina Baltica	2.0	0.0	0.2	**2.2**	2.1	-5 %	2.1	-5 %	2.2	0 %
IO T4	Fischereihafen	2.0	0.0	0.1	**2.1**	2.1	0 %	2.1	0 %	2.1	0 %
IO T5	Torstraße	2.0	0.0	0.2	**2.2**	2.1	-5 %	2.1	-5 %	2.2	0 %
IO T6	Kirchenstraße	2.0	0.1	0.2	**2.3**	2.2	-4 %	2.2	-4 %	2.3	0 %
IO T7	Kurgartenstraße	2.0	0.1	0.2	**2.3**	2.2	-4 %	2.2	-4 %	2.3	0 %
IO T8	Vorderreihe/ Prinzenbrücke	2.0	0.0	0.2	**2.2**	2.1	-5 %	2.1	-5 %	2.2	0 %
IO T9	Am Lotsenberg	2.0	0.1	0.2	**2.3**	2.2	-4 %	2.2	-4 %	2.3	0 %
IO T10	Rose	2.0	0.0	0.2	**2.2**	2.1	-5 %	2.1	-5 %	2.2	0 %
IO T11	Rose	2.0	0.0	0.1	**2.1**	2.1	0 %	2.1	0 %	2.1	0 %
IO T12	Rose	2.0	0.0	0.1	**2.1**	2.1	0 %	2.1	0 %	2.1	0 %
IO T13	Boelckestraße	2.0	0.0	0.1	**2.1**	2.1	0 %	2.1	0 %	2.1	0 %
IO T14	Fehlingstraße	2.0	0.0	0.1	**2.1**	2.1	0 %	2.1	0 %	2.1	0 %
IO T15	Fehlingstraße	2.0	0.0	0.1	**2.1**	2.1	0 %	2.1	0 %	2.1	0 %
IO T16	Mühlenberg/ Ziegenhorst	2.0	0.0	0.1	**2.1**	2.1	0 %	2.1	0 %	2.1	0 %
IO T17	Gneversdorfer Weg	2.0	0.2	0.1	**2.3**	2.3	0 %	2.3	0 %	2.3	0 %
IO T18	Gneversdorfer Weg	2.0	0.1	0.1	**2.2**	2.2	0 %	2.2	0 %	2.2	0 %
IO T19	Gneversdorfer Weg	2.0	0.1	0.1	**2.2**	2.1	-5 %	2.1	-5 %	2.2	0 %
IO T20	Gneversdorfer Weg/ Moorredder	2.0	0.1	0.1	**2.2**	2.2	0 %	2.2	0 %	2.2	0 %
IO T21	Moorredder	2.0	0.1	0.1	**2.2**	2.2	0 %	2.2	0 %	2.2	0 %
IO T22	Moorredder	2.0	0.2	0.1	**2.3**	2.3	0 %	2.3	0 %	2.3	0 %
IO T23	Am Fahrenberg	2.0	0.0	0.1	**2.1**	2.1	0 %	2.1	0 %	2.1	0 %
IO T24	Parkallee/ Kurhaus	2.0	0.0	0.2	**2.2**	2.1	-5 %	2.1	-5 %	2.2	0 %
IO T25	Kurpark	2.0	0.0	0.1	**2.1**	2.1	0 %	2.1	0 %	2.1	0 %
IO T26	Steenkamp	2.0	0.0	0.1	**2.1**	2.1	0 %	2.1	0 %	2.1	0 %
IO T27	Steenkamp	2.0	0.0	0.1	**2.1**	2.1	0 %	2.1	0 %	2.1	0 %
IO T28	Steenkamp	2.0	0.0	0.1	**2.1**	2.1	0 %	2.1	0 %	2.1	0 %
IO T29	Steenkamp/ Kleingärten	2.0	0.0	0.1	**2.1**	2.0	-5 %	2.0	-5 %	2.1	0 %
IO T30	Schwedenstraße	2.0	0.0	0.1	**2.1**	2.1	0 %	2.0	-5 %	2.1	0 %
IO T31	Grönlandstraße	2.0	0.0	0.1	**2.1**	2.0	-5 %	2.0	-5 %	2.1	0 %
IO T32	Kaiserallee	2.0	0.0	0.1	**2.1**	2.1	0 %	2.1	0 %	2.1	0 %
IO T33	Kaiserallee	2.0	0.0	0.1	**2.1**	2.1	0 %	2.1	0 %	2.1	0 %
IO T34	Kaiserallee	2.0	0.0	0.1	**2.1**	2.1	0 %	2.1	0 %	2.1	0 %
IO T35	Steuerbord	2.0	0.0	0.1	**2.1**	2.1	0 %	2.1	0 %	2.1	0 %
IO T36	Achterdeck	2.0	0.0	0.1	**2.1**	2.1	0 %	2.1	0 %	2.1	0 %
IO T37	Strandweg	2.0	0.0	0.1	**2.1**	2.1	0 %	2.1	0 %	2.1	0 %
IO T38	Alfred-Hagelstein-Straße	2.0	0.0	0.1	**2.1**	2.0	-5 %	2.0	-5 %	2.1	0 %
IO T39	Scheteligstraße	2.0	0.0	0.1	**2.1**	2.0	-5 %	2.0	-5 %	2.1	0 %
IO T40	Gneversdorfer Kamp	2.0	0.0	0.1	**2.1**	2.0	-5 %	2.0	-5 %	2.1	0 %
IO T41	Teutendorfer Weg	2.0	0.1	0.1	**2.2**	2.1	-5 %	2.1	-5 %	2.2	0 %
IO T42	Am Krautacker	2.0	0.0	0.1	**2.1**	2.1	0 %	2.1	0 %	2.1	0 %
IO T43	Hollbeck	2.0	0.0	0.1	**2.1**	2.0	-5 %	2.0	-5 %	2.1	0 %
IO T44	Teutendorf	2.0	0.0	0.0	**2.0**	2.0	0 %	2.0	0 %	2.0	0 %
IO MP1	Meas. point Skandinavienkai (2000)	2.0	0.0	0.2	**2.2**	2.1	-5 %	2.1	-5 %	2.2	0 %
IO MP2	Measuring point Priwall ferry (2000)	2.0	0.0	0.2	**2.2**	2.1	-5 %	2.1	-5 %	2.2	0 %
IO MP3	Meauring point Kurpark (2000)	2.0	0.0	0.2	**2.2**	2.1	-5 %	2.1	-5 %	2.2	0 %

A 7.2 Total Pollutions, Forecast Scenario

A 7.2.1 Total NOx Pollution (Annual Average Value J00)

Immission point (monitor point)		Total NOx pollution (annual average value J00) [µg/m³]													
		Background pollution	Add. pollution road traffic	Add. pollution shipping	Sum Forecast Sce.	Reduction concept 1a	Comparison with Forecast Sce.	Reduction concept 1b	Comparison with Forecast Sce.	Reduction concept 2	Comparison with Forecast Sce.	Reduction concepts 1a+3	Comparison with Forecast Sce.	Reduction concepts 1b+3	Comparison with Forecast Sce.
IO 1	Teutendorfer Weg/ An der Bak	27.1	7.2	9.7	**44.0**	37.8	-14 %	37.8	-14 %	43.9	0 %	37.8	-14 %	37.6	-15 %
IO 2	St. Jürgen-Straße	27.1	2.1	9.3	**38.5**	32.4	-16 %	32.4	-16 %	38.8	1 %	32.6	-15 %	32.4	-16 %
IO 3	Rönnauer Ring	27.1	1.8	9.1	**38.0**	32.0	-16 %	31.9	-16 %	38.1	0 %	32.0	-16 %	31.9	-16 %
IO 4	Rönnauer Weg/ Ivendorfer Landstr.	27.1	1.9	10.3	**39.3**	32.2	-18 %	32.1	-18 %	39.2	0 %	32.1	-18 %	32.1	-18 %
IO 5	Rönnauer Weg/ Ivendorfer Landstr.	27.1	2.0	10.7	**39.8**	32.4	-19 %	32.3	-19 %	40.0	1 %	32.3	-19 %	32.2	-19 %
IO 6	Rönnauer Weg/ Ivendorfer Landstr.	27.1	1.1	9.9	**38.1**	31.2	-18 %	31.2	-18 %	38.2	0 %	31.2	-18 %	31.1	-18 %
IO 7	Ostseestraße/ Pommernzentrum	27.1	1.3	12.9	**41.3**	32.0	-23 %	31.8	-23 %	40.7	-1 %	31.9	-23 %	31.8	-23 %
IO 8	Ostseestraße/ Pommernzentrum	27.1	2.8	13.3	**43.2**	33.7	-22 %	33.6	-22 %	43.1	0 %	33.6	-22 %	33.5	-22 %
IO 9	Ostseestraße/ Pommernzentrum	27.1	1.1	11.2	**39.4**	31.4	-20 %	31.4	-20 %	39.4	0 %	31.5	-20 %	31.3	-21 %
IO A	Ivendorf/ Ovendorfer Straße	27.1	10.2	8.2	**45.5**	39.3	-14 %	39.2	-14 %	45.4	0 %	39.3	-14 %	39.3	-14 %
IO B	Ivendorf/ Ovendorfer Straße	27.1	5.6	8.1	**40.8**	34.8	-15 %	34.7	-15 %	41.2	1 %	34.7	-15 %	34.7	-15 %
IO C	Ivendorf/ Ivendorfer Landstraße	27.1	3.9	7.9	**38.9**	33.0	-15 %	32.9	-15 %	38.9	0 %	33.0	-15 %	32.9	-15 %
IO D	Ivendorf/ Ivendorfer Landstraße	27.1	4.4	7.3	**38.8**	33.4	-14 %	33.3	-14 %	38.5	-1 %	33.2	-14 %	33.2	-14 %
IO E	Ivendorf/ Ivendorfer Landstraße	27.1	5.6	5.7	**38.4**	34.1	-11 %	34.2	-11 %	38.6	1 %	34.3	-11 %	34.2	-11 %
IO F	Ivendorf/ Ivendorfer Landstraße	27.1	5.4	5.0	**37.5**	34.0	-9 %	33.9	-10 %	37.5	0 %	33.8	-10 %	33.8	-10 %
IO G	Ivendorf/ Ivendorfer Landstraße	27.1	9.2	4.3	**40.6**	37.6	-7 %	37.5	-8 %	40.8	0 %	37.5	-8 %	37.4	-8 %
IO H	Ivendorf/ Ivendorfer Landstraße	27.1	11.0	3.8	**41.9**	39.1	-7 %	39.2	-6 %	42.1	0 %	39.2	-6 %	39.1	-7 %
IO I	Blessenacker/ Travemünder Landstr.	27.1	2.1	2.5	**31.7**	29.9	-6 %	30.0	-5 %	31.6	0 %	29.9	-6 %	29.9	-6 %
IO L	Travemünder Landstr.	27.1	5.2	3.1	**35.4**	33.2	-6 %	33.2	-6 %	35.7	1 %	33.3	-6 %	33.2	-6 %
IO N	Boldwiesenkoppel	27.1	2.1	3.6	**32.8**	30.2	-8 %	30.2	-8 %	32.7	0 %	30.2	-8 %	30.2	-8 %
IO P	Scheidekoppel	27.1	0.4	4.7	**32.2**	28.8	-11 %	28.8	-11 %	32.0	-1 %	28.8	-11 %	28.7	-11 %
IO Q	Borndiek	27.1	3.3	10.3	**40.7**	32.8	-19 %	32.7	-20 %	40.6	0 %	32.7	-20 %	32.7	-20 %
IO S	Priwall/ Traveufer	27.1	0.6	24.2	**51.9**	35.5	-32 %	35.3	-32 %	51.3	-1 %	35.4	-32 %	35.1	-32 %
IO T	Auf dem Baggersand	27.1	3.9	12.3	**43.3**	35.4	-18 %	35.3	-18 %	43.3	0 %	35.3	-18 %	35.4	-18 %
IO U	Priwall/ Traveufer	27.1	0.5	35.2	**62.8**	33.4	-47 %	33.2	-47 %	63.0	0 %	33.4	-47 %	33.1	-47 %
IO V	Priwall/ Traveufer	27.1	0.5	36.3	**63.9**	34.8	-46 %	34.6	-46 %	63.8	0 %	34.6	-46 %	34.5	-46 %
IO W	Dummersdorfer Ufer	27.1	0.7	11.0	**38.8**	30.8	-21 %	30.6	-21 %	38.7	0 %	30.6	-21 %	30.6	-21 %
IO X	Dummersdorfer Ufer	27.1	0.8	13.0	**40.9**	30.8	-25 %	30.7	-25 %	40.9	0 %	30.8	-25 %	30.6	-25 %
IO Y	Dummersdorfer Ufer	27.1	0.6	13.3	**41.0**	30.6	-25 %	30.6	-25 %	40.7	-1 %	30.6	-25 %	30.6	-25 %
IO Z	Vorderreihe/ Priwallfähre	27.1	2.2	14.0	**43.3**	34.9	-19 %	34.9	-19 %	43.2	0 %	35.0	-19 %	34.9	-19 %
IO T1	Vorderreihe/ Ostpreußenkai	27.1	1.8	14.8	**43.7**	35.3	-19 %	35.1	-20 %	43.7	0 %	35.3	-19 %	35.1	-20 %
IO T2	Yachthafen/ Kaiserbrücke	27.1	2.2	13.8	**43.1**	35.9	-17 %	35.9	-17 %	43.4	1 %	36.1	-16 %	36.0	-16 %
IO P1	Priwall/ Fähre	27.1	1.0	17.9	**46.0**	35.8	-22 %	35.6	-23 %	46.2	0 %	35.6	-23 %	35.5	-23 %
IO P2	Priwall/ Passathafen	27.1	0.5	17.3	**44.9**	35.7	-20 %	35.6	-21 %	44.5	-1 %	35.5	-21 %	35.5	-21 %
IO P3	Priwall/ Passathafen	27.1	0.6	16.0	**43.7**	35.7	-18 %	35.7	-18 %	43.5	0 %	35.6	-19 %	35.5	-19 %
IO P4	Priwall/ Traveufer	27.1	0.5	40.1	**67.7**	34.5	-49 %	34.1	-50 %	67.5	0 %	34.3	-49 %	34.0	-50 %
IO P5	Priwall/ Traveufer	27.1	0.6	26.8	**54.5**	35.1	-36 %	35.0	-36 %	54.8	1 %	34.9	-36 %	34.7	-36 %
IO P6	Priwall/ Kläranlage	27.1	0.5	30.7	**58.3**	35.8	-39 %	35.6	-39 %	58.2	0 %	35.5	-39 %	35.3	-39 %
IO P7	Priwall/ Weggabelung Teich	27.1	0.5	35.2	**62.8**	35.9	-43 %	35.9	-43 %	62.8	0 %	36.2	-42 %	35.8	-43 %
IO P8	Priwall/ Rosenhof	27.1	0.6	23.6	**51.3**	35.6	-31 %	35.5	-31 %	51.2	0 %	35.5	-31 %	35.3	-31 %
IO P9	Priwall/ Rosenhof	27.1	0.6	23.4	**51.1**	35.5	-31 %	35.3	-31 %	50.7	-1 %	35.3	-31 %	35.2	-31 %
IO P10	Priwall/ Rosenhof	27.1	3.6	19.1	**49.8**	38.5	-23 %	38.3	-23 %	50.2	1 %	38.5	-23 %	38.3	-23 %
IO P11	Priwall/ Fliegerweg	27.1	0.5	20.2	**47.8**	34.7	-27 %	34.6	-28 %	47.5	-1 %	34.6	-28 %	34.4	-28 %
IO P12	Priwall/ Pötenitzer Weg	27.1	0.4	18.6	**46.1**	33.7	-27 %	33.6	-27 %	45.7	-1 %	33.6	-27 %	33.5	-27 %
IO P13	Priwall/ Pötenitzer Weg	27.1	0.3	20.5	**47.9**	33.3	-30 %	33.2	-31 %	47.7	0 %	33.2	-31 %	33.0	-31 %
IO P14	Priwall/ Seemannsschule	27.1	0.2	16.0	**43.3**	32.6	-25 %	32.5	-25 %	43.3	0 %	32.5	-25 %	32.4	-25 %
IO P15	Priwall/ Krankenhaus	27.1	0.9	16.8	**44.8**	34.6	-23 %	34.5	-23 %	44.4	-1 %	34.7	-23 %	34.6	-23 %
IO P16	Priwall/ Krankenhaus	27.1	1.9	15.2	**44.2**	35.0	-21 %	35.0	-21 %	44.2	0 %	34.7	-21 %	34.6	-22 %
IO P17	Priwall/ Haus des Kurgastes	27.1	0.4	12.9	**40.4**	32.9	-19 %	32.8	-19 %	40.4	0 %	32.9	-19 %	32.8	-19 %
IO T3	Marina Baltica	27.1	1.1	13.9	**42.1**	32.3	-23 %	32.1	-24 %	42.4	1 %	32.2	-24 %	32.1	-24 %
IO T4	Fischereihafen	27.1	1.4	12.2	**40.7**	32.6	-20 %	32.5	-20 %	40.5	0 %	32.4	-20 %	32.3	-21 %
IO T5	Torstraße	27.1	3.9	12.5	**43.5**	35.8	-18 %	35.7	-18 %	43.5	0 %	35.7	-18 %	35.6	-18 %
IO T6	Kirchenstraße	27.1	6.2	12.4	**45.7**	38.4	-16 %	38.4	-16 %	45.8	0 %	38.4	-16 %	38.3	-16 %
IO T7	Kurgartenstraße	27.1	4.9	13.4	**45.4**	37.7	-17 %	37.7	-17 %	45.3	0 %	37.8	-17 %	37.7	-17 %
IO T8	Vorderreihe/ Prinzenbrücke	27.1	2.2	14.0	**43.3**	35.6	-18 %	35.6	-18 %	43.4	0 %	35.8	-17 %	35.6	-18 %
IO T9	Am Lotsenberg	27.1	4.9	12.2	**44.2**	37.8	-14 %	37.7	-15 %	44.0	0 %	37.8	-14 %	37.7	-15 %
IO T10	Rose	27.1	2.8	11.4	**41.3**	34.9	-15 %	34.9	-15 %	40.8	-1 %	34.9	-15 %	34.7	-16 %
IO T11	Rose	27.1	2.2	10.0	**39.3**	33.9	-14 %	33.8	-14 %	39.3	0 %	33.8	-14 %	33.8	-14 %
IO T12	Rose	27.1	2.2	8.1	**37.4**	32.8	-12 %	32.7	-13 %	37.2	-1 %	32.9	-12 %	32.9	-12 %
IO T13	Boelckestraße	27.1	1.7	10.7	**39.5**	33.3	-16 %	33.3	-16 %	39.2	-1 %	33.3	-16 %	33.2	-16 %
IO T14	Fehlingstraße	27.1	2.6	10.5	**40.2**	34.5	-14 %	34.6	-14 %	40.1	0 %	34.4	-14 %	34.4	-14 %
IO T15	Fehlingstraße	27.1	2.0	8.6	**37.7**	33.4	-11 %	33.4	-11 %	37.9	1 %	33.3	-12 %	33.4	-11 %
IO T16	Mühlenberg/ Ziegenhorst	27.1	2.3	9.1	**38.5**	33.6	-13 %	33.6	-13 %	38.6	0 %	33.7	-12 %	33.7	-12 %
IO T17	Gneversdorfer Weg	27.1	19.1	8.6	**54.8**	49.8	-9 %	49.7	-9 %	55.3	1 %	49.8	-9 %	49.7	-9 %
IO T18	Gneversdorfer Weg	27.1	7.8	7.8	**42.7**	37.9	-11 %	38.0	-11 %	42.5	0 %	37.9	-11 %	37.9	-11 %
IO T19	Gneversdorfer Weg	27.1	6.5	5.7	**39.3**	36.0	-8 %	35.8	-9 %	39.4	0 %	35.9	-9 %	35.8	-9 %
IO T20	Gneversdorfer Weg/ Moorredder	27.1	10.6	7.5	**45.2**	40.6	-10 %	40.6	-10 %	45.0	0 %	40.6	-10 %	40.6	-10 %
IO T21	Moorredder	27.1	6.1	7.3	**40.5**	36.2	-11 %	36.2	-11 %	40.6	0 %	36.1	-11 %	36.0	-11 %
IO T22	Moorredder	27.1	9.6	7.3	**44.0**	39.9	-9 %	39.9	-9 %	43.8	0 %	39.9	-9 %	39.8	-10 %
IO T23	Am Fahrenberg	27.1	3.7	6.9	**37.7**	34.0	-10 %	34.0	-10 %	37.8	0 %	34.1	-10 %	34.1	-10 %
IO T24	Parkallee/ Kurhaus	27.1	1.3	11.1	**39.5**	34.0	-14 %	34.0	-14 %	39.6	0 %	34.0	-14 %	34.0	-14 %
IO T25	Kurpark	27.1	1.1	9.8	**38.0**	33.0	-13 %	32.9	-13 %	38.1	0 %	33.1	-13 %	33.0	-13 %
IO T26	Steenkamp	27.1	2.3	7.3	**36.7**	32.9	-10 %	32.7	-11 %	36.7	0 %	32.7	-11 %	32.7	-11 %
IO T27	Steenkamp	27.1	3.5	6.3	**36.9**	33.5	-9 %	33.5	-9 %	36.9	0 %	33.5	-9 %	33.5	-9 %
IO T28	Steenkamp	27.1	2.0	5.7	**34.8**	31.8	-9 %	31.7	-9 %	34.9	0 %	31.6	-9 %	31.5	-9 %
IO T29	Steenkamp/ Kleingärten	27.1	1.0	5.3	**33.4**	30.4	-9 %	30.3	-9 %	33.4	0 %	30.3	-9 %	30.3	-9 %
IO T30	Schwedenstraße	27.1	1.4	6.2	**34.7**	31.0	-11 %	31.0	-11 %	34.4	-1 %	31.0	-11 %	31.0	-11 %
IO T31	Grönlandstraße	27.1	1.6	5.2	**33.9**	30.7	-9 %	30.7	-9 %	33.7	-1 %	30.7	-9 %	30.7	-9 %
IO T32	Kaiserallee	27.1	2.0	8.6	**37.7**	33.2	-12 %	33.2	-12 %	37.5	-1 %	33.2	-12 %	33.2	-12 %
IO T33	Kaiserallee	27.1	1.4	6.9	**35.4**	31.8	-10 %	31.8	-10 %	35.6	1 %	31.9	-10 %	31.7	-10 %
IO T34	Kaiserallee	27.1	1.3	5.5	**33.9**	31.1	-8 %	31.0	-9 %	33.8	0 %	31.0	-9 %	31.0	-9 %
IO T35	Steuerbord	27.1	2.0	6.3	**35.4**	32.2	-9 %	32.2	-9 %	35.7	1 %	32.1	-9 %	32.1	-9 %
IO T36	Achterdeck	27.1	1.1	6.3	**34.5**	31.1	-10 %	31.1	-10 %	34.5	0 %	31.1	-10 %	31.2	-10 %
IO T37	Strandweg	27.1	1.4	5.7	**34.2**	31.2	-9 %	31.1	-9 %	34.1	0 %	31.2	-9 %	31.2	-9 %
IO T38	Alfred-Hagelstein-Straße	27.1	1.6	4.6	**33.3**	30.9	-7 %	31.0	-7 %	33.3	0 %	30.9	-7 %	30.9	-7 %
IO T39	Scheteligstraße	27.1	0.7	5.1	**32.9**	30.0	-9 %	30.1	-9 %	32.8	0 %	30.0	-9 %	30.0	-9 %
IO T40	Gneversdorfer Kamp	27.1	2.8	4.4	**34.3**	31.8	-7 %	31.7	-8 %	34.6	1 %	31.7	-8 %	31.6	-8 %
IO T41	Teutendorfer Weg	27.1	6.3	5.7	**39.1**	35.5	-9 %	35.6	-9 %	39.1	0 %	35.5	-9 %	35.5	-9 %
IO T42	Am Krautacker	27.1	1.1	6.4	**34.6**	30.5	-12 %	30.5	-12 %	34.8	1 %	30.6	-12 %	30.4	-12 %
IO T43	Hollbeck	27.1	2.8	4.7	**34.6**	31.5	-9 %	31.5	-9 %	34.6	0 %	31.6	-9 %	31.6	-9 %
IO T44	Teutendorf	27.1	2.1	3.6	**32.8**	30.5	-7 %	30.5	-7 %	32.8	0 %	30.6	-7 %	30.5	-7 %
IO MP1	Messort Skandinavienkai (2000)	27.1	0.8	13.3	**41.2**	31.3	-24 %	31.2	-24 %	41.4	0 %	31.2	-24 %	31.2	-24 %
IO MP2	Messort Priwallfähre (2000)	27.1	1.4	14.9	**43.4**	33.8	-22 %	33.8	-22 %	43.4	0 %	34.0	-22 %	33.8	-22 %
IO MP3	Messort Kurpark (2000)	27.1	1.6	10.8	**39.5**	33.9	-14 %	33.9	-14 %	39.5	0 %	34.0	-14 %	33.8	-14 %

A 7.2.2 Total NOx Pollution (98 Percentile)

Immission point (monitor point)		Total NOx pollution (98 percentile) [µg/m³]													
		Background pollution	Add. pollution road traffic	Add. pollution shipping	Sum Forecast Sce.	Reduction concept 1a	Comparison with Forecast Sce.	Reduction concept 1b	Comparison with Forecast Sce.	Reduction concept 2	Comparison with Forecast Sce.	Reduction concepts 1a+3	Comparison with Forecast Sce.	Reduction concepts 1b+3	Comparison with Forecast Sce.
IO 1	Teutendorfer Weg/ An der Bak	89.8	33.8	146.6	**195.4**	119.5	-39 %	121.4	-38 %	191.5	-2 %	120.6	-38 %	119.2	-39 %
IO 2	St. Jürgen-Straße	89.8	12.2	133.4	**184.5**	109.7	-41 %	109.1	-41 %	184.1	0 %	113.5	-38 %	113.5	-38 %
IO 3	Rönnauer Ring	89.8	11.8	134.7	**178.5**	106.5	-40 %	106.8	-40 %	182.8	2 %	107.7	-40 %	106.1	-41 %
IO 4	Rönnauer Weg/ Ivendorfer Landstr.	89.8	10.4	158.7	**197.8**	108.0	-45 %	109.0	-45 %	199.0	1 %	106.6	-46 %	105.9	-46 %
IO 5	Rönnauer Weg/ Ivendorfer Landstr.	89.8	11.3	166.7	**204.8**	106.2	-48 %	106.1	-48 %	199.5	-3 %	105.0	-49 %	106.5	-48 %
IO 6	Rönnauer Weg/ Ivendorfer Landstr.	89.8	7.2	148.7	**184.4**	103.7	-44 %	103.4	-44 %	187.1	1 %	104.9	-43 %	103.2	-44 %
IO 7	Ostseestraße/ Pommernzentrum	89.8	8.1	185.2	**217.6**	105.7	-51 %	106.1	-51 %	220.3	1 %	105.7	-51 %	105.6	-51 %
IO 8	Ostseestraße/ Pommernzentrum	89.8	15.2	191.7	**230.7**	111.6	-52 %	110.0	-52 %	232.1	1 %	109.7	-52 %	109.8	-52 %
IO 9	Ostseestraße/ Pommernzentrum	89.8	7.6	166.1	**202.5**	103.1	-49 %	103.1	-49 %	201.4	-1 %	103.7	-49 %	103.7	-49 %
IO A	Ivendorf/ Ovendorfer Straße	89.8	57.9	113.3	**182.5**	121.3	-34 %	121.3	-34 %	174.4	-4 %	122.5	-33 %	121.9	-33 %
IO B	Ivendorf/ Ovendorfer Straße	89.8	33.0	113.1	**163.6**	105.6	-35 %	106.4	-35 %	171.6	5 %	105.6	-35 %	105.6	-35 %
IO C	Ivendorf/ Ivendorfer Landstraße	89.8	22.0	114.8	**162.2**	101.6	-37 %	100.7	-38 %	161.3	-1 %	102.3	-37 %	101.2	-38 %
IO D	Ivendorf/ Ivendorfer Landstraße	89.8	23.9	103.4	**155.5**	103.2	-34 %	101.6	-35 %	151.4	-3 %	100.8	-35 %	101.4	-35 %
IO E	Ivendorf/ Ivendorfer Landstraße	89.8	30.2	84.3	**143.0**	102.5	-28 %	103.1	-28 %	141.6	-1 %	104.4	-27 %	103.0	-28 %
IO F	Ivendorf/ Ivendorfer Landstraße	89.8	26.9	77.6	**133.1**	103.2	-22 %	102.1	-23 %	132.9	0 %	101.3	-24 %	102.0	-23 %
IO G	Ivendorf/ Ivendorfer Landstraße	89.8	48.8	65.4	**133.8**	115.4	-14 %	115.4	-14 %	137.3	3 %	115.4	-14 %	114.1	-15 %
IO H	Ivendorf/ Ivendorfer Landstraße	89.8	52.3	58.1	**133.8**	115.4	-14 %	115.7	-14 %	134.6	1 %	116.1	-13 %	115.4	-14 %
IO I	Blessenacker/ Travemünder Landstr.	89.8	14.2	39.5	**108.7**	97.6	-10 %	97.7	-10 %	106.2	-2 %	97.6	-10 %	97.0	-11 %
IO L	Travemünder Landstr.	89.8	29.8	48.7	**125.1**	103.9	-17 %	103.9	-17 %	125.3	0 %	106.1	-15 %	106.1	-15 %
IO N	Boldwiesenkoppel	89.8	14.1	54.1	**116.7**	97.7	-16 %	97.5	-16 %	117.9	1 %	97.6	-16 %	97.7	-16 %
IO P	Scheidekoppel	89.8	3.8	74.4	**121.4**	93.1	-23 %	92.9	-23 %	121.9	0 %	92.7	-24 %	92.6	-24 %
IO Q	Borndiek	89.8	18.1	143.2	**178.8**	101.9	-43 %	101.1	-43 %	179.0	0 %	100.5	-44 %	101.1	-43 %
IO S	Priwall/ Traveufer	89.8	4.1	203.7	**239.4**	106.8	-55 %	106.9	-55 %	229.5	-4 %	105.8	-56 %	105.3	-56 %
IO T	Auf dem Baggersand	89.8	17.9	180.6	**214.2**	117.7	-45 %	116.4	-46 %	210.6	-2 %	117.3	-45 %	117.8	-45 %
IO U	Priwall/ Traveufer	89.8	4.2	277.4	**305.1**	101.7	-67 %	102.0	-67 %	306.1	0 %	102.8	-66 %	101.6	-67 %
IO V	Priwall/ Traveufer	89.8	4.0	285.6	**313.9**	108.5	-65 %	106.4	-66 %	309.9	-1 %	106.1	-66 %	105.9	-66 %
IO W	Dummersdorfer Ufer	89.8	5.5	151.2	**191.0**	101.2	-47 %	100.9	-47 %	191.9	0 %	99.7	-48 %	98.6	-48 %
IO X	Dummersdorfer Ufer	89.8	7.0	189.9	**217.8**	97.5	-55 %	97.7	-55 %	218.6	0 %	98.0	-55 %	97.3	-55 %
IO Y	Dummersdorfer Ufer	89.8	5.5	223.2	**250.4**	100.7	-60 %	100.8	-60 %	244.5	-2 %	99.0	-60 %	99.9	-60 %
IO Z	Vorderreihe/ Priwallfähre	89.8	10.1	158.1	**195.5**	115.2	-41 %	116.7	-40 %	197.3	1 %	116.0	-41 %	116.7	-40 %
IO T1	Vorderreihe/ Ostpreußenkai	89.8	8.4	157.3	**191.5**	118.9	-38 %	118.0	-38 %	192.3	0 %	119.0	-38 %	118.8	-38 %
IO T2	Yachthafen/ Kaiserbrücke	89.8	10.9	137.8	**174.5**	123.2	-29 %	120.2	-31 %	178.4	2 %	123.6	-29 %	123.6	-29 %
IO P1	Priwall/ Fähre	89.8	5.3	156.9	**194.1**	110.2	-43 %	109.0	-44 %	191.8	-1 %	107.2	-45 %	107.9	-44 %
IO P2	Priwall/ Passathafen	89.8	3.7	123.4	**166.5**	107.2	-36 %	107.0	-36 %	165.5	-1 %	106.8	-36 %	106.6	-36 %
IO P3	Priwall/ Passathafen	89.8	3.4	115.2	**157.2**	109.5	-30 %	108.5	-31 %	155.8	-1 %	108.6	-31 %	108.7	-31 %
IO P4	Priwall/ Traveufer	89.8	4.0	221.8	**259.8**	103.9	-60 %	102.2	-61 %	260.0	0 %	102.0	-61 %	100.9	-61 %
IO P5	Priwall/ Traveufer	89.8	4.3	238.8	**268.6**	108.9	-59 %	108.5	-60 %	279.0	4 %	106.2	-60 %	108.2	-60 %
IO P6	Priwall/ Kläranlage	89.8	4.0	237.1	**272.1**	107.0	-61 %	108.2	-60 %	273.5	1 %	106.1	-61 %	107.0	-61 %
IO P7	Priwall/ Weggabelung Teich	89.8	3.3	229.6	**266.0**	104.1	-61 %	105.7	-60 %	267.2	0 %	105.8	-60 %	105.3	-60 %
IO P8	Priwall/ Rosenhof	89.8	3.9	197.9	**231.6**	105.1	-55 %	107.0	-54 %	227.9	-2 %	105.3	-55 %	105.2	-55 %
IO P9	Priwall/ Rosenhof	89.8	3.4	183.1	**215.3**	104.0	-52 %	103.9	-52 %	211.4	-2 %	104.4	-52 %	104.9	-51 %
IO P10	Priwall/ Rosenhof	89.8	15.6	159.5	**200.5**	109.6	-45 %	111.1	-45 %	200.7	0 %	111.6	-44 %	110.3	-45 %
IO P11	Priwall/ Fliegerweg	89.8	3.4	151.9	**189.4**	104.8	-45 %	103.7	-45 %	186.7	-1 %	103.7	-45 %	103.5	-45 %
IO P12	Priwall/ Pötenitzer Weg	89.8	2.7	138.3	**173.7**	101.4	-42 %	102.8	-41 %	175.9	1 %	101.5	-42 %	101.0	-42 %
IO P13	Priwall/ Pötenitzer Weg	89.8	2.3	143.2	**177.1**	100.9	-43 %	100.2	-43 %	186.5	5 %	100.9	-43 %	101.8	-43 %
lO P14	Priwall/ Seemannsschule	89.8	2.2	121.1	**158.9**	101.8	-36 %	100.3	-37 %	159.9	1 %	100.9	-37 %	100.6	-37 %
lO P15	Priwall/ Krankenhaus	89.8	4.2	133.7	**172.3**	103.3	-40 %	103.3	-40 %	162.9	-5 %	104.1	-40 %	103.7	-40 %
IO P16	Priwall/ Krankenhaus	89.8	8.6	117.9	**159.7**	104.2	-35 %	104.7	-34 %	158.7	-1 %	103.0	-36 %	103.3	-35 %
IO P17	Priwall/ Haus des Kurgastes	89.8	2.4	93.8	**141.4**	100.9	-29 %	102.1	-28 %	141.9	0 %	100.5	-29 %	99.7	-29 %
IO T3	Marina Baltica	89.8	6.3	224.3	**258.7**	114.1	-56 %	114.1	-56 %	246.5	-5 %	112.9	-56 %	112.2	-57 %
IO T4	Fischereihafen	89.8	8.4	187.5	**227.6**	113.7	-50 %	111.7	-51 %	214.1	-6 %	112.4	-51 %	111.7	-51 %
IO T5	Torstraße	89.8	16.9	183.1	**214.3**	116.4	-46 %	117.0	-45 %	211.9	-1 %	118.9	-45 %	118.9	-45 %
IO T6	Kirchenstraße	89.8	26.4	163.6	**206.0**	121.9	-41 %	120.6	-41 %	203.5	-1 %	121.9	-41 %	119.9	-42 %
IO T7	Kurgartenstraße	89.8	19.3	149.4	**188.8**	119.0	-37 %	119.3	-37 %	188.0	0 %	119.6	-37 %	119.1	-37 %
IO T8	Vorderreihe/ Prinzenbrücke	89.8	9.3	146.8	**183.4**	118.7	-35 %	119.3	-35 %	186.4	2 %	119.3	-35 %	117.9	-36 %
IO T9	Am Lotsenberg	89.8	20.9	135.5	**172.5**	118.1	-32 %	118.1	-32 %	174.7	1 %	119.5	-31 %	118.9	-31 %
lO T10	Rose	89.8	13.8	139.6	**179.8**	114.1	-37 %	113.1	-37 %	171.4	-5 %	111.5	-38 %	109.7	-39 %
IO T11	Rose	89.8	10.7	129.6	**169.5**	112.6	-34 %	112.4	-34 %	175.5	4 %	110.1	-35 %	110.1	-35 %
IO T12	Rose	89.8	11.2	110.0	**159.0**	106.3	-33 %	106.1	-33 %	160.9	1 %	108.1	-32 %	108.7	-32 %
IO T13	Boelckestraße	89.8	8.4	134.9	**179.5**	111.1	-38 %	114.2	-36 %	181.2	1 %	111.6	-38 %	108.1	-40 %
IO T14	Fehlingstraße	89.8	12.1	128.5	**171.0**	110.8	-35 %	111.9	-35 %	161.8	-5 %	108.2	-37 %	109.6	-36 %
lO T15	Fehlingstraße	89.8	9.2	106.3	**153.5**	107.7	-30 %	106.3	-31 %	153.0	0 %	106.6	-31 %	109.4	-29 %
IO T16	Mühlenberg/ Ziegenhorst	89.8	10.1	115.3	**162.2**	109.3	-33 %	107.8	-34 %	162.7	0 %	108.2	-33 %	109.7	-32 %
IO T17	Gneversdorfer Weg	89.8	85.5	130.9	**215.3**	153.4	-29 %	152.5	-29 %	228.1	6 %	155.8	-28 %	152.2	-29 %
IO T18	Gneversdorfer Weg	89.8	53.4	106.7	**182.3**	128.2	-30 %	131.4	-28 %	188.0	3 %	131.8	-28 %	130.8	-28 %
IO T19	Gneversdorfer Weg	89.8	32.0	85.1	**147.9**	112.2	-24 %	109.3	-26 %	148.6	0 %	110.0	-26 %	110.5	-25 %
lO T20	Gneversdorfer Weg/ Moorredder	89.8	47.9	111.3	**179.3**	121.9	-32 %	122.0	-32 %	175.8	-2 %	123.6	-31 %	122.4	-32 %
IO T21	Moorredder	89.8	28.7	108.5	**166.2**	111.0	-33 %	112.2	-32 %	164.6	-1 %	112.0	-33 %	110.1	-34 %
IO T22	Moorredder	89.8	40.6	103.1	**161.1**	118.7	-26 %	119.3	-26 %	152.8	-5 %	118.9	-26 %	117.0	-27 %
IO T23	Am Fahrenberg	89.8	17.0	86.6	**141.9**	106.1	-25 %	106.1	-25 %	140.6	-1 %	106.3	-25 %	105.5	-26 %
IO T24	Parkallee/ Kurhaus	89.8	6.7	117.0	**157.9**	114.1	-28 %	114.2	-28 %	158.9	1 %	114.4	-28 %	115.1	-27 %
lO T25	Kurpark	89.8	6.5	114.6	**156.4**	108.9	-30 %	107.9	-31 %	153.5	-2 %	111.0	-29 %	108.6	-31 %
IO T26	Steenkamp	89.8	10.1	94.4	**144.0**	105.3	-27 %	104.4	-28 %	143.5	0 %	104.4	-28 %	105.0	-27 %
IO T27	Steenkamp	89.8	16.9	87.6	**136.5**	106.2	-22 %	104.8	-23 %	139.8	2 %	105.3	-23 %	105.0	-23 %
IO T28	Steenkamp	89.8	10.8	84.6	**133.8**	102.7	-23 %	103.0	-23 %	132.8	-1 %	101.8	-24 %	100.4	-25 %
IO T29	Steenkamp/ Kleingärten	89.8	6.0	78.0	**133.1**	98.5	-26 %	100.0	-25 %	129.1	-3 %	99.5	-25 %	99.2	-25 %
lO T30	Schwedenstraße	89.8	8.6	93.7	**140.8**	101.1	-28 %	102.2	-27 %	138.6	-2 %	102.1	-27 %	101.1	-28 %
IO T31	Grönlandstraße	89.8	10.5	79.5	**137.8**	100.9	-27 %	100.2	-27 %	131.5	-5 %	99.6	-28 %	99.0	-28 %
IO T32	Kaiserallee	89.8	9.2	101.7	**145.8**	104.6	-28 %	105.5	-28 %	147.0	1 %	107.6	-26 %	107.4	-26 %
IO T33	Kaiserallee	89.8	7.2	87.8	**135.7**	101.9	-25 %	102.1	-25 %	137.9	2 %	102.2	-25 %	101.7	-25 %
IO T34	Kaiserallee	89.8	7.1	73.5	**123.6**	100.9	-18 %	100.0	-19 %	121.5	-2 %	101.2	-18 %	100.6	-19 %
lO T35	Steuerbord	89.8	9.3	83.1	**132.9**	101.9	-23 %	101.5	-24 %	133.7	1 %	101.4	-24 %	100.9	-24 %
IO T36	Achterdeck	89.8	7.5	83.2	**131.9**	102.0	-23 %	102.4	-22 %	136.5	3 %	102.0	-23 %	101.1	-23 %
IO T37	Strandweg	89.8	7.2	77.2	**131.1**	101.6	-23 %	100.9	-23 %	128.9	-2 %	100.1	-24 %	100.1	-24 %
IO T38	Alfred-Hagelstein-Straße	89.8	7.8	66.2	**122.5**	100.1	-18 %	99.4	-19 %	122.7	0 %	98.7	-19 %	98.7	-19 %
IO T39	Scheteligstraße	89.8	4.9	73.8	**125.9**	100.6	-20 %	99.5	-21 %	124.6	-1 %	99.7	-21 %	99.1	-21 %
IO T40	Gneversdorfer Kamp	89.8	17.8	67.0	**131.2**	103.9	-21 %	101.8	-22 %	133.8	2 %	102.0	-22 %	101.5	-23 %
lO T41	Teutendorfer Weg	89.8	27.4	74.7	**142.2**	107.6	-24 %	109.5	-23 %	143.5	1 %	107.8	-24 %	110.2	-23 %
IO T42	Am Krautacker	89.8	6.5	92.7	**146.4**	101.0	-31 %	100.9	-31 %	151.0	3 %	101.0	-31 %	99.3	-32 %
IO T43	Hollbeck	89.8	15.5	74.4	**134.9**	99.1	-27 %	99.3	-26 %	134.8	0 %	99.3	-26 %	99.7	-26 %
IO T44	Teutendorf	89.8	18.4	57.4	**124.5**	100.5	-19 %	102.0	-18 %	124.7	0 %	102.1	-18 %	100.9	-19 %
IO MP1	Messort Skandinavienkai (2000)	89.8	6.2	155.1	**189.8**	101.1	-47 %	100.2	-47 %	197.6	4 %	101.1	-47 %	101.3	-47 %
IO MP2	Messort Priwallfähre (2000)	89.8	8.3	183.2	**217.8**	114.1	-48 %	112.5	-48 %	216.8	0 %	113.8	-48 %	114.4	-47 %
IO MP3	Messort Kurpark (2000)	89.8	8.3	121.5	**162.5**	113.1	-30 %	112.9	-31 %	165.8	2 %	114.3	-30 %	111.8	-31 %

A 7.2.3 Total NO_2 Pollution (Annual Average Value J00)

