# ENVIRONMENTAL AND SOCIAL IMPACT ASSESSMENT (ESIA)

## Appendix No 13.1 Environmental and Social Management Plan (ESMP)

**Contract 5.10.1.** Construction of the Kamieniec Ząbkowicki Reservoir - Preparation of design documentation, including obtaining administrative permits and the provision of Author's Supervision, as well as the preparation of bidding documents necessary to select a Contractor for future works under the future Poland's Building Climate Resilience in Water Management Project

Wrocław, October 2026

| SF | Environmental component | Anticipated risk / impact | Mitigation measures | Location / Phase | Responsible for implementation | Monitoring methodology | Frequency | Responsible for monitoring |
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| Standard 1 – Assessment and management of risks and impacts on the environment and society | | | | | | | | |
| **1** | Air | Particulate matter emissions from earthworks and on-site transportation | Technically sound construction equipment. Spraying work areas with water, particularly in the earth-excavation zone. Limiting equipment operating hours near buildings. Optimizing transport routes; limiting vehicle speeds; using tarps during transport of bulk materials Detailed intervention thresholds for particulate matter concentrations ($PM_{10}$, $PM_{2.5}$), corrective procedures, and a remediation plan for this component will be specified in the C-ESMP based on design data and applicable national standards, permit conditions, and relevant World Bank EHSG requirements. | Task Site / Construction | Construction Contractor | Visual monitoring; if necessary, measurements of particulate matter ($PM_{10}$, $PM_{2.5}$) concentrations at sensitive points (nearest buildings). The location of measurement points, measurement methodology, and reference values will be specified in the C-ESMP. In the event of standard exceedances, environmental degradation, or justified grievances/complaints, corrective actions appropriate for the given component will be implemented. | Continuous; immediately upon receipt of a grievance/complaint | Construction Contractor/Environmental Supervision/Contract Engineer |
| **2** | Noise and vibrations | Noise nuisance for residents | Limiting equipment operation to 6:00 a.m.–10:00 p.m.; prohibition of nighttime work near residential areas (except for work requiring continuous operation). Low-noise equipment; mobile acoustic screens. Optimization of transport routes. Ongoing notification of residents regarding the schedule of disruptive work. All grievances/complaints recorded in the GRM register. Detailed intervention thresholds for daytime and nighttime noise levels, corrective procedures, and a remediation plan will be specified in the C-ESMP based on background noise measurements and applicable national standards. | Task Site + Buffer / Construction | Construction Contractor | Noise measurements (dB[A]) at sensitive points (residential buildings); grievance/complaint log. The location of measurement points, methodology, measurement frequency, and reference values will be specified in the C-ESMP. | Once per quarter; additionally in the event of resident grievances/complaints. | Construction Contractor/Environmental Supervision// Contract Engineer Environmental Supervision |
| **3** | Surface water – pollution | Water pollution (oil-derived substances, suspended solids) | Installation of “dry” discharge facilities or release works. Settling tanks, oil separators, and sorbents in work zones near water. Sorbent booms at the points where the construction site meets watercourses. Spill response plan for fuels and oils. Detailed intervention thresholds for water quality parameters (total suspended solids, petroleum substances, dissolved oxygen), incident response procedures, and the notification procedure for regulatory authorities will be specified in the C-ESMP. | Task Site (Nysa Kłodzka riverbed and streams) / construction | Construction Contractor | Visual monitoring; physicochemical water testing (suspended solids, petroleum substances, oxygen, pH) upstream and downstream of the work front In the event of exceeding standards, environmental degradation, or justified grievances/complaints, corrective actions appropriate for the given component must be implemented. | Once a month; in the event of incidents – immediately | Construction Contractor/Environmental supervision/Contract Engineer |

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| **4** | Surface water – turbidity | Water turbidity during earthworks in the riverbed | Limit earthwork in the water to the absolute minimum. Use sediment curtains (silt barriers). Schedule work to accommodate fish spawning seasons. Detailed threshold values for water turbidity triggering a suspension of works in riverbeds, a work schedule accounting for spawning dates for species identified in the ecological survey, and measurement methodology will be specified in the C-ESMP based on the opinion of a fish expert and the results of the survey. | The Nysa Kłodzka riverbed and streams / construction | Construction Contractor | Measurements of water turbidity upstream and downstream of the works; supervision by an ichthyological expert<br>In the event of exceeding standards, deterioration of environmental quality, or public complaints—implement corrective actions. | According to the schedule agreed upon with the expert | Construction Contractor/Environmental supervision/Contract Engineer |
| **5** | Groundwater | Changes in hydrogeological conditions during earthworks; local lowering of the groundwater table; change in the supply to infiltration intakes | Monitoring of the groundwater table during construction and reservoir filling. Construction of replacement drinking water intakes prior to the decommissioning of existing infiltration wells. Assessment of the impact of earthworks on individual household wells. Detailed intervention thresholds for groundwater level drawdown in built-up areas, corrective procedures, and a plan for alternative water supply for individual household wells affected by the project will be specified in the C-ESMP based on the hydrogeological model.<br>In the event of exceeding standards, environmental degradation, or justified grievances/complaints, corrective measures appropriate for the given component must be implemented. | Nysa Kłodzka Valley / Construction and Operation | Investor / Construction Contractor | Piezometer network; groundwater level measurements; groundwater quality testing<br>In the event of exceeding standards, deterioration of environmental quality, or public complaints—implement corrective actions. | Monthly during construction; quarterly during operation | Construction Contractor / Contract Engineer / Investor |
| **6** | Soil and land surface | Permanent alteration and flooding of the site; loss of topsoil in agricultural areas affected by earthworks | Removal and temporary storage of the topsoil layer prior to earthworks. Re-installation of topsoil as a cover for dam slopes and reclaimed areas. Macro-leveling of the basin bottom prior to filling. | Task Site / Construction | Construction Contractor | Inspection of the thickness of the removed topsoil layer; documentation of temporary topsoil storage sites; monitoring of the site after reclamation<br>In the event of exceeding standards, environmental degradation, or justified grievances/complaints, corrective actions appropriate for the given component must be implemented. | Inspections during earthworks once a month; annual monitoring after completion of reclamation | Construction Contractor / Environmental Supervisor / Contract Engineer / Investor |
| **7** | Hydrological regime – operation | Change in the water balance and flow regime of the Nysa Kłodzka River downstream of the reservoir; risk of low flow / baseflow conditions; disruption of | Development and updating of the water balance for the reservoir cascade. Maintenance of biological flow. Development of water management instructions. If | Reservoir and channel of the Nysa Kłodzka River downstream of the dam / operation | Investor | Flow monitoring, hydrological analysis, sediment transport assessment | Continuous (automatic) | Investor |

