

#### International Commission for the Protection of the Oder River against Pollution

M. Curie – Skłodowskiej St. 1 50-351 Wroclaw

via electronic mail

22<sup>nd</sup> September 2021

Dear Mr. Daniel Pokorný

Dear Mr. Przemysław Gruszecki

Dear Mr. Thomas Stratenwerth

Dear Mr. Lukáš Záruba

A Draft of the second update of the Oder River Basin Management Plan (hereinafter referred to as the "MOPO Draft")<sup>1</sup>, which is being prepared for the planning period 2022 - 2027, was published and made available for comments on the website of the International Commission for the Protection of the Odra River against Pollution (hereinafter referred to as the "ICPO") on 22 March 2021.

The European Environmental Bureau (EEB) welcomes the opportunity to provide comments in the consultation for the draft River Basin Management Plan for the Oder river basin. We would like to send these additional submissions specific to the Turow mine activities as an addendum to our original submission <sup>2</sup>( dated 31<sup>st</sup> August 2021).

#### 1. Introduction

The International Oder River Basin Management Plan is the **flagship policy document**, whose purpose is to **define major problems preventing achieving the good status** of groundwater and surface **water bodies** in the international river basin district and **stipulate measures leading to the achievement of the good status of water bodies** in compliance with Article 4 of the WFD. The ICPO River Basin Management Plan is **binding for all countries involved** and must subsequently translate into their national river basin management plans and sub-plans, including individual legal acts (such as decisions) issued by their administrations.

Considering the international nature of the MOPO Draft, it is essential to adopt effective measures, particularly to deal with the problems that manifest themselves in the territory of one of the countries involved but are caused by another country, as well as to deal with

<sup>&</sup>lt;sup>1</sup> Available online: <a href="http://www.mkoo.pl/index.php?mid=27&aid=863&lang=CZ">http://www.mkoo.pl/show.php?fid=6741&lang=DE</a> (CZ) or <a href="http://www.mkoo.pl/show.php?fid=6741&lang=DE">http://www.mkoo.pl/show.php?fid=6741&lang=DE</a> (DE)

<sup>&</sup>lt;sup>2</sup>Cover letter https://eeb.org/library/cover-letter-for-submission-to-the-consultation-of-the-international-oder-rbmp/ and joint submission <a href="https://eeb.org/library/joint-analysis-of-the-international-oder-river-basin-management-plan/">https://eeb.org/library/joint-analysis-of-the-international-oder-river-basin-management-plan/</a>



**problems common for all the countries.** <sup>3</sup> These problems with impacts of trans-regional importance were defined based on the results of the public consultations of 22 December 2020.<sup>4</sup> One of the problems with trans-regional importance defined is the *Adverse effects* on the environment *due to both active* and former *mining of lignite*, mainly on the groundwater. This negative phenomenon occurring in the international river basin district is supposed to further worsen in the planning period 2022 - 2027.<sup>5</sup>

For the reasons given above, we perceive the ongoing public consultations of the MOPO Draft as an **essential opportunity to adopt effective measures at the international level to address the issue of declines in groundwater caused** in the international river basin **by the mining of the lignite deposit in the Polish Turów coal mine.** The mine is situated in the southwestern part of the Lower Silesian Voivodeship in the territory of the Polish municipality of Bogatynia near the state borders with the Czech Republic and the Federal Republic of Germany. According to the plans of its operator, the coal mine shall be run until 2044. The Turów coal mine has been negatively affecting the quantitative and qualitative status of groundwater and surface water bodies in the territories of the Czech Republic and the Federal Republic of Germany (more details are provided further herein).

# 2. The MOPO Draft must describe the negative impact of the Turów Coal Mine and directly associated activities (combustion) on the Czech and German water bodies in precise details

According to Article 13, paragraph 4 of the WFD, river basin management plans must always include a summary of significant effects and impacts of the human activity on condition of groundwater and surface water bodies. On this basis, the reasons why each water body does not achieve good qualitative and quantitative status should be clear, or why there is a risk of deterioration of the condition of a water body in the next planning period. Although the MOPO Draft states on page 24 that one of the problems of trans-regional importance is the impact of the active mining of lignite and its combustion, it is not clear from the MOPO Draft which water bodies are the most affected by this problem.

The EEB therefore would like to provide a basic summary of the negative impacts of the ongoing mining in the Turów coal mine and subsequent combustion related impacts on the condition of the Czech and German water bodies. We suggest **completing chapters II.4.2.1.** (Assessment of the quantitative status of groundwater), II.4.2.2. (Assessment of the chemical status of groundwater) and II.4.1.2. (Assessment of the chemical status of surface water bodies) of the MOPO Draft with such summaries, including changes in the associated maps. Apart from the compliance with the requirements of Article 13, paragraph 4 of the WFD, an identification of the specific negative impacts of the Turów coal mine on the water bodies in the Czech Republic and Germany is also crucial to define the most effective programmes of measures that would aid in achieving the good status, or at least not worsening of the water bodies in question, in compliance with Article 4, paragraph 1 of the WFD. The present version of the MOPO Draft does not allow the attainment of those objectives. It is nevertheless clear that

<sup>&</sup>lt;sup>3</sup> See Article 13 paragraph 2 of the WFD and Article 2 paragraph 1 (j) of the Convention on the International Commission for the Protection of the Oder of 11 April 1996, Act No. 2/2003 Coll. of International Treaties, source: INTERNATIONAL TREATIES COLLECTION Volume 2003, figure 2, of 8 January 2003.

<sup>&</sup>lt;sup>4</sup> Available online: http://www.mkoo.pl/index.php?mid=27&aid=862&lang=CZ

<sup>&</sup>lt;sup>5</sup> The MOPO Draft, page 24.



the objectives cannot be achieved by means of the sub-measures stipulated in the national river basin management plans only as the issue is of trans-regional importance. The resulting wording of the MOPO is thus of significant importance. This assessment of emissions and impact on the achievement of the WFD objectives shall not only concern direct effects from lignite mining but also the directly associated impacts from the combustion of those lignite fuels in the combustion plant (I.e. mercury emissions, cooling water use, residues/waste affecting groundwater quality and waste water as well as climate impacts from the combustion of those fuels) (see section 2.3).

#### 2. 1. On the effects of the Turów coal mine in the territory of the Czech Republic

The impact of the Turów coal mine in the territory of the Czech Republic has long been subjected to expert monitoring provided in the territory of the Czech Republic by AQUATEST a.s. to order by the Czech Geological Survey. The outputs of this monitoring are summarised in annual reports assessing the current condition and the changes occurring in the status of the groundwater. The monitoring only deals with the area of the southern part of the Zittau Basin (water body No. 14200 - Quaternary and Miocene of the Zittau Basin).

