Too much trust in the past

The problems of hydrographical data credibility
President of National Water Management Authority is obliged by Polish „Water Law” to gather hydrographical information within Water Cadaster.
Map of Hydrographical Division of Poland 1:50 000 (MPHP50)

First version: 2004
Latest version: 2010

Format: Geodatabase & Shapefile

Total length of river network: 140 218.27 km

Number of elementary water catchment areas – 29 274
Map of Hydrographical Division of Poland 1:50 000

DATA RANGE

• Elementary water catchment areas (polygon)
• Water catchment areas (polygon) from level 1 to 9
• Rivers (polyline)
• Rivers – sections (polyline)
• Hydro nodes (point)
• „Wide rives” (polygon)
• Undistinguished rivers (polyline)
• Lakes (polygon)
• Undistinguished lakes (polygon)
• Watersheds (polyline)
• Watershed nodes (point)
• Map sections (polygon)
Map of Hydrographical Division of Poland 1:10 000 (MPHP10)

First version: 2013
Latest version: 2016

Format: Geodatabase & Shapefile

Total length of river network: 150 843.18 km

Number of elementary water catchment areas – 33 302
Map of Hydrographical Division of Poland 1:10 000

DATA RANGE

- Elementary water catchment areas (polygon)
- Water catchment areas (polygon) from level 1 to 14
- Rivers (polyline)
- Rivers – sections (polyline)
- Hydro nodes (point)
- „Wide rives“ (polygon)
- Undistinguished rivers (polyline)
- Undistinguished rivers - sections (polyline)
- Lakes and reservoirs (polygon)
- Undistinguished lakes (polygon)
- Watersheds (polyline)
- Watershed nodes (point)
- Map sections (polygon)
Update of surface water bodies and combined water bodies list for next edition of river basin management plans for the period 2015-2012 along with verification of types of water bodies

September 2014 - October 2015

Update of types and boundaries of surface water bodies

River
Lake
Transitional
Coastal

OUTCOME

New list of water bodies, based on new and previously inaccessible data, for the second update of river basin management plans in 2021
1. Heterogeneous methodology for geometry determination of lakes and water reservoirs in MPHP10.
   • Method a) including the rush communities – “border by land”
   • Method b) excluding the rush communities – “border by water”
   • Both method a) and b) within the same body of water

2. Dubious designation of shoreline - addition of river and canal sections as well as islands into the lakes basins.

3. Unreasonable cases of lake basin division into smaller basins or lack of such division in cases hydrologically justified.

Identified errors and inconsistencies

Ad. 1a) Grabowskie Lake

Ad. 1b) Mąkolno Lake
Identified **errors** and **inconsistencies**

**Ad. 1c)**

**Wigry Lake**

**Ad. 2**

**Jeżewo Reservoir**
ANALYSIS AND UPDATE OF MANAGEMENT UNITS WITH THE CONSIDERATION OF MPHP10 (Map of Hydrographical Division of Poland 1:10 000)

1st stage (ends by the 16th of October 2017)

MPHP10 correction based on issues related to the lake layer and other layers that may have a significant impact on the identification/designation of water bodies for the 3rd cycle of WFD implementation.

2nd stage (ends by the 31st of November 2017)

Adjustment (where appropriate) of the list of surface water bodies along with the attribution of surface water types and re-designation of the boundaries of: regional water management authorities, river basin districts and water regions.

INSPIRE a digital Europe: Thinking out of the box
Main data sources:
• Numerical data from Central Unit of Geodetic and Cartographic Documentation
• Data from the European Space Agency Copernicus program

Identification of Plant communities within bodies of water is based on NDVI index developed on the basis of multi-channel imageries made by the Copernicus Sentinel-2A remote sensing satellite.

The NDVI (Normalized Difference Vegetation Index) index is the most known and used vegetation mapping index. Negative values of NDVI (values close to -1) correspond to water. Values close to zero (-0.1 to 0.1) generally correspond to sterile rock, sand or snow. Positive low values are shrubs and pastures (values from 0.2 to 0.4) and high values (close to 1) correspond to areas covered by lush vegetation in good condition.
Preliminary results

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