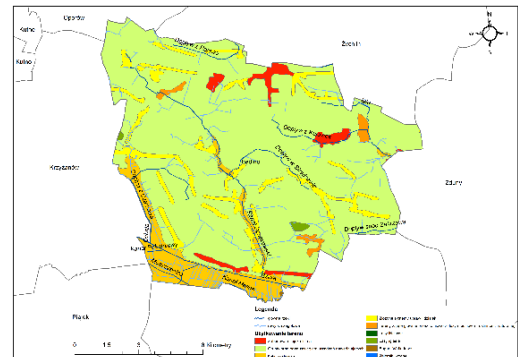
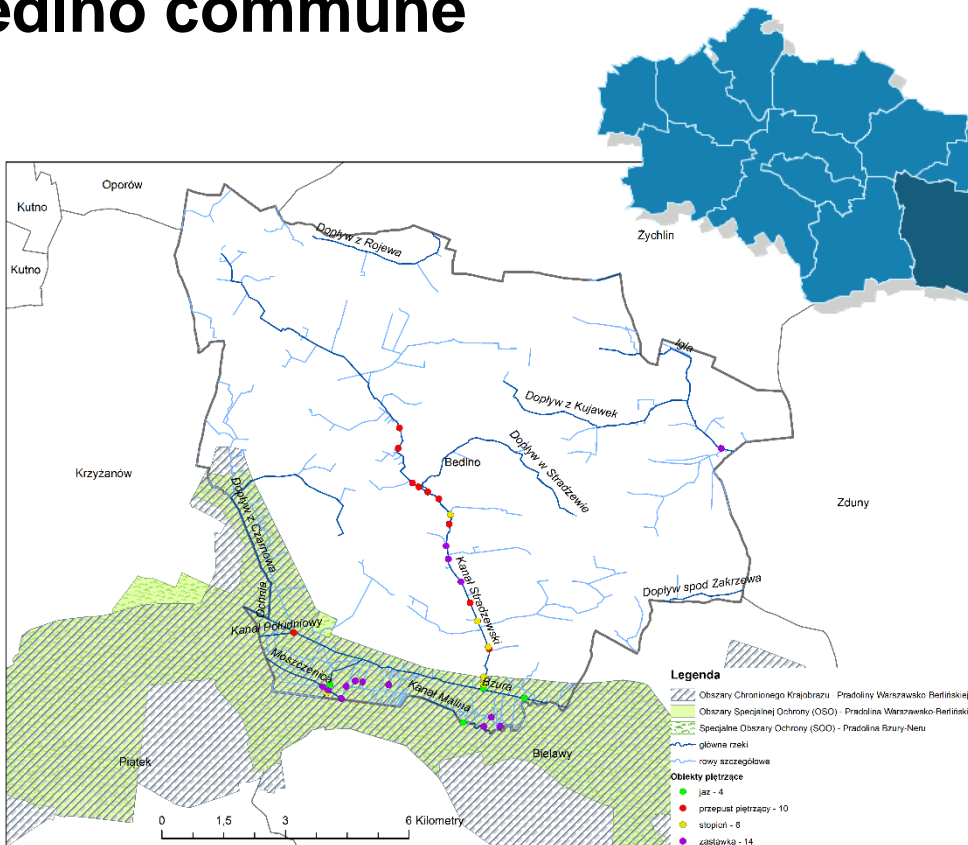


# Kutno County, Poland

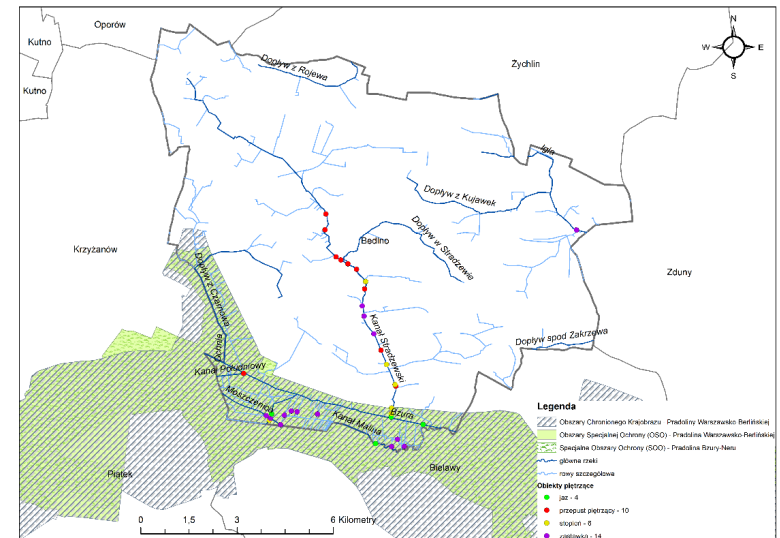
## Selected implementation area: Bedno commune



# Main task: Development of Action Plan for improvement of water retention for the Bedlno commune with suggested investments, and funding sources

Increased water retention is possible through:

- (1) cooperative renovation and management of **the drainage system** to slow down water outflow,
- (2) using **good agricultural practices** to increase soil water retention, and
- (3) optimization of the **landscape structure** for regulation of water cycle.