We would like to point out that the quantitative status of the water body No. 14200, which is used as a drinking water source in the territory of the Czech Republic and whose status is already unsatisfactory in some areas (mainly Uhelná), will significantly deteriorate in the next planning period due to the ongoing mining in the Turów coal mine. This is, among others, stated in the draft of the Czech National River Basin Management Plan for the river Oder, which ranks the water body No. 14200 among water bodies at risk.<sup>6</sup> Under the provisions of Section 2 of Decree No. 24/2011 Coll. on river basin management plans, a water body at risk is a "body for which the risk of not meeting the objectives of protection of water as an environmental element at the end of the validity period of the river basin management plan has been identified based on an analysis of generic and water service characteristics and assessment of the impacts of human activities thereon."

According to the latest information available to the EEB, **indirect groundwater consumptions from the Turów coal mine lead to a significant steady decline in the groundwater levels in the individual aquifers of the water body No. 14200.** Major impacts of the mining in the Turów Coal Mine on the quantitative status of the water body No. 14200 has also been confirmed by the latest data obtained from the research carried out by the Czech Geological Survey (from now on referred to as the "CGS").<sup>7</sup> The expert hydrogeological assessment of the Water Research Institute implies that: "The new data obtained by the monitoring carried out by the CGS show that the levels of Tertiary groundwater in the Hrádek Basin have continued to decline. The level of the Quaternary aquifer, which serves as a drinking water source for the Czech population, also decreased by another 0.8 m over the last year (during the period April 2020 - April 2021). **The impact of drought, which still reverberated in 2020, was no longer affecting in 2021, yet the decline** 

<sup>&</sup>lt;sup>6</sup> Ministry of Agriculture and Ministry of the Environment of the Czech Republic: Evaluation of the comments on the Draft of the National River Basin Management Plan for 2021 - 2027, August 2021, page 8. Available online: <a href="http://eagri.cz/public/web/file/682994/vyhodnoceni">http://eagri.cz/public/web/file/682994/vyhodnoceni</a> pripominek ODRA.pdf

<sup>&</sup>lt;sup>7</sup> Czech Geological Survey: Vývoj hladin podzemní vody v hrádecké pánvi /Development of the groundwater level in the Hrádek Basin/, May 2021, cit. in: Water Research Institute: The Turów Coal Mine, Expert Hydrogeological Comments on the Report: Venera Z. et al. (May 2021): Vývoj hladin podzemní vody v hrádecké pánvi /Development of the groundwater level in the Hrádek Basin/, June 2021. .



*in the levels has continued.* Based on the available data, other impacts on the Quaternary levels, such as the mining of sand-gravel aggregate in Grabštejn (where the mining only takes place above the groundwater level) or water abstraction in Uhelná (the fluctuation of the monitored levels does not correlate to the fluctuation of the consumptions), can be ruled out."<sup>8</sup>

Below, we provide a basic summary of the information about the impact of the Turów coal mine on the Czech area south of the mine (i.e. in the territory of the Czech Republic):

- The data series available in the Czech territory since the 1980s reveal very significant declines in levels in the Quaternary aquifers and in the deeper basin aquifers (the localities of Hrádek nad Nisou Oldřichov Uhelná Grabštejn, i.e. the water body No. 14200). The Quaternary aquifer levels have declined by about 20 m. The basin aquifers have seen more significant declines over 60 m in the joint upper and middle aquifers. The declines in the lower basin aquifer vary from 10 m to 60 m depending on the specific borehole. Until 2017, the groundwater was primarily drained from the Czech territory by the middle aquifer of the basin. Due to changes in the groundwater currents, groundwater has mainly been flowing from the Czech territory to Poland through the lower Tertiary aquifer since 2017.9 Since 2015, the levels of the Tertiary aquifers in a part of the water body No. 14200 declined by 8-34 m.<sup>10</sup>
- Between 2014–2021, the declines in the drinking water levels in the Quaternary aquifer of the water body No. 14200 continued in the whole area of the north-east part of the monitored area (Oldřichov the north-east part of Hrádek nad Nisou Uhelná Grabštejn). The overall decline in the levels in the period September 2014 April 2021 amounted to 7.98 m on average (with the average values from five monitored boreholes fluctuating from 6.76 to 9.07 m), which represents an average of 1.23 m per year. The last year's decline (April 2020 April 2021) amounted to 0.8 m, which signifies that it is slightly decelerating. The deceleration in decline has been caused by the gradual fading of drought in 2014-2019. Since 2021, the effects of drought cannot have a substantial impact, and, therefore, the groundwater declines can be ascribed to the draining caused by the Turów coal mine.<sup>11</sup>
- Furthermore, neither the water source in Uhelná nor the sand quarry in Grabštejn can significantly affect the declines in groundwater levels as mentioned above. **Evidence of the above was provided in the EIA documentation by the operator.**<sup>12</sup>
- Monitoring carried out in the Polish territory has provided evidence that the declines in groundwater levels on the other side of the borders are fully comparable or even higher.
   There are usually no declines in the Quaternary aquifer thanks to the different geological structure of the area and better separation of the Quaternary structures from the lower

<sup>&</sup>lt;sup>8</sup> Water Research Institute: The Turów Coal Mine, Expert Hydrogeological Comments on the Report: Venera Z. et al. (May 2021): Vývoj hladin podzemní vody v hrádecké pánvi /Development of the groundwater level in the Hrádek Basin/, June 2021, page 1.

<sup>&</sup>lt;sup>9</sup> Op. cit., page 5.

<sup>&</sup>lt;sup>10</sup> Op. cit., page 4.

<sup>&</sup>lt;sup>11</sup> Op. cit., page 4.

<sup>&</sup>lt;sup>12</sup> Documentation of The Continuation of Mining of the Lignite Deposit in Turów. The environmental report , July, 2019, Chapter 7. 4.



- structures of the basin. This has been proven by measurements carried out within the scope of the Czech-Polish monitoring. <sup>13</sup>
- The graph in Figure 93 in the EIA documentation concerning the extending of the mining in the Turów coal mine to 2044 shows that over more than 50 years since 1963, the levels have declined by approximately 15-20 m. Most of such a massive decline cannot be explained by other impacts than the ongoing draining of the Turów coal mine (indirect draining of the Quaternary aquifer due to flowing into the subsoil aquifers of the basin). Chapter 7.4. of the EIA documentation mentions an inflow from the southern side (south of the southern fault) into the drainage wells in the amount of 3.1 m³/min., i.e. 51 l/s. Even if we accept that a minor part of the area in that direction is Polish, most water flows from the territory of the Czech Republic (originating in the Quaternary and basin aquifers) are due to the draining activities in the Turów coal mine. This information is based on the technical data provided by the operator in chapter 7. 4. of the EIA documentation. A more detailed specification of the groundwater flow from the Czech territory would require a calculation using a mathematical model.

The above-mentioned expertise indicates that the **Turów coal mine has indisputable and long-lasting impact on the quantitative status of the groundwater in the territory of the Czech Republic.** Specifically, it has a major negative impact on the groundwater **body No. 14200**. These facts are also taken into account in the **River basin management sub-plan for the river Lusatian Neisse for the 2<sup>nd</sup> planning period (2015 - 2021)<sup>14</sup> and in the associated programme of <b>measures referred to as Improper Land Use – Lignite Mining in the Turów Coal Mine.**<sup>15</sup>

Should the mining be extended, the negative impacts of the mine will be more intensive. 

