



Peatland restoration for greenhouse gas emission reduction and carbon sequestration in the Baltic Sea region (LIFE PeatCarbon, LIFE21 - CCM - LV)

Peatland hydrology restoration plans in Latvia for Cena Mire and Lielais Pelečāre Mire

2nd Project Steering Group Meeting



Līga Strazdiņa

Mire expert

04.12.2023



Work package WP2 – Initial studies, elaboration of documentation and implementation of selected CCM peatland restoration measures

1. Preparation of the Peatland Restoration plans (PRP) and technical documentation for peatland restoration in the project sites.

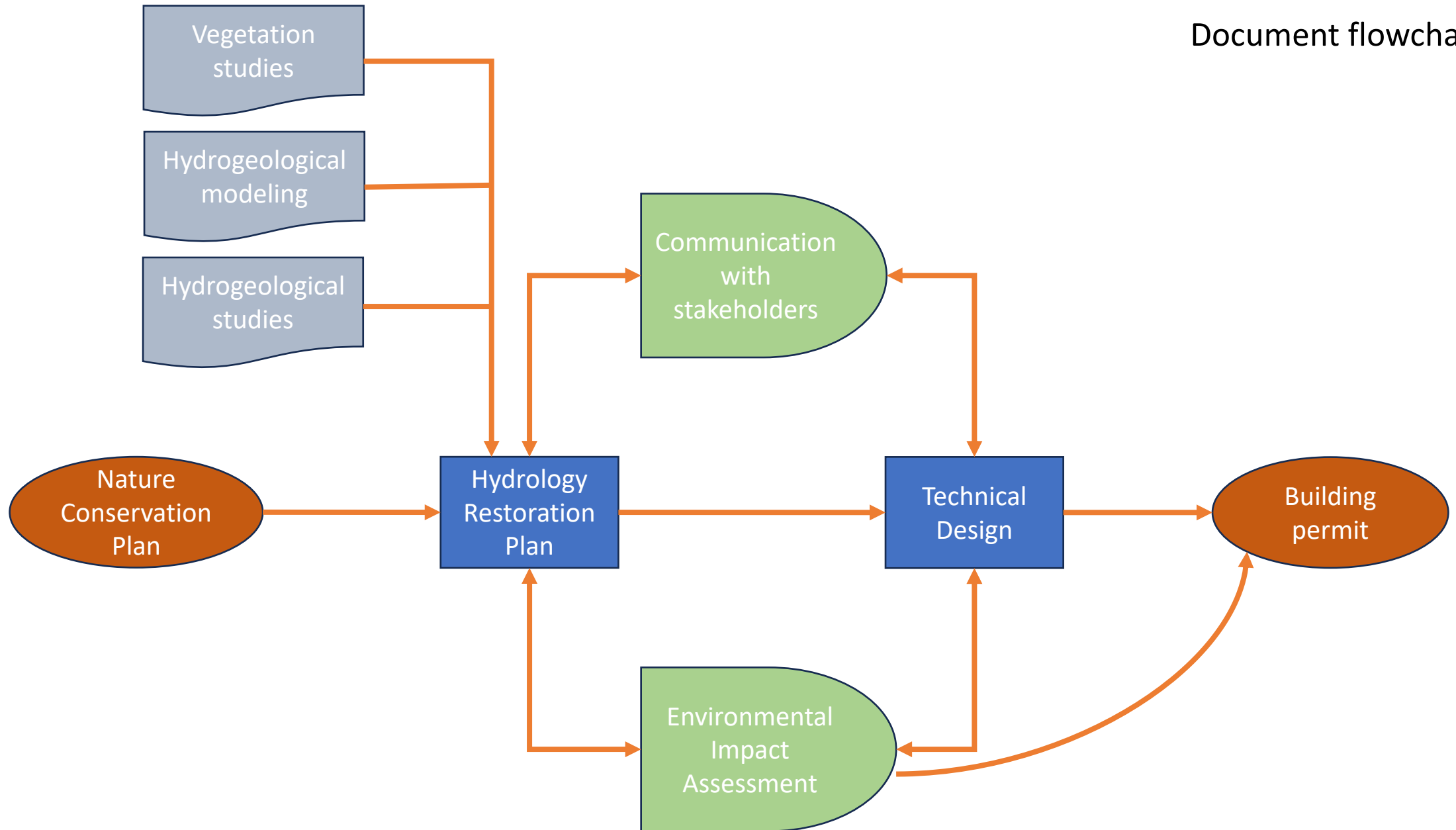
1.1. Based on vegetation, hydrology studies and hydro-geological modelling recommendations will be formulated for the elaboration of Restoration Plans for Cena Mire, Lielais Pelečāre Mire and Technical designs

1.4. Technical Designs developed for peatland restoration in Cena Mire and Lielais Pelečāre Mire

1.6. The area where positive effect from management actions will be reached comprises 5076 ha in Latvia (Lielais Pelečāre Mire - 4946 ha, Cena Mire – 130 ha)

[illegible]

Document flowchart





LIFE21 - CCM - LV - LIFE - PeatCarbon

Purvu atjaunošana siltumnīcas efekta gāzu samazināšanai un oglekļa uzkrāšanai Baltijas jūras reģionā
Peatland restoration for greenhouse gas emission reduction and carbon sequestration in the Baltic Sea region

Hidroloģiskā režīma atjaunošanas plāns dabas liegumam “Cenas tīrelis”

Plāns izstrādāts projekta “Purvu atjaunošana siltumnīcas efekta gāzu samazināšanai un oglekļa uzkrāšanai Baltijas jūras reģionā” (LIFE PeatCarbon, LIFE21 - CCM - LV) ietvaros



LIFE21 - CCM - LV - LIFE - PeatCarbon

Purvu atjaunošana siltumnīcas efekta gāzu samazināšanai un oglekļa uzkrāšanai Baltijas jūras reģionā
Peatland restoration for greenhouse gas emission reduction and carbon sequestration in the Baltic Sea region

Hidroloģiskā režīma atjaunošanas plāns dabas liegumam “Lielais Pelečāres purvs”

Plāns izstrādāts projekta “Purvu atjaunošana siltumnīcas efekta gāzu samazināšanai un oglekļa uzkrāšanai Baltijas jūras reģionā” (LIFE PeatCarbon, LIFE21 - CCM - LV) ietvaros



- Summary
- Terminology and Abbreviations
- Introduction
- General overview of the site
 - Historical maps
 - Climate
 - Geology
 - Hydrology
 - Vegetation
 - Habitat monitoring
- Hydrological and geological research
 - Methods and materials
 - Hydrology monitoring
- Hydrogeological modeling
- GHG measuring
- Hydrology restoration activities
 - Hydrology restoration plan
- Literature
- Annexes



projekts LIFE04NAT/LV/000196
„Purva biotopu aizsardzības plāna īstenošana Latvijā”

DABAS LIEGUMA Cenas tirelis

Rīgas rajons
Babītes un Mārupes pagasts

DABAS AIZSARDZĪBAS PLĀNS

2005.g. – 2020.g.

PASŪTĪTĀJS:



Rīgas Meža aģentūra

IZPILDĪTĀJS:



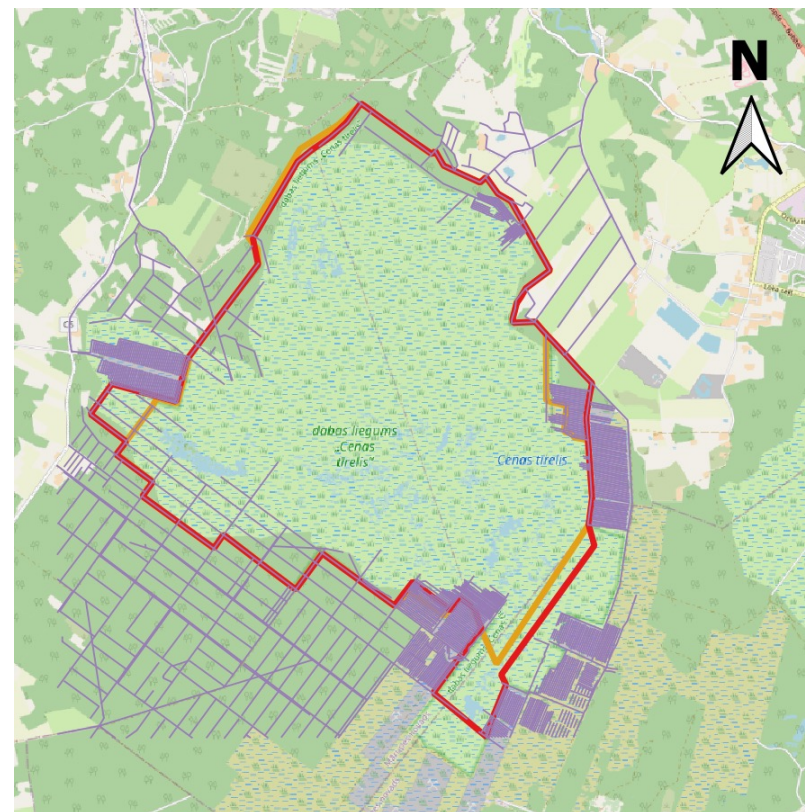
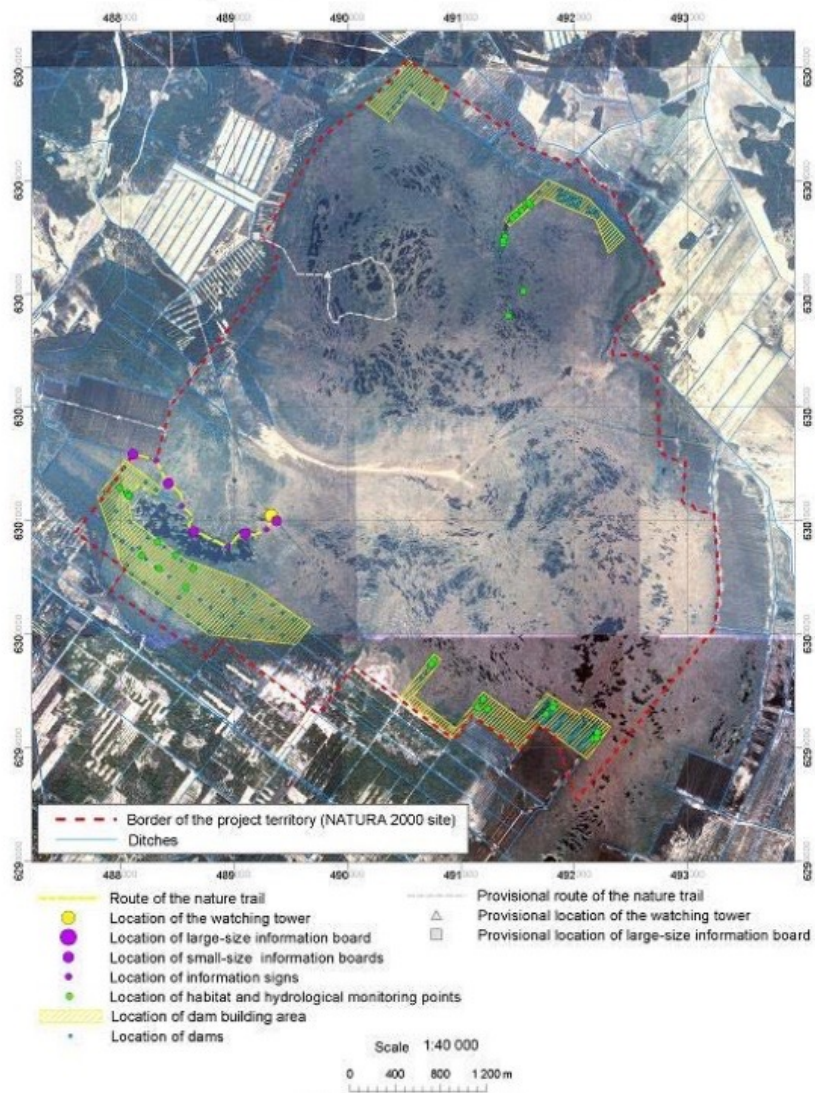
Latvijas Dabas fonds

PLĀNA REDAKTORE:

Inese Silamītele

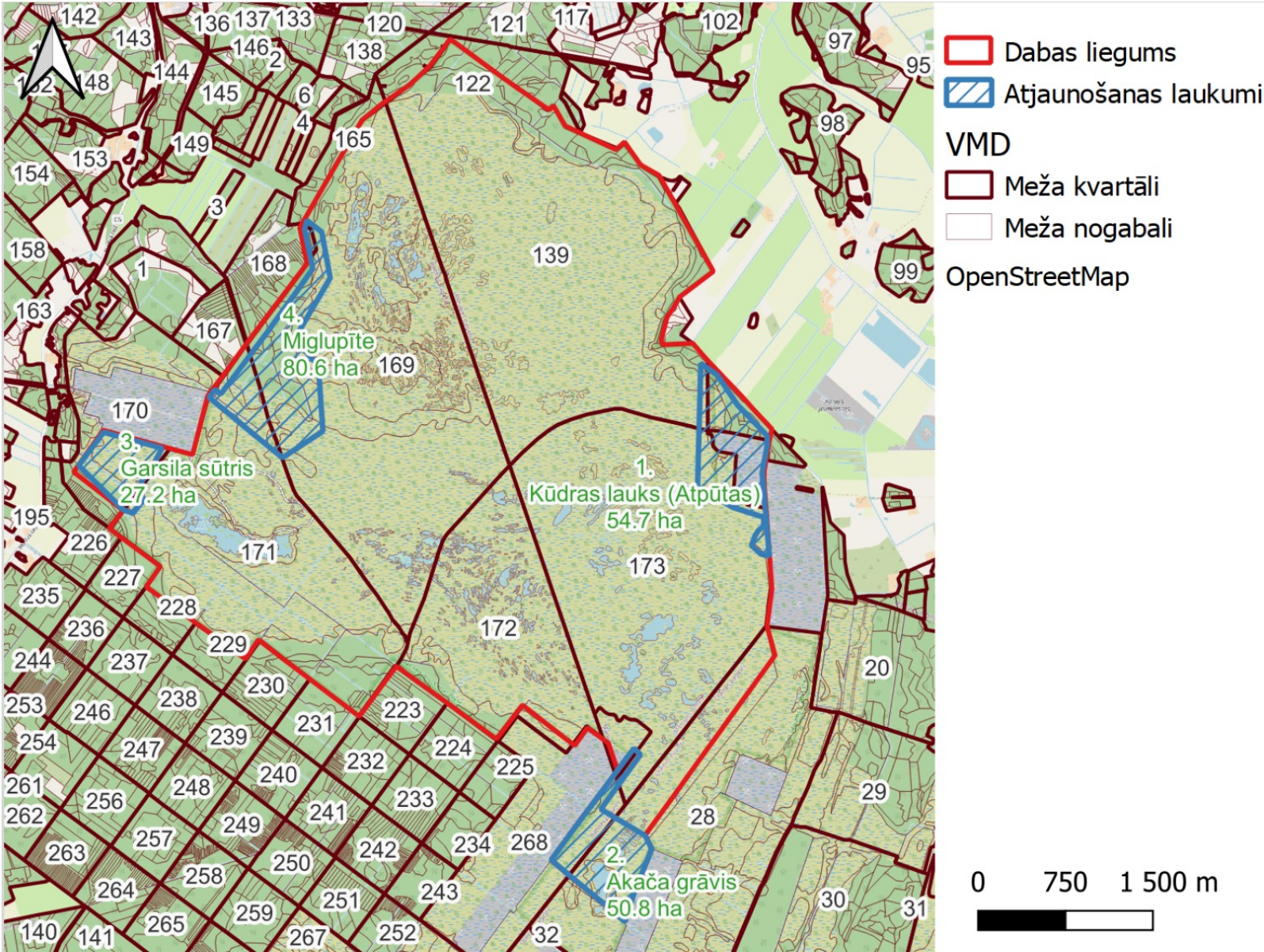
Rīga
2005

Management actions in Cena Mire Nature Reserve



© A. Kalvāns

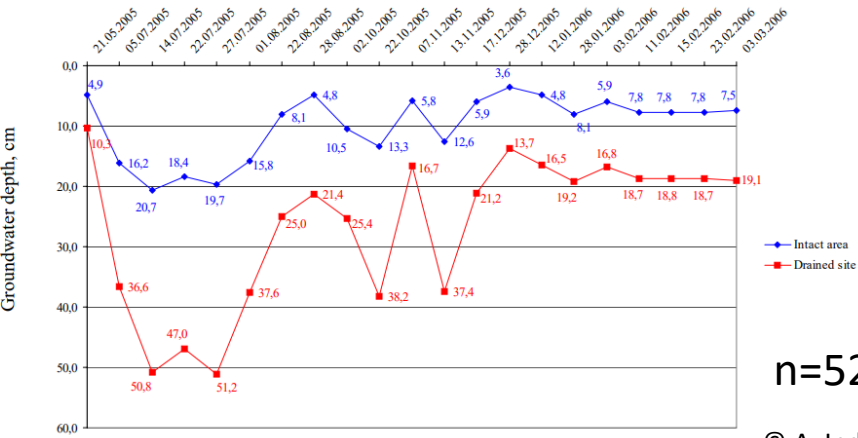
The extended border of Nature Reserve Cena Mire