Immission point (monitor point)		Total NO_2 pollution (annual average value J00) [µg/m³]													
		Background pollution	Add. pollution road traffic	Add. pollution shipping	Sum Forecast Sce.	Reduction concept 1a	Comparison with Forecast Sce.	Reduction concept 1b	Comparison with Forecast Sce.	Reduction concept 2	Comparison with Forecast Sce.	Reduction concepts 1a+3	Comparison with Forecast Sce.	Reduction concepts 1b+3	Comparison with Forecast Sce.
IO 1	Teutendorfer Weg/ An der Bak	17.8	5.4	7.2	**26.3**	23.4	-11 %	23.4	-11 %	26.2	0 %	23.4	-11 %	23.3	-11 %
IO 2	St. Jürgen-Straße	17.8	1.6	6.9	**23.7**	20.7	-13 %	20.7	-13 %	23.9	1 %	20.8	-12 %	20.7	-13 %
IO 3	Rönnauer Ring	17.8	1.4	6.8	**23.5**	20.5	-13 %	20.5	-13 %	23.5	0 %	20.5	-13 %	20.5	-13 %
IO 4	Rönnauer Weg/ Ivendorfer Landstr.	17.8	1.5	7.6	**24.1**	20.6	-15 %	20.6	-15 %	24.1	0 %	20.6	-15 %	20.6	-15 %
IO 5	Rönnauer Weg/ Ivendorfer Landstr.	17.8	1.6	7.9	**24.3**	20.7	-15 %	20.7	-15 %	24.4	0 %	20.7	-15 %	20.6	-15 %
IO 6	Rönnauer Weg/ Ivendorfer Landstr.	17.8	0.9	7.3	**23.5**	20.1	-15 %	20.1	-15 %	23.6	0 %	20.1	-15 %	20.0	-15 %
IO 7	Ostseestraße/ Pommernzentrum	17.8	1.0	9.4	**25.0**	20.5	-18 %	20.4	-19 %	24.8	-1 %	20.5	-18 %	20.4	-19 %
IO 8	Ostseestraße/ Pommernzentrum	17.8	2.2	9.6	**25.9**	21.4	-18 %	21.3	-18 %	25.9	0 %	21.3	-18 %	21.3	-18 %
IO 9	Ostseestraße/ Pommernzentrum	17.8	0.9	8.2	**24.2**	20.2	-16 %	20.2	-16 %	24.2	0 %	20.2	-16 %	20.1	-17 %
IO A	Ivendorf/ Ovendorfer Straße	17.8	7.5	6.2	**26.9**	24.1	-10 %	24.1	-11 %	26.9	0 %	24.1	-10 %	24.1	-10 %
IO B	Ivendorf/ Ovendorfer Straße	17.8	4.3	6.1	**24.8**	21.9	-12 %	21.9	-12 %	25.0	1 %	21.9	-12 %	21.9	-12 %
IO C	Ivendorf/ Ivendorfer Landstraße	17.8	3.0	5.9	**23.9**	21.0	-12 %	21.0	-12 %	23.9	0 %	21.0	-12 %	21.0	-12 %
IO D	Ivendorf/ Ivendorfer Landstraße	17.8	3.4	5.5	**23.9**	21.2	-11 %	21.2	-11 %	23.7	-1 %	21.1	-12 %	21.1	-12 %
IO E	Ivendorf/ Ivendorfer Landstraße	17.8	4.3	4.4	**23.7**	21.6	-9 %	21.6	-9 %	23.8	0 %	21.7	-8 %	21.6	-9 %
IO F	Ivendorf/ Ivendorfer Landstraße	17.8	4.1	3.8	**23.2**	21.5	-7 %	21.5	-8 %	23.2	0 %	21.4	-8 %	21.4	-8 %
IO G	Ivendorf/ Ivendorfer Landstraße	17.8	6.9	3.3	**24.7**	23.3	-6 %	23.2	-6 %	24.8	0 %	23.2	-6 %	23.2	-6 %
IO H	Ivendorf/ Ivendorfer Landstraße	17.8	8.1	2.9	**25.3**	24.0	-5 %	24.1	-5 %	25.4	0 %	24.1	-5 %	24.0	-5 %
IO I	Blessenacker/ Travemünder Landstr.	17.8	1.6	2.0	**20.4**	19.4	-5 %	19.5	-4 %	20.3	0 %	19.4	-5 %	19.4	-5 %
IO L	Travemünder Landstr.	17.8	4.0	2.4	**22.2**	21.1	-5 %	21.1	-5 %	22.4	1 %	21.2	-5 %	21.1	-5 %
IO N	Boldwiesenkoppel	17.8	1.6	2.8	**20.9**	19.6	-6 %	19.6	-6 %	20.9	0 %	19.6	-6 %	19.6	-6 %
IO P	Scheidekoppel	17.8	0.3	3.6	**20.6**	18.8	-9 %	18.8	-9 %	20.5	0 %	18.8	-9 %	18.8	-9 %
IO Q	Borndiek	17.8	2.6	7.6	**24.8**	20.9	-16 %	20.9	-16 %	24.7	0 %	20.9	-16 %	20.9	-16 %
IO S	Priwall/ Traveufer	17.8	0.5	16.3	**29.6**	22.3	-25 %	22.2	-25 %	29.4	-1 %	22.2	-25 %	22.1	-26 %
IO T	Auf dem Baggersand	17.8	3.0	9.0	**26.0**	22.2	-14 %	22.2	-15 %	26.0	0 %	22.2	-15 %	22.2	-14 %
IO U	Priwall/ Traveufer	17.8	0.4	22.1	**33.9**	21.2	-37 %	21.1	-38 %	33.9	0 %	21.2	-37 %	21.1	-38 %
IO V	Priwall/ Traveufer	17.8	0.4	22.7	**34.3**	21.9	-36 %	21.8	-36 %	34.2	0 %	21.8	-36 %	21.8	-36 %
IO W	Dummersdorfer Ufer	17.8	0.6	8.1	**23.9**	19.9	-17 %	19.8	-17 %	23.8	0 %	19.8	-17 %	19.8	-17 %
IO X	Dummersdorfer Ufer	17.8	0.6	9.4	**24.9**	19.9	-20 %	19.8	-20 %	24.9	0 %	19.9	-20 %	19.8	-20 %
IO Y	Dummersdorfer Ufer	17.8	0.5	9.6	**24.9**	19.8	-21 %	19.8	-21 %	24.8	-1 %	19.8	-21 %	19.8	-21 %
IO Z	Vorderreihe/ Priwallfähre	17.8	1.7	10.1	**26.0**	22.0	-15 %	22.0	-15 %	25.9	0 %	22.0	-15 %	22.0	-15 %
IO T1	Vorderreihe/ Ostpreußenkai	17.8	1.4	10.6	**26.1**	22.2	-15 %	22.1	-16 %	26.1	0 %	22.2	-15 %	22.1	-16 %
IO T2	Yachthafen/ Kaiserbrücke	17.8	1.7	10.0	**25.9**	22.5	-13 %	22.5	-13 %	26.0	1 %	22.6	-13 %	22.5	-13 %
IO P1	Priwall/ Fähre	17.8	0.8	12.6	**27.2**	22.4	-17 %	22.3	-18 %	27.2	0 %	22.3	-18 %	22.3	-18 %
IO P2	Priwall/ Passathafen	17.8	0.4	12.2	**26.7**	22.4	-16 %	22.3	-16 %	26.5	-1 %	22.3	-16 %	22.3	-16 %
IO P3	Priwall/ Passathafen	17.8	0.5	11.4	**26.1**	22.4	-14 %	22.4	-14 %	26.0	0 %	22.3	-15 %	22.3	-15 %
IO P4	Priwall/ Traveufer	17.8	0.4	24.5	**35.6**	21.8	-39 %	21.6	-39 %	35.5	0 %	21.7	-39 %	21.5	-40 %
IO P5	Priwall/ Traveufer	17.8	0.5	17.7	**30.7**	22.1	-28 %	22.0	-28 %	30.8	0 %	22.0	-28 %	21.9	-29 %
IO P6	Priwall/ Kläranlage	17.8	0.4	19.8	**32.2**	22.4	-30 %	22.3	-31 %	32.1	0 %	22.3	-31 %	22.2	-31 %
IO P7	Priwall/ Weggabelung Teich	17.8	0.4	22.1	**33.9**	22.5	-34 %	22.5	-34 %	33.9	0 %	22.6	-33 %	22.4	-34 %
IO P8	Priwall/ Rosenhof	17.8	0.5	15.9	**29.4**	22.3	-24 %	22.3	-24 %	29.4	0 %	22.3	-24 %	22.2	-25 %
IO P9	Priwall/ Rosenhof	17.8	0.5	15.8	**29.3**	22.3	-24 %	22.2	-24 %	29.2	-1 %	22.2	-24 %	22.1	-25 %
IO P10	Priwall/ Rosenhof	17.8	2.8	13.3	**28.8**	23.7	-18 %	23.6	-18 %	28.9	1 %	23.7	-18 %	23.6	-18 %
IO P11	Priwall/ Fliegerweg	17.8	0.4	14.0	**27.9**	21.9	-22 %	21.8	-22 %	27.8	0 %	21.8	-22 %	21.7	-22 %
IO P12	Priwall/ Pötenitzer Weg	17.8	0.3	13.0	**27.2**	21.4	-21 %	21.3	-22 %	27.0	-1 %	21.3	-22 %	21.3	-22 %
IO P13	Priwall/ Pötenitzer Weg	17.8	0.2	14.1	**28.0**	21.2	-24 %	21.1	-24 %	27.9	0 %	21.1	-24 %	21.0	-25 %
IO P14	Priwall/ Seemannsschule	17.8	0.2	11.4	**26.0**	20.8	-20 %	20.8	-20 %	26.0	0 %	20.8	-20 %	20.7	-20 %
IO P15	Priwall/ Krankenhaus	17.8	0.7	11.9	**26.6**	21.8	-18 %	21.8	-18 %	26.4	-1 %	21.9	-18 %	21.8	-18 %
IO P16	Priwall/ Krankenhaus	17.8	1.5	10.9	**26.4**	22.0	-16 %	22.0	-16 %	26.4	0 %	21.9	-17 %	21.8	-17 %
IO P17	Priwall/ Haus des Kurgastes	17.8	0.3	9.4	**24.6**	21.0	-15 %	20.9	-15 %	24.6	0 %	21.0	-15 %	20.9	-15 %
IO T3	Marina Baltica	17.8	0.9	10.0	**25.4**	20.7	-19 %	20.6	-19 %	25.5	1 %	20.6	-19 %	20.6	-19 %
IO T4	Fischereihafen	17.8	1.1	8.9	**24.8**	20.8	-16 %	20.8	-16 %	24.7	0 %	20.7	-16 %	20.7	-17 %
IO T5	Torstraße	17.8	3.0	9.1	**26.0**	22.4	-14 %	22.4	-14 %	26.0	0 %	22.4	-14 %	22.3	-14 %
IO T6	Kirchenstraße	17.8	4.7	9.0	**27.0**	23.7	-12 %	23.7	-12 %	27.1	0 %	23.7	-12 %	23.6	-13 %
IO T7	Kurgartenstraße	17.8	3.8	9.7	**26.9**	23.3	-13 %	23.3	-13 %	26.8	0 %	23.4	-13 %	23.3	-13 %
IO T8	Vorderreihe/ Prinzenbrücke	17.8	1.7	10.1	**26.0**	22.3	-14 %	22.3	-14 %	26.0	0 %	22.4	-14 %	22.3	-14 %
IO T9	Am Lotsenberg	17.8	3.8	8.9	**26.4**	23.4	-11 %	23.3	-11 %	26.3	0 %	23.4	-11 %	23.3	-11 %
IO T10	Rose	17.8	2.2	8.4	**25.0**	22.0	-12 %	22.0	-12 %	24.8	-1 %	22.0	-12 %	21.9	-13 %
IO T11	Rose	17.8	1.7	7.4	**24.1**	21.5	-11 %	21.4	-11 %	24.1	0 %	21.4	-11 %	21.4	-11 %
IO T12	Rose	17.8	1.7	6.1	**23.2**	20.9	-10 %	20.9	-10 %	23.1	0 %	21.0	-10 %	21.0	-10 %
IO T13	Boelckestraße	17.8	1.3	7.9	**24.2**	21.2	-13 %	21.2	-13 %	24.1	-1 %	21.2	-13 %	21.1	-13 %
IO T14	Fehlingstraße	17.8	2.0	7.8	**24.5**	21.8	-11 %	21.8	-11 %	24.5	0 %	21.7	-11 %	21.7	-11 %
IO T15	Fehlingstraße	17.8	1.6	6.4	**23.3**	21.2	-9 %	21.2	-9 %	23.4	0 %	21.2	-9 %	21.2	-9 %
IO T16	Mühlenberg/ Ziegenhorst	17.8	1.8	6.8	**23.7**	21.3	-10 %	21.3	-10 %	23.8	0 %	21.4	-10 %	21.4	-10 %
IO T17	Gneversdorfer Weg	17.8	13.3	6.4	**30.8**	28.8	-7 %	28.7	-7 %	31.0	1 %	28.8	-7 %	28.7	-7 %
IO T18	Gneversdorfer Weg	17.8	5.9	5.9	**25.7**	23.4	-9 %	23.5	-9 %	25.6	0 %	23.4	-9 %	23.4	-9 %
IO T19	Gneversdorfer Weg	17.8	4.9	4.4	**24.1**	22.5	-7 %	22.4	-7 %	24.2	0 %	22.5	-7 %	22.4	-7 %
IO T20	Gneversdorfer Weg/ Moorredder	17.8	7.8	5.7	**26.8**	24.7	-8 %	24.7	-8 %	26.7	0 %	24.7	-8 %	24.7	-8 %
IO T21	Moorredder	17.8	4.6	5.5	**24.7**	22.6	-8 %	22.6	-8 %	24.7	0 %	22.6	-9 %	22.5	-9 %
IO T22	Moorredder	17.8	7.1	5.5	**26.3**	24.4	-7 %	24.4	-7 %	26.2	0 %	24.4	-7 %	24.3	-7 %
IO T23	Am Fahrenberg	17.8	2.9	5.2	**23.3**	21.5	-8 %	21.5	-8 %	23.4	0 %	21.6	-8 %	21.6	-8 %
IO T24	Parkallee/ Kurhaus	17.8	1.0	8.2	**24.2**	21.5	-11 %	21.5	-11 %	24.2	0 %	21.5	-11 %	21.5	-11 %
IO T25	Kurpark	17.8	0.9	7.3	**23.5**	21.0	-11 %	21.0	-11 %	23.5	0 %	21.1	-10 %	21.0	-11 %
IO T26	Steenkamp	17.8	1.8	5.5	**22.9**	21.0	-8 %	20.9	-9 %	22.9	0 %	20.9	-9 %	20.9	-9 %
IO T27	Steenkamp	17.8	2.7	4.8	**23.0**	21.3	-7 %	21.3	-7 %	23.0	0 %	21.3	-7 %	21.3	-7 %
IO T28	Steenkamp	17.8	1.6	4.4	**21.9**	20.4	-7 %	20.4	-7 %	22.0	0 %	20.3	-7 %	20.2	-8 %
IO T29	Steenkamp/ Kleingärten	17.8	0.8	4.1	**21.2**	19.7	-7 %	19.6	-8 %	21.2	0 %	19.6	-8 %	19.6	-8 %
IO T30	Schwedenstraße	17.8	1.1	4.7	**21.9**	20.0	-9 %	20.0	-9 %	21.7	-1 %	20.0	-9 %	20.0	-9 %
IO T31	Grönlandstraße	17.8	1.3	4.0	**21.5**	19.8	-8 %	19.8	-8 %	21.4	0 %	19.8	-8 %	19.8	-8 %
IO T32	Kaiserallee	17.8	1.6	6.4	**23.3**	21.1	-10 %	21.1	-10 %	23.2	0 %	21.1	-10 %	21.1	-10 %
IO T33	Kaiserallee	17.8	1.1	5.2	**22.2**	20.4	-8 %	20.4	-8 %	22.3	0 %	20.5	-8 %	20.4	-8 %
IO T34	Kaiserallee	17.8	1.0	4.2	**21.5**	20.0	-7 %	20.0	-7 %	21.4	0 %	20.0	-7 %	20.0	-7 %
IO T35	Steuerbord	17.8	1.6	4.8	**22.2**	20.6	-7 %	20.6	-7 %	22.4	1 %	20.6	-7 %	20.6	-7 %
IO T36	Achterdeck	17.8	0.9	4.8	**21.8**	20.0	-8 %	20.0	-8 %	21.8	0 %	20.0	-8 %	20.1	-8 %
IO T37	Strandweg	17.8	1.1	4.4	**21.6**	20.1	-7 %	20.0	-7 %	21.6	0 %	20.1	-7 %	20.1	-7 %
IO T38	Alfred-Hagelstein-Straße	17.8	1.3	3.5	**21.2**	19.9	-6 %	20.0	-6 %	21.2	0 %	19.9	-6 %	19.9	-6 %
IO T39	Scheteligstraße	17.8	0.6	3.9	**21.0**	19.5	-7 %	19.5	-7 %	20.9	0 %	19.5	-7 %	19.5	-7 %
IO T40	Gneversdorfer Kamp	17.8	2.2	3.4	**21.7**	20.4	-6 %	20.4	-6 %	21.8	1 %	20.4	-6 %	20.3	-6 %
IO T41	Teutendorfer Weg	17.8	4.8	4.4	**24.0**	22.3	-7 %	22.3	-7 %	24.0	0 %	22.3	-7 %	22.3	-7 %
IO T42	Am Krautacker	17.8	0.9	4.9	**21.8**	19.7	-10 %	19.7	-10 %	21.9	0 %	19.8	-9 %	19.7	-10 %
IO T43	Hollbeck	17.8	2.2	3.6	**21.8**	20.2	-7 %	20.2	-7 %	21.8	0 %	20.3	-7 %	20.3	-7 %
IO T44	Teutendorf	17.8	1.6	2.8	**20.9**	19.7	-6 %	19.7	-6 %	20.9	0 %	19.8	-5 %	19.7	-6 %
IO MP1	Messort Skandinavienkai (2000)	17.8	0.6	9.6	**25.0**	20.1	-19 %	20.1	-20 %	25.1	0 %	20.1	-20 %	20.1	-20 %
IO MP2	Messort Priwallfähre (2000)	17.8	1.1	10.7	**26.0**	21.4	-18 %	21.4	-18 %	26.0	0 %	21.5	-17 %	21.4	-18 %
IO MP3	Messort Kurpark (2000)	17.8	1.3	8.0	**24.2**	21.5	-11 %	21.5	-11 %	24.2	0 %	21.5	-11 %	21.4	-11 %

A 7.2.4 Total NO_2 Pollution (98 Percentile)

Immission point (monitor point)		Total NO_2 pollution (98 percentile) [µg/m³]													
		Background pollution	Add. pollution road traffic	Add. pollution shipping	Sum Forecast Sce.	Reduction concept 1a	Comparison with Forecast Sce.	Reduction concept 1b	Comparison with Forecast Sce.	Reduction concept 2	Comparison with Forecast Sce.	Reduction concepts 1a+3	Comparison with Forecast Sce.	Reduction concepts 1b+3	Comparison with Forecast Sce.
IO 1	Teutendorfer Weg/ An der Bak	48.0	25.9	67.0	**76.6**	60.3	-21 %	60.8	-21 %	75.9	-1 %	60.6	-21 %	60.2	-21 %
IO 2	St. Jürgen-Straße	48.0	10.8	63.9	**74.7**	57.5	-23 %	57.3	-23 %	74.6	0 %	58.6	-22 %	58.6	-22 %
IO 3	Rönnauer Ring	48.0	10.5	64.2	**73.6**	56.6	-23 %	56.7	-23 %	74.4	1 %	56.9	-23 %	56.5	-23 %
IO 4	Rönnauer Weg/ Ivendorfer Landstr.	48.0	9.3	69.6	**77.0**	57.0	-26 %	57.3	-26 %	77.2	0 %	56.6	-27 %	56.4	-27 %
IO 5	Rönnauer Weg/ Ivendorfer Landstr.	48.0	10.1	71.3	**78.2**	56.5	-28 %	56.5	-28 %	77.3	-1 %	56.1	-28 %	56.6	-28 %
IO 6	Rönnauer Weg/ Ivendorfer Landstr.	48.0	6.6	67.4	**74.7**	55.7	-25 %	55.6	-25 %	75.1	1 %	56.1	-25 %	55.6	-26 %
IO 7	Ostseestraße/ Pommernzentrum	48.0	7.4	74.8	**80.2**	56.3	-30 %	56.5	-30 %	80.7	1 %	56.3	-30 %	56.3	-30 %
IO 8	Ostseestraße/ Pommernzentrum	48.0	13.2	76.0	**82.2**	58.1	-29 %	57.6	-30 %	82.4	0 %	57.5	-30 %	57.6	-30 %
IO 9	Ostseestraße/ Pommernzentrum	48.0	7.0	71.1	**77.8**	55.5	-29 %	55.5	-29 %	77.6	0 %	55.7	-28 %	55.7	-28 %
IO A	Ivendorf/ Ovendorfer Straße	48.0	38.6	58.6	**74.3**	60.8	-18 %	60.8	-18 %	72.8	-2 %	61.1	-18 %	60.9	-18 %
IO B	Ivendorf/ Ovendorfer Straße	48.0	25.4	58.5	**70.6**	56.3	-20 %	56.5	-20 %	72.2	2 %	56.3	-20 %	56.3	-20 %
IO C	Ivendorf/ Ivendorfer Landstraße	48.0	18.2	59.0	**70.4**	55.1	-22 %	54.8	-22 %	70.2	0 %	55.3	-21 %	55.0	-22 %
IO D	Ivendorf/ Ivendorfer Landstraße	48.0	19.5	55.6	**68.9**	55.6	-19 %	55.1	-20 %	68.1	-1 %	54.8	-20 %	55.0	-20 %
IO E	Ivendorf/ Ivendorfer Landstraße	48.0	23.6	49.3	**66.2**	55.4	-16 %	55.5	-16 %	65.8	0 %	55.9	-15 %	55.5	-16 %
IO F	Ivendorf/ Ivendorfer Landstraße	48.0	21.5	46.9	**63.8**	55.6	-13 %	55.2	-13 %	63.7	0 %	55.0	-14 %	55.2	-13 %
IO G	Ivendorf/ Ivendorfer Landstraße	48.0	34.2	41.9	**64.0**	59.1	-8 %	59.1	-8 %	64.8	1 %	59.1	-8 %	58.8	-8 %
IO H	Ivendorf/ Ivendorfer Landstraße	48.0	35.9	38.7	**64.0**	59.1	-8 %	59.2	-7 %	64.2	0 %	59.3	-7 %	59.1	-8 %
IO I	Blessenacker/ Travemünder Landstr.	48.0	12.4	29.2	**57.2**	53.8	-6 %	53.9	-6 %	56.5	-1 %	53.8	-6 %	53.6	-6 %
IO L	Travemünder Landstr.	48.0	23.4	34.1	**61.8**	55.8	-10 %	55.8	-10 %	61.8	0 %	56.5	-9 %	56.5	-9 %
IO N	Boldwiesenkoppel	48.0	12.3	36.8	**59.5**	53.9	-10 %	53.8	-10 %	59.8	1 %	53.8	-10 %	53.9	-10 %
IO P	Scheidekoppel	48.0	3.6	45.6	**60.8**	52.4	-14 %	52.3	-14 %	60.9	0 %	52.2	-14 %	52.2	-14 %
IO Q	Borndiek	48.0	15.4	66.2	**73.6**	55.2	-25 %	54.9	-25 %	73.7	0 %	54.7	-26 %	54.9	-25 %
IO S	Priwall/ Traveufer	48.0	3.9	78.0	**83.5**	56.7	-32 %	56.7	-32 %	82.0	-2 %	56.4	-32 %	56.2	-33 %
IO T	Auf dem Baggersand	48.0	15.2	74.0	**79.7**	59.8	-25 %	59.4	-25 %	79.1	-1 %	59.7	-25 %	59.8	-25 %
IO U	Priwall/ Traveufer	48.0	3.9	88.5	**91.8**	55.1	-40 %	55.2	-40 %	91.9	0 %	55.5	-40 %	55.1	-40 %
IO V	Priwall/ Traveufer	48.0	3.8	89.5	**92.7**	57.2	-38 %	56.5	-39 %	92.3	0 %	56.5	-39 %	56.4	-39 %
IO W	Dummersdorfer Ufer	48.0	5.1	68.0	**75.8**	55.0	-28 %	54.9	-28 %	76.0	0 %	54.5	-28 %	54.1	-29 %
IO X	Dummersdorfer Ufer	48.0	6.4	75.6	**80.3**	53.8	-33 %	53.9	-33 %	80.4	0 %	54.0	-33 %	53.7	-33 %
IO Y	Dummersdorfer Ufer	48.0	5.1	81.1	**85.0**	54.8	-36 %	54.8	-35 %	84.2	-1 %	54.3	-36 %	54.6	-36 %
IO Z	Vorderreihe/ Priwallfähre	48.0	9.1	69.5	**76.6**	59.1	-23 %	59.5	-22 %	76.9	0 %	59.3	-23 %	59.5	-22 %
IO T1	Vorderreihe/ Ostpreußenkai	48.0	7.6	69.3	**75.9**	60.1	-21 %	59.9	-21 %	76.1	0 %	60.1	-21 %	60.1	-21 %
IO T2	Yachthafen/ Kaiserbrücke	48.0	9.7	64.9	**72.8**	61.3	-16 %	60.5	-17 %	73.5	1 %	61.4	-16 %	61.4	-16 %
IO P1	Priwall/ Fähre	48.0	4.9	69.2	**76.4**	57.7	-25 %	57.3	-25 %	76.0	-1 %	56.8	-26 %	57.0	-25 %
IO P2	Priwall/ Passathafen	48.0	3.5	61.3	**71.2**	56.8	-20 %	56.7	-20 %	71.0	0 %	56.7	-20 %	56.6	-21 %
IO P3	Priwall/ Passathafen	48.0	3.2	59.1	**69.3**	57.5	-17 %	57.2	-18 %	69.0	0 %	57.2	-17 %	57.2	-17 %
IO P4	Priwall/ Traveufer	48.0	3.8	80.9	**86.3**	55.8	-35 %	55.3	-36 %	86.3	0 %	55.2	-36 %	54.9	-36 %
IO P5	Priwall/ Traveufer	48.0	4.0	83.4	**87.4**	57.3	-34 %	57.2	-35 %	88.7	1 %	56.5	-35 %	57.1	-35 %
IO P6	Priwall/ Kläranlage	48.0	3.8	83.2	**87.8**	56.7	-35 %	57.1	-35 %	88.0	0 %	56.5	-36 %	56.7	-35 %
IO P7	Priwall/ Weggabelung Teich	48.0	3.1	82.1	**87.1**	55.9	-36 %	56.3	-35 %	87.2	0 %	56.4	-35 %	56.2	-35 %
IO P8	Priwall/ Rosenhof	48.0	3.7	77.0	**82.4**	56.2	-32 %	56.7	-31 %	81.8	-1 %	56.2	-32 %	56.2	-32 %
IO P9	Priwall/ Rosenhof	48.0	3.2	74.4	**79.9**	55.8	-30 %	55.8	-30 %	79.3	-1 %	55.9	-30 %	56.1	-30 %
IO P10	Priwall/ Rosenhof	48.0	13.5	69.8	**77.5**	57.5	-26 %	57.9	-25 %	77.5	0 %	58.1	-25 %	57.7	-26 %
IO P11	Priwall/ Fliegerweg	48.0	3.2	68.2	**75.6**	56.1	-26 %	55.7	-26 %	75.1	-1 %	55.7	-26 %	55.7	-26 %
IO P12	Priwall/ Pötenitzer Weg	48.0	2.6	65.0	**72.6**	55.0	-24 %	55.5	-24 %	73.1	1 %	55.1	-24 %	54.9	-24 %
IO P13	Priwall/ Pötenitzer Weg	48.0	2.2	66.2	**73.3**	54.9	-25 %	54.6	-25 %	75.0	2 %	54.9	-25 %	55.1	-25 %
lO P14	Priwall/ Seemannsschule	48.0	2.1	60.7	**69.7**	55.1	-21 %	54.7	-22 %	69.9	0 %	54.9	-21 %	54.8	-21 %
lO P15	Priwall/ Krankenhaus	48.0	3.9	63.9	**72.4**	55.6	-23 %	55.6	-23 %	70.5	-3 %	55.9	-23 %	55.7	-23 %
IO P16	Priwall/ Krankenhaus	48.0	7.8	59.8	**69.8**	55.9	-20 %	56.0	-20 %	69.6	0 %	55.5	-21 %	55.6	-20 %
IO P17	Priwall/ Haus des Kurgastes	48.0	2.3	52.6	**65.8**	54.9	-17 %	55.2	-16 %	65.9	0 %	54.7	-17 %	54.5	-17 %
IO T3	Marina Baltica	48.0	5.8	81.3	**86.1**	58.8	-32 %	58.8	-32 %	84.5	-2 %	58.4	-32 %	58.2	-32 %
IO T4	Fischereihafen	48.0	7.6	75.2	**81.8**	58.7	-28 %	58.1	-29 %	79.7	-3 %	58.3	-29 %	58.1	-29 %
IO T5	Torstraße	48.0	14.5	74.4	**79.7**	59.4	-25 %	59.6	-25 %	79.3	0 %	60.1	-25 %	60.1	-25 %
IO T6	Kirchenstraße	48.0	21.2	70.6	**78.4**	60.9	-22 %	60.6	-23 %	78.0	-1 %	60.9	-22 %	60.4	-23 %
IO T7	Kurgartenstraße	48.0	16.2	67.6	**75.4**	60.1	-20 %	60.2	-20 %	75.3	0 %	60.3	-20 %	60.2	-20 %
IO T8	Vorderreihe/ Prinzenbrücke	48.0	8.4	67.0	**74.5**	60.1	-19 %	60.2	-19 %	75.0	1 %	60.2	-19 %	59.8	-20 %
IO T9	Am Lotsenberg	48.0	17.4	64.4	**72.4**	59.9	-17 %	59.9	-17 %	72.8	1 %	60.3	-17 %	60.1	-17 %
lO T10	Rose	48.0	12.1	65.4	**73.8**	58.8	-20 %	58.5	-21 %	72.2	-2 %	58.0	-21 %	57.5	-22 %
IO T11	Rose	48.0	9.6	62.9	**71.8**	58.4	-19 %	58.3	-19 %	73.0	2 %	57.6	-20 %	57.6	-20 %
IO T12	Rose	48.0	10.0	57.6	**69.7**	56.5	-19 %	56.5	-19 %	70.1	1 %	57.1	-18 %	57.2	-18 %
IO T13	Boelckestraße	48.0	7.6	64.2	**73.7**	57.9	-21 %	58.8	-20 %	74.1	0 %	58.1	-21 %	57.1	-23 %
IO T14	Fehlingstraße	48.0	10.7	62.6	**72.1**	57.8	-20 %	58.2	-19 %	70.3	-3 %	57.1	-21 %	57.5	-20 %
lO T15	Fehlingstraße	48.0	8.3	56.5	**68.5**	56.9	-17 %	56.5	-18 %	68.4	0 %	56.6	-17 %	57.4	-16 %
IO T16	Mühlenberg/ Ziegenhorst	48.0	9.1	59.1	**70.4**	57.4	-18 %	57.0	-19 %	70.5	0 %	57.1	-19 %	57.5	-18 %
IO T17	Gneversdorfer Weg	48.0	49.7	63.3	**79.9**	68.5	-14 %	68.3	-15 %	81.8	2 %	69.0	-14 %	68.2	-15 %
IO T18	Gneversdorfer Weg	48.0	36.5	56.6	**74.3**	62.6	-16 %	63.4	-15 %	75.3	1 %	63.5	-15 %	63.2	-15 %
IO T19	Gneversdorfer Weg	48.0	24.8	49.6	**67.3**	58.2	-13 %	57.4	-15 %	67.4	0 %	57.6	-14 %	57.8	-14 %
lO T20	Gneversdorfer Weg/ Moorredder	48.0	33.7	58.0	**73.7**	60.9	-17 %	60.9	-17 %	73.0	-1 %	61.4	-17 %	61.1	-17 %
IO T21	Moorredder	48.0	22.7	57.2	**71.2**	57.9	-19 %	58.2	-18 %	70.8	0 %	58.2	-18 %	57.6	-19 %
IO T22	Moorredder	48.0	29.8	55.6	**70.1**	60.1	-14 %	60.2	-14 %	68.4	-3 %	60.1	-14 %	59.6	-15 %
IO T23	Am Fahrenberg	48.0	14.5	50.1	**65.9**	56.5	-14 %	56.5	-14 %	65.6	0 %	56.5	-14 %	56.3	-15 %
IO T24	Parkallee/ Kurhaus	48.0	6.2	59.6	**69.5**	58.8	-15 %	58.8	-15 %	69.7	0 %	58.9	-15 %	59.1	-15 %
lO T25	Kurpark	48.0	6.0	58.9	**69.1**	57.3	-17 %	57.0	-18 %	68.5	-1 %	57.9	-16 %	57.2	-17 %
IO T26	Steenkamp	48.0	9.1	52.8	**66.4**	56.2	-15 %	55.9	-16 %	66.3	0 %	55.9	-16 %	56.1	-15 %
IO T27	Steenkamp	48.0	14.5	50.5	**64.6**	56.5	-13 %	56.1	-13 %	65.4	1 %	56.2	-13 %	56.1	-13 %
IO T28	Steenkamp	48.0	9.7	49.4	**64.0**	55.4	-13 %	55.5	-13 %	63.7	0 %	55.1	-14 %	54.7	-14 %
IO T29	Steenkamp/ Kleingärten	48.0	5.6	47.0	**63.8**	54.1	-15 %	54.6	-14 %	62.8	-2 %	54.4	-15 %	54.3	-15 %
lO T30	Schwedenstraße	48.0	7.8	52.5	**65.6**	54.9	-16 %	55.3	-16 %	65.1	-1 %	55.2	-16 %	54.9	-16 %
IO T31	Grönlandstraße	48.0	9.4	47.6	**64.9**	54.9	-16 %	54.6	-16 %	63.4	-2 %	54.5	-16 %	54.3	-16 %
IO T32	Kaiserallee	48.0	8.3	55.1	**66.8**	56.0	-16 %	56.3	-16 %	67.1	0 %	56.9	-15 %	56.8	-15 %
IO T33	Kaiserallee	48.0	6.6	50.6	**64.4**	55.2	-14 %	55.2	-14 %	65.0	1 %	55.3	-14 %	55.1	-14 %
IO T34	Kaiserallee	48.0	6.5	45.2	**61.4**	54.9	-11 %	54.6	-11 %	60.8	-1 %	55.0	-10 %	54.8	-11 %
lO T35	Steuerbord	48.0	8.4	48.9	**63.7**	55.2	-13 %	55.1	-14 %	63.9	0 %	55.0	-14 %	54.9	-14 %
IO T36	Achterdeck	48.0	6.9	48.9	**63.5**	55.2	-13 %	55.3	-13 %	64.6	2 %	55.2	-13 %	54.9	-13 %
IO T37	Strandweg	48.0	6.6	46.7	**63.3**	55.1	-13 %	54.9	-13 %	62.7	-1 %	54.6	-14 %	54.6	-14 %
IO T38	Alfred-Hagelstein-Straße	48.0	7.1	42.3	**61.1**	54.6	-11 %	54.4	-11 %	61.1	0 %	54.2	-11 %	54.2	-11 %
IO T39	Scheteligstraße	48.0	4.6	45.4	**62.0**	54.8	-12 %	54.4	-12 %	61.6	-1 %	54.5	-12 %	54.3	-12 %
IO T40	Gneversdorfer Kamp	48.0	15.1	42.6	**63.3**	55.8	-12 %	55.1	-13 %	64.0	1 %	55.2	-13 %	55.1	-13 %
lO T41	Teutendorfer Weg	48.0	21.8	45.7	**66.0**	56.9	-14 %	57.5	-13 %	66.3	0 %	57.0	-14 %	57.7	-13 %
IO T42	Am Krautacker	48.0	6.0	52.2	**66.9**	54.9	-18 %	54.9	-18 %	68.0	2 %	54.9	-18 %	54.4	-19 %
IO T43	Hollbeck	48.0	13.4	45.6	**64.2**	54.3	-15 %	54.4	-15 %	64.2	0 %	54.4	-15 %	54.5	-15 %
IO T44	Teutendorf	48.0	15.6	38.4	**61.6**	54.7	-11 %	55.2	-10 %	61.7	0 %	55.2	-10 %	54.9	-11 %
IO MP1	Messort Skandinavienkai (2000)	48.0	5.7	68.9	**75.6**	54.9	-27 %	54.6	-28 %	77.0	2 %	54.9	-27 %	55.0	-27 %
IO MP2	Messort Priwallfähre (2000)	48.0	7.6	74.4	**80.3**	58.8	-27 %	58.3	-27 %	80.1	0 %	58.7	-27 %	58.9	-27 %
IO MP3	Messort Kurpark (2000)	48.0	7.6	60.8	**70.4**	58.5	-17 %	58.4	-17 %	71.1	1 %	58.8	-16 %	58.1	-17 %

A 7.2.5 Total NO_2 Pollution (1 Hour Value S18)

Immission point (monitor point)		Total NO_2 pollution (1 hour value S18) [µg/m³]													
		Background pollution	Add. pollution road traffic	Add. pollution shipping	Sum Forecast Sce.	Reduction concept 1a	Comparison with Forecast Sce.	Reduction concept 1b	Comparison with Forecast Sce.	Reduction concept 2	Comparison with Forecast Sce.	Reduction concepts 1a+3	Comparison with Forecast Sce.	Reduction concepts 1b+3	Comparison with Forecast Sce.
IO 1	Teutendorfer Weg/ An der Bak	65.5	36.3	94.0	107.5	84.6	-21 %	85.3	-21 %	106.6	-1 %	85.0	-21 %	84.5	-21 %
IO 2	St. Jürgen-Straße	65.5	15.2	89.7	104.8	80.7	-23 %	80.5	-23 %	104.7	0 %	82.3	-22 %	82.3	-22 %
IO 3	Rönnauer Ring	65.5	14.7	90.1	103.2	79.4	-23 %	79.5	-23 %	104.4	1 %	79.9	-23 %	79.2	-23 %
IO 4	Rönnauer Weg/ Ivendorfer Landstr.	65.5	13.1	97.7	108.1	80.0	-26 %	80.4	-26 %	108.4	0 %	79.4	-27 %	79.2	-27 %
IO 5	Rönnauer Weg/ Ivendorfer Landstr.	65.5	14.1	100.0	109.7	79.3	-28 %	79.2	-28 %	108.5	-1 %	78.8	-28 %	79.4	-28 %
IO 6	Rönnauer Weg/ Ivendorfer Landstr.	65.5	9.3	94.7	104.8	78.2	-25 %	78.1	-25 %	105.5	1 %	78.7	-25 %	78.0	-26 %
IO 7	Ostseestraße/ Pommernzentrum	65.5	10.4	105.0	112.6	79.1	-30 %	79.2	-30 %	113.2	1 %	79.1	-30 %	79.0	-30 %
IO 8	Ostseestraße/ Pommernzentrum	65.5	18.5	106.6	115.4	81.5	-29 %	80.9	-30 %	115.7	0 %	80.7	-30 %	80.8	-30 %
IO 9	Ostseestraße/ Pommernzentrum	65.5	9.8	99.8	109.2	78.0	-29 %	78.0	-29 %	109.0	0 %	78.2	-28 %	78.2	-28 %
IO A	Ivendorf/ Ovendorfer Straße	65.5	54.2	82.2	104.3	85.3	-18 %	85.3	-18 %	102.1	-2 %	85.7	-18 %	85.5	-18 %
IO B	Ivendorf/ Ovendorfer Straße	65.5	35.6	82.1	99.1	79.0	-20 %	79.4	-20 %	101.4	2 %	79.0	-20 %	79.0	-20 %
IO C	Ivendorf/ Ivendorfer Landstraße	65.5	25.5	82.8	98.7	77.3	-22 %	76.9	-22 %	98.5	0 %	77.6	-21 %	77.1	-22 %
IO D	Ivendorf/ Ivendorfer Landstraße	65.5	27.4	78.1	96.8	78.0	-19 %	77.3	-20 %	95.5	-1 %	77.0	-20 %	77.2	-20 %
IO E	Ivendorf/ Ivendorfer Landstraße	65.5	33.2	69.2	92.9	77.7	-16 %	78.0	-16 %	92.4	0 %	78.5	-15 %	77.9	-16 %
IO F	Ivendorf/ Ivendorfer Landstraße	65.5	30.2	65.8	89.5	78.0	-13 %	77.5	-13 %	89.5	0 %	77.2	-14 %	77.5	-13 %
IO G	Ivendorf/ Ivendorfer Landstraße	65.5	48.0	58.9	89.8	83.0	-8 %	83.0	-8 %	91.0	1 %	83.0	-8 %	82.5	-8 %
IO H	Ivendorf/ Ivendorfer Landstraße	65.5	50.4	54.3	89.8	83.0	-8 %	83.1	-7 %	90.1	0 %	83.3	-7 %	83.0	-8 %
IO I	Blessenacker/ Travemünder Landstr.	65.5	17.4	41.0	80.3	75.5	-6 %	75.6	-6 %	79.3	-1 %	75.5	-6 %	75.3	-6 %
IO L	Travemünder Landstr.	65.5	32.8	47.9	86.7	78.3	-10 %	78.3	-10 %	86.8	0 %	79.2	-9 %	79.2	-9 %
IO N	Boldwiesenkoppel	65.5	17.3	51.7	83.5	75.6	-10 %	75.5	-10 %	84.0	1 %	75.5	-10 %	75.6	-10 %
IO P	Scheidekoppel	65.5	5.0	64.0	85.3	73.5	-14 %	73.4	-14 %	85.5	0 %	73.3	-14 %	73.2	-14 %
IO Q	Borndiek	65.5	21.6	92.9	103.3	77.4	-25 %	77.1	-25 %	103.4	0 %	76.8	-26 %	77.1	-25 %
IO S	Priwall/ Traveufer	65.5	5.4	109.5	117.2	79.5	-32 %	79.6	-32 %	115.2	-2 %	79.1	-32 %	78.9	-33 %
IO T	Auf dem Baggersand	65.5	21.3	103.8	111.9	83.9	-25 %	83.4	-25 %	111.1	-1 %	83.8	-25 %	83.9	-25 %
IO U	Priwall/ Traveufer	65.5	5.5	124.2	128.8	77.4	-40 %	77.5	-40 %	128.9	0 %	77.8	-40 %	77.3	-40 %
IO V	Priwall/ Traveufer	65.5	5.3	125.6	130.1	80.2	-38 %	79.4	-39 %	129.5	0 %	79.2	-39 %	79.2	-39 %
IO W	Dummersdorfer Ufer	65.5	7.2	95.4	106.4	77.1	-28 %	77.0	-28 %	106.7	0 %	76.5	-28 %	76.0	-29 %
IO X	Dummersdorfer Ufer	65.5	9.0	106.2	112.7	75.5	-33 %	75.6	-33 %	112.8	0 %	75.7	-33 %	75.4	-33 %
IO Y	Dummersdorfer Ufer	65.5	7.2	113.8	119.3	76.9	-36 %	77.0	-35 %	118.2	-1 %	76.2	-36 %	76.6	-36 %
IO Z	Vorderreihe/ Priwallfähre	65.5	12.7	97.5	107.5	82.9	-23 %	83.5	-22 %	108.0	0 %	83.2	-23 %	83.5	-22 %
IO T1	Vorderreihe/ Ostpreußenkai	65.5	10.7	97.3	106.6	84.4	-21 %	84.0	-21 %	106.8	0 %	84.4	-21 %	84.3	-21 %
IO T2	Yachthafen/ Kaiserbrücke	65.5	13.7	91.1	102.2	86.0	-16 %	84.9	-17 %	103.2	1 %	86.1	-16 %	86.1	-16 %
IO P1	Priwall/ Fähre	65.5	6.9	97.2	107.2	80.9	-25 %	80.4	-25 %	106.6	-1 %	79.7	-26 %	80.0	-25 %
IO P2	Priwall/ Passathafen	65.5	4.9	86.1	100.0	79.7	-20 %	79.6	-20 %	99.7	0 %	79.5	-20 %	79.4	-21 %
IO P3	Priwall/ Passathafen	65.5	4.5	82.9	97.3	80.6	-17 %	80.2	-18 %	96.9	0 %	80.3	-17 %	80.3	-17 %
IO P4	Priwall/ Traveufer	65.5	5.3	113.5	121.1	78.3	-35 %	77.6	-36 %	121.1	0 %	77.5	-36 %	77.0	-36 %
IO P5	Priwall/ Traveufer	65.5	5.7	117.0	122.7	80.4	-34 %	80.2	-35 %	124.5	1 %	79.3	-35 %	80.1	-35 %
IO P6	Priwall/ Kläranlage	65.5	5.3	116.7	123.3	79.6	-35 %	80.1	-35 %	123.5	0 %	79.2	-36 %	79.6	-35 %
IO P7	Priwall/ Weggabelung Teich	65.5	4.4	115.2	122.2	78.4	-36 %	79.1	-35 %	122.4	0 %	79.1	-35 %	78.9	-35 %
IO P8	Priwall/ Rosenhof	65.5	5.2	108.1	115.6	78.8	-32 %	79.6	-31 %	114.8	-1 %	78.9	-32 %	78.9	-32 %
IO P9	Priwall/ Rosenhof	65.5	4.5	104.4	112.1	78.3	-30 %	78.3	-30 %	111.3	-1 %	78.5	-30 %	78.7	-30 %
IO P10	Priwall/ Rosenhof	65.5	18.9	97.9	108.7	80.7	-26 %	81.3	-25 %	108.8	0 %	81.5	-25 %	81.0	-26 %
IO P11	Priwall/ Fliegerweg	65.5	4.5	95.7	106.0	78.7	-26 %	78.2	-26 %	105.4	-1 %	78.2	-26 %	78.1	-26 %
IO P12	Priwall/ Pötenitzer Weg	65.5	3.6	91.3	102.0	77.2	-24 %	77.8	-24 %	102.6	1 %	77.3	-24 %	77.0	-24 %
IO P13	Priwall/ Pötenitzer Weg	65.5	3.1	92.9	102.9	77.0	-25 %	76.7	-25 %	105.3	2 %	77.0	-25 %	77.4	-25 %
lO P14	Priwall/ Seemannsschule	65.5	2.9	85.2	97.8	77.4	-21 %	76.7	-22 %	98.1	0 %	77.0	-21 %	76.9	-21 %
lO P15	Priwall/ Krankenhaus	65.5	5.5	89.7	101.6	78.0	-23 %	78.0	-23 %	98.9	-3 %	78.4	-23 %	78.2	-23 %
IO P16	Priwall/ Krankenhaus	65.5	11.0	84.0	98.0	78.4	-20 %	78.6	-20 %	97.7	0 %	77.9	-21 %	78.0	-20 %
IO P17	Priwall/ Haus des Kurgastes	65.5	3.2	73.8	92.3	77.0	-17 %	77.5	-16 %	92.5	0 %	76.8	-17 %	76.5	-17 %
IO T3	Marina Baltica	65.5	8.2	114.1	120.9	82.5	-32 %	82.5	-32 %	118.6	-2 %	82.0	-32 %	81.7	-32 %
IO T4	Fischereihafen	65.5	10.7	105.6	114.8	82.3	-28 %	81.5	-29 %	111.9	-3 %	81.8	-29 %	81.5	-29 %
IO T5	Torstraße	65.5	20.3	104.4	111.9	83.4	-25 %	83.6	-25 %	111.4	0 %	84.4	-25 %	84.4	-25 %
IO T6	Kirchenstraße	65.5	29.7	99.2	110.0	85.5	-22 %	85.0	-23 %	109.4	-1 %	85.5	-22 %	84.8	-23 %
IO T7	Kurgartenstraße	65.5	22.8	94.9	105.9	84.4	-20 %	84.5	-20 %	105.7	0 %	84.6	-20 %	84.4	-20 %
IO T8	Vorderreihe/ Prinzenbrücke	65.5	11.8	94.1	104.5	84.3	-19 %	84.5	-19 %	105.3	1 %	84.5	-19 %	84.0	-20 %
IO T9	Am Lotsenberg	65.5	24.4	90.4	101.6	84.1	-17 %	84.1	-17 %	102.2	1 %	84.6	-17 %	84.4	-17 %
lO T10	Rose	65.5	16.9	91.7	103.6	82.5	-20 %	82.1	-21 %	101.3	-2 %	81.5	-21 %	80.7	-22 %
IO T11	Rose	65.5	13.4	88.3	100.8	81.9	-19 %	81.8	-19 %	102.4	2 %	80.9	-20 %	80.9	-20 %
IO T12	Rose	65.5	14.0	80.9	97.8	79.3	-19 %	79.2	-19 %	98.4	1 %	80.1	-18 %	80.3	-18 %
IO T13	Boelckestraße	65.5	10.7	90.2	103.5	81.3	-21 %	82.5	-20 %	104.0	0 %	81.5	-21 %	80.1	-23 %
IO T14	Fehlingstraße	65.5	15.0	87.9	101.2	81.2	-20 %	81.6	-19 %	98.6	-3 %	80.1	-21 %	80.7	-20 %
lO T15	Fehlingstraße	65.5	11.7	79.3	96.2	79.9	-17 %	79.3	-18 %	96.0	0 %	79.4	-17 %	80.6	-16 %
IO T16	Mühlenberg/ Ziegenhorst	65.5	12.7	83.0	98.7	80.6	-18 %	79.9	-19 %	98.9	0 %	80.1	-19 %	80.7	-18 %
IO T17	Gneversdorfer Weg	65.5	69.8	88.8	112.1	96.1	-14 %	95.9	-15 %	114.9	2 %	96.9	-14 %	95.8	-15 %
IO T18	Gneversdorfer Weg	65.5	51.2	79.5	104.2	87.8	-16 %	88.9	-15 %	105.7	1 %	89.1	-15 %	88.7	-15 %
IO T19	Gneversdorfer Weg	65.5	34.8	69.6	94.4	81.7	-13 %	80.6	-15 %	94.6	0 %	80.9	-14 %	81.1	-14 %
lO T20	Gneversdorfer Weg/ Moorredder	65.5	47.3	81.4	103.5	85.5	-17 %	85.5	-17 %	102.5	-1 %	86.1	-17 %	85.7	-17 %
IO T21	Moorredder	65.5	31.8	80.3	99.9	81.3	-19 %	81.7	-18 %	99.4	0 %	81.7	-18 %	80.9	-19 %
IO T22	Moorredder	65.5	41.9	78.0	98.4	84.3	-14 %	84.5	-14 %	95.9	-3 %	84.4	-14 %	83.6	-15 %
IO T23	Am Fahrenberg	65.5	20.4	70.4	92.5	79.2	-14 %	79.2	-14 %	92.1	0 %	79.3	-14 %	79.0	-15 %
IO T24	Parkallee/ Kurhaus	65.5	8.7	83.6	97.5	82.5	-15 %	82.5	-15 %	97.8	0 %	82.6	-15 %	82.9	-15 %
lO T25	Kurpark	65.5	8.4	82.7	97.0	80.4	-17 %	80.0	-18 %	96.2	-1 %	81.3	-16 %	80.3	-17 %
IO T26	Steenkamp	65.5	12.7	74.1	93.2	78.9	-15 %	78.5	-16 %	93.0	0 %	78.5	-16 %	78.8	-15 %
IO T27	Steenkamp	65.5	20.3	70.9	90.7	79.3	-13 %	78.7	-13 %	91.8	1 %	78.9	-13 %	78.8	-13 %
IO T28	Steenkamp	65.5	13.6	69.3	89.8	77.8	-13 %	77.9	-13 %	89.4	0 %	77.4	-14 %	76.8	-14 %
IO T29	Steenkamp/ Kleingärten	65.5	7.8	66.0	89.5	75.9	-15 %	76.6	-14 %	88.1	-2 %	76.4	-15 %	76.3	-15 %
lO T30	Schwedenstraße	65.5	11.0	73.7	92.1	77.1	-16 %	77.6	-16 %	91.4	-1 %	77.5	-16 %	77.1	-16 %
IO T31	Grönlandstraße	65.5	13.2	66.8	91.1	77.0	-16 %	76.7	-16 %	89.0	-2 %	76.4	-16 %	76.2	-16 %
IO T32	Kaiserallee	65.5	11.7	77.3	93.8	78.6	-16 %	79.0	-16 %	94.1	0 %	79.9	-15 %	79.8	-15 %
IO T33	Kaiserallee	65.5	9.3	71.0	90.4	77.4	-14 %	77.5	-14 %	91.2	1 %	77.6	-14 %	77.4	-14 %
IO T34	Kaiserallee	65.5	9.2	63.5	86.1	77.0	-11 %	76.6	-11 %	85.4	-1 %	77.1	-10 %	76.9	-11 %
lO T35	Steuerbord	65.5	11.8	68.6	89.5	77.4	-13 %	77.3	-14 %	89.7	0 %	77.2	-14 %	77.0	-14 %
IO T36	Achterdeck	65.5	9.6	68.7	89.1	77.5	-13 %	77.7	-13 %	90.7	2 %	77.5	-13 %	77.1	-13 %
IO T37	Strandweg	65.5	9.3	65.5	88.8	77.3	-13 %	77.0	-13 %	88.1	-1 %	76.7	-14 %	76.7	-14 %
IO T38	Alfred-Hagelstein-Straße	65.5	10.0	59.3	85.7	76.7	-11 %	76.3	-11 %	85.8	0 %	76.0	-11 %	76.0	-11 %
IO T39	Scheteligstraße	65.5	6.4	63.7	87.0	76.9	-12 %	76.4	-12 %	86.5	-1 %	76.5	-12 %	76.2	-12 %
IO T40	Gneversdorfer Kamp	65.5	21.2	59.8	88.9	78.3	-12 %	77.4	-13 %	89.8	1 %	77.5	-13 %	77.3	-13 %
lO T41	Teutendorfer Weg	65.5	30.7	64.2	92.6	79.9	-14 %	80.6	-13 %	93.0	0 %	79.9	-14 %	80.9	-13 %
IO T42	Am Krautacker	65.5	8.4	73.3	94.0	77.0	-18 %	77.0	-18 %	95.4	2 %	77.0	-18 %	76.3	-19 %
IO T43	Hollbeck	65.5	18.8	64.0	90.2	76.2	-15 %	76.3	-15 %	90.1	0 %	76.3	-15 %	76.5	-15 %
IO T44	Teutendorf	65.5	21.9	53.9	86.5	76.8	-11 %	77.5	-10 %	86.5	0 %	77.5	-10 %	77.0	-11 %
IO MP1	Messort Skandinavienkai (2000)	65.5	8.1	96.7	106.1	77.1	-27 %	76.7	-28 %	108.0	2 %	77.1	-27 %	77.2	-27 %
IO MP2	Messort Priwallfähre (2000)	65.5	10.6	104.5	112.7	82.5	-27 %	81.9	-27 %	112.4	0 %	82.4	-27 %	82.6	-27 %
IO MP3	Messort Kurpark (2000)	65.5	10.6	85.4	98.8	82.1	-17 %	82.0	-17 %	99.8	1 %	82.6	-16 %	81.6	-17 %

A 7.2.6 Total SO_2 Pollution (Annual Average Value J00)