16 The National River basin management plan ranks the water body No. 14200 among the water bodies at risk, where the quantitative status is presumed to deteriorate to unsatisfying status during the next planning period. Not only will the expansion of the mine mean that the mine will be closer to the Czech border, but also that the centre of the drainage will move closer to the Czech territory. Consequently, the problems that have already been identified will intensify, and new problems will probably arise, too. As a result, the levels in the Czech part of the Zittau Basin (the area of Oldřichov Hrádek nad Nisou – Grabštejn, i.e. s part of the water body No. 14200) will continue to decline with the propagation of the drainage impact further to the south and east of the water body in question. The impacts on the area of Uhelná (another part of the water body No. 14200) will also intensify.

Therefore, we summarise that considering the above-mentioned, the MOPO Draft should be completed with the following information:

<sup>&</sup>lt;sup>13</sup> Návrátilová, Vlasta et al. : Společný česko-polský monitoring hladin podzemní vody v oblasti dolu Turów a na území ČR /Joint Czech-Polish monitoring of groundwater Levels in the area of the Turów coal mine and in the territory of the Czech Republic/, December 2018, page 29 – 37.

<sup>&</sup>lt;sup>14</sup> River Basin Management Sub-plan for the Lusatian Neisse River Basin, Chapter II, page 37 – 38, available online: http://plapdp.cz/PDP\_LNO/II/1\_TEXTOVA\_CAST/LNO\_II\_TEXT.pdf.

<sup>&</sup>lt;sup>15</sup> Available online: <a href="http://plapdp.cz/app/app/pdf/LNO214001.pdf">http://plapdp.cz/app/app/pdf/LNO214001.pdf</a>.

<sup>&</sup>lt;sup>16</sup> Documentation of The Continuation of Mining of the Lignite Deposit in Turów. The Environment Report, July 2019, Figures 67 – 71.



- Since the 1980s, a part of the water body No. 14200 has been significantly affected by the Turów coal mine draining.
- Due to the continuation and expansion of the mining in the Turów coal mine, there
  is a risk of deterioration of the quantitative status of the entire groundwater body
  No. 14200 in the planning period 2022 2027 from good to unsatisfying.
- Quantification of impacts and source control measures so to prevent water relevant impacts due to the directly associated combustion activities (see section 2.3.)

## 2. 2. On the impacts of the Turów coal mine in the territory of the Federal Republic of Germany

Negative impacts of mining in the Turów coal mine are also manifesting in the water bodies in the territory of the Federal Republic of Germany. Should the mining continue until 2044, these negative impacts will yet deepen. **The mining has the most significant effect on the status of the DESN\_NE 2 Zittau-Görlitz groundwater body**. Although the quantitative status of this water body, mainly thanks to its large area, is still assessed as good, there is a risk of its significant deterioration in the next planning period due to the ongoing mining in the Turów coal mine. Furthermore, the negative impacts of the mining in the Turów coal mine also result in the **unsatisfying chemical status of the river Lusatian Neisse**, which is mainly caused by the high concentration of sulphates, cadmium, uranium, and nickel. It will be impossible to achieve a good chemical status of the river Lusatian Neisse if the mining in the Turów coal mine continues (more details are provided further herein).

In his expert opinion, German hydrogeologist professor Krupp<sup>17</sup> particularly points to the following negative impacts and risks associated with the Turów coal mine for German water bodies:

- A significant decline in the groundwater in the deep Tertiary aquifers of the DESN\_NE 2 Zittau-Görlitz water body, which has not yet been used as a drinking-water source, though. Cones of depression caused by the drop in groundwater levels reach as far as to the northern boundary of the Tertiary basin. At the German-Polish border, the decline in the groundwater level has reached 100 m since the beginning of the mining. By 2044, a decline of another 20 m can be expected in the area. As a result, a decline in the level of this water body of approximately 5 m can be expected in the planning period 2022-2027.<sup>18</sup>
- The municipality of Zittau lies within the area of a cone of depression which caused an irreversible fault in the underground rock. At the German-Polish border, faults of 1m have occurred in the bedrock; these faults gradually approach 0 m in the western direction. The continuing decline of the level of the DE-2 Zittau-Görlitz water body caused by the mining in the Turów coal mine will lead to further bedrock sagging in the years to come and the damage it will cause to real estates in Zittau cannot be

<sup>&</sup>lt;sup>17</sup> KRUPP, Ralf: Gutachten zu den grenzüberschreitenden Auswirkungen einer Fortführung des Abbaus der Braunkohlelagerstätte Turów (Polen) auf die Gewässer in Deutschland, 17. September 2020.

<sup>&</sup>lt;sup>18</sup> Op. cit., page 48 - 49.



- **excluded.** According to expert estimates, a bedrock depression of 1.2 m will occur at the border by 2044. In the centre of Zittau, the bedrock will sink by 36 72 cm by 2044. <sup>19</sup>
- **Significantly increased concentrations of sulphates**<sup>20</sup> are regularly detected in the river Lusatian Neisse (specifically in the surface water bodies DESN\_674-3, DESN\_674-4, and DESN\_674-5)<sup>21</sup> because of the acidic mine drainage. This trend is also visible in **cadmium, uranium, and nickel**.<sup>22</sup> Due to the increased concentrations, the MOPO Draft (map A13 of the MOPO Draft) correctly classifies the chemical status of the above water bodies as unsatisfying. **If the mining continues, the achievement of good chemical status of the water bodies in question by 2027 cannot be expected.** Yet, according to the Water Framework Directive, a good chemical status shall be achieved no later than 2027.
- It is highly probable that the upper groundwater in the DESN\_NE 2 Zittau-Görlitz water body, which communicates with the surface water, is affected by the acidic mine drainage in the same way as the river Lusatian Neisse (namely polluted with sulphates, nickel, uranium, and cadmium). Unfortunately, there is no monitoring station to monitor the chemical status of groundwater in the broader surroundings of the mine to measure the exact values of this pollution. It is, therefore, wrong to assess the chemical status of the water body in question in map A15 of the MOPO Draft as good.

The decline in groundwater levels of the DE-2 Zittau-Görlitz water body in the German territory caused by the Turów coal mine is also obvious from the monitoring boreholes Zittau, 909A / 85, GWL OU (50547579), Zittau, 903z / 85, GWL ZiC (50547580), Zittau, 800/84, unten, GWL ZiC (50547473), Zittau, 802/84, unten, GWL ZiC (51547478), Zittau, 797A2 / 84, GWL ZiC (51547467), Zitta, P12z / 94, GWL OU (50557702), Zittau, P 14/94, GWL ZiC (51557704), Zittau, P 17/94, GWL ZU (51547708), Zittau, 532/83, GWL ZiB (51547388), Zittau, P 19/94, GWL PGDZ (51547711), Zittau, P 19z / 94, GWL ZiC (51547712), Zittau, P 19z2 / 94, GWL OU (51547713), and Zittau, 1149/85, GWL ZU (51547592).<sup>23</sup> As indicated by the graph provided by the Saxony Agency for Environment, Agriculture, and Geology<sup>24</sup>, the groundwater level in the surroundings of the town of Zittau have declined due to the mining by several tens of metres:

Available online: https://www.umwelt.sachsen.de/umwelt/infosysteme/ida/pages/map/default/index.xhtml

<sup>&</sup>lt;sup>19</sup> Op. cit., page 62.

