

Conservation Objectives

Engures ezers

LV0302800



2024



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Introduction

The necessity of determining site-specific conservation objectives (SSCOs) at Natura 2000 site level derives from Article 4(4) of the Council Directive 92/43/EEC of 21 May 1992 on the conservation of natural habitats and of wild fauna and flora (Habitats Directive).

Setting SSCO is mandatory for all European Union member states and must be set for all habitats listed in Annex I of the Habitats Directive and species of Annex II in each Natura 2000 site designated for conservation of habitats and non-bird species.

SSCOs are determined based on the guidelines by the European Commission (2012), which are detailed for the national use in Latvia in the national methodology (2019, 2022) and are available [here](#).

Standardized and unified approach is used to set SSCO. Objectives are displayed as **quantitative, measurable result that describes the desirable cover and condition of the habitat**. The objectives indicate specific needs to be achieved and specify to what extent they should be achieved in each Natura 2000 site to reach favourable conservation status – the core objective of both Habitats and Birds Directives.

Each objective includes two components:

(a) **the target cover that must be preserved or achieved**—the target cover almost always includes the current (to be preserved) cover and the potential cover of the habitat identified by evaluating the landscape potential (if any) using certain criteria (to be restored or re-created);

(b) **target condition**—habitat “needs” expressed in a standardized way for the particular site; the target condition derives from the current habitat condition (to be preserved or improved, or re-created), which, in turn, is affected by various impacts in the past and present, the effectiveness of conservation actions, etc. that mirror into the habitat condition assessment.

The **management activities to reach the specified targets** are described in detail in the Natura 2000 site management plans or in some cases stated in other legislative acts. Development and updating of the site management plans is a continuous process and should also include review and update of the SSCO, if applicable (e.g. by linking them to what has already been done to achieve the previously set objectives). However, updating the SSCO, if they are still rooted in the best available data, is not necessary—in many cases, the objectives will likely be relevant for a longer period.

Data The best available data on the cover of habitats and the standardized data forms for each habitat patch were acquired from the national biodiversity database “Ozols” (data from 2023) and used in determining SSCO. In setting SSCO, the most comprehensive habitat inventory in Latvia so far—the country-scale inventory carried out during the project “Preconditions for Better Biodiversity Preservation and Ecosystem Protection in Latvia” (Nature Census, 2017–2023) were used. In order to assess the current condition of the habitats and, on the basis of that, determine the target condition, within the scope of this work, special algorithms were developed. They are mostly based on selected statistically significant parameters, using statistical data analysis. If the development of an algorithm for a certain habitat type was not possible for some reason, an expert judgment based on the best available data and knowledge was applied. Full methodology and data sources available [here](#).

Conservation Objectives for:

Natura 2000 site code	LV0302800
Natura 2000 site name	Engures ezers
Additional information about the site	https://www.daba.gov.lv/lv/engures-ezers
<p>Qualifying Interests EU habitat types, including potential EU habitat types</p> <p>* indicates a priority habitat under the Habitats Directive</p>	<p>1150* Coastal lagoons 1210 Annual vegetation of drift lines 1220 Perennial vegetation of stony banks 1310 Salicornia and other annuals colonizing mud and sand 1630* Boreal Baltic coastal meadows 1640 Boreal Baltic sandy beaches with perennial vegetation 2110 Embryonic shifting dunes 2120 Shifting dunes along the shoreline with <i>Ammophila arenaria</i> 2130* Fixed coastal dunes with herbaceous vegetation 2180 Wooded dunes of the Atlantic, Continental and Boreal region 3140 Hard oligo-mesotrophic waters with benthic vegetation of <i>Chara</i> spp 3260 Water courses of plain to montane levels with the <i>Ranuncion fluitantis</i> and <i>Callitricho-Batrachion</i> vegetation 5130 <i>Juniperus communis</i> formations on heaths or calcareous grasslands 6120* Xeric sand calcareous grasslands 6210 Semi-natural dry grasslands and scrubland facies on calcareous substrates 6230* Species-rich <i>Nardus</i> grasslands, on silicious substrates in mountain areas 6270* Fennoscandian lowland species-rich dry to mesic grasslands 6410 <i>Molinia</i> meadows on calcareous, peaty or clayey-silt-laden soils 6530* Fennoscandian wooded meadows 7140 Transition mires and quaking bogs 7210* Calcareous fens with <i>Cladium mariscus</i> and species of the <i>Caricion davallianae</i> 7230 Alkaline fens 9010* Western Taiga 9050 Fennoscandian herb-rich forests with <i>Picea abies</i> 9070 Fennoscandian wooded pastures 9080* Fennoscandian deciduous swamp woods 91D0* Bog woodland 91E0* Alluvial forests with <i>Alnus glutinosa</i> and <i>Fraxinus excelsior</i></p>
<p>Qualifying Interests EU species types</p>	<p>Plants: <i>Dianthus arenarius</i> ssp. <i>Arenarius</i> (1954) <i>Liparis loeselii</i> (1903) Invertebrates: <i>Dytiscus latissimus</i> (1081) <i>Euphydryas maturna</i> (6169) <i>Graphoderus bilineatus</i> (1082) <i>Leucorrhinia pectoralis</i> (1042)</p>

