Juridical Instruments for Implementing the Environmental Management in Oslo Harbour – an EU approach

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Words: 17,956
Som 2005
31.08.2005
I wish to thank

Prof. Hans Jacob BULL for his guidance,
Jan Erik BANGSUND, Prof. Hans Christian BUGGE,
Kristin ESPESET, Kristin Elise FROGG, Torgeir ISDAHL,
Charlotte IVERSEN, Torild JØRGENSEN, Ingvild MARTHINSEN,
Bjørn Tore ORVIK, Andreas PHILSTRØM,
Randi THØRRING, Terje WIVESTAD for their help,
and Cornel BORIT for his understanding.
Table of contents

Abbreviations ........................................................................................................................................ 7

1. Introductory issues ............................................................................................................................ 8
1.1 Scope of the paper, methodology and sources ............................................................................. 8
1.1.1 Scope of the paper ...................................................................................................................... 8
1.1.2 Methodology ............................................................................................................................. 10
1.1.3 Sources ................................................................................................................................... 10
1.2 General considerations about environmental management and
    the significance of juridical instruments in its implementation .............................................. 11
1.3 Synthesis of the paper ................................................................................................................... 13

2. Oslo Port – subject of environmental management ................................................................. 15
2.1 Actual state .................................................................................................................................... 15
2.1.1 Oslo Port seen as integrated in the European port system ........ 15
2.1.2 Implementation of ISO 14000 environmental management system 10 ................................. 17
2.2 Sources of pollution in Oslo Port and structures with attributions
    in regard of protection of port environment ....................................................................................... 18
2.2.1 Technical description of Port and Port activity with emphasis on environmental impact .......... 18
2.2.2 Oslo Port Authority, the main structure with attributions
    in regard of protection of port environment .................................................................................... 23
3. EU/EEA legislation system regarding the environmental port management ................................................................. 25
   3.1 Introduction .................................................................................................................................................. 25
   3.2 Voluntary binding legislation .................................................................................................................. 26
      3.2.1 European Environmental Code of Practice ................................................................................. 26
      3.2.2 European Code of Conduct for Coastal Zones ........................................................................... 27
   3.3 Horizontal mandatory binding legislation .......................................................................................... 28
   3.4 Sectorial mandatory binding legislation ............................................................................................ 29
      3.4.1 Water protection and management ................................................................................................. 29
      3.4.2 Nature protection and biodiversity ................................................................................................. 31
      3.4.3 Waste management ......................................................................................................................... 34
      3.4.4 Soil .................................................................................................................................................... 35

4. Norwegian national legislation system regarding the environmental port management elaborated by the public authorities - how it follows the EU/EEA legal-frame ............... 38
   4.1 Introduction ................................................................................................................................................. 38
   4.2 Central authorities with responsibilities in seaport environmental management .............................................. 39
      4.2.1 The Ministry of Fisheries and Coastal Affairs ............................................................................... 40
      4.2.2 The Ministry of Local Government and Regional Development .................................................... 41
      4.2.3 The Ministry of Trade and Industry ................................................................................................. 42
      4.2.4 The Ministry of Environment ........................................................................................................... 42
   4.3 Relation with voluntary binding EU/EEA legislation ............................................................................. 43
      4.3.1 European Environmental Code of Practice ..................................................................................... 43
      4.3.2 European Code of Conduct for Coastal Zones .............................................................................. 44
4.4 Horizontal legislation ............................................................................................................. 44
4.5 Sectorial legislation ................................................................................................................. 45
  4.5.1 Water protection and management ............................................................................... 45
  4.5.2 Nature protection and biodiversity ............................................................................... 49
  4.5.3 Waste management ........................................................................................................ 52

5. Regional and local legislation regarding the environmental port management elaborated by the public authorities ........................................ 55
  5.1 Introduction ............................................................................................................................. 55
  5.2 Responsibilities and attributions
    of The County Governor (Fylkesmannen) ........................................................................... 56
  5.3 Regional legislation ................................................................................................................. 57
    5.3.1 Nature protection and management ............................................................................. 57
    5.3.2 Waste management ........................................................................................................ 60
    5.3.3 Land using ...................................................................................................................... 63
  5.4 Responsibilities and attributions
    of Oslo Municipality (Oslo Kommune) ............................................................................... 64
  5.5 Local legislation ..................................................................................................................... 66
    5.5.1 Water ............................................................................................................................. 66
    5.5.2 Nature management ........................................................................................................ 67
    5.5.3 Waste ............................................................................................................................ 68
    5.5.4 Air .................................................................................................................................... 69
    5.5.5 Noise ............................................................................................................................. 69

6. Technical-juridical instruments elaborated by Oslo Port authorities ...... 71
  6.1 Introduction ........................................................................................................................... 71
  6.2 The Waste Plan for Oslo Port - Reception of Waste and Cargo-residues from Ships ................................................................. 71
7. Conclusion .................................................................................................................... 75

Bibliography ................................................................................................................... 78

Annex 1 ............................................................................................................................ 88
Annex 2 ............................................................................................................................ 89
Annex 3 ............................................................................................................................ 92
Annex 4 ............................................................................................................................ 94
Annex 5 ............................................................................................................................ 95
Annex 6 ............................................................................................................................ 96
Annex 8 ............................................................................................................................ 96
Annex 9 ............................................................................................................................ 97
Annex 10 .......................................................................................................................... 97
Annex 11 Table 1 .......................................................................................................... 107
Annex 12 Table 2 .......................................................................................................... 117
Annex 15 ........................................................................................................................ 98
Annex 16 ........................................................................................................................ 98
Annex 17 ....................................................................................................................... 100
Annex 18 ....................................................................................................................... 101
Annex 19 ....................................................................................................................... 102
Annex 20 ....................................................................................................................... 103
Annex 21 ....................................................................................................................... 105
Annex 22 ....................................................................................................................... 106
Abbreviations

CIS - Common Implementation Strategy
ECEPA - Environmental Challenges for European Port Authorities
EEA – European Economic Area
EFTA – European Free Trade Association
EMAS - Eco-management and audit scheme
ESPO – European Sea-Ports Organisation
EU – European Union
EUCC - European Union for Coastal Conservation
HMWB - heavily modified water body
NGO – Non-governmental Organization
NMD – Norwegian Maritime Directorate
PCB - Polychlorinated Biphenyl
SFT - the Norwegian Pollution Control Authority
SPAs - Special Protection Areas
WFD – Water Framework Directive
WWF – World Wildlife Fund
Chapter 1: Introductory issues

Section 1.1 Scope of the paper, methodology and sources

1.1.1 Scope of the paper

The axiom of the importance of environment protection, including flora, fauna, habitats, water, air, soil, is well known all around the world. The European Union managed to pass through its legislative system some norms in this area that impose a big responsibility on the Member States, which have to think more about the environment than about economical profit. As a member of the European Economic Area Agreement, Norway has to join the dance of implementation this kind of Community legislation.

Nevertheless, the area covered by the concept of environmental management is rather broad, stretching from protection of living beings to managing cargo residues, and if at the EU level things are easier with a simple legislative body, at the level of Norwegian legal system they can get very complicated, the responsibility of implementing European legislation falling under the competence of many institutions which sometimes fight over it. At the same time, when the general principle of environmental management is applied to a restricted field, it gets harder and harder to understand who has to do what, when and how. That is why it is interesting how the Norwegian authorities manage to solve the problem of implementing environmental EU legislation in the special site of Oslo harbour, which, as one of the most important locations in Norway - being
integrated in the area of the capital city and one of the biggest commercial and
touristic ports in the country-, involves many aspects to take care of, from the
breeding of salmon to recycling waste from big cargo-vessels. Besides, in a
survey conducted in 2004 by ESPO and ECOPORTS Foundation in 129 ports
from Europe, the lack of information about environmental legislation and the
multiplicity of agencies involved in the process of implementation of legal
norms were ranked as the 3\textsuperscript{rd} and the 2\textsuperscript{nd} hindrances for a competitive port
environmental management.

Therefor, the scope of this paper is on the one hand, to gather
in one place and to shortly present the most important legal norms that are
linked to environmental management, following the path EU – Norwegian
national, regional and local administration – Oslo Port Authority, offering an
integrated overview of the problem, which, to my knowledge, was never done before. Sometimes, the work will focus more on the responsibilities and
attributions of the respective institutions attained through the legal norm than
to the rule in itself because this way emphasis more the mode of
implementing the EU legislation at hierarchical lower levels. On the other
hand, the goal is to explain why the Norwegian legal system in this respect
took shape as it is now, analysing the issues that turned up in the legislative
process. To be clearer, the objective is not to analyse the norms in depth and
to decide whether they are good or bad, but to arise awareness that Oslo Port
is an European harbour whose environmental management involves many
unforeseen aspects from a juridical point of view.
1.1.2 Methodology

In order to achieve the objective mentioned before were used qualitative methods like document analysis (study of EU and Norwegian legislation in environmental management and harbour domain; study of the Norwegian legislative and administrative system from the Government level until the Oslo Port level; study of the Oslo Port strategy, programs and investments in the environment protection area; study of international environmental management standards); interview (there were conducted discussions with representatives form the Ministry of Environment and hierarchical inferior institutions; Oslo County and Oslo Port Authority); all integrated in a case study.

1.1.3 Sources

It is always hard to write about a topic that is new and there is no background literature to support the research. Because the issue of environmental management in seaports is a recent one, there is no specific legal theory about it, only books that treat exclusively one part of the problem or the other. Therefore, I had to use alternative informing sources besides the legal ones represented by the juridical norms drawn in this area, like unpublished correspondence between EU and Norwegian institutions, surveys and on-line sources. On-line documents like articles and reports or just web pages of the institutions involved in the problem were the main research data base used in this paper also because they are the first to announce new information and to indicate changes in the field analysed.
Section 1.2 General considerations about environmental management and the significance of juridical instruments in its implementation

For Norway, as for all the member states of the EEA Agreement, conformation with the ecological exigencies of this millennium demands efforts in legislative and institutional organisation both at national and regional level, all together with technological and operational improvement in all the companies from the high-risk pollution area. All the above mentioned factors (legislation, administration, technological progress, operational optimisation) have endings in the global management of a company, namely Oslo harbour, becoming a sum of sectorial management systems. Qualitative, environmental and hygienic systems have been added to the traditional management in the last decades. How all these can be integrated at the Oslo port level, what is the legislative frame in which they circumscribe, which are their implementation instruments, all are questions to be answered in a pluridisciplinar integrated approach.

In order to understand the terminology used in analysing the juridical instruments of implementation of environmental management, further on I shall define some notions belonging to other domains but juridical. Therefore, the environment is the space in which Oslo port is functioning and it includes the air, the water, the soil, natural resources, flora and fauna, human beings and the relations between all these; the environmental policy is the declaration of Oslo Port Authority towards its intentions and principles upon global environmental performances, and it provides the frame for action and settlement of environmental objectives and targets; the environmental management system constitutes a component of the general management system which includes organisational structure, planning activities, responsibilities, proceedings and resources for elaborating, implementing, analysing and actualisation of the environmental policy.
When speaking about basic requirements, a performant environmental management system must follow three major rules: 1. **assuring the conformity and observance of the legislation in force**; 2. registering everything in writing in order to be demonstrated everything; 3. choosing a certifiable system (as the international standard ISO 14000\(^1\)). In fact, these standards represent documented voluntary agreements, which establish important criteria for product, services and procedures. These standards play a key role in the development of the Single Market in EU/EEA space, their implementation\(^2\) at companies’ level removing technical barriers to trade.\(^3\) Compliance with standard requirements demands more than an inventory of the documents with legal content (codes of practice, internal regulations etc.), therefore it is necessary a thorough analysis of these papers when elaborating and actualising of environmental policy in accordance with new legislative provisions adopted at all levels (international, national, regional, local and organisational).

The implementation and the correct application of an environmental management at Oslo port level can be achieved with the help of many instruments from different domains, as financial, economic, technical, technological, administrative, juridical. Nevertheless, the latter has a specific prevalent role, because it circumscribes the legal frame in which all the other instruments can manifest.

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\(^1\) The European Committee of Standardisation chose it as an European reference standard in 1996; as an example, Environmental Management and Audit Standard (EMAS) is another model of standardised environmental management system

\(^2\) This was achieved by transposition of the New Approach Directives (a set of Directives intended to harmonise the Community market by imposing the same standards to all new products and services to enter the EU/EEA market) in Member States legislation

\(^3\) http://www.newapproach.org/
Section 1.3 Synthesis of the paper

The main focus of Chapter 2 of this paper will be Oslo harbour, seen as a subject of the environmental management. A part of the European port system, not only geographically speaking but through affiliation to European organizations, Oslo has specific environmental problems that demand a proper legal approach. Implementation of ISO 14001 environmental management system and developing a special plan for handling the waste delivered in by vessels is a step forward in solving these issues, Oslo Port Authority being the main institutions with responsibilities in this domain.

Turning towards the juridical aspect of the issue, in the centre of Chapter 3 will lie the EU legislation that is relevant in the EEA context. Community policy and legislation in the area of environmental sea-port management will be presented in a concise manner as these norms form a first layer of juridical instruments on which the Norwegian legislator will build up when writing the second layer - national rules - in order to have an European integrated legislation.

This second layer of legislation will be the focus of Chapter 4. The institutions responsible for drawing it up will be presented as comprehending the way in which these legislative bodies are organised can lead to understand why the juridical instruments in discussion came into being in the actual form. Afterwards, the national Norwegian legislation system will be analysed from the compliance with the EU regulations point of view.

The same procedure will be followed up in Chapter 5, the centre of attention being this time the regional and local legislation. At this level the emphasis will be more on the responsibilities of the institutions involved, than on the legal norms in themselves because the executive part of
the actual implementing of the environmental management reflects the content of the legal norms.

At last, Chapter 6 will present the last layer of juridical instruments of implementing the environmental management in Oslo harbour. At this moment, this is represented by the Waste Plan for Oslo Port - Reception of Waste and Cargo-residues from Ships, as the Action Plan for Dealing with Contaminated Sediments in Oslo Port did not come into force until now.
Chapter 2: Oslo Port – subject of environmental management

Section 2.1 Actual state

2.1.1 Oslo Port seen as integrated in the European port system

The Port of Oslo is strategically located at the top of the 109 km long Oslo Fjord - right in the middle of the most industrialised and populated areas of Norway.\textsuperscript{4} It is Norway’s largest port for containerised cargo and passengers, in the year 2004 over 5,200 ships\textsuperscript{5} being docked at the port with a total of 6.2 million tonnes of cargo and 2.5 millions passengers, including 145,000 visitors who had arrived on board of 112 cruise ships.\textsuperscript{6} It is estimated that trade could increase to between 10 million and 16 million tonnes by 2020, with the fastest growing sector being unitised goods.

Oslo City lies at the heart of an area containing a third of Norway’s population, which receives its supplies directly by sea. Therefor, the port plays a crucial role as an import/export terminal for general cargo, mostly from the UK and Continent, and as a passenger link between Norway and Continental Europe. As a matter of fact, ships from EU countries as Sweden, Denmark, Germany, Holland, UK and Italy are the most common clients of Oslo Port.\textsuperscript{7} Norway’s involvement in EU/EEA transport programme

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\textsuperscript{4} See Annex 1 (Position of Oslo Harbour in the Oslo Fjord);
\textsuperscript{5} Without cruise ships and small fishing boats; over 3.000 ships were involved in foreign trade;
\textsuperscript{7} idem; see Annex 2 A, B, C, D (Main commercial lines in Europe; Main commercial lines on the Globe; Main passengers lines; Baltic cruise lines);
Marco Polo (2003-2010)\(^8\) and the vicinity with Trans-European Priority Projects Axis12 (Nordic triangle railway/road) and 21 M (Motorway of the sea)\(^9\) confers Oslo Port a special geo-economical position within the EU/EEA countries. This is emphasised by the implication of Oslo Port Authority in several EU organisations whose aim is to co-operate in the field of common development of European seaports.

