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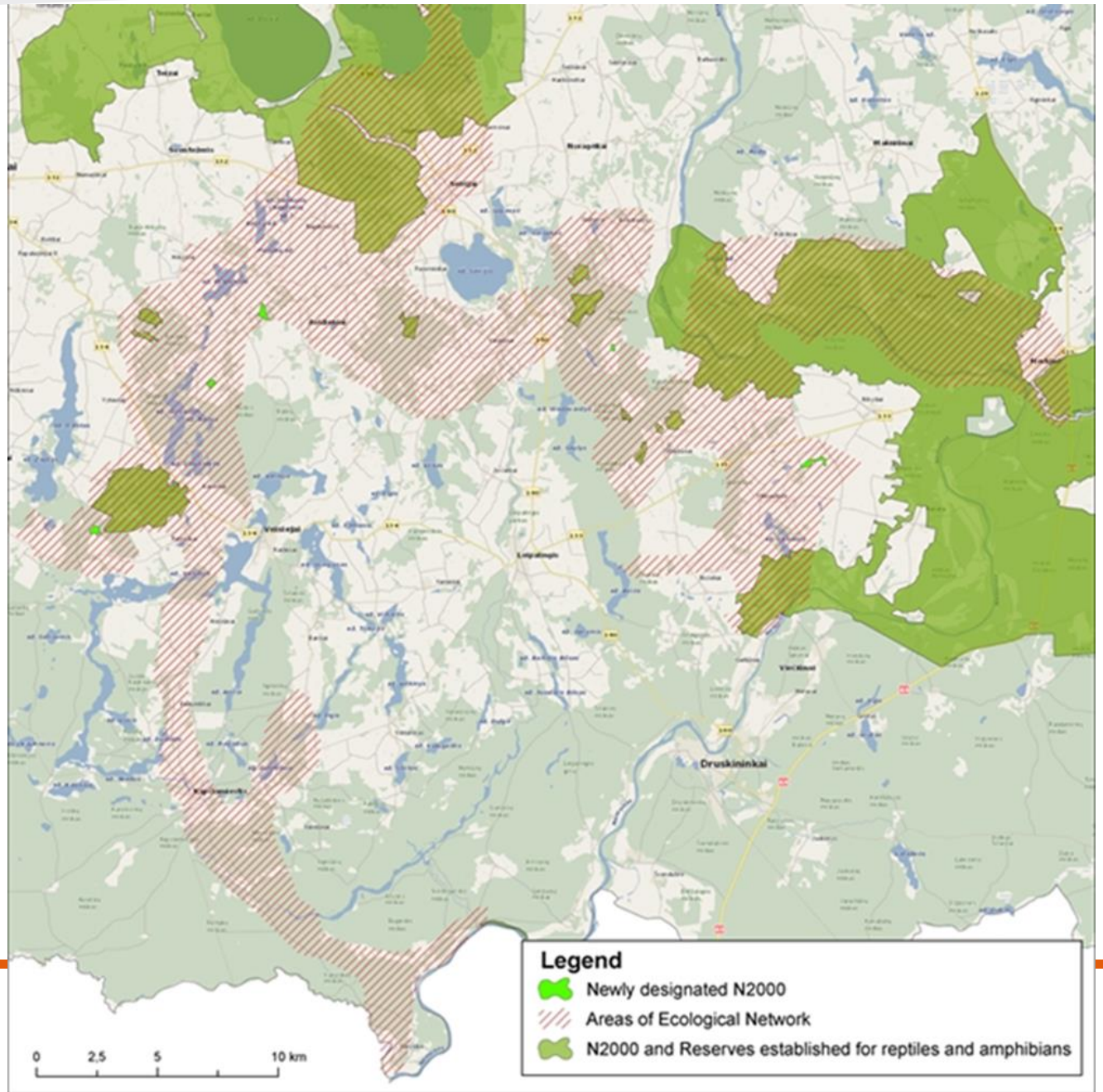
Dalia Bastytė

Development of a Pilot Ecological Network through Nature Frame areas in South Lithuania

