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## Seminar:

# “FROM PLANS TO ACTION IN THE CASE AREAS – PRACTICAL IMPLEMENTATION OF MEASURES AND INVESTMENTS”

## THE IMPLEMENTATION PLAN FOR ENVIRONMENTAL MEASURES IN THE GURYEVSKE CASE AREA

Moderators: Kaj Granholm and Frank Bondgaard

IRINA POPOVA, Project coordinator  
ANNA ALIMPIEVA, Project manager  
ADMINISTRATION OF GURYEVSKE CITY DISTRICT

Investments in wetland construction will reduce nitrogen and phosphorus levels in the water, resulting in improved water quality in the Pond and downstream of the Gurievka River.



In the Waterdrive project, the Guryevka River catchment area was selected as the observation zone.

The catchment basin of the Upper Pond / Lake Dambas is part of the main catchment area of the Guryevka River. The selected area includes 3 drainage channels.

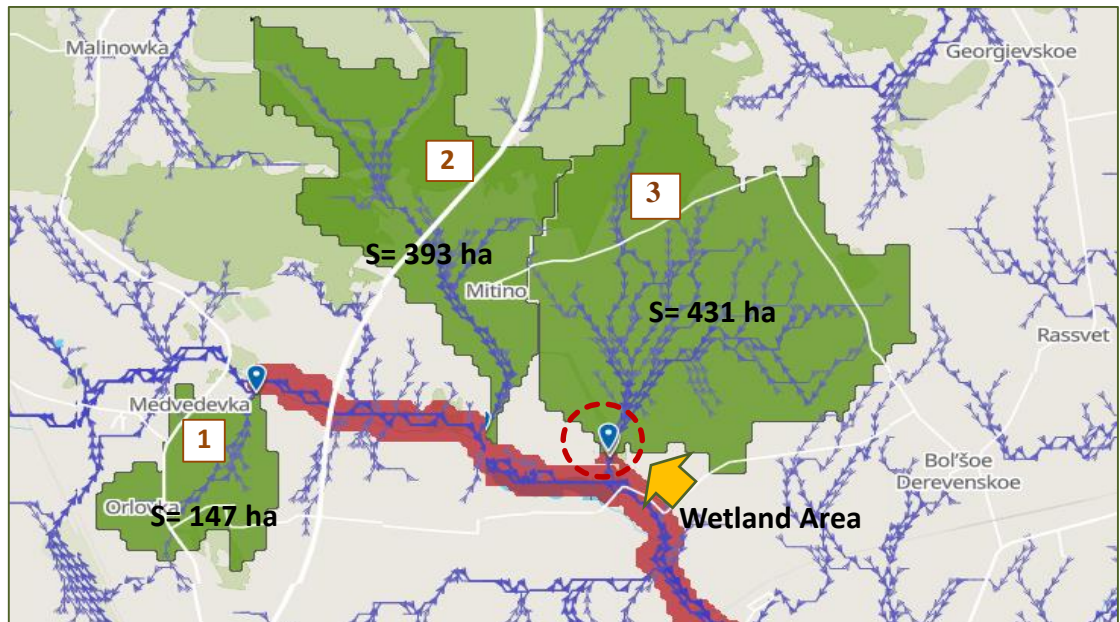
The total drainage canal drainage area is 971 ha, of which 490 ha is agricultural land.





