

## **Report on the State of Conservation of a UNESCO World Heritage Site**

### **Tarnowskie Góry Lead-Silver-Zinc Mine and its Underground Water Management System (Poland) (C 1539)**

#### **1. Executive Summary**

This report has been prepared in response to Decision 45COM 7B.195 of the World Heritage Committee, adopted at the Extended 45th Session in Riyadh (Kingdom of Saudi Arabia). It presents the current state of conservation of Tarnowskie Góry Lead-Silver-Zinc Mine and its Underground Water Management System. It covers the period from the date of the previous report in 2022 to the beginning of November 2024. The responses were formulated on the basis of information received from *Stowarzyszenie Miłośników Ziemi Tarnogórskiej* [the Tarnowskie Góry Land Lovers' Association], *Muzeum Górnictwa Węglowego w Zabrzu* [the Coal Mining Museum in Zabrze], *Górnośląskie Przedsiębiorstwo Wodociągów S.A.* [Upper Silesian Water Supply Company], *Nadleśnictwo Brynek* [the Brynek Forest District], the Mayor of Bytom, *Śląski Wojewódzki Konserwator Zabytków* [the Silesian Regional Monuments Inspector], *Miasta Gwarków Lokalna Organizacja Turystyczna* [the Towns of Gwarki Local Tourist Organisation] and *Przedsiębiorstwo Wodociągów i Kanalizacji Veolia Sp. z o.o.* [Water Supply and Sewage Company Veolia].

As a State Party, Poland welcomes the fact that the World Heritage Committee has taken note of its efforts to implement the recommendations aimed at ensuring proper protection and management of the World Heritage property.

Following the request, the State Party provides information about all aboveground attributes that have been protected, including an assessment of their state of conservation.

Despite the cessation of water exploitation, the underground part of Staszic Shaft is monitored on an ongoing basis. Based on research and observations it can be concluded that a possible resumption of operation of the water intake in Staszic Shaft will not have an adverse impact on the condition and will not harm the Outstanding Universal Value (OUV) of the property and its attributes, in particular the underground water chambers.

The issue of adding the historic Water Tower adjacent to the Kaehler Shaft to the property is met with divergent assessments. There are buildings on the site where activities related to the day-to-day operation of the water utility are carried out. Therefore the Water Supply and Sewage Company Veolia can only invite the creation of an additional protection zone. If the recommendation of the World Heritage Committee's decision is upheld, the Silesian Regional Monuments Inspector will consider it necessary to carry out activities in the described scope.

In the course of analysing the possibility of implementing the recommendation to extend the A5 area in order to connect it with the A4 area, the distinct nature of these areas as well as current land development has to be noticed. Therefore the State Party considers, that the current boundaries should be recognized as adequately reflecting the value and conservation conditions of these areas, and proposes to withdraw the recommendation to merge them.

In October 2024 the Multidisciplinary Scientific Committee for the Research on UNESCO World Heritage Sites in Tarnowskie Góry has been established. The task of the Committee will be to determine the scope of the scientific research programme. The implementation of this programme will be carried out through the Centre for Research on UNESCO World Heritage Sites in Tarnowskie Góry, which is being established at the University of Silesia.

The inventory carried out using 3D scanning of the underground areas of the mine within the boundaries accessible to tourists, as well as the area of the Staszic Waterworks, with the permission of the administrator – the Upper Silesian Water Supply Company, has been completed. The rest of the mine's underground is cut off by dams and inaccessible to people. Any access would require special consent from the Higher Mining Office, which is not possible for safety reasons. Attention should also be paid to the potential cost of such an inventory, which, given the information available on the historical extent of the excavations, estimated at 100 km of galleries, would be unbearable.