Target species

Natura 2000 areas for herpetofauna



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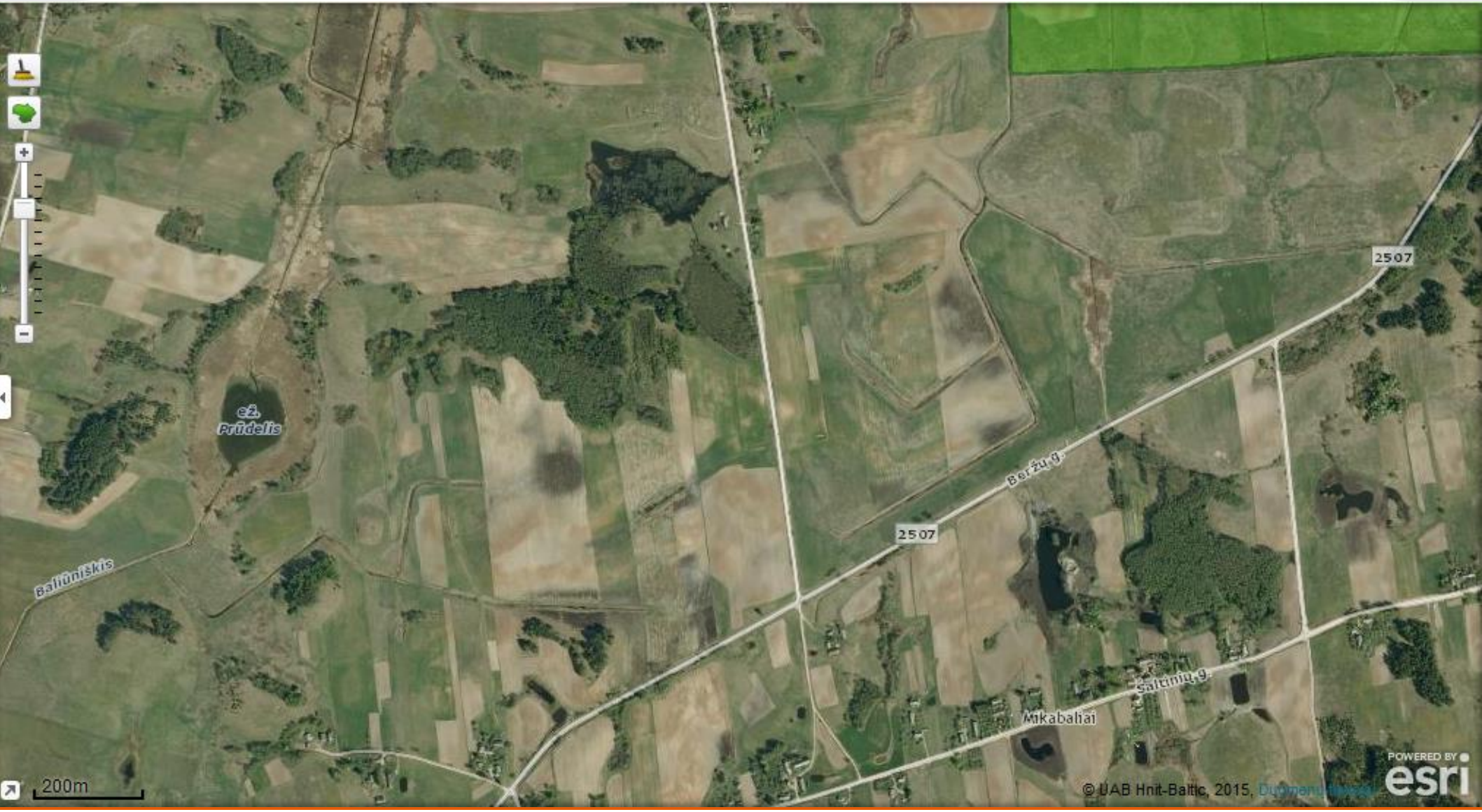
2009 - 2010



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2012 - 2014

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Outline

- Background of our ecological network;
- Lithuanian Fund for Nature;
- Background of the project;
- Aim of the project;
- Partners;
- Actions of the project;
- Results;
- Thoughts for the future.

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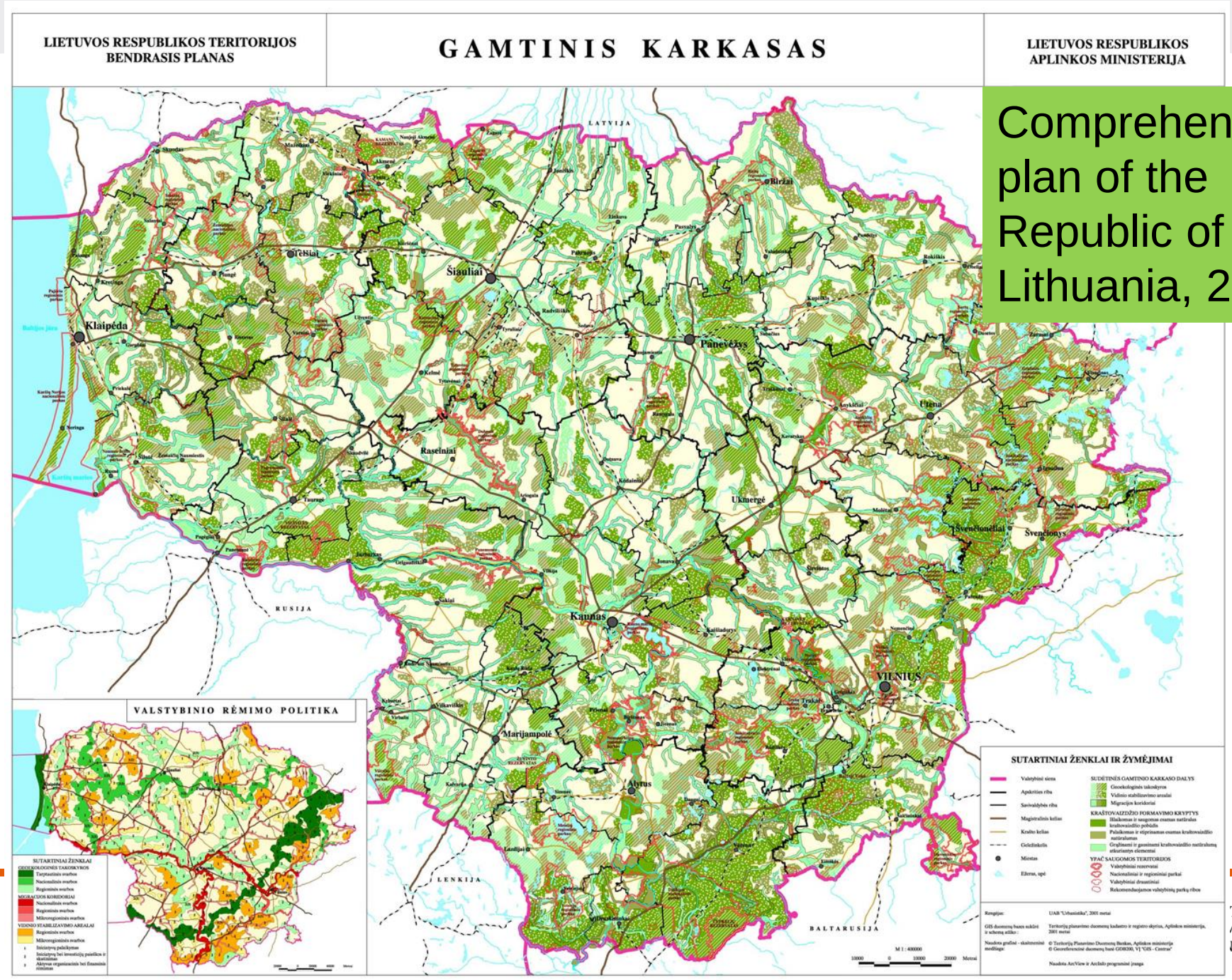
Background of our ecological network