© A. Kalvāns

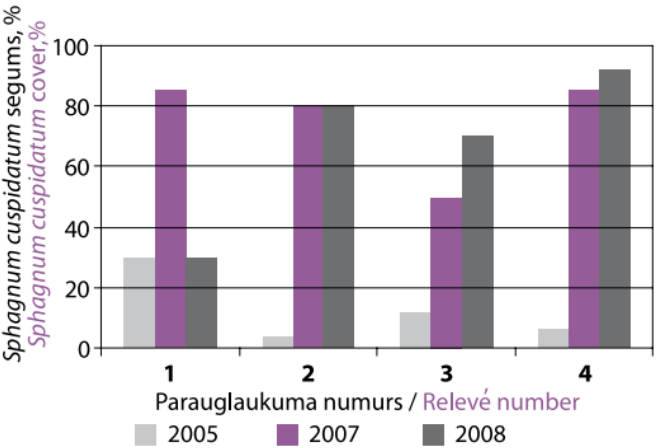


ANNEX 27. DIAGRAMS OF HYDROLOGICAL STUDIES IN CENA MIRE



n=52

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2. att. *Sphagnum cuspidatum* seguma, %, izmaiņas dažos Cenas tīrēļa parauglaukumos. Fig. 2. Changes in *Sphagnum cuspidatum* cover, %, in selected relevés on ditches in the Cena Mire.

