4. Nature and biodiversity

4A. Present Situation

<table>
<thead>
<tr>
<th>Indicator</th>
<th>Number</th>
<th>Total area (ha)</th>
<th>Year of data provided</th>
</tr>
</thead>
<tbody>
<tr>
<td>Number and total area of Natura 2000 sites that are located in the city or nearby (i.e. within 10 km)(^1)</td>
<td>10</td>
<td>3712</td>
<td>2015</td>
</tr>
<tr>
<td>Number and total area of designated sites of national biodiversity importance within the city (habitat/species management areas)(^2)</td>
<td>948</td>
<td>2651</td>
<td>2015</td>
</tr>
<tr>
<td>Number and total area of designated sites of local (city) biodiversity importance within the city (habitat/species management areas)(^3)</td>
<td>726</td>
<td>832</td>
<td>2015</td>
</tr>
<tr>
<td>Date and time horizon of your city’s Biodiversity Action Plan</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>17.06.2015 (City Council). Time horizon not specified.</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

\(^1\) Norway is not a member of the EU and does not have any Natura 2000 sites. The sites included here are nominated candidate sites to the Emerald Network (the Bern Convention, 4D11; figure 4.2).

\(^2\) The areas included are valuable habitat types (terrestrial and freshwater) of national and regional value (see table 4.2 and figure 4.5).

\(^3\) The areas included are valuable habitat types (terrestrial and freshwater) of local value.

The blue-green city – a conscious choice
Oslo has a well-developed blue-green urban structure. Parks, forests and green spaces make up 32 % of the built-up zone. Ten main rivers run through the urban areas. The city is situated at the end of the Oslo Fjord, and is surrounded by water and islands to the south, and forests to the north and east (figure 4.1). The City of Oslo spans 454 km\(^2\), and consists of 32 % built-up areas, 60 % forests, 2 % agricultural land and 6 % fresh water.

Since the end of the 19\(^{th}\) century the City of Oslo has purchased several forests and islands surrounding the city in order to secure drinking water and recreational areas. As a result, large tracts of forests surround the urban centre, and drinking water is sourced from lakes within the City’s borders (4D8).

Forests and agricultural land open for public use outside the built-up zone are called “Marka”, and constitute 68 % of Oslo’s acreage. There is political consensus to maintain a clear border between the built-up zone and Marka. The border was set in 1934, and has not been changed since. In 2009, it was reconfirmed through national legislation. Strict regulations apply to the use of Marka. Farming and forestry is permitted, with some restrictions.
Figure 4.1: A picture of central Oslo, with the fjord and the biologically rich islands at the forefront, and the forested “Marka” in the background. (Photo: VisitOslo/F. W. Oslo)

Unique nature
Oslo is situated in an ancient hollow in the earth's crust, with different bedrock compared to surrounding areas. The islands in the fjord and western parts of the built-up zone consist largely of lime-rich Cambro-Silurian rocks. Combined with a relatively mild climate, this means that Oslo has particularly species-rich flora and fauna. The Oslo Fjord region has natural values that are unique, both nationally and internationally.

One example is calcareous lime forest, which barely exists in other parts of Europe. This type of forest has a unique flora of terricolous fungi. Sixty nationally red-listed fungi species have been located in one locality in Oslo.

Data from The Norwegian Biodiversity Information Centre (4D13) shows that Oslo has more recorded species than any other municipality in Norway (13,143 as of September 2016). Oslo also has the most red-listed species (1226 recorded).

Almost 12 % of Oslo is subject to national or municipal protection, due to its high natural value (table 4.1 and figures 4.2 and 4.3).

Fast urban growth
Today, 658,400 people live in Oslo. The population has grown by 22 % in the past decade, making Oslo one of Europe’s fastest growing cities. Statistics Norway forecasts 22 % population growth by 2030. The “Marka” border will stay unaltered, and urban developments are confined to 1/3 of the total landmass of Oslo. Thus biologically valuable areas in the built-up zone are under pressure and managing urban development in a way that preserves biodiversity and secures areas for recreation and other eco-system services is a challenge.
Different laws
Norway is not a member of the EU, but is party to the EEA agreement. Norway is subject to the Water Framework Directive, but not the Birds and Habitats Directives. Thus, no protected Norwegian areas have Natura 2000 status. However, Norway has suggested areas to be included in the Emerald Network (the Bern Convention, 4D11). National authorities have not yet made a final decision for which habitats/species the areas will be designated. Ten of the areas are situated in Oslo. Management plans have been developed or are under development for six areas (plans dated 2007 and later).