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| | | sediment transport and morphological continuity of the river channel | monitoring after filling indicates insufficient biological flow, the Investor is obligated to update the water management instructions. | | | | | |
| **8** | Waste management | Generation of waste from the demolition of existing structures and construction works (concrete, steel, rubble, hazardous waste) | Selective collection and record-keeping of waste from demolition and construction works. Maximum on-site reuse of demolition materials. Transfer of hazardous waste to licensed recipients. Utilization of overburden and unusable materials in existing excavation pits / quarries. Records maintained in the BDO system. Prior to demolition work, an assessment of the presence of asbestos and PCBs in existing structures is required—results to be included in the C-ESMP. Waste classification, storage, transport, treatment and disposal, including the management of asbestos and PCBs, will be carried out in accordance with applicable Polish waste management regulations and the requirements of the relevant permits. | Task Site / Construction | Construction Contractor | Waste records (transfer forms); inspections of temporary storage sites.<br>In the event of exceeding standards, environmental degradation, or public complaints—implement corrective actions. | Once a month | Contractor / Contract Engineer |
| **9** | Landscape | Permanent change to the landscape of the Nysa Kłodzka river valley; impact on the priority landscape identified within the Task area | Visibility analyses and landscape visualizations from the dam crest and key observation points. Use of native materials for the facades of support buildings. Shaping of dam slopes with stone riprap and grass seeding. | Task Site and Surroundings / Design and Operation | Investor / Designer | Landscape analysis during the design phase; visual assessment after reservoir commissioning | During the design phase; verification after commissioning | Designer / Investor |
| **10** | Cumulative impact – reservoir cascade | Cumulative impacts on the hydrological regime, ichthyofauna / fish fauna, water quality, and natural habitats / wildlife habitats resulting from the operation of the reservoir cascade on the Nysa Kłodzka River. | Conducting an assessment of cumulative impacts as a mandatory section of the EA report. The results of the assessment will be included in the C-ESMP plan for construction works. | The entire reservoir cascade on the Nysa Kłodzka River / design, construction, and operation | Investor / Designer / Construction Contractor | Assessment of cumulative impacts as a chapter of the EA report; integrated monitoring of the cascade; annual reports. | at the EA report stage | Investor / Construction Contractor / Contract Engineer |
| **11** | Climate change – project vulnerability | Project vulnerability to climate change: changes in precipitation patterns, increased frequency of floods and low-water periods, risk of cyanobacterial blooms. | A Climate Change Vulnerability Assessment (CRVA) will be conducted during the EA report phase. Detailed adaptation measures will be specified in the C-ESMP. | Task / Design and Operation | Investor / Designer | Monitoring of extreme hydrological events; details to be specified in the C-ESMP. | At the EA report stage | Investor / Designer |
| **12** | Community access to drinking water | Risk of limited access to recreational resources as a result of project implementation. This may lead to a decline in the quality of life for local communities, reduced recreational opportunities, and decreased public acceptance of the project. | 1. Establishment of an alternative water intake outside the construction area prior to any work in the vicinity of the existing intake<br>2. Conditions for the restoration of the intake established in a written agreement with network operators and municipalities.<br>3. Inclusion of the requirements for | Intake location; Preparation phase; Construction phase | Investor / Construction Contractor | Acceptance protocol for the replacement intake; results of laboratory water quality tests; confirmation from network operators; one-time report prior to decommissioning the existing intake<br><br>Temporary water intake | Monthly | Contract Engineer / Investor |

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| | | | the restoration of the intake in the Tender Documentation and the TOR for the works. | | | commissioned and verified (laboratory tests) at least 30 days prior to decommissioning the existing one; agreement with network operators and municipalities signed prior to construction; 0 interruptions in water supply to customers | | |
| **13** | Community access to water resources | The risk of restricting or losing local communities' access to water resources as a result of the project may lead to a deterioration in living conditions and a reduction in opportunities for agricultural or economic activity. | 1. Establishment of a piezometer network<br>2. If a well owner files a grievance/complaint regarding a deterioration in water quality or yield: The Investor shall conduct laboratory water tests within 14 days of the grievance/complaint being filed. 3. If a causal link to the Task is confirmed: provision of a replacement water source at the Investor's expense within 7 days of establishing the link—for the entire duration of the impact or until the water intake is permanently restored. | Direct impact area / area of direct influence;<br><br>Preparation phase<br>Construction phase | Investor / Construction Contractor | Piezometer monitoring;<br>GRM register;<br><br>Number of piezometers;<br>Number of grievances/complaints regarding deterioration in the quality or yield of private wells registered with the GRM. | Ongoing (GRM)<br>Monthly | Contract Engineer / Investor |
| **14** | Access to land and transportation infrastructure | The risk of difficulties in accessing land and transportation infrastructure as a result of the investment may lead to disruptions in the daily functioning of local communities, reduced mobility, and decreased public acceptance of the project. | 1. Providing alternative transportation routes in close physical proximity to the roads being rebuilt or removed<br>2. Informing residents about changes to the road layout in accordance with the SEP<br>3. Detailed mitigation measures to minimize/mitigate disruptions once they are identified during the project's implementation phase. | Local roads within the Task area;<br><br>Construction phase | Investor / Construction Contractor | Number of grievances/complaints regarding difficulties in accessing fields and roads registered with the GRM.<br><br>GRM Register<br>Contractor's monthly reports | Ongoing (GRM)<br>Monthly | Contract Engineer / Investor |
| Standard 2 – Working conditions and employment | | | | | | | | |
| **15** | Work environment – soil and water | Environmental pollution resulting from fuel and oil leaks from construction machinery and improper equipment operation. | Enclosed refueling and equipment servicing areas. Training for employees and subcontractors. Incident log. SDS sheets for all chemicals available on-site. Detailed environmental management policies and occupational risk assessments will be specified in the C-ESMP. | Task Site / Construction | Construction Contractor | Compliance inspections; environmental incident log.<br>In the event of exceeding standards, environmental degradation, or public complaints—implement corrective actions. | Monthly / continuous | Construction Contractor / Contract Engineer |
| **16** | Environment – subcontractors and supply chain | Supplies of materials from sources that do not meet environmental and social requirements. | Environmental and social requirements in subcontractor agreements. Material certification. Anonymous grievance/complaint mechanism (GRM) for workers operated by the Investor. Detailed requirements for suppliers will be specified in the C-ESMP. | Task/Construction phase | Investor / Construction Contractor / Contract Engineer | Review of supplier documentation; environmental and social audits of suppliers.<br>In the event of exceeding standards, environmental degradation, or public complaints—implement corrective actions. | Prior to signing contracts; quarterly audits | Construction Contractor / Contract Engineer / Investor |

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| **17** | Migrant, foreign and non-local workers | Risk of violations of the rights of migrant, foreign and non-local workers, whose engagement is anticipated in particular for specialized works carried out by subcontractors, resulting from language barriers, dependence on employers or labor intermediaries, including unreliable recruitment agencies, unfamiliarity with national legislation and grievance channels, restricted access to local services, delayed payment of wages, and substandard accommodation. | Preparing, before mobilization, a management plan for migrant, foreign and non-local workers, proportionate to the anticipated workforce, addressing the risks listed and applicable to subcontractors.<br>No worker camps are planned. As on previous contracts in the Kłodzko Valley, workers are expected to arrange their own accommodation in rented private quarters, guesthouses or apartments. Where accommodation is nevertheless provided or arranged by the employer, preparing a Workers' Accommodation Management Plan. Accommodation must comply with Polish legal requirements and the IFC/EBRD guidance Workers' Accommodation: Processes and Standards, covering accommodation planning, physical standards, health and safety, management arrangements and workers' rights.<br>Preparing, before demobilization, a demobilization plan covering the payment of final wages and benefits.<br><br>The plans will form part of the C-ESMP and will be approved before mobilization. | Task Site + Surroundings / Construction Phase | Construction Contractor | Review and approval of the plans before mobilization.<br>Inspections of workers' accommodation, where provided or arranged by the employer.<br>Analysis of grievances submitted by workers through the workers' grievance mechanism (item 13).<br>Verification of the plan covering the payment of final wages and benefits at demobilization.<br>If non-compliance with the plans or legal requirements is identified, corrective actions must be implemented. | Before mobilization; quarterly during the execution of works; at demobilization | Construction Contractor / Contract Engineer / Investor |
| **18** | Human health and safety | Risk of hazards to the health and safety of workers and the local community during construction, including workplace accidents, emergencies (e.g., fires, hazardous substance leaks), risks related to construction site organization, and extraordinary situations (e.g., floods, unexploded ordnance). | Ensuring safe construction site organization, including proper storage of construction materials, securing and marking the work area, and designating hazardous zones.<br>Ensuring appropriate conditions for conducting work, including visibility, fire safety, and the mitigation of risks associated with emergencies.<br>Ensuring readiness to respond to crisis and emergency situations, including incidents involving hazardous substance leaks, fires, and flooding.<br>Implementing procedures for specific hazards, including unexploded ordnance and duds, and ensuring adequate supervision in this regard.<br>Adhering to occupational safety and health standards and ensuring working conditions that comply with legal regulations and the World Bank's environmental and social | Task Site + Surroundings / Construction Phase | Construction Contractor | Ongoing supervision of work safety conditions, construction site organization, and safety measures in place.<br>Monitoring compliance with OHS rules and emergency response procedures.<br>If hazards to human health or life are identified, corrective actions must be implemented, including suspension of work and elimination of the causes of the hazard. | Continuous during the execution of works | Construction Contractor's Team / Contract Engineer |