<sup>&</sup>lt;sup>20</sup> Op. cit., page 23.

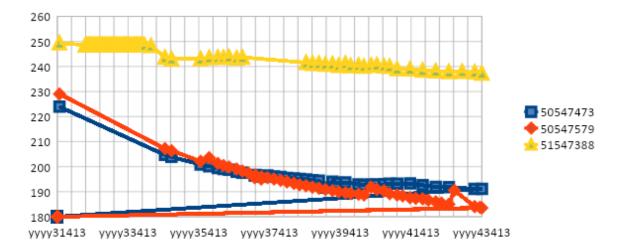
<sup>&</sup>lt;sup>21</sup> Increased values have been regularly measured by the Kloster Marienthal monitoring station. This station has been carried out measurements since 1993.

<sup>&</sup>lt;sup>22</sup> Op. cit., page 29 - 30.

<sup>&</sup>lt;sup>23</sup> Op. cit., page 51.

<sup>&</sup>lt;sup>24</sup> Landesamt für Landwirtschaft, Umwelt und Geologie, 2020: Information about the hydrogeological monitoring in Zittau and surroundings.





The continuation of mine operations and subsequent combustion will further worsen the achievement of the objectives set under the Water Framework Directive beyond the territorial scope of the Oder River basins (see section 2.3.)

## 2. 3. On the impacts of the Turów coal mine and power plant operations in the Oder River basin and the region.

The extension of mining operations in Turów granted by the Polish government has an indirect impact on the water bodies in the Oder River basin. The extension is primarily aimed at allowing Turów lignite powerplant to further operate until 2044. It is expected that about 330 M tonnes of lignite will be extracted for combustion up to 2044 [11.5 M t/year from 2020-2038 and 7 M t/year from 2039-2044].

This implies that significant quantities of air pollutants will be emitted by the plant, which may worsen the chemical status of Oder's surface waters. Concerning Priority Hazardous Substances (cadmium and mercury), a continued operation of lignite combustion will considerably undermine the phase-out objective in relation to mercury pollution in surface waters. Lignite combustion is the main source of anthropogenic mercury emissions in the EU.

The Turów plant emits on average each year 334 kg of mercury<sup>25</sup>, with an average stack concentration of 10  $\mu$ g/Nm³. As confirmed also by the Minamata Convention BAT-BEP guidance<sup>26</sup>, if the strict BAT requirement set under the 2017 LCP BREF of max. 1  $\mu$ g/Nm³ is implemented, the mercury pollution load could be cut by a factor of 10, resulting in residual pollution load of about 30 kg/year. Assuming a continued operation until 2044, the potential amount of mercury not contaminating Oder's basin surface waters - or other EU surface waters- would be at least 6680 kg.

Based on the reporting to the WISE database (last updated in 2020), 6 surface water bodies in Czech Republic, more than 500 in Germany and 20 in Poland have received exemptions for

<sup>&</sup>lt;sup>25</sup> Based on 2017 data, EEB industrial plant data viewer from PRTR <a href="https://public.tableau.com/profile/schaible#!/vizhome/UnderDevelopment\_EEB\_LCP\_DataViewertest4\_15880952402100/">https://public.tableau.com/profile/schaible#!/vizhome/UnderDevelopment\_EEB\_LCP\_DataViewertest4\_15880952402100/</a> HomePage?publish=yes

http://www.mercuryconvention.org/Portals/11/documents/forms-guidance/English/BATBEP\_introduction.pdf



Mercury in the Oder River basin. It's been identified – even in the previous RBMP (2016-21) that at least 8 water bodies in Poland and 5 in the Czech Republic will only reach good status beyond 2027.

Despite identifying the difficulties in achieving good status due to exceedances of environmental limits (EQS limits) of Mercury, the draft RBMP considers lignite mining as a reason to set lower environmental objectives for water bodies. Derogations are given without first implementing measures such as adequate water fees for mines or plants, or strict emission limits for hazardous substances. This is in direct contradiction with the obligation to act at pollution reduction at the sources, including the stack emissions, which directly relate to the continuation of mining operations.

Presently, the biota EQS set for mercury is being exceeded in the Oder and the 2027 phase out obligation seems out of reach. Mercury is a global pollutant relevant for many other water bodies. Based on the above it is appropriate for the **MOPO Draft** to set the relevant criteria and obligations in relation to preventing mercury release from all relevant sources (air pollution route from stack), including by putting a veto on continuation / extension of lignite mining.

Therefore, we summarise that considering the above-mentioned, the MOPO Draft should be completed with the following information:

- Prevent ongoing mining in the Turów coal mine, there is a risk of deterioration in the
  quantitative status of the DESN\_NE 2 groundwater body from good to unsatisfying in
  the planning period 2022 2027,
- Conclude on unsatisfying chemical status of the surface water bodies DESN\_674-3, DESN\_674-4, and DESN\_674-5 (a part of the rive Lusatian Neisse) caused by the ongoing mining in the Turów coal mine,
- The continuing mining in the Turów will prevent achieving a good chemical status of the surface water bodies DESN\_674-3, DESN\_674-4, and DESN\_674-5 by 2027,
- The chemical status of the groundwater body DESN\_NE 2 Zittau-Görlitz should be assessed as unsatisfying in map A15 of the MOPO Draft. The unsatisfying chemical status of this water body is caused by the acidic mining drainage from the Turów coal mine.
- The status of groundwater shall also be assessed in relation to negative effects on water due to the combustion activities at the power plants e.g. water abstraction for cooling and abatement, diffuse emissions from residues or waste. Permit conditions should be reviewed and updated accordingly.
- The Turow mine and the associated power plant are also contributing to the diffuse atmospheric pollution (covered under P2-7 Diffuse Atmospheric deposition and P1-3 Point IED plants in the list of pressures). This prevents the achievement of good status in surface water bodies in the Oder river basin. Mercury, a priority hazardous substance with obligations for phase out by 2027 under WFD is one the main pollutants preventing good status of water bodies. The ICPO shall require permit writers to tighten the emission limits to air for mercury to not exceed 1µg/Nm³ as from 2025, complemented by maximum load caps so to ensure a gradual phase out of any loss of mercury emissions, as prescribed to be achieved by the latest in 2027. This shall concern any coal/lignite combustion plant where the emissions source may potentially



affect the Oder river basin. This recommendation is also set at national and EU level (e.g. through the EU Minamata Regulation review).

