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The Amulsar gold mine project and its impacts on Emerald Network sites (Armenia)

- REPORT BY THE GOVERNMENT-

Document prepared by
Republic of Armenia Ministry of Environment

Updated progress report of the Government of Armenia on Complaint No. 2020/04
Amulsar Gold Mine Project and its Impacts on Emerald Network Sites

Abstract

The Government of Armenia submits this updated report following the first ordinary meeting of the Bureau of the Standing Committee to the Bern Convention, held on 7-9 April 2026. The current report provides an updated informationon Complaint No. 2020/04. It refers to:

- the status of the Amulsar gold mine project,
- environmental assessment follow-up under Armenian law,
- biodiversity monitoring and seasonal verification,
- the revision of Armenia's candidate Emerald network sites,
- preparation of an updated database,
- the Jermuk National Park process
- and, where relevant, issues raised by the complainants in February 2026.

The construction activities at Amulsar resumed in June 2025, and the project is transitioning from final construction into commissioning and operational readiness. Armenia duly noted the request of the Bureau of the Standing Committee to the Bern Convention (the Bureau hereinafter) regarding conduct of new Environmental impact assessment (EIA) before extraction activities commence. Under the respective Armenian law, the EIA is an ex-ante preventive procedure for planned activities before project authorisation. For an activity already assessed, authorised and partly implemented, the existing positive expert conclusion remains legally valid unless statutory grounds for its revision, suspension or invalidation emerge. New scientific information is therefore being collected through monitoring, post-project analysis, management updates and review of whether any further legal procedure is triggered.

Armenia also acknowledges the Bureau's concern that the 2025 biodiversity fieldwork was limited to the period of September-November. Additional spring and summer studies for 2026 have therefore been arranged with national scientific institutions.

The revision of the candidate Emerald Network sites is ongoing and implemented by the Ministry of Environment of the Republic of Armenia. In this regard, the Ministry has once again extended an invitation to the complainant NGOs to participate in phased technical consultations, and intends to include its results in the updated database package for submission to the Secretariat and consideration at a Bern Convention biogeographical seminar.

The Jermuk national park process is in an active phase and remains a priority conservation initiative for the wider Jermuk region.

1. Current status of the Amulsar project

Construction works at Amulsar resumed in June 2025. The project is transitioning from final construction towards commissioning and operational readiness. The current indicative schedule anticipates a potential transition to gold recovery operations later in 2026, subject to the completion of all remaining preparatory activities and the fulfilment of applicable regulatory, monitoring-related and other legal requirements under the Armenian national law.

The complainants stated that the construction of the gold mine was in progress and they lacked any information on whether extraction had started or not. The information available to the competent authorities refers to final construction, commissioning and operational readiness. Updated information on any transition to extraction-related activity will continue to be requested, verified and, where relevant, reported to the Bureau.

Materials submitted to the Ministry indicate that, according to the documentation made available for the reporting period, health, safety and environmental performance indicators during construction have remained stable, and no environmental impact incidents have been recorded. The complainants also referred to the civil litigation initiated by the Lydian Armenia CJSC against a representative of one complainant organisation. It should be noted that the Ministry is not competent to assess or intervene in private civil litigation before the courts. The existence of such litigation does not affect the Ministry's readiness to continue the dialogue with civil society organisations on matters within its environmental competence. Civil society participation, access to information and freedom of expression remain important elements of environmental governance.

2. Environmental assessment follow-up under Armenian law

Armenia takes the Bureau's repeated request regarding a new EIA prior to the commencement of extraction activities seriously. At the same time, the matter must be considered in light of the legal framework governing the EIA procedure under Armenian law. The current EIA conclusion and related national permits remain in force. Under the relevant Armenian legislation, the environmental impact assessment (EIA) is a preventive, ex-ante assessment procedure conducted for a planned activity and its project documentation prior to its authorisation and implementation. It is not a procedure automatically or retroactively re-opened for an already assessed, authorised and partly implemented activity solely because the project transitions from one implementation phase to another, where the approved design, location, technology and scope remain unchanged. Accordingly, the existing positive expert conclusion remains legally valid unless and until statutory grounds affecting its revision, suspension, invalidation or the authorised activity itself are established under national law. In the absence of a new planned activity, material modification, expansion, reconstruction, technological re-equipment, relocation, closure or other statutory ground, the initiation of a formally new EIA must be assessed strictly within the applicable national legal framework.

This approach does not disregard new scientific information. In the case of authorised activities, the relevant mechanisms include continuous monitoring and post-project

analysis, as provided for under the applicable national EIA legislation, the updating of management and mitigation measures, and, where legally justified, an assessment of whether new circumstances warrant the initiation of a further procedure under national law.

To this end, the Ministry has initiated inter-agency consultations and requested updated technical, environmental and biodiversity information, including the results of the 2025 monitoring program and the additional 2026 seasonal field studies. The Bureau will be informed of the outcome of this review, as well as of any procedural steps required under the applicable Armenian legislation.

3. Biodiversity monitoring and 2026 seasonal verification

The Government acknowledges the Bureau's observation that the 2025 fieldwork was conducted only between September and November, which may not allow observation of certain species, including «*Acantholimon caryophyllaceum*». This deliberation has been taken into account while planning further fieldwork.

Scientific materials reviewed by the competent authorities indicate that *«Acantholimon caryophyllaceum»* was not recorded within the surveyed plots or areas and during the survey periods concerned, including earlier surveys in 2018. The 2025 botanical work by the A. Takhtajyan Institute of Botany also did not record this species in the project area or adjacent areas, individual occurrences of *«Acantholimon glumaceum»* and *«Acantholimon takhtajanii»* were recorded instead.

Armenia recognizes that the absence of recorded species during autumn surveys alone is not sufficient to dispense with the need for seasonal verification. Accordingly, in 2026, additional biological and hydroecological studies have been commissioned with the A. Takhtajyan Institute of Botany and the Scientific Centre of Zoology and Hydroecology of the National Academy of Sciences of Armenia. These studies are expected to include spring and summer fieldwork within the project area and adjacent territories thereby complement the 2025 biodiversity monitoring report by covering seasonal periods that were not sufficiently represented during the 2025 fieldwork. Once finalized, the results will be transmitted to the Secretariat. They will contribute to the ongoing revision of the Emerald Network and the environmental assessment follow-up, without prejudging ongoing technical verification.