## Step 1. Long preparatory phase

Co-organization and participation in regional meetings on water management in agricultural areas



13 June 2019, Łódź



20 August 2019, Łódź



13 November 2019, Łódź

Conclusion: **Lack of cooperation** between the water management authority and farmers/water companies in the planning and implementation of investments and maintenance works in the drainage areas



## Step 2. Joint identification of problems and solutions with farmers and water authority

### 1st Local WATERDRIVE Meeting, 6th Feb. 2020, Bedlno

#### 45 participants:

Ab. 20 farmers from testing area (water company, farmers, community council),  
5 representatives of National Water Holding 'Polish Waters' (local, catchment, regional and national level), water companies and local authorities from Kutno County, regional authorities, agricultural advisors, experts

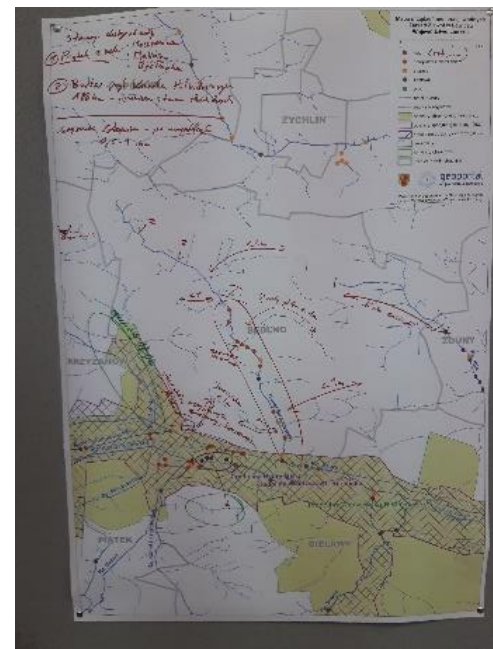


## Interactive workshop:

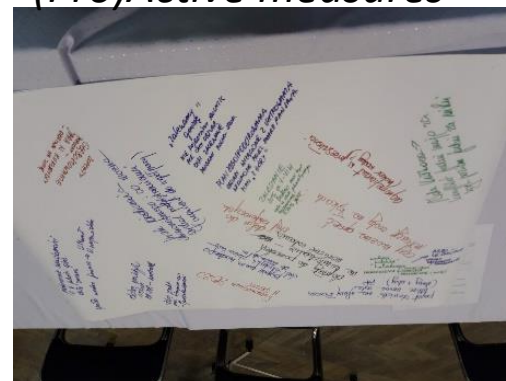
- the selection of the area to demonstrate water retention increase through controlling the outflow from drainage system (the so-called **river channel retention**)
- the possibilities and limitations of the implementation of targeted **agricultural practices** (catch crops, deepening, selection of the sowing direction) and **landscape shaping measures** (buffer zones, afforestation, mid-field bushes and trees, wetlands).



## Reactive measures



## (Pro)Active measures



## Step 3. Recognising the acceptability of environmental measures by farmers

**2nd Local WATERDRIVE Meeting, 21 May 2020, Bedlno**

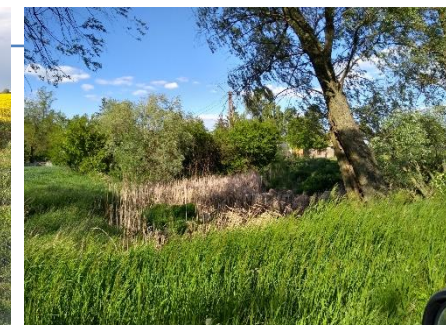
**8 participants:**

5 farmers (water company, community council, local authority) and regional authority, experts





Measures	Farmers's acceptability
Establishing shelterbelts	-/+
Afforestation of selected, unproductive lands	--
Establishing and protection of ecotone meadows and wetlands	+
Cultivation of catch crops and soil embedding crops (intercropping)	++
Protection / establishing small water bodies	++
Reconstruction of drainage systems towards amelioration of soils - controled drainage system	+++