n=33

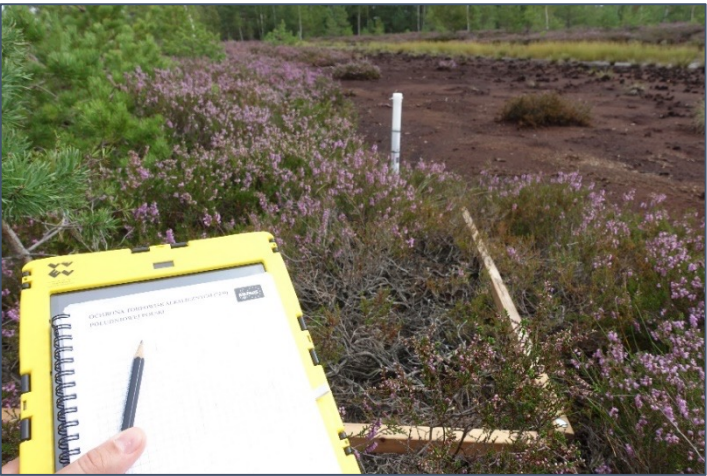
© L. Salmiņa

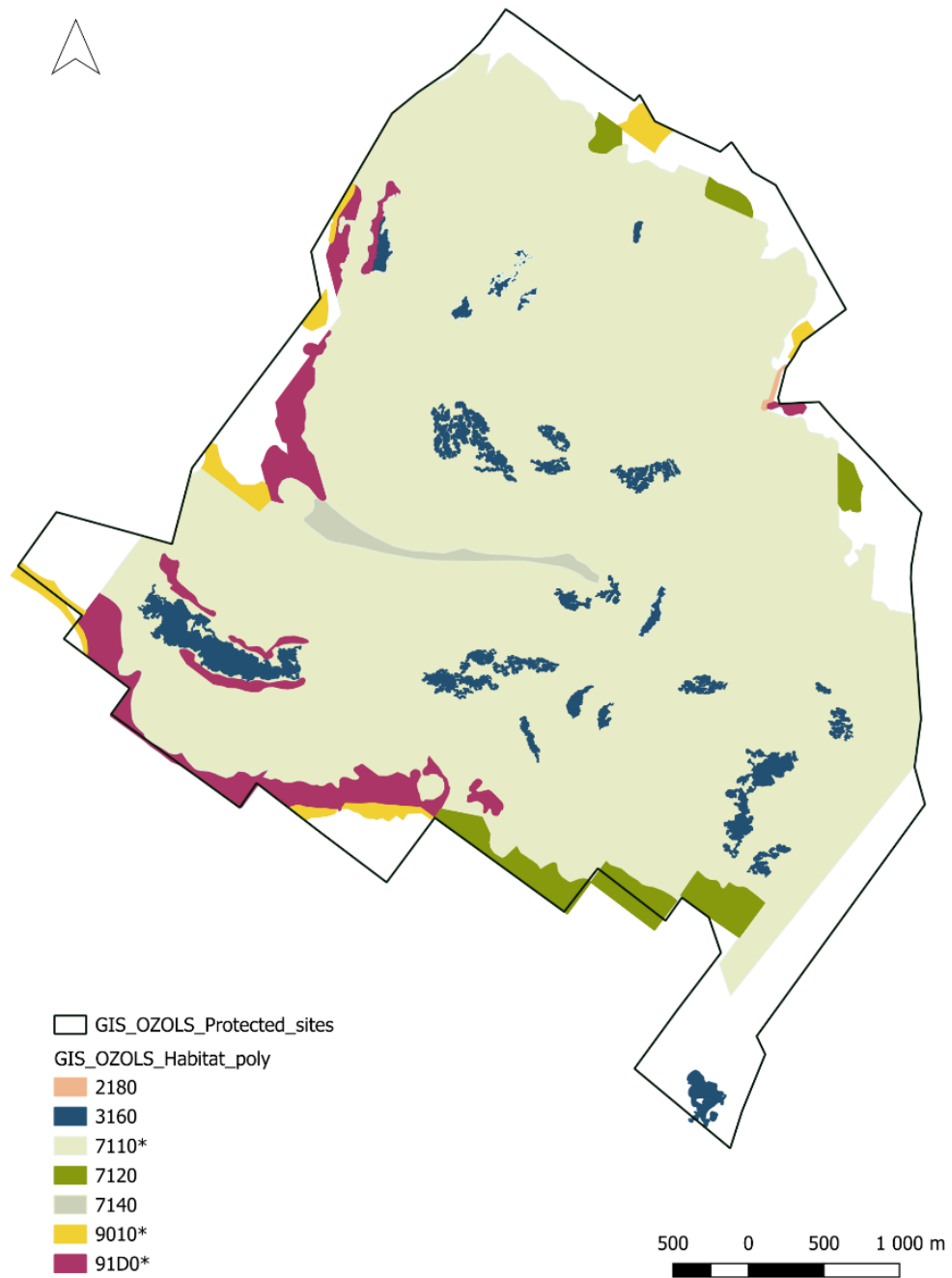
VEGETATION MONITORING PLOTS

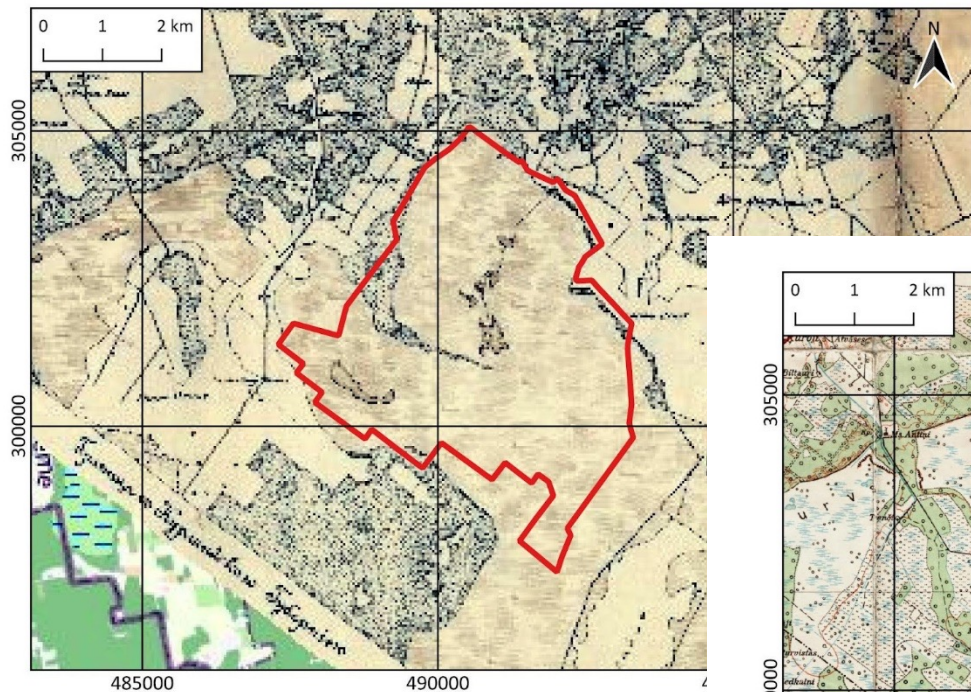
18 GHG measurement points