4. Environmental monitoring and risk management

The Ministry has requested updated monitoring information for the project area and adjacent territories. The requested datasets cover surface water and groundwater quality and levels; soil condition, air quality, dust and emissions, noise and vibration, waste management, cyanide management and related risk-control measures, biodiversity monitoring; and emergency, prevention and corrective measures. The relevant information is expected within the agreed timeframe. Once received and consolidated, it will be

reviewed by the relevant competent authorities and can be transmitted to the Secretariat as supplementary material. Until that review is completed, the Government does not present these data as final verified conclusions in this report.
Othermaterials collected through inter-agency consultations refer to water management arrangements, leak detection at the heap leach facility, cyanide handling, technical checks of stored geomembranes, emergency procedures and environmental and social due diligence. These materials are considered as a background information for risk-management purposes and do not constitute a substitute for EIA follow-up, updated monitoring or verification under the Bern Convention biogeographical process. If monitoring identifies a significant risk to species, habitats, water resources or other protected values, relevant competent authorities will require preventive, mitigation or corrective measures in accordance with Armenian law and Bern Convention commitments.

5. Emerald Network revision, consultations and database timetable

Armenia continues the revision of its candidate Emerald Network sites and duly notes the Bureau's request to conclude consultations and submit an updated database, including the revised boundaries, in order to facilitate the organization of a Bern Convention biogeographical seminar. This is essential to enable a proper assessment of the potential impacts of the Amulsar project on the relevant candidate Emerald Network site.
The complainants stated that no further consultations had taken place. The Ministry clarifies that the revision has neither been finalised nor formally submitted, precisely because the stakeholder consultation process, technical validation and scientific justification must first be completed. To this end, the Ministry has renewed its engagement with the complainant NGOs concerning the proposed phased review and clarification of Armenia's candidate Emerald Network sites, most recently sharing the proposal at the end of 2025. "EcoLur" NGO responded positively and expressed its willingness to engage in the process. As of the date of preparation of this report, no written responses had been received from the other organisations contacted. Nevertheless, the consultation process remains ongoing, and the Ministry looks forward to receiving and duly considering their written submissions, including any comments provided during the phased technical discussions.
The updated database package is expected to include geographic information system (GIS) boundary layers, revised site information, species and habitat tables, scientific justification for proposed boundary changes, a consultation record and, where appropriate, a comment-response matrix. Any boundary changes will be addressed with reference to scientific data and Bern Convention guidance on negative changes to Emerald Network sites.
Ministry intends to proceed with the database preparation through a phased process. The next steps will include consolidation of comments received from civil society organisations, review and possible adjustment of GIS layers and species and habitat information, technical validation by national experts and competent authorities, and a further inter-agency circulation of the revised materials. Following completion of these steps, the Ministry will prepare the updated database package, including consultation documentation and explanatory materials, for submission to the Secretariat of the Bern Convention. The timing of submission depends on the completion of stakeholder consultations, national technical validation, incorporation of the 2026 seasonal survey results and any technical adjustments

required by those results. Broader national biodiversity targets will continue to be addressed through relevant national and international reporting channels.

6. Jermuk national park

The Government welcomes the Bureau's encouragement to establish Jermuk national park ahead of COP17 in Yerevan. The process is in an active phase and remains a priority conservation initiative for the wider Jermuk region. It is an additional national conservation measure, and Armenia does not refer to it as a substitute for environmental assessment follow-up, monitoring or Emerald Network verification.

A cooperation framework supporting the establishment of the National Park was initiated in 2016 between the then Ministry and the operator of the Amulsar project. Earlier preparatory materials developed under that framework included biodiversity studies, draft mapping and zoning, a draft Government decision, scientific justification and preliminary management-planning materials. These materials are currently being reviewed in conjuction with the ongoing KfW-supported programme implemented with WWF in the areas of biodiversity conservation and sustainable local development, one component of which relates to the establishment of Jermuk national park.

Current work includes studies of preliminary boundaries and valuable ecosystems, review of the 2016-2018 materials, data-gap assessment, updated mapping and zoning where necessary, clarification of land, management and administrative issues, preparation or update of the draft legal act and supporting justification, inter-agency consultation and public consultation under national requirements. A technical working discussion with relevant experts and stakeholders is planned to define a realistic timeline and align the process, where possible, with Armenia's broader biodiversity agenda in the context of COP17.

7. Response to the complainants' 3 requests and cooperation with the Secretariat

1) Armenia attaches importance to continued dialogue with the Bern Convention Secretariat, the Council of Europe, civil society and scientific institutions. Regarding the request for a strong message concerning Emerald network protection, protected areas and harmful activities, Armenia shares the view that effective Emerald Network management and strengthening of the national protected area system are important for implementing both the Bern Convention and the Kunming-Montreal Global Biodiversity Framework. At the same time, Armenia underlines that any measures concerning already authorised activities should be considered by the competent authorities in accordance with national legislation, applicable administrative procedures, updated scientific evidence and environmental safeguard requirements.

2) regarding synergies between the Bern Convention and the Convention on Biological Diversity, Armenia recognizes their complementarity and mutually reinforcing character. The topic of synergies between the Rio Conventions and other multilateral environmental agreements will feature high in the agenda of the COP17 in Yerevan. Lessons learnt from Emerald Network revision, protected area planning and biodiversity monitoring will be reflected, where appropriate, in the broader national biodiversity agenda, without transferring or prejudging the legal assessment of any specific authorized activity.
3) regarding the request for an OSA mission, Armenia takes note of the request and remains open to expert cooperation. At the same time, the Bureau has identified the updated Emerald Network database and a biogeographical seminar as essential for verifying Emerald habitat and species information. Armenia therefore considers completion of the scientific database, 2026 seasonal surveys and consultations to be the immediate technical priority, without prejudice to any further decision by the Bureau regarding expert missions. Armenia would welcome further guidance from the Secretariat on the appropriate timing and scope of any expert engagement once the updated database and seasonal survey results are available.