Comprehensive plan of the Republic of Lithuania, 2002

Nature Frame: Idea and Realisation

- Scheme of Environment protection of the LSSR, 1986
- Methodology of Nature Frame localization, 1989
- Nature Frame schemes M 1:50000, 1989-1994
- The Act on Protected areas, 1993;
- Comprehensive plan of Lithuania, 2002 M1:400 000
- Comprehensive plans of the Regions of Lithuania M 1:200 000
- Comprehensive plans of municipalities , 2010 M 1:50 000
- Landscape plans, (different scale) since 2011
- Programme for Biodiversity and Landscape conservation, 2015 – revising general plans and improvement of ecological state in the Nature Frame

Nature Frame: description

Coherent land management system,

safeguarding the landscape ecological balance, Nature Frame unites all protected natural and other ecologically important areas

Aims:

- To create coherent ecological compensation network, safeguarding landscape ecological balance and natural links between protected areas, to be precondition for the biodiversity conservation;
- To connect the highest ecological value habitats, their surroundings, territories for migration of animals and plants;
- Preserve natural landscape and natural recreational sites;
- Enlarge forested areas;
- Optimize urbanization and technogenization of the landscape.

Lithuanian Fund for Nature

- Established in 1991;
- Nature conservation:
  - Biodiversity;
  - Baltic Sea;
  - Wetlands;
  - Forests

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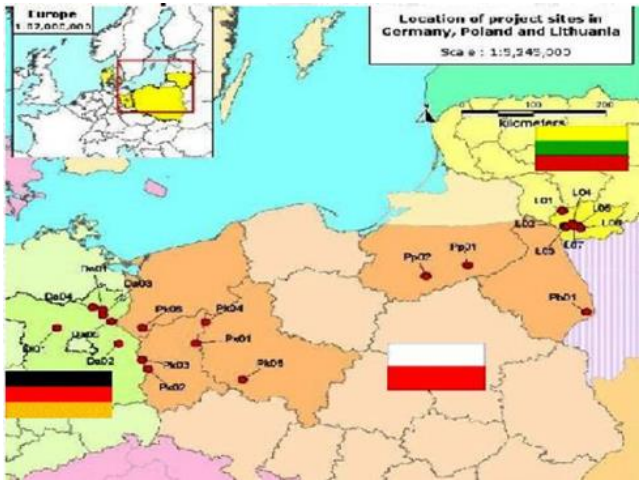
Background of the project

- 2005 – 2009, LIFE Nature
- Protection of *Emys orbicularis* and amphibians in the North European lowlands
- Lithuania, Poland, Germany
- Restoration of habitats inside of protected areas



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Development of a Pilot Ecological Network through Nature Frame areas in South Lithuania

