

MANAGEMENT PLAN FOR JAWORZNO FUA

Output factsheet: Strategies and action plans

Version 1

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Summary description of the strategy/action plan (developed and/or implemented)

The Jaworzno FUA (equivalent to Homogeneous Groundwater Body (JCWPd) No. 146 (PLGW2000146), is dealing with a problem of contaminated site, currently managed by Chemical Plant Organika-Azot S.A., assessed as an “ecological bomb” in Poland and considered by the Helsinki Commission as one of the most dangerous “hot spots” for the Baltic Sea. In the toxic toxic landfill “Rudna Góra” in the Wąwolnica Valley, over 195 thousand tons of post-production waste from chemical plant, including lindane, HCH isomers and other pesticides, as well as other organic and inorganic pollutants were deposited.

Therefore, an urgent need for action aiming at solving the contamination problem in the Wąwolnica Valley arose. As a part of the AMIIGA project, an action plan was created to support the existing groundwater management system at FUA Jaworzno.

Goals of management plan are as follows:

- 1 Protection of groundwater quality in FUA
- 2 Prevention of contamination migration downstream Organika-Azot S.A. area
- 3 Prevention of groundwater quality deterioration at Organika-Azot S.A. location

The elaborated action plan describes precisely time perspective, limitations, indicating bodies responsible for implementation of activities on different scale of management plan (FUA scale, scale of contaminated site, scale of groundwater contamination plume). It consists of the following actions:

- 1.1 The establishment of FUA-scale monitoring system for the purpose of a warning system for groundwater intakes
- 1.2 Notification of “significant pressure” for Homogeneous Groundwater Body No. 146 as part of update of River Basin Management Plans (aPGW) for years 2022-2027
- 2.1 The reorganization of groundwater monitoring network around Chemical Plant Organika-Azot S.A.
- 2.2 Monitoring data management for the needs of environmental institutions

- 2.3 The reactivation and functioning of an advisory group for the hazardous waste from Chemical Plant Organika-Azot S.A. in Jaworzno (so called “ecological bomb”)
- 3.1 The proposal of legal solutions (special act), including the establishment of a limited purpose company to solve the problem of ecological bombs
- 3.2 Carrying out actions reducing the impact of the identified groundwater contamination plume
- 3.3 Conducting remediation activities on pollution hot spot - continuation of activities resulting from the technical documentation for reclamation /remediation of contaminated sites in the valley of the Wąwolnica stream (WATS)

NUTS region(s) concerned by the strategy/action plan (relevant NUTS level)

Nuts0: PL, Poland

Nuts1: PL2, Makroregion południowy

Nuts2: PL22, Śląskie

Nuts3: PL22A, Katowicki

Nuts3: PL22B, Sosnowiecki

Nuts3: PL22C, Tyski

Nuts2: PL21, Małopolskie

Nuts3: PL21A, Oświęcimski

Functional area (FUA) Jaworzno is located in the southern part of Poland, in the eastern part of the Silesian Voivodship (PL22 - Śląskie) and the north-western part of the Małopolska Voivodship (PL21 - Małopolskie).

Jaworzno FUA, the area of 201.9 km² covering the boundaries of Homogeneous Groundwater Body (JCWPd) No. 146, includes the main part of the municipality of Jaworzno and partly surrounding cities and municipalities: Mysłowice, Sosnowiec, Bieruń, Imielin, Łędziny and Chełm Śląski (Silesian Voivodship) and Libiąż, Chrzanów, Chełmek and the rural commune of Oświęcim (Małopolska Voivodship).