### 3. Proposal of measures to mitigate the negative impacts of the Turów coal mine in the international area of the river basin

According to Article 11 paragraph 1(c) of the WFD, the Member States are obliged to adopt programmes of measures to ensure the good status of all water bodies in the international Odra river basin district. Although the member states adopt most programmes of measures independently of each other at the national level, addressing problems of trans-regional importance requires that the ICPO, together with all the States, adopt measures enabling the given trans-regional problem to be solved. This has also been pointed out in the draft of the Czech management plan for the Odra River basin, which says that measures at the international level should be adopted to address the negative impacts of the Turów coal mine since the Czech Republic alone has no means to prevent further deterioration of the quantitative status of the water body 14200.<sup>27</sup>

These programmes of measures shall form a part of the MOPO Draft. Although the MOPO Draft mentions that "those measures are of priority importance for the ICPO Member States that concentrate on addressing major problems with water management of trans-regional nature" (page 72 of the MOPO Draft), the MOPO Draft does not include a single programme of measures concentrated on solving the trans-regional problems with the negative impacts of lignite mining<sup>28</sup> Consequently, the MOPO Draft is in breach of Article 11, paragraph 1(c) of the WFD since it does not contain any programmes of measures capable of preventing further deterioration of the status of the water bodies affected by the mining in the Turów coal mine.

To avoid being in breach with Article 11 paragraph 1(c) of the WFD by the ICPO, we suggest incorporating internationally-oriented programmes of measures whose primary purpose is to address adverse impacts of the Turów coal mine on water bodies in the territories of the Czech Republic and Germany and appeals to the ICPO to end the current irregular situation and complete the MOPO Draft with the mentioned measures:

#### 3. 1. Termination of mining and coal power generation in Turów by 2027

The MOPO Draft states that as long as there is the mining industry, the application of exceptions from achieving the good status of the affected water bodies cannot be avoided (page 51 of the MOPO Draft). Concerning the negative impacts of the Turów coal mine, this fact is aptly summarised in the EIA documentation: "[r]ationaly justified measures whose aim is to achieve a good status of these uniform water bodies can only be adopted once the mining in the Turów coal mine is ended, because – put simply – an improvement in the hydromorphological

<sup>&</sup>lt;sup>27</sup> Ministry of Agriculture and Ministry of the Environment of the Czech Republic: Evaluation of the comments on the Draft of the National River Basin Management Plan for 2021 - 2027, August 2021, page 15. Available online: <a href="http://eagri.cz/public/web/file/682994/Vyhodnoceni">http://eagri.cz/public/web/file/682994/Vyhodnoceni</a> pripominek ODRA.pdf

<sup>&</sup>lt;sup>28</sup> Some programmes of measures submitted by Germany can be seen as exceptions, yet they only deal with the mitigation of negative impacts of mining German lignite on German water bodies. Therefore, these programmes of measures cannot be seen as trans-regional since they only concentrate on solving regional problems of Germany.



**parameters** is crucial for surface water bodies, and a **decrease in consumption is essential** for groundwater."<sup>29</sup>

The objective of achieving the good status of all water bodies shall be met by 2027 at latest (Article 4 paragraph 1 and Article 4 paragraph 4 of the WFD). Where achieving the good status of a water body by 2027 is impossible due to economic reasons, the status should not further deteriorate (Article 4 paragraph 5(c) of the WFD). We would like to point out that **if the lignite mining in the Turów coal mine continues to the extent stated in the EIA documentation until 2044, it will be impossible to achieve good status of the water bodies in question or prevent the deterioration thereof. Consequently, the MOPO Draft is in breach of Article 4 of the WFD since it does not contain any measures to ensure achieving the good status of the water bodies in question by 2027 or to prevent their further deterioration. To avoid the ICPO violating Article 4 of the WFD, we recommend ending the mining in Turów coal mine by 2027 as the primary measure, and immediate withdrawal of permissions to groundwater abstraction / draining by the Turów coal mine, which causes a permanent deterioration of the status of the water bodies in question.** 

As the Turow mine and the associated power plant are also contributing to the diffuse atmospheric pollution (covered under P2-7 - Diffuse - Atmospheric deposition and P1-3 - Point - IED plants in the list of pressures) and since Turow power plant, fed by the coal from Turow mine, emits 334 kg of hazardous mercury every year, it's imperative that appropriate actions are taken to prevent its release at the source. The permit writers shall be tasked to amend the emission limits to the air to be set at 1  $\mu$ g/Nm³ as from 2025. This lower limit can be easily achieved using existing pollution control techniques and should be recommended for the Turow power plant (as well as others in the Oder River basin) to prevent further deterioration of bad status due to Mercury– as required under (Article 4 paragraph 5(c) of the WFD. This measure should be required under the 3rd RBMP cycle, till the Turow mine and coal plant are terminated.

In order to achieve the 2027 full mercury phase out obligation, additional measures shall be set in the permit so to cap the emission loads with linear decrease obligations. This measure will also lead to significant climate benefits in case this results in reduced operation of the power plant, hence reducing the water use footprint and other associated impacts of lignite combustion on water bodies.

#### 3. 2. Prevent further decline of the groundwater levels in the Czech and German territories

In 2019, the operator proposed the construction of a so-called anti-filtration screen (an underground hydraulic barrier in the inter-coal aquifer) to alleviate the decline in groundwater levels in the Czech and German territories. Ideally, it should serve as a minimisation measure to mitigate the above-mentioned negative impacts on water conditions in the Czech Republic and Germany (from now on referred to as the "**underground wall**").<sup>30</sup> According to the EIA decision<sup>31</sup>, the underground wall shall be 1,100 m long, 1 m high, and its depth shall be min. 65 m in the highest point and 117 m in the lowest point. It shall be finished by 1 February 2023. **The planned** 

https://portal.cenia.cz/eiasea/detail/EIA MZP049M?lang=cs Documentation of The Con Page 278.

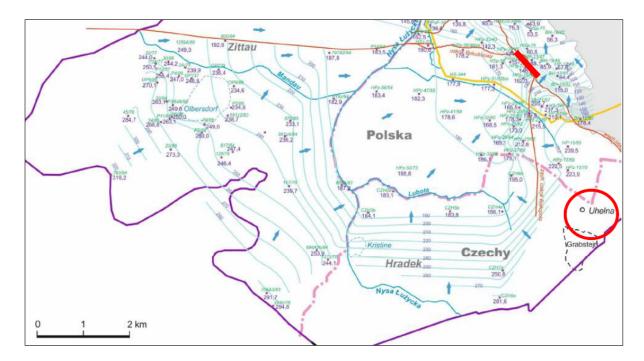
<sup>&</sup>lt;sup>29</sup> Zpráva o vlivu pokračování těžby hnědouhelněho ložiska Turów na životní prostředí) and it can be downloaded here (under the section "dokumentace"):

 $<sup>^{\</sup>rm 30}$  Chapter 7. 5, page 28 of the Polish version of the EIA documentation.

<sup>&</sup>lt;sup>31</sup> The Decision of the Regional Directorate for Environmental Protection in Wrocław of 21 January 2020, ref. No. WOOŚ.4235.1.2015.53.



**location** of the underground wall is shown in the Figure below in the bold red line (source: page 48 of the EIA documentation).



It is evident from the Figure above that the **location of the underground wall is entirely inappropriate in relation to the protection of Czech and German watercourses.** Moreover, the depth of the underground wall is insufficient to prevent the outflow of the Tertiary aquifers through which water from both Czech and German territories flows out.