## 2. Response to the World Heritage Committee Decision

This report has been prepared in response to Decision 45COM 7B.195 of the World Heritage Committee, adopted at the Extended 45th Session in Riyadh (Kingdom of Saudi Arabia). It presents the current state of conservation of Tarnowskie Góry Lead-Silver-Zinc Mine and its Underground Water Management System. It covers the period from the date of the previous report in 2022 to the beginning of November 2024. The responses were formulated on the basis of information received from *Stowarzyszenie Miłośników Ziemi Tarnogórskiej (SMZT)* [the Tarnowskie Góry Land Lovers' Association (TGLLA)], *Muzeum Górnictwa Węglowego w Zabrzu* [the Coal Mining Museum in Zabrze], *Górnośląskie Przedsiębiorstwo Wodociągów S.A.* [Upper Silesian Water Supply Company], *Nadleśnictwo Brynek* [the Brynek Forest District], the Mayor of Bytom, *Śląski Wojewódzki Konserwator Zabytków* [the Silesian Regional Monuments Inspector], *Miasta Gwarków Lokalna Organizacja Turystyczna* [the Towns of Gwarki Local Tourist Organisation], and *Przedsiębiorstwo Wodociągów i Kanalizacji Veolia Sp. z o.o.* [Water Supply and Sewage Company Veolia], and are arranged in accordance with the recommendations and questions contained in the following decision:

### Decision 45 COM 7B.195

The World Heritage Committee,

3. *Notes the continued progress made by the State Party in implementing its past recommendations;*

As a State Party, Poland welcomes the fact that the World Heritage Committee has taken note of its efforts to implement the recommendations aimed at ensuring proper protection and management of the World Heritage property.

4. *Welcomes the completion of the inventories for the areas under the control of the Tarnowskie Góry Land Lovers' Association (TGLLA), the Coal Mining Museum in Zabrze and the Veolia Water Supply and Sewerage Company in Tarnowskie Góry, the scientific research undertaken by the TGLLA and its partners, as well as the development of a GIS platform for the property;*

As a State Party, Poland welcomes the fact that the World Heritage Committee has taken note of the progress in work aimed at ensuring proper protection and management of the World Heritage property.

5. *Also notes the progress made in providing protection to the aboveground attributes underpinning the Outstanding Universal Value (OUV) of the property, and requests the State Party to provide an inventory of all aboveground attributes that have been protected, including an assessment of their state of conservation as an annex to its next state of conservation report;*

*Aboveground attributes under protection*

Entry in the Register of Monuments:

- Shaft-top building of the "Sylwester" Shaft within the boundaries of the entry in the Register of Monuments of the Repty Landscape Park (number in the Register of Monuments: 660/66). Care of the property is continuously provided by the entity managing the site. State of conservation – without reservations. The property is to be individually protected under legal conservation measures with entry into the Register of Monuments,
  
- Shaft-top building of the "Ewa" Shaft within the boundaries of the entry in the Register of Monuments of the Repty Landscape Park (number in the Register of Monuments: 660/66). Care of the property is continuously provided by the entity managing the site. State of conservation - without reservations. The property is to be individually protected under legal conservation measures with entry into the Register of Monuments,
  
- Ruins of the building of the Shaft-top of Adit Shaft No. 5 (the skylight of the "Adam" Shaft), Zbrostawice, within the boundaries of the landscape and nature complex "Repty Park and the Drama River Valley" (number in the Register of Monuments: A/481/2016). As a result of an inspection carried out in 2022, the Silesian Regional Monuments Inspector issued a number of recommendations that are being successively implemented; the deadlines for some of them have not yet expired,
  
- Ruins of the building of the Adit Shaft-top of the "Maszynowy" Shaft No. 22 (Karlik Skylight), Tarnowskie Góry, Witosa Street (number in the Register of Monuments: A/482/2016). As a result of an inspection carried out in 2022, the Silesian Regional Monuments Inspector issued a number of recommendations that are being successively implemented; the deadlines for some of them have not yet expired,
  
- "Staszic" Water Supply Station in Tarnowskie Góry at Staszica Street: Shaft-top building of the "Staszic" Shaft, Shaft-top building of the "Maszynowy" Shaft, the former boiler house with parts of historic equipment, i.e. the Lancashire boiler cylinder with boiler brickwork (1922) and the condensate tank (1930), the former workshop, the former water softening plant, the low-voltage electrical switching station building, the bathhouse, workshop and storage building, the gatehouse, the western, eastern and northern perimeter wall along with the section branching off from the intersection, the area of the former sidetrack (number in the Register of Monuments: A/464/2016). The Silesian Regional Monuments Inspector raised certain reservations regarding the state of conservation due to the visible destruction and insufficient countermeasures. A significant change in the situation may be initiated by a letter of intent regarding the establishment of the cultural institution *Szyb "Staszic"* ["Staszic" Shaft], signed in 2023 by the Silesian Voivodeship, the City of Tarnowskie Góry, the Upper Silesian Water Supply Company in Katowice, and the Tarnowskie Góry Land Lovers' Association. The institution is to take over the care of the property,
  
