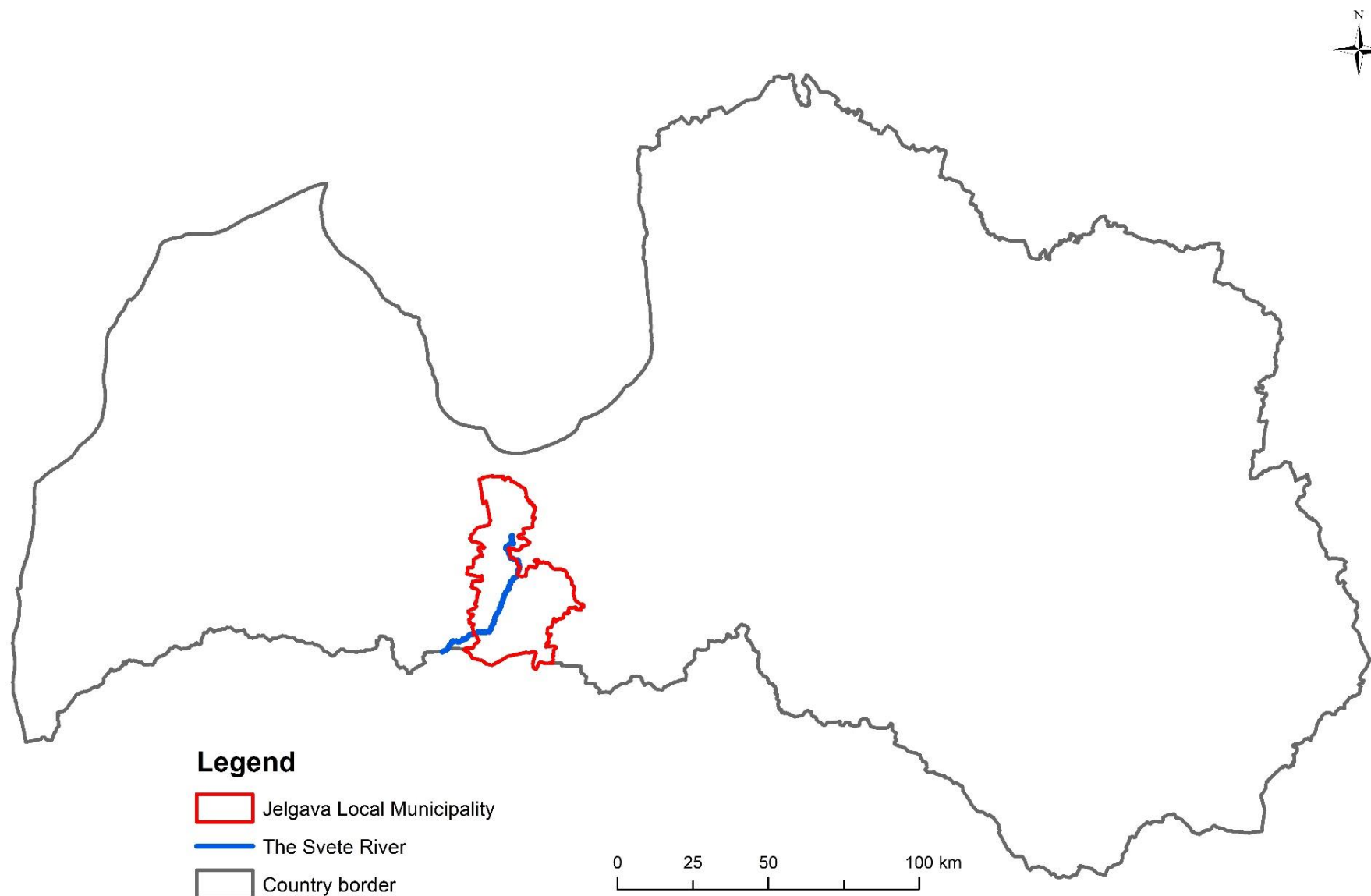
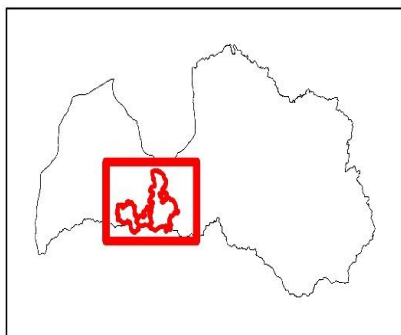