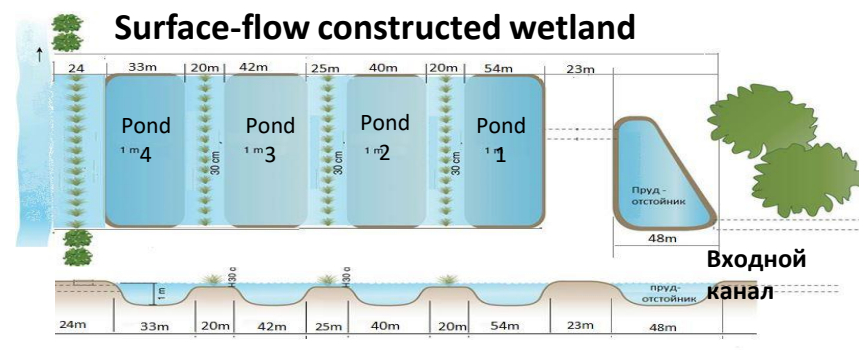
## 1. FIELD RESEARCH AND ANALYSIS OF THE DRAINAGE SYSTEM OF THE UPPER CATCHMENT AREA OF THE RIVER GURYEVKA FOR DETERMINING THE LEVEL OF THE TERRAIN RELIEF.

- Catchment drain channel **1** only includes wastewater from settlements.
- Catchment drain channel **2** includes agricultural land. But the territory does not have the road infrastructure.
- Catchment drain channel **3** includes agricultural land. The territory has a road infrastructure.
  - Flow rate: 1,07m<sup>3</sup> / s
  - The length to the pond: 3,5 km
  - Agricultural land: 251,5 ra



## 2. SELECTION OF THE TYPE AND WETLAND DESIGN

- We have studied practical examples of wetland use: Experiences from partners in Denmark, Finland and Sweden.
- The following documents have been translated: "Requirements and recommendations for the creation of mini-wetlands" and "Guide to Wetland Development for Agricultural Wastewater".
- We held consultations on wetland design with specialists from the WaterDrive project and with representatives of regional ministries of the Kaliningrad region.



IT WAS SELECTED TERRITORY, A TOTAL AREA OF - 1.87 ha

This area includes:

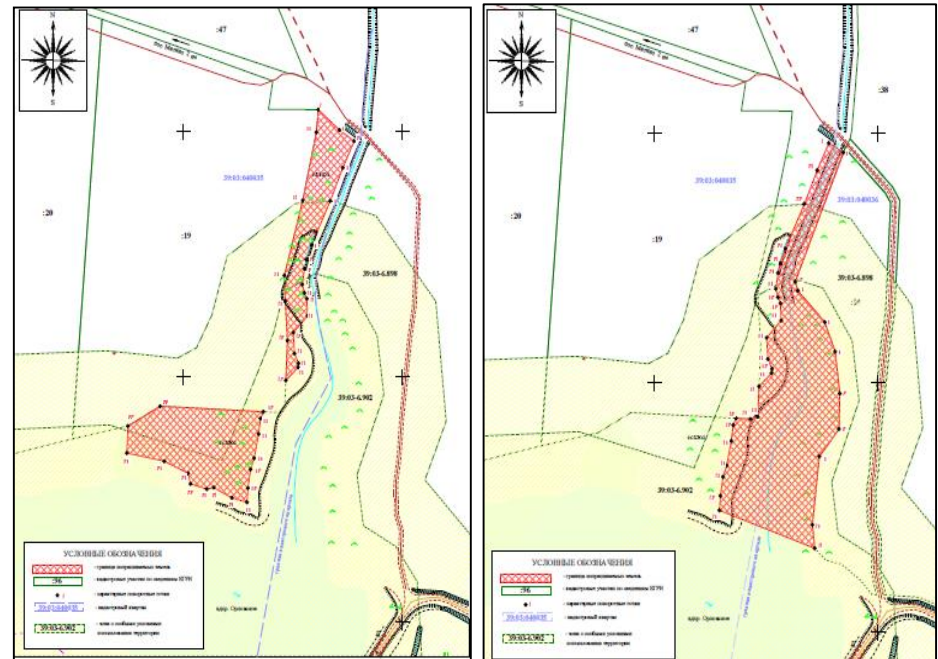
- The municipality's plots of land are the area of 0,416 hectares and 0.63 hectares (These plots of land bordering the river's and drainage canal's water protection of territories );
- Zone of drainage channel MPO-11-6a (including water protection zone of a width of 5 m on both sides of the flood);
- Zone of Guryevka River (including water protection zone width of 20 m on both sides of the watercourse