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| | | | standards, including the prohibition of child labor and rules regarding the employment of minors.<br>Conducting OHS training, as well as informational and preventive activities regarding employee health, including infectious diseases.<br>Ensuring the development and implementation of plans and procedures related to the safety of people, property, and the environment, including construction site organization and emergency response, in accordance with the requirements specified in the C-ESMP.<br><br>Detailed requirements and procedures will be defined during the development of the C-ESMP. | | | | | |
| **19** | Employee Conduct and Social Risks (SEA/SH) | Risk of inappropriate behavior by employees toward other employees and the local community, including sexual exploitation and abuse (SEA) and sexual harassment (SH). | Ensure the implementation of policies to prevent sexual exploitation and harassment (SEA/SH) in accordance with World Bank standards (ESS2 and ESS4).<br>Implement a code of conduct for employees and subcontractors, covering principles of appropriate behavior and prohibiting inappropriate behavior toward other employees and the local community.<br>Ensure information and training activities for staff regarding standards of conduct and the prevention of inappropriate behavior.<br>Establishing appropriate mechanisms for reporting and responding to violations, ensuring confidentiality and protection for whistleblowers.<br><br>Detailed requirements, including procedures, scope of training, and response guidelines, will be defined during the development of the C-ESMP. | Task Site + Surroundings / Construction Phase | Construction Contractor | Monitoring of staff compliance with conduct rules and analysis of reports and grievances/complaints.<br>If violations are identified, corrective actions must be implemented, including disciplinary measures and preventive actions. | Continuous during the execution of works | Construction Contractor / Contract Engineer |
| **20** | Public health and epidemiological risks | Epidemic risk;<br>Risk of the occurrence and spread of infectious diseases among workers and the local community in connection with the execution of construction works and the presence of personnel on the project site. | Ensuring appropriate sanitary and hygienic conditions on the construction site.<br>Conducting informational and preventive activities regarding infectious diseases among employees. | Task Site + Surroundings / Construction Phase | Construction Contractor | Supervision of sanitary conditions on the construction site and compliance with health prevention rules.<br>In the event of health hazards, corrective actions must be | Once a month | Construction Contractor / Contract Engineer |

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| | | | Applying the principles of preventing the spread of infectious diseases in accordance with applicable regulations and the guidelines of the relevant health authorities.<br>In the event of an epidemiological threat, implementing appropriate organizational and technical measures to limit the risk of disease spread. Detailed requirements will be specified during the development of the C-ESMP. | | | implemented in accordance with applicable procedures. | | |
| Standard 3 – Effective resource management and pollution prevention and control | | | | | | | | |
| **21** | Water quality – eutrophication of the reservoir | Reservoir eutrophication | Removal of tree stands, stumps, and topsoil from the permanent impoundment zone prior to flooding.<br>Reduction of nutrient inflow from the catchment area (cooperation with municipalities regarding sewage systems and agriculture).<br>Management of impoundment levels to limit thermal stratification.<br>Intervention thresholds for water quality parameters (total phosphorus, chlorophyll a, cyanobacteria), the Operator's response procedures, and the intervention plan for cyanobacterial blooms will be specified in the water management manual, to be developed by the Investor prior to reservoir filling, based on water quality modeling results and World Bank requirements. | Task Basin / Operation | Designer/Construction Contractor / Investor | Testing for nitrogen, phosphorus, chlorophyll a, temperature, oxygen, and water pH in the reservoir's vertical profile.<br>In the event of exceeding standards, deterioration of environmental quality, or public complaints—implement corrective actions. | Monthly (growing season); quarterly (off-season) | Investor / Accredited laboratory |
| **22** | Bottom sediments | Accumulation of pollutants in bottom sediments | Macro-leveling of the reservoir basin bottom prior to filling. Testing of soil contamination in the reservoir basin (heavy metals, PAHs, pH) prior to flooding. If exceedances are found – a remediation plan prior to filling the reservoir. Rules for managing bottom sediments will be specified in the C-ESMP. | Task Site / construction and operation | Investor / Construction Contractor | Bathymetry after filling; chemical testing of bottom sediments. The detailed scope of testing to be specified in the C-ESMP.<br>In the event of exceedances, environmental degradation, or public complaints—implement corrective actions. | The specific testing period will be specified in the C-ESMP. | Construction Contractor / Contract Engineer |
| **23** | Material resources – earthworks | Excessive consumption of materials from external sources and associated environmental impacts (transport, emissions) | Material for dam construction is sourced primarily from the reservoir basin, thereby minimizing transportation and emissions.<br>Materials from the demolition of conflicting structures will be reused to the greatest extent possible (hierarchy: reduction – reuse – recycling). The earthwork balance and | Task Site / Construction | Designer/Construction Contractor | Record of the quantity and type of materials obtained; earthwork balance | Monthly construction reports | Construction Contractor / Contract Engineer |

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| | | | formal requirements for the operation of the site will be determined during the Construction design phase. | | | | | |
| **24** | Hydroelectric power plant – risk of water pollution | Risk of oil and grease discharge into water during the operation of the hydroelectric power plant | Implementation of solutions to limit oil-water contact (including lubrication systems that do not require the use of oils in contact with water), installation of oil separators, and conducting regular leak tests on equipment. Ensuring that the oils used comply with applicable regulations, including those regarding PCB content. | Hydroelectric power plant / operation | Investor | Leak tests of the system and equipment inspections; monitoring of water quality downstream of the power plant.<br>If a deterioration in water quality, exceedance of permissible limits, or grievances/complaints are identified, corrective actions must be implemented, including the removal of the source of contamination and the prevention of its further spread. | Continuous (automatic); annual technical inspections | Investor |
| **25** | Greenhouse gas emissions from the reservoir | Methane and carbon dioxide emissions associated with the decomposition of organic matter submerged in the reservoir basin. | Reduction of emission potential by removing biomass and the humus layer from the permanent impoundment zone prior to flooding, as well as proper management of the recovered soil. Where possible, consideration of water level management methods that limit anaerobic decomposition of organic matter. | Task Site / Construction and Operation | Construction Contractor / Investor | Estimate of greenhouse gas emissions prior to task implementation and periodic reporting of methane and carbon dioxide emissions during the operation phase.<br>If emissions are found to be higher than anticipated or if there are significant changes in the reservoir's operating conditions, the implementation of additional emission-reduction measures should be considered. | Once a month during the construction period/periodicall y during operation, with increased frequency in the initial years of the reservoir's operation. | Construction Contractor / Contract Engineer / Investor |
| **26** | Hazardous Substances | Use of hazardous chemicals and materials during construction work (including fuels, lubricants, and construction mixtures). | Limiting the use of hazardous substances and, where possible, selecting solutions with a lower environmental impact. Ensuring proper storage of chemicals in designated and secured areas on the construction site and monitoring the handling of hazardous waste. Ensuring that the substances used comply with applicable regulations and World B 's standards, including the non-use of restricted substances. Detailed guidelines for handling chemicals will be specified in the hazardous substances management plan developed during the project implementation phase (C-ESMP). | Task Site / Construction | Construction Contractor | Inspections of substance storage areas and verification of documentation (including safety data sheets).<br>If any irregularities are found in the storage, use, or record-keeping of substances, corrective actions must be implemented, including the elimination of the hazard and the adjustment of procedures to comply with applicable requirements. | Periodically during the execution of works | Contractor/Contract Engineer |
| Standard 4 – Community Health and Safety (Environmental Aspects) | | | | | | | | |
| **27** | Safety – Hydraulic Structures Failures | Risk of dam failure and associated environmental and social impacts, including damage to areas located downstream of the reservoir. | Design and construction of hydrotechnical structures in accordance with applicable regulations and safety standards, | Task Site / Construction and Operation | Designer Investor | Geotechnical and technical monitoring of the dam, including control of filtration and stability parameters, as well as periodic | Continuous (automatic); periodic inspections | Investor / Building Inspectorate/Dam Safety Panel |