In 2009, Norwegian conservation efforts were strengthened through the implementation of the Nature Diversity Act (4D12). Separate regulations have been developed on selected habitat types and prioritized species.

Table 4.1: The number and size of areas in the City of Oslo subject to national protection or municipal resolutions/zoning plans due to their substantial natural values (figures 4.2 and 4.3).

<table>
<thead>
<tr>
<th>Area Type</th>
<th>Number</th>
<th>Area (km²)</th>
<th>% of total area (land and fresh water)</th>
</tr>
</thead>
<tbody>
<tr>
<td>National protection</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Nature reserves</td>
<td>22</td>
<td>9.79</td>
<td>2.16</td>
</tr>
<tr>
<td>Protected landscapes</td>
<td>3</td>
<td>31.04</td>
<td>6.84</td>
</tr>
<tr>
<td>Habitat management areas (plants)</td>
<td>3</td>
<td>0.03</td>
<td>0.01</td>
</tr>
<tr>
<td>Habitat management areas (animals)</td>
<td>3</td>
<td>0.06</td>
<td>0.01</td>
</tr>
<tr>
<td>Natural monuments (geology)</td>
<td>4</td>
<td>0.05</td>
<td>0.01</td>
</tr>
<tr>
<td>Single trees</td>
<td>15</td>
<td>–</td>
<td>–</td>
</tr>
<tr>
<td>Special recreational areas</td>
<td>4</td>
<td>8.86</td>
<td>1.95</td>
</tr>
<tr>
<td>Total</td>
<td>54</td>
<td>49.84</td>
<td>10.98</td>
</tr>
</tbody>
</table>

| Municipal protection                     |        |            |                                        |
| Administrative protected forest          | 24     | 4.16       | 0.92                                   |
| Special nature conservation areas (zoning plans) | 155 | 1.98       | 0.44                                   |
| Total                                    | 178    | 6.14       | 1.35                                   |

| Protected areas, in total$^1$            |        |            |                                        |
| The Marka Act                            |        | 306.91     | 67.59                                  |

$^1$ Adjusted for overlap between national and municipal protection.
Figure 4.2: City of Oslo map displaying areas subjected to various forms of national protection (table 4.1). The borders for the Marka Act correspond with the border for the built-up zone.
Figure 4.3: City of Oslo map displaying areas subjected to various forms of municipal protection or zoning provisions (table 4.1).
Figure 4.4: A few examples of the rich biodiversity found in Oslo (national red list status in parenthesis): great crested newt (NT), Methuselah’s beard lichen (EN), common noctule (VU), northern dragonhead (VU), new forest burnet (VU), and Geastrum melanocephalum (EN).
4B. Past Performance

Efforts to preserve biodiversity in Oslo have focused on reducing its main threats:

- Loss and degradation of important habitats
- Overgrowing of valuable cultural landscapes due to changes in agricultural practices
- Spread of invasive non-native species

Oslo's politicians have passed several binding resolutions in order to enhance protection of biodiversity (4D1–4D5).

**Protecting areas important for biodiversity**

Large parts of the biologically richest areas in Oslo have been developed, but there are still large undeveloped areas. Oslo has invested substantial resources in surveys to identify the most biologically valuable areas. The work started in 2000 and has been carried out by external experts using methods developed by national authorities. EUR 320,000 has been spent on this, mainly funded through municipal budgets.

1730 areas with valuable habitat types have been mapped – on land, in freshwater and in the sea (table 4.2, figure 4.5). These areas comprise rare/endangered vegetation types, which are often the habitat of red-listed species. In addition, 332 important wildlife areas have been mapped. The mapped areas constitute 13.4 % of Oslo’s total land, fresh water and sea area.

After the mapping, some of these areas received national protection status. Of Oslo’s 35 national nature conservation areas (table 4.1, figure 4.2), 22 have been established or expanded since 2006 (4.23 km² in total). The City Council has decided that the most important areas not subjected to national protection are to be protected through zoning provisions. Work is currently in progress to protect seven priority areas.