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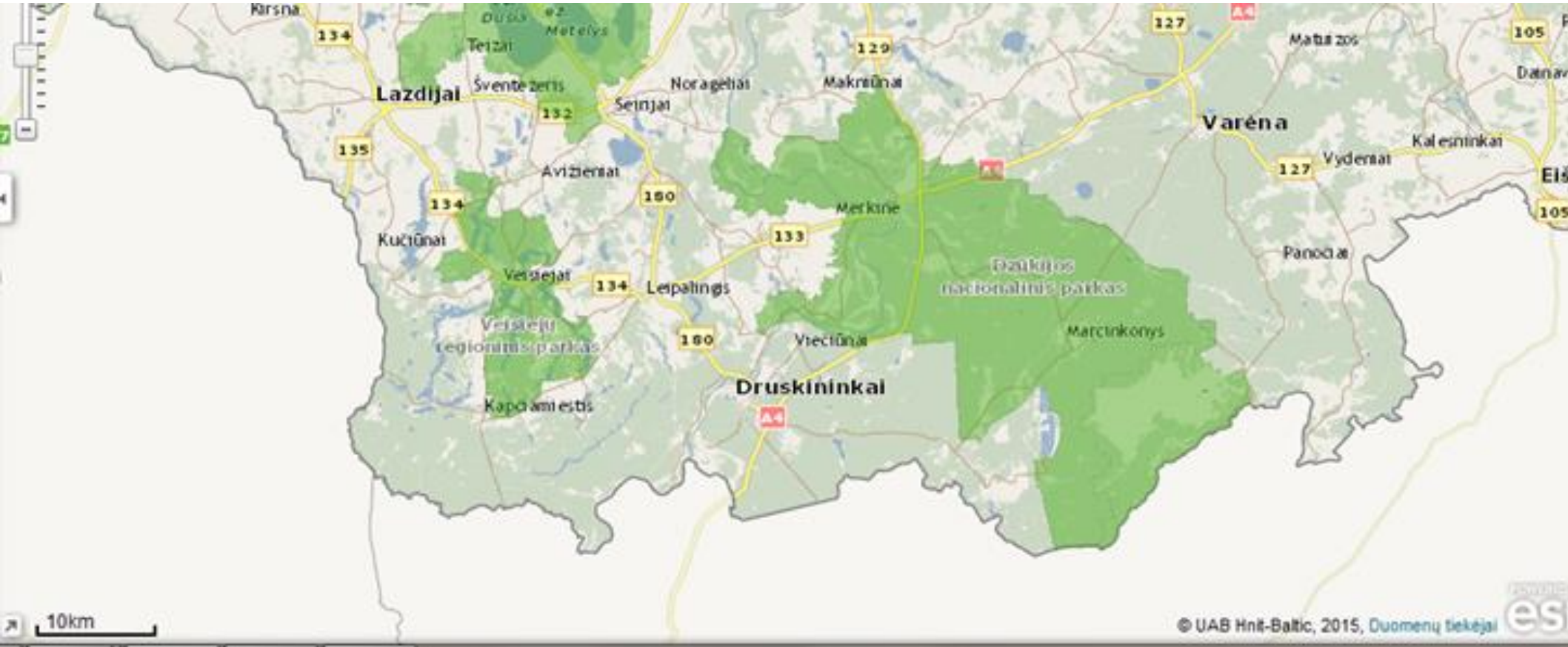
Aim

to create an ecological network in Southern Lithuania by ensuring favourable conservation status for and the saving of threatened populations of selected Annex II and Annex IV species and simultaneously enhancing the ecological value of the target area

- LIFE+ Nature project;
- Budget 760.000 EUR, 50% EC contribution, 25% MoE contribution, 25% project partners‘ contribution;
- 2010 – 2014;
- Coordinating beneficiary and 6 associated beneficiaries;
- Native Lithuanian reptile and amphibians species listed in the II and IV Annexes of the Habitats Directive;
- Ca. 40.000 ha area of the network inside 230.000 ha region.

Partners of the project



Partners of the project

LIETUVOS RESPUBLIKOS APLINKOS MINISTERIJA

Amphi Consult

LIETUVOS ZOOLOGIJOS SODAS

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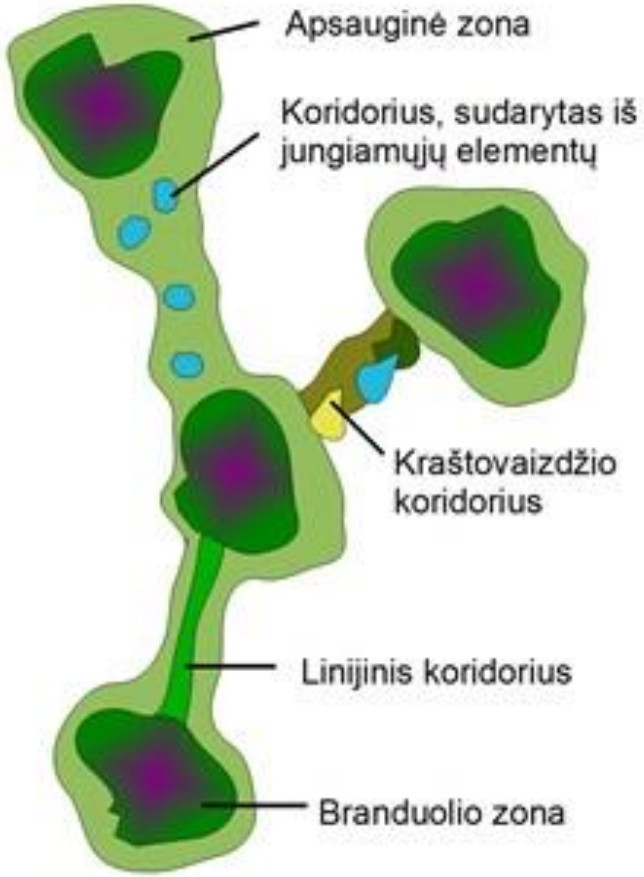
Main actions:

- Development of criteria setting up ecological network within nature frame;
- Restoration of habitats;
- Protection of populations;
- Education of the general public;
- Knowledge exchange between the experts.