Immission point (monitor point)		Total SO_2 pollution (annual average value J00) [µg/m³]													
		Background pollution	Add. pollution road traffic	Add. pollution shipping	Sum Forecast Sce.	Reduction concept 1a	Comparison with Forecast Sce.	Reduction concept 1b	Comparison with Forecast Sce.	Reduction concept 2	Comparison with Forecast Sce.	Reduction concepts 1a+3	Comparison with Forecast Sce.	Reduction concepts 1b+3	Comparison with Forecast Sce.
IO 1	Teutendorfer Weg/ An der Bak	3.5	—	3.4	**6.9**	5.2	-25 %	5.0	-28 %	4.9	-29 %	4.7	-32 %	4.7	-32 %
IO 2	St. Jürgen-Straße	3.5	—	3.3	**6.8**	5.1	-25 %	4.9	-28 %	4.8	-29 %	4.7	-31 %	4.6	-32 %
IO 3	Rönnauer Ring	3.5	—	3.2	**6.7**	5.0	-25 %	4.8	-28 %	4.8	-28 %	4.5	-33 %	4.5	-33 %
IO 4	Rönnauer Weg/ Ivendorfer Landstr.	3.5	—	3.5	**7.0**	5.1	-27 %	4.9	-30 %	4.7	-33 %	4.5	-36 %	4.5	-36 %
IO 5	Rönnauer Weg/ Ivendorfer Landstr.	3.5	—	3.6	**7.1**	5.1	-28 %	5.0	-30 %	4.8	-32 %	4.5	-37 %	4.5	-37 %
IO 6	Rönnauer Weg/ Ivendorfer Landstr.	3.5	—	3.3	**6.8**	5.0	-26 %	4.8	-29 %	4.7	-31 %	4.5	-34 %	4.5	-34 %
IO 7	Ostseestraße/ Pommernzentrum	3.5	—	4.3	**7.8**	5.3	-32 %	5.1	-35 %	4.9	-37 %	4.6	-41 %	4.5	-42 %
IO 8	Ostseestraße/ Pommernzentrum	3.5	—	4.4	**7.9**	5.4	-32 %	5.2	-34 %	4.9	-38 %	4.6	-42 %	4.6	-42 %
IO 9	Ostseestraße/ Pommernzentrum	3.5	—	3.7	**7.2**	5.1	-29 %	5.0	-31 %	4.8	-33 %	4.5	-38 %	4.5	-38 %
IO A	Ivendorf/ Ovendorfer Straße	3.5	—	2.7	**6.2**	4.5	-27 %	4.4	-29 %	4.3	-31 %	4.1	-34 %	4.1	-34 %
IO B	Ivendorf/ Ovendorfer Straße	3.5	—	2.7	**6.2**	4.5	-27 %	4.4	-29 %	4.3	-31 %	4.1	-34 %	4.1	-34 %
IO C	Ivendorf/ Ivendorfer Landstraße	3.5	—	2.6	**6.1**	4.5	-26 %	4.4	-28 %	4.3	-30 %	4.1	-33 %	4.1	-33 %
IO D	Ivendorf/ Ivendorfer Landstraße	3.5	—	2.4	**5.9**	4.4	-25 %	4.3	-27 %	4.2	-29 %	4.0	-32 %	4.0	-32 %
IO E	Ivendorf/ Ivendorfer Landstraße	3.5	—	1.9	**5.4**	4.2	-22 %	4.2	-22 %	4.1	-24 %	4.0	-26 %	4.0	-26 %
IO F	Ivendorf/ Ivendorfer Landstraße	3.5	—	1.7	**5.2**	4.2	-19 %	4.1	-21 %	4.0	-23 %	3.9	-25 %	3.9	-25 %
IO G	Ivendorf/ Ivendorfer Landstraße	3.5	—	1.4	**4.9**	4.1	-16 %	4.1	-16 %	4.0	-18 %	3.9	-20 %	3.9	-20 %
IO H	Ivendorf/ Ivendorfer Landstraße	3.5	—	1.3	**4.8**	4.0	-17 %	4.0	-17 %	3.9	-19 %	3.9	-19 %	3.8	-21 %
IO I	Blessenacker/ Travemünder Landstr.	3.5	—	0.9	**4.4**	3.9	-11 %	3.9	-11 %	3.8	-14 %	3.7	-16 %	3.7	-16 %
IO L	Travemünder Landstr.	3.5	—	1.0	**4.5**	4.0	-11 %	3.9	-13 %	3.9	-13 %	3.8	-16 %	3.8	-16 %
IO N	Boldwiesenkoppel	3.5	—	1.2	**4.7**	4.0	-15 %	4.0	-15 %	3.9	-17 %	3.8	-19 %	3.8	-19 %
IO P	Scheidekoppel	3.5	—	1.6	**5.1**	4.1	-20 %	4.1	-20 %	4.0	-22 %	3.9	-24 %	3.9	-24 %
IO Q	Borndiek	3.5	—	3.3	**6.8**	4.7	-31 %	4.5	-34 %	4.4	-35 %	4.2	-38 %	4.1	-40 %
IO S	Priwall/ Traveufer	3.5	—	8.5	**12.0**	7.3	-39 %	7.0	-42 %	6.6	-45 %	6.1	-49 %	6.0	-50 %
IO T	Auf dem Baggersand	3.5	—	4.3	**7.8**	5.6	-28 %	5.4	-31 %	5.3	-32 %	5.0	-36 %	5.0	-36 %
IO U	Priwall/ Traveufer	3.5	—	10.8	**14.3**	6.4	-55 %	6.0	-58 %	5.5	-62 %	4.6	-68 %	4.6	-68 %
IO V	Priwall/ Traveufer	3.5	—	11.6	**15.1**	7.3	-52 %	6.7	-56 %	6.1	-60 %	5.2	-66 %	5.1	-66 %
IO W	Dummersdorfer Ufer	3.5	—	3.6	**7.1**	4.9	-31 %	4.8	-32 %	4.6	-35 %	4.3	-39 %	4.3	-39 %
IO X	Dummersdorfer Ufer	3.5	—	4.3	**7.8**	5.0	-36 %	4.8	-38 %	4.6	-41 %	4.3	-45 %	4.3	-45 %
IO Y	Dummersdorfer Ufer	3.5	—	4.4	**7.9**	5.0	-37 %	4.8	-39 %	4.6	-42 %	4.3	-46 %	4.3	-46 %
IO Z	Vorderreihe/ Priwallfähre	3.5	—	5.1	**8.6**	6.2	-28 %	6.0	-30 %	5.7	-34 %	5.5	-36 %	5.5	-36 %
IO T1	Vorderreihe/ Ostpreußenkai	3.5	—	5.4	**8.9**	6.5	-27 %	6.3	-29 %	6.0	-33 %	5.9	-34 %	5.8	-35 %
IO T2	Yachthafen/ Kaiserbrücke	3.5	—	5.1	**8.6**	6.6	-23 %	6.4	-26 %	6.2	-28 %	6.0	-30 %	5.9	-31 %
IO P1	Priwall/ Fähre	3.5	—	6.4	**9.9**	7.1	-28 %	6.9	-30 %	6.6	-33 %	6.3	-36 %	6.3	-36 %
IO P2	Priwall/ Passathafen	3.5	—	6.3	**9.8**	7.3	-26 %	7.1	-28 %	6.6	-33 %	6.4	-35 %	6.4	-35 %
IO P3	Priwall/ Passathafen	3.5	—	5.9	**9.4**	7.2	-23 %	7.1	-24 %	6.7	-29 %	6.4	-32 %	6.4	-32 %
IO P4	Priwall/ Traveufer	3.5	—	12.2	**15.7**	6.9	-56 %	6.4	-59 %	5.9	-62 %	4.9	-69 %	4.8	-69 %
IO P5	Priwall/ Traveufer	3.5	—	9.2	**12.7**	7.3	-43 %	6.8	-46 %	6.3	-50 %	5.7	-55 %	5.6	-56 %
IO P6	Priwall/ Kläranlage	3.5	—	10.4	**13.9**	7.7	-45 %	7.2	-48 %	6.6	-53 %	5.9	-58 %	5.8	-58 %
IO P7	Priwall/ Weggabelung Teich	3.5	—	11.4	**14.9**	7.7	-48 %	7.2	-52 %	6.8	-54 %	6.0	-60 %	5.9	-60 %
IO P8	Priwall/ Rosenhof	3.5	—	8.3	**11.8**	7.4	-37 %	7.0	-41 %	6.7	-43 %	6.2	-47 %	6.1	-48 %
IO P9	Priwall/ Rosenhof	3.5	—	8.2	**11.7**	7.3	-38 %	7.0	-40 %	6.6	-44 %	6.1	-48 %	6.1	-48 %
IO P10	Priwall/ Rosenhof	3.5	—	6.8	**10.3**	7.2	-30 %	6.9	-33 %	6.7	-35 %	6.4	-38 %	6.3	-39 %
IO P11	Priwall/ Fliegerweg	3.5	—	7.0	**10.5**	6.9	-34 %	6.6	-37 %	6.3	-40 %	6.0	-43 %	5.9	-44 %
IO P12	Priwall/ Pötenitzer Weg	3.5	—	6.4	**9.9**	6.5	-34 %	6.3	-36 %	5.9	-40 %	5.6	-43 %	5.6	-43 %
IO P13	Priwall/ Pötenitzer Weg	3.5	—	6.9	**10.4**	6.4	-38 %	6.1	-41 %	5.8	-44 %	5.4	-48 %	5.4	-48 %
lO P14	Priwall/ Seemannsschule	3.5	—	5.4	**8.9**	6.0	-33 %	5.8	-35 %	5.5	-38 %	5.3	-40 %	5.2	-42 %
lO P15	Priwall/ Krankenhaus	3.5	—	5.9	**9.4**	6.6	-30 %	6.4	-32 %	6.1	-35 %	5.9	-37 %	5.8	-38 %
IO P16	Priwall/ Krankenhaus	3.5	—	5.3	**8.8**	6.3	-28 %	6.2	-30 %	5.8	-34 %	5.5	-38 %	5.5	-38 %
IO P17	Priwall/ Haus des Kurgastes	3.5	—	4.6	**8.1**	6.1	-25 %	5.9	-27 %	5.7	-30 %	5.4	-33 %	5.4	-33 %
IO T3	Marina Baltica	3.5	—	4.8	**8.3**	5.6	-33 %	5.3	-36 %	5.1	-39 %	4.7	-43 %	4.7	-43 %
IO T4	Fischereihafen	3.5	—	4.2	**7.7**	5.5	-29 %	5.3	-31 %	5.1	-34 %	4.8	-38 %	4.8	-38 %
IO T5	Torstraße	3.5	—	4.4	**7.9**	5.8	-27 %	5.6	-29 %	5.4	-32 %	5.1	-35 %	5.1	-35 %
IO T6	Kirchenstraße	3.5	—	4.4	**7.9**	5.9	-25 %	5.8	-27 %	5.5	-30 %	5.3	-33 %	5.3	-33 %
IO T7	Kurgartenstraße	3.5	—	4.8	**8.3**	6.2	-25 %	6.0	-28 %	5.9	-29 %	5.6	-33 %	5.6	-33 %
IO T8	Vorderreihe/ Prinzenbrücke	3.5	—	5.1	**8.6**	6.4	-26 %	6.3	-27 %	6.2	-28 %	5.9	-31 %	5.9	-31 %
IO T9	Am Lotsenberg	3.5	—	4.5	**8.0**	6.2	-23 %	6.0	-25 %	5.9	-26 %	5.7	-29 %	5.7	-29 %
lO T10	Rose	3.5	—	4.1	**7.6**	5.9	-22 %	5.7	-25 %	5.5	-28 %	5.4	-29 %	5.3	-30 %
IO T11	Rose	3.5	—	3.6	**7.1**	5.6	-21 %	5.5	-23 %	5.4	-24 %	5.2	-27 %	5.2	-27 %
IO T12	Rose	3.5	—	2.9	**6.4**	5.2	-19 %	5.0	-22 %	4.9	-23 %	4.9	-23 %	4.9	-23 %
IO T13	Boelckestraße	3.5	—	3.8	**7.3**	5.6	-23 %	5.5	-25 %	5.4	-26 %	5.2	-29 %	5.2	-29 %
IO T14	Fehlingstraße	3.5	—	3.8	**7.3**	5.7	-22 %	5.7	-22 %	5.6	-23 %	5.3	-27 %	5.3	-27 %
lO T15	Fehlingstraße	3.5	—	3.1	**6.6**	5.5	-17 %	5.4	-18 %	5.2	-21 %	5.1	-23 %	5.1	-23 %
IO T16	Mühlenberg/ Ziegenhorst	3.5	—	3.3	**6.8**	5.5	-19 %	5.4	-21 %	5.3	-22 %	5.1	-25 %	5.1	-25 %
IO T17	Gneversdorfer Weg	3.5	—	3.1	**6.6**	5.2	-21 %	5.1	-23 %	5.0	-24 %	4.8	-27 %	4.8	-27 %
IO T18	Gneversdorfer Weg	3.5	—	2.7	**6.2**	4.9	-21 %	4.9	-21 %	4.7	-24 %	4.6	-26 %	4.6	-26 %
IO T19	Gneversdorfer Weg	3.5	—	2.0	**5.5**	4.6	-16 %	4.5	-18 %	4.4	-20 %	4.3	-22 %	4.3	-22 %
lO T20	Gneversdorfer Weg/ Moorredder	3.5	—	2.7	**6.2**	4.8	-23 %	4.8	-23 %	4.6	-26 %	4.5	-27 %	4.5	-27 %
IO T21	Moorredder	3.5	—	2.6	**6.1**	4.9	-20 %	4.8	-21 %	4.8	-21 %	4.6	-25 %	4.5	-26 %
IO T22	Moorredder	3.5	—	2.6	**6.1**	5.0	-18 %	4.9	-20 %	4.8	-21 %	4.7	-23 %	4.7	-23 %
IO T23	Am Fahrenberg	3.5	—	2.5	**6.0**	5.0	-17 %	4.9	-18 %	4.9	-18 %	4.8	-20 %	4.8	-20 %
IO T24	Parkallee/ Kurhaus	3.5	—	4.1	**7.6**	6.1	-20 %	6.0	-21 %	5.8	-24 %	5.7	-25 %	5.7	-25 %
lO T25	Kurpark	3.5	—	3.6	**7.1**	5.7	-20 %	5.6	-21 %	5.5	-23 %	5.4	-24 %	5.4	-24 %
IO T26	Steenkamp	3.5	—	2.7	**6.2**	5.1	-18 %	5.0	-19 %	4.9	-21 %	4.8	-23 %	4.8	-23 %
IO T27	Steenkamp	3.5	—	2.3	**5.8**	4.9	-16 %	4.8	-17 %	4.7	-19 %	4.6	-21 %	4.6	-21 %
IO T28	Steenkamp	3.5	—	2.0	**5.5**	4.7	-15 %	4.7	-15 %	4.6	-16 %	4.5	-18 %	4.4	-20 %
IO T29	Steenkamp/ Kleingärten	3.5	—	1.9	**5.4**	4.6	-15 %	4.5	-17 %	4.4	-19 %	4.3	-20 %	4.3	-20 %
lO T30	Schwedenstraße	3.5	—	2.1	**5.6**	4.7	-16 %	4.6	-18 %	4.5	-20 %	4.4	-21 %	4.4	-21 %
IO T31	Grönlandstraße	3.5	—	1.8	**5.3**	4.4	-17 %	4.4	-17 %	4.3	-19 %	4.2	-21 %	4.2	-21 %
IO T32	Kaiserallee	3.5	—	3.2	**6.7**	5.4	-19 %	5.3	-21 %	5.2	-22 %	5.1	-24 %	5.1	-24 %
IO T33	Kaiserallee	3.5	—	2.6	**6.1**	5.0	-18 %	4.9	-20 %	4.9	-20 %	4.8	-21 %	4.7	-23 %
IO T34	Kaiserallee	3.5	—	2.0	**5.5**	4.7	-15 %	4.7	-15 %	4.6	-16 %	4.5	-18 %	4.5	-18 %
lO T35	Steuerbord	3.5	—	2.3	**5.8**	4.9	-16 %	4.9	-16 %	4.8	-17 %	4.6	-21 %	4.6	-21 %
IO T36	Achterdeck	3.5	—	2.3	**5.8**	4.9	-16 %	4.8	-17 %	4.8	-17 %	4.6	-21 %	4.7	-19 %
IO T37	Strandweg	3.5	—	2.1	**5.6**	4.7	-16 %	4.7	-16 %	4.6	-18 %	4.5	-20 %	4.5	-20 %
IO T38	Alfred-Hagelstein-Straße	3.5	—	1.7	**5.2**	4.5	-13 %	4.5	-13 %	4.4	-15 %	4.4	-15 %	4.4	-15 %
IO T39	Scheteligstraße	3.5	—	1.9	**5.4**	4.5	-17 %	4.5	-17 %	4.5	-17 %	4.4	-19 %	4.4	-19 %
IO T40	Gneversdorfer Kamp	3.5	—	1.5	**5.0**	4.4	-12 %	4.3	-14 %	4.3	-14 %	4.2	-16 %	4.1	-18 %
lO T41	Teutendorfer Weg	3.5	—	2.0	**5.5**	4.5	-18 %	4.5	-18 %	4.4	-20 %	4.2	-24 %	4.3	-22 %
IO T42	Am Krautacker	3.5	—	2.2	**5.7**	4.6	-19 %	4.5	-21 %	4.5	-21 %	4.3	-25 %	4.3	-25 %
IO T43	Hollbeck	3.5	—	1.6	**5.1**	4.3	-16 %	4.2	-18 %	4.2	-18 %	4.1	-20 %	4.1	-20 %
IO T44	Teutendorf	3.5	—	1.2	**4.7**	4.1	-13 %	4.1	-13 %	4.0	-15 %	4.0	-15 %	4.0	-15 %
IO MP1	Messort Skandinavienkai (2000)	3.5	—	4.2	**7.7**	5.1	-34 %	4.9	-36 %	4.8	-38 %	4.5	-42 %	4.5	-42 %
IO MP2	Messort Priwallfähre (2000)	3.5	—	5.3	**8.8**	6.1	-31 %	5.9	-33 %	5.7	-35 %	5.4	-39 %	5.4	-39 %
IO MP3	Messort Kurpark (2000)	3.5	—	4.0	**7.5**	5.9	-21 %	5.8	-23 %	5.7	-24 %	5.5	-27 %	5.5	-27 %

A 7.2.7 Total SO_2 Pollution (24 Hours Value T03)

Immission point (monitor point)		Total SO_2 pollution (24 hours value T03) [µg/m³]													
		Background pollution	Add. pollution road traffic	Add. pollution shipping	Sum Forecast Sce.	Reduction concept 1a	Comparison with Forecast Sce.	Reduction concept 1b	Comparison with Forecast Sce.	Reduction concept 2	Comparison with Forecast Sce.	Reduction concepts 1a+3	Comparison with Forecast Sce.	Reduction concepts 1b+3	Comparison with Forecast Sce.
IO 1	Teutendorfer Weg/ An der Bak	17.0	—	37.1	**40.7**	17.3	-57 %	17.2	-58 %	17.0	-58 %	17.0	-58 %	17.0	-58 %
IO 2	St. Jürgen-Straße	17.0	—	32.9	**40.4**	23.7	-41 %	19.2	-52 %	18.3	-55 %	18.4	-54 %	18.4	-54 %
IO 3	Rönnauer Ring	17.0	—	35.1	**47.3**	21.3	-55 %	18.3	-61 %	17.4	-63 %	17.0	-64 %	17.0	-64 %
IO 4	Rönnauer Weg/ Ivendorfer Landstr.	17.0	—	35.1	**38.6**	19.7	-49 %	17.9	-54 %	17.9	-54 %	17.5	-55 %	17.0	-56 %
IO 5	Rönnauer Weg/ Ivendorfer Landstr.	17.0	—	34.3	**39.6**	21.4	-46 %	19.0	-52 %	17.0	-57 %	17.0	-57 %	17.0	-57 %
IO 6	Rönnauer Weg/ Ivendorfer Landstr.	17.0	—	39.9	**43.4**	20.0	-54 %	18.3	-58 %	17.7	-59 %	17.0	-61 %	17.0	-61 %
IO 7	Ostseestraße/ Pommernzentrum	17.0	—	46.3	**50.1**	24.1	-52 %	21.4	-57 %	19.2	-62 %	17.0	-66 %	17.0	-66 %
IO 8	Ostseestraße/ Pommernzentrum	17.0	—	50.5	**54.0**	24.1	-55 %	21.7	-60 %	18.5	-66 %	17.0	-69 %	17.0	-69 %
IO 9	Ostseestraße/ Pommernzentrum	17.0	—	37.4	**40.1**	18.8	-53 %	18.3	-54 %	18.3	-54 %	17.0	-58 %	17.0	-58 %
IO A	Ivendorf/ Ovendorfer Straße	17.0	—	22.7	**24.9**	17.0	-32 %	17.0	-32 %	17.0	-32 %	17.0	-32 %	17.0	-32 %
IO B	Ivendorf/ Ovendorfer Straße	17.0	—	23.1	**25.9**	17.0	-34 %	17.0	-34 %	17.0	-34 %	17.0	-34 %	17.0	-34 %
IO C	Ivendorf/ Ivendorfer Landstraße	17.0	—	22.6	**25.8**	17.0	-34 %	17.0	-34 %	17.0	-34 %	17.0	-34 %	17.0	-34 %
IO D	Ivendorf/ Ivendorfer Landstraße	17.0	—	22.0	**24.4**	17.0	-30 %	17.0	-30 %	17.0	-30 %	17.0	-30 %	17.0	-30 %
IO E	Ivendorf/ Ivendorfer Landstraße	17.0	—	16.7	**21.5**	17.0	-21 %	17.0	-21 %	17.0	-21 %	17.0	-21 %	17.0	-21 %
IO F	Ivendorf/ Ivendorfer Landstraße	17.0	—	15.9	**19.9**	17.0	-15 %	17.0	-15 %	17.0	-15 %	17.0	-15 %	17.0	-15 %
IO G	Ivendorf/ Ivendorfer Landstraße	17.0	—	14.9	**19.5**	17.0	-13 %	17.0	-13 %	17.0	-13 %	17.0	-13 %	17.0	-13 %
IO H	Ivendorf/ Ivendorfer Landstraße	17.0	—	13.1	**18.1**	17.0	-6 %	17.0	-6 %	17.0	-6 %	17.0	-6 %	17.0	-6 %
IO I	Blessenacker/ Travemünder Landstr.	17.0	—	9.8	**17.6**	17.0	-3 %	17.0	-3 %	17.0	-3 %	17.0	-3 %	17.0	-3 %
IO L	Travemünder Landstr.	17.0	—	10.8	**17.0**	17.0	0 %	17.0	0 %	17.0	0 %	17.0	0 %	17.0	0 %
IO N	Boldwiesenkoppel	17.0	—	13.7	**18.0**	17.0	-6 %	17.0	-6 %	17.0	-6 %	17.0	-6 %	17.0	-6 %
IO P	Scheidekoppel	17.0	—	16.4	**19.8**	17.0	-14 %	17.0	-14 %	17.0	-14 %	17.0	-14 %	17.0	-14 %
IO Q	Borndiek	17.0	—	27.4	**30.1**	17.0	-44 %	17.0	-44 %	17.0	-44 %	17.0	-44 %	17.0	-44 %
IO S	Priwall/ Traveufer	17.0	—	44.3	**46.9**	20.5	-56 %	20.2	-57 %	20.4	-57 %	19.3	-59 %	19.9	-58 %
IO T	Auf dem Baggersand	17.0	—	38.4	**44.6**	22.0	-51 %	21.0	-53 %	18.8	-58 %	18.2	-59 %	18.6	-58 %
IO U	Priwall/ Traveufer	17.0	—	44.5	**50.1**	20.4	-59 %	19.3	-61 %	19.0	-62 %	17.4	-65 %	17.3	-65 %
IO V	Priwall/ Traveufer	17.0	—	52.7	**56.3**	21.2	-62 %	20.0	-64 %	18.9	-66 %	17.5	-69 %	17.4	-69 %
IO W	Dummersdorfer Ufer	17.0	—	35.8	**38.5**	18.3	-52 %	17.2	-55 %	17.0	-56 %	17.0	-56 %	17.0	-56 %
IO X	Dummersdorfer Ufer	17.0	—	35.2	**37.2**	17.0	-54 %	17.0	-54 %	17.0	-54 %	17.0	-54 %	17.0	-54 %
IO Y	Dummersdorfer Ufer	17.0	—	51.1	**53.4**	18.4	-66 %	17.5	-67 %	17.0	-68 %	17.0	-68 %	17.0	-68 %
IO Z	Vorderreihe/ Priwallfähre	17.0	—	34.2	**38.1**	21.0	-45 %	20.7	-46 %	19.4	-49 %	19.5	-49 %	19.3	-49 %
IO T1	Vorderreihe/ Ostpreußenkai	17.0	—	31.2	**37.2**	20.6	-45 %	19.6	-47 %	20.5	-45 %	20.7	-44 %	20.9	-44 %
IO T2	Yachthafen/ Kaiserbrücke	17.0	—	28.3	**31.1**	21.9	-30 %	23.8	-23 %	20.6	-34 %	20.5	-34 %	21.4	-31 %
IO P1	Priwall/ Fähre	17.0	—	29.8	**31.8**	20.4	-36 %	19.4	-39 %	18.9	-41 %	18.7	-41 %	19.5	-39 %
IO P2	Priwall/ Passathafen	17.0	—	22.4	**26.6**	20.4	-23 %	20.7	-22 %	18.5	-30 %	19.0	-29 %	19.4	-27 %
IO P3	Priwall/ Passathafen	17.0	—	18.5	**23.7**	19.8	-16 %	19.9	-16 %	19.8	-16 %	19.9	-16 %	19.9	-16 %
IO P4	Priwall/ Traveufer	17.0	—	43.0	**48.1**	20.8	-57 %	20.0	-58 %	19.0	-60 %	17.5	-64 %	17.4	-64 %
IO P5	Priwall/ Traveufer	17.0	—	47.8	**56.6**	22.5	-60 %	20.3	-64 %	18.9	-67 %	19.0	-66 %	19.2	-66 %
IO P6	Priwall/ Kläranlage	17.0	—	44.4	**47.1**	21.7	-54 %	20.5	-56 %	20.3	-57 %	19.5	-59 %	19.8	-58 %
IO P7	Priwall/ Weggabelung Teich	17.0	—	36.0	**42.6**	20.2	-53 %	20.2	-53 %	18.5	-57 %	18.6	-56 %	18.4	-57 %
IO P8	Priwall/ Rosenhof	17.0	—	39.8	**41.9**	19.6	-53 %	18.8	-55 %	18.1	-57 %	18.5	-56 %	18.7	-55 %
IO P9	Priwall/ Rosenhof	17.0	—	34.4	**37.9**	19.8	-48 %	20.1	-47 %	19.2	-49 %	19.3	-49 %	19.4	-49 %
IO P10	Priwall/ Rosenhof	17.0	—	29.2	**32.3**	18.8	-42 %	18.4	-43 %	18.6	-42 %	18.4	-43 %	18.4	-43 %
IO P11	Priwall/ Fliegerweg	17.0	—	24.5	**31.5**	20.3	-36 %	19.7	-37 %	19.4	-38 %	18.7	-41 %	18.6	-41 %
IO P12	Priwall/ Pötenitzer Weg	17.0	—	22.2	**30.6**	18.1	-41 %	19.6	-36 %	19.3	-37 %	18.8	-39 %	19.2	-37 %
IO P13	Priwall/ Pötenitzer Weg	17.0	—	24.3	**32.9**	19.7	-40 %	20.1	-39 %	18.8	-43 %	17.9	-46 %	18.0	-45 %
lO P14	Priwall/ Seemannsschule	17.0	—	19.4	**26.0**	19.8	-24 %	19.2	-26 %	18.6	-28 %	17.9	-31 %	17.8	-32 %
lO P15	Priwall/ Krankenhaus	17.0	—	21.3	**28.2**	19.9	-29 %	19.8	-30 %	18.7	-34 %	19.1	-32 %	19.1	-32 %
IO P16	Priwall/ Krankenhaus	17.0	—	19.3	**24.2**	18.6	-23 %	18.9	-22 %	18.7	-23 %	19.5	-19 %	19.4	-20 %
IO P17	Priwall/ Haus des Kurgastes	17.0	—	18.7	**24.5**	19.6	-20 %	19.5	-20 %	19.0	-22 %	18.0	-27 %	17.7	-28 %
IO T3	Marina Baltica	17.0	—	56.0	**61.7**	25.1	-59 %	22.1	-64 %	19.5	-68 %	18.3	-70 %	18.3	-70 %
IO T4	Fischereihafen	17.0	—	42.0	**49.0**	21.1	-57 %	18.9	-61 %	18.3	-63 %	17.0	-65 %	17.7	-64 %
IO T5	Torstraße	17.0	—	36.4	**38.5**	23.1	-40 %	20.9	-46 %	18.7	-51 %	17.8	-54 %	17.0	-56 %
IO T6	Kirchenstraße	17.0	—	34.0	**36.2**	21.2	-41 %	20.6	-43 %	19.6	-46 %	17.1	-53 %	20.2	-44 %
IO T7	Kurgartenstraße	17.0	—	33.3	**37.0**	20.7	-44 %	20.4	-45 %	19.2	-48 %	19.2	-48 %	19.1	-48 %
IO T8	Vorderreihe/ Prinzenbrücke	17.0	—	32.7	**35.2**	21.2	-40 %	20.8	-41 %	20.8	-41 %	19.8	-44 %	19.8	-44 %
IO T9	Am Lotsenberg	17.0	—	27.5	**32.2**	21.5	-33 %	21.3	-34 %	19.5	-39 %	19.2	-40 %	19.1	-41 %
lO T10	Rose	17.0	—	28.8	**31.5**	21.1	-33 %	21.0	-33 %	20.0	-37 %	19.1	-39 %	17.9	-43 %
IO T11	Rose	17.0	—	29.2	**33.6**	21.4	-36 %	18.4	-45 %	18.9	-44 %	17.7	-47 %	17.2	-49 %
IO T12	Rose	17.0	—	25.1	**28.8**	18.7	-35 %	17.0	-41 %	17.0	-41 %	17.0	-41 %	17.0	-41 %
IO T13	Boelckestraße	17.0	—	28.4	**33.6**	19.2	-43 %	18.1	-46 %	19.5	-42 %	17.2	-49 %	17.1	-49 %
IO T14	Fehlingstraße	17.0	—	25.9	**29.0**	19.4	-33 %	19.7	-32 %	17.6	-39 %	17.3	-40 %	17.2	-41 %
lO T15	Fehlingstraße	17.0	—	19.4	**27.3**	19.3	-29 %	18.5	-32 %	17.6	-36 %	17.1	-37 %	17.1	-37 %
IO T16	Mühlenberg/ Ziegenhorst	17.0	—	22.0	**27.9**	20.0	-28 %	18.4	-34 %	18.9	-32 %	17.2	-38 %	17.3	-38 %
IO T17	Gneversdorfer Weg	17.0	—	25.0	**31.9**	18.8	-41 %	18.2	-43 %	17.4	-45 %	18.8	-41 %	18.3	-43 %
IO T18	Gneversdorfer Weg	17.0	—	21.4	**28.0**	17.0	-39 %	17.0	-39 %	17.0	-39 %	17.1	-39 %	17.0	-39 %
IO T19	Gneversdorfer Weg	17.0	—	16.6	**23.2**	17.0	-27 %	17.0	-27 %	17.0	-27 %	17.0	-27 %	17.0	-27 %
lO T20	Gneversdorfer Weg/ Moorredder	17.0	—	19.7	**25.9**	17.0	-34 %	17.0	-34 %	17.0	-34 %	17.0	-34 %	17.0	-34 %
IO T21	Moorredder	17.0	—	21.9	**27.7**	17.0	-39 %	17.0	-39 %	17.0	-39 %	17.0	-39 %	17.0	-39 %
IO T22	Moorredder	17.0	—	21.5	**24.8**	17.1	-31 %	17.1	-31 %	17.1	-31 %	17.0	-31 %	17.0	-31 %
IO T23	Am Fahrenberg	17.0	—	17.9	**23.3**	17.2	-26 %	17.1	-27 %	17.2	-26 %	17.2	-26 %	17.1	-27 %
IO T24	Parkallee/ Kurhaus	17.0	—	21.4	**27.3**	20.6	-25 %	20.6	-25 %	20.5	-25 %	20.1	-26 %	20.5	-25 %
lO T25	Kurpark	17.0	—	23.4	**27.9**	20.2	-28 %	18.6	-33 %	18.6	-33 %	19.4	-30 %	18.4	-34 %
IO T26	Steenkamp	17.0	—	21.4	**25.4**	17.4	-31 %	17.1	-33 %	17.1	-33 %	17.0	-33 %	17.1	-33 %
IO T27	Steenkamp	17.0	—	17.2	**24.3**	20.4	-16 %	17.1	-30 %	17.1	-30 %	17.0	-30 %	17.0	-30 %
IO T28	Steenkamp	17.0	—	14.1	**23.1**	17.7	-23 %	17.0	-26 %	17.0	-26 %	17.0	-26 %	17.0	-26 %
IO T29	Steenkamp/ Kleingärten	17.0	—	18.8	**23.6**	17.0	-28 %	17.0	-28 %	17.0	-28 %	17.0	-28 %	17.0	-28 %
lO T30	Schwedenstraße	17.0	—	16.5	**24.5**	17.0	-31 %	17.3	-29 %	17.0	-31 %	17.0	-31 %	17.0	-31 %
IO T31	Grönlandstraße	17.0	—	14.5	**20.2**	17.0	-16 %	17.0	-16 %	17.0	-16 %	17.0	-16 %	17.0	-16 %
IO T32	Kaiserallee	17.0	—	22.8	**27.3**	17.8	-35 %	18.0	-34 %	17.7	-35 %	18.7	-32 %	18.2	-33 %
IO T33	Kaiserallee	17.0	—	18.1	**21.5**	18.3	-15 %	18.2	-15 %	18.0	-16 %	17.4	-19 %	17.5	-19 %
IO T34	Kaiserallee	17.0	—	15.1	**21.6**	17.2	-20 %	17.0	-21 %	17.2	-20 %	17.1	-21 %	17.2	-20 %
lO T35	Steuerbord	17.0	—	17.8	**22.6**	17.2	-24 %	17.4	-23 %	17.4	-23 %	17.1	-24 %	17.1	-24 %
IO T36	Achterdeck	17.0	—	19.1	**22.4**	17.1	-24 %	17.1	-24 %	17.1	-24 %	17.2	-23 %	17.1	-24 %
IO T37	Strandweg	17.0	—	15.4	**22.4**	17.2	-23 %	17.0	-24 %	17.0	-24 %	17.1	-24 %	17.0	-24 %
IO T38	Alfred-Hagelstein-Straße	17.0	—	13.0	**21.3**	17.0	-20 %	17.0	-20 %	17.1	-20 %	17.0	-20 %	17.0	-20 %
IO T39	Scheteligstraße	17.0	—	15.3	**22.4**	17.0	-24 %	17.1	-24 %	17.0	-24 %	17.0	-24 %	17.0	-24 %
IO T40	Gneversdorfer Kamp	17.0	—	16.5	**21.0**	17.0	-19 %	17.0	-19 %	17.0	-19 %	17.0	-19 %	17.0	-19 %
lO T41	Teutendorfer Weg	17.0	—	22.7	**27.9**	17.0	-39 %	17.0	-39 %	17.0	-39 %	17.0	-39 %	17.0	-39 %
IO T42	Am Krautacker	17.0	—	23.7	**30.4**	18.3	-40 %	17.3	-43 %	17.0	-44 %	17.0	-44 %	17.0	-44 %
IO T43	Hollbeck	17.0	—	24.6	**27.2**	18.0	-34 %	17.0	-38 %	17.0	-38 %	17.0	-38 %	17.0	-38 %
IO T44	Teutendorf	17.0	—	20.3	**24.1**	17.0	-29 %	17.0	-29 %	17.0	-29 %	17.0	-29 %	17.0	-29 %
IO MP1	Messort Skandinavienkai (2000)	17.0	—	35.4	**37.9**	18.3	-52 %	18.0	-53 %	17.0	-55 %	17.0	-55 %	17.0	-55 %
IO MP2	Messort Priwallfähre (2000)	17.0	—	37.6	**42.3**	20.2	-52 %	19.8	-53 %	18.9	-55 %	18.1	-57 %	18.4	-57 %
IO MP3	Messort Kurpark (2000)	17.0	—	28.7	**32.2**	20.3	-37 %	19.8	-39 %	19.2	-40 %	19.2	-40 %	19.1	-41 %

A 7.2.8 Total SO_2 Pollution (1 Hour Value S24)

Immission point (monitor point)		Total SO_2 pollution (1 hour value S24) [µg/m³]													
		Background pollution	Add. pollution road traffic	Add. pollution shipping	Sum Forecast Sce.	Reduction concept 1a	Comparison with Forecast Sce.	Reduction concept 1b	Comparison with Forecast Sce.	Reduction concept 2	Comparison with Forecast Sce.	Reduction concepts 1a+3	Comparison with Forecast Sce.	Reduction concepts 1b+3	Comparison with Forecast Sce.
IO 1	Teutendorfer Weg/ An der Bak	20.1	—	141.9	**145.7**	53.3	-63 %	51.8	-64 %	52.3	-64 %	45.1	-69 %	46.1	-68 %
IO 2	St. Jürgen-Straße	20.1	—	139.2	**142.8**	62.4	-56 %	51.8	-64 %	54.1	-62 %	49.0	-66 %	50.9	-64 %
IO 3	Rönnauer Ring	20.1	—	136.3	**140.7**	65.3	-54 %	58.2	-59 %	51.5	-63 %	48.1	-66 %	46.3	-67 %
IO 4	Rönnauer Weg/ Ivendorfer Landstr.	20.1	—	125.5	**127.5**	57.1	-55 %	52.9	-59 %	46.1	-64 %	42.4	-67 %	40.2	-68 %
IO 5	Rönnauer Weg/ Ivendorfer Landstr.	20.1	—	118.9	**122.0**	50.7	-58 %	49.5	-59 %	50.1	-59 %	45.2	-63 %	45.2	-63 %
IO 6	Rönnauer Weg/ Ivendorfer Landstr.	20.1	—	111.3	**113.4**	54.5	-52 %	49.2	-57 %	48.0	-58 %	42.4	-63 %	43.8	-61 %
IO 7	Ostseestraße/ Pommernzentrum	20.1	—	128.3	**131.7**	57.0	-57 %	52.1	-60 %	56.8	-57 %	48.4	-63 %	49.7	-62 %
IO 8	Ostseestraße/ Pommernzentrum	20.1	—	128.0	**131.8**	60.0	-54 %	58.5	-56 %	52.8	-60 %	49.8	-62 %	48.7	-63 %
IO 9	Ostseestraße/ Pommernzentrum	20.1	—	110.6	**114.1**	49.9	-56 %	50.6	-56 %	49.9	-56 %	44.3	-61 %	43.9	-62 %
IO A	Ivendorf/ Ovendorfer Straße	20.1	—	88.9	**91.2**	33.1	-64 %	31.6	-65 %	32.1	-65 %	30.0	-67 %	30.4	-67 %
IO B	Ivendorf/ Ovendorfer Straße	20.1	—	92.1	**95.8**	34.6	-64 %	31.3	-67 %	29.8	-69 %	28.0	-71 %	28.9	-70 %
IO C	Ivendorf/ Ivendorfer Landstraße	20.1	—	83.0	**87.8**	34.5	-61 %	34.8	-60 %	34.0	-61 %	31.4	-64 %	30.6	-65 %
IO D	Ivendorf/ Ivendorfer Landstraße	20.1	—	77.4	**82.6**	33.1	-60 %	31.6	-62 %	30.0	-64 %	27.1	-67 %	28.0	-66 %
IO E	Ivendorf/ Ivendorfer Landstraße	20.1	—	65.3	**68.9**	30.1	-56 %	29.2	-58 %	27.5	-60 %	28.5	-59 %	27.0	-61 %
IO F	Ivendorf/ Ivendorfer Landstraße	20.1	—	61.1	**64.2**	33.7	-48 %	32.2	-50 %	31.7	-51 %	25.1	-61 %	25.8	-60 %
IO G	Ivendorf/ Ivendorfer Landstraße	20.1	—	50.2	**57.3**	31.0	-46 %	30.1	-47 %	26.6	-54 %	25.7	-55 %	25.3	-56 %
IO H	Ivendorf/ Ivendorfer Landstraße	20.1	—	48.9	**53.4**	26.8	-50 %	27.7	-48 %	26.9	-50 %	27.2	-49 %	26.1	-51 %
IO I	Blessenacker/ Travemünder Landstr.	20.1	—	42.1	**46.2**	25.0	-46 %	25.0	-46 %	25.7	-44 %	25.0	-46 %	24.3	-47 %
IO L	Travemünder Landstr.	20.1	—	46.0	**48.6**	27.0	-44 %	25.7	-47 %	26.1	-46 %	25.0	-49 %	25.0	-49 %
IO N	Boldwiesenkoppel	20.1	—	50.8	**55.4**	30.1	-46 %	30.1	-46 %	26.9	-51 %	26.6	-52 %	26.7	-52 %
IO P	Scheidekoppel	20.1	—	62.1	**66.0**	28.0	-58 %	29.8	-55 %	25.0	-62 %	25.0	-62 %	23.1	-65 %
IO Q	Borndiek	20.1	—	96.0	**100.6**	39.0	-61 %	33.0	-67 %	32.0	-68 %	28.0	-72 %	28.5	-72 %
IO S	Priwall/ Traveufer	20.1	—	120.0	**122.6**	46.6	-62 %	44.9	-63 %	39.3	-68 %	36.4	-70 %	35.9	-71 %
IO T	Auf dem Baggersand	20.1	—	131.0	**136.6**	63.3	-54 %	62.7	-54 %	57.7	-58 %	54.2	-60 %	52.3	-62 %
IO U	Priwall/ Traveufer	20.1	—	141.1	**144.4**	43.9	-70 %	43.6	-70 %	35.3	-76 %	34.5	-76 %	35.0	-76 %
IO V	Priwall/ Traveufer	20.1	—	146.2	**152.6**	51.8	-66 %	46.1	-70 %	41.2	-73 %	38.6	-75 %	38.8	-75 %
IO W	Dummersdorfer Ufer	20.1	—	112.7	**112.9**	45.1	-60 %	39.3	-65 %	36.8	-67 %	30.2	-73 %	29.5	-74 %
IO X	Dummersdorfer Ufer	20.1	—	126.0	**128.3**	40.8	-68 %	37.1	-71 %	34.6	-73 %	32.0	-75 %	32.1	-75 %
IO Y	Dummersdorfer Ufer	20.1	—	141.9	**146.9**	46.3	-68 %	43.0	-71 %	36.4	-75 %	30.5	-79 %	32.9	-78 %
IO Z	Vorderreihe/ Priwallfähre	20.1	—	104.4	**109.4**	63.1	-42 %	63.9	-42 %	58.0	-47 %	60.2	-45 %	58.9	-46 %
IO T1	Vorderreihe/ Ostpreußenkai	20.1	—	100.7	**106.0**	64.6	-39 %	60.6	-43 %	61.4	-42 %	62.9	-41 %	62.4	-41 %
IO T2	Yachthafen/ Kaiserbrücke	20.1	—	97.7	**101.8**	79.4	-22 %	80.5	-21 %	71.5	-30 %	68.8	-32 %	68.1	-33 %
IO P1	Priwall/ Fähre	20.1	—	103.7	**107.5**	50.7	-53 %	48.4	-55 %	47.9	-55 %	48.1	-55 %	48.9	-55 %
IO P2	Priwall/ Passathafen	20.1	—	83.5	**86.1**	50.3	-42 %	46.1	-46 %	40.5	-53 %	37.7	-56 %	38.4	-55 %
IO P3	Priwall/ Passathafen	20.1	—	79.9	**82.5**	56.2	-32 %	55.5	-33 %	47.4	-43 %	48.1	-42 %	47.0	-43 %
IO P4	Priwall/ Traveufer	20.1	—	160.5	**162.6**	46.3	-72 %	40.6	-75 %	36.9	-77 %	37.7	-77 %	36.8	-77 %
IO P5	Priwall/ Traveufer	20.1	—	135.6	**141.6**	53.7	-62 %	47.6	-66 %	41.6	-71 %	36.7	-74 %	37.1	-74 %
IO P6	Priwall/ Kläranlage	20.1	—	122.8	**124.8**	49.3	-60 %	47.7	-62 %	42.5	-66 %	37.6	-70 %	36.6	-71 %
IO P7	Priwall/ Weggabelung Teich	20.1	—	128.0	**131.3**	42.5	-68 %	39.7	-70 %	37.5	-71 %	34.8	-73 %	34.6	-74 %
IO P8	Priwall/ Rosenhof	20.1	—	108.7	**113.9**	42.7	-63 %	43.6	-62 %	38.2	-66 %	38.3	-66 %	38.1	-67 %
IO P9	Priwall/ Rosenhof	20.1	—	104.3	**106.6**	41.9	-61 %	40.7	-62 %	38.8	-64 %	35.1	-67 %	34.1	-68 %
IO P10	Priwall/ Rosenhof	20.1	—	94.5	**96.8**	45.1	-53 %	46.5	-52 %	47.6	-51 %	47.1	-51 %	46.9	-52 %
IO P11	Priwall/ Fliegerweg	20.1	—	90.9	**93.0**	41.8	-55 %	37.6	-60 %	36.0	-61 %	34.1	-63 %	36.6	-61 %
IO P12	Priwall/ Pötenitzer Weg	20.1	—	84.2	**89.5**	40.8	-54 %	39.1	-56 %	33.6	-62 %	33.5	-63 %	34.6	-61 %
IO P13	Priwall/ Pötenitzer Weg	20.1	—	89.4	**92.5**	34.1	-63 %	33.6	-64 %	34.1	-63 %	33.3	-64 %	33.1	-64 %
IO P14	Priwall/ Seemannsschule	20.1	—	77.1	**79.6**	40.1	-50 %	38.1	-52 %	32.8	-59 %	32.1	-60 %	32.0	-60 %
IO P15	Priwall/ Krankenhaus	20.1	—	83.3	**86.5**	39.6	-54 %	38.7	-55 %	36.7	-58 %	38.0	-56 %	35.8	-59 %
IO P16	Priwall/ Krankenhaus	20.1	—	69.9	**75.5**	39.6	-48 %	40.7	-46 %	36.3	-52 %	32.8	-57 %	32.6	-57 %
IO P17	Priwall/ Haus des Kurgastes	20.1	—	65.7	**69.1**	36.8	-47 %	36.2	-48 %	32.6	-53 %	31.0	-55 %	30.8	-55 %
IO T3	Marina Baltica	20.1	—	192.7	**199.8**	77.4	-61 %	66.0	-67 %	67.5	-66 %	56.7	-72 %	55.2	-72 %
IO T4	Fischereihafen	20.1	—	160.0	**163.4**	67.1	-59 %	63.1	-61 %	56.6	-65 %	54.9	-66 %	52.5	-68 %
IO T5	Torstraße	20.1	—	117.1	**121.1**	65.8	-46 %	64.3	-47 %	57.5	-53 %	54.5	-55 %	54.9	-55 %
IO T6	Kirchenstraße	20.1	—	110.5	**113.5**	60.8	-46 %	58.0	-49 %	53.3	-53 %	54.4	-52 %	50.3	-56 %
IO T7	Kurgartenstraße	20.1	—	93.8	**99.0**	58.3	-41 %	58.9	-41 %	58.4	-41 %	58.7	-41 %	58.3	-41 %
IO T8	Vorderreihe/ Prinzenbrücke	20.1	—	103.9	**108.0**	63.8	-41 %	62.5	-42 %	65.4	-39 %	60.0	-44 %	61.0	-44 %
IO T9	Am Lotsenberg	20.1	—	86.5	**89.8**	56.2	-37 %	55.0	-39 %	53.4	-41 %	50.3	-44 %	50.9	-43 %
IO T10	Rose	20.1	—	96.0	**102.8**	57.7	-44 %	50.4	-51 %	49.0	-52 %	45.4	-56 %	46.3	-55 %
IO T11	Rose	20.1	—	88.4	**92.8**	52.4	-44 %	50.8	-45 %	51.6	-44 %	47.6	-49 %	47.0	-49 %
IO T12	Rose	20.1	—	94.1	**100.4**	51.1	-49 %	47.7	-52 %	46.7	-53 %	48.2	-52 %	48.8	-51 %
IO T13	Boelckestraße	20.1	—	98.7	**102.9**	57.6	-44 %	55.7	-46 %	53.3	-48 %	49.9	-52 %	48.3	-53 %
IO T14	Fehlingstraße	20.1	—	93.8	**96.2**	52.7	-45 %	54.5	-43 %	51.1	-47 %	45.5	-53 %	44.7	-54 %
IO T15	Fehlingstraße	20.1	—	76.7	**81.8**	54.0	-34 %	49.6	-39 %	45.5	-44 %	49.1	-40 %	48.0	-41 %
IO T16	Mühlenberg/ Ziegenhorst	20.1	—	88.5	**90.5**	55.2	-39 %	52.0	-43 %	50.1	-45 %	43.8	-52 %	46.8	-48 %
IO T17	Gneversdorfer Weg	20.1	—	103.1	**108.5**	56.7	-48 %	52.9	-51 %	49.4	-54 %	45.4	-58 %	42.9	-60 %
IO T18	Gneversdorfer Weg	20.1	—	110.3	**115.6**	56.1	-51 %	49.6	-57 %	45.1	-61 %	41.0	-65 %	42.0	-64 %
IO T19	Gneversdorfer Weg	20.1	—	82.7	**85.9**	42.8	-50 %	41.9	-51 %	37.3	-57 %	34.1	-60 %	34.0	-60 %
IO T20	Gneversdorfer Weg/ Moorredder	20.1	—	100.8	**103.4**	47.4	-54 %	46.6	-55 %	39.1	-62 %	38.2	-63 %	38.3	-63 %
IO T21	Moorredder	20.1	—	88.0	**93.7**	54.4	-42 %	49.0	-48 %	45.2	-52 %	39.1	-58 %	36.7	-61 %
IO T22	Moorredder	20.1	—	79.6	**81.6**	46.7	-43 %	45.2	-45 %	43.5	-47 %	39.4	-52 %	41.4	-49 %
IO T23	Am Fahrenberg	20.1	—	78.2	**80.4**	45.9	-43 %	43.9	-45 %	39.6	-51 %	39.2	-51 %	39.0	-51 %
IO T24	Parkallee/ Kurhaus	20.1	—	78.0	**83.7**	56.5	-32 %	52.9	-37 %	50.0	-40 %	54.0	-35 %	53.4	-36 %
IO T25	Kurpark	20.1	—	83.1	**85.6**	51.9	-39 %	50.9	-41 %	46.6	-46 %	48.5	-43 %	49.7	-42 %
IO T26	Steenkamp	20.1	—	76.0	**80.0**	50.2	-37 %	49.2	-39 %	42.2	-47 %	39.7	-50 %	40.7	-49 %
IO T27	Steenkamp	20.1	—	71.2	**75.2**	44.2	-41 %	40.7	-46 %	40.4	-46 %	39.0	-48 %	39.0	-48 %
IO T28	Steenkamp	20.1	—	70.2	**74.3**	45.8	-38 %	42.8	-42 %	38.9	-48 %	35.3	-52 %	34.7	-53 %
IO T29	Steenkamp/ Kleingärten	20.1	—	67.3	**70.9**	39.2	-45 %	39.7	-44 %	37.2	-48 %	35.7	-50 %	36.0	-49 %
IO T30	Schwedenstraße	20.1	—	83.3	**85.4**	41.6	-51 %	42.3	-50 %	37.8	-56 %	37.0	-57 %	37.0	-57 %
IO T31	Grönlandstraße	20.1	—	75.3	**79.3**	39.3	-50 %	38.7	-51 %	34.5	-56 %	33.9	-57 %	33.1	-58 %
IO T32	Kaiserallee	20.1	—	77.0	**79.8**	43.4	-46 %	42.9	-46 %	44.3	-44 %	41.8	-48 %	42.0	-47 %
IO T33	Kaiserallee	20.1	—	69.5	**71.9**	43.5	-39 %	42.6	-41 %	43.6	-39 %	41.6	-42 %	41.9	-42 %
IO T34	Kaiserallee	20.1	—	60.0	**67.2**	43.1	-36 %	40.5	-40 %	37.2	-45 %	41.2	-39 %	41.8	-38 %
IO T35	Steuerbord	20.1	—	71.8	**76.2**	42.2	-45 %	45.6	-40 %	39.2	-49 %	37.0	-51 %	39.0	-49 %
IO T36	Achterdeck	20.1	—	69.0	**71.9**	45.8	-36 %	41.8	-42 %	41.1	-43 %	39.6	-45 %	38.2	-47 %
IO T37	Strandweg	20.1	—	65.5	**69.1**	39.1	-43 %	40.6	-41 %	38.1	-45 %	37.9	-45 %	35.8	-48 %
IO T38	Alfred-Hagelstein-Straße	20.1	—	59.9	**65.3**	41.5	-36 %	39.4	-40 %	37.7	-42 %	38.3	-41 %	37.9	-42 %
IO T39	Scheteligstraße	20.1	—	64.6	**73.1**	37.4	-49 %	37.4	-49 %	38.2	-48 %	37.3	-49 %	37.7	-48 %
IO T40	Gneversdorfer Kamp	20.1	—	73.2	**76.4**	44.4	-42 %	38.7	-49 %	37.5	-51 %	37.9	-50 %	34.3	-55 %
IO T41	Teutendorfer Weg	20.1	—	87.9	**93.8**	44.2	-53 %	41.7	-56 %	38.0	-59 %	36.4	-61 %	38.1	-59 %
IO T42	Am Krautacker	20.1	—	91.1	**97.2**	44.8	-54 %	44.8	-54 %	43.2	-56 %	37.2	-62 %	35.4	-64 %
IO T43	Hollbeck	20.1	—	70.4	**75.1**	33.7	-55 %	33.8	-55 %	30.0	-60 %	30.3	-60 %	31.0	-59 %
IO T44	Teutendorf	20.1	—	59.0	**68.3**	33.7	-51 %	34.6	-49 %	32.2	-53 %	31.9	-53 %	28.0	-59 %
IO MP1	Messort Skandinavienkai (2000)	20.1	—	98.3	**100.6**	41.0	-59 %	38.7	-62 %	38.1	-62 %	33.5	-67 %	34.4	-66 %
IO MP2	Messort Priwallfähre (2000)	20.1	—	123.2	**128.7**	60.0	-53 %	58.9	-54 %	59.6	-54 %	57.1	-56 %	57.1	-56 %
IO MP3	Messort Kurpark (2000)	20.1	—	88.0	**90.1**	61.1	-32 %	55.1	-39 %	55.4	-39 %	50.3	-44 %	49.4	-45 %