From plans to actions in the case areas

21.10.2020, Jelgava

Ingars Rozītis
Jelgava local municipality
drainage expert

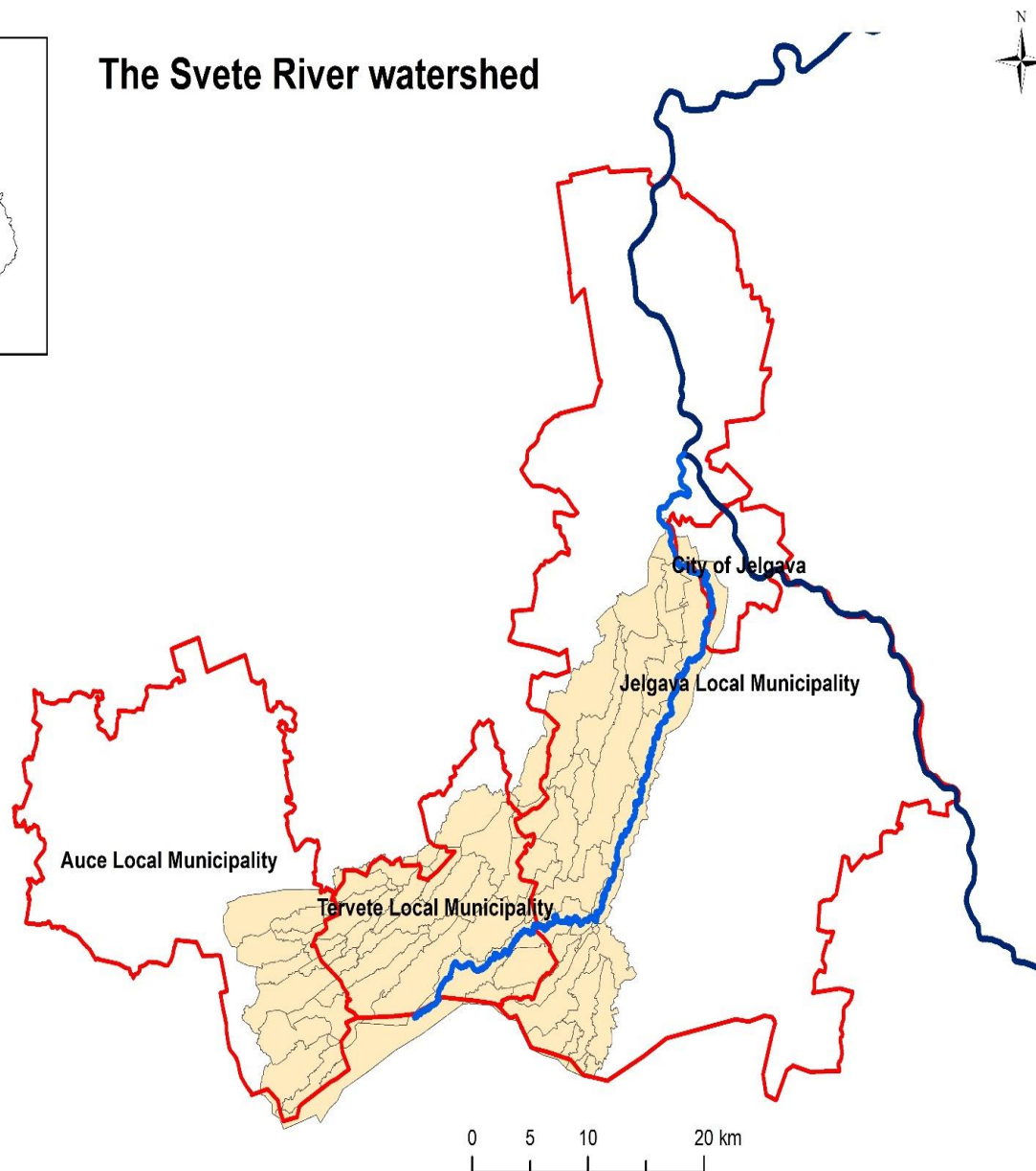




The Svete River watershed

Legend

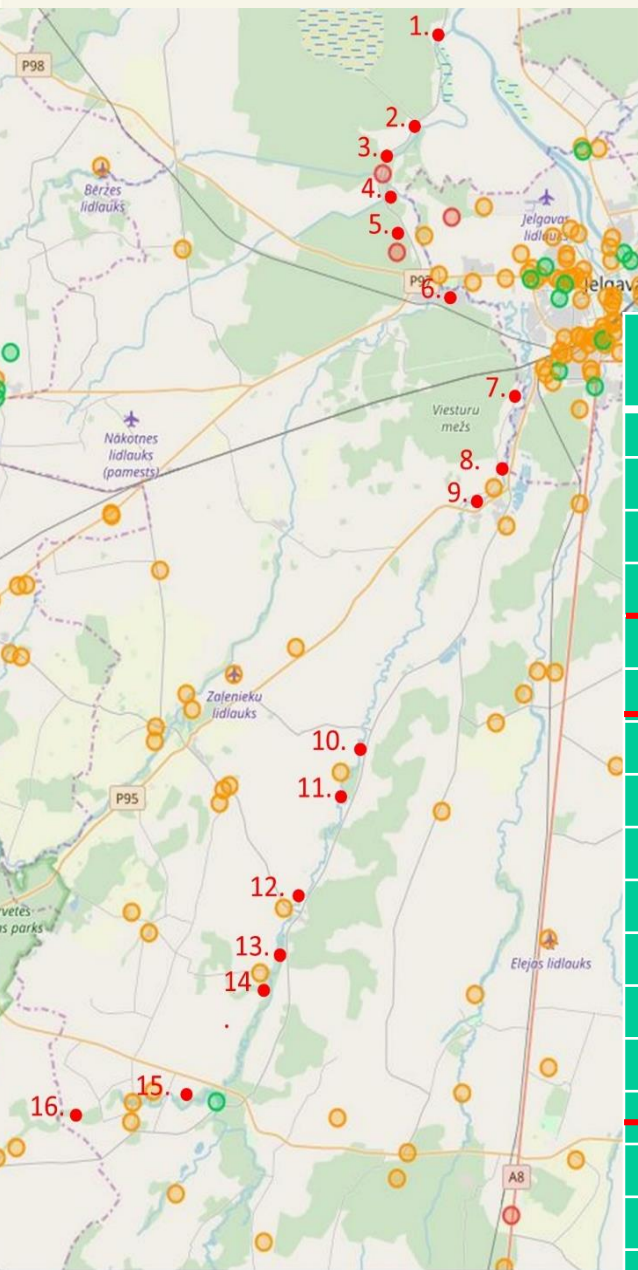
-  The Svete River
-  The Lielupe River
-  Local Municipality
-  The Svete River watershed



Definition of catchment as pilot area

- Collected data studies about water quality in Svēte river in Jelgava local municipality district,
- Research of historical maps,
- Data collection from available maps (GIS services) and aerial photo maps from 1995-2019,
- Detecting of places with intensive farmland indicators – more than 60% of fields in catchment area used in crop production,
- Fields generally drained by subsurface drainage.
 - River water quality,
 - Identification of management principles and challenges