Ecological Network



Selection of the sites

I. By recognising the officially protected national reserves and Natura 2000 areas as **core zones of EN** (BAST_LKS94);

II. By forming the **EN buffer zones** as 1 km wide belts surrounding the national reserves and Natura 2000 areas;

III. By forming the **EN stepping stone corridors** between the core zones as follows:

1. By selecting waterbodies of suitable size for specific protected species;

Selection of the sites

2. By selecting areas suitable for restoration or establishment of new shallow bodies of water, fitting for specific protected species:

a) By selecting habitats of suitable soil type of certain size;

b) From the soil habitats selected, selecting those at a certain distance from the suitable bodies of water;

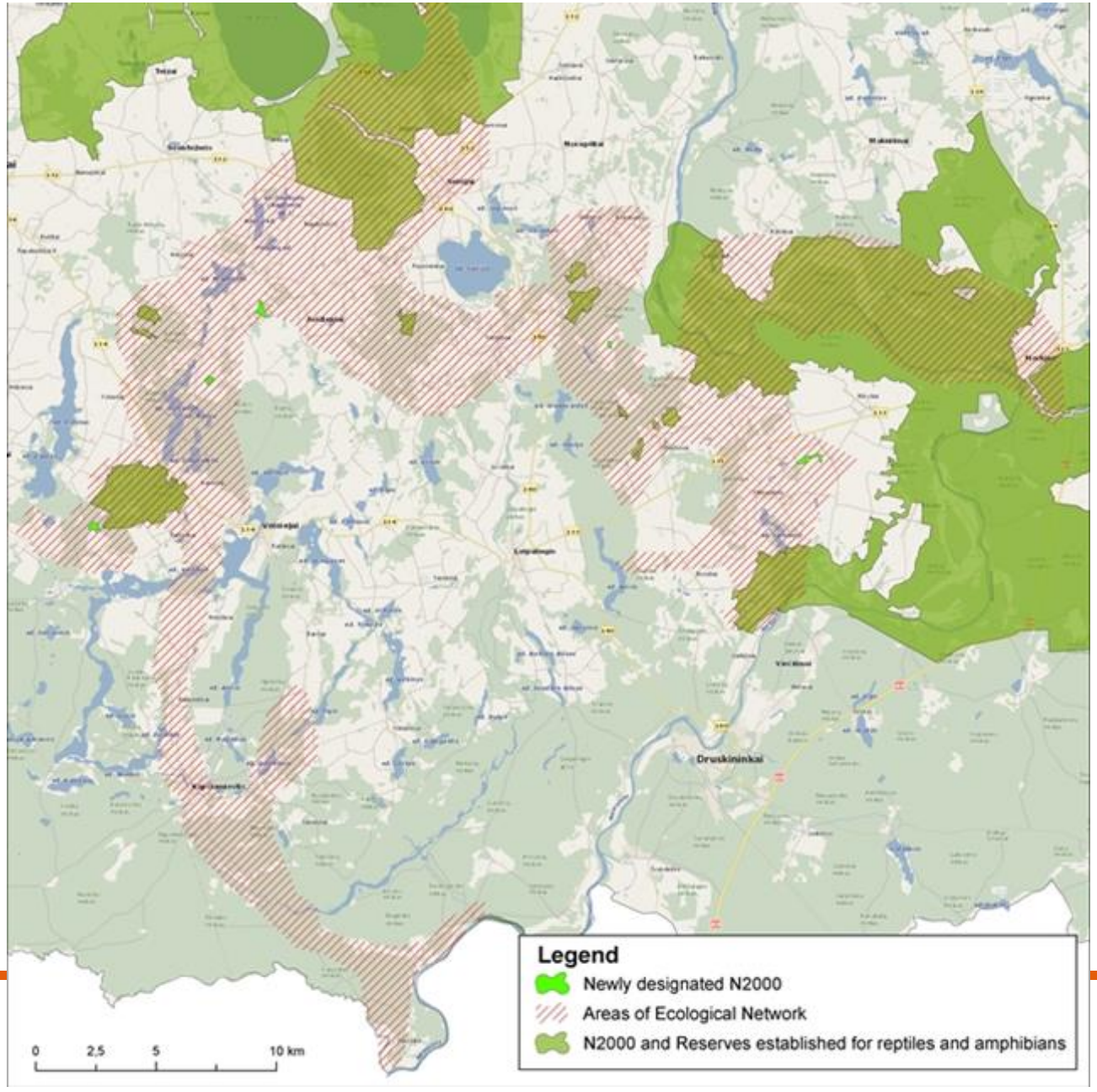
c) By assessing the existence of forests meeting the ecological needs at a certain distance from the habitats selected.

3. By avoiding cities and towns, residential areas with compact build-up, as well as other areas (road crossings, pollution sources etc.) with potential intense negative impact on the target species; by distinguishing zones, at 500 m distance from road crossings and pollution sources, where no EN should be formed, and no important elements, important for protected species, should be installed.

Selection of the sites

Criteria	***European fire-bellied toad***	***Great crested newt***	***Marsh frog***
Area of a water body (m^2)	500–2,000	50–500	500–2,000
Area of a peatbog (m^2)	Less than 5,000	500–1,000	5,000–10,000
Distance from a body of water to a peatbog (m)	0–200	50	0–50
Distance from a body of water to a deciduous forest (m)	100–300	0–50	100–300

Selection of the sites



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Habitat restoration

- Digging of suitable ponds (164 new ponds);