	<p><i>Lycaena dispar</i> (1060) <i>Vertigo angustior</i> (1014) <i>Vertigo genesii</i> (1015) <i>Vertigo geyeri</i> (1013) Mammals: <i>Lutra lutra</i> (1355) <i>Myotis dasycneme</i> (1318) Fish: <i>Lampetra planeri</i> (1096) <i>Misgurnus fossilis</i> (1145) <i>Rhodeus amarus</i> (5339)</p>
Experts involved in setting of the SSCOs:	<p>Brigita Laime (coastal areas, sand dunes, and heaths) Lauma Vizule-Kahovska (freshwater habitats) Kristīne Daudziņa, Baiba Galniece (grasslands and scrublands) Anita Namatēva, Agnese Priede (bogs and springs) Sandra Ikauniece (forests) Linda Uzule (plants) Maksims Balalaikins (invertebrates-beetles, dragonflies, butterflies), Digna Pilāte (invertebrates-snails) Valdis Pilāts (mammals) Kaspars Abersons (fish)</p>
Work completion date	07.03.2023.

EU habitat types, including potential EU habitat types	Site specific conservation objective	Comments on the target values
Coastal areas, sand dunes, and heathland <i>1150* Coastal lagoons</i> <i>1210 Annual vegetation of drift lines</i> <i>1220 Perennial vegetation of stony banks</i> <i>1310 Salicornia and other annuals colonizing mud and sand</i> <i>1630* Boreal Baltic coastal meadows</i> <i>1640 Boreal Baltic sandy beaches with perennial vegetation</i> <i>2110 Embryonic shifting dunes</i> <i>2120 Shifting dunes along the shoreline with <i>Ammophila arenaria</i></i> <i>2130* Fixed coastal dunes with herbaceous vegetation</i> <i>2180 Wooded dunes of the Atlantic, Continental and Boreal region</i>	1150: the target habitat area is 4,02 ha.	1150: The target area is larger than the current area. The target habitat area includes former lagoons, which, with appropriate management, can be restored. They are located north of the Port of Mērsrags and are overgrown with common reed and other tall herbaceous plants.
	1210: the target habitat area is 2,15 ha.	The target area is equal to the current area.
	1220: the target habitat area is 0,68 ha.	The target area is equal to the current area.
	1310: the target habitat area is 0,02 ha.	The target area is equal to the current area.
	1630*: the target habitat area is 28,04 ha.	<p>The target area is larger than the current area.</p> <p>The potential 1630* area included in the target area is designated in the territories of the Mērsrags coastal meadow complex, where, by evaluating cartographic and other available information, it is possible to expand the coastal grasslands towards the sea by managing areas currently dominated by common reed and incorporating areas that are mown as boat access routes.</p>
	1640: the target habitat area is 1,58 ha.	The target area is equal to the current area.
	2110: the target habitat area is 0,38 ha.	The target area is equal to the current area.

	2120: the target habitat area is 5,20 ha.	The target area is equal to the current area.
	2130*: the target habitat area is 16,55 ha.	The target area is larger than the current area. Taking into account the importance of gray dunes for the preservation of the <i>Dianthus arenarius</i> habitats and ensuring the ecological connectivity of this habitat, the potential 2130* area is included in the target area – a small sandy territory north of the Port of Mērsrags, which, with appropriate management, can be restored to the 2130* habitat, increasing the overall area of the habitat in the nature park.
	2180: the target habitat area is 1223,11 ha.	The target area is larger than the current area. The target area is designated by adding a clearing in the dunes with an area of 6.33 hectares to the current 2180 biotope areas, where a dune forest could develop over 30 years, meeting the minimum requirements of this protected habitat.
Freshwater habitats 3140 <i>Hard oligo-mesotrophic waters with benthic vegetation of Chara spp</i> 3260 <i>Water courses of plain to montane levels with the Ranunculion fluitantis and Callitricho-Batrachion vegetation</i>	3140: the target habitat area is 2446,4 ha	The target area is equal to the current area. A significant increase in the habitat area is not possible without fundamental landscape reconstruction.
	3260: the target habitat area is 5,40 ha	The target area is equal to the current area. Modified sections of Melnupe, Jurgupe and Kalnupe are not included in the target area, considering their hydromorphological parameters – small rivers with sand substrate and low flow