8. Next steps

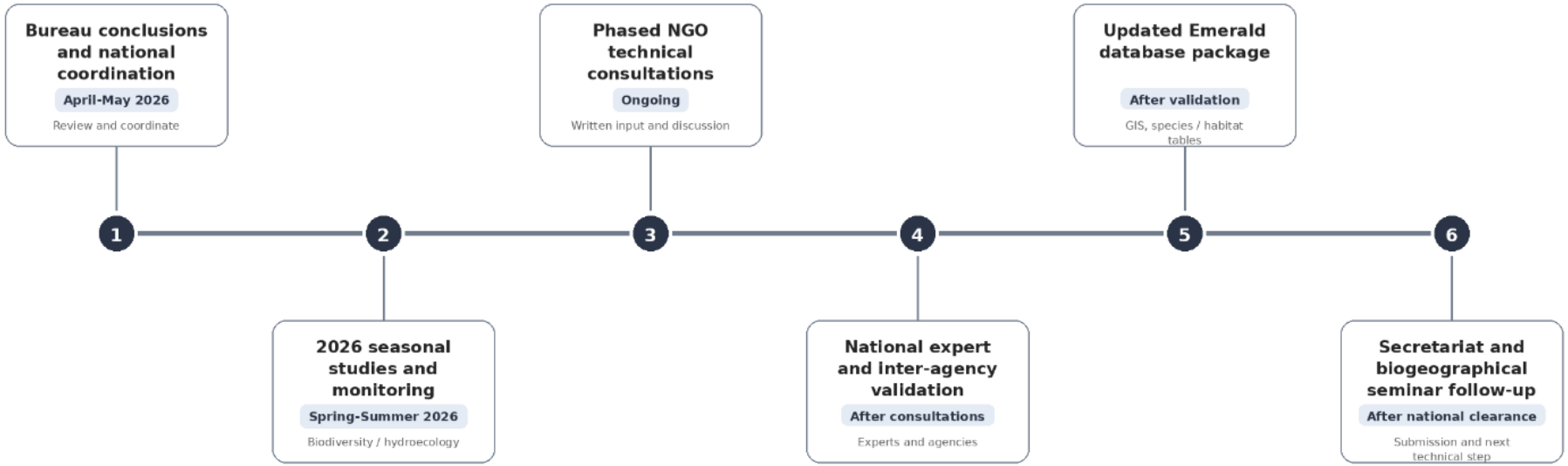
To facilitate the Bureau's review, a process timeline is enshrined in the Annex of this report. The timeline illustrates the phased sequence of the main technical and consultation steps related to the 2026 seasonal studies, stakeholder consultations, national validation, preparation of the updated Emerald Network database package and further work with the Secretariat. It is provided as an indicative working tool only and does not constitute a final boundary proposal or establish a binding timetable.

ANNEX

Indicative Process Timeline for Follow-up to the Bureau Conclusions

Complaint No. 2020/04 - Amulsar Gold Mine Project and its Impacts on Emerald Network Sites

Working sequence only: timing depends on stakeholder consultations, national technical validation, 2026 seasonal survey results and national clearance procedures.



Key dependencies: NGO and stakeholder inputs | 2026 seasonal studies | national expert validation | inter-agency circulation | national clearance.

Note: This timeline is a process illustration. It is not a final boundary proposal and does not predetermine the outcome of consultations, technical validation or national procedures.

Update Report – February 2026

Updated report of the government of Armenia on Bern Convention complaint No. 2020/04 (Amulsar gold mine project and Emerald network sites)

Abstract:

The Ministry of Environment of the Republic of Armenia has prepared this progress report in response to the concerns raised by the Bern Convention Standing Committee during its 45th meeting (held December 8–12, 2025) regarding complaint № 2020/04 related to the Amulsar Gold Mine project. The report outlines the current legal and licensing conditions— highlighting that the Amulsar mining license remains valid through 2039, with the mine overlapping less than 1% of the Jermuk candidate Emerald Network site. It also covers the status of the Environmental Impact Assessment (EIA), recent updates to methodologies, and findings from extensive biodiversity monitoring carried out in 2025.

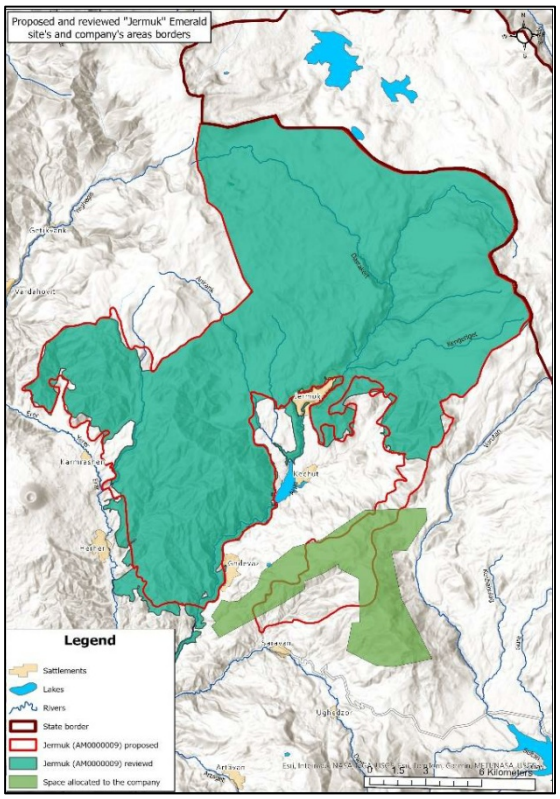
According to the results, there are no significant Emerald Network habitats within the mining area. Species listed in the Bern Convention appendices, such as the Cinereous Vulture, Montagu's Harrier, and Golden Eagle, are only occasional visitors and do not breed on site. Since 2011, a team of national and international experts from the National Academy of Sciences has led rigorous, peer-reviewed studies to ensure scientific credibility and objectivity. The report also analyzes potential environmental risks linked to the proposed heap leach gold extraction. It concludes that, with strict safeguards in place, including advanced water management systems, proper cyanide handling, and biodiversity action plans—the project can align with conservation goals.

On the socio-economic front, the report notes that the project is expected to generate around 1,000 jobs (with 30% designated for local communities), boost national revenues, and provide voluntary funding for community development initiatives.

Finally, the report outlines both ongoing and future conservation efforts. These include continued biodiversity monitoring through 2026, adaptive strategies to manage environmental impacts, and efforts to establish the Jermuk National Park as a means of protecting the region's ecosystems.

1. Legal framework and current licensing status of Amulsar mine

The Amulsar Gold Mine project operates under a clearly defined legal framework. The mining license (subsoil use right) was initially granted in 2009 and reissued on 26 September 2012, and it remains valid through 25 March 2039. No modifications to this license or associated rights have been made in the past three years (2023–2025). The concession agreement between the Government of Armenia and Lydian Armenia (the project developer) is publicly accessible in line with Armenia's Extractive Industries Transparency Initiative commitments, underscoring the government's dedication to transparency in the mining sector.