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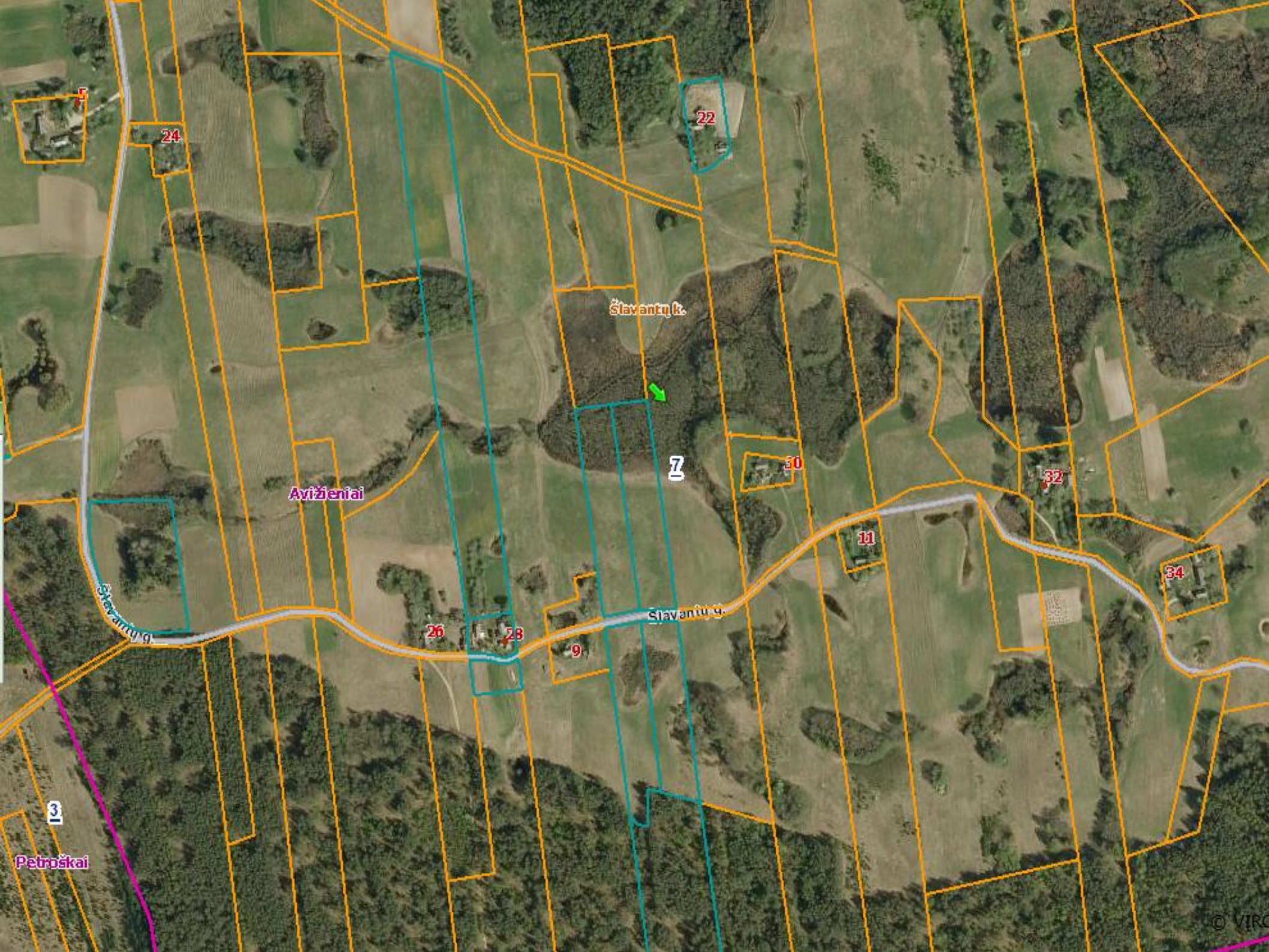
5
24
22
Šlavantų k.
7
30
32
Avižieniai
11
34
Šlavantų g.
26
28
9
Šlavantų g.
3
Petrpškai