Expected impact and benefits of the strategy/action plan for the concerned territories and target groups

The benefits of the action plan supporting the existing groundwater management system at FUA Jaworzno are as follows:

- The concept of the reorganization of the groundwater monitoring network around the Chemical Plant Organika-Azot S.A. in cooperation with representatives of Chemical Plant was developed on the basis of elaborated local and regional models of plume distribution. To conduct monitoring on local level in a new reorganized groundwater monitoring network existing piezometers and wells should be adapted;
- The establishment of the Regional Implementation Group during AMIGA project realization raises awareness and knowledge about the importance of cooperation of different bodies on solving the

problem with contamination in Wąwolnica Valley on regional level. As a result, the need of reactivation of an advisory group for the contaminated area of the ecological bomb in Jaworzno on regional level was revealed;

- An official announcement of significant pressure for Homogeneous Groundwater Body No. 146. including discrepancies regarding determination of the state of the body was prepared. An announcement will be taken into consideration during elaboration of Water Management Plan (aPGW) in the area of the Vistula River Basin with reference to the Homogeneous Groundwater Body No. 146. It should include activities such as: reduction of environmental objectives, increase of the scope of monitoring and taking correctives actions;

- A draft of special act with special rules for the removal of pollutants that were particularly hazardous to the environment that occurred before 1989 was prepared. The need of solving the problems of so called “ecological bombs” including Jaworzno FUA revealed on national level.

Sustainability of the developed or implemented strategy/action plan and its transferability to other territories and stakeholders

In Jaworzno (PL), essential actions, specified in MP, have been entrusted in accordance with the competences and financial possibilities to City of Jaworzno, Jaworzno Waterworks, Marshal's Office of the Silesian Voivodeship, Chemical Plant Organika-Azot S.A. and GIG.

Results that should be easily transferred to other territories and stakeholders, and could be implemented on local, regional and national level, are as follows:

- The close cooperation with political bodies and managing teams on level of contaminated site scale and groundwater contamination plume scale;
- Raising awareness and knowledge about contamination in the Wąwolnica Valley on FUA scale owing to Regional Implementation Group meeting;
- The inclusion of the problem of contamination in legal act such as special act of removal of hazardous pollutants and an official announcement of significant pressure to Water Management Plan according to Water Framework Directive with reference to the homogeneous groundwater body.

Lessons learned from the development/implementation process of the strategy/action plan and added value of transnational cooperation

Main obstacle, which have revealed during AMIIGA project realization was to include the importance of the problem of contamination in the Wąwolnica Valley in official (existing on national level) Polish Water Management Plans (PGW). As so far Water Management Plan for Vistula Watershed on the basis of the review of significant pressures on the water environment has not include the problem of hot spot in the Wąwolnica Valley and in the area of Homogeneous Groundwater Body No. 146. Due to results of the operated monitoring program, this groundwater body has been assigned a good status.

The second update of the Water Management Plans (PGW) gives the opportunity to take into account the measures in relation to Homogeneous Groundwater Body No. 146 preventing the deterioration of the state of water (the chemical status).

As a result, an official announcement of significant pressure for Homogeneous Groundwater Body No. 146. was prepared giving the opportunity to take into account the need of activities preventing the deterioration of the state (chemical status) of the water body under consideration.

References to relevant deliverables and web-links If applicable, pictures or images to be provided as annex

- Deliverable D.T3.3.7 Management Strategy on groundwater contamination in Functional Urban Areas of Central Europe → available on AMIGA website <https://www.interregcentral.eu/Content.Node/Management-Strategy-Final.pdf>
- Deliverable D.T3.3.6 Good practice report on groundwater management plan → Annex 1 to Management Strategy D.T3.3.7 available on AMIGA website <https://www.interregcentral.eu/Content.Node/Management-Strategy-Final.pdf>
- Deliverable D.T3.1.3 Management plan for Jaworzno FUA with its annexes → English abstract included in Management Strategy D.T3.3.7 (page 99-117) available on AMIGA website <https://www.interregcentral.eu/Content.Node/Management-Strategy-Final.pdf>
- Deliverable D.C3.3 Electronic newsletters No. 5 English abstract of Management plan for Jaworzno FUA D.T3.1.3 → available on AMIGA website <https://www.interregcentral.eu/Content.Node/AMIGA/AbstractJaworzno.pdf>