Thus, Oslo Port Authority is a member of European Sea Port Organization’s\(^10\) Environmental Committee, participating in ESPO’s mission to influence public policy in the EU to achieve a safe, efficient and environmentally sustainable European port sector. The most important accomplishment in this respect was involving in writing the Environmental Code of Practice in 1993.\(^11\)

At the same time, Oslo Port, through its Authority, is a member of Environmental Challenges for European Port Authorities\(^12\), an organisation linked to ESPO and formed specifically to identify potential research studies, their participants and opportunities for funding. The ECEPA secretariat (part of a private specialist research and development company) was used by ESPO in the ECO Information Project (1993-1999) in order to provide an eco-information secretariat.\(^13\) Designed to assist European ports in the correct implementation of the Environmental Code of Practice, the Project was completed in 1999, Oslo Port being a part of it\(^14\) and exchanging

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\(^8\) Programme designed to lead towards a sustainable transport system in EU/EEA.
\(^9\) EU project carried on under the Common Transport Policy; see Annex 3 A, B (Trans-European Transport Network Priority Project No. 12 and 21);
\(^10\) ESPO was founded in 1993 in response to a growing demand that the seaport sector would present its views and opinions to serve the interests of seaports with regard to the development of the European Community, the single market and its common transport policy. The organisation represents the port authorities, port associations and port administrations of the seaports of the EU, connecting representatives of 800 ports across Europe.
\(^11\) See below Chapter 3.2.1;
\(^12\) Oslo Havn KF, Årsrapport 2003, on-line edition on:
http://www.ohv.oslo.no/data/f0/13/20/0_2401_0/Arsrapport2003.pdf;
\(^13\) http://www.gpa.unep.org/documents/meeting/expertapril2000/private%20sec%20doc%20inf-3.pdf (last accessed: May 2005);
\(^14\) Oslo Port Authority, Miljørapport Oslo havnevesen 2000; Spekter Reklamebyrå AS, Norway, 2001; page 9;
information with 24 other European ports on environmental issues. In 1999, the ECOPORTS Project\(^{15}\) followed ECO Information Project, but Oslo Port Authority chose not to join this one.

2.1.2 Implementation of ISO 14001 environmental management system

Between 2000 and 2002, Oslo Port, which is a municipality owned one, Oslo Port Authority being a municipal enterprise\(^{16}\), participated in a two-year pilot project on the introduction of environmental management, which was called Green Municipality. Conducted by Oslo Municipality, this project, based on voluntary participation, gave special priority to the following topics: energy, transport, procurement, waste and the management of buildings and installations. One of the priorities established in order to achieve its goal, “Oslo will become one of the world’s most sustainable and environmental-friendly capital cities”, was to introduce environmental management systems, including environmental auditing and reporting, as part of the management routines in all municipal agencies. Enrolled in the project next to municipal agencies as Waste management Authority or the Water and Sewerage Authority, in June 2001 the Oslo Port Authority was the first of the city’s agencies to achieve ISO14001\(^{17}\) certification and also one of the first ports in a capital city to do so.\(^{18}\)

During the process of acquiring the certification, Oslo Port Authority had to pass through all the steps towards implementing a

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\(^{15}\) Combining the results of other EU projects like ECOWARE and ECOPORT, ECOPORTS is a research project which main goal is to harmonise the environmental management approach of ports in Europe and to exchange experiences and implement best practices on port-related environmental issues.

\(^{16}\) Half of the Authority board members are politically appointed, two represent the port users, two are employee representatives and one representative is appointed from each neighbouring counties of Akershus, Hedmark and Oppland. In addition two state representatives are appointed from the Ministry of Defence and the Norwegian Coast Directorate.

\(^{17}\) One of the goals of ECOPORTS project is implementation of an environmental management system at port level.

\(^{18}\) City Government Proposition No. 37/03, Report no. 3/2003 to the City Council, Green municipality: eco-efficiency and environmental management systems in the City of Oslo, page 9;
documented environmental management system, thus improving its environmental performances in all the actions undertaken at all levels of activity. Still, achieving this environmental certification it is not the goal in itself, but the mean for the Authority to be able to manage environmental issues in a sustainable manner. In this respect, the Port Authority has already developed a computer based environmental accounting system in order to monitor the environment in the port and improve the actions taking into account the feedback received through monitoring.

Section 2.2 Sources of pollution in Oslo Port and structures with attributions in regard of protection of port environment

2.2.1 Technical description of Port and Port activity with emphasis on environmental impact

Oslo Port is situated at 59°54’ N, 10°45’ E at the head of the 109 km long, easily navigable Oslo Fjord. The port is well protected, has quay depths of up to 11 metres and has no ice problems in winter. There is no current, and tidal differences are negligible (0.3 m), enabling ships to arrive at and depart from Oslo Port at any time of day or night. Oslo Port District is bounded by a straight line running from the mouth of the Lysaker River in Bærum to the mouth of the Gjersjø River in Oppegård.19

One of the main causes of environmental pollution in seaports all over the world is activity for developing infrastructure20. Oslo Port is a highly developing space, and the years ahead will bring major changes both to the look of the city21 and to the port itself22. One project run by the Port

19 For data in regard of Port Facilities and Port Equipment, see Annex 4 A, B;
20 Alderton, Patrik, Port Management and Operations, Lloyd’s Practical Shipping Guides, Great Britain, 1999, page 238;
21 For details about Fjord City Project see http://www.ohv.oslo.no/cgi-bin/ohv/imaker?id=5172&visdybde=1&aktiv=5172;
Authority is to concentrate commercial port operations in the southern section of the Oslo Port area\textsuperscript{23}, where the Ormsund facility is already among the most modern container terminals in Scandinavia\textsuperscript{24}. The first stage is to expand Filipstad container terminal in the west district and then, as soon as space has been created by infill projects and the removal of existing oil infrastructure, the container port will move to the south district. Another project, completed in 2003, was to sell Tjuvholmen port district\textsuperscript{25}, the income being used in developing the south part of Oslo Port, as described above. Special infrastructure operations will be conducted in Bjørvika (a tunnel will be built in order to facilitate the traffic in the area\textsuperscript{26}), Akershusstranda and Rådhusplassen (City Hall Square) port districts, as a City Council plan from 2003 set out the framework for urban and port redevelopment of those sites.

Also, in connection with developing parts of the south harbour to a LoLo container terminal, approval has been given to develop Sjursoy Bay as a harbour area and make it a part of the terminal area. The bay shall therefore be filled in with material approved for this purpose. An application has been sent for permission to use the leftover masses in the Kongshavn region as this area will be excavated developed as a storage point for empty containers. Also, there are outflow and intake pipelines in Sjursoy Bay which must be re-laid and led out to the sea outside the filling in area. In addition two pile quays are to be demolished. The execution of the assignment will be divided up into the following main elements: Filling in Sjursoy Bay; Re-laying water and sewage pipelines in Sjursoy Bay; Demolition of the north Bekkelag quay; Partial demolition of the southern part of the east Sjursoy Bay.

\textsuperscript{22} see Annex 5 A, B (Oslo Port in 2004 and 2009);
\textsuperscript{23} See Annex 5C for a comprehensive map of the Port District;
\textsuperscript{24} The National Transport Plan 2006 – 2015 was considered by the Norwegian parliament (Storting) in June 2004. The plan establishes the need to find a port solution for the Oslo Fjord that promotes environmental and commercial interests, and designates Sjursoy as the main container terminal for the Oslo Fjord until further notice.
\textsuperscript{25} The sales agreement releasing Tjuvholmen from the Oslo Port Authority was approved by EFTA’s surveillance authority early in 2004;
\textsuperscript{26} See Annex 6 (Bjørvika tunnel);
quay; Excavation and area development at Kongshavn; Lighting for the developed area at Kongshavn; Area development at Sjursøy Bay.27

As stated in the Green Paper28 on Sea Ports and Maritime Infrastructure29, infrastructure projects can have a negative impact on the environment and have always to be considered in the context of environmental legislation and through appropriate environmental impact assessment. Oslo Port is situated in the middle of a very populated area, and particular attention must be given also to natural habitats and different flora and fauna species30. As a result, port growth is often confronted with special circumstances and constraints. In addition, new developments in Oslo harbour should also be considered in the light of an integrated framework for coastal planning taking into account the socio-economic and environmental needs and constraints of the surrounding coastal area.

Pollution from port maintenance is another major problem in Oslo Port, because sustainment of superstructure and equipment and especially dredging (either for maintenance or for deepening access channels) caused important problems in respect of finding a suitable dumping place for the dredged toxic material. Some 750,000 cubic meters of sediment from old industrial activity has to be removed from Oslo Port basin as it is constantly stirred up by shipping. As is the case in many Norwegian ports and harbours31, the sediment forming the seabed at the Port of Oslo is heavily

27 See www.ohv.oslo.no;
28 Green Papers are European Commission’s documents intended to stimulate debate and launch a process of consultation at European level on a particular topic. These consultations may then lead to the publication of a White Paper, translating the conclusions of the debate into practical proposals for Community action.
29 Document drafted by the Commission of the European Communities in December 1997;
30 In the harbour vicinity there are several sites which can be affected by pollution from the port activities (natural reservations: Gressholmen-Rambergoya, Bleikoya, Malmoya, Nakholmen, Store Herben, Hengasen, Dronningberget, Ekebergskranningen, Lindoya; biotop: Padda, Ulvoya, Malmoytoppen; protected natural areas: Kongeskogen, Huk, Killingen); see Annex 7 (Protected areas in Oslo Fjord);
31 See Annex 8 (The fjords and watercourses in Norway most heavily polluted by environmentally hazardous substances);
contaminated with a range of pollutants. In the case of Oslo, the main pollutants are heavy metals and organic compounds.\textsuperscript{32}

As said before, Oslo is located at the head of the Oslo Fjord, approximately 40 km from the open sea. So there is relatively little exchange of seawater in the harbour by nearby coastal currents. In the past, sediment dredged from the harbour was simply disposed of, uncapped, on the seabed outside the harbour.\textsuperscript{33} Also, contaminated sediments from local rivers have been settling in the harbour basin in Oslo for 60-70 years.\textsuperscript{34} The pollutants include both organic and inorganic types, and since 1992, dredging activity has been severely restricted until a safe disposal technique has been identified. Prevented from dredging the contaminated material, the Port has been faced with a major problem as siltation has continued.

Thus, maintaining sufficient underkeel clearance for large commercial vessels has become very difficult. Large quantities of contaminated sediment are stirred up every day by the passage of large commercial vessels, therefore releasing the contaminants into the water column where they are taken up by marine organisms. Monitoring work conducted within the harbour has shown that 50-200 kg of polluted sediments are released into the water column by each vessel. This amount of sediments contains 1-5g of mercury, and 200-700g of lead. Although the settling rate for such material is high, assuming that, on an annual basis, around 6,000 ships arrive and depart from the Port of Oslo, considerable quantities of pollutants are being released into the water every year.

Urgently required maintenance dredging in the port has been postponed on a number of occasions until such time as a means of dealing

\textsuperscript{32} See Annex 9 (Norwegian fjords where there are recommended restrictions on the consumption of fish and shellfish and/or a prohibition on sale);
\textsuperscript{33} See Annex 10 (The process of deposing of the contaminated sediments);
with the contaminated sediment has been found. Nevertheless, development of an action plan to deal with the contaminated sediments started in 1994, and a preliminary report was delivered to the State Pollution Control Authority two years later. However, almost ten years later, no plan of action has been implemented, such is the complexity of the problem.\(^{35}\)

Maintenance of the ships (firstly, managing waste), cargo-handling and storage, land-based actions and sea-based actions like tanker accidents, voluntary discharges (for example, of ballast water) or accidentally discharges from ships are activities with an important impact at Oslo Port environmental level. At the Ormsund container terminal, the Port Authority is trying to persuade terminal operators to invest in quieter, electrically powered equipment in order to reduce the noise. The Port Authority had also invested in rubber mounted gantry cranes that resulted in less noise and exhaust fumes and improved efficiency\(^{36}\). Besides, sulphur emissions from ships were reduced by more than 50% in the last years. Nevertheless, 15% of sulphur emissions affecting the atmosphere in Oslo are due to ships’ funnel fumes.

As a conclusion, according to a survey conducted by ESPO in collaboration with ECOPORTS Foundation, the main 10 environmental issues in Oslo port in order of priority are the following: noise, dredgings disposal, dredging, port/ship waste, ship exhaust emissions, vehicle exhaust, energy consumption, visual impact, contaminated land and hazardous cargo. At the same time, there is only partial defined a procedure for involving all port users in the development of environmental programmes and also for consulting with the local community on this programmes.

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\(^{36}\) The project costs were 40 millions Norwegian crowns and the main reasons for implementing it were the legislation in force (see Annex 11 Table 1 Noise) and complaints from the local community (see Annex 20
2.2.2 Oslo Port Authority, the main structure with attributions in regard of protection of port environment

Port activities in Oslo harbour are carried out by the so-called port actors, entities belonging to the public sector or to the port users (all of those who conduct economic activities in the harbour using the infra and supra structure of the port). Their actions are influenced by the society on the whole, by economic and technologic development, and they can carry certain pollution potential. The role of these port actors in regard of the environmental protection in Oslo Port can be drawn out from the normative acts that regulate the respective area. Thus, for example, if the Ministry of Environment has both legislative and control attributions, port authorities have, at a different hierarchical level, the same legislative and control powers, unlike the port users which are, most of the time, the subject of authorities inspections.

The Oslo Port Authority is the administrator of the harbour and its mandate dates back in 1735. Nowadays, it is operating under the control of the City Government, the Department of Transport and Environmental Affairs, and it has five departments: Nautical, Terminal (with Cleaning Section), Technical (with the Environment/Quality Insurance Section), Financial and Human Resources. Besides its main activity of providing basic infrastructure for shipping, imports, exports and passenger traffic, the Authority plays a major role in organising the inter-municipal pollution control unit. To improve safety and efficiency for sea transport and the environment, Oslo Port Authority and the Coast Directorate have established Vessel Traffic Services System for the Oslo fjord, in order to keep lights and marks in good conditions.

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Proportion of the population highly annoyed by noise in the different districts of Oslo); ESPO and ECOPORTS Foundation Survey 2004 - Oslo Port Authority;
37 Problems related to institutions from national public sector will be dealt with in Chapters 4 and 5;
38 http://www.randburg.com/no/osloport.html;
39 Oslo Havn KF, Årsrapport 2003, on-line edition on:
Among the responsibilities in the area of environmental protection can be enumerate drafting of development plans in accordance with the policy and programs drawn by the superior hierarchical institutions, and supervising transport, transit, loading/unloading of ships to ensure their compliance with the environmental port policy. Also, in daily inspections Pelikan ship, belonging to Port Authority, is picking up litter and waste floating in the water. Thus, Oslo Port Authority is acting both as a legislator and as a manager in the area of environmental protection.

