



Oder river

Phase I of the Mining Sector Investment Plan for Reducing Salinity in the Oder River

The Ministry of Climate and Environment has prepared Phase I of the Mining Sector Investment Plan aimed at reducing salinity levels in the waters of the Oder River. The Plan foresees a reduction in salinity across the Oder River basin by 2030 in order to improve the river's ecological safety, eliminate blooms of the so-called "golden alga", and reduce the risk of a recurrence of the 2022 environmental disaster. On 24 October 2025, the document received approval from the relevant ministries within the framework of the Economic Committee of the Council of Ministers.

In 2022, the Oder River experienced a fish kill on a scale previously unseen in Poland, with a total of 350 tonnes of dead fish recorded. The direct cause of the disaster was toxins released by *Prymnesium parvum*, commonly known as the "golden alga". Although the natural habitat of the golden alga is marine waters, the high salinity levels in the Oder River and some of its tributaries, resulting primarily from mining operations and the discharge of saline mine water, enable its growth in inland waters. For this reason, the implementation of measures aimed at reducing salinity in the Oder River is an urgent priority.

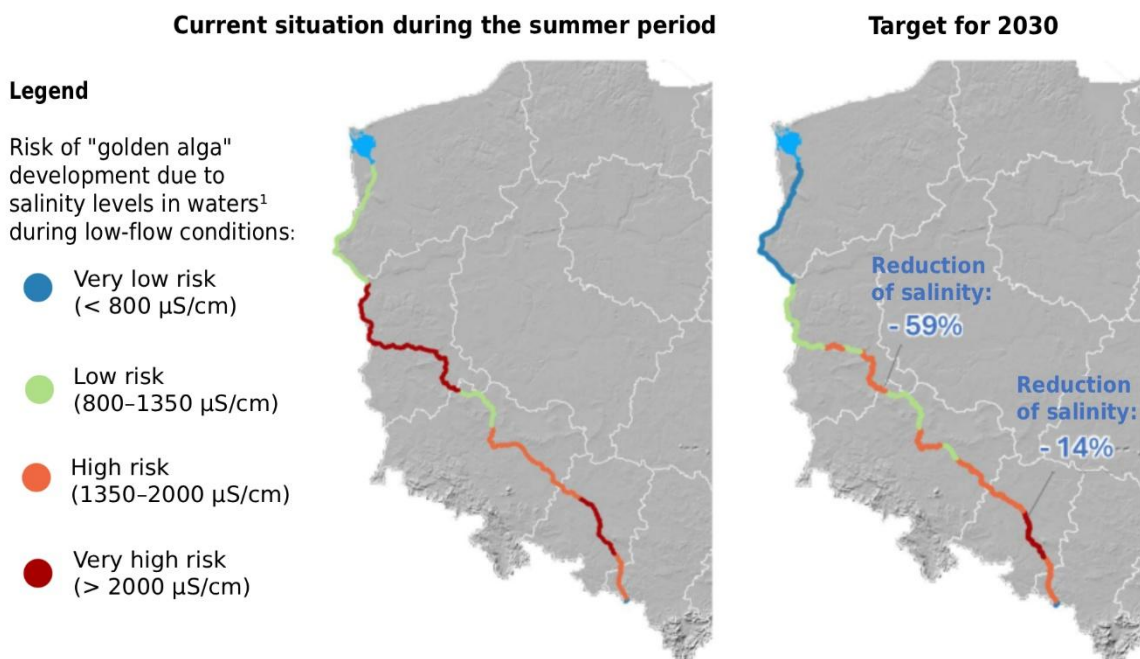
The Plan includes the following objectives to be achieved by 2030:

#1 Reduction of the salt load in the Oder River during the summer period by achieving a:

59% reduction in Lower Silesia; **14%** reduction in Upper Silesia.

#2 Reduction of the risk of a recurrence of the 2022 ecological disaster by achieving the retention capacity necessary for effective management of the risk of "golden alga" blooms.

Spatial scope of objectives #1 and #2:



¹ Salinity expressed as electrical conductivity at 20°C





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#3 Achievement of environmental standards for salinity on **30%** of the river length.

Spatial scope of objective #3

Legend

Classification of the indicator characterising salinity:

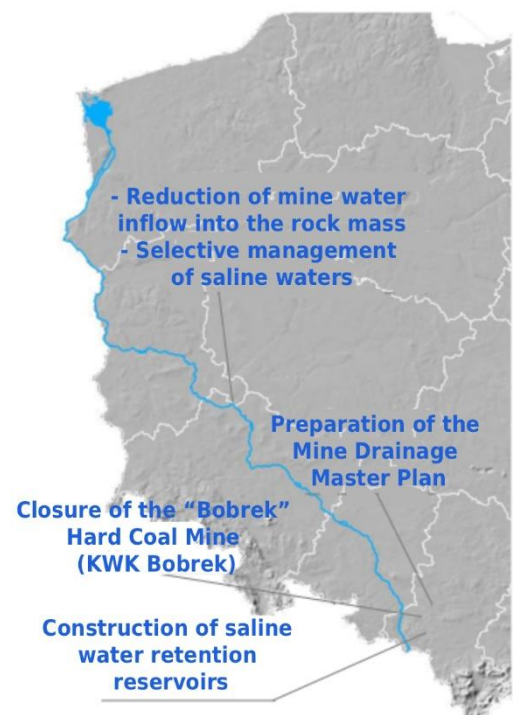
-  Good water status (standard met)
-  Below good water status (standard not met)



Reduction of salinity will result from the implementation of the following measures:

- Closure of mines in accordance with the so-called “Social Agreement”, which consequently means the cessation of discharging saline water into the Oder River;
- Optimisation of mine drainage systems under the so-called “Mine Drainage Master Plan”;
- Investments, including:
 - construction of new retention reservoirs for saline waters, allowing saline water to be stored during critical periods (e.g. low river flows in the Oder, high air temperatures),
 - implementation of selective management of saline waters to redirect the most saline waters to retention reservoirs, increasing their storage capacity,
 - reduction of inflow of mine waters into rock massifs, thereby decreasing the salt load discharged into the Oder;
- Implementation of pilot projects for innovative desalination technologies.

Location of actions under Phase I of the Plan





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It is estimated that approximately PLN 500 million will be required to implement the Plan by 2030. The Plan's investment measures will be financed by mining companies, ensuring the application of the "polluter pays" principle.

What comes next?

After obtaining results from the pilot implementation of innovative desalination technologies and additional research activities, further program stages will be undertaken under Phase II of the Plan. Phase II is expected to include additional components, including investments in desalination facilities, which will enable further reduction of salinity levels in the Oder River basin.

Other measures

In addition to reducing water salinity, an important component of the Plan includes river renaturation measures aimed at increasing the long-term resilience of ecosystems (e.g. creating fish refuges) and accelerating investments restoring fish migration routes in Oder tributaries. At this stage, greater involvement of local communities and local governments is planned, supported by instruments financed from European funds, including FEnIKS.

Furthermore, the Chief Inspectorate for Environmental Protection is developing an automated monitoring system for the Oder River and other surface waters.

Crisis-response activities are also being implemented continuously. In 2025, due to initiatives undertaken by the Interministerial Team for the Oder River, no presence of "golden alga" was detected in the waters of the Oder River.