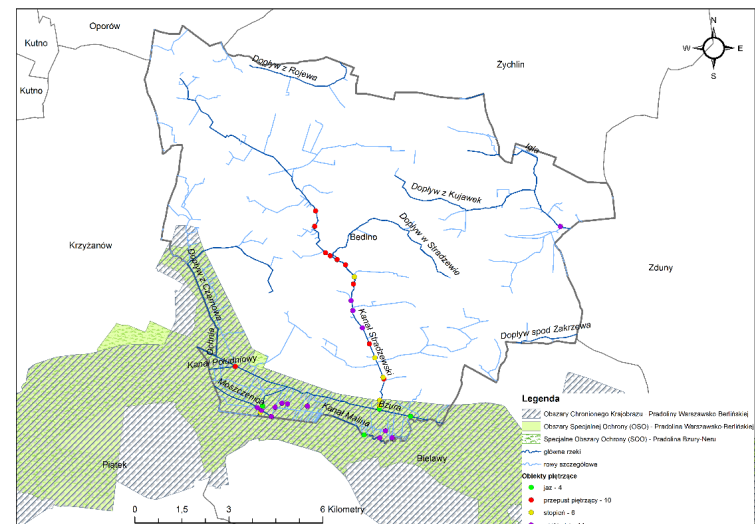
## Step 4. Co-design of new water damming system both on state and private lands

### 3rd Local WATERDRIVE Meeting

PGW Wody Polskie Zarząd Zlewni w Łowiczu, 23 July 2020

### 12 participants:

regional water management authority, local water management authority, farmer from water company, local authority, regional authority, experts





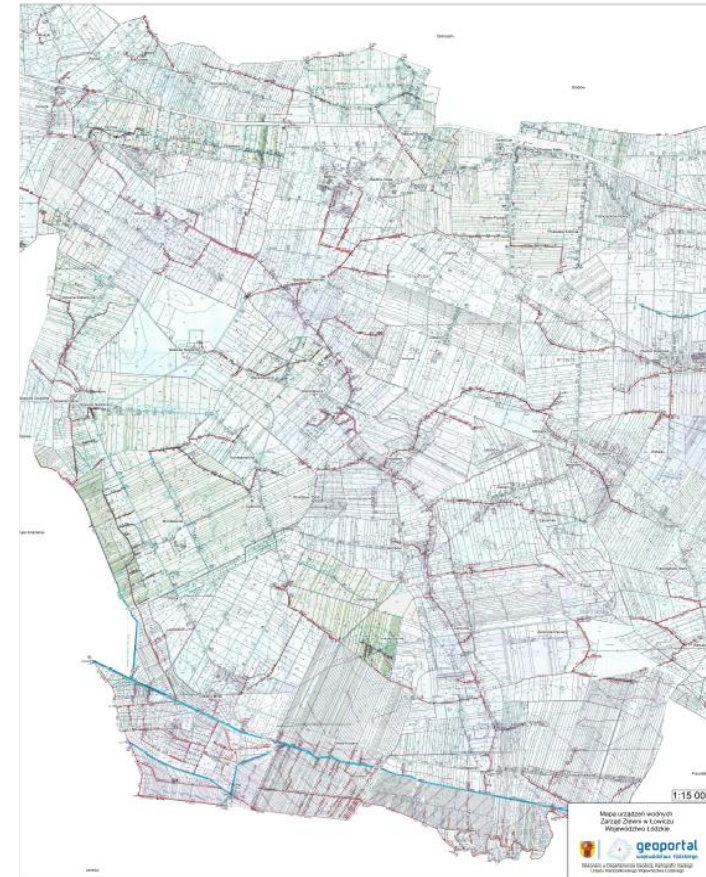
„Analysis of the possibility of regulating the drainage outflows for the Stradzewski Channel in order to increase water retention in the landscape and groundwater restoration” – report will be developed



*PHOTOS: Joint operation on existing hydrotechnical infrastructures by Polish Waters and Bedlno water company facilitated by the Lodzkie Marshal Office, April/May 2020*

## Barriers:

- Broadly available maps are not sufficient for drainage-related technical documents
- Availability of paper maps (1: 2 000) being part of 1960-1970 documentation, they are spread among archives, water companies and farmers
- Lack of financial programs to support the stage of preparation of technical documentation
- No successors of designers/persons with the mandate and skills to carry out drainage-related technical documents
- Legal issues of damming facilities and water damming are changing and require individual analysis





## next:

Participatory mapping of potential areas increasing landscape water retention in Bedlno Commune (mid-field bushes and trees, wetland, buffer zones, small ponds).