In an integrated environmental management there can be some other entities with attributions in respect of controlling and preventing pollution in Oslo harbour. Among these, there are University of Oslo through its research activities in areas like law, biology, ecology; the Norwegian Institute for Water Research. Nevertheless, here can be added the entities from the voluntary sector which act in the same domain, as World Wildlife Fund for Nature Norway and The Bellona Foundation. The harbour-workers syndicates and patronal federations can have also responsibilities in the same respect as these concerns their very place of work.

http://www.ohv.oslo.no/data/f/0/13/20/0_2401_0/Arsrapport2003.pdf
Chapter 3: EU/EEA legislation system regarding the environmental port management

Section 3.1: Introduction

Protection of the maritime environment has become a priority of the EU in the last few years, as the threats towards this, ranging from the loss or degradation of biodiversity and changes in its structure, loss of habitats, contamination by dangerous substances and possible future effects of climate change\textsuperscript{40}, turned to be more visible. Measures to control and reduce these pressures and threats have been developed in a sector by sector approach resulting in a patchwork of policies, legislation, programmes and action plans, but still at EU level there is no overall, integrated policy for protection of the marine environment. Therefore, the European Commission\textsuperscript{41} decided to develop an integrated approach taking into account all the pressures on the marine environment.

In this light, the Strategic objectives of the Commission for 2005-2009 recognise the particular need for an all embracing maritime policy aimed at developing a thriving maritime economy and the full potential of sea-based activity in an environmentally sustainable manner. In its

\textsuperscript{40} The related pressures include commercial fishing, oil and gas exploration, shipping, water borne and atmospheric deposition of dangerous substances and nutrients, waste dumping, physical degradation of the habitat due to dredging and extraction of sand and gravel.

\textsuperscript{41} It drafts proposals for new European laws, which it presents to the European Parliament and the Council. The Commission makes sure that EU decisions are properly implemented, supervises the way EU funds are spent and that everyone abides by the European treaties and European law. Environmental issues are subject
Communication of 2 March 2005 “Towards a Future EU Maritime Policy: an European Vision for Oceans and Seas,” the Commission committed itself to presenting in the first half of 2006 a Green Paper defining the scope and priority issues to be considered as part of the development of a new EU Maritime Policy.\(^{42}\)

Therefore this chapter will present in a concise manner the EU policy and legislation developed until now, these being the basis of formulating the new integrated Marine Policy. This legal framework consists of voluntary binding and binding rules\(^ {43}\). A thorough image over EU legislation system in this domain can be found in Table 1 in parallel with the Norwegian legislation drawn upon it\(^ {44}\), only presentation of rules which regulate special interest areas for the Norwegian part in regard of sea-port management being the scope of this chapter. All these rules form a first level system of juridical instruments, which have to be taken into account by the Norwegian legislator when drawing up the national rules in the specific areas (second level system) in order to have a European integrated legislation.

**Section 3.2: Voluntary binding legislation**

3.2.1 European Environmental Code of Practice

As a response to the increasing awareness in regard of environmental consequences of port activities all over the continent, European Sea Port Organization’s Environmental Committee published in 1993 the European Environmental Code of Practice. It consisted of two main elements,

\(^{42}\) http://europa.eu.int/comm/environment/water/consult_marine.htm;

\(^{43}\) *Regulations* are binding in their entirety and directly applicable in all Member States; *Directives* bind the Member States as to the results to be achieved; they have to be transposed into the national legal framework and thus leave a margin for manoeuvre as to the form and means of implementation.

\(^{44}\) See Annex 11;
namely the general principles of an environmental approach backed up by more technical sections on issues such as waste management, monitoring the environment and port planning. In April 2003, the Code was revised in the light of EU legislative changes and of the progress achieved by the port sector in developing sustainable port policies.

Part I of the Code sets out 10 objectives which the EU port sector should aim to achieve (Environmental Policy Code). Part II highlights the achievements of the port sector in the past years in the field of the environment and recalls the European policy context (Environmental Port Policy Background). Part III of the Code presents an overview of (current and coming) environmental legislation, its effects on ports as well as guidelines for port administrations for managing the implementation of EU legislation in accordance with the principles highlighted in the “Environmental Policy Code” (Handbook of recommended environmental practices). Finally, a library of Environmental policy and guidelines is available, as an Annex to the Code.45

The Code is not binding for ESPO’s members, participation in its application being voluntary. However, ESPO advises port administrations, with or without direct environmental responsibility, to use this Environmental Code of Practice to help them in developing tools to manage environmental issues.

3.2.2 European Code of Conduct for Coastal Zones

Another important normative act but without binding effect is the Pan-European Code of Conduct for Coastal Zones. This Code was first proposed by the European Union for Coastal Conservation (EUCC) in 1993,
as a means to provide practical guidance to public agencies, local authorities, coastal users, and others with regard to ecologically sustainable development in the coastal zone. It deals with direct threats (habitat destruction) as well as indirect threats (habitat degradation and health impacts on wildlife and humans as a result of pollution). It represents a vital effort to put the principles of sustainable development into practice at all levels of society.

**Section 3.3: Horizontal mandatory binding legislation**


The objective of the new Community eco-management and audit scheme (EMAS) is to promote improvements in the environmental performance of organisations in all sectors through:

- the introduction and implementation by organisations of environmental management systems as set out in Annex I to this Regulation;
- objective and periodical assessment of those systems;
- training and active involvement of the staff of such organisations;
- provision of information to the public and the other interested parties.

Because of the discussions around compatibility between EMAS and ISO14001, the Commission emphasised in a Communication to the European Parliament that this rapport between the two environmental

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46 *Horizontal legislation* refers to legislation which does not address a specific environmental problem but aims to improve the environment from a general perspective.

47 This Regulation replaces Council Regulation (EEC) No 1836/93 of 29 June 1993 allowing voluntary participation by companies in the industrial sector in a Community eco-management and audit scheme.

48 SEC/99/2183 final - COD 98/0303;
management schemes is strengthened by incorporating EN ISO 14001 as the environmental management system element of EMAS. This allows the elements where EMAS goes further than EN ISO 14001 to be clearly defined, namely compliance with environmental legislation, the improvement of environmental performance, external communication and employee involvement\textsuperscript{49}

This Regulation is included in the EEA Agreement and in conformity with Annual reports on monitoring the application of Community law, it was not infringed by any Member State as the latest data are from 31 December 2003.

Section 3.4: Sectorial mandatory binding legislation

3.4.1 Water protection and management


The Water Framework Directive is a single piece of framework legislation created by the Commission for dealing with the fragmentation of water policy. Its key aims are to:

- expand the scope of water protection to all waters, surface waters and groundwater;
- achieve “good status” for all waters by a set deadline;
- manage the water resources based on river basins;

- use a “combined approach” of emission limit values and quality standards;
- get the prices right;
- get the citizens more closely involved;
- streamline legislation.

The WFD addresses, amongst others, the coordination of administrative arrangements within river basin districts, the environmental objectives to be used for the river basin management plans, the analysis of the river basin characteristics, the review of the impact of human activity and the economic analysis of water use as a basis for determining the cost-effectiveness of the various possible measures. As a result of the Water Framework Directive seven old Directives will be repealed.\textsuperscript{50}

As a consequence of implementation of WFD, port development projects would be subject to greater constraints and uncertainties, and may even, in some cases, be prohibited as a result of their likely effect on water quality status. An example could be that WFD allows, under certain conditions, for temporary deterioration in the status of water bodies only if such deterioration is the result of extreme events (floods, droughts, etc.), force majeure, or accidents. There is however no provision for temporary deterioration due to ongoing activities such as dredging or navigation. Unless water bodies are designated and/or derogations are put in place, this can lead to constrain navigation and maintenance dredging if they result to some deterioration in ecological and/or chemical water quality status.\textsuperscript{51}

Despite this awareness of the WFD and its possible effects is poor in the port sector, a survey that ESPO undertook within its membership and in co-

\textsuperscript{50} \textit{Annex to the Environmental Code of Practice of ESPO}, on-line edition on: \url{http://www.espo.be/publications/Annex%20to%20Code%20of%20Practice%20-%20FINAL%20%2027%20May%202004%20-%20WEB%20version.pdf}; the “old” directives are in regard of: Fish Water, Shellfish Water, Drinking Water and Dangerous substances;

operation with other maritime and inland waterways organisations at the end of 2003 showed that the port and navigation sectors were generally absent from the discussions at national level on the implementation of the Water Framework Directive.\textsuperscript{52}

In order to address the challenges in a co-operative and co-ordinated way\textsuperscript{53}, the Member States, Norway and the Commission agreed on a Common Implementation Strategy (CIS) for the Water Framework Directive only five months after the entry into force\textsuperscript{54} of the Directive. Special features of CIS will be discussed further on Chapter 4.5.1.

3.4.2 Nature protection and biodiversity


The main objective of the Directive is to contribute towards ensuring bio-diversity through the conservation of natural habitats and of wild fauna and flora in the European territory of Member States. Together with the Birds Directive it establishes an European network of Special Areas of Conservation under the title “Natura 2000”. The Directive establishes the procedures by which a list of sites are selected as sites of Community importance and then designated by the concerned Member States as Special Areas of Conservation. For these Special Areas of Conservation, Member States are required to establish conservation measures involving, if need be, appropriate management plans. Plans or projects that are not connected with the management of the site and are likely to have a significant effect on the


\textsuperscript{53} WFD it is not yet a part of the EEA Agreement, but it will become as soon as Iceland finishes analysing its implications;

\textsuperscript{54} See Table 2 (Annex 12) for an overview of implementation timetable;

\textsuperscript{55} Entry into force: June 2004; it is not a part of EEA Agreement;
site must be subject to appropriate assessment of their implications for the conservation of the area. In the light of the conclusions of such assessment, the competent national authorities consent or refuse granting permission. If there are detrimental effects on the conservation objectives at the site consent is only possible if appropriate compensation measures are undertaken by the developer to ensure the coherence of the network “Natura 2000”.

In the period 1994-2000 Member States have made significant progress in implementing the Directive’s obligations, particularly at the policy level and in site selection – although progress on this aspect has failed to meet the time-scale as set out under the Directive. However, progress in other areas, notably the establishment of surveillance and monitoring to assess conservation status of habitats and species of Community interest, the adoption of management objectives and plans, and the application of species conservation measures has been extremely poor.

Nevertheless, Natura 2000 is a great source of concern for European sea-ports authorities. Because of a strict application of Natura 2000, many port projects have been interrupted or delayed, involving very high costs, solely borne by the port authority. It was established that there was a lack of capacity in European ports and that the situation will get worse given the growth of container traffic in the forthcoming years. Ports are under pressure to offer adequate infrastructure and facilities to accommodate the wishes of their customers and will therefore need space to face the challenges of globalisation. Therefor, it will be all the more important to find the right balance between port development and the implementation of Natura 2000.

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58 ESPO contribution to the Natura 2000 Conference organized by the Green/EFA Group in the European Parliament on December 12, 2002, on-line edition on:
network, some activities as construction of terminals, berths, rails, tracks, road; dredging etc. colliding with Habitats and Birds Directives. In the meanwhile, members of the European Maritime Industries Forum expressed their concern to the European Commission in regard of all this problems in a paper presented to the MIF plenary meeting, 25-26 January 2005, Bremen.\(^{59}\)


The Birds Directive, alongside the Habitats Directive, is a key instrument to support EU policy on the conservation of biodiversity, and a vital tool to assist the EU to meet wider biodiversity conservation objectives, including the target to halt biodiversity decline by 2010.

The aim of the Directive\(^{60}\) is to contribute to the conservation of all species of naturally occurring birds in the wild state in the territory of the Member States. The Directive covers the protection, management and control of these species and lays down rules for their exploitation. It applies to birds, their eggs, nests and habitats. Member States are required to take the requisite measures to maintain the population of the wild birds at a level which corresponds in particular to ecological, scientific and cultural requirements, while taking account of economic and recreational requirements, or to adapt the population of wild birds to that level. The Directive identifies 181 endangered species and sub-species for which the Member States are required to classify the most suitable territories in number and size as Special Protection Areas (SPAs) in view of protecting habitats which are important for the survival and reproduction of these species. Over 3000 SPAs have been designated to date, covering 7% of EU territory. The SPAs are part of the network Natura 2000 and the same provisions apply if a


\(^{60}\) Entry into force: April 1981; it is not a part of the EEA Agreement;
project is planned which could have detrimental effects on the conservation objectives. The Directive addresses also the hunting and sale of several species.

The above discussion of how does Habitats Directive influence port activities is valid for the Birds Directive also.

3.4.3 Waste management


The aim of the Directive is to reduce the discharges of ship-generated waste and cargo residues into the sea, especially illegal discharges, from ships using ports in the EU/EEA, by improving the availability and use of port reception facilities for ship-generated waste and cargo residues, thereby enhancing the protection of the marine environment. Therefore, port administrations must:

- ensure the availability of port reception facilities capable of receiving the types and quantities of ship-generated waste and cargo residues from ships normally using the port, without causing undue delay to ships;
- develop and implement an appropriate waste reception and handling plan, following consultations with the relevant parties, in particular port users or their representatives.

The Directive details specific requirements for the development of such plans. Port administrations have to ensure that the costs of port reception facilities, including the treatment and disposal of the waste,

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62 All Member States should have complied with its provisions until the 28th of December 2002;
shall be covered through the collection of a fee\textsuperscript{63} from ships. The fee may be incorporated in the port dues or be a separate standard waste fee. The cost recovery system must aim to discourage ships from discharging their waste into the sea.\textsuperscript{64}

3.4.4 Soil


This Communication is the first occasion on which the Commission addresses soil protection for its own sake. Therefore it is both descriptive and action oriented in order to offer a full picture of the complexity of the issue and serve as a basis for future work. It places soil alongside water and air as environmental media to be protected for the future.

In order to ensure the protection of soil against erosion and pollution, the Commission puts forward a Thematic Strategy, which consists of four building blocks:

- Proposal of a series of environmental measures (from 2002 and onwards) designed to prevent soil contamination, including legislation related to sewage sludge and compost;
- Integration of soil protection concerns in major EU policies, including the transport policy;
- Proposal for soil monitoring legislation (by 2004) aiming to ensure that monitoring of soil threats is done in a harmonised and coherent way providing useful input to policymakers;

\textsuperscript{63} The consent upon the taxation system was achieved after a long session of conciliation between the European Parliament and the European Commission; whereas the European Parliament wanted up to 90\% of the costs to be covered by a charge levied on vessels calling at in a port, irrespective of whether the ship deposits its waste or not, the Council is reluctant to allow percentages to appear (Europe Environment Magazine, 06.01.200).  
\textsuperscript{64}Annex to the Environmental Code of Practice of ESPO, on-line edition on:
- Future Communication on soil erosion, soil organic matter decline and soil contamination, including detailed recommendations for future measures and actions.