A 7.2.9 Total PM_{10} Pollution (Annual Average Value J00)

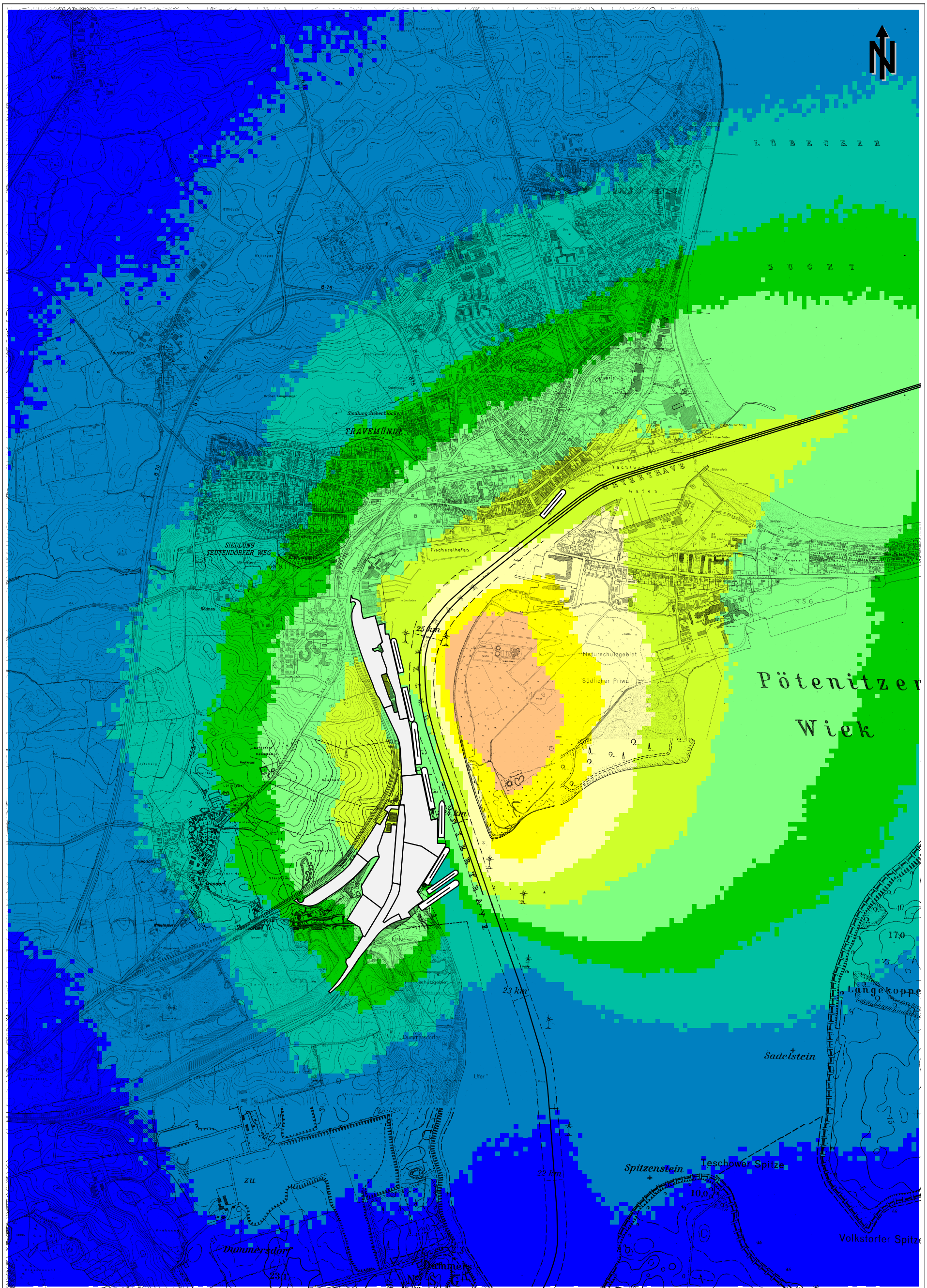
Immission point (monitor point)		Total PM_{10} pollution (annual average value J00) [µg/m³]													
		Background pollution	Add. pollution road traffic	Add. pollution shipping	Sum Forecast Sce.	Reduction concept 1a	Comparison with Forecast Sce.	Reduction concept 1b	Comparison with Forecast Sce.	Reduction concept 2	Comparison with Forecast Sce.	Reduction concepts 1a+3	Comparison with Forecast Sce.	Reduction concepts 1b+3	Comparison with Forecast Sce.
IO 1	Teutendorfer Weg/ An der Bak	19.7	1.9	0.4	**22.0**	21.9	0 %	21.8	-1 %	22.0	0 %	21.8	-1 %	21.8	-1 %
IO 2	St. Jürgen-Straße	19.7	0.4	0.4	**20.5**	20.3	-1 %	20.3	-1 %	20.5	0 %	20.3	-1 %	20.3	-1 %
IO 3	Rönnauer Ring	19.7	0.3	0.4	**20.4**	20.2	-1 %	20.2	-1 %	20.3	0 %	20.2	-1 %	20.2	-1 %
IO 4	Rönnauer Weg/ Ivendorfer Landstr.	19.7	0.3	0.4	**20.4**	20.2	-1 %	20.2	-1 %	20.4	0 %	20.2	-1 %	20.2	-1 %
IO 5	Rönnauer Weg/ Ivendorfer Landstr.	19.7	0.4	0.4	**20.5**	20.4	0 %	20.3	-1 %	20.5	0 %	20.3	-1 %	20.3	-1 %
IO 6	Rönnauer Weg/ Ivendorfer Landstr.	19.7	0.3	0.4	**20.4**	20.2	-1 %	20.2	-1 %	20.4	0 %	20.2	-1 %	20.2	-1 %
IO 7	Ostseestraße/ Pommernzentrum	19.7	0.3	0.5	**20.5**	20.3	-1 %	20.3	-1 %	20.5	0 %	20.2	-1 %	20.2	-1 %
IO 8	Ostseestraße/ Pommernzentrum	19.7	0.7	0.5	**20.9**	20.7	-1 %	20.7	-1 %	20.9	0 %	20.7	-1 %	20.6	-1 %
IO 9	Ostseestraße/ Pommernzentrum	19.7	0.3	0.5	**20.5**	20.2	-1 %	20.2	-1 %	20.4	0 %	20.2	-1 %	20.2	-1 %
IO A	Ivendorf/ Ovendorfer Straße	19.7	5.4	0.3	**25.4**	25.3	0 %	25.2	-1 %	25.4	0 %	25.2	-1 %	25.2	-1 %
IO B	Ivendorf/ Ovendorfer Straße	19.7	2.4	0.3	**22.4**	22.3	0 %	22.2	-1 %	22.4	0 %	22.2	-1 %	22.2	-1 %
IO C	Ivendorf/ Ivendorfer Landstraße	19.7	1.2	0.3	**21.2**	21.1	0 %	21.0	-1 %	21.2	0 %	21.0	-1 %	21.0	-1 %
IO D	Ivendorf/ Ivendorfer Landstraße	19.7	1.4	0.3	**21.4**	21.2	-1 %	21.2	-1 %	21.4	0 %	21.2	-1 %	21.2	-1 %
IO E	Ivendorf/ Ivendorfer Landstraße	19.7	2.2	0.2	**22.1**	22.0	0 %	22.0	0 %	22.1	0 %	22.0	0 %	22.0	0 %
IO F	Ivendorf/ Ivendorfer Landstraße	19.7	2.2	0.2	**22.1**	22.0	0 %	22.0	0 %	22.1	0 %	22.0	0 %	22.0	0 %
IO G	Ivendorf/ Ivendorfer Landstraße	19.7	4.9	0.2	**24.8**	24.7	0 %	24.7	0 %	24.8	0 %	24.7	0 %	24.7	0 %
IO H	Ivendorf/ Ivendorfer Landstraße	19.7	5.3	0.1	**25.1**	25.1	0 %	25.1	0 %	25.1	0 %	25.1	0 %	25.1	0 %
IO I	Blessenacker/ Travemünder Landstr.	19.7	0.9	0.1	**20.7**	20.6	0 %	20.7	0 %	20.7	0 %	20.6	0 %	20.6	0 %
IO L	Travemünder Landstr.	19.7	2.4	0.1	**22.2**	22.2	0 %	22.2	0 %	22.2	0 %	22.2	0 %	22.2	0 %
IO N	Boldwiesenkoppel	19.7	0.9	0.1	**20.7**	20.7	0 %	20.7	0 %	20.7	0 %	20.7	0 %	20.7	0 %
IO P	Scheidekoppel	19.7	0.1	0.2	**20.0**	19.9	0 %	19.9	0 %	20.0	0 %	19.9	0 %	19.9	0 %
IO Q	Borndiek	19.7	1.8	0.4	**21.9**	21.7	-1 %	21.7	-1 %	21.9	0 %	21.7	-1 %	21.7	-1 %
IO S	Priwall/ Traveufer	19.7	0.1	1.1	**20.9**	20.4	-2 %	20.4	-2 %	20.8	0 %	20.4	-2 %	20.3	-3 %
IO T	Auf dem Baggersand	19.7	0.8	0.5	**21.0**	20.8	-1 %	20.8	-1 %	21.0	0 %	20.8	-1 %	20.8	-1 %
IO U	Priwall/ Traveufer	19.7	0.2	1.4	**21.3**	20.4	-4 %	20.4	-4 %	21.2	0 %	20.3	-5 %	20.3	-5 %
IO V	Priwall/ Traveufer	19.7	0.1	1.4	**21.2**	20.4	-4 %	20.4	-4 %	21.1	0 %	20.3	-4 %	20.3	-4 %
IO W	Dummersdorfer Ufer	19.7	0.2	0.5	**20.4**	20.1	-1 %	20.1	-1 %	20.3	0 %	20.1	-1 %	20.1	-1 %
IO X	Dummersdorfer Ufer	19.7	0.3	0.5	**20.5**	20.2	-1 %	20.2	-1 %	20.5	0 %	20.2	-1 %	20.2	-1 %
IO Y	Dummersdorfer Ufer	19.7	0.2	0.5	**20.4**	20.1	-1 %	20.1	-1 %	20.4	0 %	20.1	-1 %	20.1	-1 %
IO Z	Vorderreihe/ Priwallfähre	19.7	0.4	0.6	**20.7**	20.5	-1 %	20.5	-1 %	20.7	0 %	20.5	-1 %	20.5	-1 %
IO T1	Vorderreihe/ Ostpreußenkai	19.7	0.3	0.7	**20.7**	20.5	-1 %	20.5	-1 %	20.7	0 %	20.5	-1 %	20.4	-1 %
IO T2	Yachthafen/ Kaiserbrücke	19.7	0.5	0.7	**20.9**	20.7	-1 %	20.7	-1 %	20.9	0 %	20.7	-1 %	20.7	-1 %
IO P1	Priwall/ Fähre	19.7	0.2	0.8	**20.7**	20.5	-1 %	20.5	-1 %	20.7	0 %	20.5	-1 %	20.4	-1 %
IO P2	Priwall/ Passathafen	19.7	0.0	0.8	**20.5**	20.3	-1 %	20.3	-1 %	20.5	0 %	20.3	-1 %	20.3	-1 %
IO P3	Priwall/ Passathafen	19.7	0.0	0.8	**20.5**	20.3	-1 %	20.3	-1 %	20.5	0 %	20.3	-1 %	20.3	-1 %
IO P4	Priwall/ Traveufer	19.7	0.1	1.7	**21.5**	20.4	-5 %	20.4	-5 %	21.4	0 %	20.3	-6 %	20.3	-6 %
IO P5	Priwall/ Traveufer	19.7	0.1	1.1	**20.9**	20.4	-2 %	20.4	-2 %	20.8	0 %	20.3	-3 %	20.3	-3 %
IO P6	Priwall/ Kläranlage	19.7	0.1	1.2	**21.0**	20.5	-2 %	20.5	-2 %	21.0	0 %	20.4	-3 %	20.3	-3 %
IO P7	Priwall/ Weggabelung Teich	19.7	0.1	1.5	**21.3**	20.5	-4 %	20.5	-4 %	21.2	0 %	20.4	-4 %	20.4	-4 %
IO P8	Priwall/ Rosenhof	19.7	0.1	1.0	**20.8**	20.4	-2 %	20.4	-2 %	20.8	0 %	20.4	-2 %	20.4	-2 %
IO P9	Priwall/ Rosenhof	19.7	0.1	1.0	**20.8**	20.4	-2 %	20.4	-2 %	20.7	0 %	20.3	-2 %	20.3	-2 %
IO P10	Priwall/ Rosenhof	19.7	0.9	0.9	**21.5**	21.2	-1 %	21.2	-1 %	21.4	0 %	21.2	-1 %	21.2	-1 %
IO P11	Priwall/ Fliegerweg	19.7	0.1	0.9	**20.7**	20.3	-2 %	20.3	-2 %	20.6	0 %	20.3	-2 %	20.3	-2 %
IO P12	Priwall/ Pötenitzer Weg	19.7	0.0	0.8	**20.5**	20.2	-1 %	20.2	-1 %	20.4	0 %	20.1	-2 %	20.1	-2 %
IO P13	Priwall/ Pötenitzer Weg	19.7	0.0	0.8	**20.5**	20.2	-1 %	20.1	-2 %	20.5	0 %	20.1	-2 %	20.1	-2 %
IO P14	Priwall/ Seemannsschule	19.7	0.0	0.7	**20.4**	20.1	-1 %	20.1	-1 %	20.3	0 %	20.1	-1 %	20.0	-2 %
IO P15	Priwall/ Krankenhaus	19.7	0.1	0.8	**20.6**	20.3	-1 %	20.3	-1 %	20.5	0 %	20.3	-1 %	20.3	-1 %
IO P16	Priwall/ Krankenhaus	19.7	0.4	0.7	**20.8**	20.5	-1 %	20.5	-1 %	20.7	0 %	20.5	-1 %	20.5	-1 %
IO P17	Priwall/ Haus des Kurgastes	19.7	0.0	0.6	**20.3**	20.1	-1 %	20.1	-1 %	20.2	0 %	20.1	-1 %	20.1	-1 %
IO T3	Marina Baltica	19.7	0.2	0.6	**20.5**	20.2	-1 %	20.2	-1 %	20.4	0 %	20.2	-1 %	20.2	-1 %
IO T4	Fischereihafen	19.7	0.3	0.5	**20.5**	20.3	-1 %	20.3	-1 %	20.5	0 %	20.3	-1 %	20.3	-1 %
IO T5	Torstraße	19.7	0.7	0.5	**20.9**	20.8	0 %	20.7	-1 %	20.9	0 %	20.7	-1 %	20.7	-1 %
IO T6	Kirchenstraße	19.7	1.4	0.6	**21.7**	21.5	-1 %	21.5	-1 %	21.6	0 %	21.5	-1 %	21.5	-1 %
IO T7	Kurgartenstraße	19.7	1.0	0.6	**21.3**	21.1	-1 %	21.1	-1 %	21.3	0 %	21.1	-1 %	21.1	-1 %
IO T8	Vorderreihe/ Prinzenbrücke	19.7	0.4	0.7	**20.8**	20.6	-1 %	20.6	-1 %	20.7	0 %	20.6	-1 %	20.5	-1 %
IO T9	Am Lotsenberg	19.7	1.0	0.6	**21.3**	21.1	-1 %	21.1	-1 %	21.3	0 %	21.1	-1 %	21.1	-1 %
IO T10	Rose	19.7	0.7	0.5	**20.9**	20.8	0 %	20.8	0 %	20.9	0 %	20.8	0 %	20.7	-1 %
IO T11	Rose	19.7	0.5	0.5	**20.7**	20.5	-1 %	20.5	-1 %	20.6	0 %	20.5	-1 %	20.5	-1 %
IO T12	Rose	19.7	0.5	0.4	**20.6**	20.5	0 %	20.4	-1 %	20.5	0 %	20.4	-1 %	20.4	-1 %
IO T13	Boelckestraße	19.7	0.3	0.5	**20.5**	20.3	-1 %	20.3	-1 %	20.5	0 %	20.3	-1 %	20.3	-1 %
IO T14	Fehlingstraße	19.7	0.6	0.5	**20.8**	20.7	0 %	20.7	0 %	20.8	0 %	20.6	-1 %	20.6	-1 %
IO T15	Fehlingstraße	19.7	0.5	0.4	**20.6**	20.5	0 %	20.5	0 %	20.6	0 %	20.5	0 %	20.5	0 %
IO T16	Mühlenberg/ Ziegenhorst	19.7	0.5	0.4	**20.6**	20.5	0 %	20.5	0 %	20.6	0 %	20.5	0 %	20.5	0 %
IO T17	Gneversdorfer Weg	19.7	4.6	0.4	**24.7**	24.6	0 %	24.6	0 %	24.7	0 %	24.5	-1 %	24.5	-1 %
IO T18	Gneversdorfer Weg	19.7	1.7	0.3	**21.7**	21.6	0 %	21.6	0 %	21.7	0 %	21.6	0 %	21.6	0 %
IO T19	Gneversdorfer Weg	19.7	1.5	0.2	**21.4**	21.4	0 %	21.4	0 %	21.4	0 %	21.3	0 %	21.3	0 %
IO T20	Gneversdorfer Weg/ Moorredder	19.7	2.4	0.3	**22.4**	22.3	0 %	22.3	0 %	22.4	0 %	22.3	0 %	22.3	0 %
IO T21	Moorredder	19.7	1.4	0.3	**21.4**	21.3	0 %	21.3	0 %	21.4	0 %	21.3	0 %	21.3	0 %
IO T22	Moorredder	19.7	2.5	0.3	**22.5**	22.4	0 %	22.4	0 %	22.5	0 %	22.4	0 %	22.4	0 %
IO T23	Am Fahrenberg	19.7	0.9	0.3	**20.9**	20.8	0 %	20.8	0 %	20.9	0 %	20.8	0 %	20.8	0 %
IO T24	Parkallee/ Kurhaus	19.7	0.2	0.5	**20.4**	20.3	0 %	20.3	0 %	20.4	0 %	20.3	0 %	20.3	0 %
IO T25	Kurpark	19.7	0.2	0.5	**20.4**	20.2	-1 %	20.2	-1 %	20.4	0 %	20.2	-1 %	20.2	-1 %
IO T26	Steenkamp	19.7	0.5	0.3	**20.5**	20.4	0 %	20.4	0 %	20.5	0 %	20.4	0 %	20.4	0 %
IO T27	Steenkamp	19.7	0.9	0.3	**20.9**	20.8	0 %	20.8	0 %	20.9	0 %	20.8	0 %	20.8	0 %
IO T28	Steenkamp	19.7	0.5	0.2	**20.4**	20.4	0 %	20.4	0 %	20.4	0 %	20.4	0 %	20.4	0 %
IO T29	Steenkamp/ Kleingärten	19.7	0.2	0.2	**20.1**	20.1	0 %	20.1	0 %	20.1	0 %	20.0	0 %	20.0	0 %
IO T30	Schwedenstraße	19.7	0.2	0.3	**20.2**	20.1	0 %	20.1	0 %	20.1	0 %	20.1	0 %	20.1	0 %
IO T31	Grönlandstraße	19.7	0.3	0.2	**20.2**	20.1	0 %	20.1	0 %	20.2	0 %	20.1	0 %	20.1	0 %
IO T32	Kaiserallee	19.7	0.4	0.4	**20.5**	20.4	0 %	20.4	0 %	20.5	0 %	20.4	0 %	20.4	0 %
IO T33	Kaiserallee	19.7	0.2	0.3	**20.2**	20.1	0 %	20.1	0 %	20.2	0 %	20.1	0 %	20.1	0 %
IO T34	Kaiserallee	19.7	0.2	0.2	**20.1**	20.1	0 %	20.1	0 %	20.1	0 %	20.1	0 %	20.1	0 %
IO T35	Steuerbord	19.7	0.3	0.3	**20.3**	20.2	0 %	20.2	0 %	20.3	0 %	20.2	0 %	20.2	0 %
IO T36	Achterdeck	19.7	0.2	0.3	**20.2**	20.1	0 %	20.1	0 %	20.2	0 %	20.1	0 %	20.1	0 %
IO T37	Strandweg	19.7	0.2	0.2	**20.1**	20.1	0 %	20.1	0 %	20.1	0 %	20.1	0 %	20.1	0 %
IO T38	Alfred-Hagelstein-Straße	19.7	0.3	0.2	**20.2**	20.1	0 %	20.1	0 %	20.2	0 %	20.1	0 %	20.1	0 %
IO T39	Scheteligstraße	19.7	0.0	0.2	**19.9**	19.9	0 %	19.9	0 %	19.9	0 %	19.8	-1 %	19.8	-1 %
IO T40	Gneversdorfer Kamp	19.7	0.6	0.2	**20.5**	20.4	0 %	20.4	0 %	20.5	0 %	20.4	0 %	20.4	0 %
IO T41	Teutendorfer Weg	19.7	1.8	0.2	**21.7**	21.6	0 %	21.7	0 %	21.7	0 %	21.6	0 %	21.6	0 %
IO T42	Am Krautacker	19.7	0.2	0.3	**20.2**	20.1	0 %	20.1	0 %	20.1	0 %	20.1	0 %	20.0	-1 %
IO T43	Hollbeck	19.7	0.9	0.2	**20.8**	20.7	0 %	20.7	0 %	20.8	0 %	20.7	0 %	20.7	0 %
IO T44	Teutendorf	19.7	0.5	0.1	**20.3**	20.3	0 %	20.3	0 %	20.3	0 %	20.3	0 %	20.3	0 %
IO MP1	Messort Skandinavienkai (2000)	19.7	0.3	0.6	**20.6**	20.3	-1 %	20.3	-1 %	20.6	0 %	20.2	-2 %	20.2	-2 %
IO MP2	Messort Priwallfähre (2000)	19.7	0.2	0.7	**20.6**	20.3	-1 %	20.3	-1 %	20.5	0 %	20.3	-1 %	20.3	-1 %
IO MP3	Messort Kurpark (2000)	19.7	0.3	0.5	**20.5**	20.4	0 %	20.4	0 %	20.5	0 %	20.4	0 %	20.4	0 %

A 7.2.10 Total PM_{10} Pollution (24 Hours Value T35)

Immission point (monitor point)		Total PM_{10} pollution (24 hours value T35) [µg/m³]													
		Background pollution	Add. pollution road traffic	Add. pollution shipping	Sum Forecast Sce.	Reduction concept 1a	Comparison with Forecast Sce.	Reduction concept 1b	Comparison with Forecast Sce.	Reduction concept 2	Comparison with Forecast Sce.	Reduction concepts 1a+3	Comparison with Forecast Sce.	Reduction concepts 1b+3	Comparison with Forecast Sce.
IO 1	Teutendorfer Weg/ An der Bak	35.7	3.2	1.2	**37.4**	37.1	-1 %	37.0	-1 %	37.4	0 %	37.0	-1 %	37.0	-1 %
IO 2	St. Jürgen-Straße	35.7	0.8	1.2	**35.9**	35.8	0 %	35.8	0 %	35.9	0 %	35.8	0 %	35.8	0 %
IO 3	Rönnauer Ring	35.7	0.9	1.1	**35.9**	35.8	0 %	35.8	0 %	35.8	0 %	35.8	0 %	35.8	0 %
IO 4	Rönnauer Weg/ Ivendorfer Landstr.	35.7	0.9	1.4	**35.8**	35.8	0 %	35.8	0 %	35.8	0 %	35.8	0 %	35.8	0 %
IO 5	Rönnauer Weg/ Ivendorfer Landstr.	35.7	0.9	1.4	**35.9**	35.9	0 %	35.9	0 %	35.9	0 %	35.9	0 %	35.9	0 %
IO 6	Rönnauer Weg/ Ivendorfer Landstr.	35.7	0.5	1.2	**35.9**	35.9	0 %	35.9	0 %	35.9	0 %	35.9	0 %	35.9	0 %
IO 7	Ostseestraße/ Pommernzentrum	35.7	0.6	1.5	**37.6**	35.9	-5 %	35.9	-5 %	37.3	-1 %	35.9	-5 %	35.9	-5 %
IO 8	Ostseestraße/ Pommernzentrum	35.7	1.5	1.7	**38.2**	36.2	-5 %	36.3	-5 %	38.2	0 %	36.1	-5 %	36.1	-5 %
IO 9	Ostseestraße/ Pommernzentrum	35.7	0.5	1.5	**37.4**	35.9	-4 %	35.9	-4 %	36.8	-2 %	35.9	-4 %	35.9	-4 %
IO A	Ivendorf/ Ovendorfer Straße	35.7	11.2	1.2	**43.1**	42.9	0 %	42.9	0 %	43.0	0 %	42.9	0 %	42.9	0 %
IO B	Ivendorf/ Ovendorfer Straße	35.7	5.0	1.2	**39.0**	38.7	-1 %	38.7	-1 %	39.0	0 %	38.7	-1 %	38.7	-1 %
IO C	Ivendorf/ Ivendorfer Landstraße	35.7	2.2	1.1	**36.6**	36.3	-1 %	36.3	-1 %	36.4	-1 %	36.3	-1 %	36.3	-1 %
IO D	Ivendorf/ Ivendorfer Landstraße	35.7	2.4	1.1	**36.4**	36.4	0 %	36.4	0 %	36.4	0 %	36.4	0 %	36.4	0 %
IO E	Ivendorf/ Ivendorfer Landstraße	35.7	3.7	0.8	**37.2**	37.1	0 %	37.1	0 %	37.1	0 %	37.1	0 %	37.1	0 %
IO F	Ivendorf/ Ivendorfer Landstraße	35.7	3.4	0.7	**37.5**	37.5	0 %	37.4	0 %	37.5	0 %	37.4	0 %	37.5	0 %
IO G	Ivendorf/ Ivendorfer Landstraße	35.7	8.5	0.6	**42.1**	42.2	0 %	42.2	0 %	42.2	0 %	42.1	0 %	42.1	0 %
IO H	Ivendorf/ Ivendorfer Landstraße	35.7	8.3	0.5	**41.0**	40.9	0 %	40.9	0 %	41.0	0 %	40.9	0 %	40.9	0 %
IO I	Blessenacker/ Travemünder Landstr.	35.7	2.3	0.3	**36.0**	35.9	0 %	35.9	0 %	36.0	0 %	35.9	0 %	35.9	0 %
IO L	Travemünder Landstr.	35.7	5.5	0.4	**39.1**	39.1	0 %	39.1	0 %	39.1	0 %	39.1	0 %	39.1	0 %
IO N	Boldwiesenkoppel	35.7	2.6	0.5	**35.8**	35.7	0 %	35.7	0 %	35.7	0 %	35.7	0 %	35.7	0 %
IO P	Scheidekoppel	35.7	0.4	0.6	**35.7**	35.7	0 %	35.7	0 %	35.7	0 %	35.7	0 %	35.7	0 %
IO Q	Borndiek	35.7	4.6	1.6	**38.2**	38.1	0 %	38.0	-1 %	38.3	0 %	38.1	0 %	38.0	-1 %
IO S	Priwall/ Traveufer	35.7	0.3	2.5	**37.2**	36.5	-2 %	36.6	-2 %	37.0	-1 %	36.4	-2 %	36.4	-2 %
IO T	Auf dem Baggersand	35.7	1.3	1.5	**36.5**	36.4	0 %	36.2	-1 %	36.4	0 %	36.2	-1 %	36.2	-1 %
IO U	Priwall/ Traveufer	35.7	0.5	3.2	**37.7**	36.5	-3 %	36.4	-3 %	37.5	-1 %	36.4	-3 %	36.3	-4 %
IO V	Priwall/ Traveufer	35.7	0.3	3.5	**37.5**	36.5	-3 %	36.4	-3 %	37.4	0 %	36.4	-3 %	36.3	-3 %
IO W	Dummersdorfer Ufer	35.7	0.7	1.7	**35.9**	35.9	0 %	35.9	0 %	35.9	0 %	35.9	0 %	35.9	0 %
IO X	Dummersdorfer Ufer	35.7	1.0	2.0	**35.9**	35.9	0 %	35.9	0 %	35.9	0 %	35.9	0 %	35.9	0 %
IO Y	Dummersdorfer Ufer	35.7	0.7	1.6	**35.9**	35.9	0 %	35.9	0 %	35.9	0 %	35.9	0 %	35.9	0 %
IO Z	Vorderreihe/ Priwallfähre	35.7	0.8	1.8	**36.9**	36.7	-1 %	36.6	-1 %	36.9	0 %	36.5	-1 %	36.5	-1 %
IO T1	Vorderreihe/ Ostpreußenkai	35.7	0.7	1.9	**36.9**	36.4	-1 %	36.3	-2 %	36.5	-1 %	36.3	-2 %	36.3	-2 %
IO T2	Yachthafen/ Kaiserbrücke	35.7	1.0	1.8	**36.9**	36.6	-1 %	36.6	-1 %	36.8	0 %	36.5	-1 %	36.5	-1 %
IO P1	Priwall/ Fähre	35.7	0.4	1.9	**37.1**	36.5	-2 %	36.5	-2 %	37.3	1 %	36.5	-2 %	36.4	-2 %
IO P2	Priwall/ Passathafen	35.7	0.2	1.7	**36.8**	36.5	-1 %	36.6	-1 %	36.7	0 %	36.3	-1 %	36.4	-1 %
IO P3	Priwall/ Passathafen	35.7	0.2	1.6	**37.0**	36.6	-1 %	36.6	-1 %	36.7	-1 %	36.5	-1 %	36.6	-1 %
IO P4	Priwall/ Traveufer	35.7	0.4	3.3	**38.1**	36.6	-4 %	36.6	-4 %	38.0	0 %	36.4	-4 %	36.3	-5 %
IO P5	Priwall/ Traveufer	35.7	0.3	2.7	**37.5**	36.7	-2 %	36.5	-3 %	37.4	0 %	36.4	-3 %	36.2	-3 %
IO P6	Priwall/ Kläranlage	35.7	0.3	3.0	**37.7**	36.8	-2 %	36.5	-3 %	37.5	-1 %	36.5	-3 %	36.4	-3 %
IO P7	Priwall/ Weggabelung Teich	35.7	0.3	3.4	**37.7**	36.5	-3 %	36.6	-3 %	37.4	-1 %	36.6	-3 %	36.5	-3 %
IO P8	Priwall/ Rosenhof	35.7	0.2	2.3	**37.4**	36.6	-2 %	36.6	-2 %	37.4	0 %	36.5	-2 %	36.4	-3 %
IO P9	Priwall/ Rosenhof	35.7	0.2	2.2	**37.5**	36.3	-3 %	36.4	-3 %	37.1	-1 %	36.4	-3 %	36.4	-3 %
IO P10	Priwall/ Rosenhof	35.7	1.6	2.0	**37.6**	36.8	-2 %	36.8	-2 %	37.4	-1 %	36.7	-2 %	36.7	-2 %
IO P11	Priwall/ Fliegerweg	35.7	0.2	2.0	**36.6**	36.5	0 %	36.4	-1 %	36.5	0 %	36.2	-1 %	36.3	-1 %
IO P12	Priwall/ Pötenitzer Weg	35.7	0.2	1.8	**36.5**	36.2	-1 %	36.2	-1 %	36.4	0 %	36.1	-1 %	36.2	-1 %
IO P13	Priwall/ Pötenitzer Weg	35.7	0.2	1.8	**36.5**	36.2	-1 %	36.1	-1 %	36.5	0 %	36.2	-1 %	36.2	-1 %
IO P14	Priwall/ Seemannsschule	35.7	0.2	1.4	**36.4**	36.1	-1 %	36.0	-1 %	36.5	0 %	36.0	-1 %	36.1	-1 %
IO P15	Priwall/ Krankenhaus	35.7	0.3	1.6	**36.5**	36.3	-1 %	36.2	-1 %	36.4	0 %	36.4	0 %	36.2	-1 %
IO P16	Priwall/ Krankenhaus	35.7	0.8	1.4	**36.8**	36.5	-1 %	36.4	-1 %	36.6	-1 %	36.4	-1 %	36.3	-1 %
IO P17	Priwall/ Haus des Kurgastes	35.7	0.2	1.2	**36.2**	36.2	0 %	36.2	0 %	36.2	0 %	36.1	0 %	36.0	-1 %
IO T3	Marina Baltica	35.7	0.5	1.8	**35.9**	35.9	0 %	35.9	0 %	35.9	0 %	35.9	0 %	35.9	0 %
IO T4	Fischereihafen	35.7	0.6	1.5	**35.9**	35.8	0 %	35.8	0 %	36.0	0 %	35.8	0 %	35.8	0 %
IO T5	Torstraße	35.7	1.4	1.8	**36.5**	36.1	-1 %	36.2	-1 %	36.4	0 %	36.1	-1 %	36.1	-1 %
IO T6	Kirchenstraße	35.7	2.1	1.6	**37.3**	37.1	-1 %	37.1	-1 %	37.4	0 %	36.9	-1 %	37.1	-1 %
IO T7	Kurgartenstraße	35.7	1.7	1.8	**37.1**	37.0	0 %	36.9	-1 %	37.1	0 %	36.8	-1 %	36.7	-1 %
IO T8	Vorderreihe/ Prinzenbrücke	35.7	0.7	1.8	**36.8**	36.5	-1 %	36.5	-1 %	36.7	0 %	36.4	-1 %	36.4	-1 %
IO T9	Am Lotsenberg	35.7	1.7	1.5	**37.1**	37.0	0 %	37.0	0 %	37.1	0 %	37.0	0 %	37.0	0 %
IO T10	Rose	35.7	1.0	1.5	**36.5**	36.4	0 %	36.3	-1 %	36.4	0 %	36.3	-1 %	36.2	-1 %
IO T11	Rose	35.7	0.8	1.4	**36.4**	36.2	-1 %	36.2	-1 %	36.3	0 %	36.2	-1 %	36.2	-1 %
IO T12	Rose	35.7	0.8	1.1	**36.1**	36.1	0 %	36.0	0 %	36.2	0 %	36.0	0 %	36.0	0 %
IO T13	Boelckestraße	35.7	0.5	1.5	**36.2**	36.2	0 %	36.2	0 %	36.4	1 %	36.2	0 %	36.2	0 %
IO T14	Fehlingstraße	35.7	0.8	1.5	**36.5**	36.3	-1 %	36.4	0 %	36.5	0 %	36.3	-1 %	36.4	0 %
IO T15	Fehlingstraße	35.7	0.7	1.2	**36.5**	36.1	-1 %	36.1	-1 %	36.3	-1 %	36.1	-1 %	36.1	-1 %
IO T16	Mühlenberg/ Ziegenhorst	35.7	0.8	1.2	**36.4**	36.2	-1 %	36.3	0 %	36.4	0 %	36.2	-1 %	36.2	-1 %
IO T17	Gneversdorfer Weg	35.7	7.9	1.2	**40.6**	40.5	0 %	40.4	0 %	40.7	0 %	40.4	0 %	40.4	0 %
IO T18	Gneversdorfer Weg	35.7	4.6	1.0	**38.2**	38.1	0 %	38.1	0 %	38.2	0 %	38.1	0 %	38.1	0 %
IO T19	Gneversdorfer Weg	35.7	2.9	0.8	**37.5**	37.4	0 %	37.2	-1 %	37.5	0 %	37.3	-1 %	37.3	-1 %
IO T20	Gneversdorfer Weg/ Moorredder	35.7	4.0	1.0	**38.4**	38.1	-1 %	38.1	-1 %	38.2	-1 %	38.1	-1 %	38.1	-1 %
IO T21	Moorredder	35.7	2.4	1.0	**37.1**	36.8	-1 %	36.8	-1 %	37.0	0 %	36.7	-1 %	36.8	-1 %
IO T22	Moorredder	35.7	4.0	1.0	**37.8**	37.9	0 %	37.8	0 %	37.9	0 %	37.7	0 %	37.7	0 %
IO T23	Am Fahrenberg	35.7	1.4	0.9	**36.5**	36.4	0 %	36.5	0 %	36.6	0 %	36.5	0 %	36.4	0 %
IO T24	Parkallee/ Kurhaus	35.7	0.4	1.4	**36.6**	36.1	-1 %	36.3	-1 %	36.5	0 %	36.3	-1 %	36.2	-1 %
IO T25	Kurpark	35.7	0.4	1.4	**36.2**	36.1	0 %	36.1	0 %	36.3	0 %	36.0	-1 %	36.0	-1 %
IO T26	Steenkamp	35.7	0.9	1.0	**36.5**	36.1	-1 %	36.2	-1 %	36.4	0 %	36.2	-1 %	36.2	-1 %
IO T27	Steenkamp	35.7	1.5	0.9	**36.3**	36.2	0 %	36.2	0 %	36.4	0 %	36.3	0 %	36.3	0 %
IO T28	Steenkamp	35.7	0.8	0.8	**36.0**	36.0	0 %	36.0	0 %	36.0	0 %	36.0	0 %	36.0	0 %
IO T29	Steenkamp/ Kleingärten	35.7	0.3	0.7	**35.8**	35.8	0 %	35.8	0 %	35.8	0 %	35.8	0 %	35.8	0 %
IO T30	Schwedenstraße	35.7	0.5	0.9	**35.9**	35.9	0 %	35.9	0 %	36.0	0 %	35.9	0 %	35.9	0 %
IO T31	Grönlandstraße	35.7	0.6	0.7	**36.0**	36.0	0 %	36.0	0 %	36.0	0 %	36.0	0 %	36.0	0 %
IO T32	Kaiserallee	35.7	0.7	1.2	**36.4**	36.3	0 %	36.3	0 %	36.4	0 %	36.3	0 %	36.3	0 %
IO T33	Kaiserallee	35.7	0.6	1.0	**36.3**	36.1	-1 %	36.1	-1 %	36.2	0 %	36.1	-1 %	36.1	-1 %
IO T34	Kaiserallee	35.7	0.5	0.8	**35.8**	35.8	0 %	35.8	0 %	35.8	0 %	35.8	0 %	35.8	0 %
IO T35	Steuerbord	35.7	0.7	1.0	**36.2**	36.1	0 %	36.1	0 %	36.1	0 %	36.1	0 %	36.1	0 %
IO T36	Achterdeck	35.7	0.4	0.8	**36.0**	35.9	0 %	35.9	0 %	35.9	0 %	35.9	0 %	35.9	0 %
IO T37	Strandweg	35.7	0.5	0.8	**36.1**	36.0	0 %	36.0	0 %	36.0	0 %	36.0	0 %	36.0	0 %
IO T38	Alfred-Hagelstein-Straße	35.7	0.5	0.7	**35.9**	35.9	0 %	35.9	0 %	35.9	0 %	35.9	0 %	35.9	0 %
IO T39	Scheteligstraße	35.7	0.3	0.7	**35.8**	35.8	0 %	35.8	0 %	35.8	0 %	35.8	0 %	35.8	0 %
IO T40	Gneversdorfer Kamp	35.7	1.1	0.6	**36.0**	36.0	0 %	36.0	0 %	36.0	0 %	36.0	0 %	36.0	0 %
IO T41	Teutendorfer Weg	35.7	2.9	0.8	**37.5**	37.5	0 %	37.5	0 %	37.5	0 %	37.5	0 %	37.5	0 %
IO T42	Am Krautacker	35.7	0.4	0.8	**35.9**	35.9	0 %	35.9	0 %	35.9	0 %	35.9	0 %	35.9	0 %
IO T43	Hollbeck	35.7	1.4	0.6	**36.0**	36.0	0 %	36.0	0 %	36.0	0 %	36.0	0 %	36.0	0 %
IO T44	Teutendorf	35.7	1.7	0.4	**35.9**	35.9	0 %	35.8	0 %	35.9	0 %	35.8	0 %	35.8	0 %
IO MP1	Messort Skandinavienkai (2000)	35.7	0.8	1.9	**36.1**	36.1	0 %	36.1	0 %	36.1	0 %	36.1	0 %	36.1	0 %
IO MP2	Messort Priwallfähre (2000)	35.7	0.6	2.2	**36.8**	36.3	-1 %	36.2	-2 %	36.6	-1 %	36.3	-1 %	36.3	-1 %
IO MP3	Messort Kurpark (2000)	35.7	0.5	1.4	**36.4**	36.3	0 %	36.3	0 %	36.5	0 %	36.2	-1 %	36.2	-1 %

A 7.2.11 Total Soot Pollution (Annual Average Value J00)