Monitoring results in Svēte river



Nitrogen (N) concentrations

Phosphorus concentrations

Point No.	Min value	Mm onth	Max value	Month	Point No.	Min value	Month	Max value	Month	Average value
	mg/l		mg/l			µg/l		µkg/l		µkg/l
1.	0.2	july	52.7	february	1.	41.00	March	433.81	June	90.47
2.	0.2	july	51.8	february	2.	43.00	April	177.12	June	91.43
3.	0.2	july	52.5	february	3.	43.00	april	361.70	September	107.86
4.	0.2	july	54.6	february	4.	29.06	December	314.68	November	94.90
5.	0.2	july	52.2	february	5.	31.17	November	363.54	June	106.29
6.	0.2	july	54.3	february	6.	27.87	March	106.13	August	55.39
7.	0.2	july	52.2	february	7.	33.71	December	68.58	June	51.65
8.	0.2	july	52.4	february	8.	32.15	November	136.23	June	62.43
9.	0.2	july	52.6	february	9.	24.88	July	73.24	October	42.98
10.	0.2	july	51.9	february	10.	17.47	September	57.00	February	30.93
11.	0.2	july	55.9	february	11.	25.40	September	104.20	December	48.43
12.	0.2	july	51.7	february	12.	17.77	September	54.00	February	34.02
13.	0.2	july	55.1	february	13.	24.76	September	314.97	July	68.24
14.	0.2	july	53.6	february	14.	16.38	September	71.00	January	37.95
15.	0.2	july	54.4	february	15.	20.66	May	83.40	June	42.53
16.	0.2	july	53.6	february	16.	34.48	November	71.41	October	52.49

Objectives of the pilot case

- Evaluation of current status of the river bassins with flooded meadows:
 - Situation of flooded meadows,
 - River water quality,
 - Identification of management principles and challenges
- Development on the practical situation based recommendations for win-win solutions on flooded meadow management
- More knowledge on how to introduce result - and valuebased support schemes. Test ideas, including collective approach, in a practical context, with farmers and local stakeholders.
- Increased knowledge and openness of farmers'/ land owners' to the collective approach activities for water management practices: ditches management, drainage system construction, bufferstrips, etc.
- Policy recommendations, on possible valuebased activities and support schemes for sustainable and responsible management of flooded meadow territories
- Developed guidelines for all involved stakeholders, for collective watercourses and flooded meadows management

Stakeholders to be involved and their roles

- National, regional and local authorities;
- Research institutions, experts:
 - on water management and quality
 - on biological diversity
 - on economical, rural development and management aspects.
- Farmers and local land owners in selected area and around selected area – main role in case study, possible input for design, implimentation of actions and methods
- Socially active local population representatives/ “mind leaders”
- Possible/ potencial municipal land (*flood area*) tenants – agricultural landscape, grazing etc.

Expected results of the pilot case

Developed recommendations/ policies for possible support measures for flooded meadow management:

- Payment based support

- Collective approach support

- Tax incentives

- Rental allowances for publicly owned land rent

- Etc.