- Drainage Channel of the "Fryderyk" Deep Adit together with the area in its immediate vicinity, Zbrostawice (number in the Register of Monuments: A/495/2018). In January 2023, construction works on the renovation of the Drainage Channel basin were completed. The care of the main part of the Drainage Channel is carried out in accordance with the comments made during the inspection of the Silesian Regional Monuments Inspector in 2022,

- The portal of the "Fryderyk" Deep Adit outlet from 1834, Zbrosławice (number in the Register of Monuments: A/480/2016). State of protection and conservation – good,
- Drainage Channel of the "Boże Wspaniałe" Adit together with the area in its immediate vicinity, Tarnowskie Góry – Strzybnica (number in the Register of Monuments: A/497/2018). State of protection and conservation – good,
- The area in the immediate vicinity of the outlet of the "Heinitz" Shaft in Tarnowskie Góry in the area of Parkowa Street (number in the Register of Monuments: A/1068/2022). State of protection and conservation – good,
- The area of the former "Fryderyk" Mine in Tarnowskie Góry – Bobrowniki in the area of Parkowa Street (number in the Register of Monuments: A/1069/2022). State of protection and conservation – good,
- Water tower with the area along the outline of the structure foundation, Tarnowskie Góry, Opolska Street (number in the Register of Monuments: A/557/2019). State of protection and conservation – good,
- The city park in Tarnowskie Góry at Kardynała Stefana Wyszyńskiego Street and Bałtycka street, established in 1903, and the following elements and properties located within its area: terrain, primarily the area of the iron ore mine with preserved shaft spoil heaps, the compositional layout of the park with the preserved system of park alleys, preserved trees, a glacial erratic near the monument, park structures and facilities - a monument with a plaque with a poem by Jan Nowak, a gloriolite with outdoor stairs, an iron pergola with outdoor stairs, a wooden "mushroom" gazebo, a wooden kiosk (number in the Register of Monuments: A/483/2016). Conservation provided on a regular basis. State of protection and conservation – good,
- The area in the immediate vicinity of the outlet of "Pomoc Szczerściu" (Glückhelf) Shaft in Tarnowskie Góry in the area of Gliwicka Street (number in the Register of Monuments: A/1067/2022). Conservation provided on an ongoing basis by the land user – GPW in Katowice. State of protection and conservation – good.

#### Properties for which proceedings are underway to have them entered into the Register of Monuments

- The area of the "Bohr" Shaft, Tarnowskie Góry, Mała Street,
- The area of the "Reden" Shaft, Tarnowskie Góry, 33 Skośna Street.

#### The properties to be protected under legal conservation measures with individual entry into the Register of Monuments

- The area of the "Fryderyk" Shaft in Tarnowskie Góry,
- Shaft-top building of the "Sylwester" Shaft in Repty Landscape Park,
- Shaft-top building of the "Ewa" Shaft in Repty Landscape Park,
- The area of the "Anioł" Shaft. The area is located within the facilities supporting the Historic Mine,

- The area of the "Szczęść Boże" Shaft in Tarnowskie Góry. The area is located within the facilities supporting the Historic Mine,
- The area of the "Żmija" Shaft in Tarnowskie Góry. The area is located within the facilities supporting the Historic Mine.

#### Culture park

- Washing Tip, Tarnowskie Góry Mała Street / Długa Street (Resolution No. LXVIII/597/2006 of the Tarnowskie Góry City Council of 25 October 2006 on the establishment of the Culture Park called "Washing Tip" located in Tarnowskie Góry in the area of Mała and Długa streets), together with the area of the "Zofia" ("Sophia") and "Pokój" ("Frieden") shafts). State of protection and conservation – good.