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| | | | including ensuring adequate discharge capacity of discharge facilities or release works.<br>Implementation of technical monitoring systems for the dam, including monitoring of seepage and structural stability.<br>Preparation of an Emergency Preparedness Plan (EPP) in accordance with World Bank requirements, covering failure scenarios, warning protocols, and actions to be taken in the event of a threat. The detailed scope and procedures will be defined in subsequent stages of project preparation and implementation.<br>Ensuring independent oversight of the facility's safety, including the participation of an independent team of experts (Dam Safety Panel) during the design, construction, and operation phases. | | | safety inspections of the facility.<br>In the event of irregularities, deterioration of the technical condition, or the occurrence of events that may affect the safety of the facility, corrective actions must be implemented immediately, including limiting the operation of the facility, eliminating the cause of the hazard, and activating the procedures provided for in the emergency plan. | | |
| **28** | Public health – drinking water quality | Risk of deterioration in the quality and availability of drinking water due to the decommissioning of existing water intakes that conflict with the project. | Construction and commissioning of new drinking water intakes prior to the decommissioning of existing wells.<br>Ensuring that the new intakes meet requirements regarding water yield and quality, and obtaining the necessary approvals from the relevant authorities.<br>Only after confirming the proper functioning of the new intakes will it be possible to shut down the existing water sources. To ensure continuity of water supply, a transition period is planned, along with the preparation of emergency solutions. Detailed rules will be established during the project implementation phase. | New Drinking Water Intakes / Construction and Operation | Designer/ Investor / Construction Contractor | Water quality testing at the new intakes and monitoring of water supply continuity.<br>In the event of a deterioration in water quality or disruptions in supply, corrective actions must be implemented, including securing alternative water supply sources. | Periodically, with increased frequency during the initial period of operation of the new intakes | Water and Sewerage Utility / Sanitary Inspection Authority |
| **29** | Health and safety of the local community | Risk of negative impacts of the project on the health and safety of the local community during construction works, including those related to increased construction vehicle traffic, construction site organization, emergency situations (e.g., fires, hazardous substance leaks), as well as the presence of workers and potential interactions with the community. | Ensuring proper organization of transport and construction vehicle traffic, including minimizing inconvenience to residents and ensuring the safety of road users.<br>Securing and marking the construction site and restricting access by unauthorized persons to hazardous areas.<br>Ensuring readiness to respond to emergencies, including incidents related to fires, hazardous substance | Task Site / Construction | Construction Contractor | Control of traffic and construction transport organization, and supervision of construction site security.<br>Recording and analysis of public grievances/complaints and reports regarding nuisances or hazards.<br>If hazards to the community are identified, corrective actions must be implemented, including changes to the work organization or additional safety measures. | Regularly during the course of the work and in response to reports | Construction Contractor / Contract Engineer |

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| | | | leaks, and natural hazards.<br>Conducting outreach activities aimed at the local community regarding planned work and potential disruptions.<br>Ensuring appropriate standards of employee conduct toward the local community, including preventing inappropriate behavior and mitigating social risks.<br>Addressing public health aspects, including preventive measures related to infectious diseases.<br><br>Detailed requirements and procedures will be defined during the development of the C-ESMP. | | | | | |
| **30** | Noise and emissions – construction transport | Noise pollution and dust emissions associated with the transport of construction materials, as well as potential deterioration of local roads. | Organizing transportation in a way that minimizes disruption to residents, including designating routes that bypass densely built-up areas and implementing speed limits for vehicles.<br>Reduction of dust emissions through proper road maintenance and adjusting transport intensity to local conditions. Conducting an inventory of the technical condition of roads and of private buildings and other structures in the vicinity of the works and transport routes prior to the start of work to record their pre-construction condition and enable an adequate response to any damage claims and restoring roads upon completion of the project.<br>Informing residents about planned work that may cause increased inconvenience. Detailed solutions will be determined during the project implementation phase. | Access roads to the Task / construction | Construction Contractor | Noise measurements at sensitive locations, analysis of resident grievances/complaints, and road condition inspections.<br>If permissible noise levels are exceeded, dust emissions increase, or justified grievances/complaints are received, corrective measures must be implemented, including changes to the organization of transport or a reduction in its intensity. | Periodically during the course of the works and in the event of reports | Construction Contractor / Investor |
| **31** | Public health – biological nuisances | Potential increase in the number of nuisance organisms (particularly mosquitoes and rodents) due to construction activities and the presence of local water stagnation. | Ensuring proper sanitary conditions on the construction site, including appropriate management of domestic wastewater and waste.<br>Limiting the formation of areas conducive to mosquito breeding through proper management of standing water and maintaining order on the project site.<br>Where justified, measures to mitigate nuisances (e.g., removal of stagnant water) may be implemented, in | Task Site/Construction and Operation | Construction Contractor / Investor | Sanitary inspections of the construction site and field observations in areas where water stagnation may occur.<br>In the event of increased nuisance (e.g., excessive numbers of mosquitoes, presence of rodents) or reports from residents, mitigation measures must be implemented, including the removal of areas conducive to their occurrence and cleanup activities. | Periodically during the course of the works and during the spring and summer seasons | Construction Contractor / Contract Engineer / Investor |

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| | | | accordance with national regulations and environmental protection principles. | | | | | |
| **32** | Deterioration of local road surfaces | Deterioration of the technical condition of local roads used by construction transport, including pavement damage, periodic difficulties in accessing properties and fields, and secondary nuisances for residents. | Implement the measures indicated in row 30 "Noise and Emissions – Construction Transport" and in row 29 "Health and Safety of the Local Community Additionally, ongoing inspections of the pavement condition should be conducted, ad hoc repairs of local damage should be performed, the condition of the roads should be documented before, during, and after the completion of the works, and residents should be informed about anticipated disruptions and how to report damage and grievances/complaints through the GRM. | Local and access roads within the task's impact area / construction phase | Construction Contractor / Investor | Reports and photographic documentation of road conditions prior to the start of work, ongoing field inspections of pavement conditions, a record of grievances/complaints in the GRM, reports on ad hoc repairs, and reports on pavement restoration after completion of work. | Before work begins; regularly during construction; after work is completed and following reports | Construction Contractor / Contract Engineer / Investor |
| **33** | Accumulation of construction nuisances from the Reservoir and S8 | Accumulation of construction nuisances associated with the parallel implementation of the Reservoir and S8, including cumulative noise, dust, increased heavy traffic, traffic disruptions, and increased pressure on local communities and local infrastructure. | Implement the measures indicated in row 29 "Health and safety of the local community" and in row 30 "Noise and emissions – construction transport." In particular, coordinate work and transport schedules with GDfNRM and S8 contractors to minimize the overlap of the most disruptive work, agree on routes and time windows for heavy transport, maintain consistent communication with residents, and conduct a joint analysis of grievances/complaints, incidents, and traffic events. If cumulative impacts exceed acceptable levels, corrective measures must be implemented, including changes to the work organization, temporary transport restrictions, additional safety measures, or additional public information campaigns. | Reservoir Task Area and Areas of Cumulative Impact from the S8 Project / Preparation and Construction Phase | Investor / Consultant / Construction Contractor | Analysis of the schedules for both projects, GRM register, review of resident grievances/complaints, periodic coordination meetings with GDfNRM and S8 contractors, and monitoring of traffic volume on shared road sections. | Monthly during the execution of works and immediately upon reports or identification of cumulative impacts | Investor / Consultant |
| **34** | Construction nuisances and risk of traffic accidents | Construction nuisances and increased risk of traffic accidents associated with increased construction vehicle traffic, including hazards to pedestrians, cyclists, children, local road users, and agricultural vehicles. | Implement the measures indicated in row 29 "Health and safety of the local community" and in row 30 "Noise and emissions – construction transport." These include organizing safe transport, designating routes that bypass densely built-up areas, speed limits, marking and securing the construction site, informing residents about disruptions, and implementing corrective actions following grievances/complaints and incidents. | Access roads, intersections, built-up sections, and the construction site surroundings / construction phase | Construction Contractor | Monitoring of traffic management and signage, a log of incidents and near misses, analysis of resident grievances/complaints, enforcement of speed limits and route compliance, and reports on incidents and corrective actions. | Ongoing during the course of the works; periodic reviews and after each incident or report | Construction Contractor's Team / Contract Engineer's Team |