Amulsar lies in the Vayots Dzor region and partly overlaps with the «Jermuk» candidate Emerald network site designated under the Bern Convention. However, this overlap is very limited, approximately 375 hectares of the mine's operational area intersect the candidate Emerald site, constituting only about 1.07% of the 35,015 ha «Jermuk» site (see the map).

The national authorities remain mindful of their obligations under Article 4 of the Bern Convention to protect candidate Emerald sites. In compliance with Article 4 and Standing Committee Recommendation № 225 (2024), Armenia is committed to identifying potentially harmful activities, conducting thorough impact assessments, and authorising only those developments compatible with the conservation objectives of Emerald sites.

It must be noted that the Standing Committee's decisions in 2023 and 2024 had urged caution regarding the Amulsar project (including calls to temporarily halt construction). Nevertheless, as of late 2025 the project has progressed under its valid permits. Construction activities advanced into their final phase, and the operation is transitioning toward commissioning. All requisite Armenian permits, including the approved EIA conclusion and the mining right, remain in force and legally empower Lydian Armenia to proceed with these activities. Importantly, the Amulsar project's footprint within the candidate Emerald Network site has been subject to scientific re-evaluation.As part of Armenia's ongoing candidate Emerald network scientific assessment process, areas that were initially included in the «Jermuk» candidate site but found through detailed surveys, not to contain the species or habitats of concern are being reviewed. The government affirms that any adjustment of candidate Emerald site boundaries will be based strictly on the best available scientific evidence, not on economic considerations. In practical terms, this means the removal of the Amulsar mountain area from the Emerald

site is being scientifically justified by the absence of qualifying habitats/species there (see Section 3 and 5 for data) and will not undermine the Emerald Network's conservation value. This approach aligns with Bern Convention guidance (T-PVS/PA(2017)07) on explaining site boundary changes. The authorities have kept the Bern Convention Bureau informed of these deliberations and will continue to do so.

2. Environmental impact assessment status and methodology updates

The Environmental Impact Assessment (EIA) for the Amulsar Gold Project was originally
approved under Armenia's national environmental review process, with the initial assessment completed in 2012 and updated in 2016. This EIA, along with all related environmental permits, remains valid and enforceable. It covers the full scope of the project's design, including open-pit mining and the use of cyanide in heap leaching, and outlines required

mitigation strategies and monitoring commitments. Since no changes were made to the EIA or project design in 2025, there was no legal obligation to conduct new public hearings during the reporting period. The project continues to operate under the environmental management plans and monitoring programs that were previously approved.

That said, in response to new developments and at the request of the Bern Convention Standing Committee, authorities are working to ensure that the EIA reflects the most current scientific understanding before gold extraction begins. As biodiversity knowledge has expanded since the original assessments, a new, comprehensive biodiversity study was completed in 2025 (see Section 3 for details).

The assessment process has also been updated methodologically, thanks to ongoing monitoring and third-party reviews. Between 2023 and 2025, the project proponent, in collaboration with Armenian scientific institutions, established a continuous environmental monitoring program. This includes quarterly assessments of key indicators such as water quality, groundwater and surface water levels, soil conditions, air quality, noise levels, and biodiversity around the Amulsar site. The data is submitted to regulatory bodies and made available for expert evaluation.



Findings from the 2025 biodiversity study are now helping shape enhanced mitigation strategies. For example, if new species of conservation concern were identified, targeted measures such as restricting work during breeding seasons, establishing small-scale habitat reserves, or relocating sensitive species will be integrated into project operations.

Since the original EIA, several improvements have been made. These include advanced hydro-geological modeling, upgraded systems for water treatment and cyanide detoxification, better dust suppression technologies, and biodiversity offset initiatives. Such updates ensure that mining activities—particularly open-pit blasting and cyanide heap-leaching—are carried out with state-of-the-art environmental protections in place. Key measures include leak-detection-lined heap leach pads, a treatment facility for contact water, and real-time downstream water quality monitoring. In addition, the project has adopted a Cyanide Management Plan that aligns with the International Cyanide Management Code.

3. Biodiversity monitoring in 2025 and key species

In 2025, a comprehensive biodiversity study was conducted to build on and update previous ecological research in the Amulsar region. This effort was the result of a formal

collaboration between Lydian Armenia and Armenia's top scientific institutions—specifically, the A. Takhtajyan Institute of Botany and the Scientific Center of Zoology and Hydroecology at the National Academy of Sciences (NAS RA).



Fieldwork took place from early September through November 2025 and focused on undisturbed parts of the Amulsar area, as well as nearby habitats in the broader Jermuk region. Although a full-year study was originally planned, funding delays meant that the 2025 research had to be condensed into the autumn season. However, continuous biodiversity monitoring will extend through 2026, covering all key ecological periods such as spring, summer, and breeding seasons to ensure a complete and scientifically robust data set.

The 2025 field studies included assessments of plant and animal life, as well as habitat conditions. Scientists used standard research methods: botanists conducted transects and quadrat surveys to catalog plant species and habitat types, while zoologists used line transect surveys, camera traps, acoustic equipment (particularly for bats), and visual surveys to study reptiles, amphibians, and invertebrates. GPS mapping was used to accurately document species sightings and habitat boundaries.

Special attention was given to species and habitats listed in the appendices of the Bern Convention particularly those identified in Resolution No. 4 (1996) for habitats and Resolution No. 6 (1998) for species addressing specific concerns raised in the Bern Convention complaint. Detailed summary information on the flora, fauna, and habitat surveys and assessments conducted in 2025 is attached in the Appendix 1, and the full Biodiversity monitoring report can be downloaded from this link.

4. Scientific and institutional integrity of research and monitoring

The Ministry of Environment stresses that all biodiversity research and monitoring related to the Amulsar project have been carried out with the highest standards of scientific rigor and institutional integrity. Long-term ecological studies have been ongoing at Amulsar since 2011 well before the current Bern Convention complaint was filed. These efforts continued up to 2018, resumed in 2023, and were further expanded in 2025, as previously detailed. Importantly, this work has been led by independent experts from Armenia's National Academy of Sciences (NAS RA) and other specialized institutions, often working in partnership with international scientists. Core research bodies such as the Institute of Botany and the Scientific Center of Zoology and Hydroecology are recognized national authorities on biodiversity. These institutions have decades of research experience and have produced numerous scientific publications. Many of the experts involved have represented Armenia in global scientific forums, contributed to peer-reviewed literature, and participated in international biodiversity assessments.

