

## **Conservation Objectives**

## **Engures ezers**

LV0302800

2024



























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<b>Working group</b> : Solvita Rūsiņa, Marta Ancāne, Vita Dernova, Didzis Elferts, Jānis Ozols, Vineta Vērpēja (development of quality algorithms for grassland habitats); Guntis Brūmelis, Didzis Tjarve (development of quality algorithms for forest habitats); Viktors Lipskis (data export, processing, and analysis); Liene Zilvere, Emīls Mortuļevs, Jānis Kotāns (cartography, data processing, and analysis); Jānis Ozols (data processing and analysis, habitat quality calculations); Agnese Priede (team lead).

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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 SSCOs 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 <a href="here">here</a>.

Standardized and unified approach is used to set SSCOs. 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 SSCOs, if applicable (e.g. by linking them to what has already been done to achieve the previously set objectives). However, updating the SSCOs, 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 SSCOs. In setting SSCOs, 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	Engures ezers
site name	
Additional information about the site	https://www.daba.gov.lv/lv/engures-ezers
Qualifying	1150* Coastal lagoons
Interests	1210 Annual vegetation of drift lines 1220 Perennial vegetation of stony banks
EU habitat types,	1310 Salicornia and other annuals colonizing mud and sand
including potential EU	1630* Boreal Baltic coastal meadows
habitat types	1640 Boreal Baltic sandy beaches with perennial vegetation 2110 Embryonic shifting dunes
* indicates a priority	2110 Emoryome snifting aunes 2120 Shifting dunes along the shoreline with Ammophila arenaria
habitat under the Habitats	2130* Fixed coastal dunes with herbaceous vegetation
Directive	2180 Wooded dunes of the Atlantic, Continental and Boreal region
	3140 Hard oligo-mesotrophic waters with benthic vegetation of
	Chara spp
	3260 Water courses of plain to montane levels with the Ranunculion
	fluitantis and Callitricho-Batrachion vegetation
	5130 Juniperus communis 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 Nardus grasslands, on silicious substrates in
	mountain areas
	6270* Fennoscandian lowland species-rich dry to mesic grasslands
	6410 Molinia meadows on calcareous, peaty or clayey-silt-laden
	soils 6530* Fennoscandian wooded meadows
	7140 Transition mires and quaking bogs
	7210* Calcareous fens with Cladium mariscus and species of the
	Caricion davallianae
	7230 Alkaline fens
	9010* Western Taiga
	9050 Fennoscandian herb-rich forests with Picea abies
	9070 Fennoscandian wooded pastures
	9080* Fennoscandian deciduous swamp woods
	91D0* Bog woodland
Experts involved in	91E0* Alluvial forests with Alnus glutinosa and Fraxinus excelsior Brigita Laime (coastal areas, sand dunes, and heaths)
setting of the SSCOs:	Lauma Vizule-Kahovska (freshwater habitats)
seeing of the boots.	Kristīne Daudziņa, Baiba Galniece (grasslands and scrublands)
	Anita Namatēva, Agnese Priede (bogs and springs)
	Sandra Ikauniece (forests)
Work completion date	07.03.2023.

EU habitat types, including potential EU habitat types	Site specific conservation objective	Comments on the target values
habitat types  Coastal areas, sand dunes, and heathland 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	1150: the target habitat area is 4,02 ha.  1210: the target habitat area is 2,15 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.  The target area is equal to the current area.
beaches with perennial vegetation 2110 Embryonic shifting	1220: the target habitat area is 0,68 ha.	The target area is equal to the current area.
dunes 2120 Shifting dunes along the shoreline with	1310: the target habitat area is 0,02 ha.	The target area is equal to the current area.
Ammophila arenaria 2130* Fixed coastal dunes with herbaceous vegetation	1630*: the target habitat area is 28,04 ha.	The target area is larger than the current area.
2180 Wooded dunes of the Atlantic, Continental and Boreal region	1640, 41, 4	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.
	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 Dianthus arenarius 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 Hard oligo- mesotrophic waters with benthic vegetation of Chara spp 3260 Water courses of plain to montane levels	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.
with the Ranunculion fluitantis and Callitricho-Batrachion vegetation	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 hydromorpholocigal parameters – small rivers with sand substrate and low flow

Grasslands and shrublands 5130 Juniper formations on heaths or calcareous grasslands 6120* Xeric sand calcareous grasslands (* indicates priority habitat) 6210 Semi-natural dry grasslands and scrubland facies on calcareous substrates (Festuco-	5130: the target habitat area is 1,44 ha. 6120*: the target habitat area is 0,51 ha.	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.  The target area is equal to the current area.  The target area is equal to the current area.
Brometalia) 6230* Species-rich Nardus grasslands, on silicious substrates in mountain areas 6270* Fennoscandian lowland species-rich dry to mesic grasslands 6410 Molinia meadows on calcareous, peaty or	6210: the target habitat area is 6,93 ha.	The target area is equal to the current area.
clayey-silt-laden soils 6530* Fennoscandian wooded pastures	6230*: the target habitat area is 31,77 ha.	The target area is larger than the current area.  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

	longer meet the minimum
	requirements for EU
	significant grassland habitats.
(250) 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	
6270*: the target habitat area	The target area is larger than
is 27,09 ha.	the current area.
	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
	Berzeiems 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
6410: the target habitat area is	potential grassland habitat.  The target area is larger than
41,42 ha.	the current area.
11,12 114.	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
	and are mostly meavily

		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.
Bogs and Springs 7140 Transition mires and quaking bogs	7140: the target habitat area is 68,42 ha.	The target area is equal to the current area.
7210* Calcareous fens with Cladium mariscus and species of the Caricion	7210*: the target habitat area is 362,55 ha.	The target area is equal to the current area.
davallianae 7230 Alkaline fens	7230: the target habitat area is 1387,97 ha.	The target area is equal to the current area.
Forests 9010* Western Taiga 9050 Fennoscandian herbrich forests with Picea abies 9070 Fennoscandian wooded pastures 9080* Fennoscandian deciduous swamp woods 91D0* Bog woodland 91E0* Alluvial forests with Alnus glutinosa and Fraxinus excelsior	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	The target area is equal to the
10,89 ha.	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
0070 4 4 1 1 1 1 1 1 1	not included in the target area.
9070: the target habitat area is	The target area is equal to the
14.53 ha.	current area.
9080*: the target habitat area	The target area is larger than
is 238,76 ha.	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	The target area is larger than
is 39,21 ha.	the current area.
,	
91E0*: the target habitat area	The target area is equal to the
is 52,67 ha.	current area.
10 02,07 110.	current area.