| SF | Environmental component | Anticipated risk / impact | Mitigation measures | Location / Phase | Responsible for implementation | Monitoring methodology | Frequency | Responsible for monitoring |
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| | | | Additionally, the Contractor will develop and implement a traffic and road safety management plan, covering the identification of sensitive sections, securing pedestrian crossings and areas frequented by children, rules for the movement of heavy vehicles, driver training, and procedures for responding to incidents and near-misses. | | | | | |
| Standard 5 – Land Acquisition, Land Use Restrictions, and Forced Relocations | | | | | | | | |
| **35** | Physical Relocation / Physical Displacement, Economic displacement and Livelihood Restoration | Risk of deterioration in the living conditions and livelihoods of project-affected persons, including the two physically displaced households. | Implementing compensation, relocation and livelihood restoration measures in accordance with the RPF and the RAP Entitlement Matrix. The RAP is the detailed management plan for these impacts.<br>Ensuring that the Contractor does not access or take any land before compensation has been paid or made available to the project-affected persons and the other measures set out in the RAP have been provided.<br>Issuing a written clearance for each plot by the Investor before the Contractor's entry. | Task Area (reservoir basin);<br><br>Preparation phase<br>Construction phase | Investor / Consultant | Reconciliation of the payment schedule with the work schedule – verification per plot before each entry;<br><br>100% of plots: compensation or advance payment ≥70% paid prior to the Contractor's entry;<br>100% of displaced PAPs have signed an agreement<br><br>100% of replacement properties for vulnerable PAPs: confirmed architectural accessibility<br><br>Number of grievances/complaints registered with the GRM regarding the resettlement process | Ongoing (GRM) Monthly<br><br>Post-relocation visits after 3 and 12 months | Investor / Consultant |
| **36** | Purchasing real estate and loss of livelihood | Risks associated with the acquisition of real estate and the loss of existing sources of livelihood may lead to a deterioration in the economic situation of those affected by the project and difficulties in maintaining their current standard of living, which may negatively impact public acceptance of the project. | 1. Priority for compensation on a "land-for-land" basis—replacement plots with comparable soil quality and yield potential; provided such properties are available; alternatively, the PAP is offered a cash option, particularly in the absence of replacement properties or when a financial settlement is more advantageous for the PAP.<br><br>2. Monetary compensation for lost crops, plantings, and agricultural infrastructure—valuation by an expert prior to the physical seizure of the plot.<br><br>3. Transitional allowance: a monthly payment in an amount determined individually by an expert. | Task Area;<br>Preparation phase<br>Construction phase | Investor / Consultant | PAP inventory;<br>Individual monitoring visits;<br>monthly reports;<br>Quarterly reports<br>GRM Registry – verification of grievances/complaints related to valuation and payment<br><br>Number of PAPs affected by resettlement;<br>% of agricultural plots: compensation or advance payment ≥70% paid prior to the Contractor's entry;<br>% of PAPs with compensation paid for crops;<br>% of PAPs with active transitional benefits;<br>Number of grievances/complaints regarding the amount of compensation and its payment registered with the GRM. | Ongoing (GRM) Monthly<br><br>Individual monitoring visits 12 months after compensation is paid | Investor / Consultant |

| SF | Environmental component | Anticipated risk / impact | Mitigation measures | Location / Phase | Responsible for implementation | Monitoring methodology | Frequency | Responsible for monitoring |
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| | | | 4. Support for reestablishing the farm in a new location, agreed upon individually with PAP. | | | | | |
| **37** | Land access prior to compensation and occupation of land by the Contractor | Risk of damage to land and assets and of disruption to owners and users resulting from the occupation of land and access to the construction site. | Entering land only after receiving the Investor's written clearance for the plot.<br>Occupying land outside the acquired area only where necessary, with the prior approval of the Investor and a written agreement with the owner or user, and with compensation in accordance with the RAP Entitlement Matrix.<br>Notifying owners and users in writing at least [X] days before entry.<br>Drawing up a land entry protocol before entry and a land exit protocol after restoring the land to its pre-entry condition, both signed by the owner or user.<br>Communicating with affected owners, users and communities in accordance with the SEP and informing them of the grievance mechanism.<br><br>Detailed procedures will form part of the C-ESMP and will be approved before mobilization. | Task Area + Surroundings;<br>Preparation Phase<br>Construction Phase | Construction Contractor | Verification of clearances, approvals, agreements and notifications before each entry.<br>Verification of land entry and exit protocols.<br>Analysis of grievances related to land access.<br>If entry without clearance or agreement is identified, corrective actions must be implemented. | Before each entry and exit; monthly | Contract Engineer / Investor |
| **38** | Acquisition of real estate and loss of rights to real estate | The risk of negative consequences of real estate acquisition, including the loss of rights to real estate by current users, may lead to a deterioration in the living conditions and income of those affected by the project, the emergence of disputes, and a decline in public acceptance of the investment. | 1. Property appraisal by an independent appraiser<br>2. Compensation payment or an advance payment prior to the physical seizure of the property<br>3. Payment of additional compensation in accordance with the RAP | Task Area;<br>Preparation phase<br>Construction phase | Investor / Consultant | PAP inventory;<br>GRM Register;<br><br>% of lots: compensation or advance payment ≥70% paid prior to the Contractor's entry;<br>% of PAP with additional compensation funds<br>Number of grievances/complaints regarding the amount of compensation registered with the GRM. | Ongoing (GRM) Monthly | Investor / Consultant |
| **39** | Loss of land use rights | The risk of negative socio-economic impacts associated with the loss of land use rights may lead to a decline in public acceptance. | 1. Identification of 100% of land tenants covered by the Task during the PAP– survey phase, completed prior to submitting the application for IPIP/PfRI.<br>2. Compensation payment to tenants in accordance with the RAP<br>3. Payment of transitional benefits to tenants in accordance with the RAP.<br>3. Assistance in finding alternative land for lease from NASC resources. | Task Area;<br><br>Preparation Phase<br>Construction phase | Investor / Consultant | PAP inventory;<br>GRM Registry;<br><br>% of tenants who received compensation<br>% of tenants who received transitional benefits;<br>% of tenants assisted in finding replacement land<br>Number of grievances/complaints | Ongoing (GRM) Monthly | Investor / Consultant |

| SF | Environmental component | Anticipated risk / impact | Mitigation measures | Location / Phase | Responsible for implementation | Monitoring methodology | Frequency | Responsible for monitoring |
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| | | | | | | regarding the amount of compensation registered with the GRM. | | |
| **40** | Cumulative impacts – land acquisition and resettlement | Risk of increased burden on PAPs whose land is acquired for both the Task and the future S8 expressway. The socio-economic survey did not identify such impacts, as the S8 route has not yet been determined.. | 1. Identification of PAPs affected by both projects (S8 construction, reservoir construction) once the land requirements for the S8 expressway are known; dedicated monitoring list.<br>2. If cumulative impacts are identified: implementation of additional mitigation measures in accordance with the RAP; measures determined individually with affected PAPs.<br>3. Coordination with GDfNRM regarding schedules and deliverables. | Task Area<br>GDfNRM adjacent to the Project<br><br>Preparation phase<br>Construction phase | Investor / Consultant | PAP Register;<br>GRM Registry;<br><br>Number of PAPs affected by both investments;<br>% of PAPs covered by additional support measures<br>Number of grievances/complaints regarding cumulative impacts registered with the GRM<br>Status of GDfNRM proceedings regarding PAPs affected by both investments | Ongoing (GRM)<br>Monthly | Investor / Consultant |
| **41** | Restrictions on the use of real estate | The risk of restrictions on property use may disrupt the current use of the property, worsen the situation of users, and reduce public acceptance of the project | 1. Identification of all properties subject to the TO at the project documentation stage—a list prepared prior to submitting the application for IPIP/PfRI.<br><br>2. Valuation of the decrease in value of each property subject to TO by an independent appraiser.<br><br>3. Compensation payment for the TO within the timeframe specified in the Governor's decision.<br><br>4. The owner or perpetual usufructuary is entitled to purchase the property upon request, in accordance with the procedure described in the RAP (Chapter 8.4.5). | Areas Adjacent to the Task<br><br>Preparation phase<br>Construction phase | Investor / Consultant | PAP List;<br>GRM Register;<br><br>% of properties covered by the TO;<br>% of PAP cases with TO compensation paid on time;<br>Number of grievances/complaints regarding TO registered with the GRM. | Ongoing (GRM)<br>Monthly | Investor / Consultant |
| **42** | Temporary seizure of real estate and restrictions on use | The risk of disrupting the current use of the property due to temporary occupation and imposed restrictions may lead to difficulties in the daily lives of users, temporary loss of income, and reduced public acceptance of the project. | 1. Use temporary seizures instead of permanent ones wherever permanent seizures are not technically necessary—a decision justified technically in the project documentation.<br><br>2. Inventory of the property's condition (photographic documentation + report) prior to occupation—report signed by the owner and the Investor; in special situations, a unilateral report.<br><br>3. Compensation payment for the occupation prior to the Contractor's entry onto the property. | Task Site and Access Roads;<br><br>Preparation phase<br>Construction phase | Construction Contractor | Handover and return reports;<br>PAP inventory;<br>GRM register;<br>Contractor's monthly reports<br><br>% of plots with a handover report;<br>% of compensation paid prior to entry;<br>100% of properties restored to their previous condition<br>Number of grievances/complaints regarding temporary seizures and the condition of restored properties registered with the GRM. | Ongoing (GRM)<br>Monthly | Contract Engineer / Investor |