Agreements with the landowners

Habitat restoration

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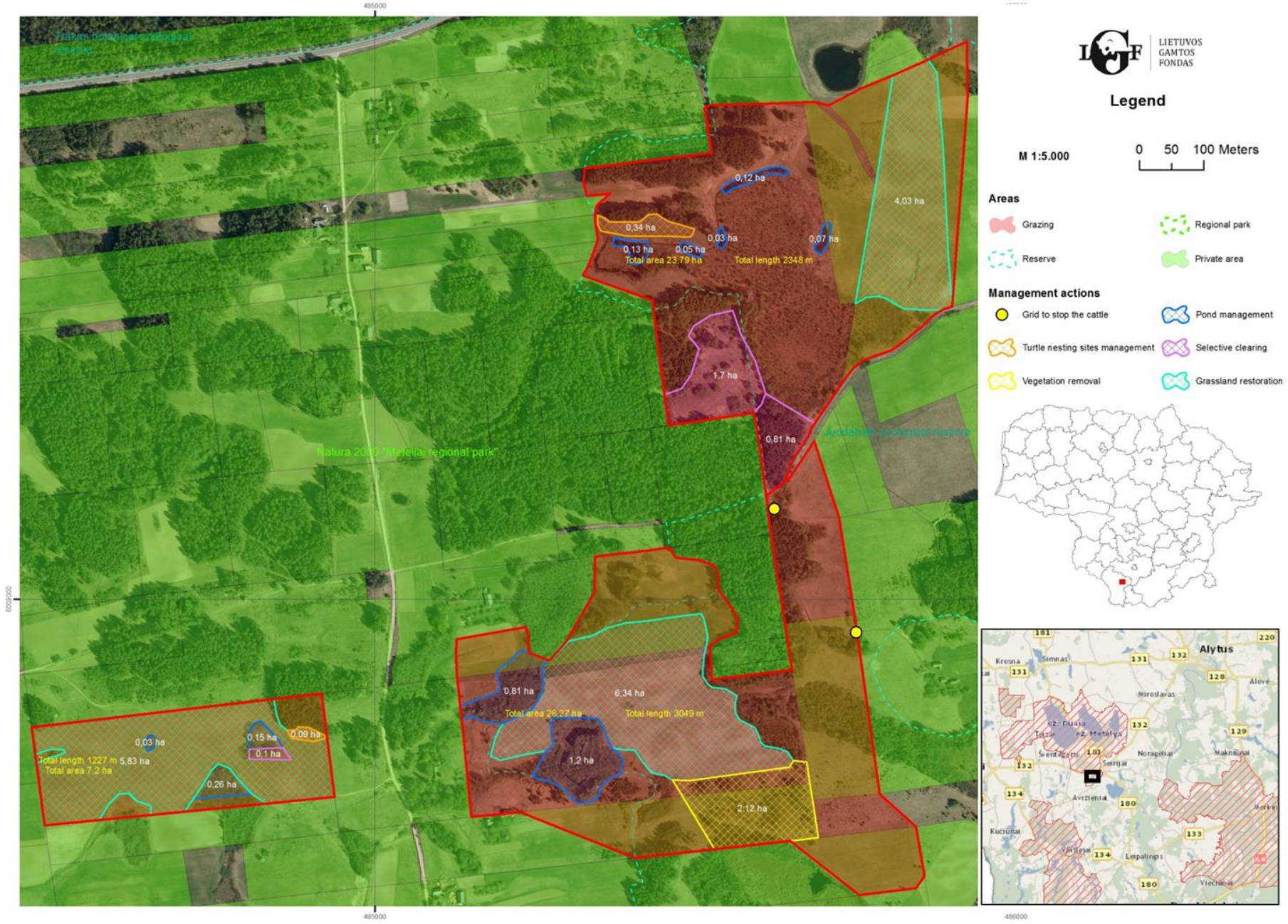
Habitat restoration