Last but not least, we would like to point out that **Poland proposed the stated measures based on completely inadequate assumptions,** from which the EIA documentation proceeded (the hydrogeological model used to predict impacts of the mine on water bodies only worked with the data up to 2015, while the more recent development has not been considered). Based on these assumptions, the overall water levels in the case of extension of the mining to 2044 should decline by 3 to 4 metres in the top underground layer (the Quaternary layer) from which drinking water is supplied in the Czech territory and by 15 metres in the deepest layers (Tertiary). **Now, after a year of continuous mining in the Turów coal mine, the decline of groundwater levels in the territory of the Czech Republic more than doubled - nearly 8 metres in the <b>Quaternary and up to 35 metres in the Tertiary.** Also, there is not much information available about the status of the underground wall implementation project, which has repeatedly pointed out by both Czech and German representatives (see below for more details).

Considering the above-mentioned, we believe that meeting the requirements of the WFD (Articles 4 and 11) requires a revision of the project of the underground wall construction so that it actually protects the given water sources. Above all, a new hydrogeological model based on the current data (i.e. the data of 2015 - 2021) shall be created to ensure a proper design of the remedial measures. Only then it is possible to adopt such measures that will

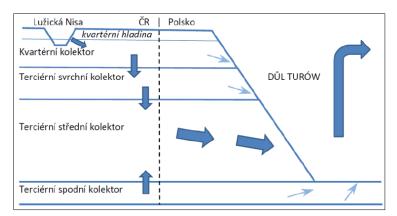
<sup>&</sup>lt;sup>32</sup> Water Research Institute: The Turów Coal Mine, Expert Hydrogeological Comments on the Report: Venera Z. et al. (May 2021): Development of the groundwater levels in the Hrádek River Basin, page 4.

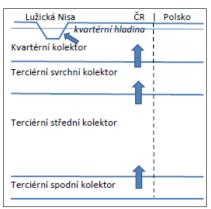


**prevent the presumed effects of mining on the water bodies.** The existing design of the underground wall is entirely dysfunctional in protecting the given water bodies, which is clear from the information below.

Regarding the protection of the Czech groundwater body 14200, which also stretches in the surrounding of Uhelná (marked with a red circle in Figure above), either the designed underground wall has to be **extended by approximately 3 km** to the southeast so that it covers the water source in Uhelná, or **a new underground wall has to be constructed near Uhelná**. According to research carried out by the CGS, the Quaternary water from the water body 14200 flows from Uhelná to Poland through an old re-excavated glacial bed, i.e. directly through the Quaternary aquifer. If its further outflow is to be prevented, it is necessary to **construct a new underground wall with the width of** this bed (approximately **600 - 700 m**).

Moreover, the designed underground wall is **not sufficiently deep**. Although the water body 14200 only contains drinking water in its shallow upper layer of the Quaternary aquifer to whose depth the underground wall reaches, it is essential to realise that the original natural regime of the Hrádek basin was infringed with the opening of the mine and the **groundwater of the Quaternary aquifer now flows down into the deeper Tertiary aquifers due to the change in water conditions; from there, water flows through the Tertiary middle aquifer and irreversibly disappears in the Polish territory. This change in groundwater flows started to be more evident in 2017. It is shown in Figure below.<sup>33</sup> The CGS found out that water in the district of Uhelná also flows out directly from the Quaternary aquifer. This fact is not shown in the Figure, but we would like to point this out for the sake of completeness.** 





Obr. 2 Schéma zcela změněného systému proudění podzemní vody mezi kolektory vlivem dolu. Vlevo je současný stav za existence dolu Turów, kdy převažuje odtok vody z povrchových kolektorů směrem do hloubky, kde se prostřednictvím terciérního středního kolektoru voda odvodňuje směrem k dolu Turów. Vpravo je uvedena původní přírodní situace (bez existence dolu Turów), kdy se hluboké natlakované kolektory odvodňují směrem k povrchu, kde dotují povrchové toky, prameny a studny.

**The German water body DESN\_NE 2 has a similar problem**, from where water also flows to the Polish territory primarily through the Tertiary aquifers, mainly through the deepest Tertiary

<sup>&</sup>lt;sup>33</sup> Water Research Institute: TURÓW Coal Mine A brief summary of the current and potential future negative impacts on the surface water and groundwater conditions in the territory of the Czech Republic Expert Opinion, page 12 September 2020.



aquifer Pw.<sup>34</sup> If the underground wall is to have the capacity to protect groundwater bodies in the territories of the Czech Republic and Germany, it should go deeper, at least to the level of the deep Tertiary aquifer Pw.

Not only is the designed underground wall intended to protect the Czech and German water sources completely insufficient and based on wrong hydrogeological assumptions, but what we consider alarming is the fact how little information about the implementation of the given project is provided by Poland to the affected countries. The report of the CGS of 2021 states that: "The Czech Republic has no opportunity to continuously control the impact of the construction of the underground wall on the groundwater level and compare it with the state before the construction of the underground wall, especially when the Czech Party is not fully convinced that the depth and extent of the underground wall are sufficient and when the groundwater levels sank by another 2-5 m in the Pw aquifer and by up to 1.79 m in the aquifer being sealed in just 5 months."<sup>35</sup>

Similar reservations to the lack of information about the underground wall were also expressed by the Saxony Agency for Environment, Agriculture, and Geology (*Landesamt Für Umwelt Landwirtschaft Und Geologie*) in its letter of 27 March 2019 within the scope of assessment of the impacts of the plan on the environment; it states that the **Germany has not obtained enough information to be able to say with certainty that the designed anti-filtration screen will be efficient.** In the same way as the Czech Republic, Germany, therefore, required a more detailed expert preparation of the project of the underground wall, including its specific location, a detailed description of the hydrogeological conditions in the place of the planned construction, construction schedule, and method of participation of the German Party in the subsequent monitoring of the groundwater conditions in the German territory.<sup>36</sup>

In order to ensure the protection of the groundwater bodies in the Czech and German territories, the EEB suggests completing the MOPO Draft with the following programmes of measures:

- Creation of a new hydrogeological model based on current data and use it to propose measures that will prevent the anticipated impacts of mining on water bodies
- **Providing the Czech and German Parties with the missing data** to enable them to assess the actual current effect of the mining on the Czech and German territories and verify the sufficiency of the parameters of the proposed measures, particularly the following:
  - Exact **data about the drained amount** of water from the mining in 2015-2021, which has to be considered when creating the updated hydrogeological model

<sup>35</sup> Venera Z. et al. (May 2021): Vývoj hladin podzemní vody v hrádecké pánvi /Development of groundwater levels in the Hrádek River Basin/. -

Czech Geological Survey. Prague, page 3.

<sup>&</sup>lt;sup>34</sup> Krupp, op. cit., page 66.

<sup>&</sup>lt;sup>36</sup> Landesamt Für Umwelt Landwirtschaft Und Geologie: Fortfuhrung des Abbaus der Braunkohlenlagerstatte Turów (Polen) – Grenzuberschreitende Umweltvertraglichkeitsprufung of 27 March 2019.