In the Communication the Commission expresses the intention to consider the extension of the annexes of the Habitats Directive to include more soil-based habitats requiring special protection.65

This new approach of the Commission towards the soil issue is important for developing future port activities. The port area historically accommodates a great range of actions, which are, or have been, the source of soil contamination. From a port administration point of view, soil contamination means damage to the sites that it rents, and consequently a reduction in value of its assets. This can lead to complex and time-consuming juridical processes aiming at the restoration of the site, puts pressure on attractiveness for new investors, and delays potential income from rent and spin-off activities because the site cannot be used. In several ports land lease contracts therefore contain environmental paragraphs. The “polluter pays” principle, which will be put into action with the forthcoming Directive on Environmental Liability66, will provide some more protection to port administrations, but it may also create the need to assign a special budget to pay for the restoration of the site on behalf of the polluter and to set up a legal system to claim back the money from the polluter. Still, a certain financial risk for the port administrations remains, especially if the tenant is insolvent or cannot be traced after the end of their contract.67

Even though the Commission’s concern is rather new, ECEPA Authorities initiated action in this area since 1994 when it established a
collaborative project under LIFE Programme to demonstrate new technologies for a cleaner environment. Nine ports have participated in the pilot project of developing soil recycling techniques for port-specific pollution. The techniques used included particle separation, landfarming, biodegradation, aeration, and physical/chemical cleaning. The active cooperation between the nine European Port Authorities has resulted in the publication of the ECEPA-Life guideline “Soil recycling in European ports.” The guideline, which is aimed at managers, engineers and planners in port authorities, incorporates 10 checklists on topics ranging from legal aspects to cost reduction and organisation at site level.\(^{68}\)

\(^{68}\) http://www.nicole.org/publications/NICOLEv2n1p01.PDF.
Chapter 4: Norwegian national legislation system regarding the environmental port management elaborated by the public authorities - how it follows the EU/EEA legal-frame

Section 4.1: Introduction

The link between Norwegian legislation system and the EU legal-frame is found in the provisions of European Economic Agreement signed in 1992 between the representatives of Member States of European Free Trade Association (including Norway), on the one hand, and the ones of European Union, on the other hand. The aim of this Agreement of association was to promote a continuous and balanced strengthening of trade and economic relations between the Contracting Parties with equal conditions of competition, and the respect of the same rules, with a view to creating a homogeneous Economic Area in Europe. The most important mean of achieving this objective is to correlate the legislation in specific areas agreed upon, preservation, protection and improving the quality of the environment being a part of this.69

69 See The EEA Agreement, Preamble, Articles 1 and 7;
The EU rules Norway has to comply with under the EEA Agreement in the domain of environmental management in ports are comprised in Annex 13 Transport and Annex 20 Environment of the Agreement, as not all the EU legislative system in the area must be implemented by the EFTA Member States. If acts corresponding to an EU regulation shall as such be made part of the internal legal order of Norway, an act corresponding to an EU directive leaves to the Norwegian authorities the choice of form and method of implementation.

This Chapter will thus mainly deal with the Norwegian laws and regulations (lover and forskrifter) drawn up upon the EU Directives. Nevertheless, in the area where the Norwegian legislation differs from the EU one, this fact will be analysed too. Also, describing and analysing the Norwegian legislative bodies is another topic of this Chapter, as understanding the manner in which these legislative authorities are organised can help in interpreting why the juridical instruments in discussion came into being in the actual form.

Section 4.2: Central authorities with responsibilities in seaport environmental management

Implementation of EU Directives in the legislation of the Member States of EEA Agreement is a process that may take up till two years until action can be taken against the state that did not comply with this rule. The Norwegian legislative system is very complex in regard of the authorities with legislative and executive powers in the area of environmental port management. Thus, the Parliament (Storting) is passing, amending or repealing the normative acts named lover (laws), which constitutes the main legal provisions in different general domains such as pollution, fishery, biotechnology, harbours etc. Forskrifter (regulations), which are normative
acts with more specific stipulations, are drawn up and their application is followed by the Ministries that form the Norwegian Government. In the field of environmental port management, four Ministries have responsibilities and attributions in regard of implementing the EU legislation through regulations. Under each Ministry there are functioning multiple departments and agencies that co-operate between themselves and are specialised in fulfilling this duties, all together constituting a complex and ramified system with legislative powers involved in implementation of EU Directives in Norwegian legislation.

4.2.1 The Ministry of Fisheries and Coastal Affairs

One of the Ministries with higher responsibilities in the area of seaports organisation is the Ministry of Fisheries and Coastal Affairs. This is in charge of:
- the fisheries industry;
- the aquaculture industry;
- seafood safety and fish health and –welfare;
- ports, infrastructure for maritime transport and preparedness against acute pollution.

The Ministry is divided in four departments, from which only two are involved in regulating the seaports domain. Thus, the Department of Coastal Affairs deals with maritime infrastructure, preparedness in the event of acute pollution, long-term planning for sea transport in the National Transport Plan, national port and fairways policy, development of fishing ports and the overall administration of the Norwegian National Coastal Administration as a subordinate agency. The department also administers

70 The Norwegian National Coastal Administration is the Ministry’s advisory and executive body in matters pertaining to the administration of ports and seaways. The National Coastal Administration is organised into five coastal districts, each of which has a local regional office. The head office in Ålesund is
civilian navigation policy. At the same time, the Department of Marine Resources and Environment cover matters involving quota negotiations and international fisheries agreements, marine mammals, national regulation of fisheries, annual allotment of the right to participate in fisheries and first-hand sales. The department co-ordinates the Ministry’s environmental policy and its participation in international marine environment organisations. Besides these two departments, under this Ministry is operating the Institute of Marine Research. With its head office in Bergen, this performs key tasks in the investigation and monitoring of fish stocks and marine mammals, the marine and coastal environment and activities related to aquaculture and sea ranching. Research on the marine eco-system and the impact of climate fluctuations and human activity is also incorporated into the Institute’s advice to the authorities. All these departments and agencies co-operate between themselves and between their counterpart in other Ministries in order to draft an integrated legislative frame.

4.2.2 The Ministry of Local Government and Regional Development

Established in 1948, this Ministry is relevant for Oslo Port activities because it is responsible for matters as housing policy, regional and district development and local government. Under this Ministry there are several Departments which are involved, more or less, in the legislative process related to Oslo Port. So, the Department of Local Government is in charge with the local government finance, co-ordination of government measures relating to county authorities and municipalities, legal matters and

responsible for the overall administration of these districts. The Norwegian National Coastal Administration was founded in 1974 as a result of the merger of the National Port Authority, the Lighthouses and Buoys Authority and the Pilotage Authority. The National Coastal Administration and the Norwegian Mapping Authority collaborate on sending out correction signals for the American satellite-based GPS navigation system. The Armed Forces logistics organisation operates the Loran-C stations on behalf of the Ministry. The National Coastal Administration also exercises responsibility for preparedness in the event of acute pollution.

http://odin.dep.no/fkd/english/ministry/org/dep/008001-990032/dok-bn.html;
the interpretation of legislation concerning municipalities. The Department of Regional Development is responsible for regional development policies in Norway and the Housing and Building Department is responsible for housing politics and building legislation.\textsuperscript{72}

4.2.3 The Ministry of Trade and Industry

From the developing international maritime safety and environmental regulations point of view, the Ministry of Trade in Industry plays a key role through its Department of Regulatory Affairs and Shipping. Under this Department is operating Shipping Section which co-ordinates the activity in the Norwegian Maritime Directorate and Shipping Registers.\textsuperscript{73} NMD is responsible for all public control of Norwegian ships and is also required to inspect 25% of all foreign-flagged ships calling at Norwegian ports each year. Also, the agency is responsible for the development and administration of all legislation for the safety and environmental aspects of shipping, but it is subordinate to the Ministry of the Environment in matters concerning the prevention of marine pollution from ships. The NMD assists the Petroleum Safety Authority in enforcing the Petroleum Act on the Norwegian continental shelf. While the Ministry of Children and Family Affairs is responsible for the administration of pleasure craft legislation, the control authority for such craft rests with the NMD.\textsuperscript{74}

4.2.4 The Ministry of Environment

One of the most involved Ministries in the seaport environmental management is probably the Ministry of Environment. With

\textsuperscript{72} http://odin.dep.no/krd/english/ministry/org/dep/bn.html;
\textsuperscript{73} http://odin.dep.no/nhd/english/ministry/dep/bn.html;
\textsuperscript{74} http://www.sjofartsdir.no/upload_attachment/NMD_presentation2004.pdf;
various areas of responsibility\textsuperscript{75}, this Ministry has under its supervision five Departments, which include more than 15 Sections with attributions in regard of drawing environmental legislation with appliance at the Oslo Port level. Three more agencies add to complete the frame of the bodies with regulatory responsibilities in the mentioned area within the Ministry of Environment\textsuperscript{76}.

This highly ramified regulatory body with responsibilities and attributions in specific restricted areas that form the spread domain of seaport environmental management may constitute an advantage and a disadvantage at the same time for the good functioning of Norwegian ports. While the segmentation of fields could be proficient through a thorough analysis of the issues in question, the same partitioning can involve delays and cleavages in regulating some large matters. For example, there was a long and tough debate on which Ministry and which Department should implement into the Norwegian legislation the Water Framework Directive\textsuperscript{77}.

Section 4.3: Relation with voluntary binding EU/EEA legislation

4.3.1 European Environmental Code of Practice

\textsuperscript{75} Protection and use of biodiversity, water pollution, waste and recycling, international environmental co-operation, regional planning, mapping etc.;

\textsuperscript{76} Departments: Department for International Co-operation; Department of Nature Management (Section for Management of Watercourses and Conservation of the Marine Environment, Section for Nature Conservation and Wildlife Management, Section for Biodiversity and Biotechnology); Department for Organisational and Economic Affairs (Section for Environmental Economics and Analysis); Department for Environmental Data, Pollution Control and Eco-Efficiency (Section for Products, Waste Management and Eco-Efficiency; Section for Marine Environment and Industry Issues; Section for Environmental Data, Environmental Performance Evaluation and Noise; North Sea Secretariat); Department for Regional Planning, Land-use and Geomatic Policy (Section for Regional Planning; Section for Geographic Information; Section for Municipal Land-use Planning; section for Urban Development, Land-use Planning and Transport Planning; section for Environmental Impact Assessment; Co-ordination Unit for Local Agenda 21; Secretariat for the Planning and Building Act Committee); Agencies: The Directorate for nature management; The Norwegian Mapping Authority; The Norwegian Pollution Control Authority.

\textsuperscript{77} See discussion below, Section 4.5.1
As discussed in Chapter 2 above, Oslo Port Authority is a member of European Sea Port Organization’s Environmental Committee. Assuming its active role in ESPO’s objective of determining public policy in the Community to make from the European port sector one of the most secure, effective and environmentally supporting one in the world, the Authority involved itself in writing the Environmental Code of Practice in 1993.

4.3.2 European Code of Conduct for Coastal Zones

Norway is a country with European Union for Coastal Conservation members, but without activities run under EUCC. Also, Oslo Port it is not involved in any organisations in a coastal management plan.

Section 4.4: Horizontal legislation

Act No. 6 of 13 March 1981 concerning protection against pollution and concerning waste (Pollution Control Act)

The main act that regulates operations in regard of pollution is the Pollution Control Act, which expresses a duty of preserving the environment so that pollution and waste will not lead to damage to nature or adversely effect the well being of people in general. This is reflected in the main rule of the act, which says that pollution is forbidden, unless it is specifically permitted by law, regulations or individual permits. All of these are issued by the

78 http://www.eucc.net/en/home/index.htm;
79 ESPO, ECOPORTS survey 2004 – Oslo Port Authority;
80 Lov om vern mot forurensninger og om avfall (Forurensningsloven), LOV-1981-03-13-6;
Norwegian Pollution Control Authority (SFT), which is the administrator of the Act.

In order to comply with EU/EEA legislation, the Act was amended several times\textsuperscript{81}, the specific areas in which this Act applies in respect of Community rules can be found in Annex 11 Table 1, as reported to EFTA Surveillance Authority.

In regard of its appliance at Oslo Port level, Section 5 of the Act specifies that “for pollution from roads, railways, etc. harbours and airports, this Act applies to the extent decided by the pollution control authority. For pollution from individual means of transport, the provisions made in or pursuant to the Product Control Act, the Road Traffic Act, the Seaworthiness Act, the Harbour Act, the Aviation Act and the Railways Act apply instead of the provisions of this Act.”

**Section 4.5: Sectorial legislation**

4.5.1 Water protection and management

As stated above in Chapter 3.4.1, the Water Framework Directive is one of the most important new pieces of legislation within the Community, with close deadlines that impose a great responsibility upon the Member States. Not yet a part of the EEA Agreement due to Iceland’s slow negotiations towards finding an acceptable form of integrating the Directive into the Agreement\textsuperscript{82}, the WFD should have been implemented in the national legislation of the Member States until December 2003. Even though, Norway has for several years participated in the development of the WFD because

\textsuperscript{81} Last amended: LOV-2004-12-17-99;
\textsuperscript{82} It was expected that WFD will become a part of the EEA Agreement at the end of 2004, but this did not happen not even now (August 2005);
when this will be incorporated in the EEA Agreement, all common standards and Directive’s deadlines must be conformed as such.  

Therefore, since 2001 Norway was involved in working groups pertaining to the Common Implementation Strategy, together with the other participants carrying out the following activities: raising awareness and exchange information; developing guidance documents on various technical issues; carrying out integrated testing in pilot river basins; and developing a European information management system. From the reports of these working groups a significant message emerged: one of the two major pressures towards the implementation of the WFD is from impacts due to past physical alterations owed to major water uses such as navigation, hydropower and flood control. Despite the benefits of these uses, major negative implications for the well-being of the water environment in Norway and all across Europe occur from these activities. Moreover, indications are that these categories of pressures are likely to increase over the coming years since the future infrastructure projects are already planned and approved.

Nevertheless, Norway is behind schedule in implementing WFD. These delays are to a large extent due to a political disagreement within the Government as to whether the Ministry of Environment or the Ministry of Oil and Energy should have the overall responsibility for implementing the WFD in Norway. Hydropower is important in Norway and the Ministry of Oil and Energy has up until now been responsible for water

[83] Deadlines will be valid for Norway with retroactive effect;
[84] The Common Implementation Strategy is a joint and voluntary process agreed between the Member States, Norway and the European Commission. Although implementing the Directive remains the responsibility of individual Member States, a common strategy was considered necessary in order to: develop a common understanding of approaches; elaborate informal technical guidance including best practice examples; share experiences and resources; avoid duplication of efforts; and limit the risk of bad application. Addressing all these challenges, the new Work Programme 2005/2006 of the CIS for the WFD is moving the joint activities into the next stages of the implementation, prompting the centre of gravity from the basin-wide characterisation and analysis towards the establishment of the monitoring networks and the river basin management plans (http://europa.eu.int/comm/environment/water/water-framework/strategy3.pdf).
[86] See Chapter 2.2.1 for ongoing infrastructure plans in Oslo Port;
management in general terms. Eventually, in the beginning of this year, the Government decided that the Ministry of Environment has the duty to integrate the WFD in Norwegian legislation, working in close co-operation with the Ministry of Oil and Energy.

The above mention delay was signalled to the European Commission by the World Wildlife Fund Norway, which identified some other detaining factors. Among these, absence of public debate and clear political signals, methodological weaknesses and lack of funding are indicated as to be the most important ones.

In addition, there are the problems which arise from the actual state of facts in Norway: infrastructure development continues to take place too close to the water, infringing upon the natural systems dynamics and negatively impacting on wildlife, the natural biodiversity of Norwegian coastal waters being thus threatened. Marine habitats are penetrated by alien species introduced, among others, courtesy of indiscriminate dumping of ballast water by ships.