| SF | Environmental component | Anticipated risk / impact | Mitigation measures | Location / Phase | Responsible for implementation | Monitoring methodology | Frequency | Responsible for monitoring |
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| | | | 4. Payment of compensation for lost income.<br>5. Restoration of the property to its previous condition – confirmed by an acceptance report signed by the owner. | | | | | |
| **43** | Real Estate Acquisition and Legal Encumbrances | The risks associated with acquiring real estate encumbered by third-party rights may lead to delays in compensation payment, legal and administrative complications, and, consequently, a decline in public support for the project | 1. Identify properties encumbered by mortgages before submitting an application for IPIP/PfRI.<br>2. Provide each PAP with individual information on the procedure for handling the mortgage during compensation payment.<br>3. Coordinate with creditor banks to determine the method of mortgage settlement—prior to the compensation payment. | Task Area<br><br>Preparation Phase<br>Construction Phase | Investor / Consultant | Review of land and mortgage registers;<br>PAP inventory;<br>GRM registry;<br><br>% of mortgaged properties identified;<br>% of PAP properties with mortgages covered by pre-disbursement information; no disputed cases of reduced compensation<br>Number of grievances/complaints regarding mortgage settlements registered with the GRM. | Ongoing (GRM)<br>Monthly | Investor / Consultant |
| **44** | Access to recreational resources | The risk of limited access to recreational resources may lead to a decline in the quality of life for local communities and reduced public acceptance of the project. | 1. Notify the Polish Angling Association and pond users of the schedule for closing access to the water bodies.<br>2. Design and construct paved boat ramps with a slope that allows for safe descent with a boat trailer –<br>3. Designating paved areas for portable toilets and waste containers | Task Area<br><br>Preparation Phase<br><br>Construction Phase | Investor / Consultant / Construction Contractor | Review of informational documentation (letters to the PAA); Work acceptance report<br><br>Confirmation of notification to the PAA; number of slipways completed;<br>Number of designated paved areas | Monthly | Contract Engineer / Investor |
| Standard 6 – Biodiversity conservation and sustainable management of living natural resources | | | | | | | | |
| **45** | Ichthyofauna / fish fauna – fish migration / Nysa Kłodzka | Risk of disrupting the ecological continuity of the watercourse as a result of dam construction and restricting fish migration, including protected species. | Ensuring the ecological continuity of the river through the construction of a fish pass / fish ladder and the implementation of solutions to reduce the risk of fish entering hydrotechnical structures.<br>Conducting works in the riverbed outside of key fish spawning periods and implementing measures to limit the project's impact on habitats, including in the vicinity of tributaries.<br>Ensuring the possibility of adjusting technical solutions if they are found to be insufficiently effective. Detailed requirements regarding the fish passage's parameters, operational standards, and effectiveness assessment methodology will be specified inthe BMP and. environmental decision and included in the C-ESMP. | Nysa Kłodzka River / design, construction, and operation | Designer/ Ichthyologist Expert/ Investor / Construction Contractor | Monitoring of the fish pass's effectiveness (traps, automatic counters, methodology to be specified in the C-ESMP); inventory of the ichthyofauna / fish fauna upstream and downstream of the dam<br>In the event of exceeding standards, deterioration of environmental quality, or justified grievances/complaints, corrective actions appropriate for the given component must be implemented. | Periodically, particularly during fish migration periods | Construction Contractor / Contract Engineer / Investor |

| SF | Environmental component | Anticipated risk / impact | Mitigation measures | Location / Phase | Responsible for implementation | Monitoring methodology | Frequency | Responsible for monitoring |
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| **46** | Natural habitats / wildlife habitats – permanent inundation zone | Loss of natural habitats / wildlife habitats in the permanent impoundment zone, including protected habitats and plant species sites. The scope of impact will be specified based on a detailed natural inventory. | Conducting a natural inventory and adjusting design solutions to limit the scope of impacts.<br>Landscaping of natural areas surrounding the reservoir, including the creation of ecological zones and the implementation of compensatory measures, such as planting and habitat restoration outside the inundation area.<br>Application of an approach consistent with the mitigation hierarchy (avoidance, minimization, restoration, compensation). If natural habitats of high ecological value are identified, the scope of compensatory measures will be expanded accordingly.<br>Detailed solutions, including the scope of ecological compensation and the method of classification of natural habitats / wildlife habitats, will be determined based on the environmental conditions decision and included in the C-ESMP. | Task Area / Construction and Operation | Designer/ Investor Construction Contractor | Environmental monitoring, including an assessment of the condition of natural habitats and the effectiveness of compensatory measures.<br>If the effectiveness of the compensatory measures is found to be insufficient, corrective actions must be implemented, including supplementing or modifying the restoration measures. | Periodically, including prior to project implementation and during the first years of the reservoir's operation; in accordance with the requirements of the environmental decision. | Investor / Construction Contractor / Botanist expert |
| **47** | Ecological corridors / wildlife corridors | Risk of disruption to the ecological continuity of wildlife corridors in the Nysa Kłodzka Valley as a result of the construction of hydrotechnical structures and associated infrastructure. | Incorporating solutions that support the functionality of ecological corridors / wildlife corridors, including shaping the reservoir's banks to resemble natural conditions and creating natural areas.<br>Ensuring ecological continuity in the area of tributaries and infrastructure elements by implementing solutions that facilitate animal migration.<br>Detailed solutions will be determined during the design and implementation phases of the project, taking into account the results of environmental analyses and the requirements of the environmental decision. | Task Area / Design and Construction | Designer / Investor / Construction Contractor | Monitoring of ecological corridor functionality and assessment of habitat continuity.<br>If a limitation in the functionality of the corridors is identified, corrective measures must be implemented, including modification of technical solutions or the addition of elements facilitating the migration of organisms. | Periodically, during the first years of the reservoir's operation | Construction Contractor / Investor / Zoologist expert/ Contract Engineer |
| **48** | Protected species | Risk of impact on protected species resulting from construction works and habitat transformation, including in the vicinity of animal and plant species sites. | Conducting a detailed natural inventory and adapting the method of carrying out the works to the results of this inventory.<br>Implementation of species protection measures, including limiting work during sensitive periods (e.g., nesting, breeding), establishing protection zones, and implementing mitigation measures to minimize disturbance to animals.<br>Detailed guidelines, including potential measures such as | Task Area / Construction and Operation | Construction Contractor / Investor | Monitoring of protected species and assessment of the effectiveness of mitigation measures.<br>If a negative impact on protected species is identified, corrective actions must be implemented, including modifications to the method of conducting the works or additional protective measures. | Seasonally, depending on the species' biological cycle; In accordance with the requirements of the environmental permit | Investor / Construction Contractor / Expert in the relevant scientific field / Contract Engineer |