Immission point (monitor point)		Total soot pollution (annual average value J00) [µg/m³]													
		Background pollution	Add. pollution road traffic	Add. pollution shipping	Sum Forecast Sce.	Reduction concept 1a	Comparison with Forecast Sce.	Reduction concept 1b	Comparison with Forecast Sce.	Reduction concept 2	Comparison with Forecast Sce.	Reduction concepts 1a+3	Comparison with Forecast Sce.	Reduction concepts 1b+3	Comparison with Forecast Sce.
IO 1	Teutendorfer Weg/ An der Bak	2.0	0.1	0.2	**2.3**	2.2	-4 %	2.2	-4 %	2.3	0 %	2.2	-4 %	2.2	-4 %
IO 2	St. Jürgen-Straße	2.0	0.0	0.2	**2.2**	2.1	-5 %	2.1	-5 %	2.1	-5 %	2.1	-5 %	2.1	-5 %
IO 3	Rönnauer Ring	2.0	0.0	0.1	**2.1**	2.1	0 %	2.1	0 %	2.1	0 %	2.1	0 %	2.1	0 %
IO 4	Rönnauer Weg/ Ivendorfer Landstr.	2.0	0.0	0.2	**2.2**	2.1	-5 %	2.1	-5 %	2.2	0 %	2.1	-5 %	2.1	-5 %
IO 5	Rönnauer Weg/ Ivendorfer Landstr.	2.0	0.0	0.2	**2.2**	2.1	-5 %	2.1	-5 %	2.2	0 %	2.1	-5 %	2.1	-5 %
IO 6	Rönnauer Weg/ Ivendorfer Landstr.	2.0	0.0	0.2	**2.2**	2.1	-5 %	2.1	-5 %	2.1	-5 %	2.1	-5 %	2.1	-5 %
IO 7	Ostseestraße/ Pommernzentrum	2.0	0.0	0.2	**2.2**	2.1	-5 %	2.1	-5 %	2.2	0 %	2.1	-5 %	2.1	-5 %
IO 8	Ostseestraße/ Pommernzentrum	2.0	0.0	0.2	**2.2**	2.1	-5 %	2.1	-5 %	2.2	0 %	2.1	-5 %	2.1	-5 %
IO 9	Ostseestraße/ Pommernzentrum	2.0	0.0	0.2	**2.2**	2.1	-5 %	2.1	-5 %	2.2	0 %	2.1	-5 %	2.1	-5 %
IO A	Ivendorf/ Ovendorfer Straße	2.0	0.0	0.1	**2.1**	2.1	0 %	2.1	0 %	2.1	0 %	2.1	0 %	2.1	0 %
IO B	Ivendorf/ Ovendorfer Straße	2.0	0.0	0.1	**2.1**	2.1	0 %	2.1	0 %	2.1	0 %	2.1	0 %	2.1	0 %
IO C	Ivendorf/ Ivendorfer Landstraße	2.0	0.0	0.1	**2.1**	2.1	0 %	2.1	0 %	2.1	0 %	2.1	0 %	2.0	-5 %
IO D	Ivendorf/ Ivendorfer Landstraße	2.0	0.0	0.1	**2.1**	2.1	0 %	2.1	0 %	2.1	0 %	2.0	-5 %	2.0	-5 %
IO E	Ivendorf/ Ivendorfer Landstraße	2.0	0.0	0.1	**2.1**	2.0	-5 %	2.0	-5 %	2.1	0 %	2.0	-5 %	2.0	-5 %
IO F	Ivendorf/ Ivendorfer Landstraße	2.0	0.0	0.1	**2.1**	2.0	-5 %	2.0	-5 %	2.1	0 %	2.0	-5 %	2.0	-5 %
IO G	Ivendorf/ Ivendorfer Landstraße	2.0	0.0	0.1	**2.1**	2.0	-5 %	2.0	-5 %	2.1	0 %	2.0	-5 %	2.0	-5 %
IO H	Ivendorf/ Ivendorfer Landstraße	2.0	0.0	0.1	**2.1**	2.0	-5 %	2.0	-5 %	2.1	0 %	2.0	-5 %	2.0	-5 %
IO I	Blessenacker/ Travemünder Landstr.	2.0	0.0	0.0	**2.0**	2.0	0 %	2.0	0 %	2.0	0 %	2.0	0 %	2.0	0 %
IO L	Travemünder Landstr.	2.0	0.0	0.0	**2.0**	2.0	0 %	2.0	0 %	2.0	0 %	2.0	0 %	2.0	0 %
IO N	Boldwiesenkoppel	2.0	0.0	0.1	**2.1**	2.0	-5 %	2.0	-5 %	2.1	0 %	2.0	-5 %	2.0	-5 %
IO P	Scheidekoppel	2.0	0.0	0.1	**2.1**	2.0	-5 %	2.0	-5 %	2.1	0 %	2.0	-5 %	2.0	-5 %
IO Q	Borndiek	2.0	0.0	0.2	**2.2**	2.1	-5 %	2.1	-5 %	2.1	-5 %	2.1	-5 %	2.1	-5 %
IO S	Priwall/ Traveufer	2.0	0.0	0.4	**2.4**	2.2	-8 %	2.2	-8 %	2.4	0 %	2.2	-8 %	2.2	-8 %
IO T	Auf dem Baggersand	2.0	0.0	0.2	**2.2**	2.1	-5 %	2.1	-5 %	2.2	0 %	2.1	-5 %	2.1	-5 %
IO U	Priwall/ Traveufer	2.0	0.0	0.6	**2.6**	2.2	-15 %	2.2	-15 %	2.5	-4 %	2.2	-15 %	2.1	-19 %
IO V	Priwall/ Traveufer	2.0	0.0	0.6	**2.6**	2.2	-15 %	2.2	-15 %	2.5	-4 %	2.2	-15 %	2.2	-15 %
IO W	Dummersdorfer Ufer	2.0	0.0	0.2	**2.2**	2.1	-5 %	2.1	-5 %	2.2	0 %	2.1	-5 %	2.1	-5 %
IO X	Dummersdorfer Ufer	2.0	0.0	0.2	**2.2**	2.1	-5 %	2.1	-5 %	2.2	0 %	2.1	-5 %	2.1	-5 %
IO Y	Dummersdorfer Ufer	2.0	0.0	0.2	**2.2**	2.1	-5 %	2.1	-5 %	2.2	0 %	2.1	-5 %	2.1	-5 %
IO Z	Vorderreihe/ Priwallfähre	2.0	0.0	0.3	**2.3**	2.2	-4 %	2.2	-4 %	2.2	-4 %	2.2	-4 %	2.2	-4 %
IO T1	Vorderreihe/ Ostpreußenkai	2.0	0.0	0.3	**2.3**	2.2	-4 %	2.2	-4 %	2.3	0 %	2.2	-4 %	2.2	-4 %
IO T2	Yachthafen/ Kaiserbrücke	2.0	0.0	0.3	**2.3**	2.2	-4 %	2.2	-4 %	2.3	0 %	2.2	-4 %	2.2	-4 %
IO P1	Priwall/ Fähre	2.0	0.0	0.3	**2.3**	2.2	-4 %	2.2	-4 %	2.3	0 %	2.2	-4 %	2.2	-4 %
IO P2	Priwall/ Passathafen	2.0	0.0	0.3	**2.3**	2.2	-4 %	2.2	-4 %	2.3	0 %	2.2	-4 %	2.2	-4 %
IO P3	Priwall/ Passathafen	2.0	0.0	0.3	**2.3**	2.2	-4 %	2.2	-4 %	2.3	0 %	2.2	-4 %	2.2	-4 %
IO P4	Priwall/ Traveufer	2.0	0.0	0.7	**2.7**	2.2	-19 %	2.2	-19 %	2.6	-4 %	2.2	-19 %	2.2	-19 %
IO P5	Priwall/ Traveufer	2.0	0.0	0.4	**2.4**	2.2	-8 %	2.2	-8 %	2.4	0 %	2.2	-8 %	2.2	-8 %
IO P6	Priwall/ Kläranlage	2.0	0.0	0.5	**2.5**	2.3	-8 %	2.3	-8 %	2.5	0 %	2.2	-12 %	2.2	-12 %
IO P7	Priwall/ Weggabelung Teich	2.0	0.0	0.6	**2.6**	2.3	-12 %	2.3	-12 %	2.5	-4 %	2.2	-15 %	2.2	-15 %
IO P8	Priwall/ Rosenhof	2.0	0.0	0.4	**2.4**	2.3	-4 %	2.2	-8 %	2.4	0 %	2.2	-8 %	2.2	-8 %
IO P9	Priwall/ Rosenhof	2.0	0.0	0.4	**2.4**	2.2	-8 %	2.2	-8 %	2.4	0 %	2.2	-8 %	2.2	-8 %
IO P10	Priwall/ Rosenhof	2.0	0.0	0.4	**2.4**	2.2	-8 %	2.2	-8 %	2.3	-4 %	2.2	-8 %	2.2	-8 %
IO P11	Priwall/ Fliegerweg	2.0	0.0	0.4	**2.4**	2.2	-8 %	2.2	-8 %	2.3	-4 %	2.2	-8 %	2.2	-8 %
IO P12	Priwall/ Pötenitzer Weg	2.0	0.0	0.3	**2.3**	2.2	-4 %	2.2	-4 %	2.3	0 %	2.2	-4 %	2.2	-4 %
IO P13	Priwall/ Pötenitzer Weg	2.0	0.0	0.3	**2.3**	2.2	-4 %	2.2	-4 %	2.3	0 %	2.2	-4 %	2.2	-4 %
IO P14	Priwall/ Seemannsschule	2.0	0.0	0.3	**2.3**	2.2	-4 %	2.2	-4 %	2.2	-4 %	2.1	-9 %	2.1	-9 %
IO P15	Priwall/ Krankenhaus	2.0	0.0	0.3	**2.3**	2.2	-4 %	2.2	-4 %	2.3	0 %	2.2	-4 %	2.2	-4 %
IO P16	Priwall/ Krankenhaus	2.0	0.0	0.3	**2.3**	2.2	-4 %	2.2	-4 %	2.3	0 %	2.2	-4 %	2.2	-4 %
IO P17	Priwall/ Haus des Kurgastes	2.0	0.0	0.2	**2.2**	2.2	0 %	2.2	0 %	2.2	0 %	2.1	-5 %	2.1	-5 %
IO T3	Marina Baltica	2.0	0.0	0.2	**2.2**	2.1	-5 %	2.1	-5 %	2.2	0 %	2.1	-5 %	2.1	-5 %
IO T4	Fischereihafen	2.0	0.0	0.2	**2.2**	2.1	-5 %	2.1	-5 %	2.2	0 %	2.1	-5 %	2.1	-5 %
IO T5	Torstraße	2.0	0.0	0.2	**2.2**	2.1	-5 %	2.1	-5 %	2.2	0 %	2.1	-5 %	2.1	-5 %
IO T6	Kirchenstraße	2.0	0.1	0.2	**2.3**	2.3	0 %	2.3	0 %	2.3	0 %	2.2	-4 %	2.2	-4 %
IO T7	Kurgartenstraße	2.0	0.0	0.2	**2.2**	2.2	0 %	2.2	0 %	2.2	0 %	2.2	0 %	2.2	0 %
IO T8	Vorderreihe/ Prinzenbrücke	2.0	0.0	0.3	**2.3**	2.2	-4 %	2.2	-4 %	2.3	0 %	2.2	-4 %	2.2	-4 %
IO T9	Am Lotsenberg	2.0	0.0	0.2	**2.2**	2.2	0 %	2.2	0 %	2.2	0 %	2.2	0 %	2.2	0 %
IO T10	Rose	2.0	0.0	0.2	**2.2**	2.2	0 %	2.2	0 %	2.2	0 %	2.1	-5 %	2.1	-5 %
IO T11	Rose	2.0	0.0	0.2	**2.2**	2.1	-5 %	2.1	-5 %	2.2	0 %	2.1	-5 %	2.1	-5 %
IO T12	Rose	2.0	0.0	0.1	**2.1**	2.1	0 %	2.1	0 %	2.1	0 %	2.1	0 %	2.1	0 %
IO T13	Boelckestraße	2.0	0.0	0.2	**2.2**	2.1	-5 %	2.1	-5 %	2.2	0 %	2.1	-5 %	2.1	-5 %
IO T14	Fehlingstraße	2.0	0.0	0.2	**2.2**	2.1	-5 %	2.1	-5 %	2.2	0 %	2.1	-5 %	2.1	-5 %
IO T15	Fehlingstraße	2.0	0.0	0.2	**2.2**	2.1	-5 %	2.1	-5 %	2.2	0 %	2.1	-5 %	2.1	-5 %
IO T16	Mühlenberg/ Ziegenhorst	2.0	0.0	0.2	**2.2**	2.1	-5 %	2.1	-5 %	2.2	0 %	2.1	-5 %	2.1	-5 %
IO T17	Gneversdorfer Weg	2.0	0.2	0.1	**2.3**	2.3	0 %	2.3	0 %	2.3	0 %	2.3	0 %	2.3	0 %
IO T18	Gneversdorfer Weg	2.0	0.1	0.1	**2.2**	2.2	0 %	2.2	0 %	2.2	0 %	2.2	0 %	2.2	0 %
IO T19	Gneversdorfer Weg	2.0	0.1	0.1	**2.2**	2.2	0 %	2.2	0 %	2.2	0 %	2.2	0 %	2.2	0 %
IO T20	Gneversdorfer Weg/ Moorredder	2.0	0.1	0.1	**2.2**	2.2	0 %	2.2	0 %	2.2	0 %	2.2	0 %	2.2	0 %
IO T21	Moorredder	2.0	0.0	0.1	**2.1**	2.1	0 %	2.1	0 %	2.1	0 %	2.1	0 %	2.1	0 %
IO T22	Moorredder	2.0	0.1	0.1	**2.2**	2.2	0 %	2.2	0 %	2.2	0 %	2.2	0 %	2.2	0 %
IO T23	Am Fahrenberg	2.0	0.0	0.1	**2.1**	2.1	0 %	2.1	0 %	2.1	0 %	2.1	0 %	2.1	0 %
IO T24	Parkallee/ Kurhaus	2.0	0.0	0.2	**2.2**	2.2	0 %	2.2	0 %	2.2	0 %	2.2	0 %	2.2	0 %
IO T25	Kurpark	2.0	0.0	0.2	**2.2**	2.1	-5 %	2.1	-5 %	2.2	0 %	2.1	-5 %	2.1	-5 %
IO T26	Steenkamp	2.0	0.0	0.1	**2.1**	2.1	0 %	2.1	0 %	2.1	0 %	2.1	0 %	2.1	0 %
IO T27	Steenkamp	2.0	0.0	0.1	**2.1**	2.1	0 %	2.1	0 %	2.1	0 %	2.1	0 %	2.1	0 %
IO T28	Steenkamp	2.0	0.0	0.1	**2.1**	2.1	0 %	2.1	0 %	2.1	0 %	2.1	0 %	2.1	0 %
IO T29	Steenkamp/ Kleingärten	2.0	0.0	0.1	**2.1**	2.1	0 %	2.1	0 %	2.1	0 %	2.1	0 %	2.1	0 %
IO T30	Schwedenstraße	2.0	0.0	0.1	**2.1**	2.1	0 %	2.1	0 %	2.1	0 %	2.1	0 %	2.1	0 %
IO T31	Grönlandstraße	2.0	0.0	0.1	**2.1**	2.1	0 %	2.1	0 %	2.1	0 %	2.0	-5 %	2.0	-5 %
IO T32	Kaiserallee	2.0	0.0	0.2	**2.2**	2.1	-5 %	2.1	-5 %	2.1	-5 %	2.1	-5 %	2.1	-5 %
IO T33	Kaiserallee	2.0	0.0	0.1	**2.1**	2.1	0 %	2.1	0 %	2.1	0 %	2.1	0 %	2.1	0 %
IO T34	Kaiserallee	2.0	0.0	0.1	**2.1**	2.1	0 %	2.1	0 %	2.1	0 %	2.1	0 %	2.1	0 %
IO T35	Steuerbord	2.0	0.0	0.1	**2.1**	2.1	0 %	2.1	0 %	2.1	0 %	2.1	0 %	2.1	0 %
IO T36	Achterdeck	2.0	0.0	0.1	**2.1**	2.1	0 %	2.1	0 %	2.1	0 %	2.1	0 %	2.1	0 %
IO T37	Strandweg	2.0	0.0	0.1	**2.1**	2.1	0 %	2.1	0 %	2.1	0 %	2.1	0 %	2.1	0 %
IO T38	Alfred-Hagelstein-Straße	2.0	0.0	0.1	**2.1**	2.1	0 %	2.1	0 %	2.1	0 %	2.1	0 %	2.1	0 %
IO T39	Scheteligstraße	2.0	0.0	0.1	**2.1**	2.1	0 %	2.1	0 %	2.1	0 %	2.1	0 %	2.1	0 %
IO T40	Gneversdorfer Kamp	2.0	0.0	0.1	**2.1**	2.0	-5 %	2.0	-5 %	2.1	0 %	2.0	-5 %	2.0	-5 %
IO T41	Teutendorfer Weg	2.0	0.1	0.1	**2.2**	2.2	0 %	2.2	0 %	2.2	0 %	2.2	0 %	2.2	0 %
IO T42	Am Krautacker	2.0	0.0	0.1	**2.1**	2.1	0 %	2.1	0 %	2.1	0 %	2.1	0 %	2.1	0 %
IO T43	Hollbeck	2.0	0.0	0.1	**2.1**	2.0	-5 %	2.0	-5 %	2.1	0 %	2.0	-5 %	2.0	-5 %
IO T44	Teutendorf	2.0	0.0	0.1	**2.1**	2.0	-5 %	2.0	-5 %	2.1	0 %	2.0	-5 %	2.0	-5 %
IO MP1	Messort Skandinavienkai (2000)	2.0	0.0	0.2	**2.2**	2.1	-5 %	2.1	-5 %	2.2	0 %	2.1	-5 %	2.1	-5 %
IO MP2	Messort Priwallfähre (2000)	2.0	0.0	0.3	**2.3**	2.2	-4 %	2.2	-4 %	2.2	-4 %	2.2	-4 %	2.2	-4 %
IO MP3	Messort Kurpark (2000)	2.0	0.0	0.2	**2.2**	2.2	0 %	2.2	0 %	2.2	0 %	2.1	-5 %	2.1	-5 %



Air Pollution Model Calculations
Agenda 21 Lübeck-Travemünde

Proj.-No: 04006

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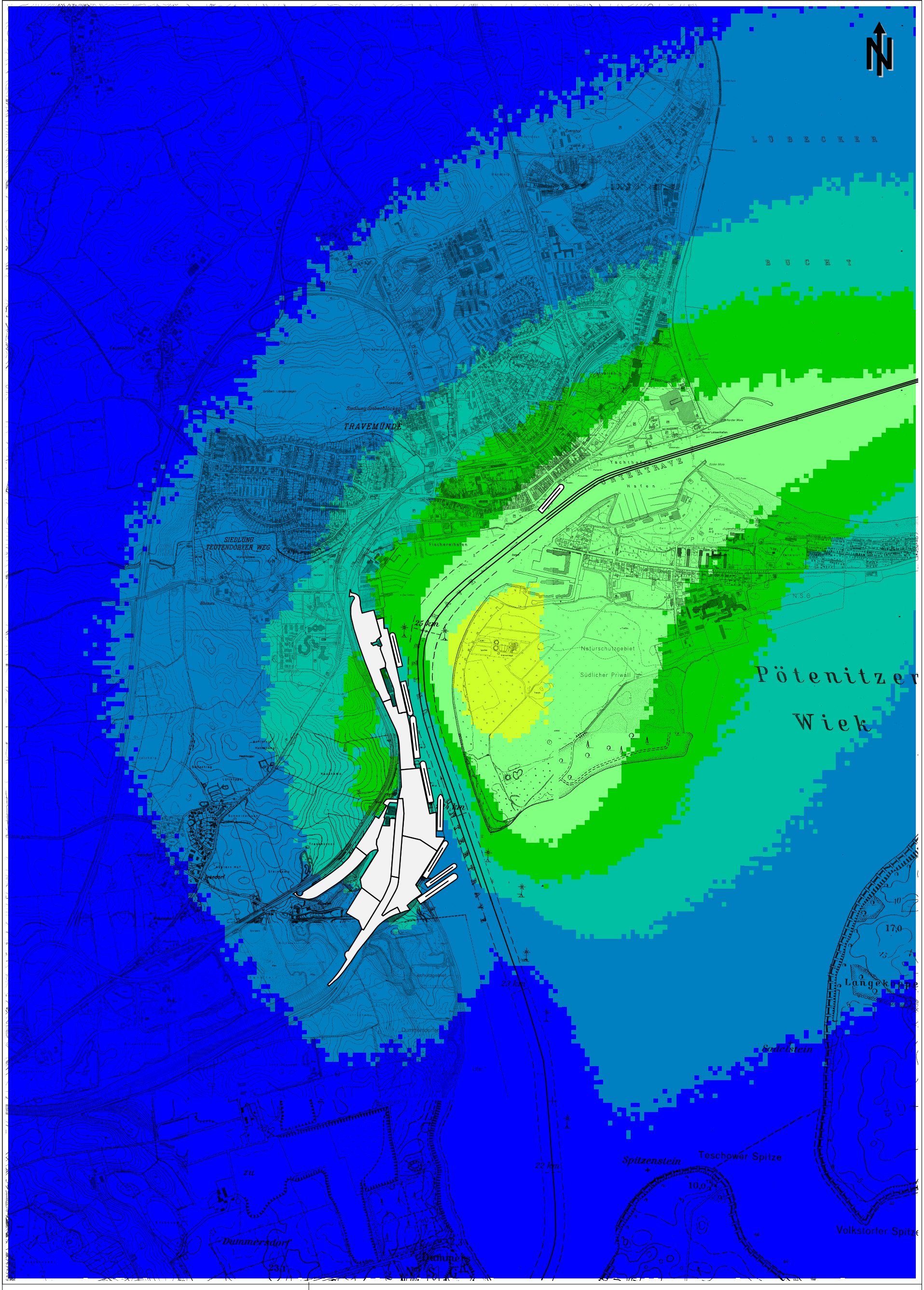
RL121010_SO2.cna, 09/2004

A8.1.1: Additional SO_2 Pollution (Annual Average Value J00)

Actual Scenario

Polluter Group: Shipping (including In-Port-Activities)

> 0.0 µg/m³	> 4.0 µg/m³
> 0.5 µg/m³	> 5.0 µg/m³
> 1.0 µg/m³	> 6.0 µg/m³
> 1.5 µg/m³	> 8.0 µg/m³
> 2.0 µg/m³	> 10.0 µg/m³
> 3.0 µg/m³	> 15.0 µg/m³



Air Pollution Model Calculations
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Scale 1 : 20.000

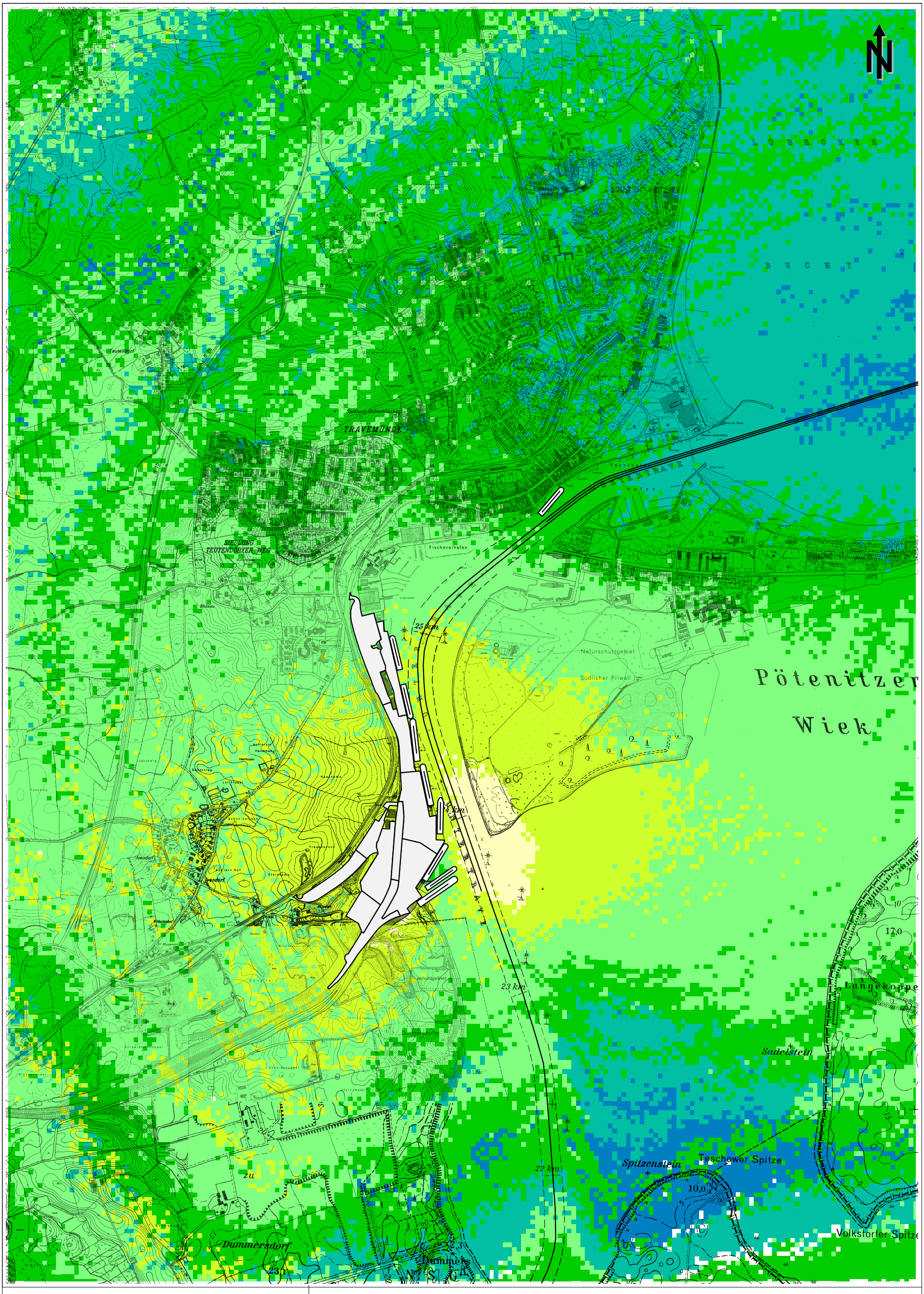
RL121011_SO2.cna, 09/2004

A8.1.2: Additional SO_2 Pollution (Annual Average Value J00)

Actual Scenario Considering Reduction Concept 1a

Polluter Group: Shipping (including In-Port-Activities)

> 0.0 µg/m³	> 4.0 µg/m³
> 0.5 µg/m³	> 5.0 µg/m³
> 1.0 µg/m³	> 6.0 µg/m³
> 1.5 µg/m³	> 8.0 µg/m³
> 2.0 µg/m³	> 10.0 µg/m³
> 3.0 µg/m³	> 15.0 µg/m³



Air Pollution Model Calculations
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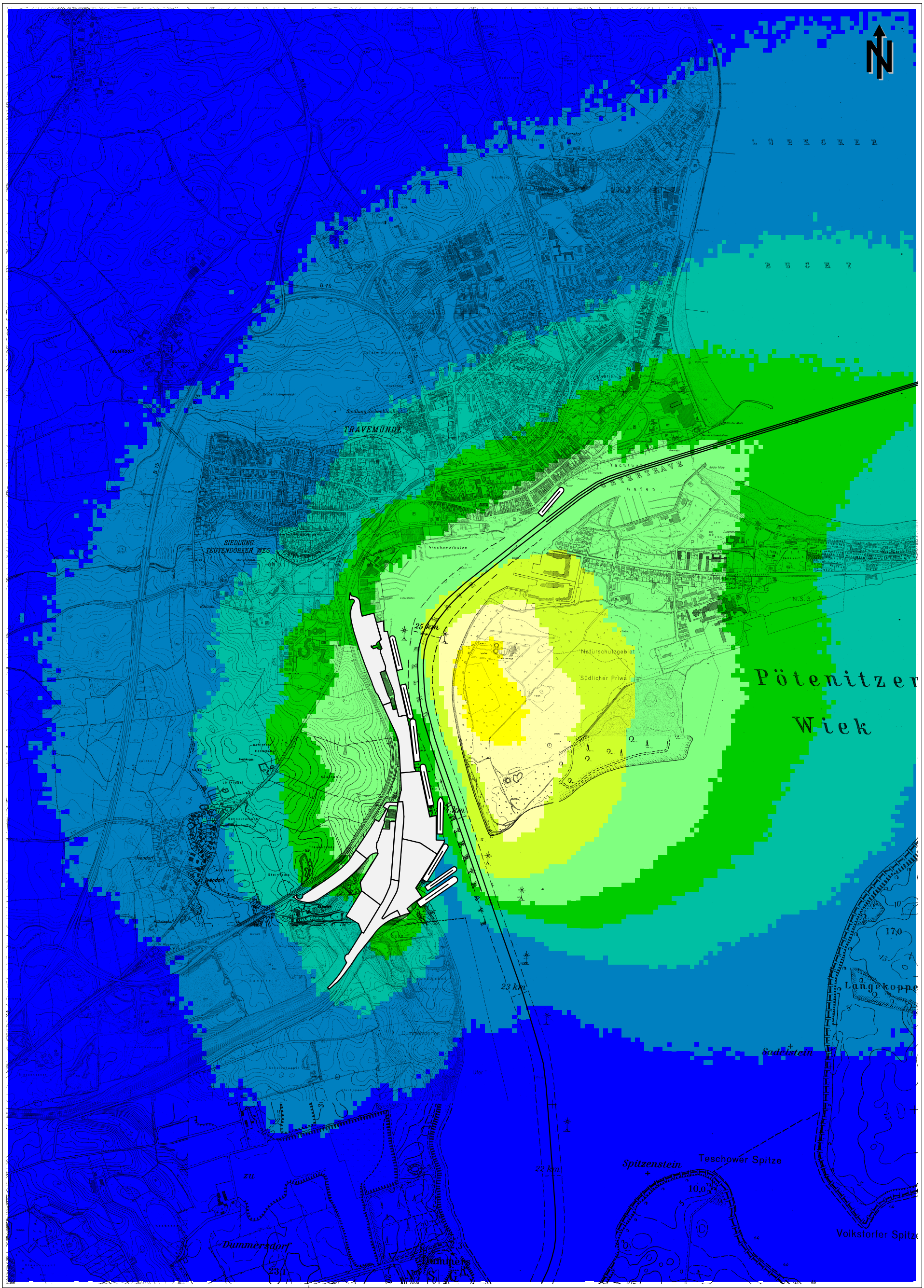
RL121010_11_SO2.cna, 09/2004

A8.1.3: Additional SO_2 Pollution (Annual Average Value J00)

Actual Scenario: Decrease by Reduction Concept 1a

Polluter Group: Shipping (including In-Port-Activities)

> 0.0 %	> 50.0 %
> 10.0 %	> 60.0 %
> 20.0 %	> 70.0 %
> 30.0 %	> 80.0 %
> 40.0 %	> 90.0 %



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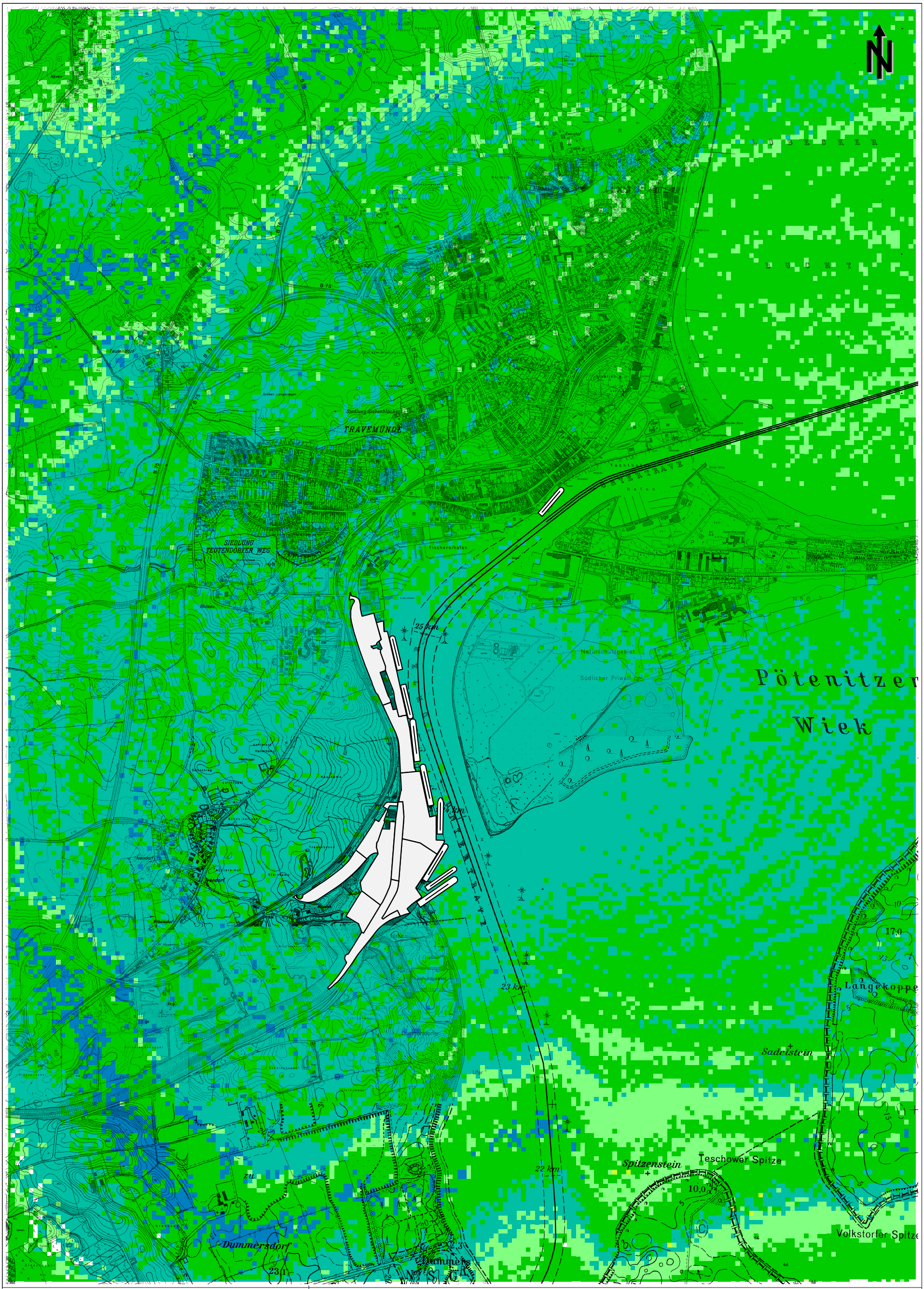
RL121013_SO2.cna, 09/2004

A8.1.4: Additional SO_2 Pollution (Annual Average Value J00)

Actual Scenario Considering Reduction Concept 2

Polluter Group: Shipping (including In-Port-Activities)

> 0.0 µg/m³	> 4.0 µg/m³
> 0.5 µg/m³	> 5.0 µg/m³
> 1.0 µg/m³	> 6.0 µg/m³
> 1.5 µg/m³	> 8.0 µg/m³
> 2.0 µg/m³	> 10.0 µg/m³
> 3.0 µg/m³	> 15.0 µg/m³



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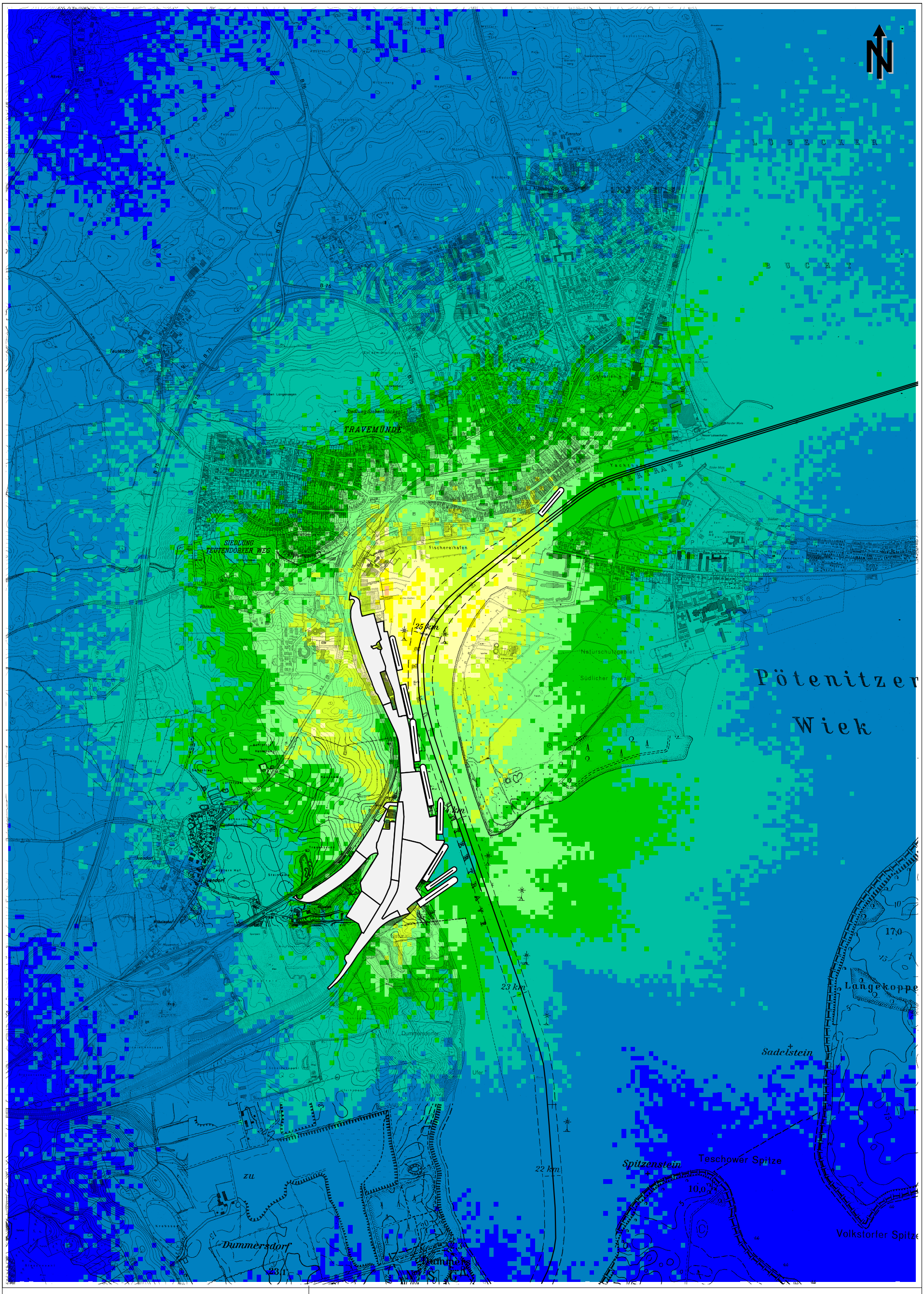
RL121010_13_SO2.cna, 09/2004

A8.1.5: Additional SO_2 Pollution (Annual Average Value J00)

Actual Scenario: Decrease by Reduction Concept 2

Polluter Group: Shipping (including In-Port-Activities)

> 0.0 %	> 50.0 %
> 10.0 %	> 60.0 %
> 20.0 %	> 70.0 %
> 30.0 %	> 80.0 %
> 40.0 %	> 90.0 %



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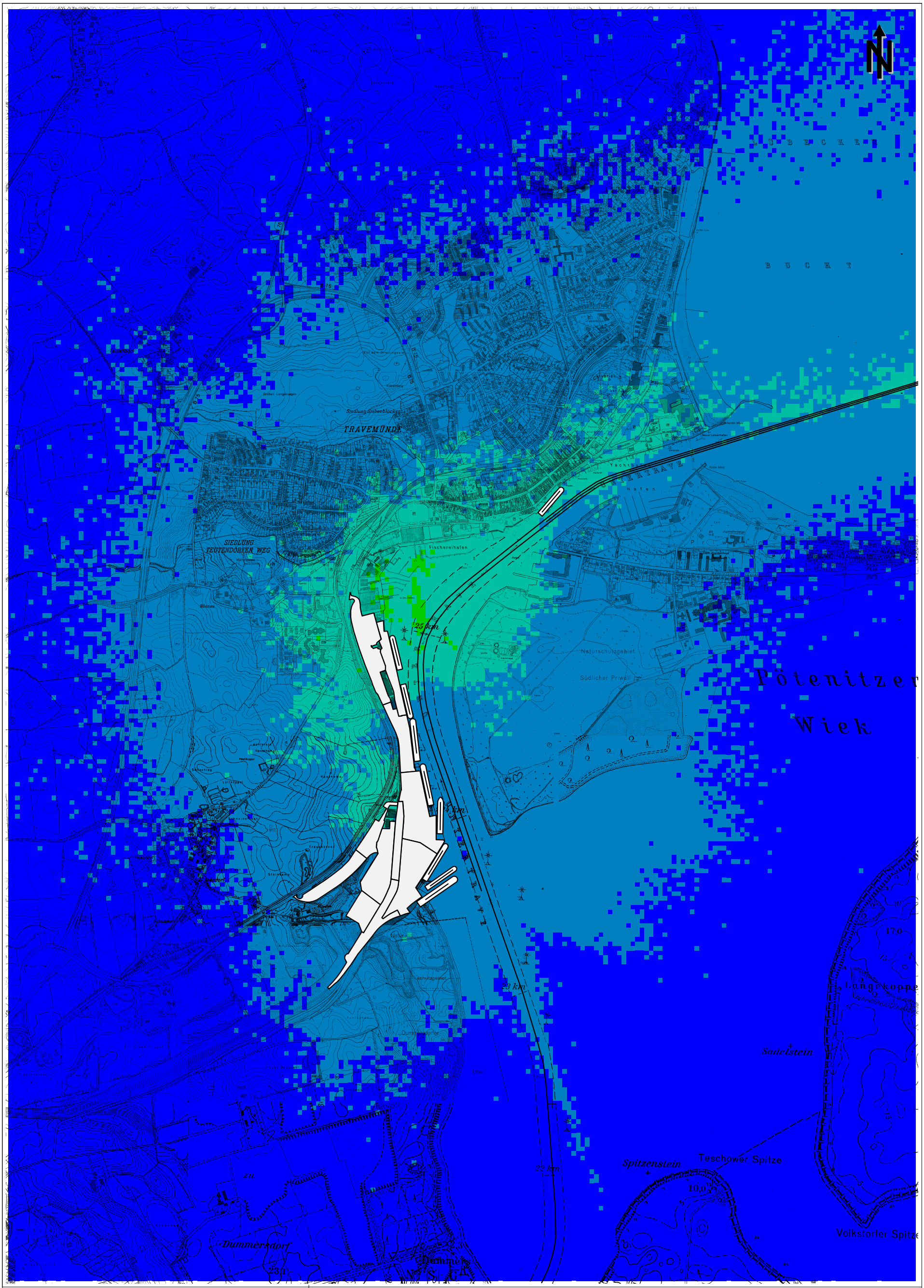
RL121010_SO2.cna, 09/2004

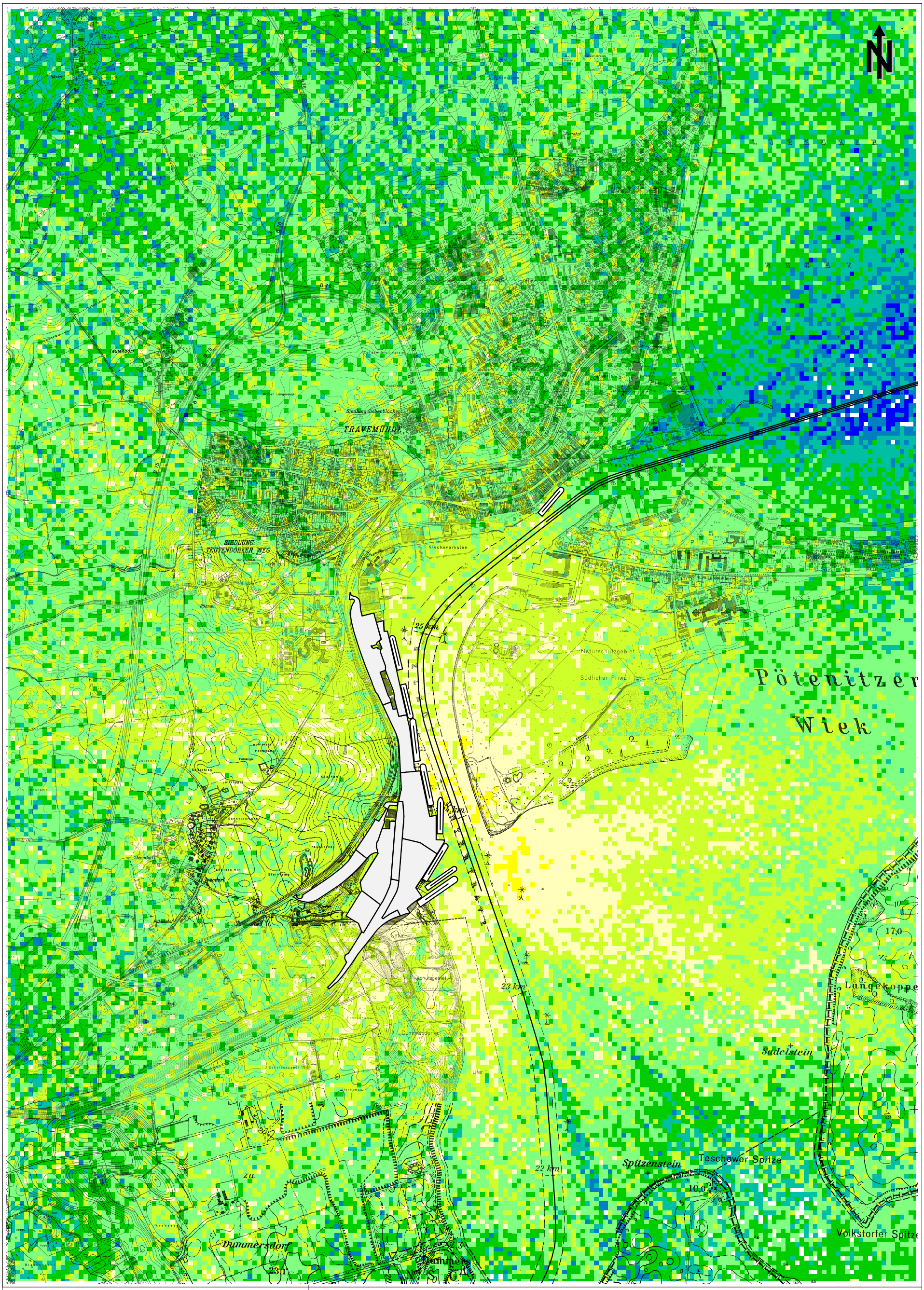
A8.2.1: Additional SO_2 Pollution (24 Hours Value T03)

Actual Scenario

Polluter Group: Shipping (including In-Port-Activities)

> 0.0 µg/m³	> 30.0 µg/m³
> 5.0 µg/m³	> 35.0 µg/m³
> 10.0 µg/m³	> 40.0 µg/m³
> 15.0 µg/m³	> 50.0 µg/m³
> 20.0 µg/m³	> 60.0 µg/m³
> 25.0 µg/m³	> 70.0 µg/m³


N
L Ü B E C K E R
B U C H T
TRAVEMÜNDE
Siedlung Siebenblöcken
SIEDLUNG TEUTENDORFER WEG
Fischereihafen
Yachthafen
Naturschutzgebiet
Südlicher Priwall
Pötenitzer Wiek
Langekoppe
Sadelstein
Spitzenstein
Teschower Spitze
Volkstorfer Spitze
Dummersdorf
Rosnau
Steinkamp
Hasselkamp
Kalkofen
Kuckuksberg
Großen Langensegen
Waldhusen
Wiesenberg
Wasserberg
Kiefernberg
Ziegelberg
Kalkberg
Schützenberg
Steinberg
Hasenberg
Hasselberg
Hasselkoppel
Kalkhang
Steinkamp
Trave
Nordost
Nordwest
Süd
Ufer
Naturschutzgebiet
Yachthafen
Nauer Lotsenhafen
Nörder Mole
Süder Mole
Leuchtturm
Tonnenlager
Kirche
Schule
Friedhof
Campingplatz
Sportplatz
Tennisplatz
Hafen
Ausgleichsfläche
Ausgleichsfläche Hasselkamp
Ausgleichsfläche Steinkamp
Ausgleichsfläche Trave
Ausgleichsfläche Dummersdorf
Ausgleichsfläche Dummersdorfer Ufer
Ausgleichsfläche Kalkofen
Ausgleichsfläche Kuckuksberg
Ausgleichsfläche Waldhusen
Ausgleichsfläche Wiesenberg
Ausgleichsfläche Wasserberg
Ausgleichsfläche Kiefernberg
Ausgleichsfläche Ziegelberg
Ausgleichsfläche Kalkberg
Ausgleichsfläche Schützenberg
Ausgleichsfläche Steinberg
Ausgleichsfläche Hasenberg
Ausgleichsfläche Hasselberg
Ausgleichsfläche Hasselkoppel
Ausgleichsfläche Kalkhang



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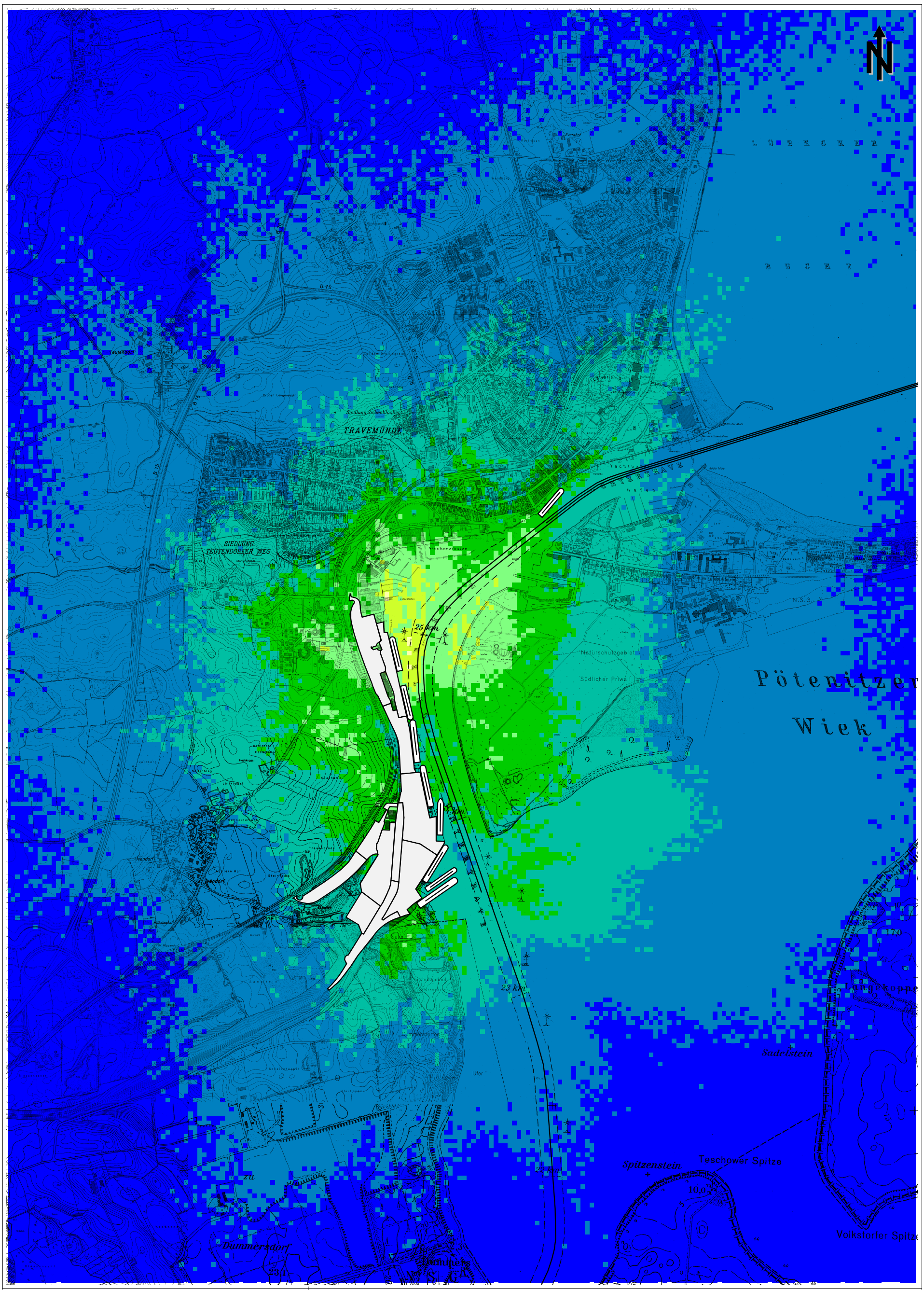
RL121010_11_SO2.cna, 09/2004

A8.2.3: Additional SO_2 Pollution (24 Hours Value T03)

Actual Scenario: Decrease by Reduction Concept 1a

Polluter Group: Shipping (including In-Port-Activities)

> 0.0 %	> 50.0 %
> 10.0 %	> 60.0 %
> 20.0 %	> 70.0 %
> 30.0 %	> 80.0 %
> 40.0 %	> 90.0 %



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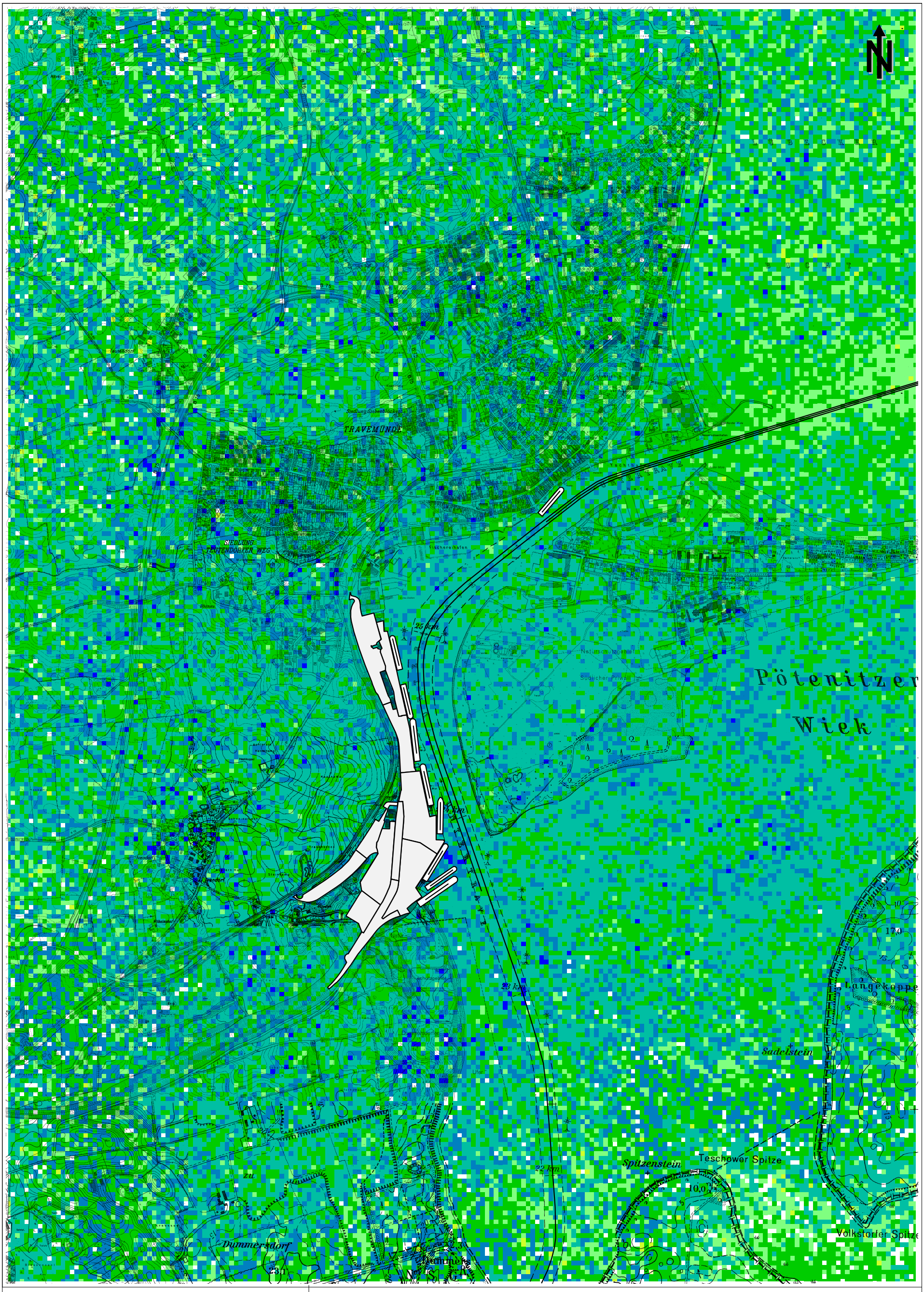
RL121013_SO2.cna, 09/2004

A8.2.4: Additional SO_2 Pollution (24 Hours Value T03)

Actual Scenario Considering Reduction Concept 2

Polluter Group: Shipping (including In-Port-Activities)

> 0.0 µg/m³	> 30.0 µg/m³
> 5.0 µg/m³	> 35.0 µg/m³
> 10.0 µg/m³	> 40.0 µg/m³
> 15.0 µg/m³	> 50.0 µg/m³
> 20.0 µg/m³	> 60.0 µg/m³
> 25.0 µg/m³	> 70.0 µg/m³