## 4. INITIATED ISSUES ASSOCIATED WITH LAND RELATIONS AND THE PROCEDURE FOR OBTAINING BUILDING PERMITS

- The boundaries of the site have been established, and also a water protection zone and coastal protective strip boundaries.
- FGBU "Kaliningradmeliovodkhoz" has agreed of modification the channel bed within the boundaries of municipal lands.
- The Land Department issued permit No. 280 of 07-08-2020 for the use of state-owned and municipally owned land for a period of 5 years.



## 5. A MONITORING PROGRAM HAS BEEN DEVELOPED

The following steps have been taken in order to obtain a Decision on the use of the water body from the Ministry of Natural Resources and Environment:

- The program of water-object monitoring and was developed morphometric research on the spot of building the wetland was carried out.
- The results of chemical analysis of natural waters above and below the Wetland construction site were obtained .
- Assessment of the nutrient load of Guryevka basin is ongoing (the research is being carried out by the BIEG Institute (AO13) in accordance with the municipal contract). The works are planned to be completed by the end of 2020.



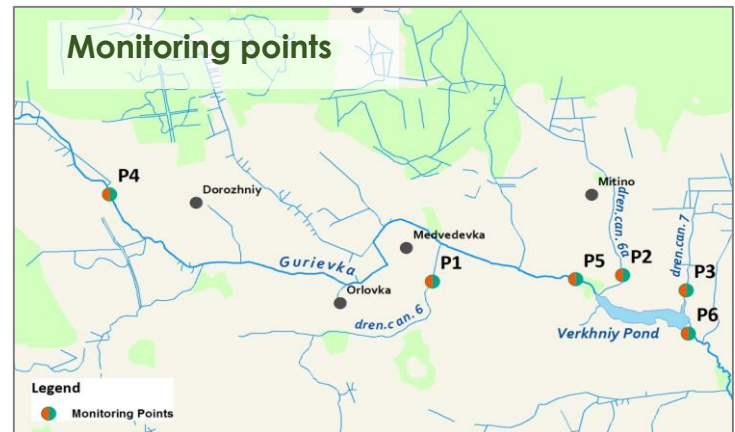
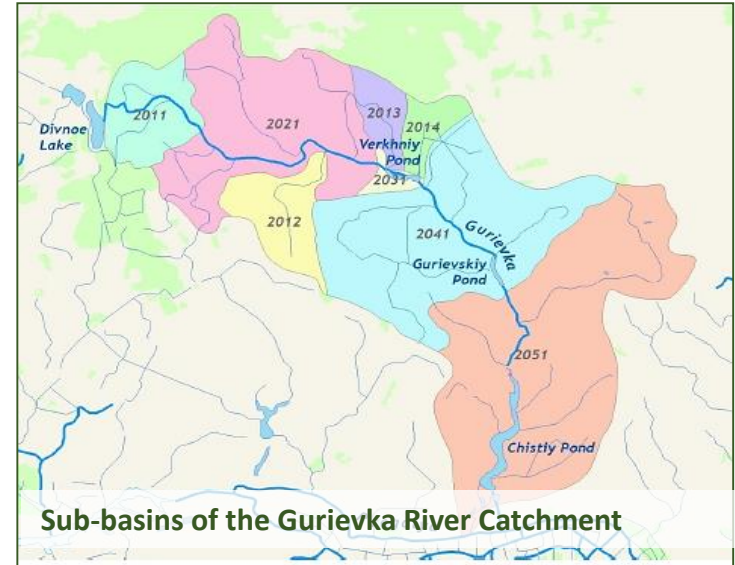


## MONITORING PROGRAM

### Research results:

- the pollution does not exceed the standards required for fishing;
- the nitrogen content is higher in drainage channels and lower in the riverbed, phosphorus content - the opposite.
- The full report with all the data will be provided later.