All information on valuable areas is stored in a database linked to a geographical information system (figure 4.6). In order to enhance information flows and prevent encroachment of important areas, this information has been incorporated into the tools used by the Agency for Planning and Building Services. The City’s biologists must assess all proposed development projects that affect such areas. Their conclusions are an important factor in decisions pertaining to development.

**Biodiversity-sensitive forestry**

The City owns most of the forests close to the built-up zone (117 km², figure 4.3; 4D8). In 1974, the City Council decided that nature conservation, outdoor recreation and water supply concerns should take priority over the generation of income from forestry. Plans passed in 2005 (4D4) and 2007 (4D5) strengthened this perspective through guidelines for forestry and management of areas of particular natural and recreational value. In valuable habitat types and wildlife areas only management measures without negative impacts are implemented.

Since 2002, forestry in municipal forests has been certified to ISO 14001 Environmental Management standards. Forestry activities also adhere to the Norwegian Programme for the Endorsement of Forest Certification (PEFC) standard.
Table 4.2: Areas registered as important to biodiversity in Oslo (see figure 4.5).

<table>
<thead>
<tr>
<th>Type of valuable area</th>
<th>No. of subtypes</th>
<th>No. of localities</th>
<th>Area (km²)</th>
<th>% area¹</th>
</tr>
</thead>
<tbody>
<tr>
<td>Valuable habitat types – terrestrial and freshwater</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Mires and springs</td>
<td>3</td>
<td>75</td>
<td>3.40</td>
<td>0.75</td>
</tr>
<tr>
<td>Scree, rocky habitats and scrub</td>
<td>3</td>
<td>16</td>
<td>0.23</td>
<td>0.05</td>
</tr>
<tr>
<td>Extensively managed agricultural landscapes</td>
<td>12</td>
<td>626</td>
<td>2.69</td>
<td>0.59</td>
</tr>
<tr>
<td>Freshwater/wetland</td>
<td>9</td>
<td>213</td>
<td>5.04</td>
<td>1.11</td>
</tr>
<tr>
<td>Forest</td>
<td>11</td>
<td>699</td>
<td>22.20</td>
<td>4.89</td>
</tr>
<tr>
<td>Beaches/coastal habitats</td>
<td>4</td>
<td>18</td>
<td>0.06</td>
<td>0.01</td>
</tr>
<tr>
<td>Other important habitat types</td>
<td>1</td>
<td>27</td>
<td>1.20</td>
<td>0.26</td>
</tr>
<tr>
<td>Total</td>
<td>43</td>
<td>1674</td>
<td>34.83</td>
<td>7.67</td>
</tr>
<tr>
<td>Valuable habitat types – marine</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Soft bottom sites in coastal areas</td>
<td>46</td>
<td></td>
<td>0.80</td>
<td>2.99</td>
</tr>
<tr>
<td>Occurrence of European flat oyster</td>
<td>9</td>
<td></td>
<td>0.21</td>
<td>0.80</td>
</tr>
<tr>
<td>Seagrass meadows</td>
<td>1</td>
<td></td>
<td>0.05</td>
<td>0.19</td>
</tr>
<tr>
<td>Total</td>
<td>56</td>
<td></td>
<td>1.06</td>
<td>3.97</td>
</tr>
<tr>
<td>Selected habitat types²</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Calcareous lime forest</td>
<td>12</td>
<td></td>
<td>0.12</td>
<td>0.03</td>
</tr>
<tr>
<td>Hollow/large oak trees</td>
<td>141</td>
<td></td>
<td>0.11</td>
<td>0.02</td>
</tr>
<tr>
<td>Traditional hay meadows</td>
<td>50</td>
<td></td>
<td>0.37</td>
<td>0.08</td>
</tr>
<tr>
<td>Mires/fens traditionally used for haymaking</td>
<td>1</td>
<td></td>
<td>0.00</td>
<td>0.00</td>
</tr>
<tr>
<td>Total</td>
<td>204</td>
<td></td>
<td>0.60</td>
<td>0.13</td>
</tr>
<tr>
<td>Priority species²</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Northern dragonhead <em>Dracocephalum ruyschiana</em></td>
<td>57</td>
<td></td>
<td>–</td>
<td>–</td>
</tr>
<tr>
<td>Wildlife areas</td>
<td></td>
<td></td>
<td>332</td>
<td>44.93</td>
</tr>
<tr>
<td>Total</td>
<td></td>
<td></td>
<td>64.40</td>
<td>13.40</td>
</tr>
</tbody>
</table>

¹ Shares for Selected habitat types and Valuable habitat types – terrestrial and freshwater are based on the total area of land/freshwater in Oslo. Shares for Valuable habitat types – marine are based on the total area of sea. Shares for Wildlife areas and Total are based on all areas within the City’s borders (including sea areas).