11 water level monitoring points

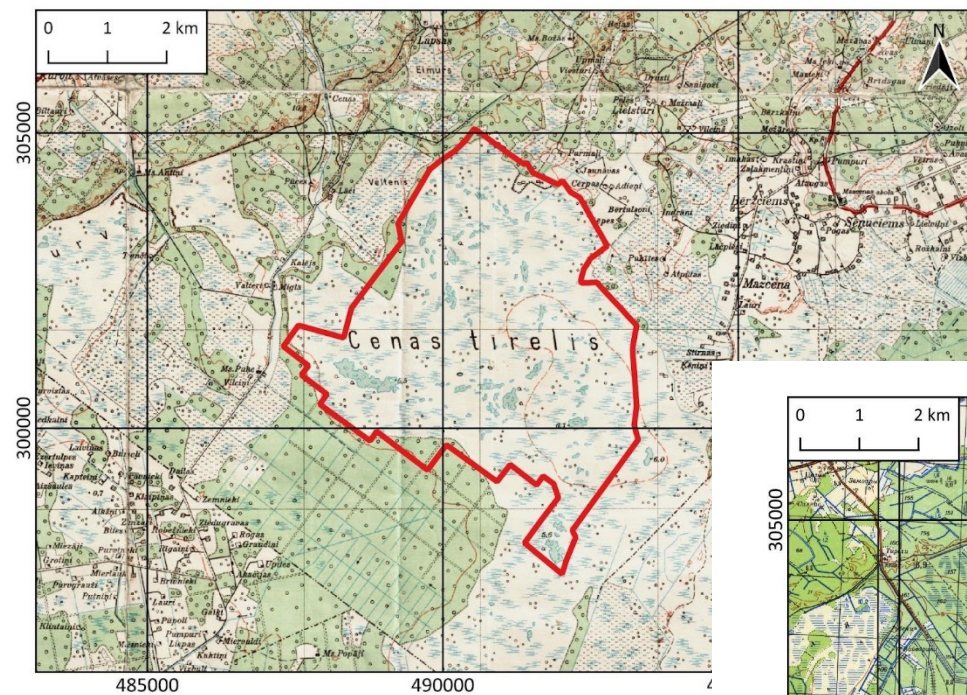
32 GEST monitoring points



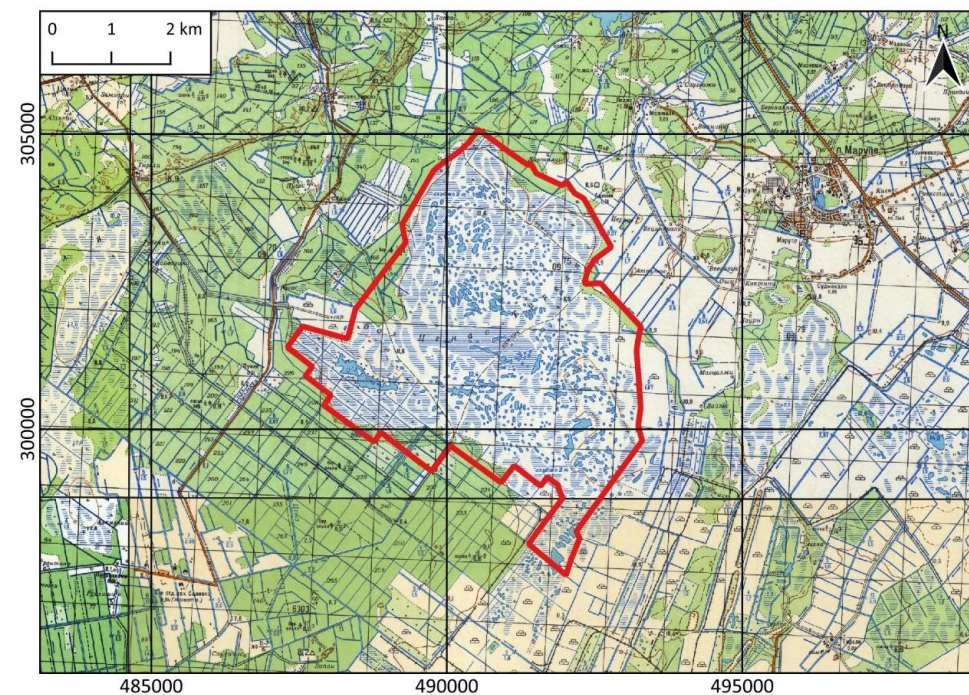




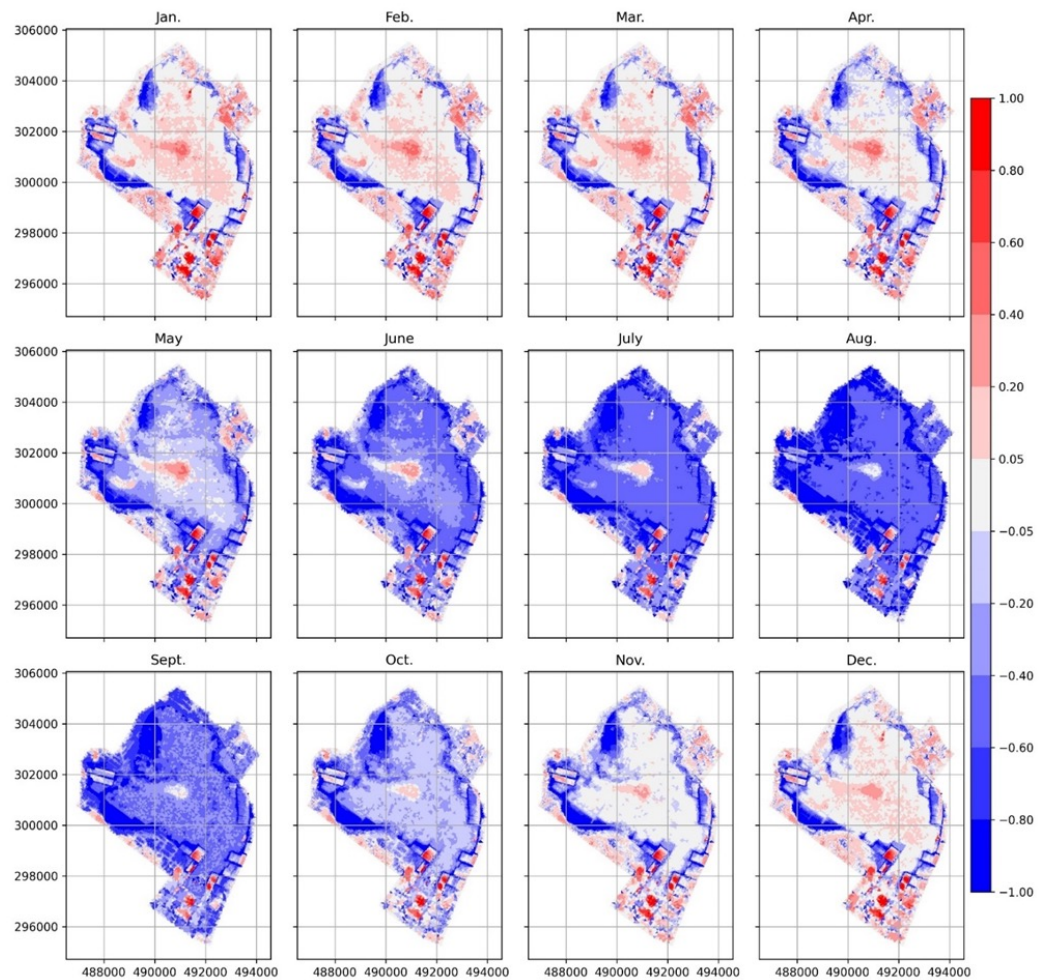
1904



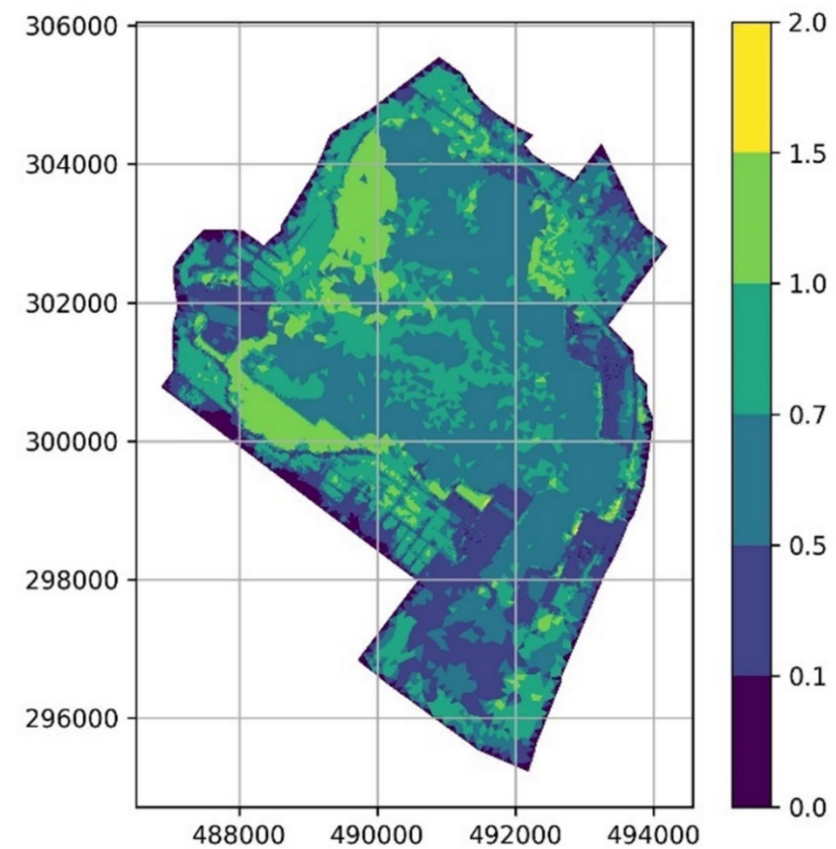