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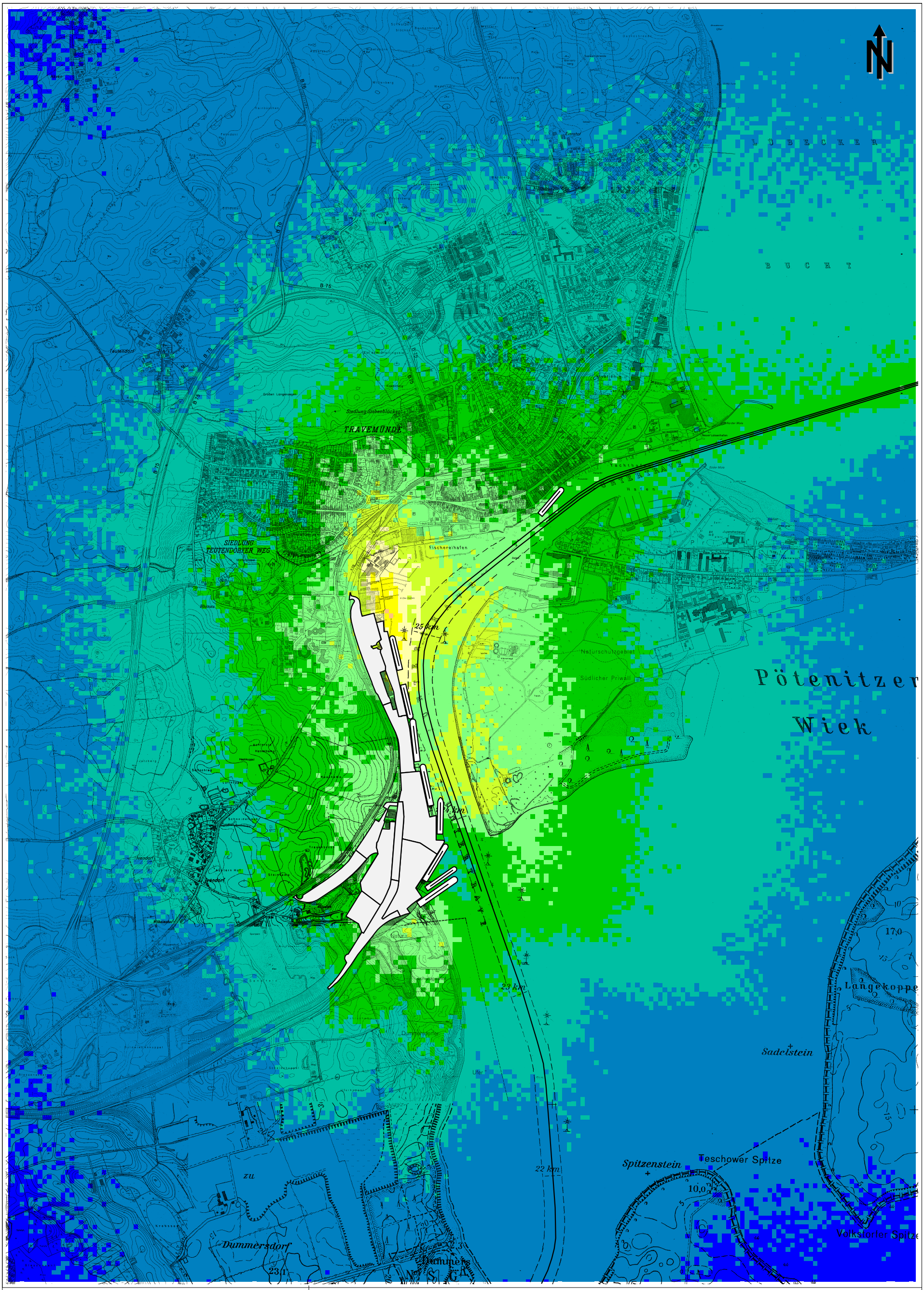
RL121010_13_SO2.cna, 09/2004

A8.2.5: Additional SO_2 Pollution (24 Hours Value T03)

Actual Scenario: Decrease by Reduction Concept 2

Polluter Group: Shipping (including In-Port-Activities)

> 0.0 %	> 50.0 %
> 10.0 %	> 60.0 %
> 20.0 %	> 70.0 %
> 30.0 %	> 80.0 %
> 40.0 %	> 90.0 %



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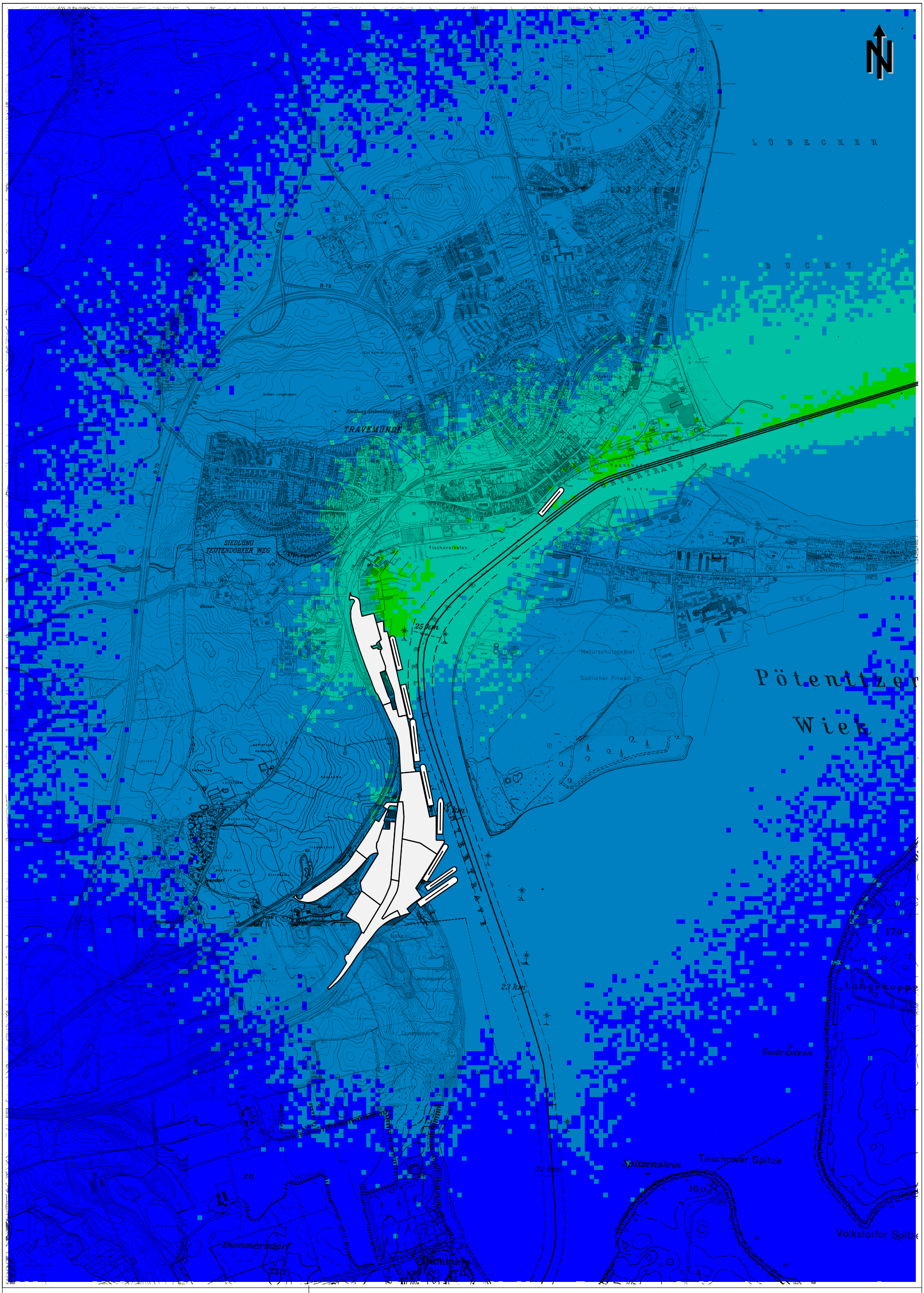
RL121010_SO2.cna, 09/2004

A8.3.1: Additional SO_2 Pollution (1 Hour Value S24)

Actual Scenario

Polluter Group: Shipping (including In-Port-Activities)

> 0.0 µg/m³	> 120.0 µg/m³
> 20.0 µg/m³	> 140.0 µg/m³
> 40.0 µg/m³	> 160.0 µg/m³
> 60.0 µg/m³	> 180.0 µg/m³
> 80.0 µg/m³	> 200.0 µg/m³
> 100.0 µg/m³	> 220.0 µg/m³



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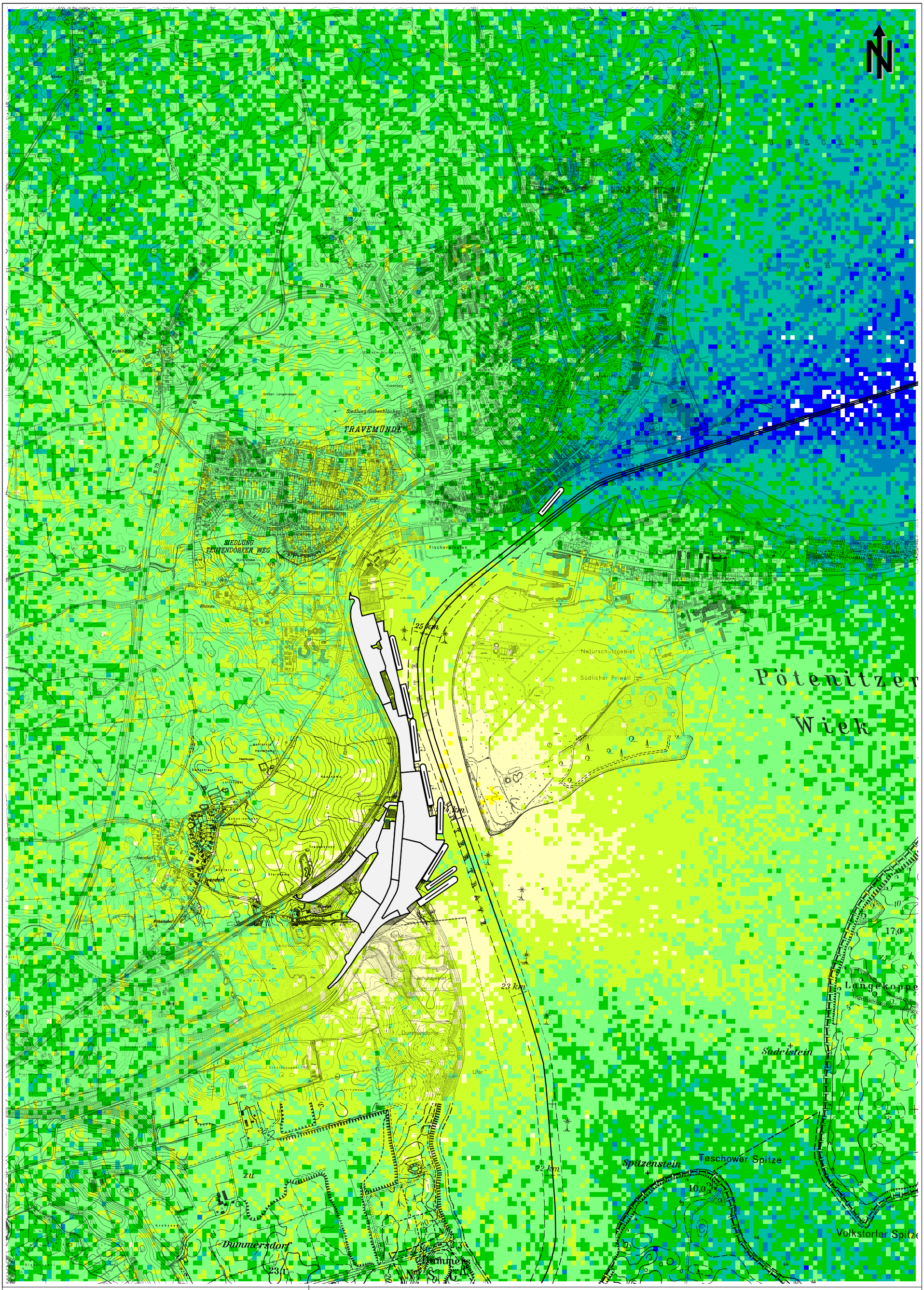
RL121011_SO2.cna, 09/2004

A8.3.2: Additional SO_2 Pollution (1 Hour Value S24)

Actual Scenario Considering Reduction Concept 1a

Polluter Group: Shipping (including In-Port-Activities)

> 0.0 µg/m³	> 120.0 µg/m³
> 20.0 µg/m³	> 140.0 µg/m³
> 40.0 µg/m³	> 160.0 µg/m³
> 60.0 µg/m³	> 180.0 µg/m³
> 80.0 µg/m³	> 200.0 µg/m³
> 100.0 µg/m³	> 220.0 µg/m³



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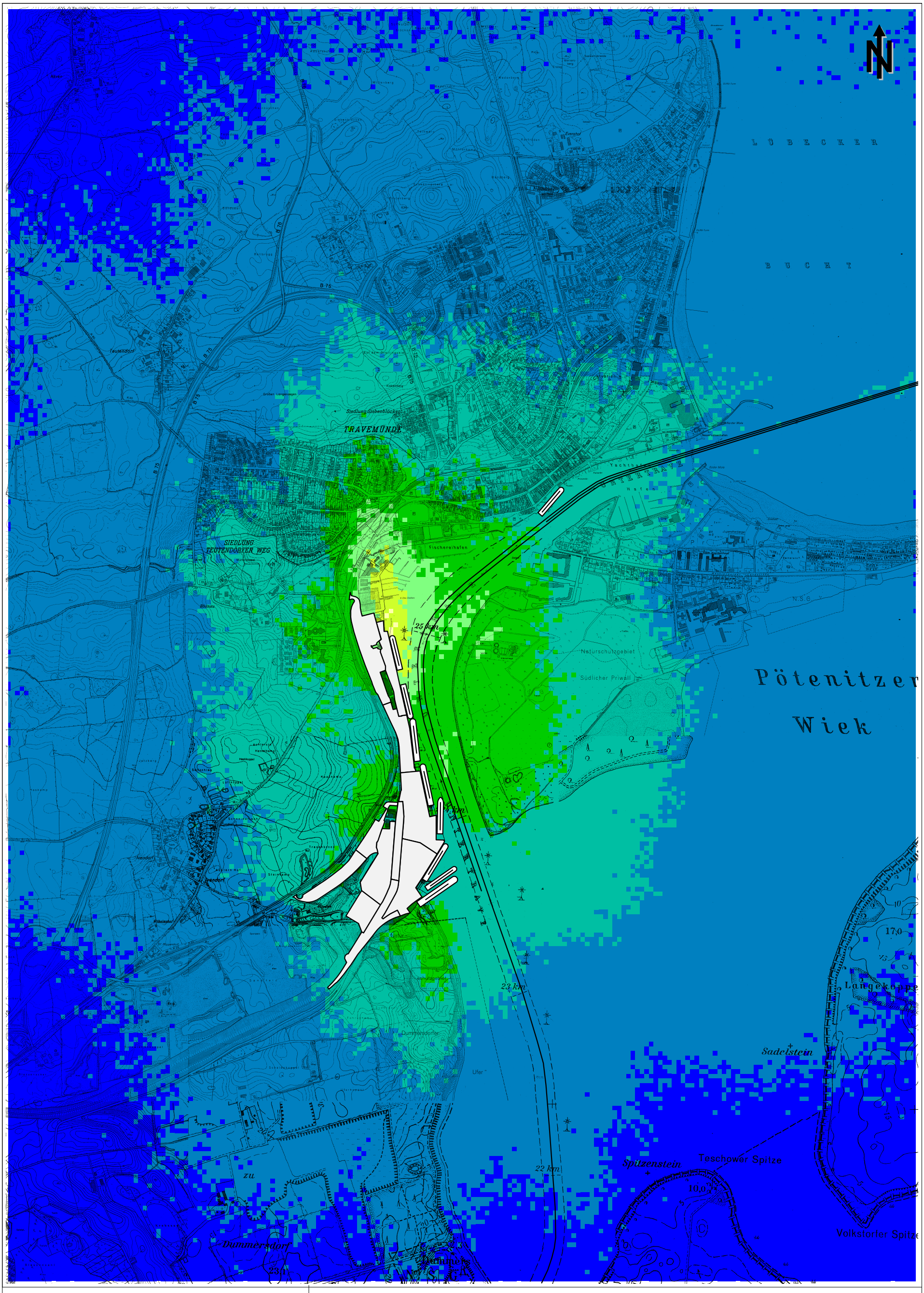
RL121010_11_SO2.cna, 09/2004

A8.3.3: Additional SO_2 Pollution (1 Hour Value S24)

Actual Scenario: Decrease by Reduction Concept 1a

Polluter Group: Shipping (including In-Port-Activities)

> 0.0 %	> 50.0 %
> 10.0 %	> 60.0 %
> 20.0 %	> 70.0 %
> 30.0 %	> 80.0 %
> 40.0 %	> 90.0 %



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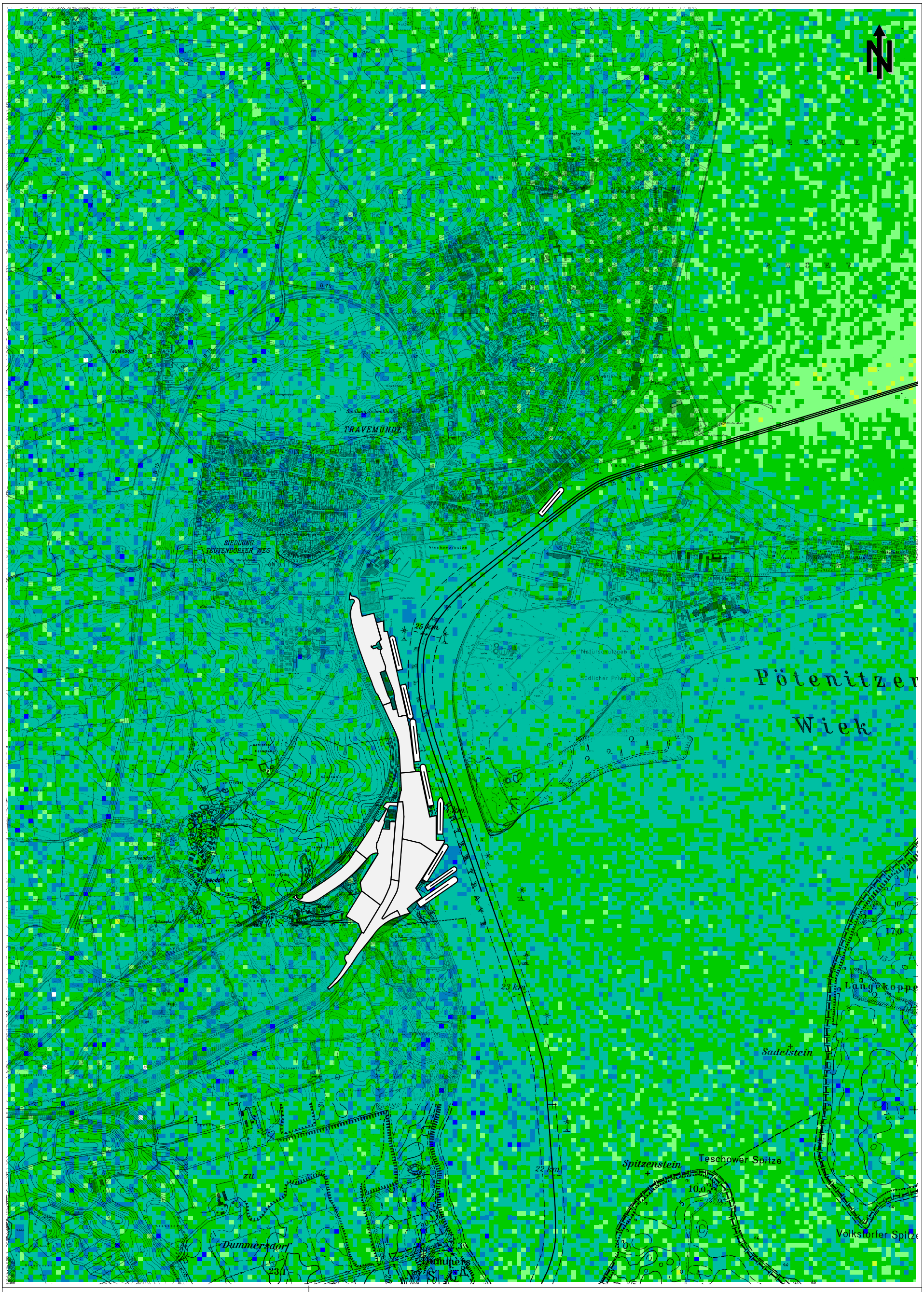
RL121013_SO2.cna, 09/2004

A8.3.4: Additional SO_2 Pollution (1 Hour Value S24)

Actual Scenario Considering Reduction Concept 2

Polluter Group: Shipping (including In-Port-Activities)

> 0.0 µg/m³	> 120.0 µg/m³
> 20.0 µg/m³	> 140.0 µg/m³
> 40.0 µg/m³	> 160.0 µg/m³
> 60.0 µg/m³	> 180.0 µg/m³
> 80.0 µg/m³	> 200.0 µg/m³
> 100.0 µg/m³	> 220.0 µg/m³



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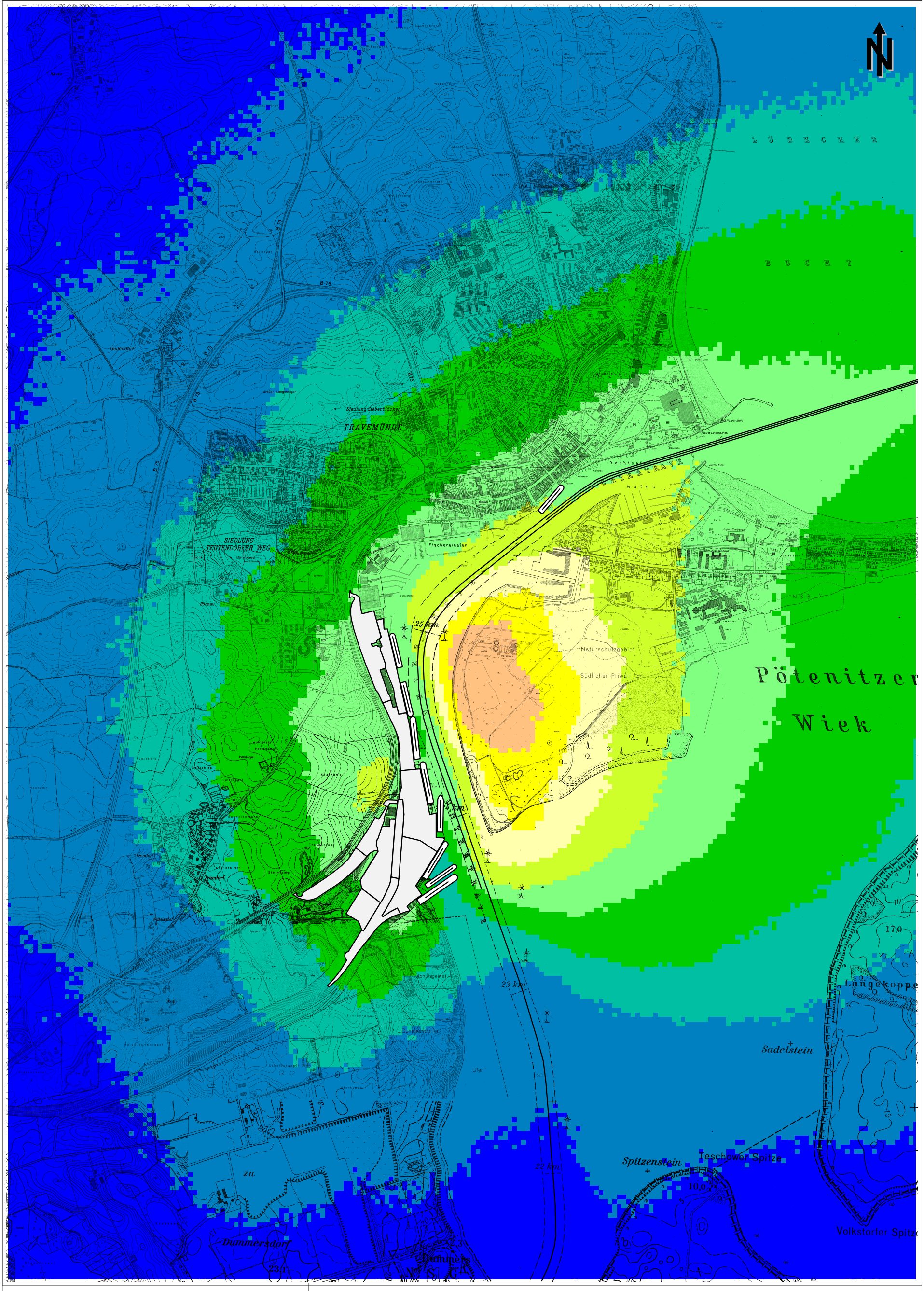
RL121010_13_SO2.cna, 09/2004

A8.3.5: Additional SO_2 Pollution (1 Hour Value S24)

Actual Scenario: Decrease by Reduction Concept 2

Polluter Group: Shipping (including In-Port-Activities)

> 0.0 %	> 50.0 %
> 10.0 %	> 60.0 %
> 20.0 %	> 70.0 %
> 30.0 %	> 80.0 %
> 40.0 %	> 90.0 %



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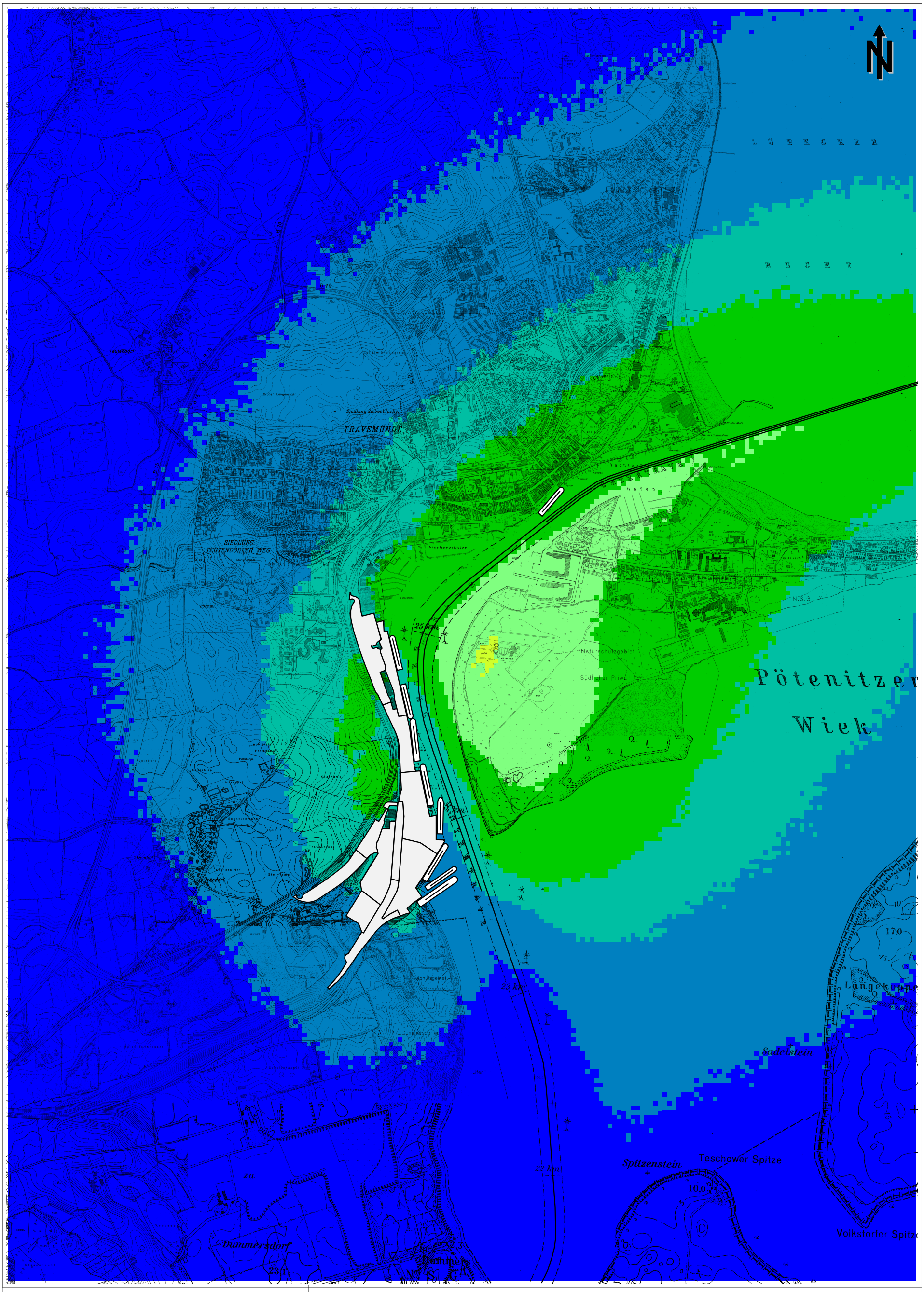
RL121010_SO2_G.cna, 09/2004

A8.4.1: Total SO_2 Pollution (Annual Average Value J00)

Actual Scenario

(Background Pollution: 3.5 µg/m³)

> 3.5 µg/m³	> 8.0 µg/m³
> 4.0 µg/m³	> 9.0 µg/m³
> 4.5 µg/m³	> 10.0 µg/m³
> 5.0 µg/m³	> 12.5 µg/m³
> 6.0 µg/m³	> 15.0 µg/m³
> 7.0 µg/m³	> 20.0 µg/m³



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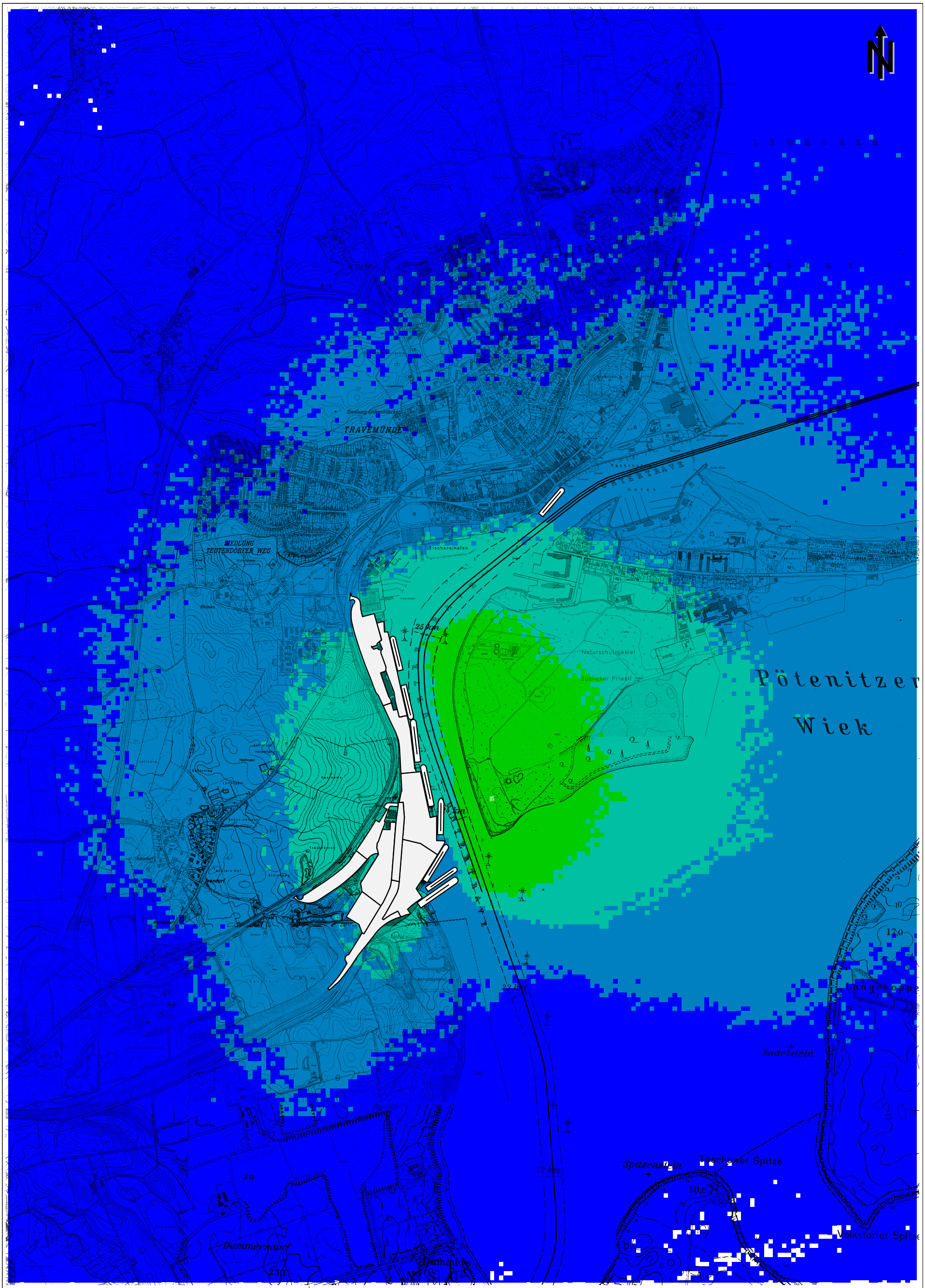
RL121011_SO2_G.cna, 09/2004

A8.4.2: Total SO_2 Pollution (Annual Average Value J00)

Actual Scenario Considering Reduction Concept 1a

(Background Pollution: 3.5 µg/m³)

> 3.5 µg/m³	> 8.0 µg/m³
> 4.0 µg/m³	> 9.0 µg/m³
> 4.5 µg/m³	> 10.0 µg/m³
> 5.0 µg/m³	> 12.5 µg/m³
> 6.0 µg/m³	> 15.0 µg/m³
> 7.0 µg/m³	> 20.0 µg/m³



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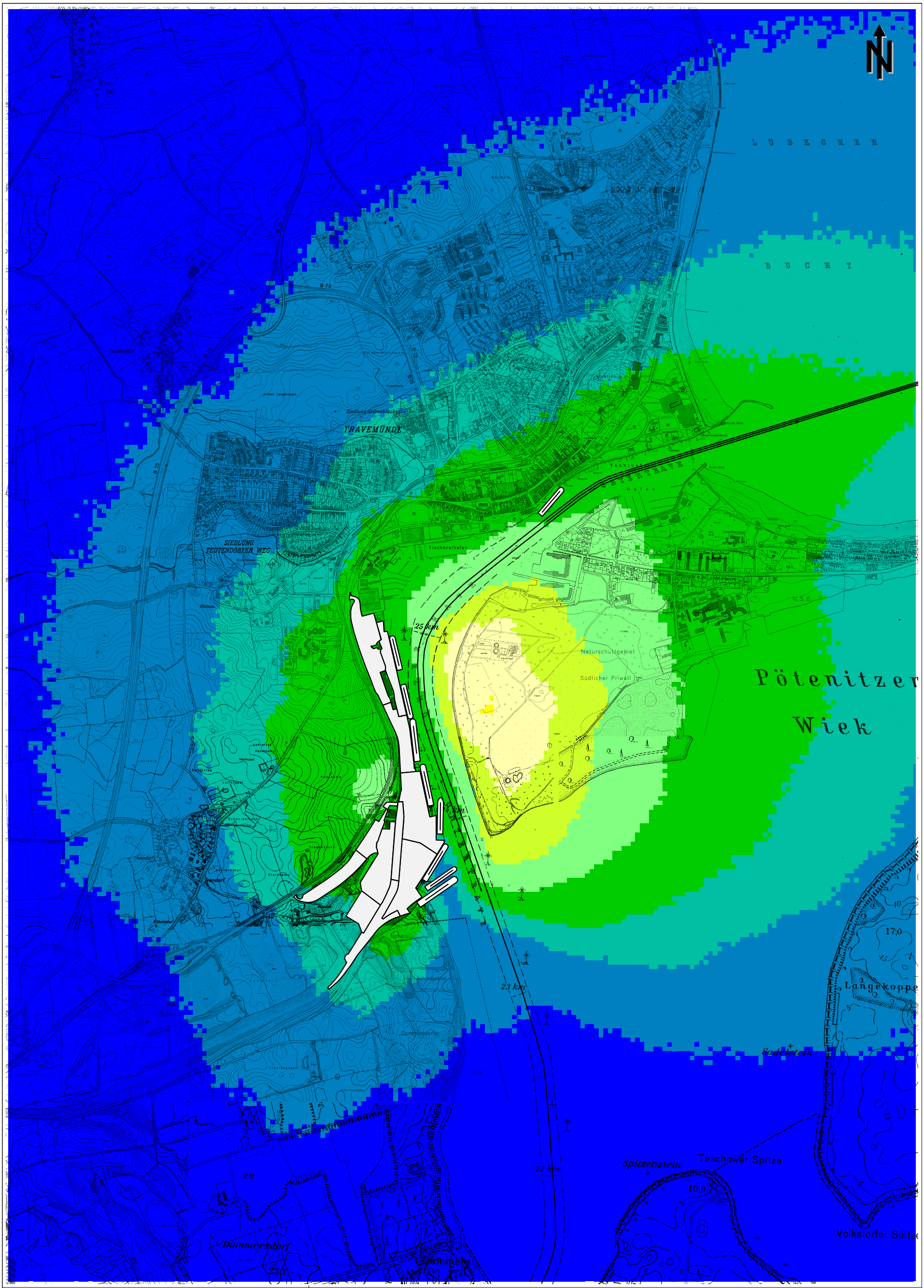
RL121010_11_SO2_G.cna, 09/2004

A8.4.3: Total SO_2 Pollution (Annual Average Value J00)

Actual Scenario: Decrease by
Reduction Concept 1a

(Background Pollution: 3.5 µg/m³)

> 0.0 %	> 50.0 %
> 10.0 %	> 60.0 %
> 20.0 %	> 70.0 %
> 30.0 %	> 80.0 %
> 40.0 %	> 90.0 %



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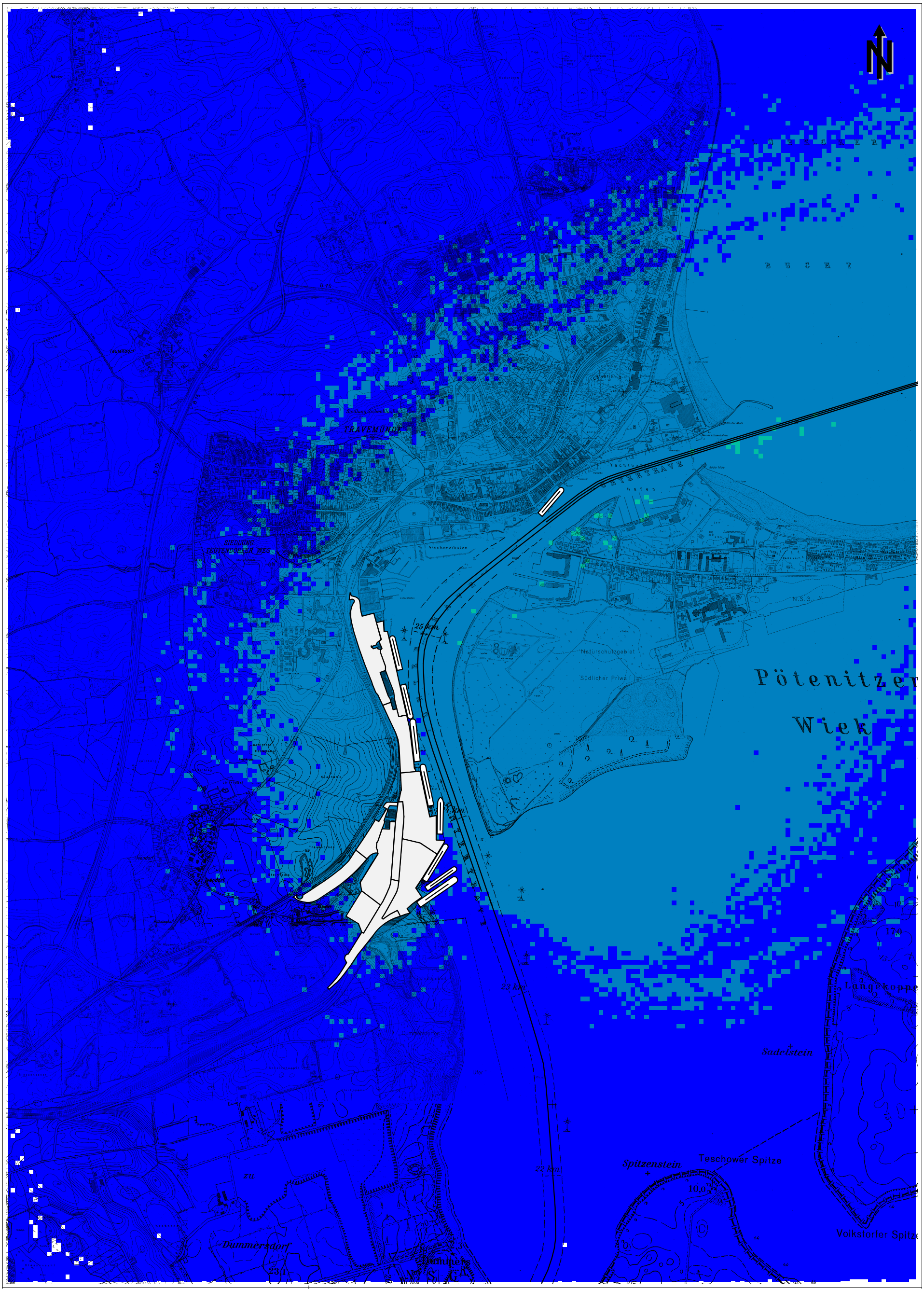
RL121013_SO2_G.cna, 09/2004

A8.4.4: Total SO_2 Pollution (Annual Average Value J00)

Actual Scenario Considering Reduction Concept 2

(Background Pollution: 3.5 µg/m³)

> 3.5 µg/m³	> 8.0 µg/m³
> 4.0 µg/m³	> 9.0 µg/m³
> 4.5 µg/m³	> 10.0 µg/m³
> 5.0 µg/m³	> 12.5 µg/m³
> 6.0 µg/m³	> 15.0 µg/m³
> 7.0 µg/m³	> 20.0 µg/m³



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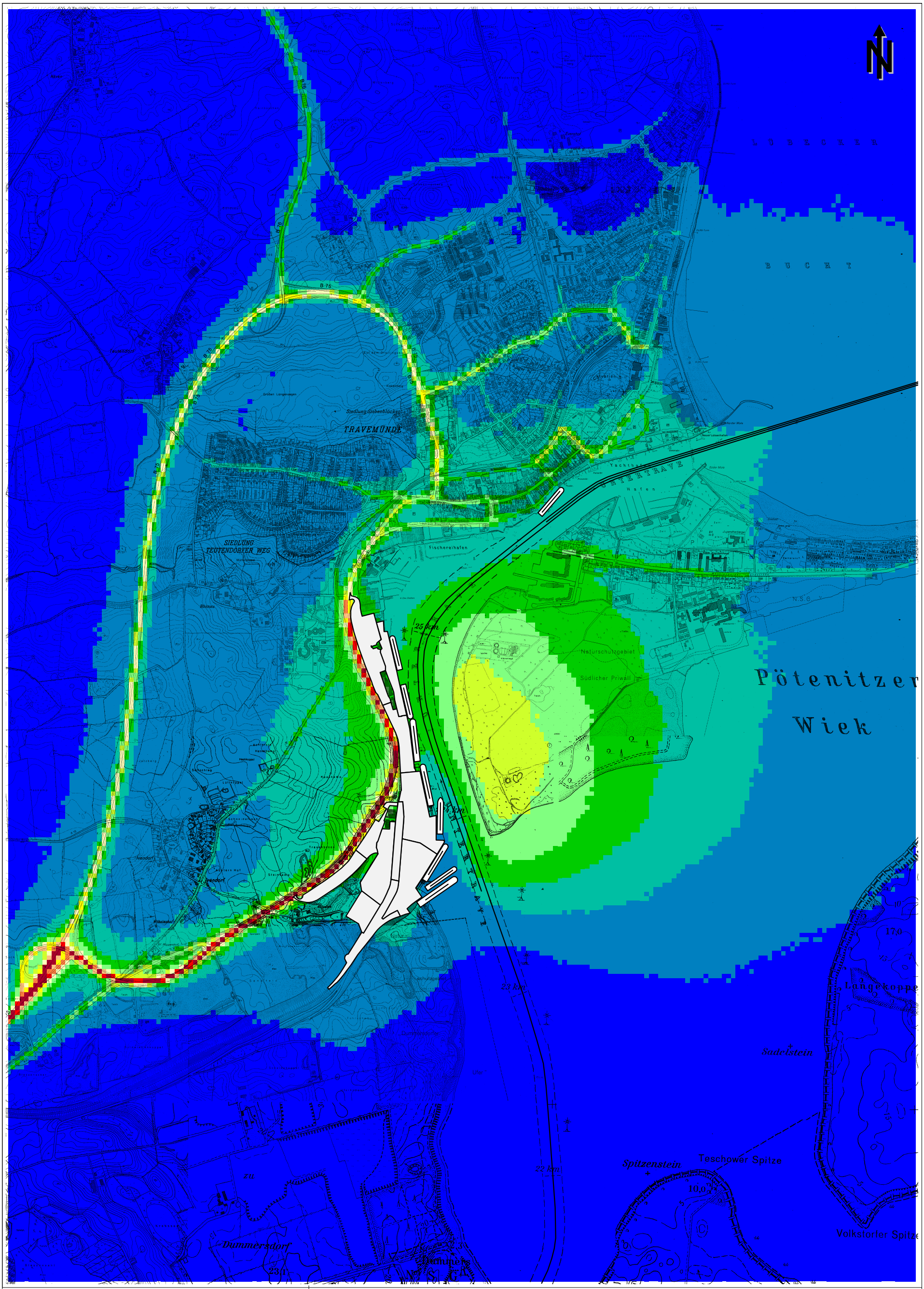
RL121010_13_SO2_G.cna, 09/2004

A8.4.5: Total SO_2 Pollution (Annual Average Value J00)

Actual Scenario: Decrease by Reduction Concept 2

(Background Pollution: 3.5 µg/m³)

> 0.0 %	> 50.0 %
> 10.0 %	> 60.0 %
> 20.0 %	> 70.0 %
> 30.0 %	> 80.0 %
> 40.0 %	> 90.0 %



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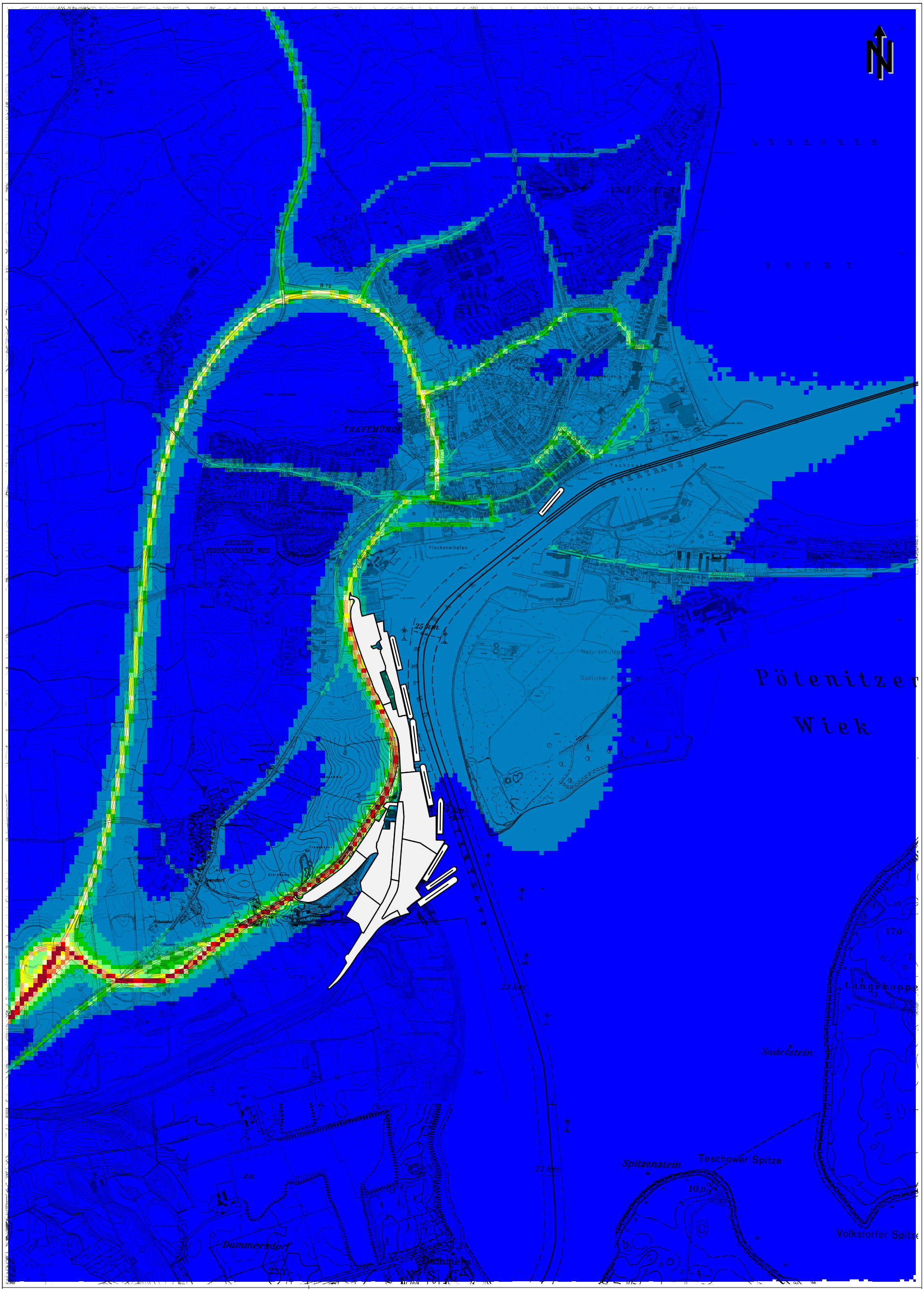
RL121010_NO2.cna, 09/2004

A8.5.1: Total NO_2 Pollution (Annual Average Value J00)

Actual Scenario

(Background Pollution: 17.8 µg/m³)

> 18.0 µg/m³	> 30.0 µg/m³
> 20.0 µg/m³	> 32.0 µg/m³
> 22.0 µg/m³	> 34.0 µg/m³
> 24.0 µg/m³	> 36.0 µg/m³
> 26.0 µg/m³	> 38.0 µg/m³
> 28.0 µg/m³	> 40.0 µg/m³