² Special protected status pursuant to the Nature Diversity Act (4D12).

³ Adjusted for overlap between the different categories.
Figure 4.5: Mapped valuable habitat types and important wildlife areas in the City of Oslo (see table 4.2).
Figure 4.6: Screen shot of the Geographical Information System used by the City of Oslo. There is a direct link between the map objects (here on valuable habitat types) and fact sheets describing the mapped area; species found, threats and management measures.

Protect and strengthen rivers and green corridors
No rivers/streams have been enclosed since the 1980s. Since then, focus has been on reopening (4D9). In the past decade, eight river stretches in the built-up zone have been reopened (2810 m in total). Eight further projects are in progress (2925 m).

For years, Oslo has worked to improve the water quality and environmental conditions in the city’s waterways. Efforts have been enhanced by the measures implemented in line with the EU Water Framework Directive. Crayfish, salmon and trout thrive in the built-up zone. To increase fish stocks, 200,000 fry are released in the river Akerselva annually.

Management measures for biodiversity
In the past decade, the City has spent EUR 1.4 million on measures favouring biodiversity in important areas (approx. 60 % state funding). This is in addition to measures to reopen/improve waterways and eradicate non-native species.

- Restoration of eight dams for amphibians
- Reintroduction of great crested newts (one dam)
- Establishment of a hibernation site for newts, as well as several insect hotels
- Reintroduction/new establishment of two threatened plant species
- Maintenance of about 100 old oaks and a large number of other old trees
- Management of 20 valuable hayfields
- Pilot project to create eight new meadows
- Upkeep of pastures in 13 areas
- Clearing of trees/shrubs in 18 management-dependent habitat types
- A landfill for dead wood, as well as single trunks left behind in suitable areas and boxes of dead wood in trees create habitats for insects and fungi
Figure 4.7: Among the management measures implemented in Oslo are: maintenance of old oaks, restoration of dams for amphibians, mowing of valuable hayfields, and eradication of invasive non-native species (the case shown is voluntary communal work).

To reduce the strain on the environment and promote a natural flora and fauna, synthetic fertilizers or chemical pesticides are, as a rule, not used in municipal parks or other recreational areas. The two largest farms in Oslo are certified organic; one of them is run by the City itself.

Successful eradication of invasive non-native species
Oslo is combating invasive non-native species, particularly giant hogweed, Himalayan balsam and pale swallowwort. Since 2005, control measures have been carried out yearly on almost all registered sites. Substantial measures in relation to eight other invasive plants have also been carried out. Giant hogweed and Himalayan balsam have been eradicated from an increasing number of sites (423 of 606 recorded sites for the former in 2016; figure 4.8), and remaining sites are reduced.

Oslo is constantly developing methods to eradicate invasive plants, including the use of hot water and impenetrable sheets, in addition to various mechanical methods. Use of chemicals is generally avoided.

Eradication is a costly and time-consuming process. During the last decade, Oslo spent EUR 2.3 million on such measures (26 % state funding).

To avoid spreading, Oslo has introduced routines for excavation where the above mentioned invasive plants have been registered. The City is also taking preventive measures by working to avoid planting of non-native species that carry high ecological risks. Oslo is sharing this knowledge and has been central to the development of a regional action plan on invasive species (4D6).

Involving citizens and NGOs
The City of Oslo cooperates with a wide range of NGOs, community groups and individuals aiming to preserve nature and promote outdoor recreation. In 2016, Oslo allocated EUR 1.15 mill to NGOs for these purposes. The NGOs contribute substantially to the mapping, maintenance and protection of important areas and species, including work to combat invasive plants, manage hayfields and inform the public.
Every year, thousands of school children spend one or more days in the forest, using nature as their classroom. About 56 of Oslo’s 125 primary schools have “adopted” a nearby river and are committed to help maintain it.