Due to these issues, for some water bodies which have been modified to serve essential functions for society, as the Oslo Port, the goal of

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88 http://www.wwf.no/pdf/WFD_WWFNorway_report04.pdf;
89 The situation is rather complex and complicated because the responsibility for co-ordinating water resource management and development is divided between several agencies. The Ministry of Petroleum and Energy and its subordinate agency the Norwegian Water Resources and Energy Directorate are responsible for the management of water and energy resources. The Ministry of the Environment and two of its subordinate agencies, the Norwegian Pollution Control Authority and the Directorate for Nature Management, are responsible for water pollution issues and for nature conservation and nature management. The Norwegian Pollution Control Authority is the competent authority for preventing water pollution, under the Pollution Control Act. The Directorate for Nature Management is the competent authority for the conservation and sustainable management of biodiversity. The Planning and Building Act (administered by the Ministry of the Environment) includes provisions on the co-ordination of national, county, and municipal activities and provides a basis for decisions on the use and protection of the environment. Under the Act, municipalities may establish environmental goals for their water resources and the environment in the vicinity of these resources. At the regional level, the five regional offices of the Norwegian Water Resources and Energy Directorate and the county governors, who report to the Norwegian Pollution Control Authority and the Directorate for Nature Management, are involved in the management and development of water resources. (http://www.un.org/esa/agenda21/natlinfo/countr/norway/waterNorway04f.pdf);
90 Note to the Commission concerning slow Norwegian integration of EU legal acts into the EEA and discrepancies between EU and Norwegian environmental policies that affect realisation of EU goals in the field of environment, Brussels, 6 November 2003, www.wwf.no/;
91 http://www.wwf.no/pdf/WFD_WWFNorway_report04.pdf;
92 idem;
the WFD to ensure that all water bodies attain or uphold its natural condition (“good ecological status” and “good chemical status”) might not be achieved. WFD thus will allow for certain water bodies to be excepted from the overall environmental goals of the directive under strict conditions. A water body can for instance be defined as an “artificial” or “heavily modified water body” (HMWB) under certain conditions: it must have been subject to a physical intrusion affecting the ecology of the water body and the initiatives necessary in order to reverse these effects must be disproportionally costly or violating overriding interests of society. As an example, for Oslo Port the WFD can operate with an alternative and mandatory ecological goal called “good ecological potential”. Norwegian authorities will thus for HMWB’s be obliged to achieve “good ecological potential” and “good chemical status” for each specific instance of this classification. Achieving good ecological potential requires that the composition and concentration of animal and plant species in the Oslo Port waters is as close to “good ecological status” as possible given the presence of the specific physical intrusion.93

All this theoretical approach towards the WFD has a very important practical importance in Oslo Port environmental management because of the dredging activities, which must be carried on in the water-basin in order to finish the infrastructure projects mentioned above in Chapter 2. Stirring the contaminated sediments in the port-basin will affect the ecosystem, coming into strong conflict with the environmental goals of the WFD. In reality, the WFD does allow development for infrastructure that may actually oppose its goals, but only if the benefits for society of such intrusions are very large and if there are no better ways of addressing the specific societal need in question. This will, however, have to be tried in an open process in each case and according to strict criteria. If an exemption from the directive’s goals is allowed, the developer in question is committed to

93 http://www.wwf.no/pdf/WFD_WWFNorway_report04.pdf;
introduce mitigating measures to secure the best ecological condition possible given the specific, physical influence on the water body. Further still, the specific development will only be allowed if it does not jeopardise the objectives of other EEA-legislation or the status of another water body in the same river basin.\textsuperscript{94}

Another threat towards the correct implementation of WFD in the Norwegian legislation is the non-transposition provisions for Habitats and Birds Directives, which have an actual link with the WFD (Annex VI of the WFD\textsuperscript{95}), but this issue will be analysed in the following subsection.

4.5.2 Nature protection and biodiversity

As said before, the EEA Agreement ensures access for companies in Norway, Iceland and Liechtenstein to the EU internal market provided these countries implementing Community internal market legislation. Moreover, the Agreement also covers side policies, such as environment and research, but not nature resource management. Nevertheless, the borderline between environmental legislation and nature resource management legislation is increasingly ambiguous. One example is offered by the Water Framework Directive for water management within an ecological framework, which is about to be included in the EEA Agreement, and whose implementation has already being start in Norway. On the other hand, the Habitats and Birds Directives, which are linked by the WFD through the provisions in Annex VI of the latter, are not part of the EEA Agreement. This complicates and may even compromise the Norwegian implementation of the Water Framework Directive, which presupposes and is supposed to function

\textsuperscript{94} \textit{idem}; see also http://www.espo.be/publications/ENVIRONMENTAL_Code_of_p.pdf;
\textsuperscript{95} “Lists of measures to be included within the programmes of measures under WFD – Measures required under (ii) The Birds Directive (79/409/EEC); (iii) The Habitats Directive (92/43/EEC)”
together with the Habitats and Birds Directives, increasing disturbance of the judicial homogeneity in the EEA-area.

The discussion on whether Norway should or should not unilaterally implement Habitats and Bird Directives may start with the commitments undertaken when signing Bern Convention on the Conservation of European Wildlife and Natural Habitats (1979) and the Convention on Biological Diversity (1992), which Norway has still not been able to follow up by working out an updated legal framework. Only recently has work begun on this. In the meanwhile, the Birds and Habitats Directives provide the framework within which the provisions of the Bern Convention are applied. At the signing of the first EEA-agreement in 1992, both Directives were still in their primary stages of implementation and there were thus no problems connected with Norway’s non-implementation. Today, however, the situation has changed, because there are important dividing lines between the actual natural protection regimes of Norway and the EU.

96 http://www.wwf.no/pdf/EU_ESA_letter_Vefsna_Natura2000.pdf; 97 http://www.wwf.no/core/eu_miljo/pdf/Habitats%20Directive%20and%20Norwegian%20nature%20management%20(WWF).pdf; 98 A major cause of lack of results it is considered to be the fact that Norwegian authorities to a very little extent, have been willing to prioritise biodiversity over fisheries, agricultural and forestry wishes (http://www.justmake.no/kunder/fivh/filer/abstract_sidelined.reluctant_EU_Norway_0403.pdf); 99 An official working group has produced a groundbreaking series of legislative proposals based on the premise that all wild fauna and flora, plus native breeds of domesticated animals, are in principle to be considered protected species. The assumption of protection would extend offshore to the limits of Norway’s economic zone. Exceptions to the principle – which would also apply to habitats and landscapes – would be made for sustainable exploitation, where appropriate, and for particular activities such as agriculture, pest control and transport. The Environment Ministry has said that the 839-page document also aims to fix in law the “polluter pays” and precautionary principles as well as the concepts of critical pollution loads, cumulative impacts and environmentally sound technologies and working methods. New regulations are also proposed to cover the introduction of exotic species, access to genetic material, conservation subsidies, and sanctions and/or compensation for environmental damage. The Government has set a target date of 2010 for halting the loss of biodiversity. (Norway: Revision of Biodiversity Laws; in Environmental Policy And Law, 35/1 (2005) page 51); 100 For example, the Habitats Directive has a “modern” ecosystem approach to nature protection. It is a key point that the ecological functions supporting the species or nature types to be protected are preserved. It is thus the potential influences on a certain area that are subject to control, not merely a defined geographical area. This means that also activities outside of the protected area itself may be subject to restrictions, if they can be shown to have a detrimental effect on the protected species/nature types. In Norway nature protection applies within a certain area and not for a certain area. (http://www.wwf.no/core/eu_miljo/pdf/Habitats%20Directive%20and%20Norwegian%20nature%20management%20(WWF).pdf);
As a matter of fact, important Norwegian NGOs are struggling nowadays to determine the European Commission to force implementation of these two Directives in Norway, World Wildlife Fund Norway being one of these. In a study completed in March 2002, WWF Norway stated that an implementation of the Habitats Directive in Norway would make a difference in a large number of cases, compared with the current regime, one example being that there is a great number of marine nature types for which the Habitats Directive would be valid and which are not receiving similar protection at present. Also, it is said that the Habitats and Birds Directive is providing a regional standard for nature protection in Europe and the widening gap between the Norwegian nature protection regime and the EU regime is a problem which surfaces in all types of cross-border and regional co-operation related to nature protection.

Likewise, in the Note to the Commission concerning slow Norwegian integration of EU legal acts into the EEA and discrepancies between EU and Norwegian environmental policies that affect realisation of EU goals in the field of environment (Brussels, 6 November 2003), WWF Norway is pointing that Norwegian policies are “at present lagging behind the EU and the Norwegian regime is allowing practices which in certain respects are obstructing the efforts of EU countries in living up to their obligations according to the directive. It is, moreover, an open question if not the more lax Norwegian nature protection regime in fact gives Norwegian nature resource based industries a competitive advantage on the common market. Norwegian environmental law only applies to Norwegian territorial waters, and not in the economical zone like the Habitats Directive. This gives Norwegian marine resource based industries fewer restrictions than their EU counterparts. Therefor, WWF-Norway believes it is in the interest of the

Commission and the environment, to address the issue of Norway’s non-
appliance to the EU nature conservation regime.\textsuperscript{102}

In conclusion, an integration of the Habitat and Birds Directives into Norwegian legislation would strengthen scientific arguments at the expense of commercial interests. In addition there will be the supranational authority of the European Commission, with sanction powers, as a guarantee for compliance. Among the two Directives, the Habitats one has a rather new approach towards the nature management issue, with its professional basis and originating from modern principles of coherency and cross-sectorial bordering on\textsuperscript{103}. An implementation of the Habitat Directive would therefore mean a tightening of Norwegian nature management legislation, and strengthen marine habitats, protection, and river conservation in Oslo Port area.

4.5.3 Waste management\textsuperscript{104}

In September 2001, Directive 2000/59/EC on Port Reception Facilities for Ship-generated Waste and Cargo Residues\textsuperscript{105} was incorporated in the EEA Agreement, becoming mandatory binding legislation for Norway. Even though the deadline for implementing it in Member States’ national legislation was the 28\textsuperscript{th} of December 2002, Norway did not manage to do so until the 1\textsuperscript{st} of June 2004. This was due to the long and complicated procedure of drafting and approving it.\textsuperscript{106}

\textsuperscript{102} www.wwf.no/pdf/Brev%20til%20Kommisjonen%2011.11.03.pdf;
\textsuperscript{103} http://www.justmake.no/kunder/fivh/filer/abstract_sidelined_reluctant_EU_Norway_0403.pdf;
\textsuperscript{104} This Section is based on an interview with Kristin Elise Frogg, Ministry of Environment, Department of Pollution control-Ocean and water pollution; 03.05.2005.
\textsuperscript{106} After a working session together with representatives of the Norwegian Coastal Administration (Kystverket), the Norwegian Pollution Control Authority, the County Governor etc. a first draft of the Regulation was made by the Maritime Directorate; after assessing the data collected in a second working session in which were involved representatives of Oslo Port Authority, shipping industry, waste industry, a
Replacing the old provisions of Pollution Act 1981 Chapter 5 – Pollution from transport, in respect of ship waste, the Regulation regarding delivery and reception of waste and cargo residues from ships no. 931 from 01.06.2004 is stricter and in general it follows the text of the Directive 2000/59/EC. Nevertheless, there were significant changes in order to adapt the provisions of the Directive with the port situation in Norway. Thus, because the EU norm was addressed more to the big ports, Norway had to adjust its stipulations to the small ones, which abound in this country. Also it was quite a challenge to adapt the provisions to the small fishing and leisure boats, with many calls in one or more ports in one day. The solution found was to impose this kind of ships the duty to notify the calling port only once per 24 hours. At the same time, another specific matter of the Regulation is that it had to adapt the former notification scheme to the norms contained in the Directive in regard of hazardous waste, which was quite a demanding activity for the Norwegian authorities.

After the Regulation came into force, EFTA Surveillance Authority analysed it in order to determine if the implementation of the Directive was correct or not. Subsequently, it did not impose Norway a duty to change the provisions of the Regulation. On the same line of examining the proper integration of the Directive in the Norwegian legislation, the Norwegian Pollution Control Authority together with the Oslo Port Authority and the County Governor will draft a common report in December 2005. Also, in order to evaluate better the practical process of implementation, in March 2005 Det Norske Veritas organised a workshop together with

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107 EU will have an evaluation of the implementation status in Member States in 2006; EFTA countries are not included in this evaluation process;
108 The Norwegian Certification Company;
representatives from all the institutions, organisations and associations implicated in applying the Regulation.

Until the evaluation of implementation of the Directive and the relevancy of the measures taken in order to minimise pollution in harbour areas will be ready, a question has already arisen and this after a only few months from the application of the required Waste Management Plans at ports’ level: is the notification scheme a useful tool or not? This enquiry was triggered by the fact that many times the data included in the notification form does not correspond with the actual waste and cargo-residues disposed in the port. Perhaps for this situation the fault falls either on the authorities or on the persons in charge with filling in the form. It might be that the document is too complicated and hard to be filled in and the personnel of the ships do not know how to do it or it is not aware of the importance of this notification form in the chain of protection of the environment in harbours.
Chapter 5: Regional and local legislation regarding the environmental port management elaborated by the public authorities

Section 5.1 Introduction

Norway has three levels of management: the Central Government and Parliament at national level, the County Authorities (fylkeskommune) at regional level, and the Municipalities (kommune) at local level. Among other responsibilities, the County Authorities are held accountable for county roads and transport while the Municipalities are responsible for harbours, municipal roads, water supply, sewerage, garbage collection and disposal, organisation of land use within the municipality. Thus, both institutions have to deal with specific regional and local problems accordingly with central legislation.\(^{109}\)

Therefore, this chapter will present the main points where the activity and responsibilities of the Oslo and Akershus County Governor and Oslo Municipality converge with the environmental problems of Oslo Port from a legal point of view. Sometimes, the writing might seem too general, but the reader must bear in mind that Oslo Port District is integrated in Oslo City; hence common rules that apply to the municipal region are valid to the harbour area. Furthermore, the aim of this chapter is not to enumerate the legal norms, but to explain the legislative responsibilities of both institutions and to exemplify the actions taken by them in order to solve a problem that is

not of the Oslo Port only but of the entire city in the light of the EU/EEA norms.

Section 5.2: Responsibilities and attributions of The County Governor (Fylkesmannen)

In Oslo and Akershus County, the County Governor is the chief representative of King and Government, and works for the implementation of Parliament and central government decisions. The County Governor applies central policy documents in the local context, being aware of the very specific of Oslo City.

The central document to regulate the area is the Local Government Act from 1992, laying down the principles of organisation and decision making in the municipalities. Also, the legal basis for execution of public authority is found in the Public Administration Act (1967) and the Freedom of Information Act (1998) and in numerous rules and regulations not specified in law. The municipality of Oslo is given authority in a number of laws covering different sectors, like the Planning and Building Act (1985) and so on.

The Governor of Oslo and Akershus is authorised to supervise Oslo local administration. He/she can advise the Oslo Municipality and the public about legal issues that may arise from local administration, and the office will supervise that the procedure is democratic and fair. In many ways, the Governor acts as a local ombudsman, safeguarding the interests of the common citizen.

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110 http://www.fylkesmannen.no/fmt_hoved_enkel.asp?g10790=x&g10789=x&gid=10813&tgid=10789; last amended: January 2005;
111 most recently amended by Act of 1 August 2003 No. 86;
112 http://www.fylkesmannen.no/fmt_hoved_enkel.asp?g10790=x&g10789=x&gid=10813&tgid=10789;
113 most recently amended by Act of 20 June 2003 No. 45;
114 last amended: April 2005;
115 http://www.fylkesmannen.no/fmt_hoved_enkel.asp?g10790=x&g10789=x&gid=10813&tgid=10789;
Nevertheless, there is little legislation drawn by the County Governor because many times this institution only submits an action plan to a public hearing and afterwards the Government has the duty to transform it into a law. The County Governor works to implement national environmental policies, and derives his tasks from the Ministry of Environment, the Norwegian Pollution Control Authority and the Directorate for Nature Management. Oslo Municipality has key roles in the environment protection efforts, and the Governor informs and guides it, translating the national policies into local action. The Parliament decides whether more environmental tasks should be delegated from the Governor to the Municipality. However, there is a norm drawn by Municipality for Oslo Port Authority that delegates authority to the County Governor in some environmental matters in accordance with the Pollution Control Act (1981).