		velocity. These parameters determine low potential of naturalization in a natural way comparing to river rapids, but re-meandering of such small rivers is not effective in terms of the high costs and obtained small area of protected EU habitats.
Grasslands and shrublands <i>5130 Juniper formations on heaths or calcareous grasslands</i> <i>6120* Xeric sand calcareous grasslands (* indicates priority habitat)</i> <i>6210 Semi-natural dry grasslands and scrubland facies on calcareous substrates (Festuco-Brometalia)</i> <i>6230* Species-rich Nardus grasslands, on silicious substrates in mountain areas</i> <i>6270* Fennoscandian lowland species-rich dry to mesic grasslands</i> <i>6410 Molinia meadows on calcareous, peaty or clayey-silt-laden soils</i> <i>6530* Fennoscandian wooded pastures</i>	5130: the target habitat area is 1,44 ha.	The target area is equal to the current area.
	6120*: the target habitat area is 0,51 ha.	The target area is equal to the current area.
	6210: the target habitat area is 6,93 ha.	The target area is equal to the current area.
	6230*: the target habitat area is 31,77 ha.	<p>The target area is larger than the current area.</p> <p>The target area includes potential 6230* habitat areas, which are mostly fallow fields where recent plowing was not detected in the latest ortho-photo maps, there is not significant overgrowth with trees and shrubs, and according to Rural Support Service (LAD) data, they are long-term grasslands. Not all historically known occurrences of this habitat were selected as potential 6230* habitats, as, according to the "Nature Census" (2017–2023) data, some no</p>

		longer meet the minimum requirements for EU significant grassland habitats.
	6270*: the target habitat area is 27,09 ha.	<p>The target area is larger than the current area.</p> <p>The area of this habitat-poor variant (2) can be increased in fallow fields on poor, sandy soils where recent orthophotomaps have not revealed recent plowing and there is no extensive tree and shrub cover (between Bērzciems and the eastern shore of Lake Engure). On the other hand, typical (1) and wet (3) development is predicted near some farmsteads on the western shore of the lake, where soil fertility is assessed as low by the land assessment. The potential areas do not include those areas that were assessed in the "Nature Census" habitat inventory (2017-2023) and found to qualify neither for the minimum grassland habitat requirements nor for potential grassland habitat.</p>
	6410: the target habitat area is 41,42 ha.	<p>The target area is larger than the current area.</p> <p>The target area includes potential area 6410 identified at the northern end of Lake Engure (an overgrown grassland cleared a few years ago). Many of the historically known sites of this habitat in the area no longer meet the minimum requirements for grassland habitats of EU importance and are mostly heavily</p>

		overgrown and difficult to access - in many places they can no longer be reached by access roads. Much of the former natural grassland is now forest land.
	6530*: the target habitat area is 6,92 ha.	The target area is equal to the current area.
Mires and Springs 7140 <i>Transition mires and quaking bogs</i>	7140: the target habitat area is 68,42 ha.	The target area is equal to the current area.
7210* <i>Calcareous fens with Cladium mariscus and species of the Caricion davallianae</i>	7210*: the target habitat area is 362,55 ha.	The target area is equal to the current area.
7230 <i>Alkaline fens</i>	7230: the target habitat area is 1387,97 ha.	The target area is equal to the current area.
Forests 9010* <i>Western Taiga</i> 9050 <i>Fennoscandian herb-rich forests with Picea abies</i> 9070 <i>Fennoscandian wooded pastures</i> 9080* <i>Fennoscandian deciduous swamp woods</i> 91D0* <i>Bog woodland</i> 91E0* <i>Alluvial forests with Alnus glutinosa and Fraxinus excelsior</i>	9010*: the target habitat area is 1071,89 ha.	The target area is larger than the current area. The private forests on the western shore of the lake have mature or nearly mature spruce stands (mostly birch and pine) which, according to orthophoto maps, have been selectively logged 10-15 years ago - if the non-interference regime continues, the plots have the potential to become 9010* habitat in the next 20-30 years. Opposite Kūļciems there are older forest areas, now almost mature pine stands, which may develop into 9010* habitat in the future. Elsewhere, potentially 9010* forest stands are part of an aggregation of existing forest habitats of EU importance; after some time, they will also mitigate the negative effects of fragmentation - a larger,