Information on the biologically important areas is available through the Internet (4D10). A large proportion of the landowners whose property includes one of the 1730 areas of valuable habitat have received maps and information on the area registered, providing them with guidance on why it is important to maintain it and how to accomplish this.

Many garden owners have been informed about the damage garden plants can do to biodiversity. They are advised which native plants to use, which introduced plants not to use, and to deliver garden waste to municipal reception centres (free).

**Monitoring species and the effect of measures**

To be able to evaluate implemented measures and plan new ones, important nature areas and species are monitored (often in collaboration with the County Governor and NGOs).

- Seabirds (all breeding colonies)
- Goshawk (4–5 breeding territories)
- Occurrence of bats and birds around the most important lake
- Amphibians in several dams
- Water quality and bottom dwellers (eight waterways)
- Freshwater pearl mussels (one waterway)
- Several rare plant species
- The effect of eradication measures
- Management measures in valuable areas

![Eradication of giant hogweed](image.png)

*Figure 4.8: Development in occurrence of the invasive plant species giant hogweed (Heracleum mantegazzianum) in Oslo since systematic eradication began in 2004.*
4C. Future Plans

**Tough targets and protection strategies for biodiversity**
In May 2015, the City Council adopted the Biodiversity Action Plan (4D1). The plan is in compliance with the Convention on Biological Diversity’s *Plan of Action on Subnational Governments, Cities and Other Local Authorities for Biodiversity*. Among the measures of priority are:

- Continuously update information on biodiversity in the city
- Safeguard the most important areas by zoning plans
- Secure good management of important areas
- Raise public awareness of the importance of biodiversity through information campaigns and better Internet solutions
- Strengthen the collaboration between different municipal agencies and with NGOs (figure 4.9)
- Implement further actions to combat alien species

**Continued focus on important areas**
In order to update knowledge, certain habitat types and wildlife areas will be remapped. Owners of mapped areas will be informed about the biological values of the land they occupy, and the knowledge gained will be incorporated into municipal decision making and planning.

Oslo will continue to develop zoning plans and management plans for the conservation of the most valuable areas.

Eradication of invasive species continues, with particular focus on biologically important areas. As occurrences of the three prioritized species decline resources will be shifted to eradication of other species.

**Safeguarding blue-green structure**
Oslo will preserve and strengthen its blue-green structure. The 2015 Municipal Master Plan (4D3) defines area use in the years to come. Urban developments in the wake of population growth will largely happen through densification close to public transport nodes. The plan will enhance the protection of a blue-green network within the built-up zone, and it contains regulations to protect valuable habitat types (figure 4.10). The value of blue-green structure as habitat and dispersal corridors for animals and plants is emphasized. The suggested measures will improve the connectivity of the blue-green structure.

![Figure 4.9: Citizens and NGOs are vital partners in the conservation efforts in Oslo. Here, volunteers from the NGO Østensjøvannets Venner (“Friends of Østensjø Lake”) are managing a valuable hayfield. Photo: Leif-Dan Birkemoe.](image)
Figure 4.10: Map from the 2015 Municipal Master Plan (4D3) of a densely populated area in central Oslo showing parks and other blue-green structure secured by zoning (upper map) and areas with specific regulations due to their importance for biodiversity (lower map; valuable habitat types, see table 4.2).
A strategic plan for improved management of trees in the built-up zone has been prepared. Regulations in a new zoning plan for a large residential district (“Småhusplanen” covering 29,000 properties) protects the many large trees in this area. Removal of trees with circumference larger than 90 cm is prohibited without prior permission from the City.

Municipal parks and other recreational areas will be maintained without the use of chemical pesticides or synthetic fertilizers. The use of plants that are attractive to bumblebees and other pollinating species will be increased in parks and other public spaces. Private garden owners and others are encouraged to do the same (figure 4.11). New meadows with flowering plants will be established.

An action plan to increase the number of green roofs is in progress.

**Open and restore waterways**

The rivers and streams that run through the built-up zone are vital parts of the city’s blue-green structure. The 2015 Municipal Master Plan (4D3) includes general provisions for construction-free zones along the river banks (20 m from main waterways and 12 m from tributaries).

