

Befüllung der Tagebaulöcher und ihre Folgen (English version)

Scenario 1:

The drainage pumps are switched off, groundwater rises again and the pits will be filled up.

- This could take several hundred years.
- Rainwater/heavy rainfall may cause landslides.
- Leaching of toxins from the neighbouring soil increases.
- Rising groundwater pushes parts of the embankment into the hole. This also will lead to landslides.

Scenario 2:

It follows, that the pits must be filled, because this is the only way to create pressure from within the pits towards the banks, which then stabilises them (sufficiently?). It was decided to fill the pits and nature-reserves with water from the river River Rhine. Duration of this type of filling: 40 (+x) years. The actual duration depends on how much rain there will be, how much water is pouring down the River Rhine from the Alps, what water levels are required to maintain navigation, how much evaporation there will be during summer and how much water will seep away.

This raises the following questions:

- Despite the improved water quality in recent decades, is the quality of the River Rhine water suitable for filling lakes and biotopes, e.g. Niers, Nette, Erft, Rur?
- Is a water purification plant of the necessary level 4, which can filter out phosphates, medicines, persistent chemicals and micro-plastics and requires a very large area, still being planned and built?
- The extraction point on the steep slope would be downstream of the Dormagen chemical park, which has many production facilities. What would be the consequences of an accident there? What incident management measures are in place?
- The nature-reserves require a much higher water quality.
- Inferior lake water mixes with the groundwater and deteriorates it.

Scenario 3: OUR DEMAND!

Immediate halt to lignite mining, thereby minimising the volume of refilling! Reduction of opencast mines by filling them with as much overburden material as possible, e.g. that from the Sophienhöhe internal dump and Sophienhöhe itself. This must be initiated immediately! Promotion of nature-based solutions instead of large-scale technical interventions.

Rhine water transport pipeline (RWTL)

Three pipes with a diameter of 2.20 m are to be laid underground over a distance of 22.4 km to Allrath. From there, two pipes will initially lead to Hambach and two to Garzweiler and the Schwalm-Nette nature-reserve. The maximum flow rate is to be 18 m³/s.

This gives rise to the following problems, particularly during filling:

- Environmental damage caused by the construction of the pipeline, whose route cuts through ecologically significant areas, such as the Erftaue and the former Bedburg sewage ponds.
- Threat to protected species in the agricultural landscape and to scattered fruit tree populations.
- Lack of investigation into alternatives, e.g. reassessment of the Cologne peripheral canal, into which drainage water from Hambach has been discharged to date.
- Calculation of water availability is based on figures obtained before the drought years. There is no climate-based water level forecast.
- In the worst case, only 6m³/s can be extracted on an annual average. Planning a pipeline with a capacity of 18m³/s is completely oversized.
- RWE's calculations are based on unrealistic withdrawal quantities from the River Rhine.
- Large quantities of pyrite are stored in the mining pits, which reacts with oxygen and water to form sulphurous and sulphuric acid and must be covered with a layer of lime weighing thousands of tonnes. This is where the so-called “death zone” will be formed. Due to the compact funnel-shaped lakes and the greater density of the contaminated water layers, there is hope that the lake water will not mix. Leaching from the dumps and contaminated sites from the landfills cause additional pollution.

- Minerals are mobilised in the rising groundwater around the lakes, including the pyrite in the soil, which reacts to form sulphuric acid.
- During the flooding period, the problem of landslides and evaporation remains – the warmer it is, the more this occurs, meaning that the filling period will be much longer.
- Can the amounts of evaporated water during the warm/dry season be compensated for or exceeded by inflowing water?
- Overfertilisation of the lakes by nitrate- and phosphate-containing River Rhine water leads to increased algae growth and additionally endangers the quality of the lake water.
- Microplastics can be introduced into the lake through abrasion of the pipe's inner coating.

Drinking water supply after lignite mining

Under the influence of rising groundwater, almost all drinking water wells described above will become unusable. This means that people living in the vicinity of the opencast mines will have to be supplied with drinking water from outside the area. To this end, a drinking water pipeline is to be laid from the Binsheimer Feld near Orsoy to Mönchengladbach. There, (according to current plans) 14 million m³ of drinking water are to be extracted annually.

This gives rise to the following problems:

- The route (30 m wide and 45 km long) cuts through three nature-reserves. This is particularly dangerous for a layer of lowland peat in the Riethbenden nature reserve near Krefeld.
- Here, too, biotope network systems will be destroyed and animal species will migrate.
- The flow behaviour of the groundwater will be impaired.
- Essential soil minerals will be washed out by the construction process.
- The effects on the Niers and Meuse rivers are unclear.
- The Binsheim wells will draw bank filtrate of the River Rhine. The suitability of this water for drinking purposes is highly dependent on the concentration of pollutants in the River Rhine, which in turn depends on the volume of water inside the river.
- Can this bank filtrate even be treated to produce drinking water in waterworks that have previously processed groundwater?

- When the water level in the River Rhine is low – the lowest level measured in Düsseldorf was 23 cm – there is also a likelihood that these wells will not be able to draw any water, not even contaminated water. The trend towards ever lower water levels due to climate change will continue.
- The assessment of the impairment of CO₂-binding properties of affected soils is inadequate.
- The loss of fertile farmland along the route is irresponsible.
- The influence of contaminated sites from landfills and spoil heaps is not being investigated.
- There is a lack of research into the influence of possible subsidence caused by nearby salt- and coal mining.
- It has not been conclusively demonstrated that the volume of drinking water transported is actually needed to supply the population. Rather, the question arises as to whether future and/or expanded water-intensive commercial enterprises and other municipalities (e.g. Krefeld) were taken into account when determining demand.
- Filling the wetlands of Niers, Schwalm and Nette with water from the RWTL in Dormagen may have a negative impact on drinking water extraction downstream.

Conclusion: The sustainable use of water resources to supply the population with drinking water while ensuring the replenishment of groundwater must be clearly demonstrated. It cannot be the task of the state to additionally ensure water and land consumption for the sake of profit maximisation.

In view of the unresolved problems and unanswered questions, we demand an immediate halt to planning and approval.

No more land consumption!

Compliance with the polluter pays principle!

RWE bears ALL perpetual costs!