Under Article 9 of Higher Education and Science law, the NAS RA has a legal mandate to provide scientifically sound advice to both the government and the public. Their

leadership in the Amulsar biodiversity assessments guarantees that the methods and findings meet professional and academic standards. Botanical surveys have followed standard floristic and geobotanical techniques, while zoological studies have adhered to globally accepted species monitoring protocols. All data is subject to rigorous scientific analysis and peer review. The biodiversity reports from 2018, 2023, and 2025 were internally reviewed by senior scientists

and, in some cases, evaluated by external experts such as consulting ecologists from the UK and the US hired to ensure objectivity.

Given this well-established and credible framework, the Ministry firmly rejects any suggestion that the research lacks independence or scientific merit. No organization or expert opposing the Amulsar project has submitted alternative data or conducted their own fieldwork to challenge these findings. Since the mining license was issued in 2009, no independent researchers have formally requested access to conduct biodiversity studies at the site despite it being open to properly arranged visits.

As a result, any debates about Amulsar's biodiversity that overlook or dismiss the results of over a decade of scientific study are incomplete and not grounded in evidence. All decisions related to biodiversity and conservation in the project area are based on this body of research.

The scientists involved in these studies are well-respected experts. The botanical team includes leading specialists on Armenian flora, several of whom have contributed to the national Red Book. To further ensure alignment with international standards, global experts such as Dr. E.C. Treweek were brought in for instance, to prepare an independent 2019 review responding to claims made by Bankwatch. These experts applied knowledge of EU Natura 2000 guidelines and IFC Performance Standards, further validating the scientific approach taken in Amulsar's case.

Transparency and verification are key aspects of the research integrity. The full reports from these studies (e.g., 2016 Brown Bear Survey, 2017 Potentilla Conservation Report, 2018 biodiversity baseline, 2019 Treweek response) can be shared.

In addition, the project's biodiversity programs have incorporated peer guidance and partnerships with institutions like Cambridge University (UK) for the Potentilla conservation, WWF Armenia for initial candidate Emerald site identification, and other NGOs. The Ministry has invited civil society input in formal settings, for instance, during the Emerald Network revision process, NGO experts were part of discussions to ensure transparency.

5. Assessment of risks to species and habitats

The Standing Committee expressed concern about the "risks to species and habitats" from the Amulsar project, particularly given the use of extraction methods (open pit mining with blasting, cyanide heap leaching), which can be costly to the environment. In this section, we have assessed these risks, taking into account the available data, and outlined the mitigation measures to address them. The assessed risks, along with information on the measures to address them, are included in Appendix 2.

6. Stakeholder engagement and public participation

Public participation and stakeholder engagement have been central to the Amulsar project's development and remain a key priority in 2025. The Ministry of Environment,

along with other relevant government bodies, has made consistent efforts to involve local communities, civil society organizations (CSOs), and international stakeholders following the principles of the Aarhus Convention and Armenia's national laws.

The Ministry of Environment convened several discussions and working group meetings in 2025, involving environmental NGOs (e.g., WWF Armenia, the Armenian Environmental NGOs Union), scientists, and government representatives. These sessions were used to share the scientific basis for proposed changes to the "Jermuk" candidate Emerald Network site within which the Amulsar area falls and to gather feedback. While one of the complainant NGOs (EcoLur/Bankwatch) stated that they were not sufficiently engaged earlier in 2024, the Ministry made increased efforts later that year and into 2025 to improve transparency. For example, during an October 2025 briefing, NGOs were invited to review maps and data related to proposed boundary changes and to offer suggestions, such as compensatory conservation measures or alternative protections. All feedback was recorded and taken into account.

The Ministry has committed that no final decisions will be made on candidate Emerald Network site boundaries without providing clear scientific justification and allowing time for public input, in accordance with Council of Europe guidance.

To ensure access to information, all major documents including the EIA, monitoring reports, and environmental management plans have been made publicly available. The Ministry's website hosts the official EIA conclusion and periodic updates on Amulsar-related decisions. Lydian Armenia's website also offers environmental and social documentation in both Armenian and English. This progress report, along with annexes such as the 2025 Biodiversity Monitoring Report, will be shared with both international and domestic stakeholders to ensure transparency and equal access to information.

Although no changes to the project design occurred in 2025 meaning that no new public hearings were legally required the Ministry and company continued engaging with stakeholders. The Ministry of Economy confirmed that because the existing EIA and permits remain valid and unchanged, no new hearings were mandated by law. Still, the absence of formal hearings has not meant a lack of engagement. Ongoing outreach through community liaisons, NGO briefings, and multi-stakeholder consultations around the candidate Emerald Network revision process has ensured continued public involvement at this stage of the project.

7. Ongoing and planned monitoring, mitigation, and conservation efforts (Including Jermuk national park)

Armenia remains committed to ensuring that if the Amulsar project proceeds, it does so under strict environmental oversight and with parallel conservation efforts that align with both national and international environmental obligations. This final section outlines forward- looking measures, including continuous environmental monitoring, adaptive mitigation strategies, biodiversity conservation programs, and progress toward establishing Jermuk National Park.

Environmental monitoring at Amulsar is not a one-time activity but a continuous, long-term process. As previously mentioned, quarterly reports are produced covering a

range of environmental factors, including surface and groundwater quality, air quality (dust and emissions), noise and vibration levels, soil conditions, and biodiversity. These reports are submitted to the Ministry of Environment and made available to the Bern Convention upon request.

This monitoring will continue throughout the mine's operational phase and for years after closure particularly to track water and ecological stability over time. The 2025 biodiversity monitoring program marked the first phase of a renewed long-term initiative. In 2026, the plan is to expand this effort into full year-round monitoring, including spring bird breeding surveys, summer botanical studies, and more, to ensure a thorough understanding of baseline conditions before mining ramps up. All monitoring follows established scientific protocols, with results compared against baseline data and relevant standards including both Armenian regulations and EU Water Framework Directive benchmarks.