Section 5.3: Regional legislation

5.3.1 Nature protection and management

A number of the ecosystem types found within the Oslo City boundaries are rare even at national level. Good examples are some of the ecosystems on the islands in the Oslo Fjord, where the soil is calcareous but shallow and dries out quickly, and there are characteristic calcareous woodland and rocky shore ecosystems. However, more than 300 red-listed species (species that are classified as threatened or vulnerable) occur within the city boundaries

116 According to an interview with Kristin Espeset, first-councillor, Department of Environment, County Governor;
117 http://www.fylkesmannen.no/fmt_fagomrade.asp?g4747=x&g4746=x&gid=4790&tgid=4746;
118 Informasjon om delegering av myndighet etter forurensningsloven til Fylkesmannen, Rundskriv 12/2001 – Byrådsavd. for miljø og samferdsel;
Nature conservation aims at securing endangered species and their habitats, and preserve a cross selection of Oslo nature for future generations. National parks, nature reservations and other protected areas are established by Royal Decree after an extensive process of drafts and hearings, in which landowners, municipalities, local organisations and government bodies give statements. The County Governor is responsible for the local part of this process, while the Directorate for Nature Management takes care of the central process. So far, the Governor has been responsible for running the established protected areas. If the Municipality wants to shoulder this responsibility, it may do so. The Directorate has launched a nationwide mapping of rare or endangered habitats, Oslo Municipality being responsible to do the registration work, supported in part by funding and other assistance from the Governor.\(^{120}\)

In the meanwhile, the County Governor finished in April 2005 the Protection of Natural Sites in Oslo Fjord Plan and submitted it to public hearing. After this procedure is finished, the Plan will be amended based on the citizen’s proposals and sent to the Ministry of Environment. At this point, the Government will invest the Plan with the attributes of a legal norm and the County Governor will have the executive power to implement it at regional level. This Plan bears an important significance for the Oslo Harbour because many protected sites and natural reservations mentioned in it are included within the port boundaries.\(^{121}\) Therefore, all the development actions that are to be taken in Oslo Port District must fulfil the provisions of the future Protection of Natural Sites in Oslo Fjord Plan.

Another important task that falls within the County Governor’s duty is, according to the Salmonids and Freshwater Fish Act (1992), to specify the

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\(^{119}\) The data in this section is based on an interview with Kristin Espeset, first-councillor, Department of Environment, Terje Wivestad, councillor, Department of Environment, and Torgeir Isdahl, first-councillor, Health Department – County Governor, 12.05.2005.

\(^{120}\) fylkesmannen.no/fm/fagomrade.asp?g10790=x&g10789=x&g10833=x&gid=10845&tgid=10789;

\(^{121}\) As said above in Chapter 2.2.1; See Annex 7 (Protected areas in Oslo Fjord);
regulations for salmon, sea trout and inland fishing, and to look into applications for fish cultivation - in two words: fish management. The Governor has to gather catch statistics for salmon and sea trout fishing, register participants in offshore salmon fisheries, and distribute grants from the state Fish Foundation. The Governor puts great emphasis on his contact with landowners, hunters’ and anglers’ associations and the police in monitoring fish resources.¹²²

For example, one important piece of legislation drawn by the County Governor in this respect is the Regulation Concerning Closed Areas outside Watercourses for Breeding of Salmon in Oslo and Akershus (2002). This Regulation establishes the borders of the area where the fishing of salmon is prohibited in some periods of time. The borders of the protected region include some districts from Oslo Port also.¹²³

As in the salmon fishing case, some species may be hunted in certain periods. The hunting framework is set by the Directorate for Nature Management, while the municipalities take care of the local hunting management. Meanwhile, the County Governor informs, guides, treats complaints and encourage further co-operation. The management of these resources comprises all terrestrial mammals, birds, reptiles and amphibians. The aims of the Wildlife Act (1981) are to take care of the wildlife and its habitats, to ensure its reproductive qualities and the biological diversity. Hunting is allowed for all citizens, provided they sign up in the Hunters’ Register, pay the hunters’ fee to the state and buy hunters’ licence from the landowner.¹²⁴

Nevertheless, the Government transferred the legislative power from Oslo and Akershus County Governor to Oslo Municipality in many areas related to hunting. One of the remaining topics with which the County...

¹²² fylkesmannen.no/fmt_fagomrade.asp?g10790=x&g10789=x&g10833=x&gid=10845&tgid=10789;
¹²³ See Annex 13;
¹²⁴ fylkesmannen.no/fmt_fagomrade.asp?g10790=x&g10789=x&g10833=x&gid=11087&tgid=10789;
Governor can interfere is the hunting of individuals from the wild goose population that overrun the allowed limits, an issue that was in mass-media attention during spring 2005. The borders for the area where the wild goose can not be hunt with fire-weapons are drawn by Oslo Municipality based on the provisions of the Harbour Act (1984), and these include the Oslo Port area, too.\footnote{See Annex 14; According to Torgeir Isdahl, first-councillor, Health Department – County Governor, 12.05.2005; fylkesmannen.no/fmt_fagomrade.asp?g10790=x&g10789=x&g10833=x&gid=11093&tgid=10789;} In order to balance the rapid growth of the wild goose population, the County Governor would like to be allowed to use fire-weapons even in these areas because the methods used until now either did not have any results or were against the law (breaking the eggs or hunting the birds early in the morning). Of course, the ecologists did not approve the actions taken by the County Governor, therefor there was a vivid discussion about this issue.\footnote{fylkesmannen.no/fmt_fagomrade.asp?g10790=x&g10789=x&g10833=x&gid=11093&tgid=10789;}

As said before, the Oslo Governor has a very important role in the development of the Oslo City area, including the Oslo Port. Encroachments and spills change the physical and chemical conditions in the harbour-waterbody, with consequences for plants and animals. Some effects are long term; some will spark a fast response from nature but the long-term effects can be hard to trace or forecast. Therefore, the County Governor plays an important part in assessment of environmental impacts, and laying down conditions for development.\footnote{fylkesmannen.no/fmt_fagomrade.asp?g10790=x&g10789=x&g10833=x&gid=11093&tgid=10789;}

5.3.2 Waste management

The County Governor controls and gives permission to run most garbage dumps and recycling plants, including incineration plants. Permissions are given after application from the owner, and the Governor sets conditions for transport, recycling, storage and aesthetic sides. The control
method is based on the Royal Decree of the 2\textsuperscript{nd} of December 1996 about health, environment and safety measures.\textsuperscript{128}

Besides, the County Governor was involved in the becoming of the Waste Plan for Oslo Port - Reception of Waste and Cargo-residues from Ships as it is now. According to the Regulation regarding delivery and reception of waste and cargo residues from ships no. 931 from 01.06.2004, the County Governor had to approve the Plan, but, in the opinion of those who worked with this task, the law was not so precise in respect of what does this mean: had they only to approve the document as it was and register it or were they able to change it? Eventually, the Plan was sanctioned as it was, without changes, but the County Governor is waiting to see how it works and maybe make alteration after its evaluation.

Anyway, there is another problematic issue in Regulation 931/2004: it is not so clear what the County Governor should do with the reports it receives from the Oslo Port. Also, the County Governor representatives feel that their institution should not be so implicated in this area and that the Port Authority should have a bigger responsibility. The hierarchical superior institution in this domain, the Norwegian Pollution Control Authority, did not answer in a clear way yet. However, until now\textsuperscript{129} only one report was received from the Oslo Port.

Nevertheless, another special problem is the one of the sediments that will result from the developing projects conducted in Oslo Port District, as described above in Chapter 2.2.1. In cases of big and important projects like this, the Pollution Control Authority might take the responsibility from the County Governor to solve the issue. However, there is an Action Plan for Dealing with Contaminated Dredged Sediments in Oslo Port, but this did not come into force yet. There is a group made of representatives from the

\textsuperscript{128} fylkesmannen.no/fmt_fagomrade.asp?g10790=x&g10789=x&g10833=x&gid=10845&tgid=10789;
\textsuperscript{129} The moment of the interview, 12.05.2005;
County Governor, the Municipality, the Pollution Control Authority and the Port Authority, which started the discussion about this issue two years ago. If the plan will be approved\textsuperscript{130}, the cost of solving the polluted sediments problem will be around 200 million Norwegian crowns, and here comes the problem of who is going to pay for it. Either the Parliament has to supplement the budget for Oslo City\textsuperscript{131} with this sum, or there must be found other financing sources.

Though, in the past few years there has been held an investigation by some NGOs to find out whether producers of PCB\textsuperscript{132} could be held liable for the costs of cleaning up polluted areas. After analysis of sediments found in the port of Oslo, of historic documents and gathering information about the producers of PCB, most of the firms responsible for the pollution were identified. Analysis of "toxic fingerprints" from PCB found in Bjørvika Port District\textsuperscript{133} indicates that a large part of the pollution comes from paints and other chemicals used at the two now closed shipyards of Nyland and Aker. The investigation has been carried out with economic support from the Oslo Port Authorities and Oslo Municipality. The project has been based on surveys conducted in the port of Oslo, especially in the area around Bjørvika, an area where the pollution authorities have demanded a clean up. But, as mentioned above in Chapter 2.2.1\textsuperscript{134}, the problem of polluted sediments is not restricted to Oslo Port area. While the cost of cleaning up Oslo harbour is estimated to several hundred millions Norwegian crowns, on a national level costs amount up to 25 billion Norwegian crowns. Other polluted ports in Norway have the same right to seek economic

\textsuperscript{130} The Plan was submitted to the public hearing in spring 2005;
\textsuperscript{131} The annual budget for Oslo City was 27 billion Norwegian crowns in 2005;
\textsuperscript{132} Polychlorinated Biphenyl, a synthetic, organic chemical once widely used in electrical equipment, specialized hydraulic systems, heat transfer systems, and other industrial products. Highly toxic and a potent carcinogen. (www.healthychildrenproject.org/glossary/);
\textsuperscript{133} See Annex 15 (Contaminated Sediments in Bjørvika Port District);
\textsuperscript{134} See Annexes 8 and 9;
compensation as Oslo, therefor an eventual legal action will set precedence, and the case will have far-reaching consequences for the firms involved.\textsuperscript{135}

5.3.3 Land using

The Planning and Building Act (1985) authorises the municipalities to work out master plans, local development plans and building development plans. The County Governor treats complaints concerning these plans, by delegation from the Ministry of the Environment and the Ministry of Local Government and Regional Development. If the plan calls for extensive alterations of the scenery, it may be necessary to conduct an environmental impact assessment. Therefor, the County Governor has to approve all the land using and building plans in the Oslo Port area.

A key principle of the Act is to hear all parties that may be affected by a draft plan. Landowners, those with a prescriptive right to use the land, and organisations are invited to comment on the plan. The County Governor is obliged to check if the draft plan could result in pollution or noise, or bad consequences for plants or animals, biodiversity, water environment and recreational values. He is the mediator, even if his own experts have lodged a protest blocking the plan. If the parties are unable to reach an agreement in mediation, the decision is left to the Ministry of the Environment.

However, private citizens may lodge protests against a municipal decision on a local development plan or a building development plan. Oslo Municipality will treat the protest, and forward it to the County Governor unless it yields to the complaint. The Municipality can expropriate property or prescriptive rights in order to implement a development plan. Such a decision may also be appealed to the Governor.

\textsuperscript{135}http://naturvern.imaker.no/cgi-bin/naturvern/imaker?id=59003;
In the case of buildings, every building project shall be reported to the Municipality on beforehand. All neighbours have to be able to study the drawings and lodge protests if the projects might become a nuisance. The builder may also appeal, if the Municipality blocks his plans. A landowner or a holder of prescriptive rights may protest, if the Municipality expropriates their property or rights for the implementation of a development plan. The Municipal Council treats the protests, and may yield to the complaints. If not, the Governor takes the final decision.\textsuperscript{136}

All these general provisions in respect of land use apply as such to the Oslo Port area, to build or to demolish in this region being an important issue that must be drawn in the attention of the County Governor.

\textbf{Section 5.4: Responsibilities and attributions of Oslo Municipality (Oslo Kommune)}\textsuperscript{137}

Oslo Municipality has a lot of departments and units that deal with environmental issues in general and at Oslo Port level in particular, even though their name does not reflect it, but their tasks do. Further on, I will enumerate some of this sectors, departments and units, and present their responsibilities and attributions in regard of this subject.

Urban Development
The urban development sector is responsible for planning the overall development of the city, including land use planning, housing and urban renewal, the private sector, real estate management, development areas, shopping centres, and outdoor markets.

\textsuperscript{136} fylkesmannen.no/fnt_fagomrade.asp?g10790=x&g10789=x&g10833=x&gid=11069&tgid=10789;
\textsuperscript{137} http://www.oslo.kommune.no/
Transport and Environmental Affairs
This sector comprises the infrastructure of Oslo and the city's green spaces, and includes public transport, harbour activities, motor traffic, parking, waste management, water and sewerage, energy, the outdoors, recreation, environmental issues, forests, parks and sports facilities.

The Department of Transport and Environmental Affairs has the chief responsibility for the management of the environmental work in Oslo, as its subordinate agencies have the main environmental duties, while it is itself in charge of co-ordinating the environmental work both within the administration and in the city. The most important environment agencies that report to the Department of Transport and Environmental Affairs are:
- the Road and Transport Authority, which has the responsibility for the management of Oslo's roads, streets, squares and other urban areas that are important for transport, recreation and other purposes. The authority is also the awarding authority for the new metro ring line;
- the Water and Sewerage Authority is responsible for the management of Oslo's water cycle, including the supply of drinking water and the removal and treatment of sewage, as well as the management of Oslo's lakes and watercourses;
- the Waste Management Authority has the joint responsibility for the management of Oslo's materials cycle, which includes the collection, treatment and recycling of consumption waste. The authority also operates two incineration plants for the recovery of energy from waste, and these are the primary sources of energy for the district heating;
- the Emergency Planning Unit and the Fire and Rescue Service has the responsibility for preventing and acting against environmental disasters in the city, which includes measures to protect against oil slips;
The Department of Business Development and Urban Planning has several subordinate agencies that have important duties in the environmental management, for example:
- the Planning and Building Authority has the primary responsibility for land use planning and for dealing with building matters, as well as for the city's mapping and surveying work\textsuperscript{138};
- the Real Estate and Urban Renewal Office is responsible for managing the municipality's properties and for urban renewal.
The Business Development Service is in charge of the co-operation with the business sector and, as part of that, is responsible for providing companies with information on environmental certification.
The Public Health Authority is responsible for environmental health and thus monitors pollution of drinking water, the air (including noise pollution), the soil, etc.
The Department of Finance has several responsibilities, including that for the municipal planning work in Oslo. The Municipal Plan and the Finance Plan establish important frameworks for the work on the environment and sustainable development of Oslo.

\textbf{Section 5.5} Local legislation

5.5.1 Water\textsuperscript{139}

The Oslo Fjord is an extremely important recreation area for the city's inhabitants. About 23 per cent of the coastal zone is undeveloped and accessible. Water quality is very important in determining both how attractive the fjord is as a recreation area and if its parameters are fit for flora

\textsuperscript{138} Eg.: \textit{Asbest i kommunale bygninger} - Rundskriv 15/2002;
\textsuperscript{139} http://ucp.ewindows.eu.org/reports/oslo-en/issues/water/index.htm;
and fauna. One representative measure of water quality is light penetration, and this has shown steady improvement over the last 20-30 years.