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Scale 1 : 20.000

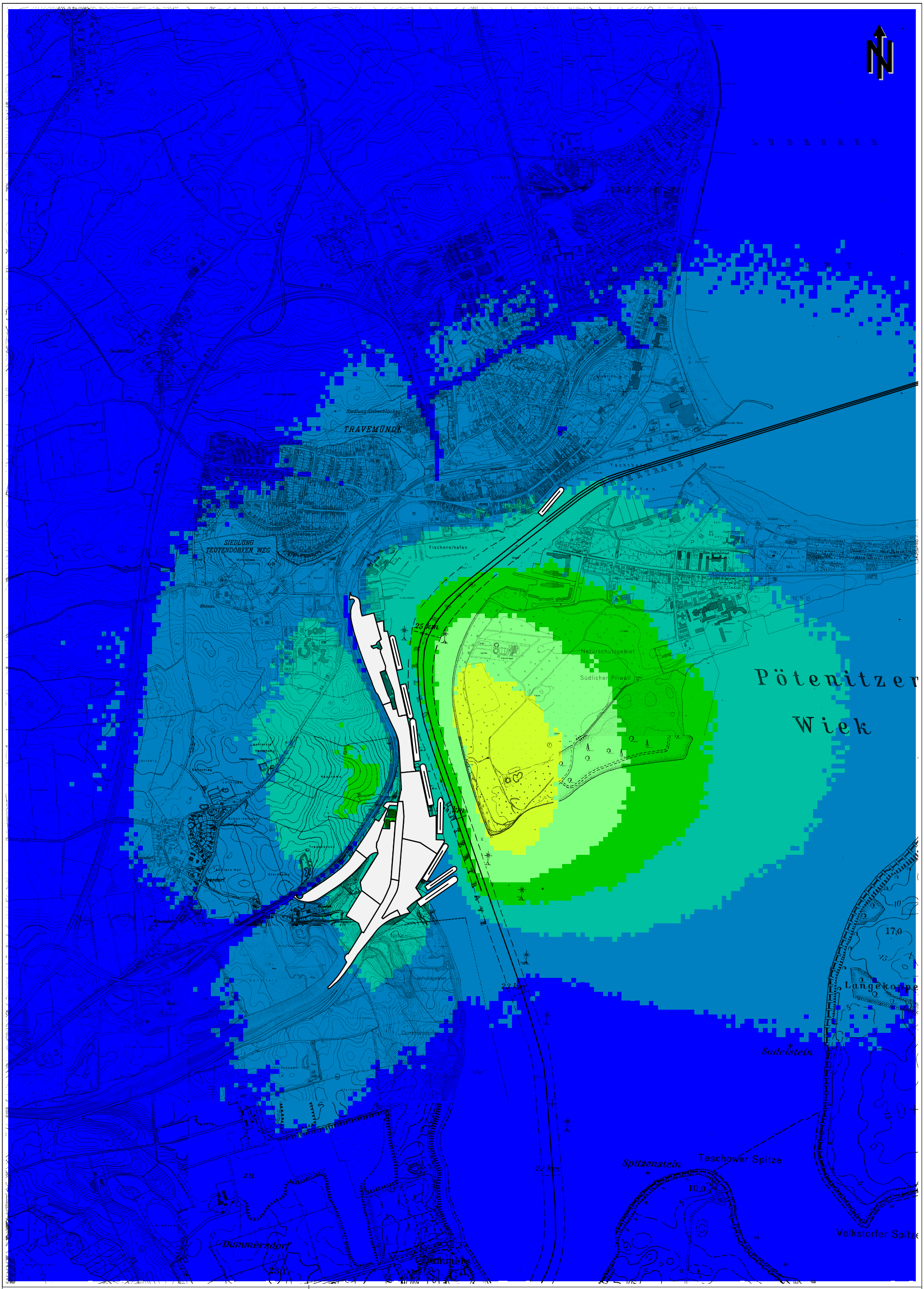
RL121011_NO2.cna, 09/2004

A8.5.2: Total NO_2 Pollution (Annual Average Value J00)

Actual Scenario Considering Reduction Concept 1a

(Background Pollution: 17.8 µg/m³)

> 18.0 µg/m³	> 30.0 µg/m³
> 20.0 µg/m³	> 32.0 µg/m³
> 22.0 µg/m³	> 34.0 µg/m³
> 24.0 µg/m³	> 36.0 µg/m³
> 26.0 µg/m³	> 38.0 µg/m³
> 28.0 µg/m³	> 40.0 µg/m³



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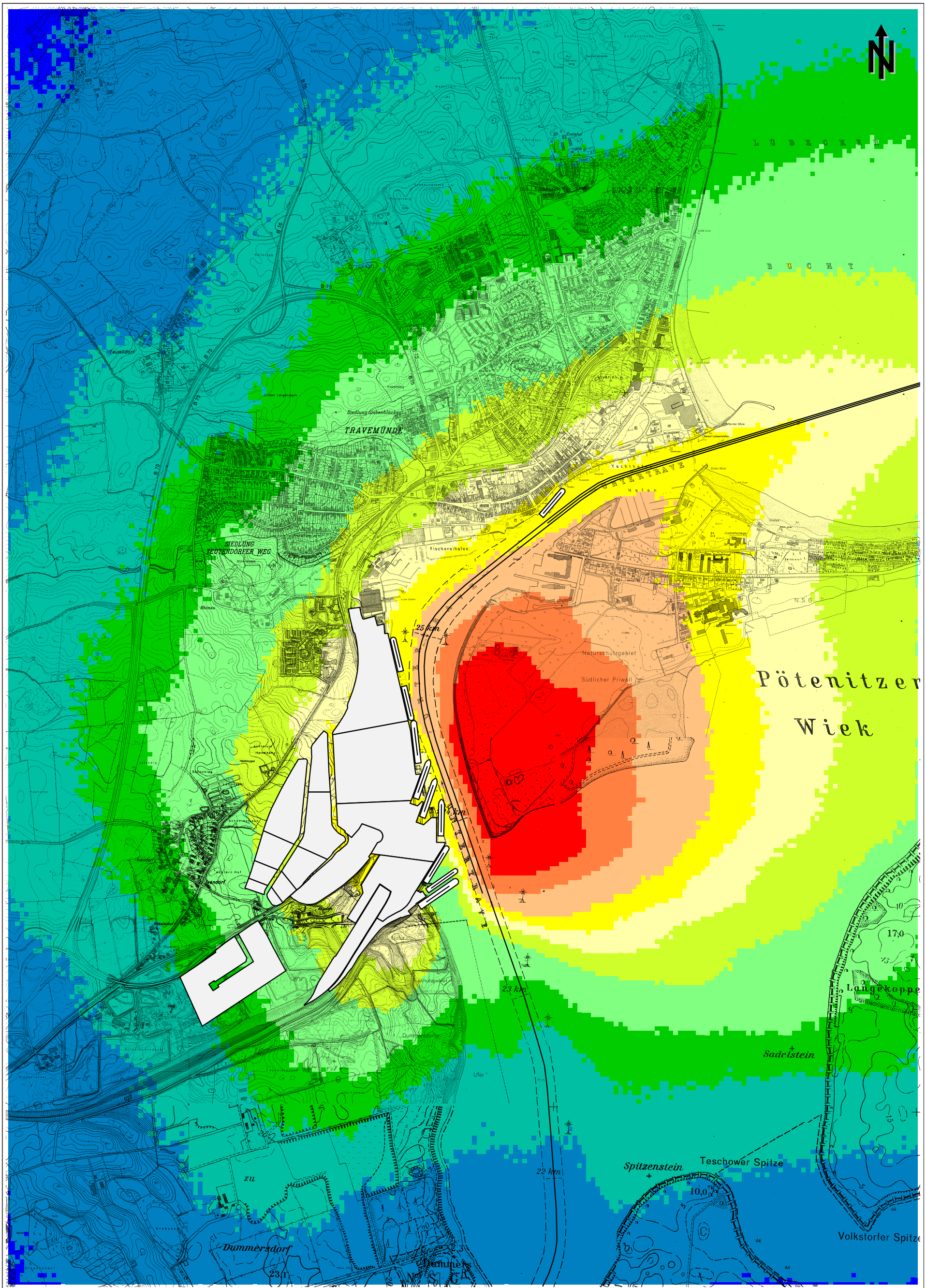
RL121010_11_NO2.cna, 09/2004

A8.5.3: Total NO_2 Pollution (Annual Average Value J00)

Actual Scenario: Decrease by Reduction Concept 1a

(Background Pollution: 17.8 µg/m³)

> 0.0 %	> 25.0 %
> 5.0 %	> 30.0 %
> 10.0 %	> 35.0 %
> 15.0 %	> 40.0 %
> 20.0 %	> 45.0 %



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Scale 1 : 20.000

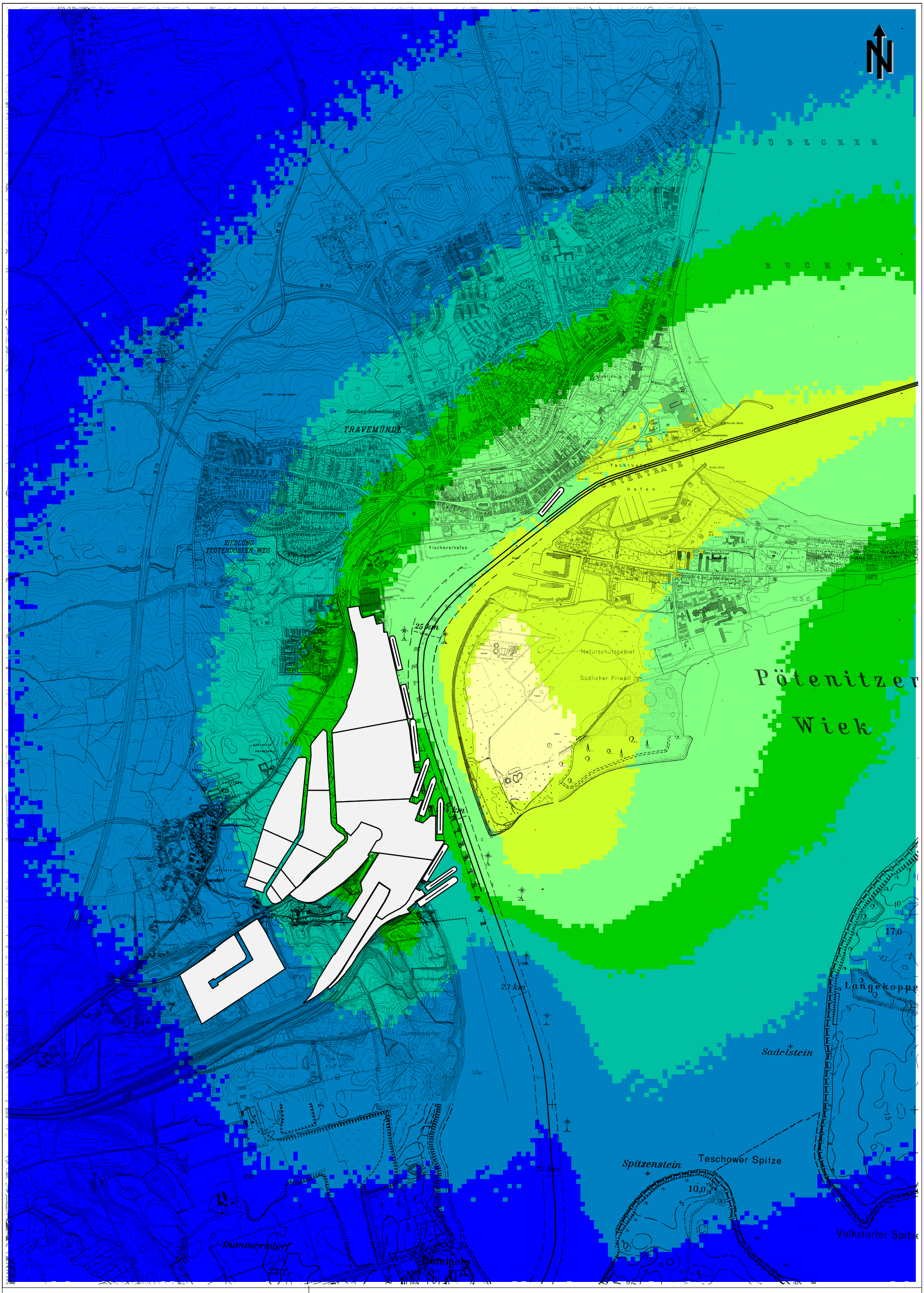
RL221010_SO2.cna, 09/2004

A9.1.1: Additional SO_2 Pollution (Annual Average Value J00)

Forecast Scenario

Polluter Group: Shipping (including In-Port-Activities)

> 0.0 µg/m³	> 4.0 µg/m³
> 0.5 µg/m³	> 5.0 µg/m³
> 1.0 µg/m³	> 6.0 µg/m³
> 1.5 µg/m³	> 8.0 µg/m³
> 2.0 µg/m³	> 10.0 µg/m³
> 3.0 µg/m³	> 15.0 µg/m³



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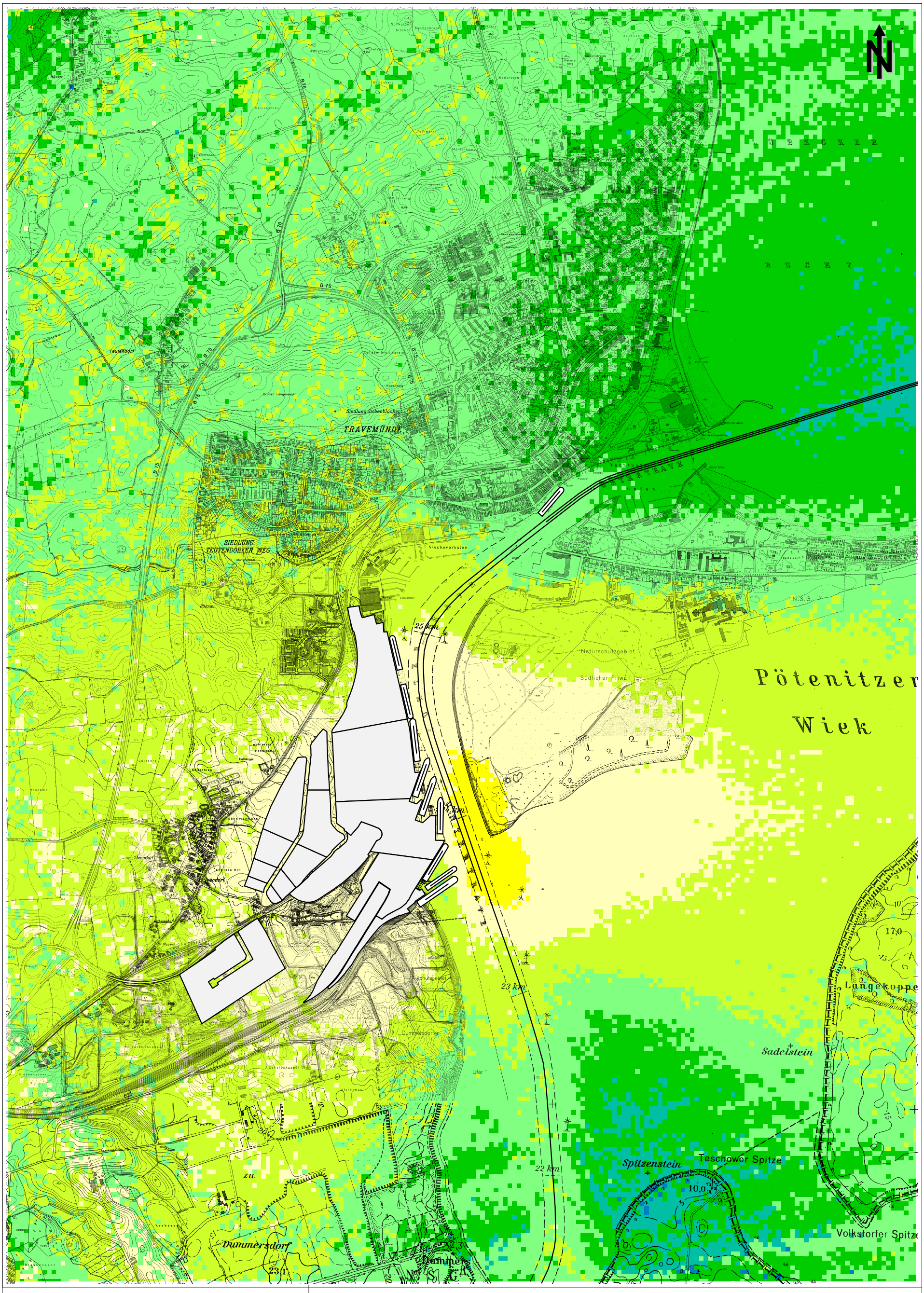
RL221011_SO2.cna, 09/2004

A9.1.2: Additional SO_2 Pollution (Annual Average Value J00)

Forecast Scenario Considering Reduction Concept 1a

Polluter Group: Shipping (including In-Port-Activities)

> 0.0 µg/m³	> 4.0 µg/m³
> 0.5 µg/m³	> 5.0 µg/m³
> 1.0 µg/m³	> 6.0 µg/m³
> 1.5 µg/m³	> 8.0 µg/m³
> 2.0 µg/m³	> 10.0 µg/m³
> 3.0 µg/m³	> 15.0 µg/m³



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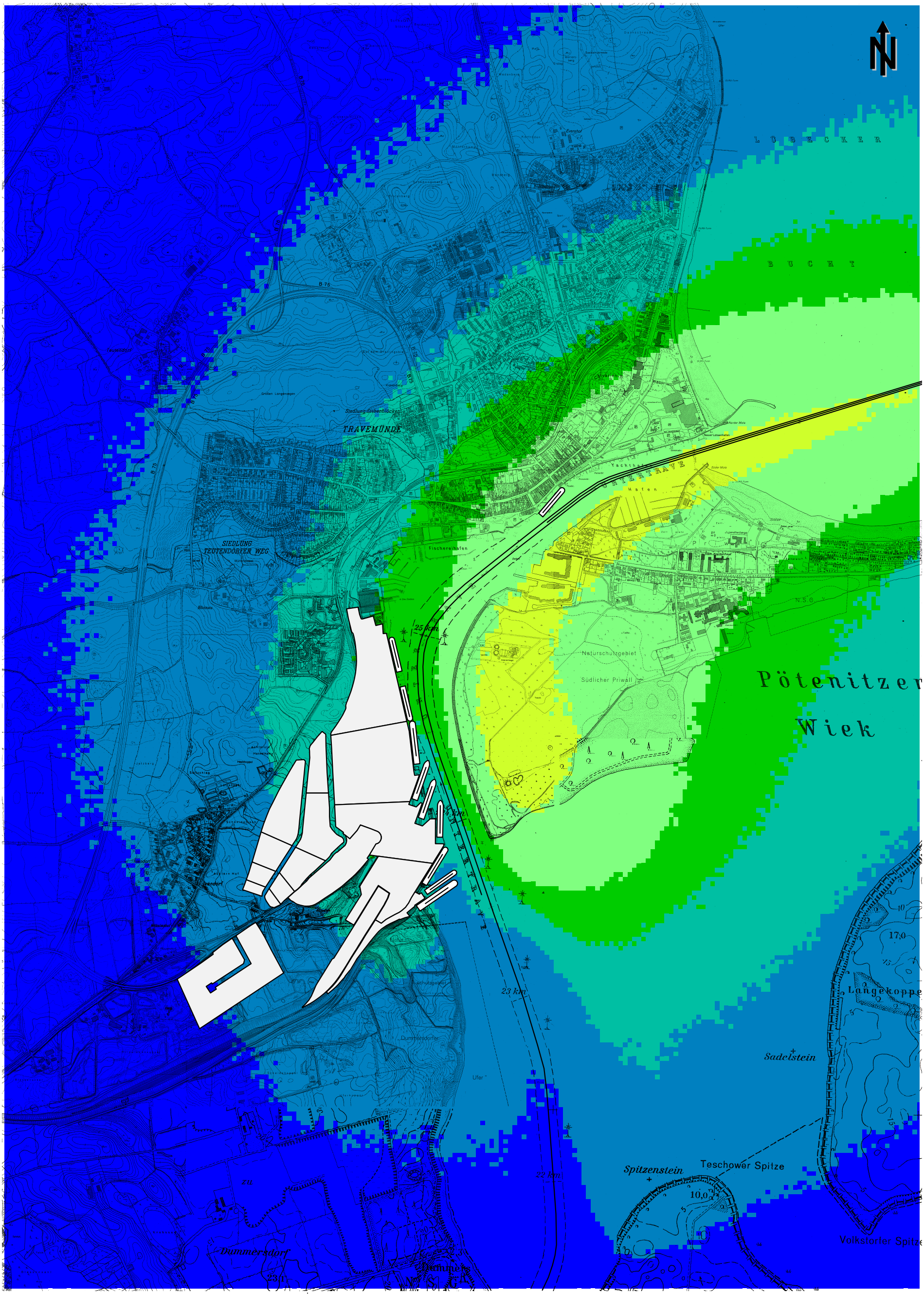
RL221010_11_SO2.cna, 09/2004

A9.1.3: Additional SO_2 Pollution (Annual Average Value J00)

Forecast Scenario: Decrease by Reduction Concept 1a

Polluter Group: Shipping (including In-Port-Activities)

> 0.0 %	> 50.0 %
> 10.0 %	> 60.0 %
> 20.0 %	> 70.0 %
> 30.0 %	> 80.0 %
> 40.0 %	> 90.0 %



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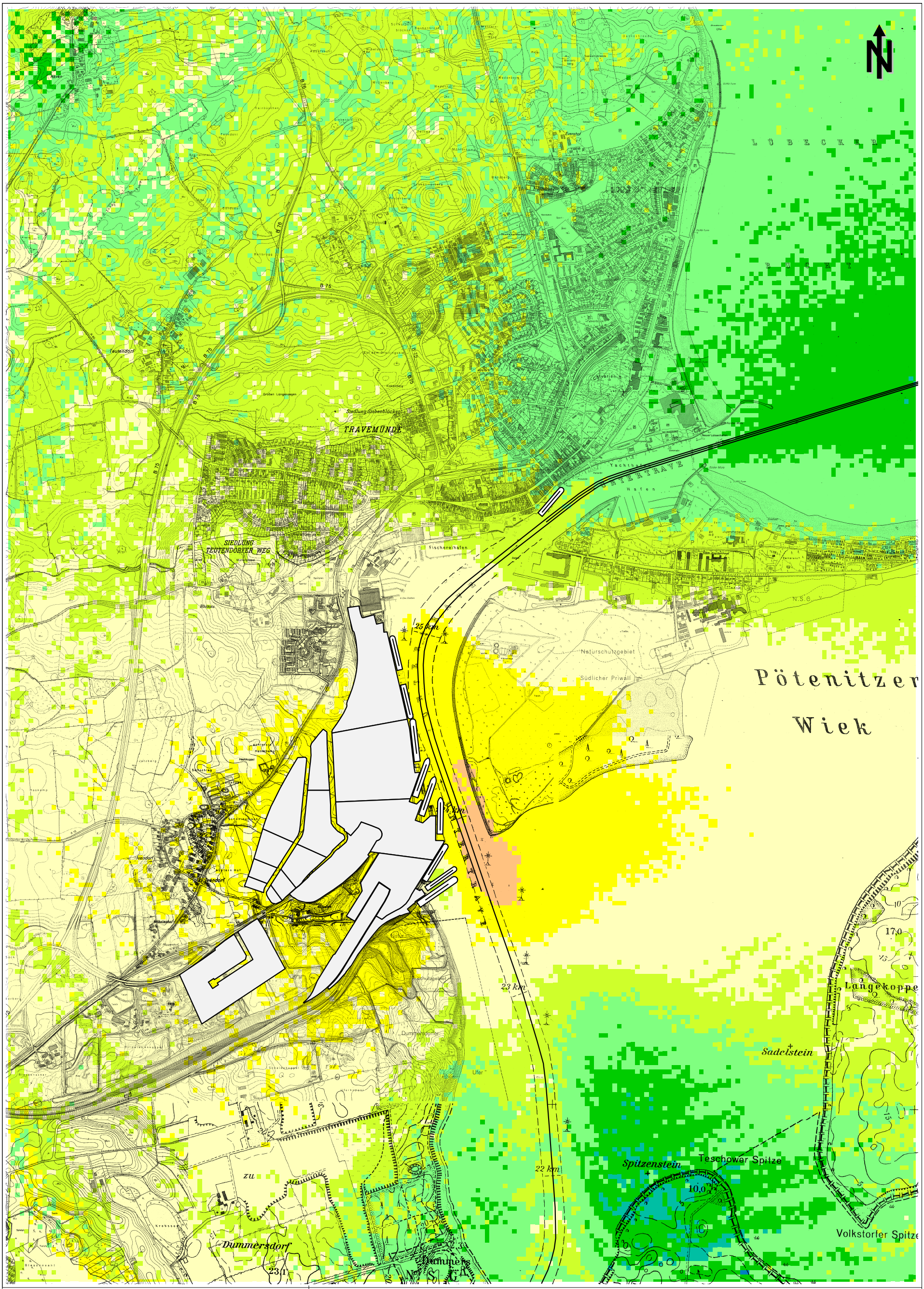
RL221014_SO2.cna, 09/2004

A9.1.4: Additional SO_2 Pollution (Annual Average Value J00)

Forecast Scenario Considering Reduction Concept 3

Polluter Group: Shipping (including In-Port-Activities)

> 0.0 µg/m³	> 4.0 µg/m³
> 0.5 µg/m³	> 5.0 µg/m³
> 1.0 µg/m³	> 6.0 µg/m³
> 1.5 µg/m³	> 8.0 µg/m³
> 2.0 µg/m³	> 10.0 µg/m³
> 3.0 µg/m³	> 15.0 µg/m³



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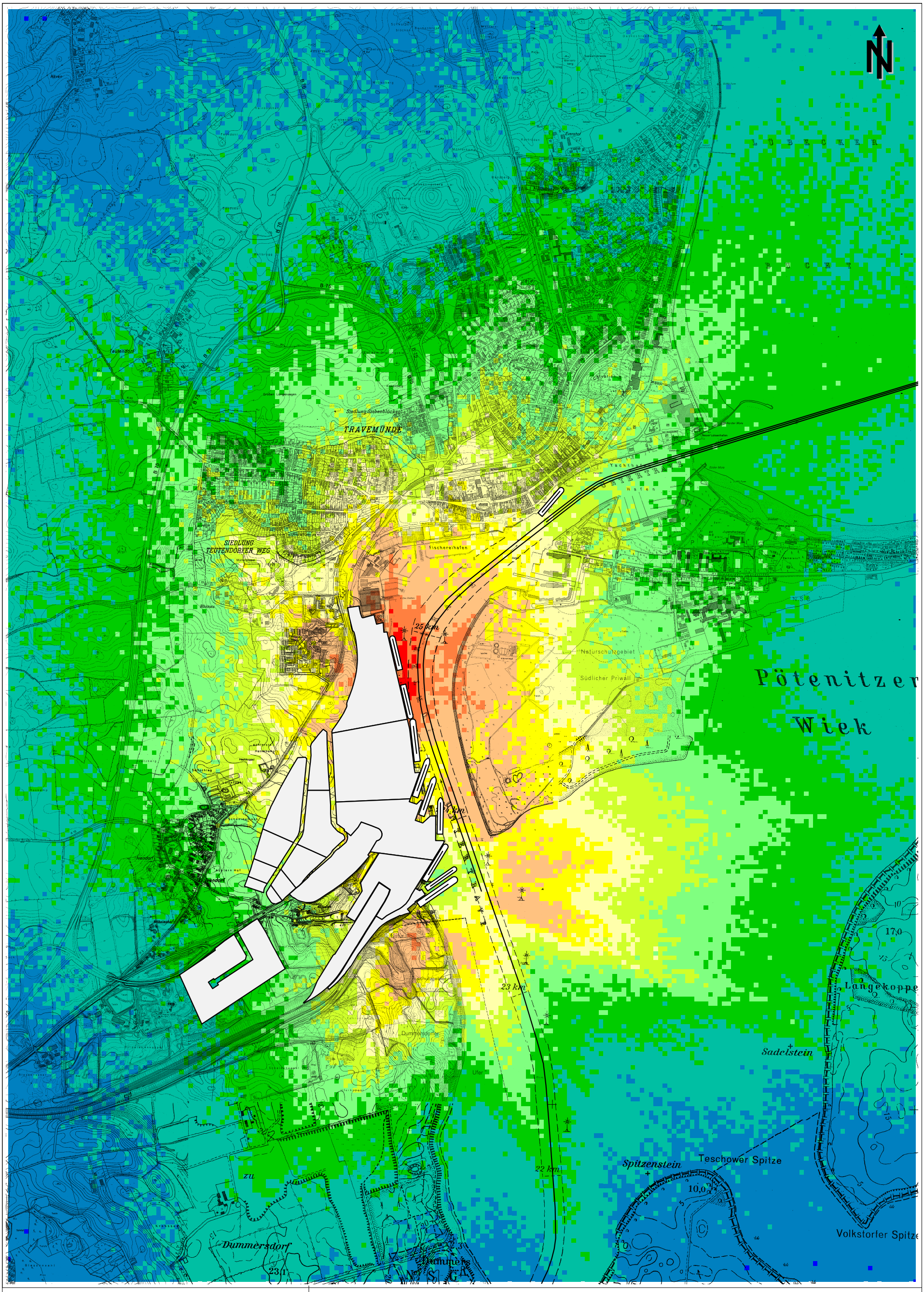
RL221010_14_SO2.cna, 09/2004

A9.1.5: Additional SO_2 Pollution (Annual Average Value J00)

Forecast Scenario: Decrease by Reduction Concept 3

Polluter Group: Shipping (including In-Port-Activities)

> 0.0 %	> 50.0 %
> 10.0 %	> 60.0 %
> 20.0 %	> 70.0 %
> 30.0 %	> 80.0 %
> 40.0 %	> 90.0 %



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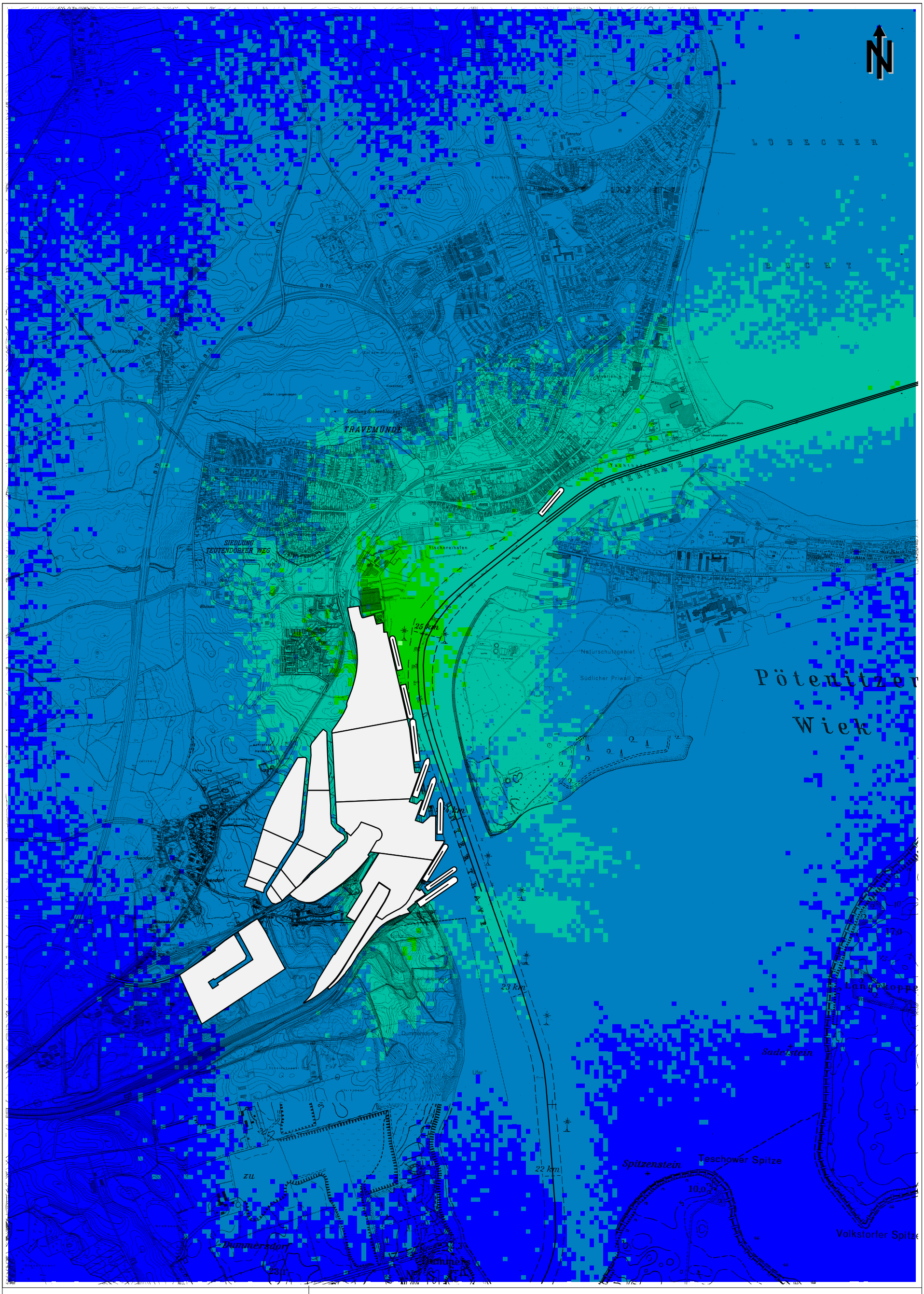
RL221010_SO2.cna, 09/2004

A9.2.1: Additional SO_2 Pollution (24 Hours Value T03)

Forecast Scenario

Polluter Group: Shipping (including In-Port-Activities)

> 0.0 µg/m³	> 30.0 µg/m³
> 5.0 µg/m³	> 35.0 µg/m³
> 10.0 µg/m³	> 40.0 µg/m³
> 15.0 µg/m³	> 50.0 µg/m³
> 20.0 µg/m³	> 60.0 µg/m³
> 25.0 µg/m³	> 70.0 µg/m³



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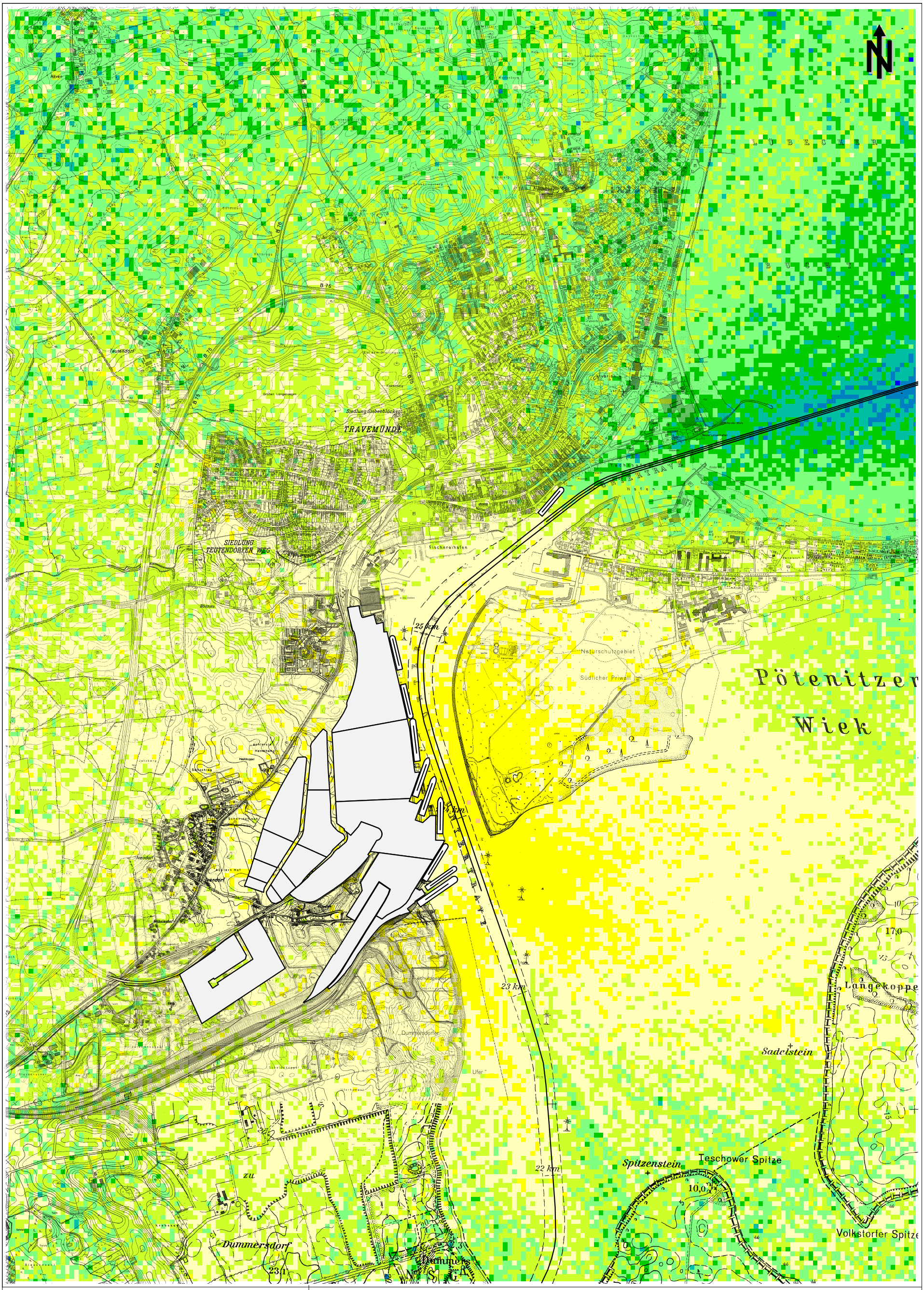
RL221011_SO2.cna, 09/2004

A9.2.2: Additional SO_2 Pollution (24 Hours Value T03)

Forecast Scenario Considering Reduction Concept 1a

Polluter Group: Shipping (including In-Port-Activities)

> 0.0 µg/m³	> 30.0 µg/m³
> 5.0 µg/m³	> 35.0 µg/m³
> 10.0 µg/m³	> 40.0 µg/m³
> 15.0 µg/m³	> 50.0 µg/m³
> 20.0 µg/m³	> 60.0 µg/m³
> 25.0 µg/m³	> 70.0 µg/m³



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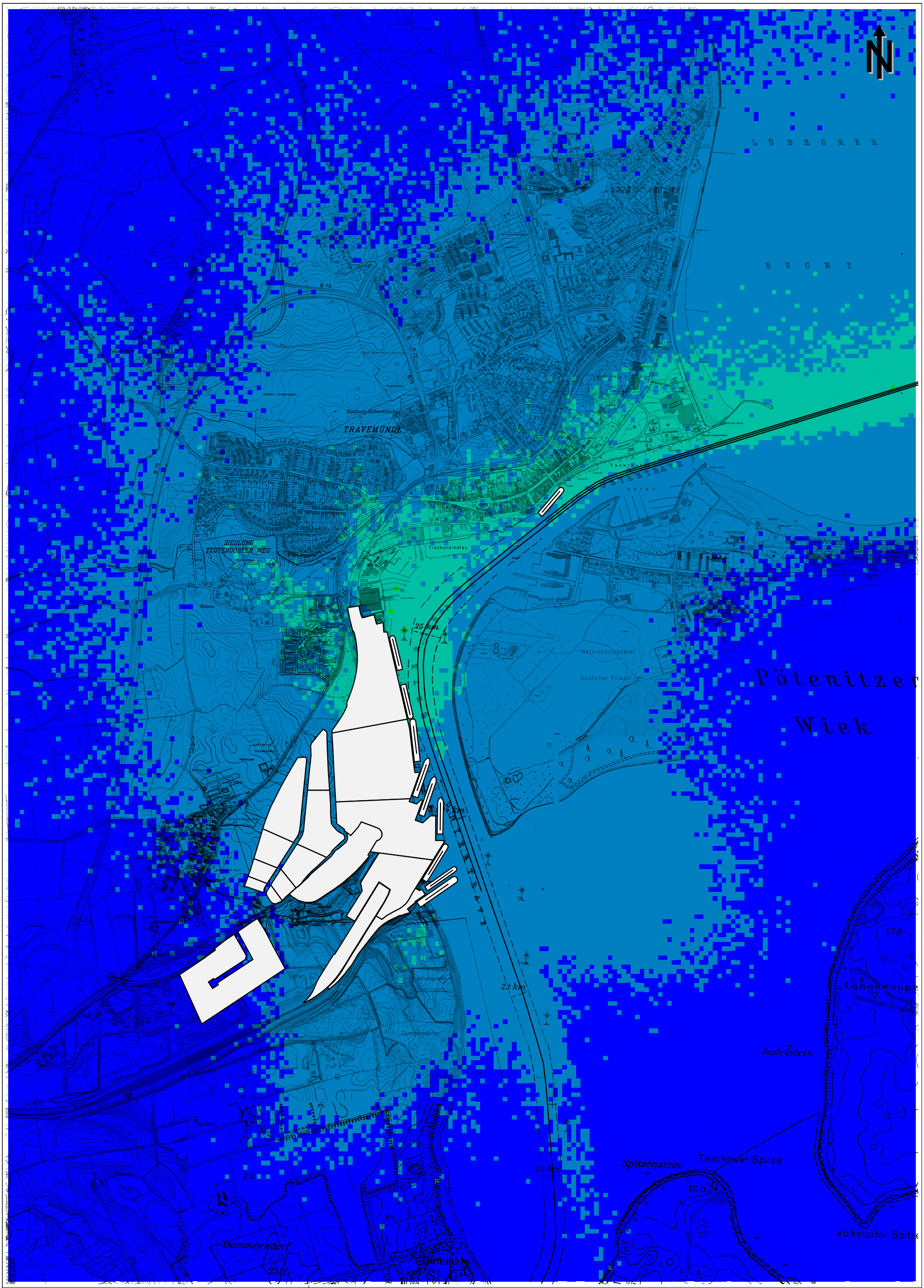
RL221010_11_SO2.cna, 09/2004

A9.2.3: Additional SO_2 Pollution (24 Hours Value T03)

Forecast Scenario: Decrease by Reduction Concept 1a

Polluter Group: Shipping (including In-Port-Activities)

> 0.0 %	> 50.0 %
> 10.0 %	> 60.0 %
> 20.0 %	> 70.0 %
> 30.0 %	> 80.0 %
> 40.0 %	> 90.0 %



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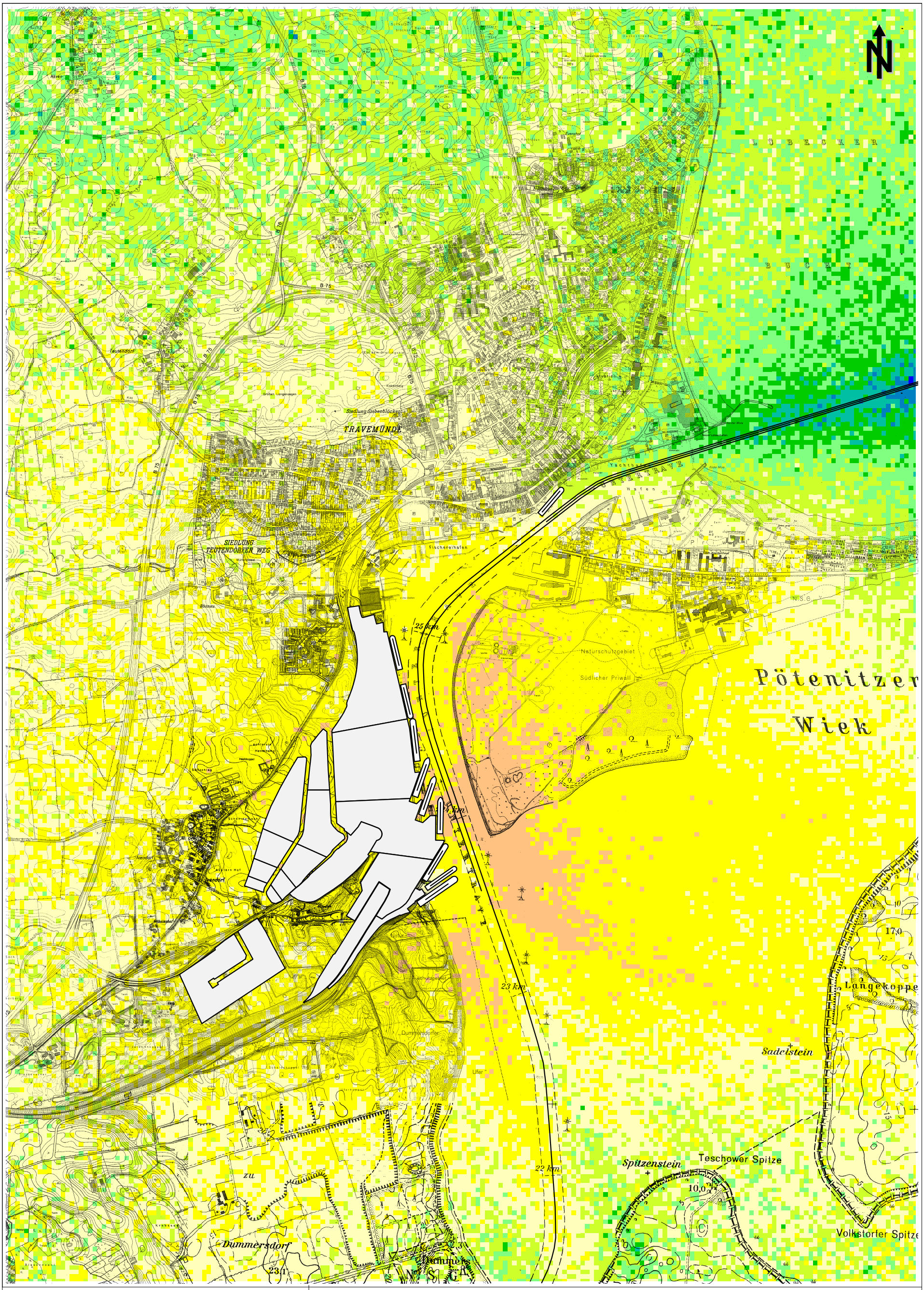
RL221014_SO2.cna, 09/2004

A9.2.4: Additional SO_2 Pollution (24 Hours Value T03)

Forecast Scenario Considering Reduction Concept 3

Polluter Group: Shipping (including In-Port-Activities)

> 0.0 µg/m³	> 30.0 µg/m³
> 5.0 µg/m³	> 35.0 µg/m³
> 10.0 µg/m³	> 40.0 µg/m³
> 15.0 µg/m³	> 50.0 µg/m³
> 20.0 µg/m³	> 60.0 µg/m³
> 25.0 µg/m³	> 70.0 µg/m³



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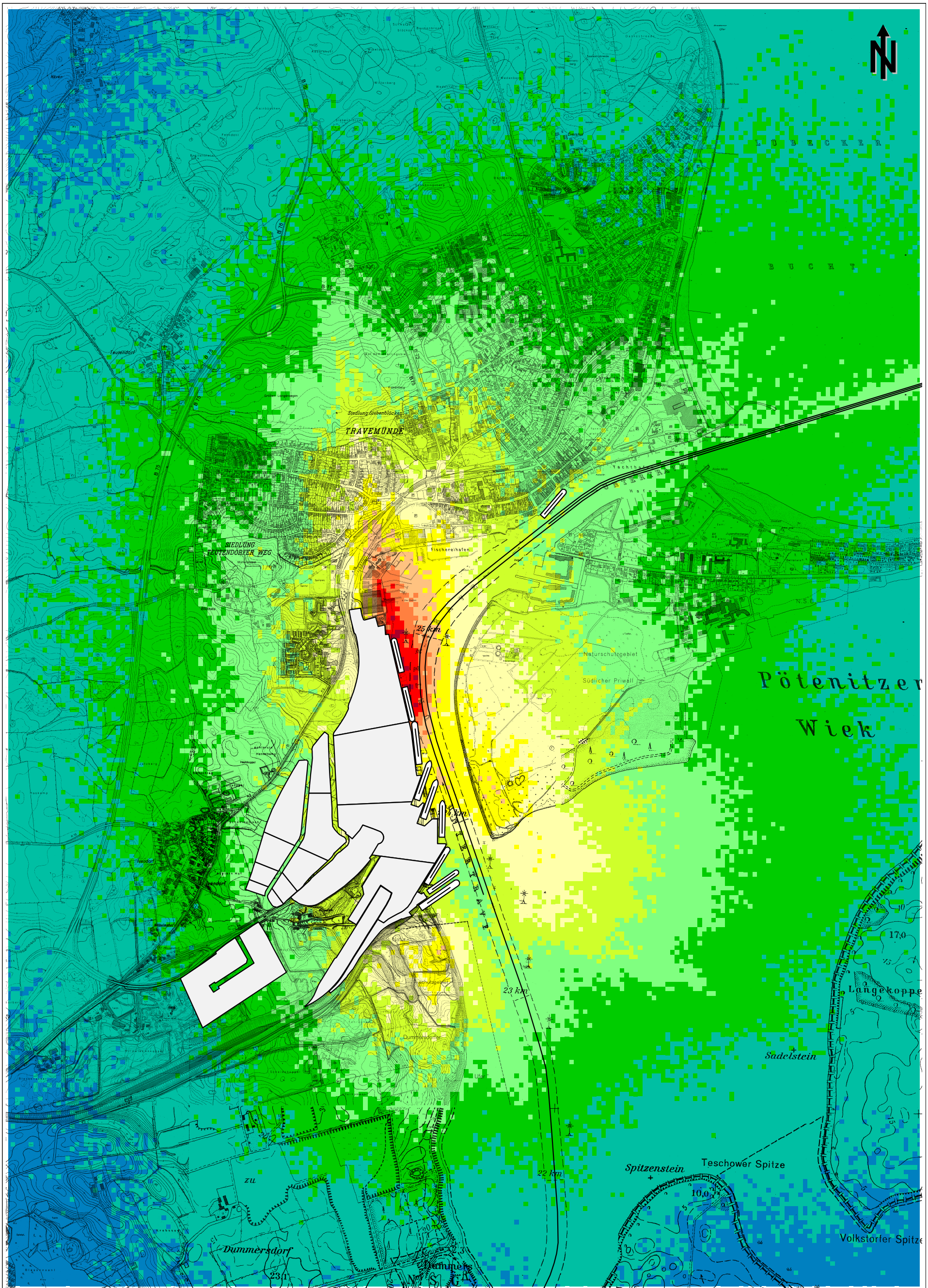
RL221010_14_SO2.cna, 09/2004

A9.2.5: Additional SO_2 Pollution (24 Hours Value T03)

Forecast Scenario: Decrease by Reduction Concept 3

Polluter Group: Shipping (including In-Port-Activities)

> 0.0 %	> 50.0 %
> 10.0 %	> 60.0 %
> 20.0 %	> 70.0 %
> 30.0 %	> 80.0 %
> 40.0 %	> 90.0 %