The HYPE (HYdrological Predictions for the Environment) model developed by the Swedish Hydrometeorological Institute (SMHI) was used for the calculations.



## 5. MAIN RESULTS OF THE FOCUS GROUPS IN CASE AREA

We continue to work with farmers, the advisory service, the municipality and other stakeholders.

5 farmers in our case area:

- 1 large farmer, 4500 ha, winter wheat and rapeseed, he is also engaged in land reclamation
- 4 small farmers, 50-200 ha, vegetables (potato, carrot, beetroot, cabbage)
- All farmers face flooding of parts of their land
- 2 farmers face soil acidification
- 2 farmers (1 large and 1 small) took part in a state program for the subsidy of land reclamation



## PROSPECTS FOR INVOLVEMENT IN THE PROJECT AND FURTHER WATER MANAGEMENT MEASURES IN THE CONTEXT OF REGIONAL POLICIES ON LAND RECLAMATION

The regional budget subsidizes costs of agricultural producers for rehabilitating and maintaining amelioration facilities.

Subsidies are allocated for the following purposes:

1. Subsidies to agricultural producers to compensate partly the costs associated with crop handling and technical work on land involved in agricultural turnover;
2. Subsidies for partial reimbursement of the costs associated with of acidic soil liming on arable land;
3. Subsidies for covering part of the costs for hydro reclamation activities;



### SHORTCOMINGS OF THE SUBSIDY PROGRAM:

- The procedure of a subsidy receiving is long and complex ;
- Subsidies are not suitable for small farmers and small and scattered areas;
- The subsidy program on soil acidification problem supports only Russian remedy using;

**The subsidy amounts to 70 % of the actual costs**



### KEYKEY FACTORS OF SCANT FARMERS' INVOLVEMENT INTO WATERDRIVE PROJECT

- Their low ecological awareness, including the fields of water management and wetland constructing;
- Low motivation for introducing ecological measures in agriculture related to the absence of relevant priorities in public policy, regulatory requirements and supporting measures together with high cost of their introduction;
- The absence of providing by the government incentives for eco-friendly measures in agriculture, land reclamation, rural lands development;
- The lack of existing support programs, especially regarding small farmers.



### PROPOSED MEASURES:

- Ecological educational programs for farmers and other groups, including issues of water management and wetlands as its tool;
- Establishing of educational actors' pool, creating Regional Information Resource Center on the water management issues;
- Stimulation of scientific research and also spreading advanced approaches to eco-friendly farming among the farmers;
- Development and implementation of governmental measures of stimulating farmers in the field of ecological measures;
- Creation of Wetland-park with research and educational center

In the framework of the existing state programs, about 50 mln EUR of the federal funds have been allocated to finance reclamation works in 2019-2025.

The government of the Kaliningrad region annually finances repair works of the regional land reclamation systems.

**In 2019**, carried out the following repair works for paid from the federal budget:

- 722 km of main canals and water receivers;
- 85 km of flood dams;
- 12 pumping stations.

These works have improved the ameliorative condition of 7,400 hectares and reduced the acidity of 6,800 hectares of agricultural land.

**In 2020**, it is planned to restore the amelioration network with a total length of 400 km (open inter-farm canals and closed drainage networks)



**Next steps:**

1. Prepare tender documents for the development of design and estimate documentation (Sept/ Oct );
2. Hold a tender (Oct.2020);
3. Develop design and estimate documentation for Wetland construction (Oct. 2020-Jan. 2021);
4. Get the Decision on Use of the Water Object from the Ministry of Natural Resources. Feb. 2021
5. To promote knowledge about the project, the importance of wetlands and the use of best practices (FB, website administration);
6. Continue conversations with farmers (individual and focus groups);



**Thanks for attention !**