Besides, Oslo's sewage is treated at the VEAS and Bekkelaget wastewater treatment plants. But, never minding the fact that wastewater is being treated, there are important chemical discharges in Oslo Fjord from these two plants. The pictures in Annexes 16 A, B, C and D show discharges of nitrogen and phosphorus from VEAS and Bekkelaget plants. Weather conditions, and particularly precipitation determine how much overflow there is from the sewerage system and thus how much untreated water reaches the Oslo Fjord, and implicitly, the waters of Oslo Port. In some parts of the city, poorly maintained sewers also leak to the ground and the water eventually reaches the rivers and the fjord. All these are problems that have to be answered by the Municipality.

5.5.2 Nature management

A number of the ecosystem types found within the Oslo city boundaries are rare even at national level. Good examples are some of the ecosystems on the islands in the Oslo Fjord, which are protected by law. Many plant and animal species are closely associated with water. A large proportion of the shoreline is also built up. So animals and plants as well as people face stiff competition for space in Oslo coastal region.

Oslo Municipality has been surveying ecosystems and biodiversity since the 1970’s. In 2000 it began a systematic survey, following the guidelines for registration drawn up by the Directorate for Nature Management. Information is being registered using the database system Natur 2000. The database is a tool for all parts of the city administration that are

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140 The depth to which light can reach in the water column (www.bigelow.org/edhab/glossary.html);
141 See Annex 17 (Main types of ecosystems in Oslo);
142 Eg.: Gressholmen-Rambergoya naturreservat (1992.10.02); Lindoya naturreservat (1993.07.09) etc.;
involved in land-use planning and nature management. The objective is to avoid future conflicts between biodiversity concerns and development interests and to ensure that decisions are based on the most complete information possible. The Recreation and Leisure Service will provide guidance for the Planning and Building Authority, the Public Health Authority, the Water and Sewerage Authority and the Road and Transport Authority in the use of the database.

The overall plans and strategies that govern efforts to conserve biodiversity in Oslo are set out in two important documents:
- Report 5/2003 to the City Council on the city's strategy for sustainable development, where one of the priority areas is for Oslo to maintain and strengthen its green structure, rivers, lakes and Oslo Fjord.
- Proposition 417/2002 to the City Council on a programme to survey and classify the value of Oslo's habitats and biodiversity.

5.5.3 Waste

Half of Oslo's industrial waste, including the one collected in the port, is already transported out of the city to be incinerated or landfilled in other municipalities. When the landfill at Grønmo is closed in 2007, the city will be entirely dependent on external landfill capacity. In particular, space will be needed for industrial waste.

In any case, waste incineration generates emissions of heavy metals and dioxins. However, the installation of new filters at the energy recovery plants has reduced emissions to below the limits set by the Norwegian Pollution Control Authority, and below the new limits introduced by the EU. Waste incineration plants also cause some water pollution, in particular discharges of cadmium from batteries and electrical equipment.

At the same time, even though there is a norm drawn by the Municipality that requires from the big consumers to separately collect food-
residues, in the Waste Plan for Oslo Port - Reception of Waste and Cargo-
residues from Ships were not comprised such provisions, therefore the
reception facilities are not divided in such way.

5.5.4 Air

Air quality in Oslo varies both seasonally and geographically. All
parts of the city have satisfactory air quality in summer, but air quality in
winter varies from one district to another. At higher altitudes, air quality is
generally good in winter too, but lower-lying parts of the city are more likely
to suffer from air pollution. This is particularly true along the main traffic
arteries, and in the city centre. In these areas, there is light to moderate
pollution on 30-45 per cent of all days in winter, but severe pollution on only
up to 3 per cent of all days in winter. Annexes 18 A, B and 19 A, B illustrate
the position of Oslo Port in the most polluted area of the city, demonstrating
the involvement of this institution in the air pollution.

5.5.5 Noise

Both Norway and other European countries have set the
political goal of reducing the risk associated with noise as far as possible. As
pointed out in Annex11 Table 1, in 2002 EU adopted a new framework
directive on noise, and as a signatory to the EEA Agreement, Norway
implemented it through the Regulation concerning limitation of pollution no.
931, 01.06.2004, Chapter 5, last amended 19.11.2004. The Directive requires
member states to use new indicators in reporting noise levels to the EU and to

143 http://ucp.ewindows.eu.org/reports/oslo-en/issues/waste/index.htm;
144 Separat innsamling av matrester fra storhusholdninger i Oslo – 1994.01.25, Oslo bystyre;
145 Norsk Gjenvinning – Skipsavfall. Miljøvennlige og effektive avfallshåndtering i Oslo havn, 2005;
146 http://ucp.ewindows.eu.org/reports/oslo-en/issues/air_quality/index.htm;
draw up action plans, for which minimum requirements are specified. Under the directive, the first maps of the noise situation in Oslo based on the new noise indicators are to be presented by the Municipality by summer 2007. In addition to road traffic noise, noise from the harbour, the metro and the railways has been mapped in accordance with the requirements of the Norwegian regulations relating to limit values for noise. These regulations require action to reduce noise levels where they exceed the limit values. Annexe 20 A, B illustrates the position of Oslo Port in the areas of the city where the people feel annoyed by noise or they are submitted to high noise, demonstrating the involvement of this institution in the noise pollution.
Chapter 6: Technical-juridical instruments elaborated by Oslo Port authorities

Section 6.1: Introduction

The last ring in the chain of juridical instruments of implementing the environmental management in Oslo harbour is the one formed by the norms drawn by the Oslo Port Authority. Thus, this Chapter will present the main provisions of the Waste Plan for Oslo Port - Reception of Waste and Cargo-residues from Ships, as this is the most particular piece of Norwegian juridical instrument elaborated on an EU Directive skeleton in the area my concern lies in. For discussions about the EU Directive and the Norwegian Regulation that form the bases of this Plan see above Chapters 3.4.3 and 4.5.3.

Section 6.2: The Waste Plan for Oslo Port - Reception of Waste and Cargo-residues from Ships

According to EU/EEA Directive 2000/59/EC, modified by EU/EEA Directive 2002/84/EC, implemented into Norwegian law by the Pollution Control Act (no. 931 of 1 June 2004) Chapter 20 – Delivery and reception of waste and cargo residues from ships, Oslo Port Authority has established reception facilities for ship waste and cargo residues from ships
calling Oslo harbour. The starting point for this Plan has been the Guide for Developing Waste Plans for Ports, drawn together by the Norwegian Port Association (Norsk havneforening), Borg Port, Grenland Port, Oslo Port Authority and Norwegian Association of Waste Collector Companies (Norsk renholdsverksforening). During the process, the Guide was presented to SFT, the Norwegian Maritime Directorate, the County Governor of Oslo and Akershus, and the Norwegian Shipping Association (Norges Rederiforbund) in a meeting on 16 April 2004, and new reception facilities for ship-generated waste (12 collection points\textsuperscript{148}) went into operation in the Port of Oslo on 1 January 2005. Norwegian Recycling (Norsk Gjenvinning) won the contract for locating these facilities for a two year period with an option of two more years.

The waste reception strategy is self-financing, and it is not meant for profit, but just to cover the Port of Oslo’s expenses on the scheme, including expenses on transport and disposal of ship waste. Waste reception fees will be invoiced to the appropriate recipient together with port-call and quay fees. As the Regulation requires, a pre-arrival notification form has to be submitted by all vessels making sporadic calls, by vessels with special waste delivery needs, and by vessels intending to deliver waste not covered by the fee system\textsuperscript{149}. Vessels in scheduled or line services do not normally need to deliver a notification form.\textsuperscript{150} The Regulation applies to all Norwegian and foreign ships, including fishing vessels, leisure boats, warships, military supply ships or other ships owned or operated by the state of Norway or by a foreign state, calling at a Norwegian port.

As comprised in the Plan, self-service facilities are available to cargo vessels and to local charter-boats\textsuperscript{151} and a waste reception contractor is

\begin{footnotesize}
\begin{itemize}
\item[148] See Annex 21;
\item[149] For a discussion about the relevance of this document see above Chapter 4.5.3;
\item[150] http://www.ohv.oslo.no/cgi-bin/ohv/imaker?id=15460&visdybde=2&aktiv=15460;
\item[151] See Annex 22 (locations of waste reception facilities);
\end{itemize}
\end{footnotesize}
prepared to attend cruise ships. Collection of oily waste, cargo residues and sewage is charged for at special rates depending on the volume delivered.\textsuperscript{152} The Oslo Port Authority’s Vessel Traffic Centre arranged a contact with a contractor who deals with this kind of waste. In order to deliver these waste fractions, ships must have complied with the notification obligation. Fees for oily waste, cargo residues and sewage are computed in each case on the basis of the type and quantity delivered, and the time of delivery.

Garbage is to be deposited in waste containers located in the harbour and hazardous waste must only be delivered to designated reception facilities. Garbage reception fees are payable by all vessels calling at public quays, regardless of whether or not they will be delivering ship-generated garbage to a waste reception facility. Pleasure craft not required to pay port dues do not come under the arrangement and do not pay fees. Garbage fees are payable on the basis of the number of persons the ship is permitted to carry (crew members plus passengers), or on the basis of the ship’s gross tonnage.

Whether the vessel’s last port of call prior to Oslo was outside Northern Europe, a 50\% surcharge is payable. In this context northern European ports are European ports located above 48° northern latitude. In the case of cruise ships, garbage should be sorted by source, and a 50\% surcharge will be levied on cruise ships that fail to deliver garbage sorted by source. A surcharge may also be payable by vessels wishing to deliver larger quantities than is considered reasonable in relation to the ship’s size, normal operation and voyage time since the previous port of call. The same will apply whether a vessel has not complied with the notification obligation. At the same time, a charge may be reduced or dropped if documentary proof is given that waste from the ship is delivered at another port on a regular basis, or if called for by other special considerations. If a captain of a vessel entering Oslo Harbour

\textsuperscript{152} http://www.ohv.oslo.no/cgi-bin/ohv/imaker?id=15460&visdybde=2&aktiv=15460;
chose to deliver the waste to the next port, but he did not fulfil his duty to inform about this fact, Port Authority has to report the incident to the Maritime Directorate, who in turn will inform the proper authorities in the next port of call. Oslo Port Authority is obliged to keep a record of various information on dangerous waste for a minimum of three years.

Garbage reception fees are collected by the Oslo Port Authority and are invoiced together with port-call and quay fees. The fee system also encourages waste sorting as a natural choice. The establishment of an efficient and co-ordinated collection is meant to entail a delivery of waste that is economically favourable for the vessels.

Because a clear and reliable report system is necessary, Norsk Gjenvinning is responsible for keeping statistics of the amounts of waste delivered. Oslo Port Authority collects the necessary statistics from Norsk Gjenvinning’s web pages and the statistics are forwarded to the hierarchical superior authorities. Also, they are included in the waste system records, which are used in calculating the fees collected from the vessels.

In order to observe the compliance of Oslo Port Authority with the provisions of the Regulation, and in order to raise the standard of the reception systems, discrepancy reporting provisions were included in the Plan. Discrepancy forms must be sent to Waste Management Services (Renholdsseksjonen) at Oslo Port Authority, and a reply outlining a solution to the discrepancy has to be given within three weeks. If the one who handed in the discrepancy report does not find the reply satisfactory, a complaint may be sent to the County Governor.

Because of the little time passed since the Plan was implemented at Oslo Port level, no conclusion has been drawn by yet if the scheme is functional or not or what changes can be imposed.

153 http://www.ohv.oslo.no/cgi-bin/ohv/imaker?id=15460&visdybde=2&aktiv=15460;
154 According to Charlotte Iversen, Environmental Protection Consultant, Oslo Port Authority.
Chapter 7: Conclusion

The aim of this paper was to offer an integrated and more or less complete overview of the juridical instruments for implementation the environmental management in Oslo harbour from an EU approach, as Norway, being a part of the EEA Agreement, has to comply with Community regulations in this area. Therefor, the text focused on all the subjects of the problem: Oslo harbour, legislation seen as a juridical instrument for implementation of the environmental management and the institutions responsible with the actual implementation.

The first conclusion to be drawn after analyzing the issue is that even though Oslo is one of the most advanced EU harbours on the area of environmental protection, there are lots of issues to solve. As indicated in Chapter 2, among these, maybe the most acute are dredging, dredgings disposal and port/ship waste.

At the same time, examining the actual juridical instruments that apply at port level and concomitantly the legislative bodies from the EU stage to the Oslo Port Authority one I can say that the legislation is very ramified, but some areas are overregulated, like emissions of gases for example, while others are not regulated at all, dredgings disposal being a good example\textsuperscript{155}. Sometimes, the Community norms do not fit exactly the

\textsuperscript{155} See Chapter 3 and Annex 11 Table 1 for a comparison.
Norwegian interests, and then some difficulties appear like in the case of Birds, Habitats and Water Framework Directives, as emphasised in Chapter 4.

Nevertheless, sometimes the conflict may arise at the legislative body level, when too many institutions have the potential competence to regulate an area, see the implementation of the Water Framework Directive issue in Chapter 4, or one area is controlled by too many institutions leading to lack of a comprehensive picture, see the situation in the Ministry of Environment where too many agencies and departments deal with small pieces from water protection, for example, but there is no integrated view over the whole problem, also in Chapter 4. Besides, it seems that there is no institution the Oslo port Authority or other Norwegian ports authorities can address to in order to find guidance and a complete image over the juridical instruments that can be used in implementing the environmental management at their level, organized by the area covered, for example: Noise, Air, Water, Land using, Waste, Nature management.

At the same time, it looks as there might be a difference between what a responsible body thinks its attributions are and what the hierarchical one consider them to be, as in the case of the attitude of Oslo County towards the duties the Norwegian Pollution Control Authority imposed on it in regard of the Waste Plan for Oslo Port - Reception of Waste and Cargo-residues from Ships, as pointed out in Chapter 5. Moreover, sometimes it seems that there is a feeling of uselessness in implementing EU norms in areas already covered in a way or another by national Norwegian legislation, like in the Birds and Habitats Directives case presented in Chapter 4.

Another issue that arises after analysing the data is the impression of lack of communication between different bodies that act in overlapping domains, leading to a non-efficient informative system of the
public, including the potential port users, as tenants, operators, stakeholders, unions.

At last, when it comes to the final link in the chain of juridical instruments of implementing the environmental management in Oslo port – the Waste Plan, there are discrepancies between the notification scheme and the actual waste disposed, as said in Chapter 4. In this respect the fault may rest with the Norwegian authorities that might have drawn up a complicated document or with the person who is in charge with filling in the notification form and might have been not fully aware of the importance of this paper.