#### Nature conservation

- Segiet Reserve (Regulation of the Regional Director for Environmental Protection in Katowice of 12 January 2023 regarding the "Segiet" Nature Reserve – *Dziennik Urzędowy* of the Silesian Voivodeship of 2023, item 475). In 2023, the existing area of the "Segiet" Reserve was expanded to include the Srebrna Góra Post-Mining Landscape (Area 3.3), thus the entire Area 3.3 Srebrna Góra will be covered by the protection appropriate for nature reserves. State of protection and conservation – good,
- The area of the former "Fryderyk" Mine in Tarnowskie Góry-Bobrowniki in the area of Parkowa Street (Resolution No. XLII/455/2021 of the Tarnowskie Góry City Council of 24 November 2021 on natural monuments located in the Tarnowskie Góry commune – *Dziennik Urzędowy* of the Silesian Voivodeship of 2021, item 7744). State of protection and conservation – good.

#### Spatial land development plan

- the above-mentioned properties and post-mining areas with a landscape related to the activities carried out in the 19th century, located in the vicinity of the "Staszic" Water Supply Station. State of protection and conservation – good.

6. *Further notes that past monitoring has indicated that the extraction of water from the Adolph Shaft does not negatively influence the water system and water quality of the property, and also requests the State Party to commit to a programme of close monitoring and reporting should pumping commence at the Adolph Shaft in future;*

The Staszic Water Supply Station remains under the management of the Upper Silesian Water Supply Company in Katowice (GPW), which ensures the quality and regularity of water extraction necessary to preserve the underground chambers.

Since 2005, the Staszic water intake has not been exploited due to failure to meet the requirements of the applicable regulation of the Minister of Health on the quality of water intended for human consumption in terms of the presence of trichloroethylene and tetrachloroethylene in the water flowing into the Staszic (Adolph) Shaft intake. A downward trend has been evident in recent years, yet the TCE and PCE levels in the water still do not permit it to be used for drinking purposes.

Despite the cessation of water exploitation, the underground part of Staszic Shaft is monitored on an ongoing basis. Based on research and observations it can be concluded that a possible resumption of operation of the water intake in Staszic Shaft will not have an adverse impact on the condition and will not harm the Outstanding Universal Value (OUV) of the property and its attributes, in particular the underground water chambers.

7. *Reiterates its request to the State Party to expeditiously finalise and submit to the World Heritage Centre all necessary documentation for the addition to the property of the historic water tower immediately adjacent to Kaehler Shaft, and to conclude the feasibility analysis which is considering the extension of area A5 to join area A4;*

The issue of adding the historic Water Tower (number in the Register of Monuments: A/557/2019) adjacent to the Kaehler Shaft (number in the Register of Monuments: 608/66) in Tarnowskie Góry to the property is met with divergent assessments, in view of the inevitability of including contemporary surroundings of properties (fragments or entire cubatures) within the boundaries, which are part of the technical facilities of the perpetual usufructuary of the land. There are buildings on the site where activities related to the day-to-day operation of the water utility are carried out. Therefore the Water Supply and Sewage Company Veolia can only invite the creation of an additional protection zone. The proceedings in this case have not yet been initiated, but the problem of defining the boundaries of the Water Tower's conservation protection was considered in 2019, i.e. at the time of entering the property in the Register of Monuments. If the recommendation of the World Heritage Committee's decision is upheld, the Silesian Regional Monuments Inspector will consider it necessary to carry out activities in the described scope.

In the course of analysing the possibility of implementing the recommendation to extend the A5 area in order to connect it with the A4 area, the following conclusions were made:

- this extension would involve including private plots of land within the boundaries of the entry, some of which are currently anthropogenically transformed and show no traces of mining activity, with some already containing modern buildings, as well as a section of the public road – Staszica Street. In this case, the proposal to include an area for which it is not possible to demonstrate its Outstanding Universal Value within the boundaries of the entry lacks substantive justification.
- in the strip of land of the possible extension adjacent to Staszica Street, the provisions of the applicable local spatial development plan provide for the possibility of introducing new single-family housing development as well as telecommunications facilities and devices. Introducing a correction to the plan's provisions to stop the development of plots in this area would require compensation to be paid to the owners or for the city authorities in Tarnowskie Góry to purchase them, which is unrealistic given the very difficult financial situation of the local government.

In view of the above, and considering the distinct nature of the A5 and A4 areas, the State Party considers, that the current boundaries should be recognized as adequately reflecting the value and conservation conditions of these areas, and proposes to withdraw the recommendation to merge them.