1922-1940



1942

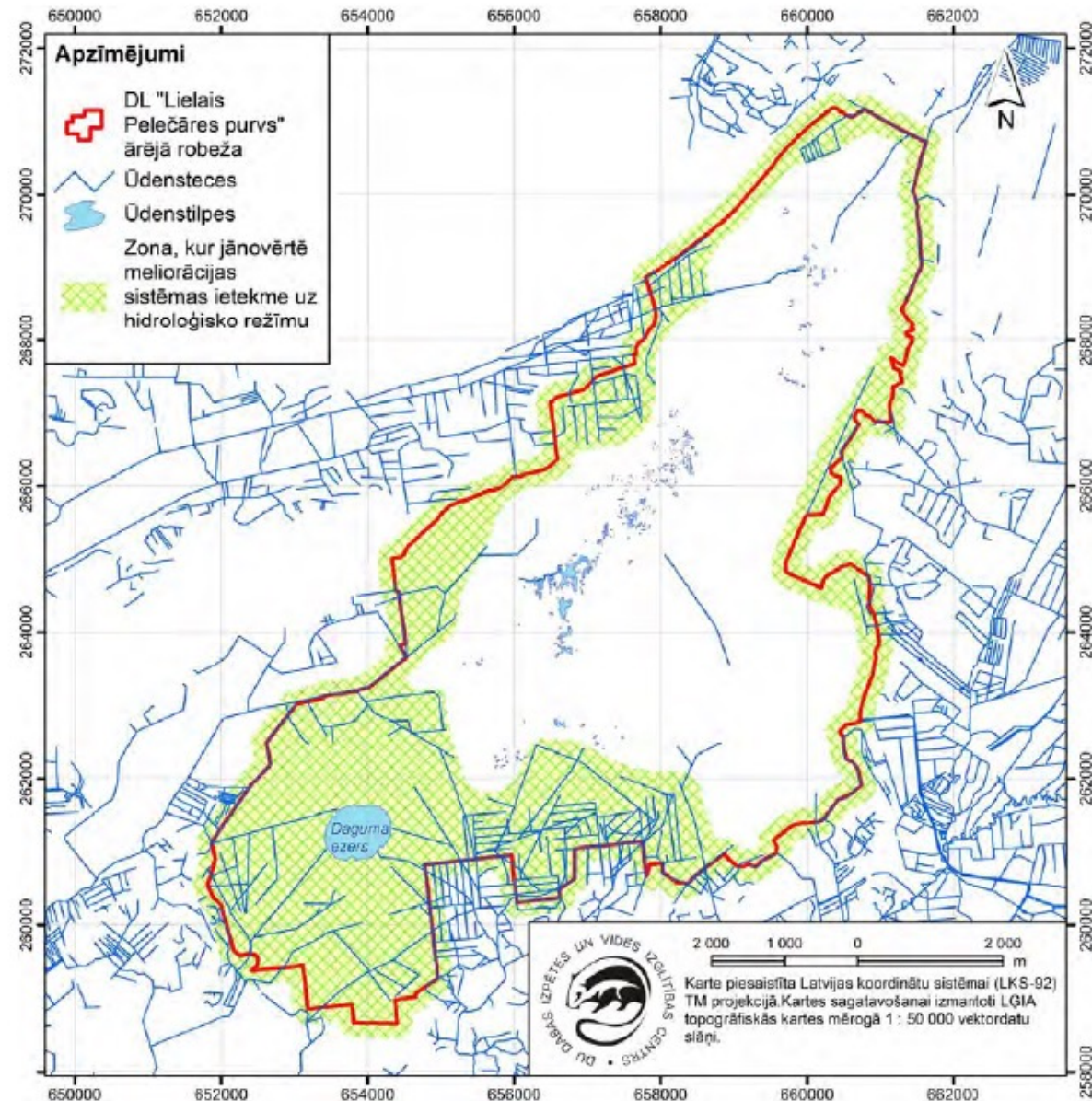
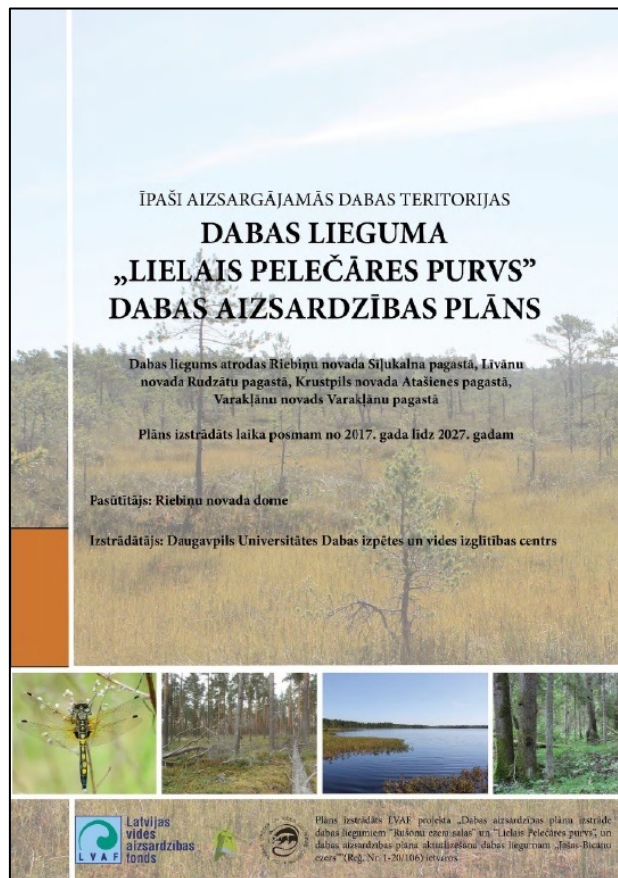


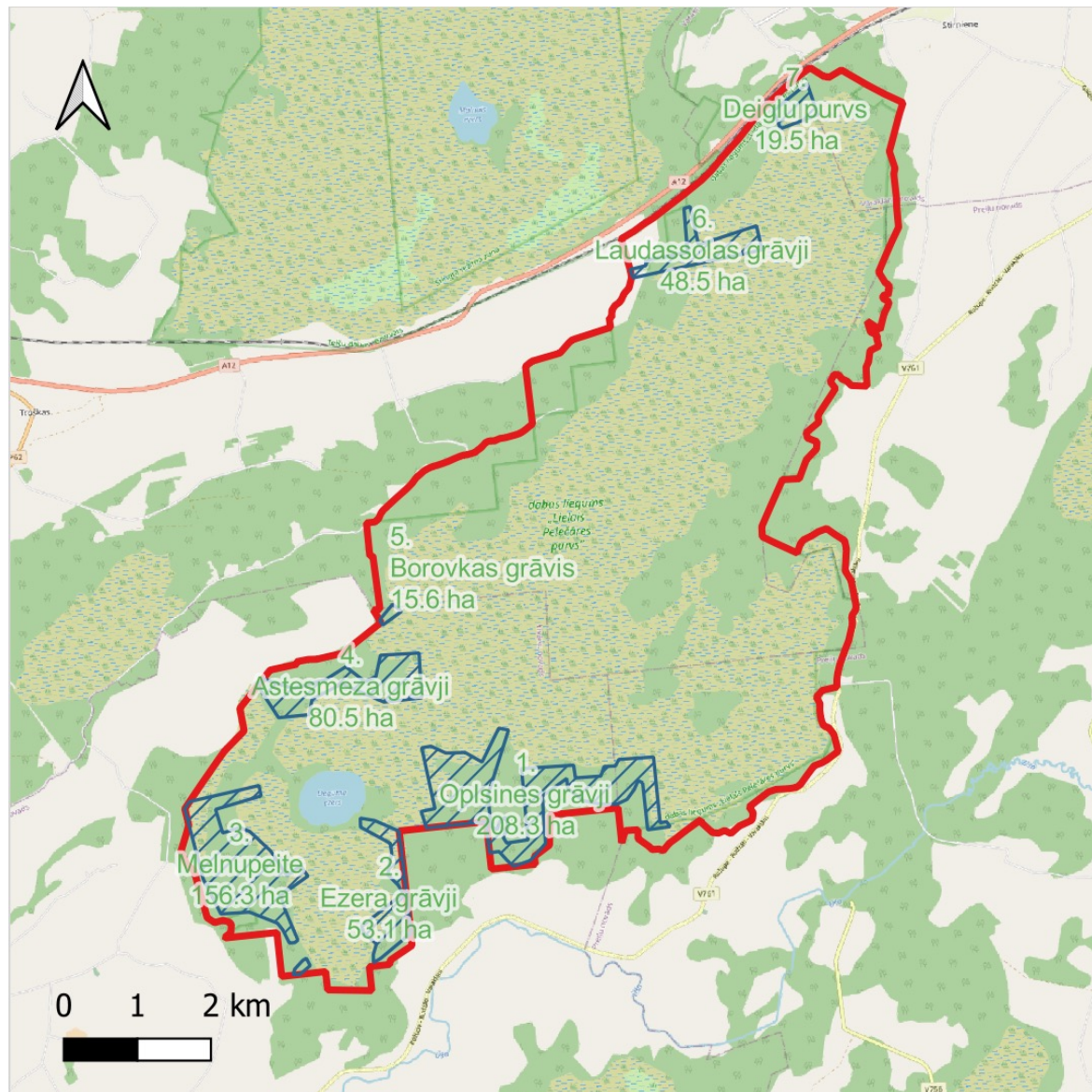
Monthly average water level table height above mire surface