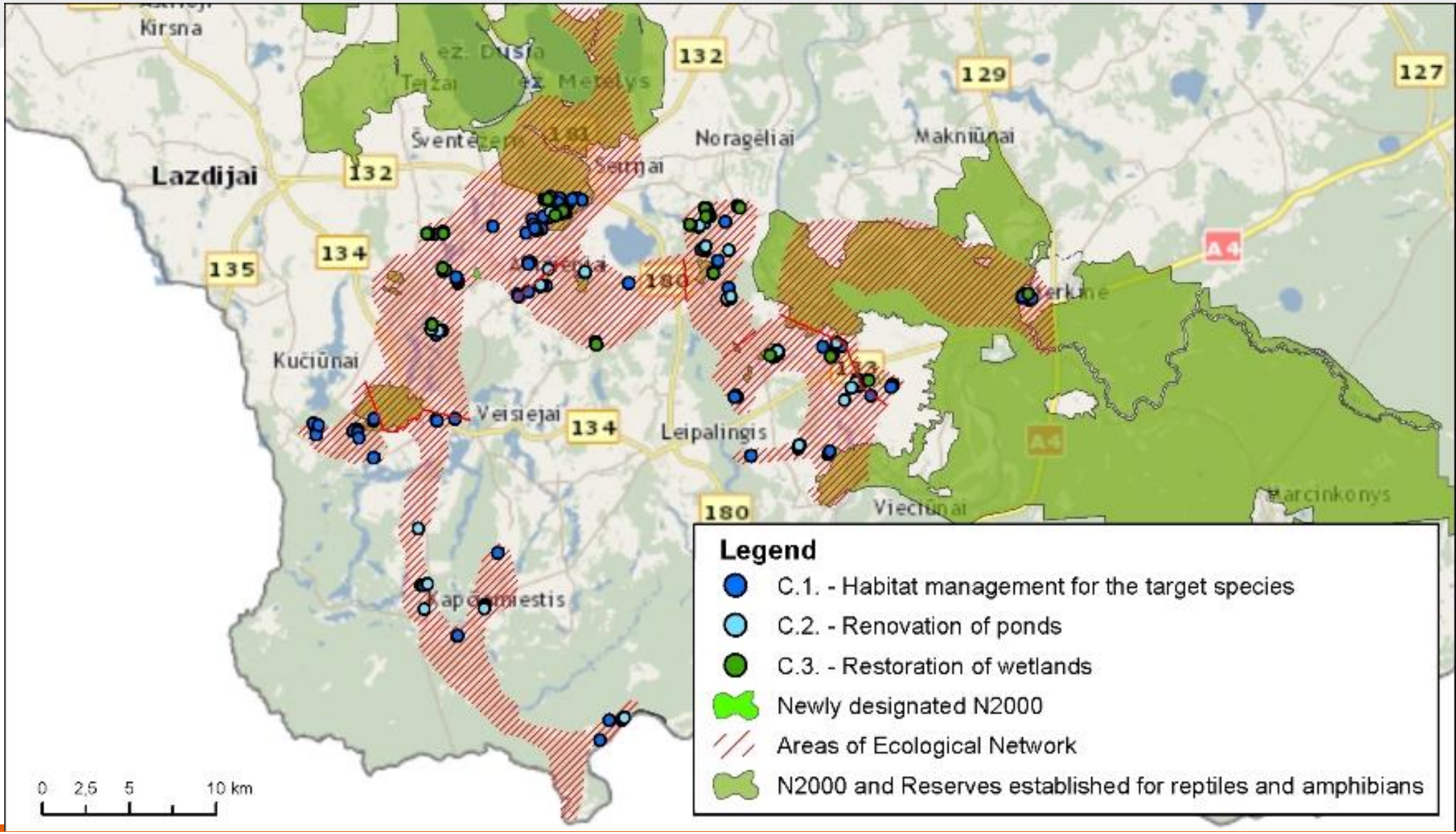
Habitat restoration

- Renovating aquatic habitats (56ponds);
- Creating wetlands (17,48 ha of wetlands restored by raising the water level);
- Improving existing terrestrial habitats:
  - 40 nesting sites for pond turtles
  - 30 amphibian hibernation places

Habitat restoration and maintenance



Habitat restoration



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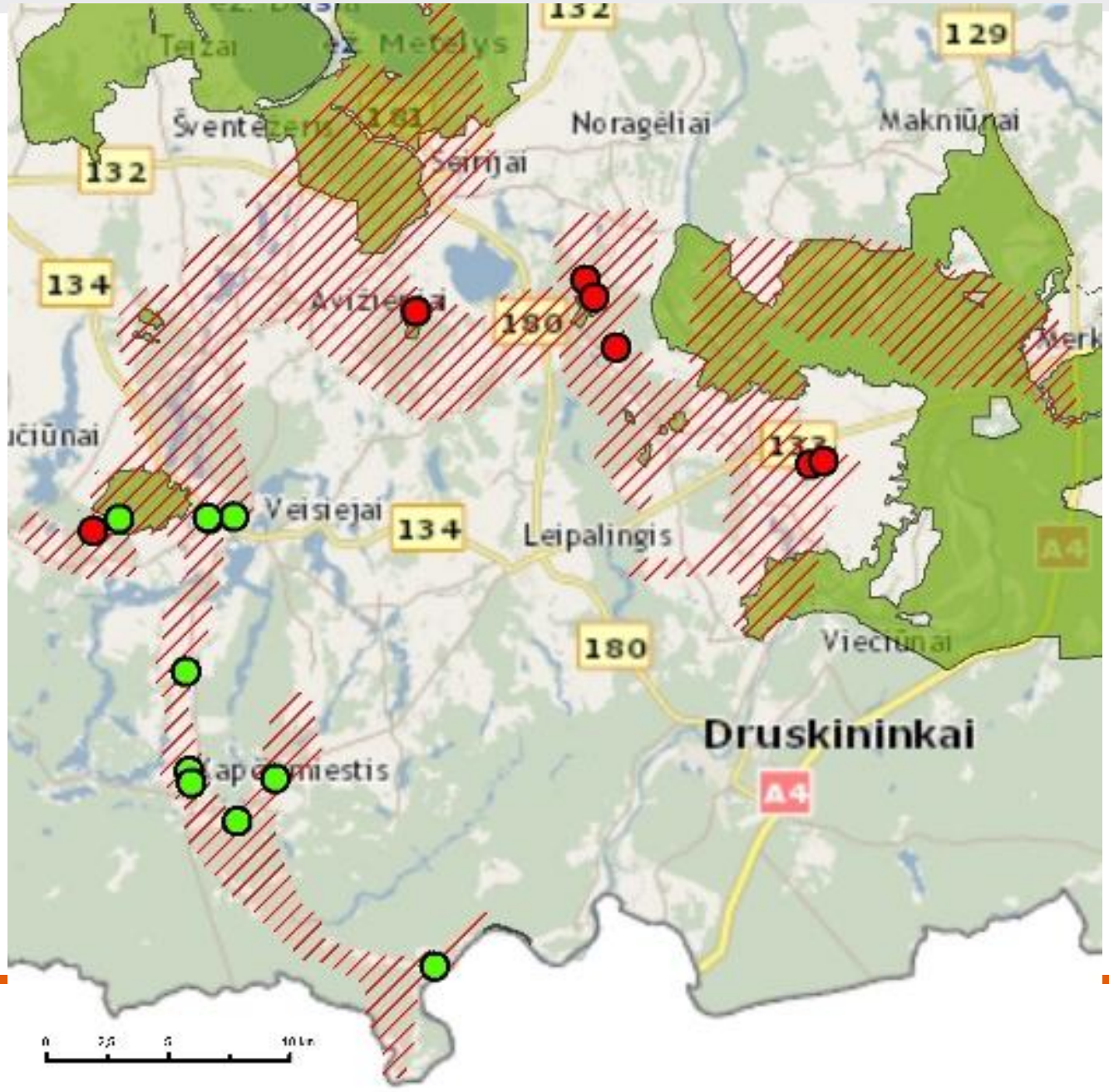
Protection of populations – pond turtles

- ✓ Protection of the egg clutches
- ✓ Protection of hatchlings
- ✓ Headstarting

Protection of populations – tree frogs

- Headstarting of the Oriental tree frogs (*Hyla orientalis*)

Protection of populations



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Education and knowledge exchange

Securing a long term impact

- Directorates of protected areas inside core zones
- Landowners in the corridors

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Thoughts for the furture

Small scale spatial functional network for inhabitants of veteran oaks?

Dalia Bastytė

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Thank you for your attention!

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