These being said, as emphasised in Chapter 1, the main hindrances in implementing the environmental management in Oslo port, as in the case of other EEA harbours, are the lack of information about legislation and the multiplicity of agencies that are invested with the competence of implementing this kind of management at the legislative level. This paper did not intend to completely cover the problem described, but to be a step forward towards this, pointing what has been done until now in this respect, how, why and by whom.
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7. Law of 9 June 1903 concerning Inspection of Ships;
8. Regulation concerning limitation of pollution no. 931, 01.06.2004;
9. Regulation 930 concerning waste, 01.06.2004, Chapter 11 (former Regulation concerning the incineration of waste, adopted 20 December 2002, No. 1816, amended 12.10.2003);
10. Regulation 29 August 2003 No 1.114 concerning the safe loading and unloading of bulk carriers, § 1, 2 and 3;
11. Regulation of 12 October 2003 No 1243 concerning reception and delivery for ship-generated waste and cargo residues, §1, 2 and 3 ;
12. Regulation of 16 April 2002 on the handling of licences according to the Pollution Prevention Act;
13. Regulation no. 847, 26.06.2002, last amended 06.11.2003;
14. Regulation no. 375 concerning the landfill of waste, adopted 21 March 2002;
15. Regulation of 20 March 2001 No. 373 concerning the control of ro-ro ferries and passenger high-speed craft in regular service, regardless of flag, § 1 and 2;
17. Regulation concerning registration of waste-handling, adopted 5 September 1995;
19. Regulation on Delivery, Collection, Reception and Disposal of Certain Categories of Hazardous Waste No T-578 of 10 April 1986;
20. City Government Proposition No. 37/03; Report No. 3/2003;
ANNEX 1

Position of Oslo Harbour in the Oslo Fjord
ANNEX 2

A. Main commercial lines in Europe
B. Main commercial lines on the Globe
C. Main passengers lines

D. Baltic Cruise lines
ANNEX 3

A. Trans-European Transport Network Priority Project No. 12
B. Trans-European Transport Network Priority Project No. 21
ANNEX 4

A. Port facilities

<table>
<thead>
<tr>
<th>Description</th>
<th>Measurement</th>
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</thead>
<tbody>
<tr>
<td>Port area</td>
<td>1,181,434 m²</td>
</tr>
<tr>
<td>Sea frontage of Port District</td>
<td>39,300 m</td>
</tr>
<tr>
<td>Total length of quays</td>
<td>10,150 m</td>
</tr>
<tr>
<td>Total length of quays with depth 8.0-13.0</td>
<td>5,700 m</td>
</tr>
<tr>
<td>Total length of quays with depth 5.0-7.9</td>
<td>2,680 m</td>
</tr>
<tr>
<td>Total length of quays with depth 2.0-4.9</td>
<td>1,770 m</td>
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<tr>
<td>Total floor area in warehouses and other buildings</td>
<td>98,100 m²</td>
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<tr>
<td>Total length of rails within the port</td>
<td>7,905 m</td>
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B. Port equipment

<table>
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<td>Cranes</td>
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<td>Portal cranes 6 tonnes up to 23 tonnes</td>
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<td>Mobile cranes up to 23 tonnes</td>
<td>1 stk</td>
</tr>
<tr>
<td>Stationary crane up to 200 tonnes</td>
<td>1 stk</td>
</tr>
<tr>
<td>Special container cranes ISO-containers up to 40 tonnes</td>
<td>4 stk</td>
</tr>
<tr>
<td>Rubber Tyre Gantry cranes up to 40 tonnes</td>
<td>4 stk</td>
</tr>
<tr>
<td>Ro/Ro ramps</td>
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<tr>
<td>Permanent</td>
<td>17 stk</td>
</tr>
<tr>
<td>Floating</td>
<td>2 stk</td>
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ANNEX 5

A. Oslo Port in 2004

B. Oslo Port in 2009
ANNEX 6

Bjørvika tunnel

ANNEX 8

The fjords and watercourses in Norway most heavily polluted by environmentally hazardous substances
ANNEX 9
Norwegian fjords where there are recommended restrictions on the consumption of fish and shellfish and/or a prohibition on sale

ANNEX 10
The process of deposing of the contaminated sediments
ANNEX 15

Contaminated sediments in Bjørvika Port District

ANNEX 16

A.

Yearly transport of nitrogen to the sea from the VEAS treatment plant

Optionally, add details about the graph or chart.
B.

![Yearly transport of nitrogen to the sea from the Bekkelaget treatment plant](image1)

C.

![Yearly transport of phosphor to the sea from the VEAS treatment plant](image2)

D.

![Yearly transport of phosphor to the sea from the Bekkelaget treatment plant](image3)
ANNEX 18

A. Map of the geographical distribution of PM10 pollution on a fairly typical winter day when pollution is relatively light

B. Map showing the geographical distribution of PM10 pollution on a day when the air is severely polluted
ANNEX 19

A. Map of the geographical distribution of NO2 pollution on fairly typical winter day when pollution is relatively light

B. Map showing the geographical distribution of NO2 pollution on a day when the air is severely polluted
ANNEX 20

A. Proportion of the population highly annoyed by noise in the different districts of Oslo
B. Proportion of the population in each district of Oslo who are exposed to noise levels exceeding 55 dBA (24-hour mean), which is the upper limit for outdoor noise recommended by the Ministry of the Environment.
ANNEX 21

Examples of containers placed in conformity with the provisions included in the Waste Plan for Oslo Port
ANNEX 22

Locations of waste reception facilities
<table>
<thead>
<tr>
<th>No.</th>
<th>EU legislation</th>
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<td>1</td>
<td>Directive 2004/35/EC of the European Parliament and of the Council of 21 April 2004 on environmental liability with regard to the prevention and remedying of environmental damage</td>
<td>It implements the “polluter pays” principle in case of proposal loss of biodiversity and of pollution of water and soil. Operators of certain activities who cause such environmental damage will be held responsible for restoring the damage caused, or made to pay for the restoration. The Directive foresees that public authorities will ensure that the responsible operators undertake themselves or finance the necessary restorative measures in case of environmental damage. Finally, the Directive includes provisions concerning transboundary damage, financial security, its relationship with national laws, and a provision for reviewing the regime. It entered into force on the 30th of April 2004, a deadline of three years being given to the Member States to implement its provisions.</td>
<td>Non-binding because of implication in regard of nature management (item which was not comprised in the EEA Agreement)</td>
<td>NO central legislation</td>
<td>NO local legislation</td>
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<td></td>
<td>Directive 2003/35/EC of the European Parliament and of the Council providing for public Participation in respect of the drawing up of certain plans and programmes relating the environment and amending with regard to public participation and access to justice Council Directives 85/337/EEC and 96/61/EC</td>
<td>It updates provisions on public participation in the permitting procedures at national level under the Directives on Environmental Impact Assessment (EIA) and Integrated pollution Prevention and Control (IPPC), and introduces rules on access to justice. It contains rules on public participation under Directives on waste, air pollution and protection of waters against nitrate pollution. Member States shall bring into force the necessary laws, regulations and administrative provisions to comply with the Directive by 25 June 2005 at the latest.</td>
<td>Non-binding</td>
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<td>3</td>
<td>It is seen as a part of the following up on the Aarhus Convention. The act entered into force 1 January 2004 and provides all citizens with a legal right to obtain environmental information, both from public authorities and from public and private enterprises.</td>
<td>Act of 9 May 2003 No.31 relating to the right to environmental information and public participation in decision-making processes relating to</td>
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<tr>
<td>Directive</td>
<td>Description</td>
<td>Implementation</td>
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<tr>
<td>4 Directive 2003/4/EC on Public Access to Environmental Information</td>
<td>It aims at aligning EC Legislation regarding public access to environmental information with the provisions of the Århus Convention.</td>
<td>Binding/No</td>
<td></td>
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<td>5 Directive 2001/42/EC on the Assessment of the Effects of Certain Plans and Programmes on the Environment (Strategic Environmental Assessment SEA Directive)</td>
<td>It aims to ensure that environmental consequences of certain plans and Programmes are identified and assessed during their preparation and before their adoption. The public and environmental authorities can give their opinion and all results are integrated and taken into account in the course of the planning procedure.</td>
<td>Binding/No</td>
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<td>6 Directive 85/337/EEC on the Assessment of the Effects of Certain Public and Private Projects on the Environment (Environmental Impact Assessment - EIA Directive) as amended by Directive 97/11/EC</td>
<td>It aims to ensure that environmental consequences of projects are identified and assessed before development consent is given. The public and environmental authorities can give their opinion and the results of consultations and the information gathered pursuant the Directive’s articles are taken into account in the authorisation procedure of the project. The Directive outlines which project categories are subject to an Environmental Impact Assessment, which procedures must be followed and the content of the assessment.</td>
<td>Full implementation</td>
<td></td>
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<tr>
<td>No.</td>
<td>Law/Regulation</td>
<td>Implementation Status</td>
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<td>110</td>
<td>November 1994 on common rules and standards for ship inspection and survey organisations and for the relevant activities of maritime administrations (with amendments)</td>
<td></td>
<td>1243 concerning reception and delivery for ship-generated waste and cargo residues, §1, 2 and 3  - Regulation 29 August 2003 No 1114 concerning the safe loading and unloading of bulk carriers, § 1, 2 and 3  - Regulation of 20 March 2001 No 373 concerning the control of ro-ro ferries and passenger high-speed craft in regular service, regardless of flag, § 1 and 2  - Law of 9 June 1903 concerning Inspection of Ships</td>
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<td>8</td>
<td>Council Directive 96/61/EC of 24 September 1996 concerning integrated pollution prevention and control</td>
<td>Full implementation</td>
<td>- Act no. 6 of March 1981 concerning protection against pollution and concerning waste  - Regulations relating to the administrative procedure pursuant to the Pollution Control</td>
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<td>9</td>
<td>Specific regulation: Section 11 “The Ministry of Fisheries may lay down regulations or make individual decisions concerning: 5. measures to prevent pollution from anchored and moored vessels, including the screening of light and abatement of noise”</td>
<td>Act No. 51 of 8 June 1984 relating to Harbours and Fairways (The Harbour Act), last amended LOV-2003-06-20-45</td>
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<td>11</td>
<td>Council Directive 2000/69/EC of the European Parliament and of the Council relating to Limit values for benzene and carbon monoxide in ambient air</td>
<td>The limit value for carbon monoxide is to be met by 2005 and for benzene by 2010 unless an extension is granted. Members States will have to prepare attainment programmes showing how the limit values will be met on time for those areas where attainments by “business as usual” cannot be presumed. These programmes must be made directly available to the public.</td>
<td>Full implementation</td>
<td>- Regulation concerning limitation of pollution no. 931, 01.06.2004, Chapter 7 (former Regulation concerning ambient air quality no. 1088, 04.10.2002, last amended 21.11.2003), last amended 19.11.2004</td>
<td></td>
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<td>13</td>
<td>Directive 96/62/EC on Ambient Air Quality and Management (Air Quality Framework Directive)</td>
<td>The Directive covers the revision of previously existing legislation and the introduction of new air quality standards for previously unregulated air pollutants, setting the timetable for the development of Daughter Directives on a range of pollutants.</td>
<td>Full implementation</td>
<td>(no data available on EFTA Surveillance web-site)</td>
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NOISE
<table>
<thead>
<tr>
<th>Directive</th>
<th>Description</th>
<th>Status</th>
<th>Related Regulation</th>
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<tbody>
<tr>
<td>Directive 2002/49/EC on the Assessment and Management of Environmental Noise</td>
<td>It aims to provide a common basis for tackling the noise problem across the EU/EEA. The Directive requires the use of harmonised noise indicators by the Member States. These indicators must be used to draw-up 'strategic noise maps' for major agglomerations. The first noise maps are due for June 2007 with reference to the preceding calendar year 2006. Based on the information provided by the noise maps, action plans must be drawn in order to reduce the noise where necessary and maintain environmental noise quality where it is good. The first action plans are due for July 2008.</td>
<td>Full implementation</td>
<td>- Regulation concerning limitation of pollution no. 931, 01.06.2004, Chapter 5, last amended 19.11.2004</td>
</tr>
<tr>
<td>Directive 96/82/EC on the Control of Major - Accident Hazards Involving Dangerous Substances (SEVESO II Directive) as amended by Directive 2003/105/EC</td>
<td>The Seveso II Directive has a two-fold aim. Firstly it aims at the prevention of major-accident hazards involving dangerous substances, and secondly as accidents do continue to occur, it aims at the limitation of the consequences of such accidents both for human beings (health and safety aspects) and for the environment (environmental aspect).</td>
<td>Implemented</td>
<td>Act no. 20 of 14 June 2002 relating to the prevention of fire, explosion and accidents involving hazardous substances and the fire services'duties related to rescue operations - Regulation no. 847, 26.06.2002, last amended 06.11.2003</td>
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<td><strong>DANGEROUS GOODS</strong></td>
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<td><strong>TRANSPORT</strong></td>
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<td></td>
<td>Directive 2002/59/EC establishing a Community vessel traffic monitoring and information system and repealing Directive 93/75/EEC</td>
<td>It is part of the action taken by the Commission following the Erika accident. It aims to establish in the Community a vessel traffic monitoring and information system with a view to enhancing the safety and efficiency of maritime traffic, improving the response of authorities to incidents, accidents or potentially dangerous situations at sea, including search and rescue operations, and contributing to a better prevention and detection of pollution by ships.</td>
<td>Full implementation</td>
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<td>WASTE</td>
<td>Directive 2000/76/EC on the Incineration of Waste</td>
<td>It aims to prevent or limit, as far as practicable, negative effects on the environment, in particular by emissions into air, soil, surface water and groundwater, and the resulting risks to human health, from the incineration and co-incineration of waste.</td>
<td>Full implementation</td>
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<td></td>
<td>Directive 1999/31/EC on the Landfill of Waste</td>
<td>The aim of the Directive is to prevent or reduce, as far as possible, the adverse effects of the landfill of waste on the environment, in particular on surface water, groundwater, soil, air and human health.</td>
<td>Full implementation</td>
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<td></td>
<td>SOIL</td>
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<td>22</td>
<td>It defines the overall framework for the construction activities in regards to health, environment, safety and building design and architecture. Its provisions include requirements for buildings, requirements concerning the municipal handling of building cases and regulations for the approval of building contractors. It was amended several times in order to comply with EU/EEA legislation in regard of Environmental Impact Assessment.</td>
<td>Planning and Building Act No. 77 of 1985 with last amendments in force 1 April 2005</td>
<td></td>
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<td>23</td>
<td>The National Policy Guidelines are intended to serve as a norm for planning carried out by the municipalities and the county municipalities, and must be incorporated into the planning decisions. The National Policy Guidelines are not legally binding on landowners and owners of rights. The purpose of the guidelines is to underline the political objectives that must be taken into account when weighing development against the need to preserve environmental and cultural values and to take care of recreational interests, in accordance with the Planning and Building Act.</td>
<td>National policy guidelines for planning in coastal and marine areas in the Oslofjord region laid down by Royal Decree of 9 July 1993</td>
<td></td>
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</table>
### Timetable for implementation of WFD

The Water Framework Directive sets out clear deadlines for each of the requirements that adds up to an ambitious overall timetable. The key milestones are listed below.

<table>
<thead>
<tr>
<th>Year</th>
<th>Issue</th>
<th>Reference</th>
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<tbody>
<tr>
<td>2000</td>
<td>Directive entered into force</td>
<td>Art. 25</td>
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<tr>
<td>2003</td>
<td>Transposition in national legislation</td>
<td>Art. 23</td>
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<td></td>
<td>Identification of River Basin Districts and Authorities</td>
<td>Art. 3</td>
</tr>
<tr>
<td>2004</td>
<td>Characterisation of river basin: pressures, impacts and economic analysis</td>
<td>Art. 5</td>
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<tr>
<td>2006</td>
<td>Establishment of monitoring network</td>
<td>Art. 8</td>
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<td>Start public consultation (at the latest)</td>
<td>Art. 14</td>
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<td>2008</td>
<td>Present draft river basin management plan</td>
<td>Art. 13</td>
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<tr>
<td>2009</td>
<td>Finalise river basin management plan including programme of measures</td>
<td>Art. 13 &amp; 11</td>
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<td>2010</td>
<td>Introduce pricing policies</td>
<td>Art. 9</td>
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<tr>
<td>2012</td>
<td>Make operational programmes of measures</td>
<td>Art. 11</td>
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<tr>
<td>2015</td>
<td>Meet environmental objectives</td>
<td>Art. 4</td>
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<tr>
<td>2021</td>
<td>First management cycle ends</td>
<td>Art. 4 &amp; 13</td>
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<tr>
<td>2027</td>
<td>Second management cycle ends, final deadline for meeting objectives</td>
<td>Art. 4 &amp; 13</td>
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