| SF | Environmental component | Anticipated risk / impact | Mitigation measures | Location / Phase | Responsible for implementation | Monitoring methodology | Frequency | Responsible for monitoring |
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| | | | translocations or habitat protection, will be specified during the preparation of the C-ESMP and environmental documentation, in accordance with the requirements of the environmental decision. | | | | | |
| **49** | Invasive species | Risk of introduction and spread of invasive species in connection with the execution of construction works, transport of materials, and habitat alteration. | Mitigate the risk of introducing invasive species by inspecting materials and equipment used on-site and maintaining order within the project area.<br>If the presence of invasive species is detected, take measures to limit their in nd spread in accordance with applicable regulations and environmental protection principles.<br>Detailed procedures, including methods for controlling and eliminating invasive species, will be specified during the development of the C-ESMP. | Task Site / Construction and Operation | Construction Contractor / Investor | Field inspections regarding the presence of invasive species and maintaining a record of their findings.<br>If invasive species are detected, measures must be implemented to limit their spread, including the removal of the source of their occurrence or the application of appropriate control methods. | Periodically during the execution of works and operation | Construction Contractor/Botanist expert/ Contract Engineer |
| **50** | Natura 2000 site “Góry Bardzkie” (PLH020062) | Potential impact on the “Góry Bardzkie” Natura 2000 site located in the immediate vicinity of the project. This site constitutes a form of nature conservation within the meaning of national regulations and European Union law.<br>The project is not located within the boundaries of the Natura 2000 site; however, due to its close proximity, it may affect its conservation objectives. | Taking into account the conservation objectives of the Natura 2000 site during the design and implementation phases of the project and minimizing interference with sensitive areas adjacent to the site.<br>Ensuring that the implementation and operation of the investment will not cause a significant negative impact on the habitats and species subject to protection.<br>An assessment of the impact on the Natura 2000 site will be conducted during the preparation of the EA report, in accordance with applicable regulations, and its results will be incorporated into the subsequent design process.<br>Detailed solutions and any mitigation measures and compensatory measures will be specified during the preparation of the C-ESMP and environmental documentation. | Task Site / Design, Construction, and Operation | Designer/Construction Contractor/ Investor | Monitoring of environmental conditions within the Natura 2000 site and its surroundings, with regard to potential impacts of the project.<br>If a negative impact on the conservation objectives of the area is identified, corrective measures must be implemented. | Periodically | Construction Contractor / Investor / Environmental Expert / Contract Engineer |
| **51** | Ecosystem services | Changes in the ecosystem functions of the Nysa Kłodzka Valley resulting from the project, including alterations to retention, habitat, and water quality functions. | Apply the mitigation hierarchy to avoid and minimize impacts on priority ecosystem services identified through the ESIA/BMP and stakeholder engagement. Creation of nature zones within the reservoir and its surroundings to partially preserve and restore ecosystem functions. | Reservoir basin and the Nysa Kłodzka valley / operation | Investor | Monitor relevant indicators for priority ecosystem services identified in the ESIA/BMP, including, as applicable, downstream flows, water quality, aquatic/riparian habitat condition and other indicators related to identified ecosystem-service | Periodically during operation | Investor |

| SF | Environmental component | Anticipated risk / impact | Mitigation measures | Location / Phase | Responsible for implementation | Monitoring methodology | Frequency | Responsible for monitoring |
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| | | | Incorporating reservoir management practices, including impoundment level / water level control, in a manner that supports retention and environmental functions.<br>Detailed solutions and the scope of activities will be defined during the development of the C-ESMP. | | | beneficiaries. Assessment of changes in the functioning of ecosystem services, in particular water retention, water quality, and biodiversity, based on the results of environmental monitoring.<br>If a deterioration in ecosystem functioning is observed, corrective measures should be implemented, including adjusting the reservoir's operation or supplementing nature conservation measures. | | |
| Standard 8 – Cultural Heritage | | | | | | | | |
| **52** | Cultural heritage – archaeological sites | Risk of damage or destruction of archaeological sites as a result of earthworks. The extent of the sites will be determined based on archaeological surveys. | Conducting preliminary archaeological surveys prior to the commencement of earthworks and ensuring archaeological supervision during the project's implementation.<br>Document and secure finds in accordance with applicable regulations and guidelines from the relevant heritage protection authorities.<br>If new sites or finds are discovered during the works, work in the affected area must be suspended immediately and actions taken in accordance with applicable procedures.<br>Detailed procedures will be defined during the preparation of the C-ESMP and in consultation with the relevant authorities. | Task Site/Preparation and Construction Phase | Investor / Construction Contractor | Archaeological supervision during earthworks and documentation of discoveries.<br>If a threat to archaeological sites is identified, corrective actions must be implemented, including changes to the organization of works or an expansion of the scope of research. | Continuous during earthworks | Construction Contractor – licensed archaeologist / Investor / Contract Engineer |
| **53** | Chance Finds | Risk of discovering previously unknown historical objects or artifacts during earthworks. | Implementation of a procedure for handling archaeological finds (Chance Finds) Procedure, including the immediate suspension of work at the site of discovery, securing the find, and notifying the relevant authorities and archaeological supervision.<br>Ensuring that construction personnel are adequately prepared through training in the identification of potential archaeological finds and the procedures to follow in the event of their discovery.<br>Detailed procedures, including the process for notification and resumption of work, will be defined during the development of the C-ESMP and in consultation with the relevant authorities. | Task Site / Construction | Construction Contractor | Ongoing reporting of discoveries to the archaeological supervision and relevant authorities.<br>In the event of a discovery, the procedure must be implemented, including suspension of work and taking further action in accordance with applicable regulations. | Ongoing (upon each discovery) | Construction Contractor – archaeologist/ Investor / Contract Engineer |

| SF | Environmental component | Anticipated risk / impact | Mitigation measures | Location / Phase | Responsible for implementation | Monitoring methodology | Frequency | Responsible for monitoring |
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| **54** | Cultural heritage – historic bridge in Przyłęk | Necessity to demolish the historic bridge located on the Nysa Kłodzka River, listed in the register of monuments, which interferes with the planned project. | Obtaining the required decisions and approvals from the competent monument protection authority prior to commencing work.<br>Preparation of complete conservation and architectural documentation of the structure prior to its demolition, and conducting the work under conservation supervision.<br>Consideration of preserving or displaying selected elements of the structure as part of the cultural heritage.<br>Taking into account the opinions of the local community regarding the cultural value of the building and documenting the consultation process.<br>Detailed procedures will be defined during the development of the C-ESMP and through consultations with the relevant authorities and stakeholders. | Przyłęk town/ design, construction | Designer/ Investor / Construction Contractor | Conservation supervision of the work and documentation of the activities carried out.<br>In the event of non-compliance with monument protection requirements, corrective measures must be implemented, including adjustments to the method of conducting the work. | During demolition work | Historic Preservation Officer (WUOZ) / Investor / Construction Contractor / Contract Engineer |
| **55** | Cultural heritage – cultural landscape and rural layouts | Risk of impact on the historical spatial layouts of villages and the cultural landscape of the valley, including cultural heritage sites and relics located within the project's area of influence. | Consideration of landscape and cultural conditions during the investment design phase, including efforts to minimize interference with areas of special historical value.<br>Prepare documentation of cultural heritage relics located within the planned impact area prior to their transformation or flooding. Apply the mitigation hierarchy by avoiding or minimizing impacts on significant cultural heritage features through project design, where feasible. Prior to construction or inundation, appropriately document cultural heritage that will be permanently affected, in consultation with the competent cultural heritage authorities<br>Consulting with the relevant monument protection authorities and incorporating their recommendations into the project implementation process.<br>Detailed solutions will be specified during the preparation of the C-ESMP and design documentation. | Task Area / Design and Construction | Designer/ Investor / Construction Contractor | Assessment of the project's impact on the cultural landscape and inspection of the condition of protected sites within the impact area.<br>If a negative impact on landscape values or protected sites is identified, corrective measures must be implemented, including adjustments to design solutions or the method of work execution. | Periodically during the design and implementation phases of the Task | Designer/Investor / Construction Contractor |
| Standard 10 – Stakeholder Engagement and Disclosure | | | | | | | | |