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*Figure 4.11: A menu of plants rich in nectar and pollen at different times of the year has recently been produced as a guide to garden owners, gardeners and others. Wild native plants suitable for meadows left and attractive garden plants that do not pose a threat to native biodiversity right. The menu is a collaborative effort between seven NGOs, the Natural History Museum and the City of Oslo.*
Originally, there were 354 km of rivers and streams in the built-up zone. Today, 66.4 % of this is enclosed in culverts (27.5 % of the main rivers). Oslo plans to open enclosed waterways wherever possible (4D2, 4D3). A management document with principles for reopening projects and a list of prioritized projects was completed in 2016. Long-term plans include opening up 30 stretches of waterways (figure 4.12).

Ecological restoration of degraded waterways is a priority (bottom substrate, riverbank vegetation etc.). Obstacles to fish migration in waterways have been mapped. All major obstacles are included in the planned follow-up measures to the Water Framework Directive. Strengthening fish stocks is also a priority, and a project to farm and increase freshwater pearl mussel stocks has been implemented.

Figure 4.12: Map of open and closed stretches of main rivers, tributaries and streams in the built-up zone of Oslo. Reopening projects are also indicated; implemented projects since 2005, as well as on-going and planned projects.
Forests
The City Council's vision is to hand over municipal forests to the next generation in an improved environmental state (4D5). Municipal forests are to be managed in line with ecological principles, and protection and recreational values takes priority over financial considerations.

Landscape analysis (Gap analysis) of municipal forests show that they deviate from the original forested landscapes. Future management will focus on bringing the forests closer to their natural state.

New challenges in the wake of climate change
Climate change poses a threat to biodiversity in Oslo. Safeguarding the largest and most valuable natural areas in the built-up zone, through current and future plans (4D1, 4D3), is vital to reduce the negative impacts of climate change. Climate change requires a continued focus on invasive species. Oslo's target is to reduce its greenhouse gas emissions by 50 % by 2020 and 95 % by 2030, compared to 1990 levels (see indicator 1).

Oslo will continue to participate in the EUROCITIES Working Group on green areas and biodiversity in order to exchange best practice.
4D. References

PLANS AND PROGRAMMES

1. Improved management of biodiversity in Oslo (Biodiversity Action Plan, 2015) (English)
   Plan for the management of biodiversity in Oslo passed by the City Council in 2015.

2. Urban Ecology Programme 2011–2026 (English)
   The environmental policy of Oslo passed by the City Council. Section 5 outlines priorities, targets, strategies and measures to protect and enhance biodiversity.

3. The 2015 Municipal Master Plan: Oslo towards 2030 – Smart, Resilient and Green (Norwegian)
   The City’s most important strategic document passed by the City Council in 2015. The plan defines area use in the city in the coming years. It includes regulations to protect valuable habitat types. The plan includes detailed thematic maps accessible to the public.

4. Targets and guidelines for the management of the City of Oslo’s forests, 2005 (Norwegian)
   Municipal forests are to be managed sustainably. Protection and recreational values take priority over financial considerations. Municipal forests are to be models for multiple-use, nationally and internationally. A revised plan is in preparation.

5. Plan for multiple-use of the City of Oslo’s forests, 2007–2015 (Norwegian)
   Defines the City Council’s vision to hand over municipal forests to the next generation in an improved environmental state. Defines municipal management of agriculture and forests. A revised plan is in preparation.

6. Action plan on non-native species in Oslo og Akershus, 2010 (Norwegian)
   Regional plan coordinated by the County Governors Office.

WEBSITES

1. Green Oslo (English)
   Provides an overview of environmental efforts by the City of Oslo. On this site, Oslo shares its best practices.

2. Best Practices in The City of Oslo: The protection of Marka (English)

3. Good Practice 6 in the Application: Reopening of rivers and streams in Oslo (English)

4. Nature conservation maps (Naturbase) (Norwegian)
   Online maps with information on valuable habitat types (“Naturtyper”), nature protection areas (“Verneområder”) etc. Hosted by the Norwegian Environment Agency.

5. The Emerald Network in Norway (English)
   The Emerald Network is a network of important sites for conservation of biodiversity in Europe under the Berne Convention. Norway is obligated to participate and to contribute to this network.

6. The Nature Diversity Act, 2009(English)
   National Act relating to the management of biological, geological and landscape diversity.

7. The Norwegian Biodiversity Information Centre (English)
   The Norwegian Biodiversity Information Centre (Artsdatabanken) serves as a national source of information on species and ecosystems.