If monitoring reveals any unexpected impact or threshold exceedance, a set of predefined corrective measures will be activated. For example, if a sensitive wildlife species is found nesting near active operations, the biodiversity team would immediately implement a buffer zone around the nest. This adaptive management system ensures mitigation measures remain responsive and effective as conditions evolve.

A comprehensive suite of Environmental and Social Management Plans (ESMPs) is in place to guide the implementation of mitigation strategies. These include plans for site management, air quality, noise and vibration, water and waste (tailings and rock), cyanide handling, and biodiversity. Specifically, the biodiversity-related documents include a Biodiversity Management Plan, a Biodiversity Action Plan (BAP), a Biodiversity Offsetting Strategy, and a Biodiversity Monitoring Plan.

Each of these plans outlines specific measures, responsibilities, and monitoring procedures. For example, the BAP sets out how key species will be protected through measures such as habitat set-asides or anti-poaching patrols if needed. The offsetting strategy details how unavoidable impacts (like habitat loss) will be compensated through conservation actions elsewhere, with the goal of achieving no net loss of biodiversity. While the initial Biodiversity Monitoring Plan was developed in 2018, it has since been updated with findings from the 2023–2025 studies and will guide future monitoring efforts. These plans are considered "living documents" they are reviewed annually and revised as needed.

A key component of Armenia's conservation strategy is the creation of Jermuk National Park. This proposed park represents a long-standing government commitment, previously outlined in national planning documents. The aim is to consolidate several existing protected areas Herher State Sanctuary, Jermuk Hydrological Sanctuary, and Jermuk Forest Sanctuary into a larger, unified National Park. The park would protect the broader Jermuk region's rich ecosystems, home to numerous red-listed species.

As of the end of 2025, the declaration of Jermuk National Park is in a «pending process,» meaning preparatory work is ongoing but final establishment is not yet decreed. During the 2025 the government reaffirmed the intention to proceed with creating the Park and acknowledged the Standing Committee's recommendation to resume and speed

up this process. The proposed boundary revising for the «Jermuk» candidate Emerald network site align with the envisioned National Park boundaries meaning that areas important for biodiversity will remain protected either way. In fact, any areas excised from the Emerald site due to lack of Bern features might still remain in the National Park if they contribute to landscape connectivity or other ecological values.

This new National Park will provide stronger national-level protection (IUCN Category II) and dedicated management to the region's natural heritage. It will also serve as a compensatory measure for any potential residual impacts of Amulsar, essentially, ensuring that conservation in the region is enhanced even as development occurs.

We plan to report, in the next update, progress such as any new species found in 2026 surveys, the status of Jermuk National Park declaration, results of initial operation-phase monitoring (if extraction begins in mid-2026 as planned), and any further stakeholder engagement outcomes. This iterative monitoring and reporting loop ensures international oversight and accountability. In line with international best practices (e.g., IFC Performance Standard 6), the project through its Biodiversity Offset Management aims to achieve No Net Loss (NNL) of biodiversity for natural habitats and Net Gain for critical habitats. Practically, this means the residual impacts on habitats and species are being quantified and equivalent (or greater) conservation gains are pursued. The creation of Jermuk National Park, habitat restoration projects, and species-specific programs (like for Potentilla and brown bear) are all part of delivering this NNL/Net Gain outcome.

The measures described above demonstrate a comprehensive approach to mitigation and conservation. Activities at Amulsar are under constant surveillance, and environmental management is adaptive to new findings. Conservation initiatives, both on-site and off-site, are ensuring that the region's biodiversity is not only protected but potentially enhanced in the long term. The Government of Armenia remains fully committed to these efforts.

We reiterate that scientific evidence drives our decisions, should any monitoring indicate a significant threat to a species or habitat that cannot be mitigated, appropriate action (including reassessing the project's scope if necessary) will be taken in line with Bern Convention obligations.

Appendix I

Appendix 1

Summary information on the flora, fauna, and habitat surveys and assessments conducted in 2025



Flora and habitats: The botanical team's 2025 surveys reaffirm that no critical Emerald Network habitat types are significantly represented within the Amulsar project area. Out of the 20 habitat types listed in Bern Convention Appendix I (Resolution 4) that were assessed for the "Jermuk" Emerald site, none were found to be characteristic of Amulsar's environment. Many are completely absent from the Amulsar mountain and the specific 375 ha overlap with the Emerald site – for example, no riparian alder forests (G1.11), marshes (D4.1, D5.2), or caves (H1) occur in the mining area. A few habitat types do exist on Amulsar (e.g. alpine and subalpine grasslands on acidic soils – E4.3, montane meadows – E2.3), but these occupy less than 1% of their national distribution (criterion "D" for insufficiency). One habitat (acidic siliceous rock outcrops, H3.1) is present in small patches atop Mount Amulsar (~10 ha) but notably absent from the portion overlapping the Emerald site. Thus, the Emerald Network habitats that motivated the site's designation are either not present or present only in negligible extents on Amulsar, implying that mine operations have minimal impact on them.

Floral surveys recorded the plant species composition in the Amulsar and adjacent areas, with particular attention to rare or endemic species. Crucially, the species Echium russicum (Red Viper's Bugloss) – listed in Appendix I (Annex 6) of the Bern Convention as a strictly protected plant – was not found in the Amulsar study area or the overlapping Emerald section. This corroborates earlier data that Echium russicum does not grow in this region of Armenia. Likewise, two other plant species that had been mentioned in various reports as "newly recorded" in the wider Jermuk area were confirmed absent from Amulsar: Acantholimon caryophyllaceum (a rare cushion plant, Red-listed in Armenia) was not encountered in any Amulsar surveys and is not reported for this area in the national flora, and Sedum album (white stonecrop, the primary larval food plant of Apollo butterflies) was also not recorded on Amulsar. The absence of Sedum album is notable because it indicates that the habitat is not suitable for sustaining Apollo butterfly populations (see Invertebrates below).