| SF | Environmental component | Anticipated risk / impact | Mitigation measures | Location / Phase | Responsible for implementation | Monitoring methodology | Frequency | Responsible for monitoring |
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| **56** | Stakeholder Engagement and Community Relations | The risk of insufficient stakeholder engagement and weakened community relations may result in limited acceptance of the project and difficulties in its efficient implementation. | 1. Informing municipal authorities and village administrators about the progress of works and current construction impacts before mobilization, land preparation, embankment construction and reservoir filling, and at least quarterly during civil works (SEP Section 6.2).<br>2. Contractor: disruptive works notified at least 14 days in advance through notice boards, village administrators and, via the PIU, the Task website and FB.<br>3. Supervision Consultant: verification of the Contractor's notifications; non-compliance reported to the PIU.<br>Media monitoring is supplementary and does not replace direct engagement. | Task area / Construction phase | Investor/ Supervision Consultant/ Construction Contractor | Records of information provided to municipalities and village administrators (minutes, correspondence); % of disruptive works notified on time;GRM Register<br>Contractor's monthly reports | Ongoing (GRM) Monthly | Investor / Supervision Consultant |
| **57** | Access to information and participation in consultations | The risk of limited access to information and insufficient stakeholder participation in consultations may lead to an incomplete understanding of public needs and concerns, reduced acceptance of the project, and difficulties in its effective implementation. | 1.Disclosure and consultation in accordance with SEP Section 6.2: draft ESIA, ESMP and draft LARAP available 30 days before the consultation meeting; meetings announced 14 days in advance.<br>2. Organizing meetings in physically accessible locations.<br>3. Providing the option to submit comments in paper form (a physical drop box at the information point) – as an alternative to digital channels.<br>4. Individual on-site visits to PAP – for people who cannot or do not wish to participate in group meetings. | Municipalities of Kamieniec Ząbkowicki and Bardo / Preparation phase | Investor / Supervision Consultant | Dates of disclosure and announcements;<br>Attendance lists;<br><br>Number of individual on-site visits to the PAP – PAP registry<br><br>Number of grievances/complaints regarding lack of access to information registered with the GRM. | After each consultations<br><br>Ongoing (GRM) Monthly | Investor / Consultant |
| **58** | Quality of stakeholder engagement and effectiveness of consultation | The risk of insufficient stakeholder engagement and low consultation effectiveness may lead to limited consideration of reported needs and expectations, reduced public acceptance of the project, and difficulties in its efficient implementation. | 1. Providing the opportunity to submit written comments on the RAP until the consultation meeting, as an alternative for those who do not participate in group meetings. 2. Recording questions and comments in meeting minutes (SEP Appendix 2) and in the documentation of PAP visits; comments considered in the final ESIA and RAP. | Task area / Preparation phase | Investor / Supervision Consultant | Meeting minutes and GRM register; | Monthly<br>After each consultation meeting | Investor / Consultant |
| **59** | Grievance/complaint management mechanism and its accessibility | The risk of limited access to the grievance/complaint management mechanism and its low effectiveness may lead to unresolved issues, growing stakeholder dissatisfaction, and reduced trust in the project implementation process. | 1. Ensure that complaints can be submitted through traditional channels—verbally during site visits and meetings, in writing or verbally at the information desk, or by phone via the hotline<br>2. Actively providing information | Information points; Task area / Preparation phase, Construction phase | Investor / Supervision Consultant/ Construction Contractor | Number and type of grievances – GRM register; Number of grievances processed and closed on time | Ongoing (GRM) Monthly | Investor / Supervision Consultant |

| SF | Environmental component | Anticipated risk / impact | Mitigation measures | Location / Phase | Responsible for implementation | Monitoring methodology | Frequency | Responsible for monitoring |
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| | | | about the GRM during every field visit to PAP and at every consultation meeting<br>3. Project GRM operated by the PIU in accordance with SEP Section 8 and Appendix 1; all grievances registered and resolved by the PIU | | | | | |
| **60** | Effectiveness of the consultation process | Risk of an ineffective consultation process, which may lead to insufficient consideration of stakeholder opinions, escalation of social conflicts, and delays in project implementation, including the exclusion of groups that could be affected or interested, including vulnerable groups. | 1. Organizing consultation meetings in accordance with the schedule specified in the SEP<br>2. Preparation of concise and specific communication materials<br>3. Including in consultations all stakeholder groups identified in SEP Section 5, including tenants and users of agricultural plots, the Byczeń mine and its workforce, and former residents of Pilce, and applying the measures for vulnerable groups (older people, persons with disabilities, digitally excluded persons, single parents) set out in SEP Sections 5.4 and 6.3 | Municipalities of Kamieniec Ząbkowicki and Bardo / Preparation phase, Construction phase | Investor / Supervision Consultant | Number of public meetings per quarter – meeting minutes;<br>Number and type of submissions to the GRM – GRM register. | Ongoing (GRM); monthly | Investor / Supervision Consultant |
| **61** | Access to project information | The risk of limited access to project information may lead to stakeholders' incomplete understanding of its objectives, which in turn may result in reduced stakeholder engagement, uncertainty , and difficulties in the consultation process and project implementation | 1. Launch and maintenance of the Tasks website and publication of updates on Facebook – updating information<br>2. Launching a telephone hotline and email service<br>3. Maintaining a permanent information point in the municipality of Kamieniec Ząbkowicki and the municipality of Bardo. | Municipalities of Kamieniec Ząbkowicki and Bardo / Preparation phase, Construction phase | Investor / Consultant | Number and type of reports submitted to the GRM – GRM registry;<br>Number of grievances/complaints regarding lack of access to information – GRM registry. | Ongoing (GRM); monthly | Investor / Consultant |
| **62** | PAP access to information on compensation entitlements | The risk of limited access by persons affected by the project (PAP) to information regarding their compensation entitlements may lead to underutilization of these entitlements and uncertainty regarding compensation rules and procedures. Consequently, this may result in reduced trust in the investment process and prolong the compensation process | 1. Individual written correspondence to each PAP containing an information package on the rules of land acquisition and compensation payments and on the GRM—prior to the initiation of land acquisition procedures.<br>2. Individual on-site visits to PAPs—explanation of expropriation procedures and compensation entitlements at the PAP's place of residence; documented with a note in the PAP registry.<br>3. Dedicated consultation meetings for PAPs prior to the commencement of expropriation procedures—explanation of valuation rules, owners' rights, and appeal procedures; two meetings (Kamieniec | Taks area/ Preparation phase | Investor / Supervision Consultant | % of PAPs who received an information package prior to the initiation of procedures – PAP register;<br>Number of individual field visits to PAPs – PAP registry;<br>Number of grievances/complaints regarding lack of information on compensation rights – GRM register. | Ongoing (GRM); monthly | Investor / Supervision Consultant |

| SF | Environmental component | Anticipated risk / impact | Mitigation measures | Location / Phase | Responsible for implementation | Monitoring methodology | Frequency | Responsible for monitoring |
|---|---|---|---|---|---|---|---|---|
| | | | Ząbkowicki Municipality and Bardo Municipality). | | | | | |
| **63** | Information management and countering disinformation | The risk of inadequate information management and ineffective countering of disinformation may lead to the dissemination of incomplete or incorrect information, a decline in public trust, and difficulties in project implementation | 1. Ongoing monitoring of local media and Facebook – identifying false information about the Task; the Investor's response in the form of a correction or clarification following consultation with the PGW WP press spokesperson.<br>2. Publication of an FAQ on the Task's website and Facebook page – regular updates addressing the most frequently asked questions and false information identified through media monitoring.<br>3. Individual on-site visits to PAP – direct provision of up-to-date and accurate information about the Task. | Municipalities of Kamieniec Ząbkowicki and Bardo / Preparation phase, Construction phase | Investor / Supervision Consultant | Number of identified cases of misinformation and number of published corrections – monitoring of local media and Facebook;<br>Number of individual field visits to PAP – PAP registry;<br>Number of grievances/complaints regarding misinformation registered with the GRM. | Ongoing (GRM and PAP registry); monthly | Investor / Supervision Consultant |