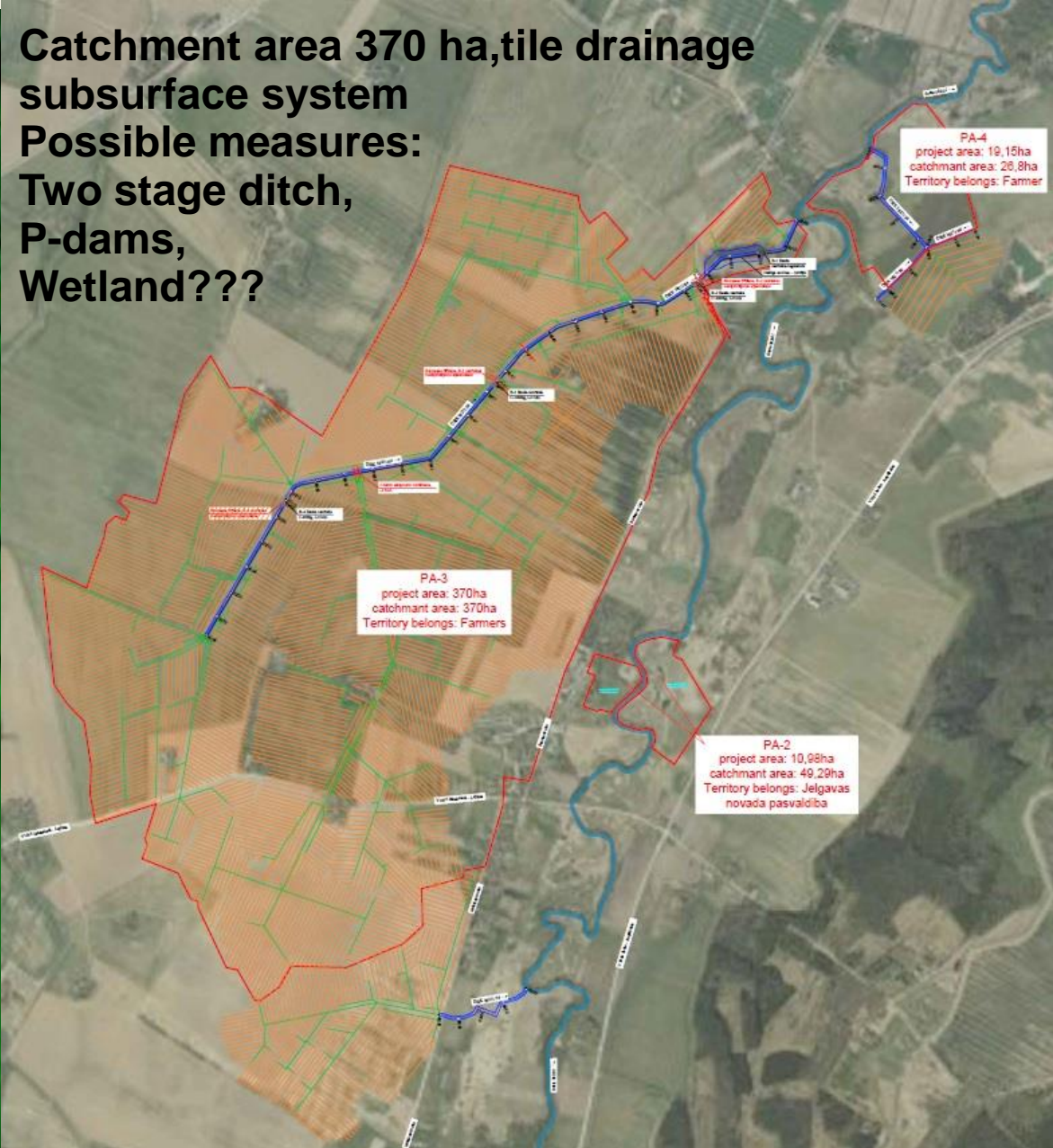
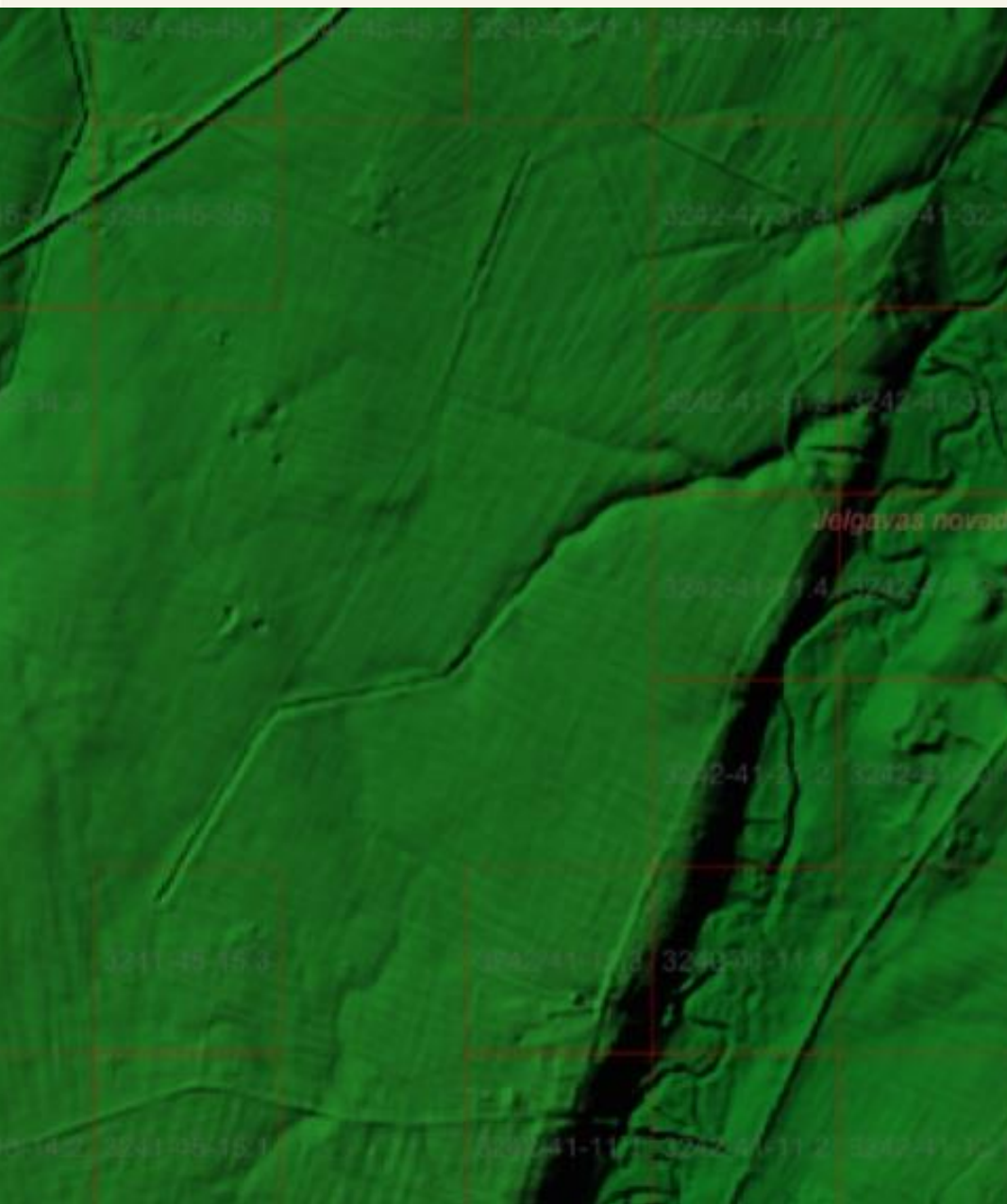
Elaborated collective approach system principles for management of floodplain part of the river coastline;