8. *Considers that the establishment of a research and inventory programme, with goals and timelines, and the institutional support for such a programme are essential to support the protection of the OUV of the property and its management, and further requests that the State Party to:*

1. *Establish the multidisciplinary scientific committee as a matter of urgency,*

On the initiative and as a result of the efforts made by the Tarnowskie Góry Land Lovers' Association, in October 2024, the Rector of the University of Silesia in Katowice established the Multidisciplinary Scientific Committee for the Research on UNESCO World Heritage Sites in Tarnowskie Góry. The Committee included specialists in the fields of history, deposit geology, socio-economic geography, soil science, paleogeography, geomorphology, geochemistry, hydrology, dendrochronology, hydrogeology, geoinformatics, landscape studies, speleology, geoarchaeology, and geobotany.

In addition, an application to establish a Centre for Research on UNESCO World Heritage Sites in Tarnowskie Góry has been prepared and submitted to the Science Committee and is awaiting consideration at the next session of the Senate at the University of Silesia.

2. *Develop and implement a research and inventory programme to complete the inventory of the entire property,*

To conduct the inventory, the Tarnowskie Góry Land Lovers' Association partnered with a specialised company to carry out 3D scanning. In 2024, TGLLA performed 3D scanning of the underground on the section of the Fryderyk Deep Adit Portal – Fryderyk Deep Adit outlet – Staszic Waterworks together with the following shafts: Adam Shaft – Lichtlocher No. 5, Ewa Shaft – Lichtlocher No. 13, Sylwester Shaft – Lichtlocher No. 17, Karlik Shaft – Lichtlocher No. 22, Glückhlf Shaft No. 24. TGLLA obtained funding for this purpose from the Ministry of Culture and National Heritage.

In addition, the Association conducted a 3D scan of the Staszic Waterworks, including its above-ground and underground parts, as well as movable properties listed in the Register of Monuments, using its own financial resources.

The works described above enabled the inventory to be carried out using 3D scanning of the underground areas of the mine within the boundaries accessible to tourists, as well as the area of the Staszic Waterworks, with the permission of the administrator – the Upper Silesian Water Supply Company. The rest of the mine's underground is cut off by dams and inaccessible to people. Any access would require special consent from the Higher Mining Office, which is not possible for safety reasons. Attention should also be paid to the potential cost of such an inventory, which, given the information available on the historical extent of the excavations, estimated at 100 km of galleries, would be unbearable.

*3. Ensure the sustainability of the research and inventory programme through institutional support,*

The task of the Multidisciplinary Scientific Committee for the Research on UNESCO World Heritage Sites in Tarnowskie Góry, appointed by the Rector of the University of Silesia in Katowice, will be to determine the scope of the scientific research programme. The implementation of this programme will be carried out through the Centre for Research on UNESCO World Heritage Sites in Tarnowskie Góry, which is being established at the University of Silesia. At this stage, it is expected that the activities will be funded through grants obtained for individual projects.

The issue of inventories is described in section 8.2.

*4. Further develop the GIS multi-layer map system to include the information from existing inventories,*

The inventory of accessible underground parts of the mine, made using the 3D scanning method, is owned and used by the entities managing them.

*5. Provide the research and inventory programme, including timeframes for its implementation, information on its institutional support and progress on its implementation with its next state of conservation report;*

At this stage, it is not yet possible to present a research programme, as it will be prepared by the Multidisciplinary Scientific Committee for the Study of UNESCO World Heritage Sites in Tarnowskie Góry, which was established in October 2024 (see section 8.3.).

The issue of inventories is described in section 8.2.

**3. Other current issues related to the state of preservation and identified by the State Party (State Parties) that may affect the Outstanding Universal Value of the property.**

Not identified.

**4. In accordance with Section 172 of the Operational Guidelines, any potential major restoration, modification and/or new construction planned within the boundaries of the property, the buffer zone(s) and/or corridors or other areas, should be described if such changes may affect the Outstanding Universal Value of the property, including its authenticity and integrity.**

Not identified.

**5. Public access to the Report on the state of conservation**

The State Party hereby consents to the publication of the full version of the report on the World Heritage Centre website.

**6. Signature of the authority**