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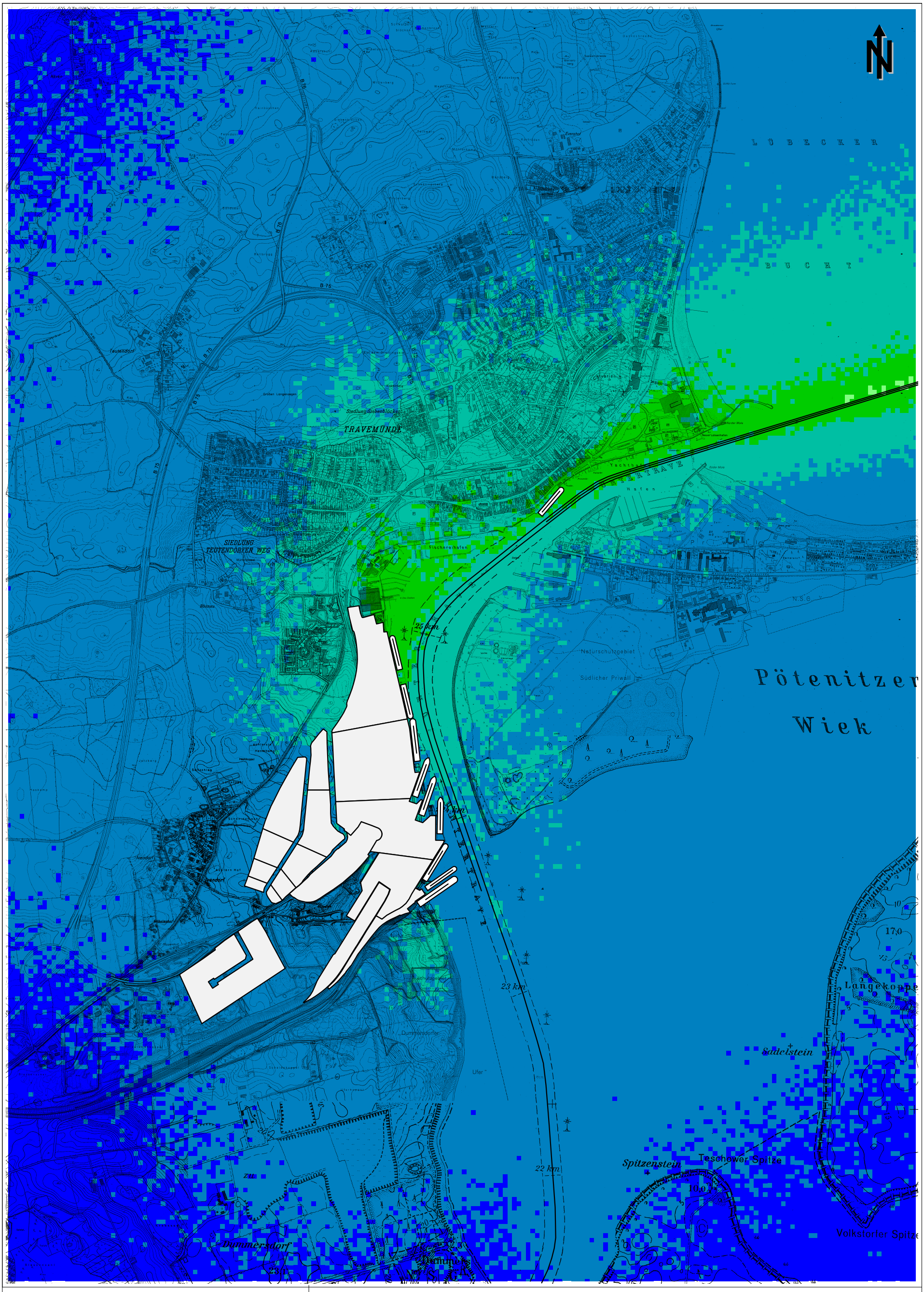
RL221010_SO2.cna, 09/2004

A9.3.1: Additional SO_2 Pollution (1 Hour Value S24)

Forecast Scenario

Polluter Group: Shipping (including In-Port-Activities)

> 0.0 µg/m³	> 120.0 µg/m³
> 20.0 µg/m³	> 140.0 µg/m³
> 40.0 µg/m³	> 160.0 µg/m³
> 60.0 µg/m³	> 180.0 µg/m³
> 80.0 µg/m³	> 200.0 µg/m³
> 100.0 µg/m³	> 220.0 µg/m³



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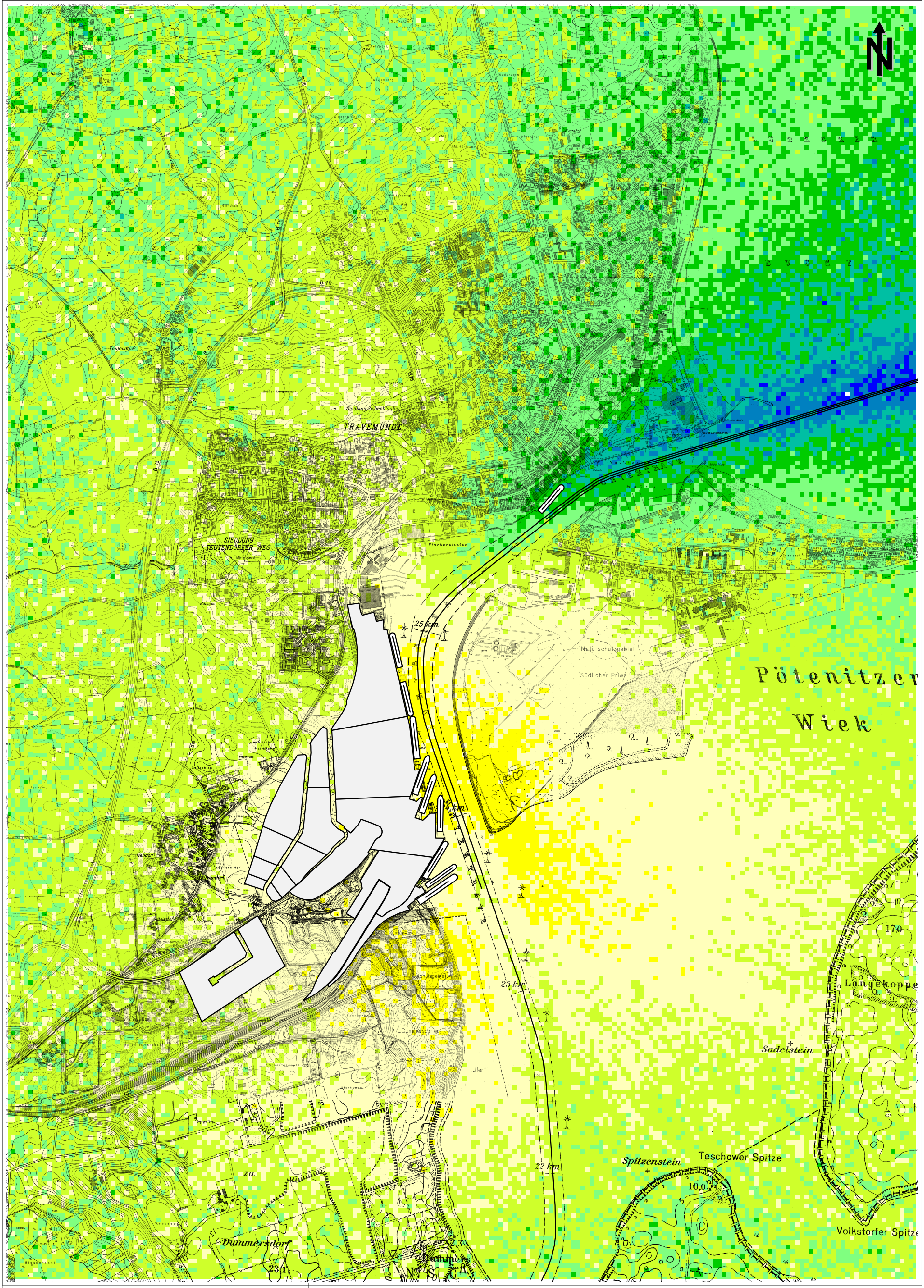
RL221011_SO2.cna, 09/2004

A9.3.2: Additional SO_2 Pollution (1 Hour Value S24)

Forecast Scenario Considering Reduction Concept 1a

Polluter Group: Shipping (including In-Port-Activities)

> 0.0 µg/m³	> 120.0 µg/m³
> 20.0 µg/m³	> 140.0 µg/m³
> 40.0 µg/m³	> 160.0 µg/m³
> 60.0 µg/m³	> 180.0 µg/m³
> 80.0 µg/m³	> 200.0 µg/m³
> 100.0 µg/m³	> 220.0 µg/m³



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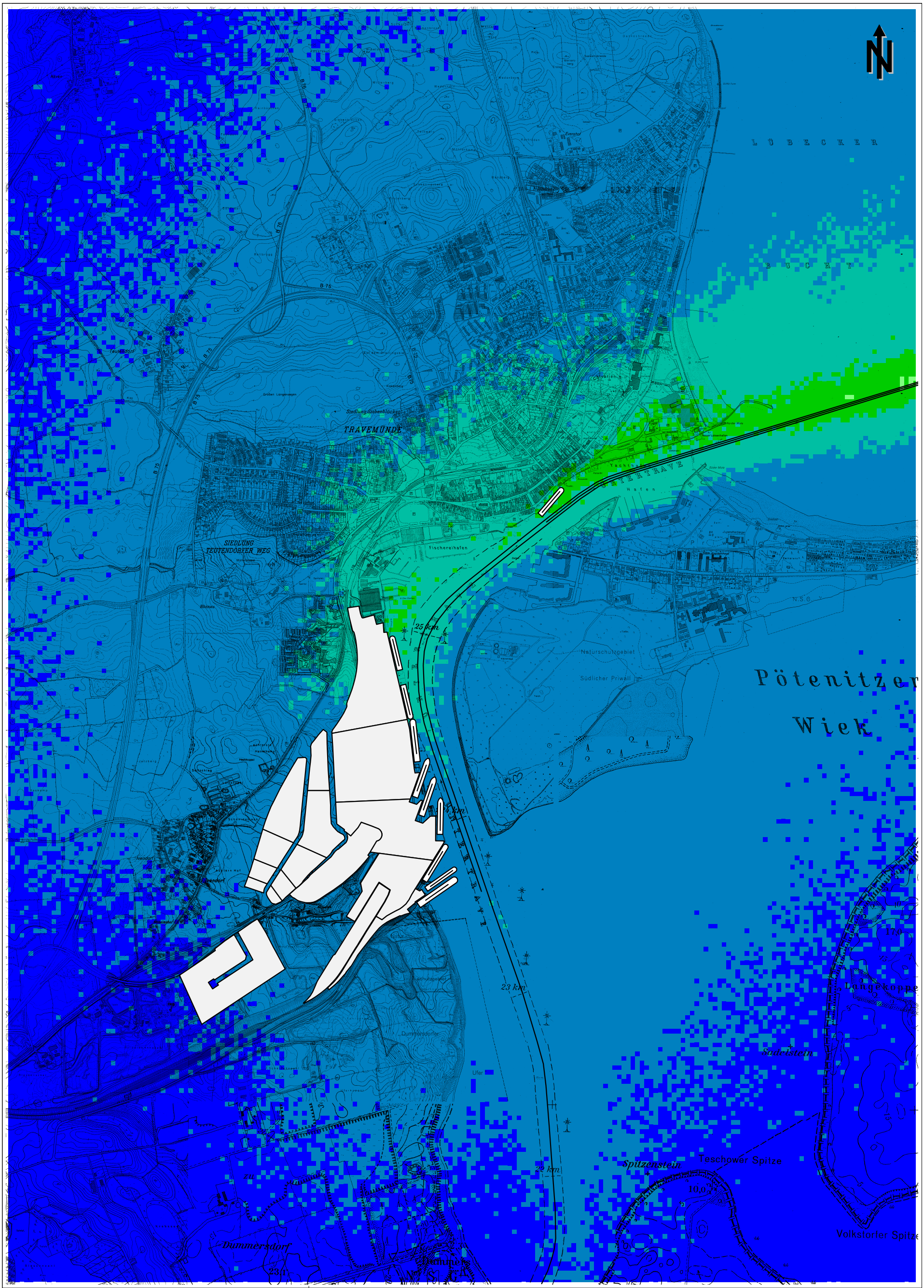
RL221010_11_SO2.cna, 09/2004

A9.3.3: Additional SO_2 Pollution (1 Hour Value S24)

Forecast Scenario: Decrease by Reduction Concept 1a

Polluter Group: Shipping (including In-Port-Activities)

> 0.0 %	> 50.0 %
> 10.0 %	> 60.0 %
> 20.0 %	> 70.0 %
> 30.0 %	> 80.0 %
> 40.0 %	> 90.0 %



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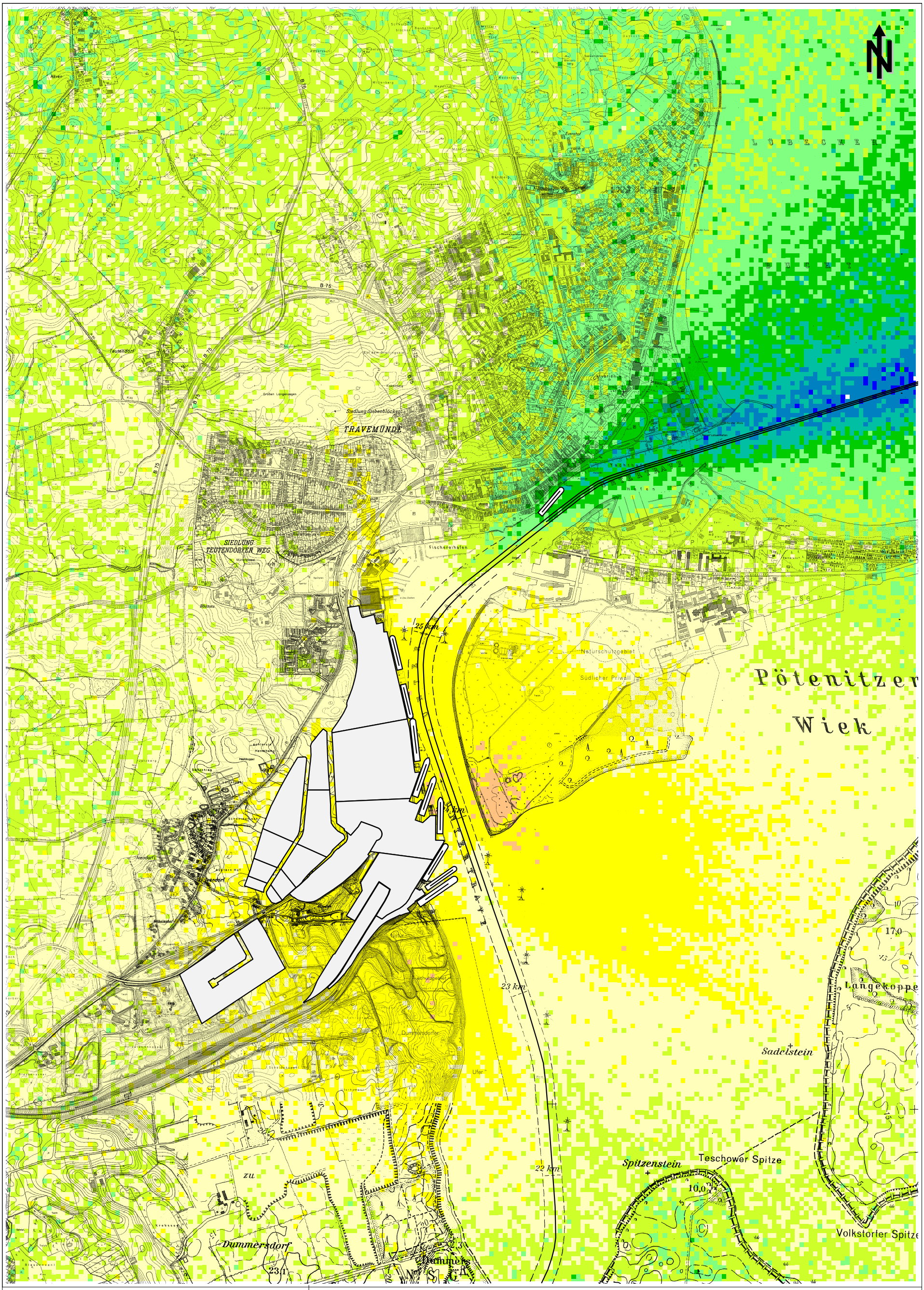
RL221014_SO2.cna, 09/2004

A9.3.4: Additional SO_2 Pollution (1 Hour Value S24)

Forecast Scenario Considering Reduction Concept 3

Polluter Group: Shipping (including In-Port-Activities)

> 0.0 µg/m³	> 120.0 µg/m³
> 20.0 µg/m³	> 140.0 µg/m³
> 40.0 µg/m³	> 160.0 µg/m³
> 60.0 µg/m³	> 180.0 µg/m³
> 80.0 µg/m³	> 200.0 µg/m³
> 100.0 µg/m³	> 220.0 µg/m³



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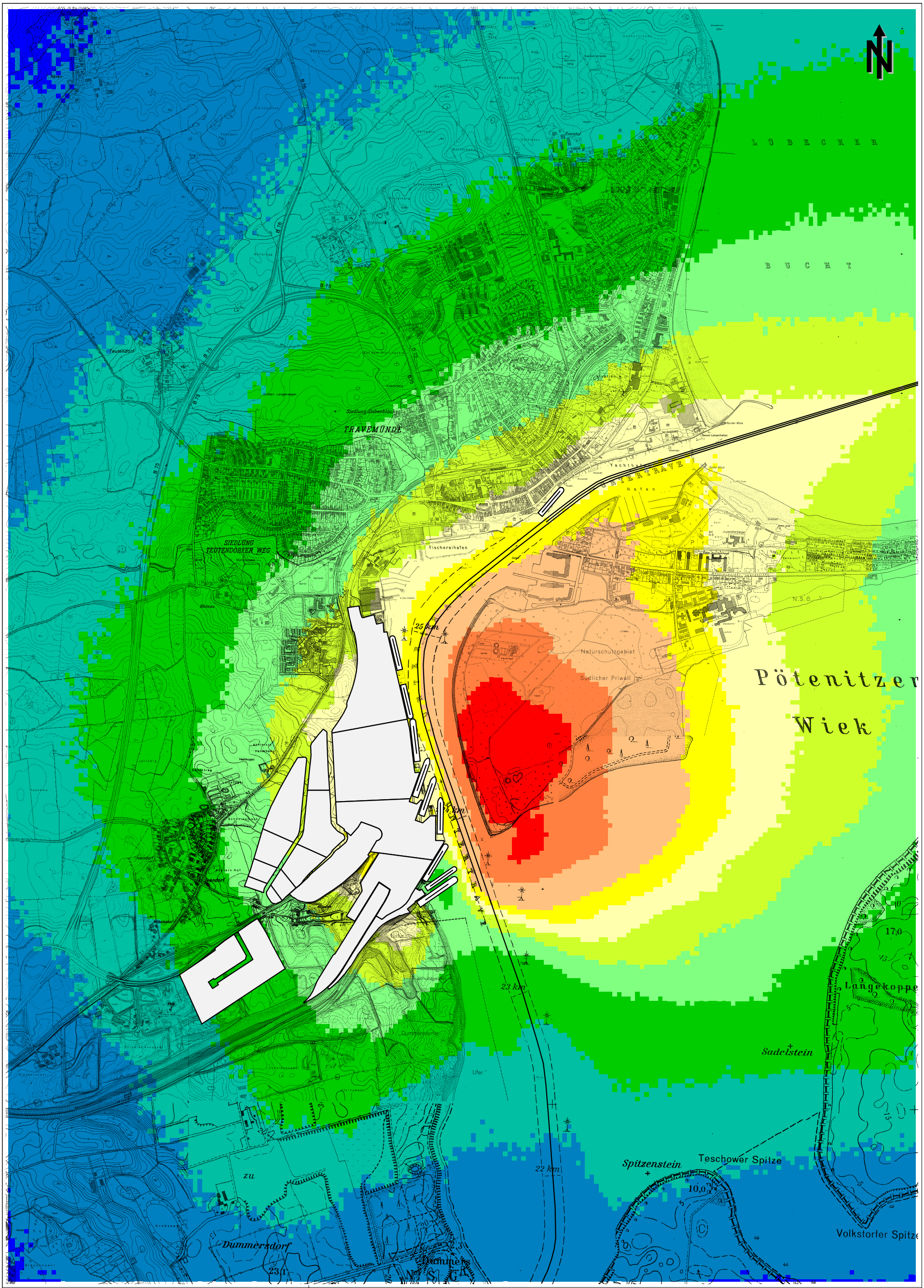
RL221010_14_SO2.cna, 09/2004

A9.3.5: Additional SO_2 Pollution (1 Hour Value S24)

Forecast Scenario: Decrease by Reduction Concept 3

Polluter Group: Shipping (including In-Port-Activities)

> 0.0 %	> 50.0 %
> 10.0 %	> 60.0 %
> 20.0 %	> 70.0 %
> 30.0 %	> 80.0 %
> 40.0 %	> 90.0 %



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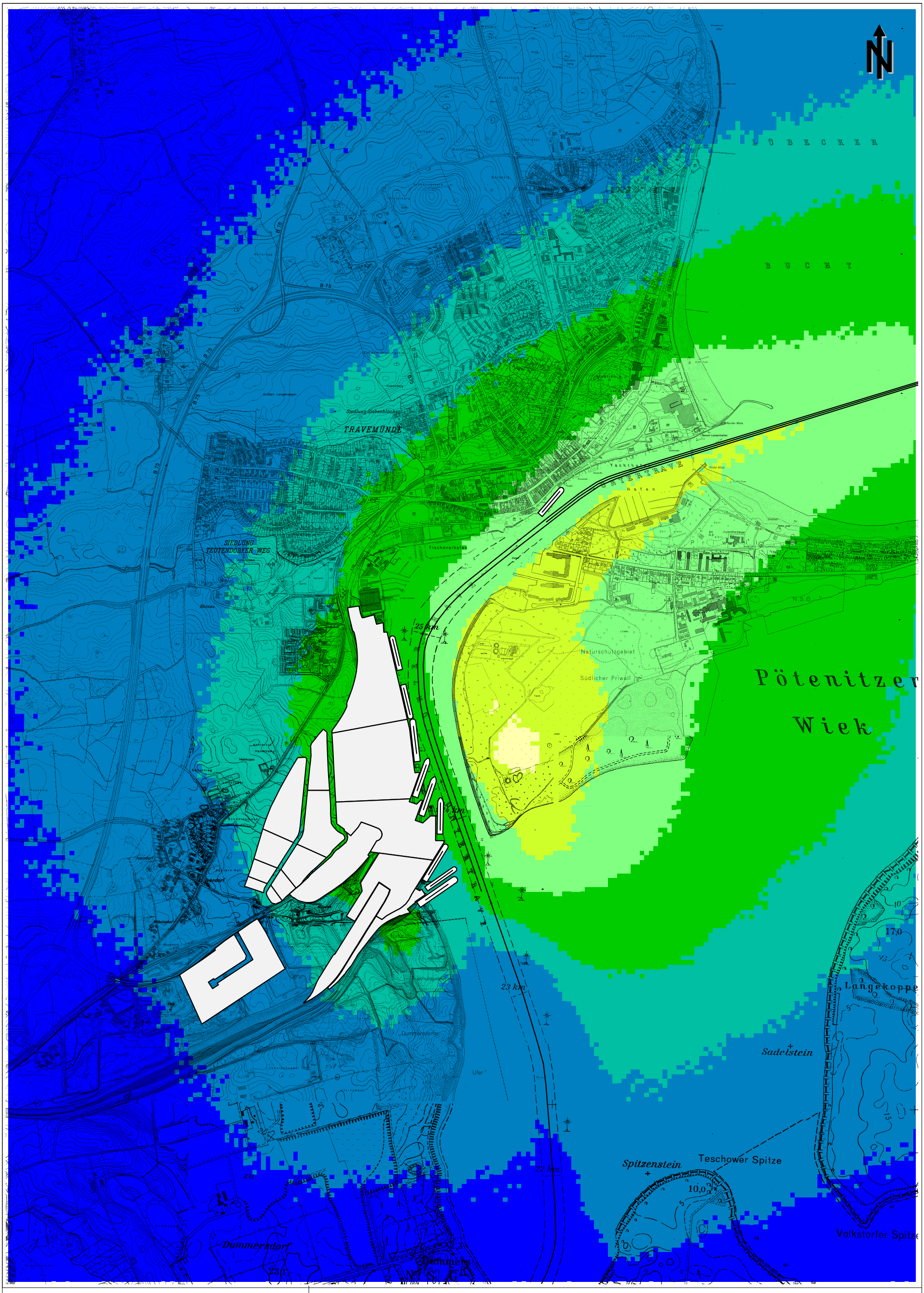
RL221010_SO2_G.cna, 09/2004

A9.4.1: Total SO_2 Pollution (Annual Average Value J00)

Forecast Scenario

(Background Pollution: 3.5 µg/m³)

> 3.5 µg/m³	> 8.0 µg/m³
> 4.0 µg/m³	> 9.0 µg/m³
> 4.5 µg/m³	> 10.0 µg/m³
> 5.0 µg/m³	> 12.5 µg/m³
> 6.0 µg/m³	> 15.0 µg/m³
> 7.0 µg/m³	> 20.0 µg/m³



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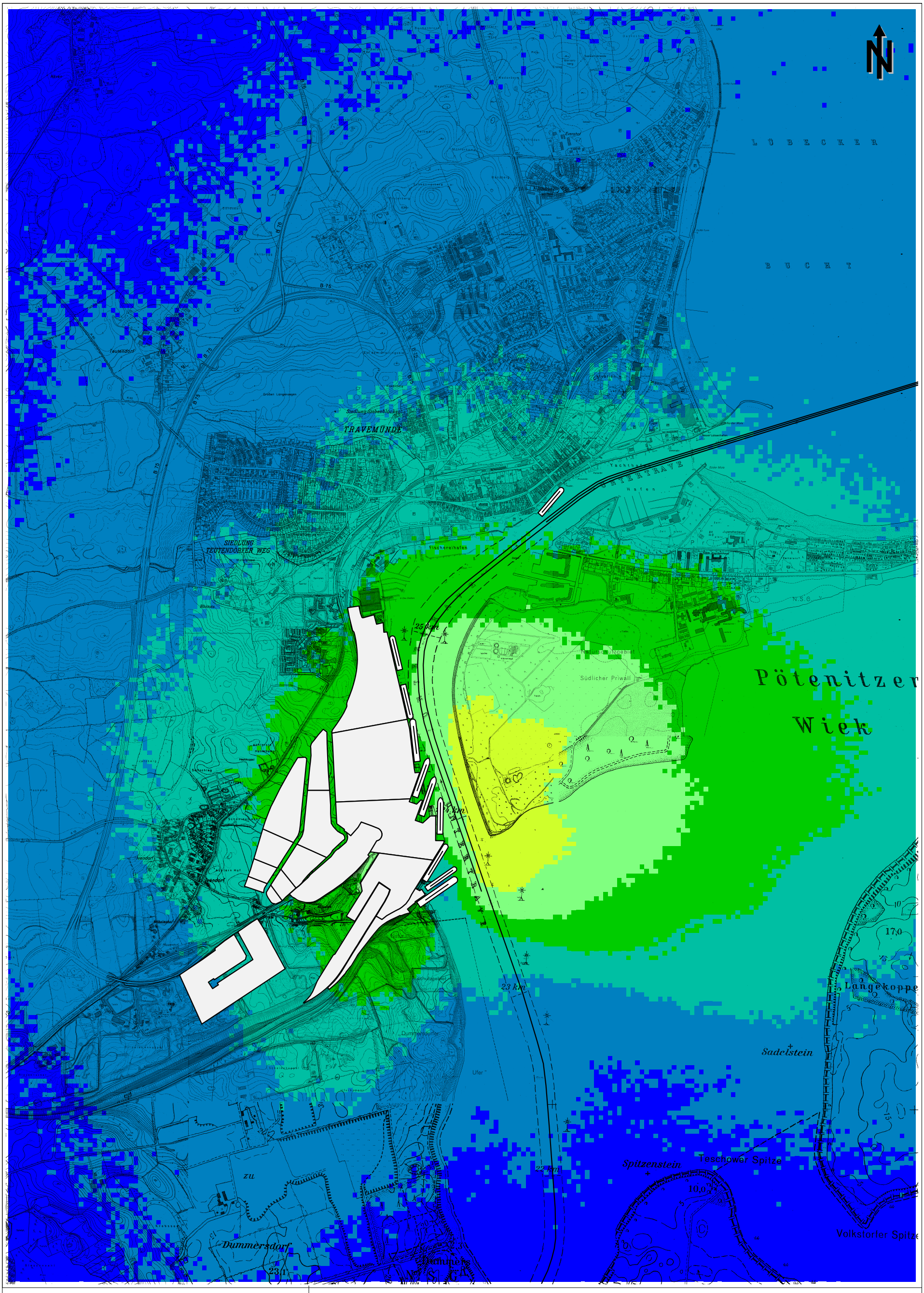
RL221011_SO2_G.cna, 09/2004

A9.4.2: Total SO_2 Pollution (Annual Average Value J00)

Forecast Scenario Considering Reduction Concept 1a

(Background Pollution: 3.5 µg/m³)

> 3.5 µg/m³	> 8.0 µg/m³
> 4.0 µg/m³	> 9.0 µg/m³
> 4.5 µg/m³	> 10.0 µg/m³
> 5.0 µg/m³	> 12.5 µg/m³
> 6.0 µg/m³	> 15.0 µg/m³
> 7.0 µg/m³	> 20.0 µg/m³



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Scale 1 : 20.000

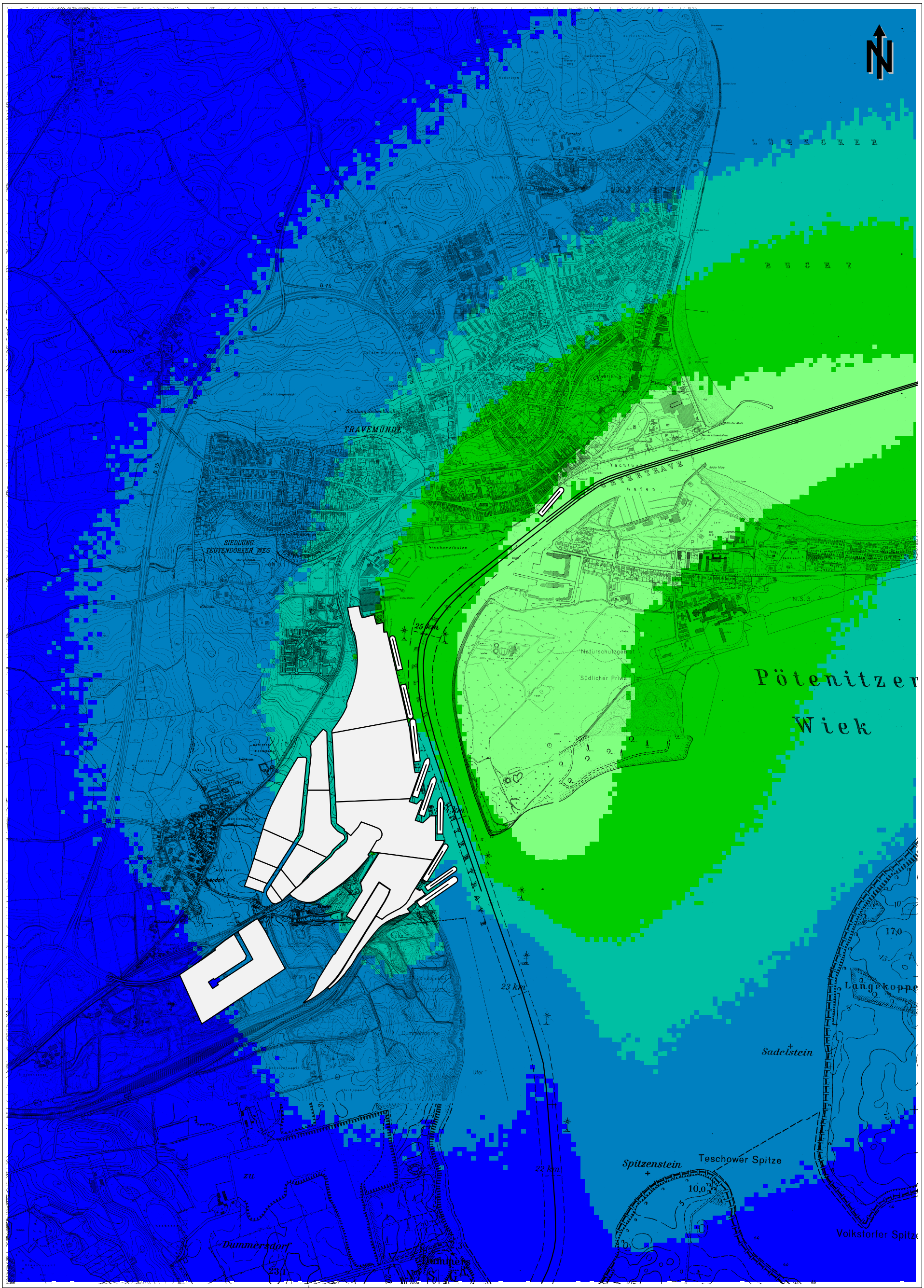
RL221010_11_SO2_G.cna, 09/2004

A9.4.3: Total SO_2 Pollution (Annual Average Value J00)

Forecast Scenario: Decrease by Reduction Concept 1a

(Background Pollution: 3.5 µg/m³)

> 0.0 %	> 50.0 %
> 10.0 %	> 60.0 %
> 20.0 %	> 70.0 %
> 30.0 %	> 80.0 %
> 40.0 %	> 90.0 %



Air Pollution Model Calculations
Agenda 21 Lübeck-Travemünde

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Scale 1 : 20.000

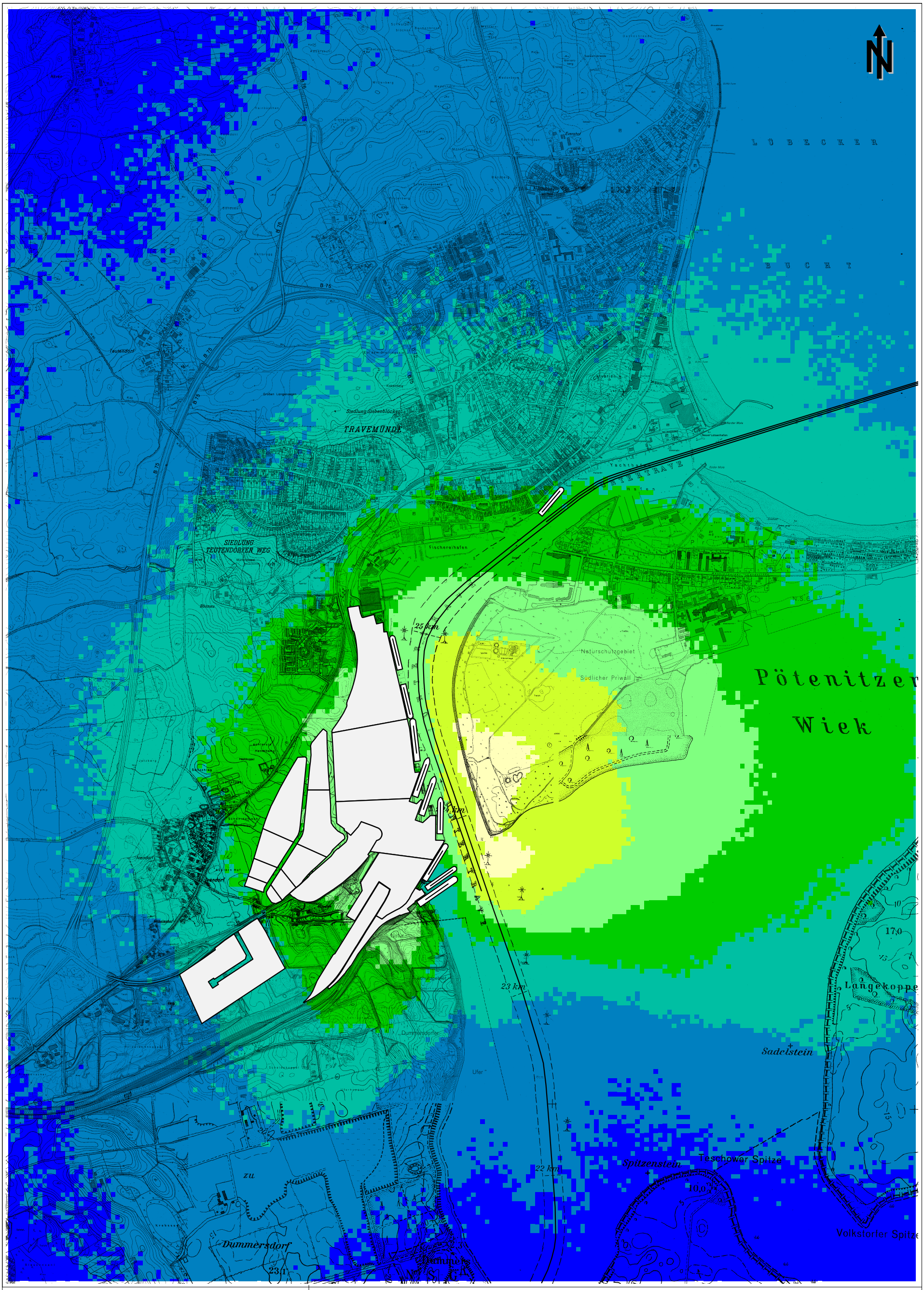
RL221014_SO2_G.cna, 09/2004

A9.4.4: Total SO_2 Pollution (Annual Average Value J00)

Forecast Scenario Considering Reduction Concept 3

(Background Pollution: 3.5 µg/m³)

> 3.5 µg/m³	> 8.0 µg/m³
> 4.0 µg/m³	> 9.0 µg/m³
> 4.5 µg/m³	> 10.0 µg/m³
> 5.0 µg/m³	> 12.5 µg/m³
> 6.0 µg/m³	> 15.0 µg/m³
> 7.0 µg/m³	> 20.0 µg/m³



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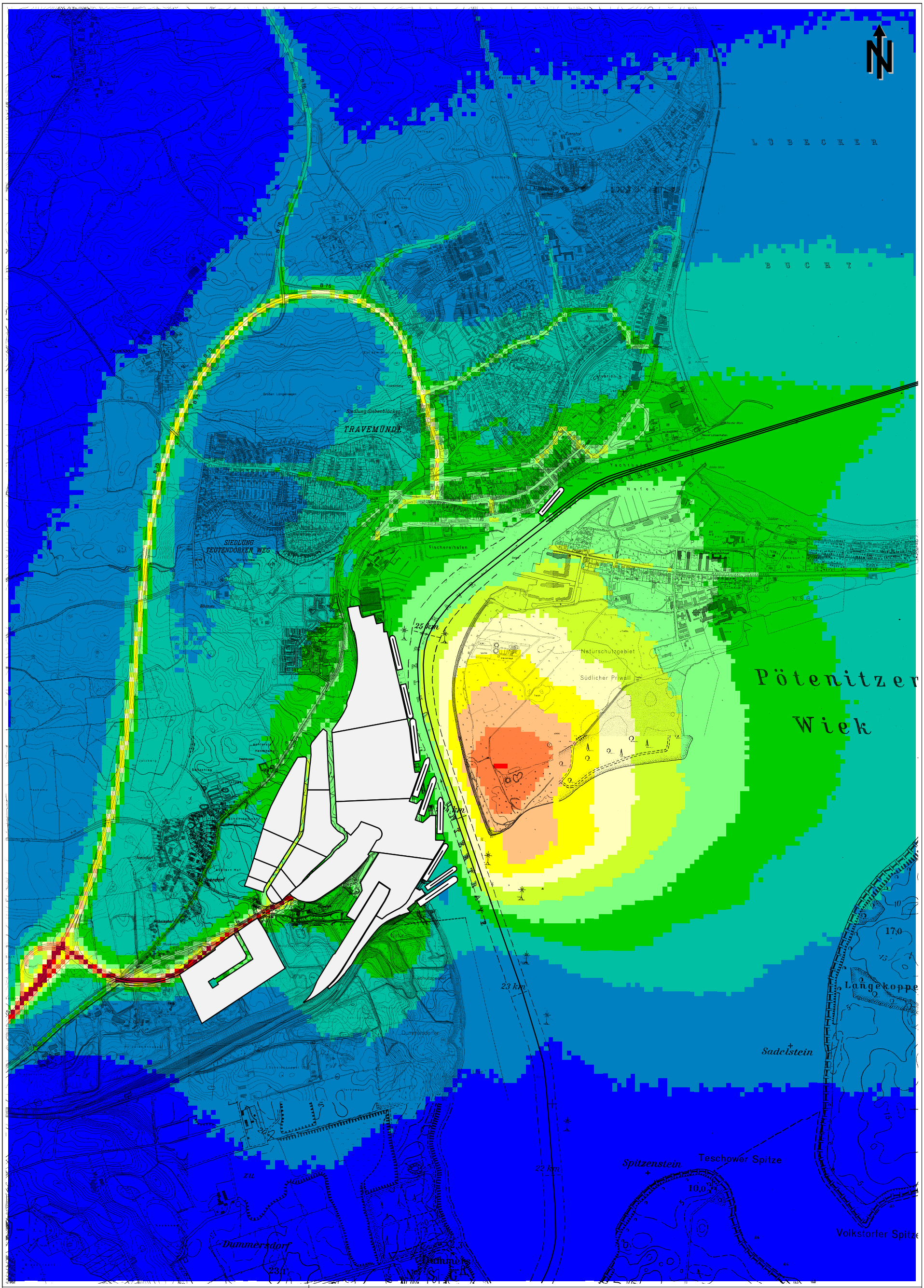
RL221010_14_SO2_G.cna, 09/2004

A9.4.5: Total SO_2 Pollution (Annual Average Value J00)

Forecast Scenario: Decrease by Reduction Concept 3

(Background Pollution: 3.5 µg/m³)

> 0.0 %	> 50.0 %
> 10.0 %	> 60.0 %
> 20.0 %	> 70.0 %
> 30.0 %	> 80.0 %
> 40.0 %	> 90.0 %



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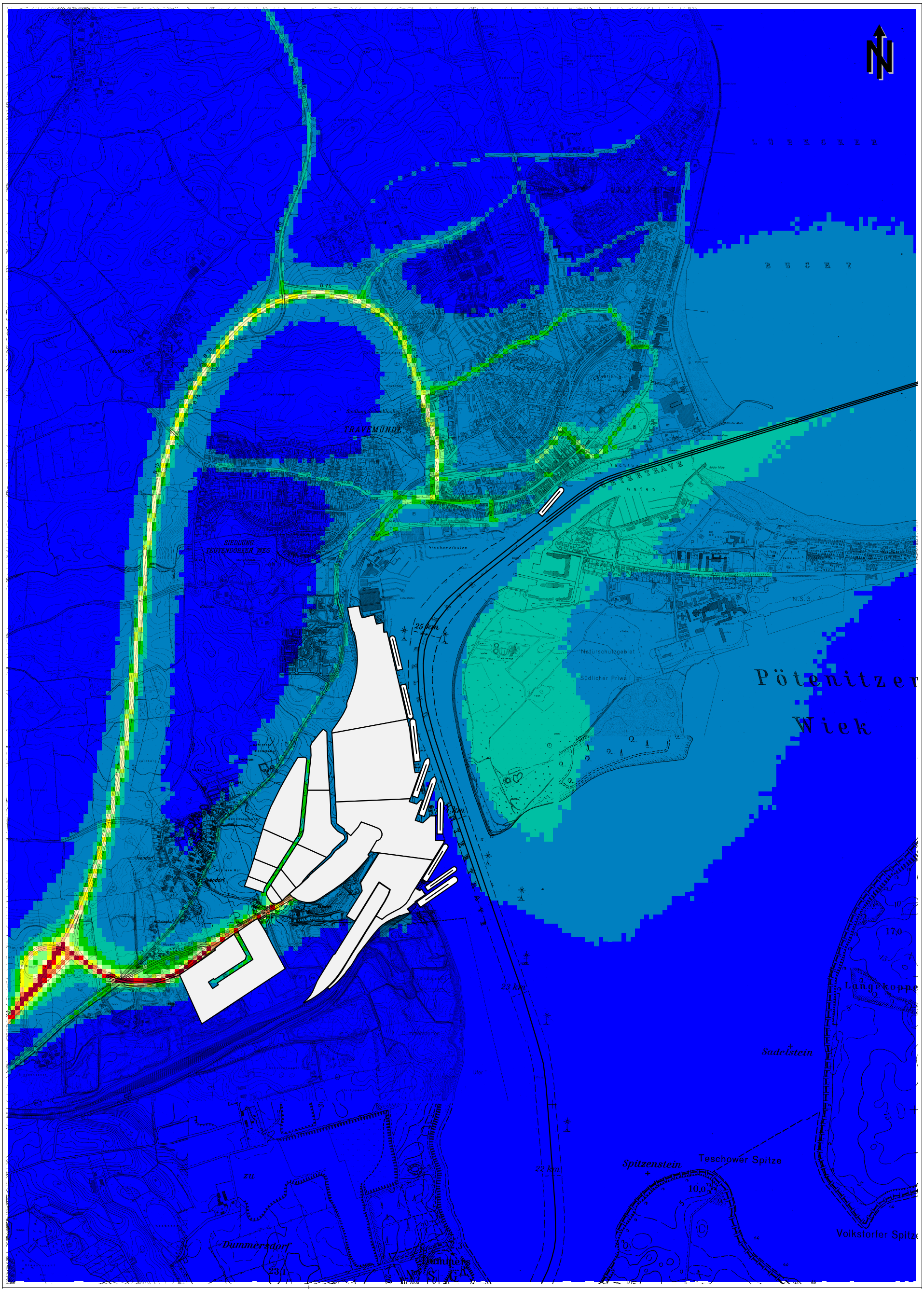
RL221010_NO2.cna, 09/2004

A9.5.1: Total NO_2 Pollution (Annual Average Value J00)

Forecast Scenario

(Background Pollution: 17.8 µg/m³)

> 18.0 µg/m³	> 30.0 µg/m³
> 20.0 µg/m³	> 32.0 µg/m³
> 22.0 µg/m³	> 34.0 µg/m³
> 24.0 µg/m³	> 36.0 µg/m³
> 26.0 µg/m³	> 38.0 µg/m³
> 28.0 µg/m³	> 40.0 µg/m³



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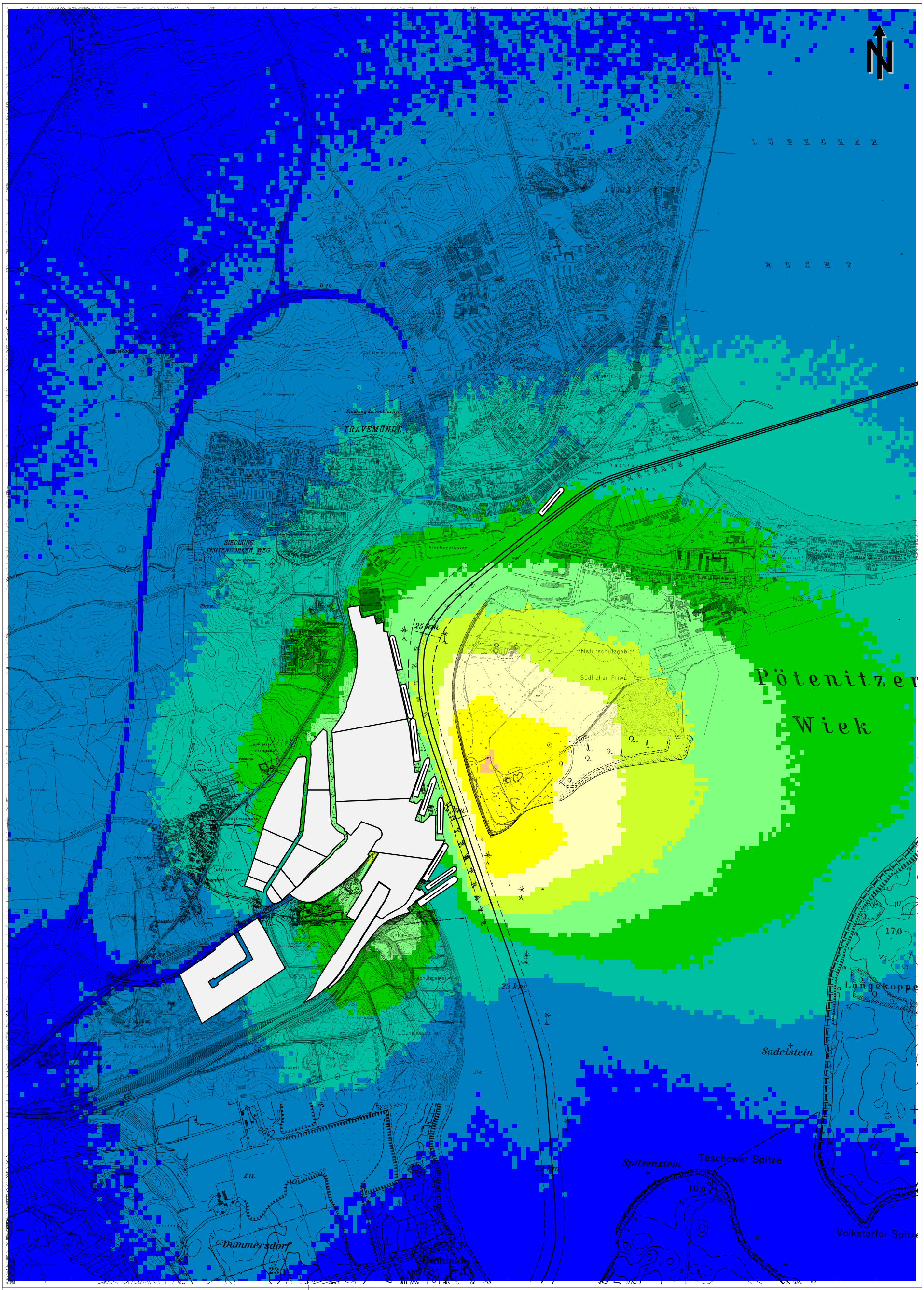
RL221011_NO2.cna, 09/2004

A9.5.2: Total NO_2 Pollution (Annual Average Value J00)

Forecast Scenario Considering Reduction Concept 1a

(Background Pollution: 17.8 µg/m³)

> 18.0 µg/m³	> 30.0 µg/m³
> 20.0 µg/m³	> 32.0 µg/m³
> 22.0 µg/m³	> 34.0 µg/m³
> 24.0 µg/m³	> 36.0 µg/m³
> 26.0 µg/m³	> 38.0 µg/m³
> 28.0 µg/m³	> 40.0 µg/m³



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RL221010_11_NO2.cna, 09/2004

A9.5.3: Total NO_2 Pollution (Annual Average Value J00)

Forecast Scenario: Decrease by Reduction Concept 1a

(Background Pollution: 17.8 µg/m³)

> 0.0 %	> 25.0 %
> 5.0 %	> 30.0 %
> 10.0 %	> 35.0 %
> 15.0 %	> 40.0 %
> 20.0 %	> 45.0 %