Recommendations for shifting of support schemes from management based to result based

Policy recommendations for reduction of administrative burden

Recommendations for targeted placing the right measure in the right place

Increased knowledge about designing payment schemes and using digital tools and models





**Catchment area 1492 ha, tile drainage
subsurface system
Possible measures:
Two stage ditch,
P-dams,
Intelligent buferzone**



Environmental measures in case area



**Place for sedimentation pond:
Catchment- 234ha,
Possible measures for
implementation under discussion**

Environmental measures in case area



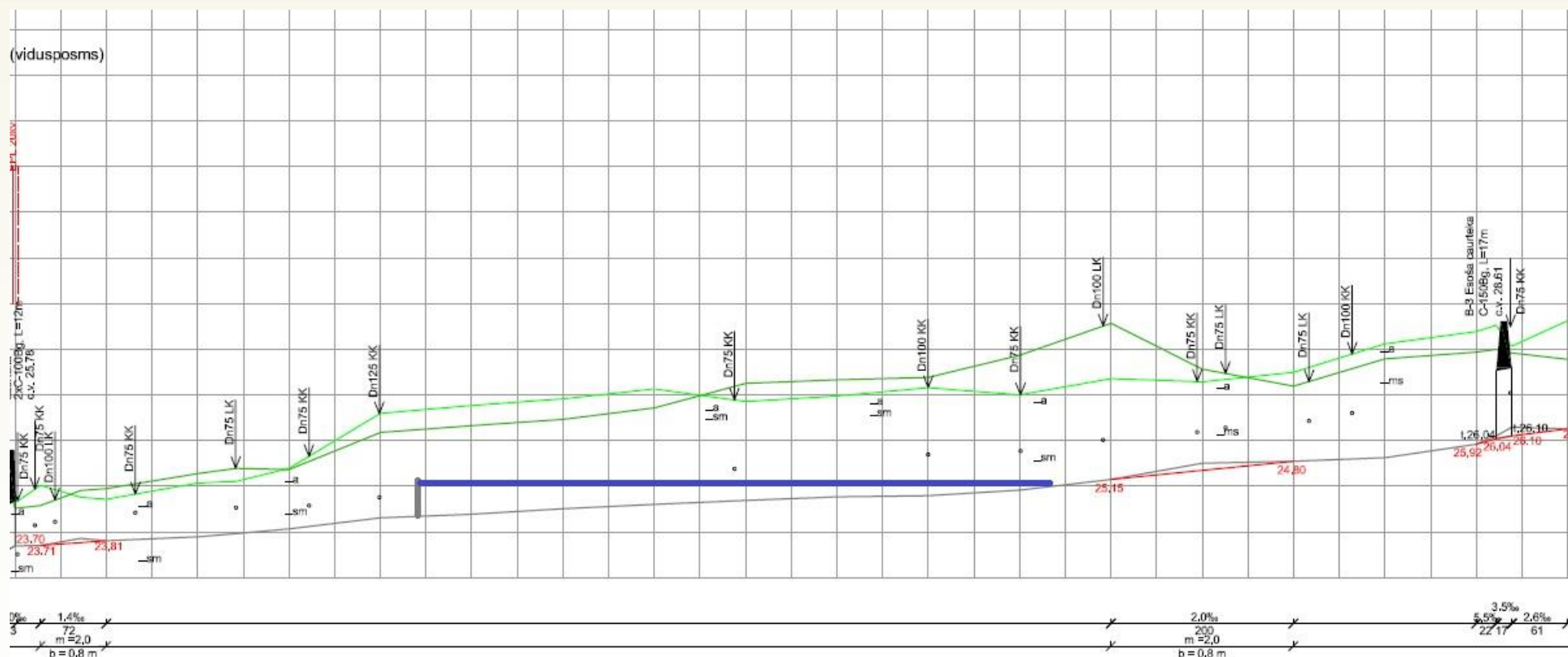
Intelligent buferzone:
Catchment- 34ha,
Ditch lenght -210m

Source: <http://www.go-gris.dk/nyheder/2017/intelligent-bufferzone.aspx>

Investments – 2000 to 3500 EUR:

- Bush cutting and repealing – 0,24ha
- Excavation works - 1240 m³
- Ground leveling – 800 m³

Environmental measures in case area



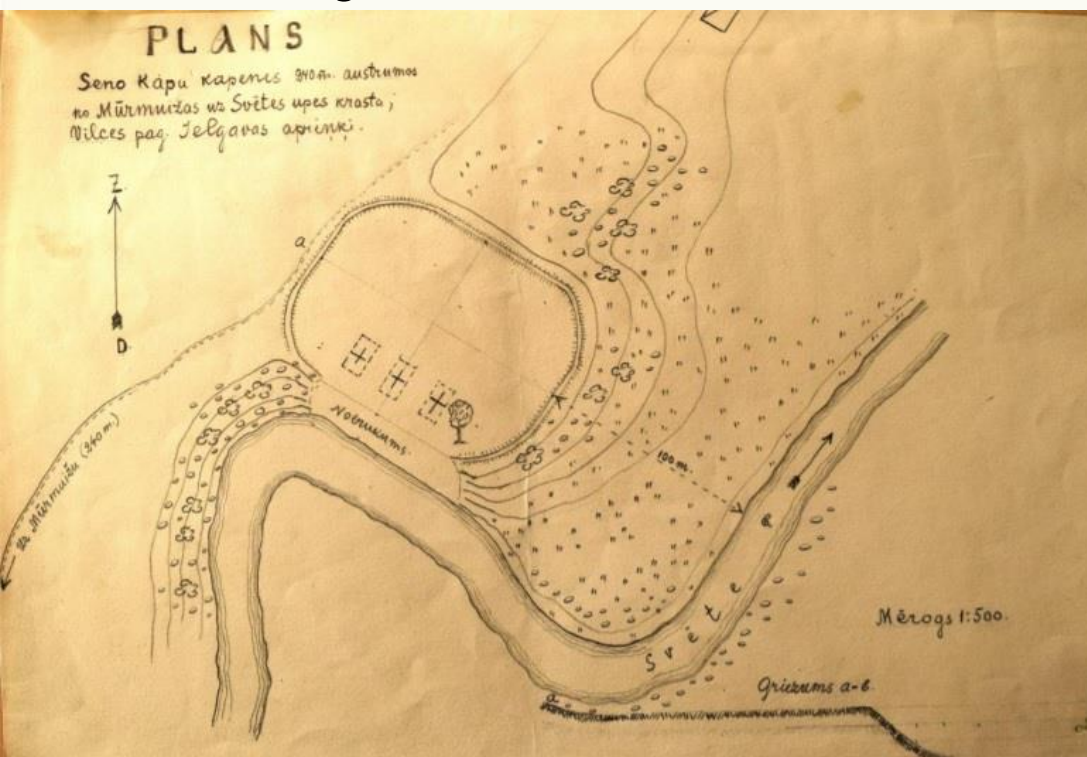
**Phosphorus retention dam possible
place:
Near to drain discharge pipes**