- Adjustment of the parameters based on the data obtained using the new hydrological model or implementation of other measures based on the new hydrogeological model. It is already clear that the underground wall should be extended by approximately 3 km to the southeast to the stretch, which would cover the water body in Uhelná and, at the same time, extended in such a way that it also prevents outflow of groundwater from the deep Tertiary aquifer.
- It shall be proved that the wall with the modified parameters will be capable of preventing the sinking of groundwater levels in the Czech and German territories. Otherwise, other remedial and preventive measures capable of achieving it shall be proposed.
- The Czech and German Parties shall be allowed to control and assess the impact of the
  construction of the underground wall on the groundwater levels and to compare it with
  the state before the construction of the underground wall. Through the ICPO, they shall
  be provided with all data available so far from the piezometers installed by the Polish
  Party along the wall.
- A complete documentation of the implementation of the modified underground wall shall be submitted to the ICPO, including the specification of the method of establishing and controlling its effectiveness, a maintenance plan, and a proposal of specific measures that will be implement if its integrity is infringed due to bedrock sagging (a depression by 70 mm is anticipated). The documentation should also include uncertainties and potential deviations relating to the future effectiveness of the screen.
- The monitoring of the effectiveness of the underground wall shall be extended from 5 piezometers in front of and behind the wall to at least 20 piezometers on each side (i.e. at the distances of 55 m). At least 2-3 piezometers should be located in the continuation of the wall towards both sides so that it is possible to determine how the wall connects to the surrounding faults structures and what it does with the surrounding water level.
- Data from the monitoring shall be regularly exchanged within the ICPO to establish the
  effects of the Turów coal mine on the Czech and German territories, including the
  information about water drainage from the Turów coal mine. Measurement results shall
  be regularly evaluated within the ICPO together with the Czech and German Parties until
  the mining activities in the Turów are ended. The data exchange shall be carried out at a
  regular six-month interval, i.e. every 30<sup>th</sup> of the month following the ending of the
  respective six months.
- Considering the water level development, adapt the wall so that it actually eliminates the negative impacts of the mine. During the modification, consider the need to assess together with the ICPO the impacts of the modifications on the environment.
- Set a specific value of groundwater level that will be considered critical by all the Parties (proving that the underground wall does not work optimally) and define measures that shall be adopted in such a case. Mainly, it includes the duty to ensure supplies of replacement drinking water to the affected municipalities and remedy the damage to real estates damaged by the bedrock sagging.
- Extend the monitoring network of the given water bodies and regularly provide the Czech and German Parties with the measured values, both during the mining and after its ending (more details are provided further below).
- 3. 3. Extend the monitoring network of the groundwater bodies and publish information on water abstractions and withdrawals (water register) at EU centralised level

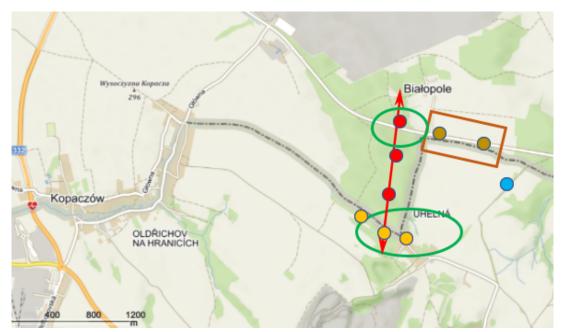


The most exact and updated knowledge possible of the development of the water bodies in question is essential for the effective implementation of the above programmes of measures. A detailed monitoring network is one of the fundamental requirements to protect risk water bodies according to the WFD (see part 2. 2. of Annex to WFD). The monitoring network has to be extended to avoid the ICPO being in breach of the mentioned provisions of the WFD. The specific needs for extending the monitoring of the respective groundwater bodies are:

### 1. Extend the network monitoring the quantitative status of groundwater to the east and south between the mine and Uhelná

We recommend locating the new monitoring boreholes along the line marked in the map below. The line is important to create the water level course between Uhelná and the edge of the mining and thereby directly associate the level changes with the mining. The Quaternary aquifer shall be monitored using at least three boreholes in the axis of the re-excavated bed in which the outflow of water from the Czech Republic to the mining in Poland was found. A line arrangement of three triplets of boreholes shall be used to establish the level conditions in the deeper aquifers. Ideally, there should be a total of five Quaternary boreholes (completed with four finished boreholes made by the CGS) and eight to twelve Tertiary boreholes.

Adopting a minimalist approach, the minimum of two to three Quaternary boreholes (see the red circles in the map below), a triplet of Tertiary boreholes near to Uhelná, and a triplet of boreholes at the edge of the mine (see the green ellipses in the map below) have to be implemented.



- The red arrow roughly indicates the line of the re-excavated glacial bed through which
  the Quaternary water flows towards the mining. Along this line, we suggest three new
  monitoring boreholes at distances of approx. 400 m to ensure the optimum monitoring
  results. New boreholes made by the CGS could be used in the Czech territory (see the
  three boreholes marked with yellow in the map above).
- The two green ellipses show the locations of two triplets of boreholes to monitor the Tertiary aquifers (upper, middle, and lower). The lower ellipse lies in the Czech territory and the upper one at the mine edge in the Polish territory. The location of the latter is not



bound to the bed and is therefore much more arbitrary. It is possible that the lower aquifer is less developed in the given area due to tectonic reasons or missing entirely. In such a case, a pair of Tertiary boreholes could be sufficient.

- The brown rectangle shows the edges of the mine extended to the south. It is appropriate to situate monitoring boreholes there a minimum of two shallow Quaternary boreholes and two triplets of Tertiary boreholes (or two pairs of boreholes if the lower aquifer is missing).
- The blue circle marks a new borehole made by the CGS at the border of the crystalline complex. It is also appropriate to include this borehole into the permanent monitoring to monitor water level changes in the peripheral parts of the crystalline complex.
- Both the location of the boreholes and of the course of the bed are indicative; the specific boreholes shall be situated based on a detailed analysis of the geological conditions in the area and the exact course of the edge and borderline of the mine.

#### 2. Expand the network monitoring the chemical status of the groundwater bodies

In his expert opinion, German hydrogeologist Professor Krupps points out the serious fact that " groundwater monitoring sites are missing in the area of the entire Zittau Basin near the Turów mine in the German territory that could be used to monitor the quality of water, i.e. the chemical status of the groundwater. In the entire (administrative) groundwater body NE\_2, which covers more than 500 km3, there are only six quality monitoring boreholes and they are in locations that are completely irrelevant for the Zittau Basin. In this respect, it is essential to act as swiftly as possible."<sup>37</sup>

The EEB, therefore, appeals to the IPCO to expand the monitoring of water quality within the scope of the adopted programmes of measures in the territory of Poland and Germany, specifically in the area of Tertiary aquifers where the decline in water level is most notable, and thus the acidic mine drainage is most significant there. We recommend expanding the monitoring by at least two to three sites along the Turów coal mine, which should be completed with monitoring sites in the German part of the Zittau Basin, specifically in a single line towards the mine along which the geochemical processes should be more intensive towards the mine similarly to the water level decline.