One endemic and nationally endangered plant present at Amulsar is Potentilla porphyrantha (commonly called Amulsar cinquefoil, a pink-flowered cinquefoil). This plant, while not listed in Bern Convention Annex 6, is listed in Armenia's Red Book of Plants and has been a focal point of conservation. Since 2016, a dedicated conservation program has been implemented by Lydian Armenia in partnership with

the Institute of Botany (and with advice from international experts, including the University of Cambridge). As part of this program, hundreds of Potentilla porphyrantha individuals were translocated to safe areas and grown ex situ. An artificial population was established in rock-garden plots on North Erato Peak (within the Amulsar range but away from mining areas) and at the Sevan Botanical Garden's alpine plant greenhouse. The 2025 monitoring report notes that the Potentilla specimens in the Sevan Botanical Garden's rockery are in good condition, though requiring routine maintenance (weeding, repotting). Field checks on the wild Potentilla population near Amulsar's Arshak peak have continued, with permanent sample plots set up to track population dynamics. Encouragingly, there have been no signs of decline in the monitored Potentilla sub-populations; the conservation measures (seed banking, cultivation, and habitat protection) are helping safeguard this species. Annual detailed reports on Potentilla porphyrantha (e.g., 2017 Annual Report) are annexed to provide full documentation of these efforts.

In summary, flora and habitat findings from 2025 confirm that the Amulsar project area does not harbour any known Bern Convention Appendix I habitats or Appendix I plant species that would be adversely affected by mining. The few sensitive plant taxa that do occur (like Potentilla porphyrantha) are under active conservation management.

Fauna – mammals: The 2025 fauna surveys involved camera traps, track surveys, and direct observation focusing on large mammals and other terrestrial vertebrates. Results show that most large mammal species of concern are either absent or only occ asionally present in the Amulsar area. Notably, no evidence of the Persian leopard (Panthera pardus saxicolor) was found – this species has never been recorded in the Amulsar or Jermuk area in modern times. Similarly, the Armenian mouflon (Ovis orientalis gmelini) is absent; no sightings or signs of mouflon have ever been documented on Amulsar. The habitat on Amulsar (high-altitude grassland and rocks) is not typical for mouflon, which prefer lower elevation arid mountain slopes.





The Bezoar goat (Capra aegagrus) – another important regional species – is not resident on Amulsar. Only a single incidental camera trap record of a bezoar ibex was obtained in past years, likely a wandering individual. There are no known bezoar goat colonies or migratory routes traversing the Amulsar site (the nearest regular habitats are many kilometers away). Likewise, Eurasian lynx (Lynx lynx), marbled polecat (Vormela peregusna),

and Eurasian otter (Lutra lutra) have never been observed in the Amulsar project vicinity or the overlapping Emerald area.

The only large carnivore confirmed on Amulsar is the Brown Bear (Ursus arctos), which is a species of national conservation concern (and listed in Bern Convention Appendix II). Field surveys found signs of bear activity (footprints, scat, scratch marks) both in 2025 and in previous years. Bears are present in the broader landscape around Amulsar, moving through seasonally in search of food. In 2016, a baseline Brown Bear survey was conducted around Amulsar, involving DNA analysis of hair samples, to genetically identify individual bears and their usage of the area. The results indicated that a limited number of bears occasionally traverse Amulsar, but the area is not an essential core habitat for a resident bear population (bears den and breed in deeper forested parts of Vayots Dzor and Syunik, whereas Amulsar is mostly open terrain). The conservation organization responsible for bear studies (which collaborated on the 2016 survey) continues to monitor bear presence annually, including deploying camera traps and consulting local communities, to ensure any changes in bear activity are promptly detected. Mitigation measures (discussed in Section 5) are in place to manage potential bear-human encounters, and a set-aside "no disturbance" zone has been designated on part of the mountain for wildlife usage.

Another carnivore observed is the Grey Wolf (Canis lupus), but its presence is sporadic and transient. Surveys found only rare wolf tracks or scat, mostly in peripheral areas, and occasional visual observations of lone wolves moving across Amulsar. These instances usually coincided with livestock grazing periods – local shepherds grazing flocks nearby can attract wandering wolves. There is no resident wolf pack on Amulsar; the area is not prime wolf territory but rather falls within a much larger range of wolves that roam across the region. Given this context, wolf occurrence on Amulsar is considered opportunistic and seasonal.

Fauna – Bats: Bat surveys (combining ultrasonic detector recordings and cave/roost searches) in 2025 did not find any bat roosts or significant bat activity within the immediate Amulsar project area or the 375 ha Emerald overlap. Several bat species of interest (e.g. Southern Horseshoe Bat Rhinolophus euryale, Greater Horseshoe R. ferrumequinum, Lesser Horseshoe R. hipposideros, Blasius's long-eared bat Myotis blythii, Geoffroy's bat Myotis emarginatus, etc.) are known from the broader region and are listed in Appendix II of the Bern Convention. None of these were observed or detected on Amulsar in 2025. Acoustic monitoring on warm autumn nights registered only common pipistrelle and similar ubiquitous bat calls passing over, but no evidence of large colonies. There are also no caves or old structures in the mining area that could serve as bat hibernacula. Conclusion: The 2025 results confirm that no significant bat populations are present in the Amulsar area, so mining operations pose little risk to bat species.



Fauna – Birds: Avifauna was a major focus of the 2025 monitoring, given that several bird species protected under the Bern Convention and national law had been highlighted by the complainant. During September–October 2025, ornithologists surveyed both the Amulsar site and adjacent areas (including buffer zones up to 1.5 km from survey transects). The team employed linear transect counts and point counts, covering a range of habitats (mountain slopes, ravines, plateaus). Over the autumn monitoring period, a total of 60 bird species were recorded in and around Amulsar. These included resident species, migratory passers-by, and transient migrants on passage. The majority (75%) were passerines (songbirds) typical of scrub and rocky grassland habitats.



Notably, among the 60 species, only five species are listed in the Red Book of Animals of Armenia (nationally threatened species). These were: Golden Eagle (Aquila chrysaetos), Montagu's Harrier (Circus pygargus), Cinereous Vulture (Aegypius monachus, also known as Black Vulture), Armenian Gull (Larus armenicus), and Alpine Chough (Pyrrhocorax graculus). All five are of conservation interest, and the first three are also Bern Convention Annex II raptors. The survey findings for these key birds can be summarized as follows:



Golden eagle: This large raptor was observed only in the adjacent areas of Amulsar, typically soaring over nearby gorges. No Golden Eagles were recorded within the actual Amulsar mine area or the overlapping Emerald "Jermuk" site section. One adult and one juvenile were seen about 1 km outside the study area boundary. Importantly, no eagle nests exist on Amulsar – previous investigations noted some nesting sites along the Arpa River gorge farther away, but none on the mountain itself. Thus, the Golden Eagle does not breed at Amulsar and only rarely overflies it.