Water level changes over the year (maximal water level minus minimal)

Selection of project sites





Atajaunšanas laukumi

DL robeža

OpenStreetMap

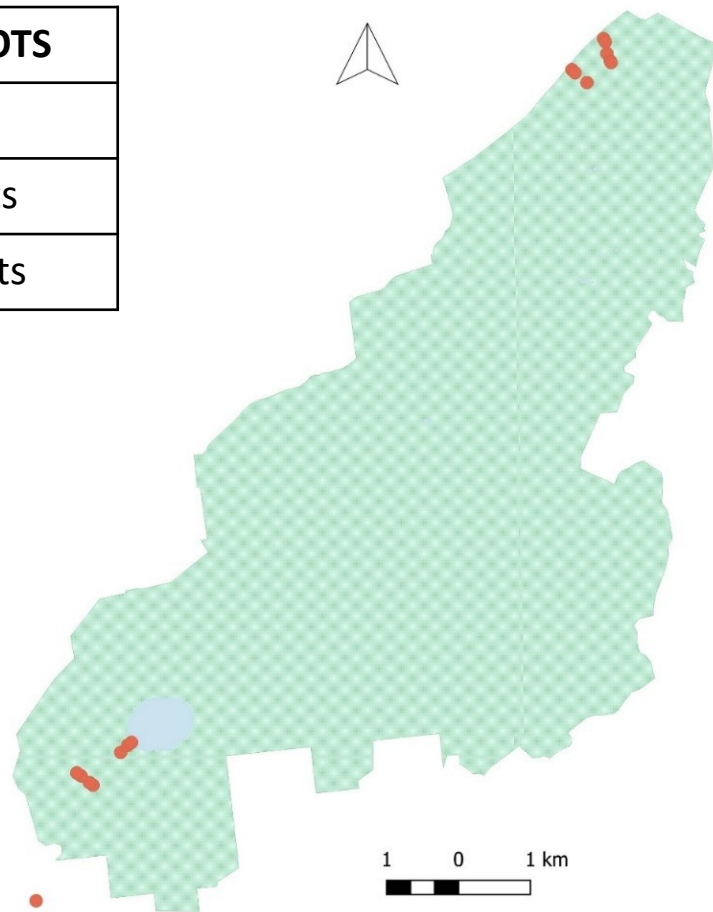


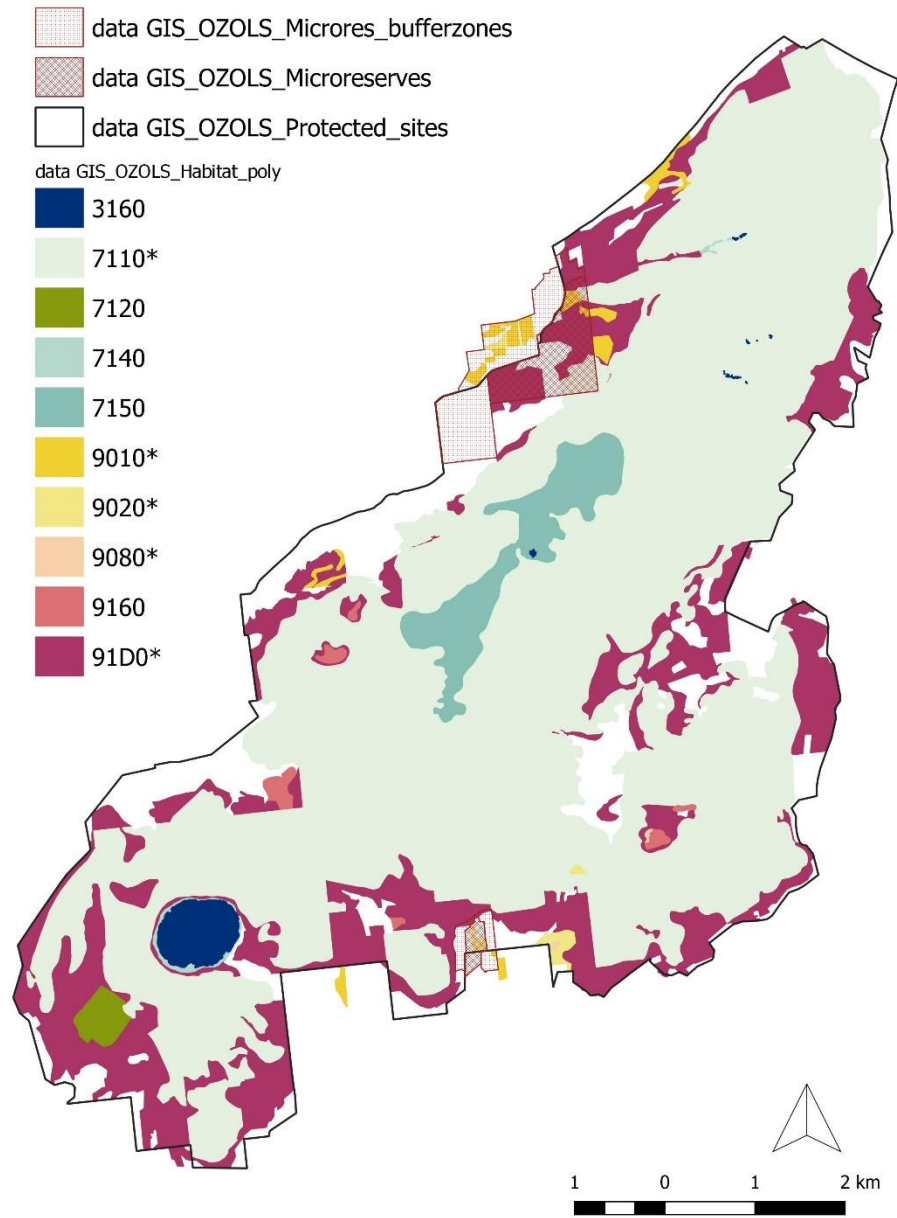
VEGETATION MONITORING PLOTS

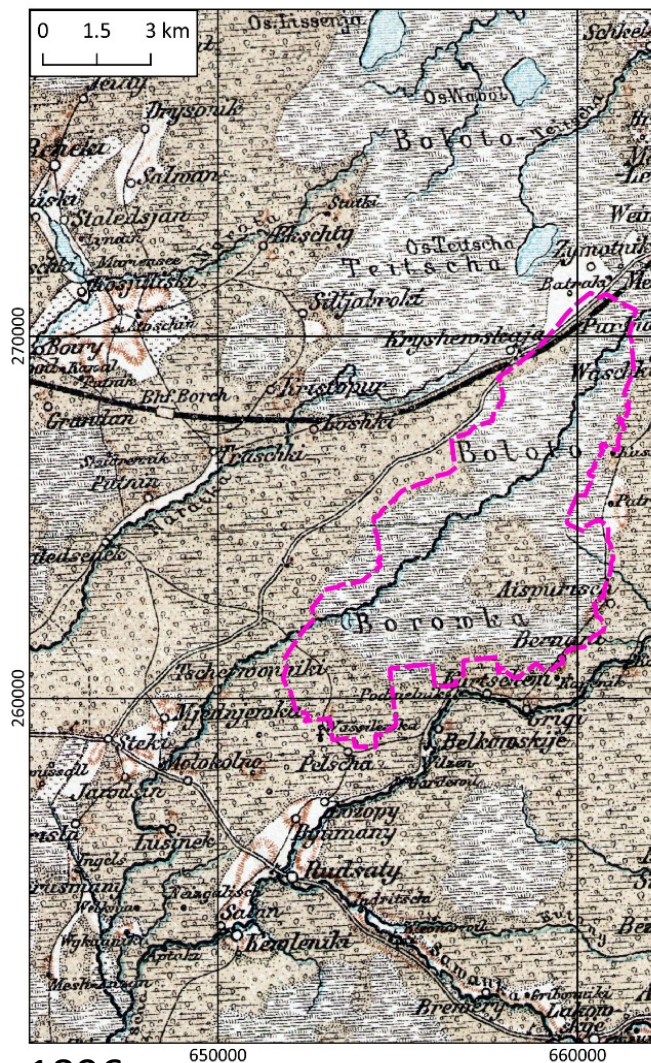
18 GHG measurement points

15 water level monitoring points

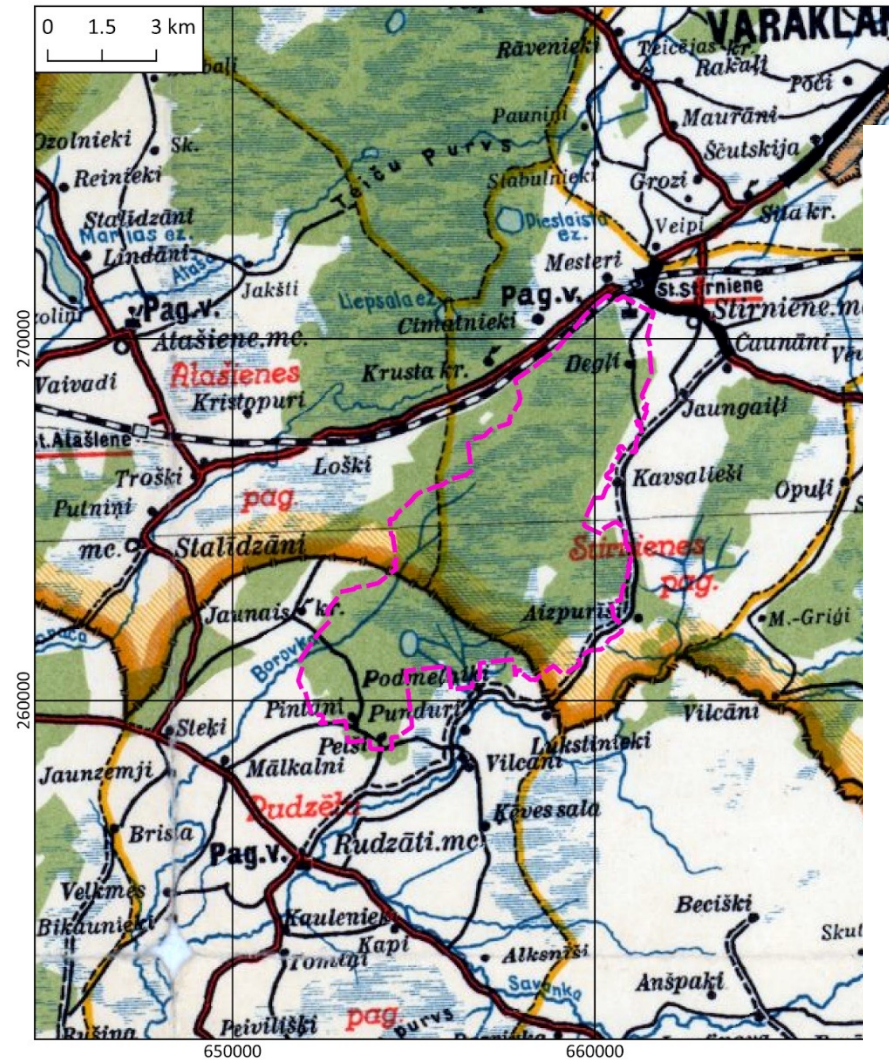
20-40 (?) GEST monitoring points



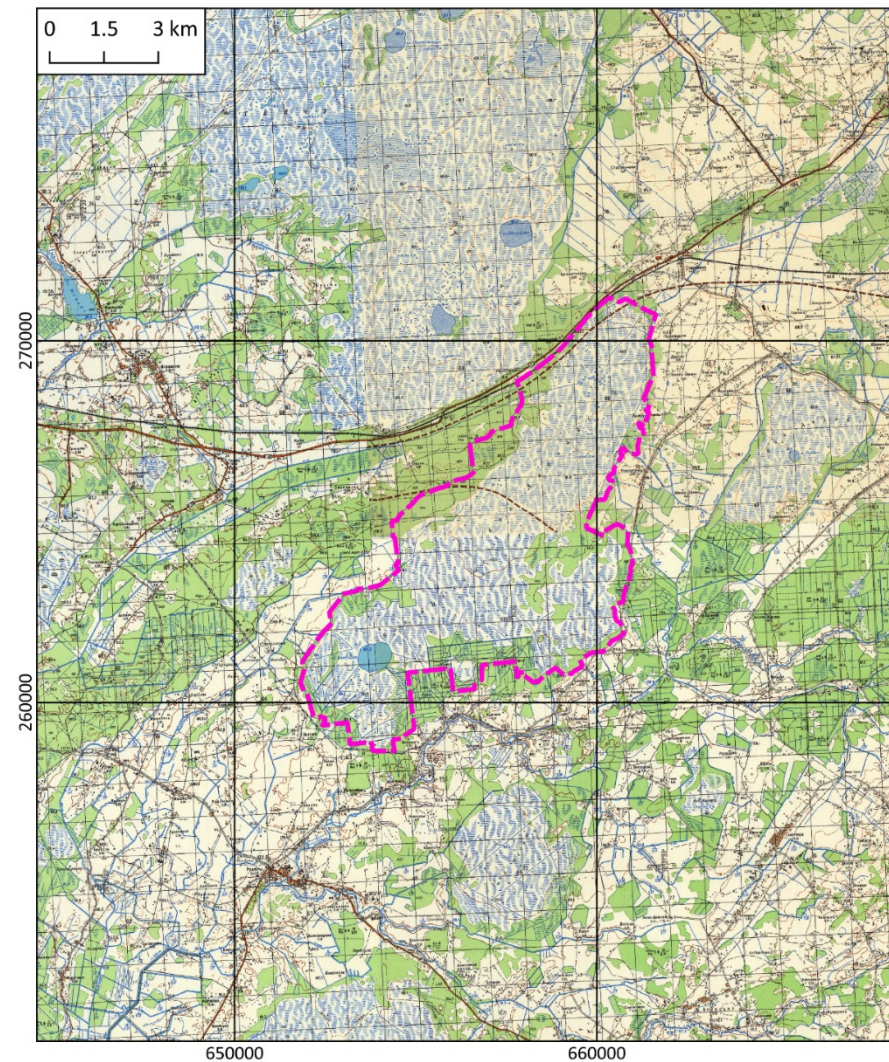




1896

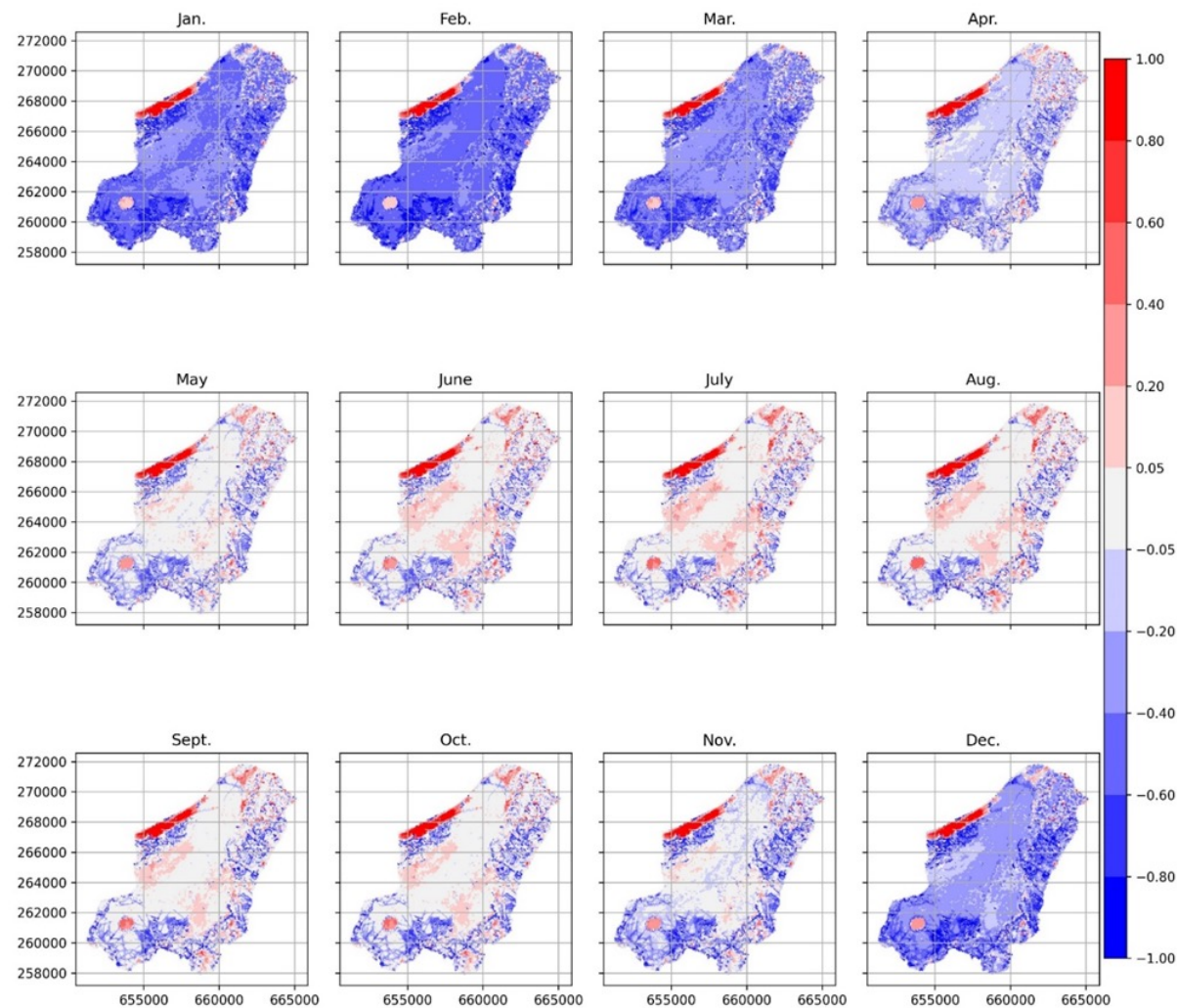


1934

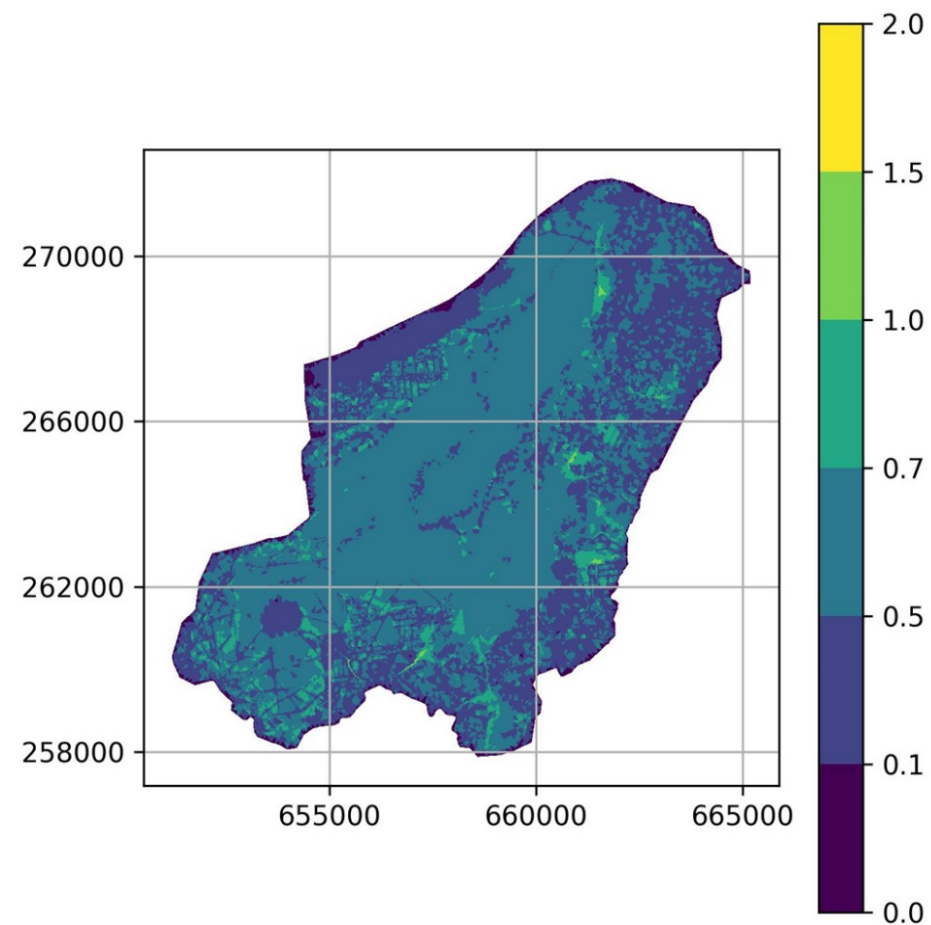


1942

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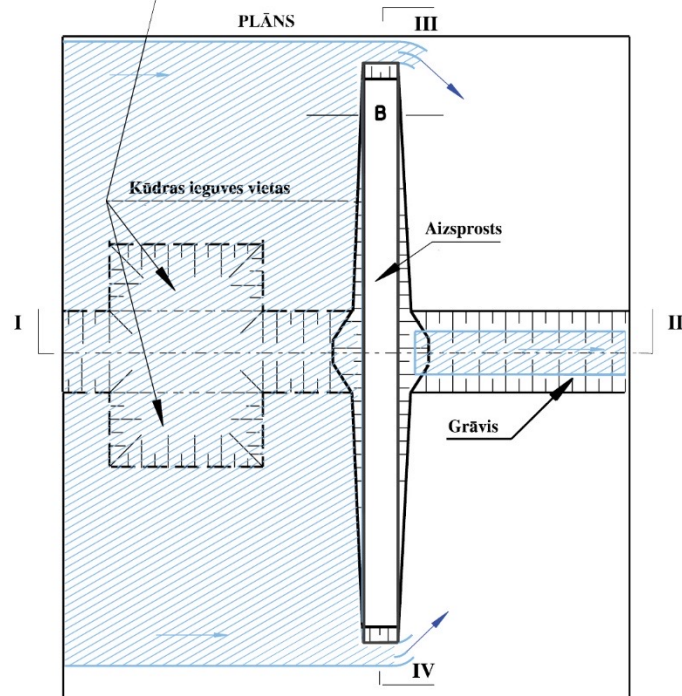
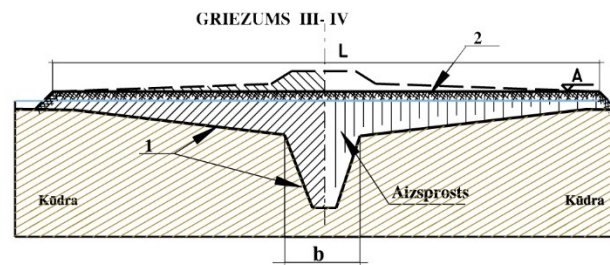
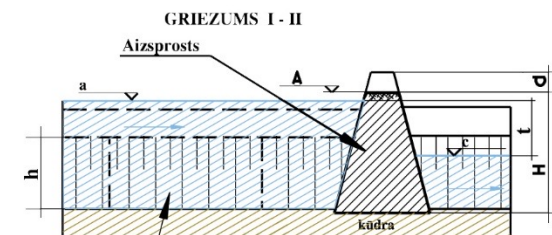


Monthly average water level table height above mire surface



Water level changes over the year (maximal water level minus minimal)

Hydrology restoration



- Apzīmējumi:
- A - projektētā aizsprosta virsas atzīme pēc kūdras sablīvēšanās
 - B - aizsprosta virsas platums - ne mazāk par 2 m;
 - H - aizsprosta augstums;
 - h - grāvja dziļums;
 - L - aizsprosta garums (grāvja ietekmes platums);
 - a, c - ūdens līmeņa atzīmes;
 - b - grāvja virsas platums;
 - t - ūdens līmeņu starpība <0,5 m;
 - d - projektētais aizsprosta sēšanās lielums;
 - 1 - notīra virskārtu un grāvja malas aizsprosta vietā;
 - 2 - aizsprosta virsu nostiprina ar noņemto virskārtu.



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