### 3. EU level public access of water abstraction, consumption and discharge information:

Apart from monitoring issues, there is lack of public information about the amount of water being abstracted by the Turow mine and consumption of water for cooling in the Turow power plant, every year. This is a wider shortcoming that needs to be remediated at EU level but requires clear commitments set to that end within the RBMP.

The EEB has sent access to information requests to Polish authorities (also to all Member states) regarding abstraction and consumption volumes, emissions to water and other relevant parameters on coal/lignite mines and Large Combustion Plants over the last few months. The letters were sent under the access to information procedures under the Aarhus convention.

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<sup>&</sup>lt;sup>37</sup> Krupp, op. cit., page 67.



As stated in the WFD Article 11(e), information on water abstraction must be recorded in "a register or registers and a requirement of prior authorisation for abstraction and impoundment", which is part of the 'basic measures' i.e. minimum requirements to be complied with under the programme of measures. However, despite our efforts we did not receive any response from the authorities and we are not sure if Poland maintains a water register as mandated by the WFD. In the absence of a formal reply to our letter we hoped the SWMI or RBMP documents will have some information about the abstractions and discharges of water from the industrial water consumers in the Oder River basin. But neither the SWMI or RBMP documents provide information on large water consumers in the river basin.

We'd like to express our dissatisfaction on the state of water registers in the Oder river basin and therefore appeal to the ICPO that it should take the responsibility of collecting the water registers from all the countries involved and publish the information so that the citizens, academics and civil society can analyse and interpret the information without any restrictions.

As a minimum the following information shall be made publicly available in user friendly format (through the EU level database system-:

- the Industrial Emissions Directive (2010/75/EU) IED registry ID code of the installation (mine, plant or waste disposal site)
- Pressure and key type of measures for the associated or affected water body as reported in the RBMPs
- Water abstraction and consumption per installation including source of water (e.g. surface water or groundwater) and their water body codes (WISE database code)
- Water discharge per installation and the codes of receiving water bodies, information about the
  pollutants subject to monitoring under WFD, E-PRTR reporting and other monitoring obligations,
  in the format of concentrations and loads, including annual average of pH and max temperature
  at release point, and flow rates.
- Details on derogations above the permitted emission levels and exemptions provided for the installations/ facilities and annual compliance reports information (e.g. Art 14 of the IED).

In order to overcome language barriers and enable an EU-wide comparison, the data access and reporting should be improved at EU level. The minimal expectations apply therefore to national as well as EU portal reporting level: Monitoring results on water abstraction, discharge and quality monitoring shall be tele-reported to a centralised EU database, e.g. the WISE/IED Registry / Revised PRTR, and shall be made actively available online within one month after the information has been generated.

More background and details on these recommendations are available in the EEB Mind the Gap report<sup>38</sup>, see Recommendation n°6

#### 3.4. Include the water bodies in question in transboundary groundwater

The MOPO Draft states that **no transboundary groundwater bodies have been defined in the entire international area** (page 18 of the MOPO). According to international environmental law, transboundary water bodies are watercourses through which state borders run, surface water and groundwater crossing state borders, and **water bodies next to state borders providing** 

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<sup>38</sup> EEB (2020) Mind the Gap



that potential water management measures can have an adverse effect on the water conditions in the territory of the other state.<sup>39</sup> It is clear from the information above (see chapter 2 in particular) that the groundwater body 14200 in the territory of the Czech Republic and the ground water body DESN\_NE 2 in the territory of the Federal Republic of Germany, are adversely affected over a long period by water management measures (mine dewatering) carried out in the territory of Poland Therefore, these water bodies shall be included in the list of transboundary groundwater bodies, which are given more attention than the other water bodies, especially considering the mutual coordination of states in monitoring and ensuring the protection of such watercourses.

#### 4. Conclusion

The EEB concludes it is necessary to adopt effective programme of measures at the level of the ICPO which can lead to the most significant mitigation of the negative impacts of the mining in the Turów coal mine on the water bodies situated in the territories of the Czech Republic and the Federal Republic of Germany. This is necessary to avoid the MOPO being in breach with Articles 4 and 11 of the WFD.

We are aware of the fact that the measures mentioned above (especially the groundwater status monitoring) are primarily performed by bilateral committees these days (such as Czech-Polish and German-Polish committees for transboundary water bodies). Information provided by the bilateral committees represents a critical starting point for further dealing with the problem, but, at the same time, it is clear that these committees do not have sufficient competence to address the given trans-regional problem effectively. **The EEB, therefore, appeals to the ICPO to take the lead in addressing the trans-regional impacts of the Turów coal mine**. The continuously deteriorating quantitative status of the water bodies in question, which also serve as drinking water sources, indicates that it is difficult for the individual states to solve this issue only by national and regional policies.

As elaborated above in this document, both Czech and German parties suffer from similar impacts from the Turów coal mine and lack sufficient information about the additional impact due to the extension of mining area on their water bodies. Therefore, it is not meaningful for the Czech Republic and Germany to address similar problems with the Republic of Poland separately at two different bilateral committees.

The ICPO should recommend the national authorities to prescribe stronger emission limits for controlling hazardous mercury emissions to air based on the strict BAT requirement set under the 2017 Large Combustion Plant BREF (1  $\mu$ g/Nm³). Since the mandate to phase out priority hazardous substances is an ultimate aim of the WFD (recital 27 and Article 1 paragraph (c) and the prevention of further deterioration of water bodies is a requirement under (Article 4 paragraph 5(c), this measure is indisputably essential to protect the water bodies and the mandate of the WFD.

Reporting on water abstraction and discharges by all major water users, including lignite mines and plants, should be improved to provide a transparent overview of water use in the river basin. The ICPO should encourage Poland and Germany to follow the example of Czech Republic and

<sup>&</sup>lt;sup>39</sup> For example, see Article 1 of the Treaty between the Czech Government and the Polish Government on collaboration on boundary water bodies with respect to water management plan.



set up public data management portals from where data on water abstraction and discharges can be downloaded in a user-friendly way (see further recommendations in EEB 'Mind the Gap' report<sup>40</sup>). The ICPO should also ensure the water registers, required under Article 11 paragraph 3(e), covering abstraction, consumption and discharge by large water users and the monitoring results of water bodies including abstraction, quality and groundwater levels are acquired from the national authorities and published in a user-friendly way via an information portal in a free and transparent manner.

See further (more specific) requests on access to information in Section 3.3 to this paper.

Moreover, the ICPO is responsible for drafting and updating the Oder River Basin Management Plan, which shall stipulate the most important measures to achieve a good status of all water bodies in question and prevent their deterioration. No other international organisation has equivalent conceptual and legal instruments. Therefore, we appeal to the ICPO to fulfil its duties under the provisions of Articles 4 and 11 of the WFD and adopt effective measures to protect water bodies against the mining industry and directly associated lignite combustion related impacts.

Best regards European Environmental Bureau

<sup>&</sup>lt;sup>40</sup> EEB (2020) Mind the Gap