		more compact area of older forests will form, which is more resilient and ecologically stable.
	9050: the target habitat area is 10,89 ha.	The target area is equal to the current area. There may be suitable middle-aged or mature stands dominated by birch or aspen on the site with potential for 9050 habitat development, but field surveys are required to confirm this. Such sites are not included in the target area.
	9070: the target habitat area is 14.53 ha.	The target area is equal to the current area.
	9080*: the target habitat area is 238,76 ha.	The target area is larger than the current area. The target area includes a small area of potential 9080* habitats (some habitat polygons between 9080* (Option 2) habitats with similar growing conditions, but younger). In the more distant future, the swampy shores of the lake may also develop into 9080* habitat, but currently the swampy shores of the lake are not included in the target area. Some birch carrs, which are not marked as 9080* habitat in the NDP "Ozols" are also not assessed as potential 9080* habitats and are not included in the target area due to inadequate moisture regime (dehumidified forests).
	91D0*: the target habitat area is 39,21 ha.	The target area is larger than the current area.
	91E0*: the target habitat area is 52,67 ha.	The target area is equal to the current area.

EU species types	Site specific conservation objective	Comments on the target values
<p><i>Plants:</i> <i>Dianthus arenarius</i> ssp. <i>Arenarius</i> (1954) <i>Liparis loeselii</i> (1903)</p>	<p><i>Dianthus arenarius</i> ssp. <i>Arenarius</i>: the target species population is 8582 individuals.</p>	<p>The target population is equal to the current population. The habitat of the species is threatened by the natural overgrowth of gray dunes with dense pine groves, therefore it is necessary to manage the habitat 2130* <i>Fixed coastal dunes with herbaceous vegetation.</i></p>
	<p><i>Liparis loeselii</i>: the target species population is 3216 individuals.</p>	<p>The target population is 5x larger than the current population. It is necessary to take management measures in individual habitats of the <i>Liparis loeselii</i> - cutting down trees and bushes, as well as limiting the <i>Cladium mariscus</i>.</p>
<p><i>Invertebrates:</i> <i>Dytiscus latissimus</i> (1081) <i>Euphydryas maturna</i> (6169) <i>Graphoderus bilineatus</i> (1082) <i>Leucorrhinia pectoralis</i> (1042) <i>Lycaena dispar</i> (1060) <i>Vertigo angustior</i> (1014) <i>Vertigo genesii</i> (1015) <i>Vertigo geyeri</i> (1013)</p>	<p><i>Dytiscus latissimus</i>: the target species population is 62101 individuals.</p>	<p>The target population is equal to the current population. Nature Park "Engure Lake" is one of the most important species sites in Natura 2000 sites in Latvia.</p>
	<p><i>Euphydryas maturna</i>: the target species population is 12 individuals.</p>	<p>The target population is larger than the current population. Regular mowing of the ecotone and clearing of scrub at least every 5 years is necessary for the sustainable conservation of the species' habitat. The aspen and ash understorey and individual trees up to 1.5 metres in height should be retained.</p>
	<p><i>Graphoderus bilineatus</i>: the target species population is 122548 individuals.</p>	<p>The target population is 23x larger than the current population. There is a need to develop a specific methodology for the inventory of the species.</p>

	Leucorrhinia pectoralis: the target species population is 376217 individuals.	The target population is equal to the current population.
	Lycaena dispar: the target species population is 125 individuals.	The target population is equal to the current population. No additional measures need to be taken, except for the maintenance of the already existing habitats of the species at least in the state in which they are currently.
	Vertigo angustior: the target species population is 156982800 individuals.	The target population is larger than the current population.
	Vertigo genesii: the target species area is 1 individuals/m ² .	Due to the lack of data, the optimal density is assumed as 1 individual/m ² . This density is also automatically used as CO until better data are available. The Natura 2000 methodology should be improved, which would be suitable for such rare species for numerical estimation of populations.
	Vertigo geyeri: the target species population is 27094100 individuals.	The target population is larger than the current population.
<i>Mammals:</i> <i>Lutra lutra</i> (1355) <i>Myotis dasycneme</i> (1318)	Lutra lutra: the target species population is 20 individuals.	The target population is larger than the current population.
	Myotis dasycneme: the target species population is 74 individuals.	A method to extract the number of individuals from the activity index needs to be developed.
<i>Fish:</i> <i>Lampetra planeri</i> (1096) <i>Misgurnus fossilis</i> (1145) <i>Rhodeus amarus</i> (5339)	Lampetra planeri: the target species area is 2,8 ha.	The target area is equal to the current area.
	Misgurnus fossilis: the target species area is 2431 ha	The target area is equal to the current area.
	Rhodeus amarus: the target species area is 2431,9 ha	The target area is equal to the current area.