Development of designing project

Development of designing project for erosion prevention in Mūrmuiža ancient cemetery - Swedish war cemetery from battle 16th of June 1705. (WP5)

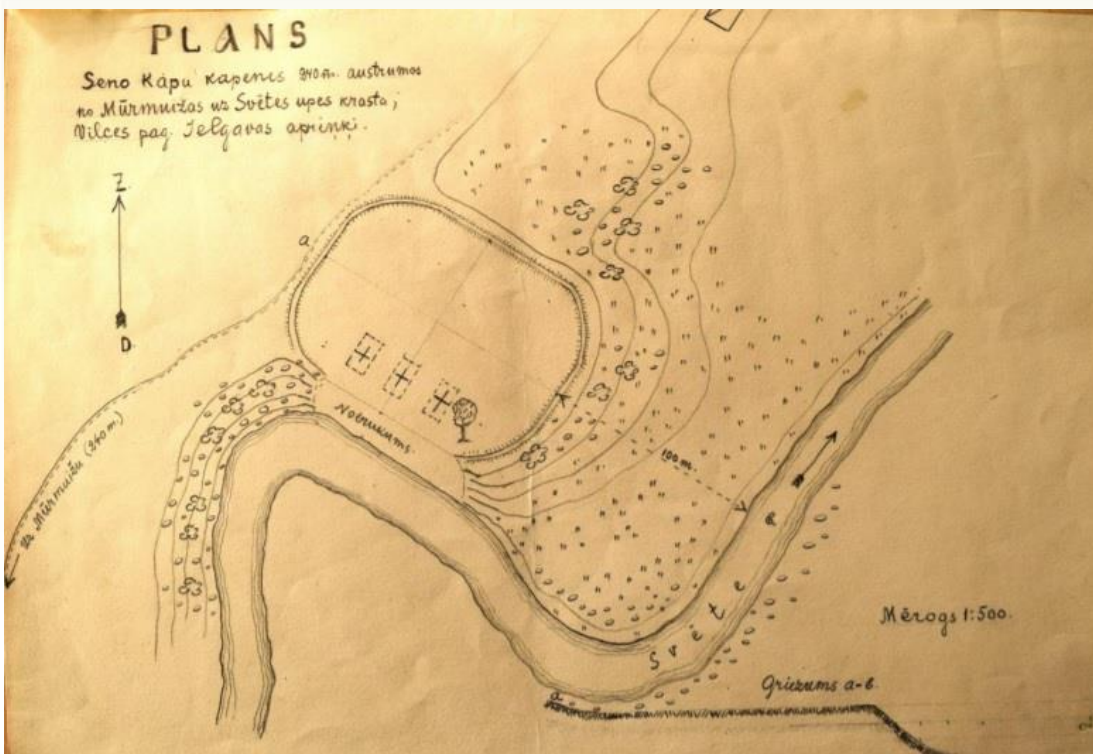
- The cemetery placed near to Svete river,
- After erosion caused landslides the part of burials uncovered

Designing project for clean out of «bottle necks» in Svēte river preventing of flooding risks.



Development of designing project

Designing project for clean out of «bottle necks» in Svēte river preventing of flooding risks



Thank You!

Ingars Rozītis
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drainage expert

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