Montagu's harrier: This migratory harrier was documented only once, as a single individual flying over a grass-covered slope in the Amulsar area during autumn migration. No harriers were nesting or hunting regularly on site. In fact, the nearest known Montagu's Harrier breeding sites are about 6 km away, in the marshy areas near Spandaryan Reservoir and Sisian, well outside the project zone. Given this, it is

expected that Project activities will have no impact on Montagu's Harrier populations, as the species only passes through occasionally and its core habitat is elsewhere.

Cinereous (black) Vulture: This species, classified as Endangered in Armenia (and Near Threatened globally), was recorded only once in the entire autumn survey – a single adult and a juvenile were sighted soaring high above the Amulsar area on one occasion. Satellite telemetry data (from regional studies) similarly indicate the vulture rarely uses Amulsar's airspace. Crucially, no Black Vulture nesting or roosting sites are present on Amulsar. The individuals observed were likely wandering from known colonies in other parts of Armenia. The monitoring noted that the species did not enter the 375 ha Emerald overlap area at all during the survey period. Thus, Black Vultures are infrequent visitors and not dependent on Amulsar's habitats.

Armenian Gull: A Vulnerable (nationally) species, Armenian Gull was seen only once, with a single gull recorded at a small pond adjacent to the Amulsar area. This species typically frequents larger water bodies (e.g. Lake Sevan) and was likely an incidental transient. It does not breed or regularly feed in the mountain area.

Alpine Chough: This high-altitude crow (Endangered in Armenia) was recorded for the first time in Amulsar during the 2025 survey – a flock was observed flying near rocky outcrops on Mount Arshak (part of the Amulsar range). Alpine Choughs are generally alpine foragers and nest in cliff crevices. The observation indicates they occasionally use Amulsar's high rocks, but no nesting sites were confirmed within the project footprint.





Beyond these five Red-listed birds, all other bird species noted are relatively common and widespread in Armenia (with IUCN statuses of Least Concern). The 2025 monitoring confirmed earlier findings from 2013–2018: Amulsar is not a critical or unique habitat for any specific bird species. Many of the species flagged in the Emerald Network context – such as Bearded Vulture (Gypaetus barbatus), Lesser Kestrel (Falco naumanni), Greater Spotted Eagle (Clanga clanga), Corncrake (Crex crex), etc. – were either not observed at all during extensive surveys or found in such low numbers that they constitute less than 1% of those species' national populations. In fact, a comparative analysis of bird surveys from 2018, 2023, and 2025 (see Annex, Table 3) shows that there has been no increase in presence of any new critical species on Amulsar. If anything, several sensitive species are entirely absent. For example, Lesser Kestrel was recorded only twice in all surveys between 2013 and 2025, merely as a fly-over, and it does not breed on Amulsar. The Common Crane migration path lies west of Amulsar;

none were seen over the site. Imperial Eagles and White-headed Ducks (target species for Jermuk Emerald site) do not occur in the Amulsar vicinity at all.

Conclusion from bird monitoring: The data strongly indicate that the Amulsar area is not a primary or critical habitat for the bird species of conservation concern. The Standing Committee's specific examples – Black Vulture, Montagu's Harrier, Golden Eagle – each have at most a marginal presence on site (transient individuals). Therefore, the ongoing or planned mine operations are unlikely to adversely affect the viability of these raptor populations at regional or national scale. This conclusion is supported by species' ecology: these birds have extensive home ranges and alternative habitats, and Amulsar represents a very small fraction (<<1%) of their overall distribution in Armenia.



Fauna – reptiles and amphibians: Herpetological surveys in 2025 noted the presence of one notable reptile: the Armenian Steppe Viper (Vipera (ursinii) eriwanensis), which is listed in Armenia's Red Book (Vulnerable) and is a Bern Convention Appendix II species. Several individuals of this small viper were observed on rocky slopes of Amulsar during warm weather. Although the Red Book did not previously map Amulsar as part of this viper's range, the finding is not surprising since similar habitats nearby host this species. Recognizing its presence, the project has instituted ongoing monitoring for the Armenian viper and will take protective actions such as translocation from work sites if needed. Apart from this viper, no other Bern-listed reptiles were found. In particular, concerns were raised about the Four-lined Snake (Elaphe quatuorlineata, also called Pallas's Colubrid), which is protected under the Convention. The surveys confirmed that this species does not inhabit Amulsar; instead, a different snake (Elaphe urartica, the Armenian ratsnake) is present in the region. The Armenian ratsnake is not a protected species and is relatively common in lowlands; in any case, it was not seen in the high elevation parts of Amulsar's overlap area. No significant amphibian sites (ponds, marshes) exist on Amulsar, and accordingly no rare amphibians were observed (common toads and frogs are present in low densities near streams).



Fauna – invertebrates: The monitoring paid special attention to certain invertebrates that had been mentioned in the context of Emerald site values. Chief among these is the Apollo Butterfly (Parnassius apollo), a locally endangered butterfly known from certain mountainous areas of Armenia. No Apollo individuals were observed on Amulsar in 2025, consistent with earlier surveys. As noted above, the larval host plant (Sedum album) is absent from Amulsar's flora, which further indicates that Amulsar does not support an Apollo butterfly population. Similarly, the Jersey Tiger Moth (Euplagia quadripunctaria) was not recorded in any survey of the Amulsar area. (This conspicuous moth, protected in Europe, is known in Armenia but typically at lower elevations with specific host plants.) Other notable invertebrates: no rare dragonflies or endemic beetles tied to wet habitats occur on the dry mountain; and the endemic Armenian steppe bees and ant species are present but widespread in similar habitats outside the project area as well (they were not identified as concerns by the Emerald site criteria).

Overall, the 2025 biodiversity monitoring program has provided an updated and rigorous inventory of species and habitats at Amulsar. The results reinforce the conclusion that the Amulsar mining area and its immediate surroundings do not contain irreplaceable or critical habitats for Bern Convention species. Many of the "Emerald target" species are absent or present in negligible numbers, as summarized above. This information is crucial for guiding conservation actions and ensuring that mining activities remain compatible with wildlife protection, as detailed in subsequent sections.

(For full details, see the 2025 Biodiversity Monitoring Report linked to report, which includes species lists, methodologies, and maps. Key findings are also cross-referenced with earlier studies in 2013–2018 to show consistency in observations.)

Appendix II

Appendix 2

Summary assessment of risks to species and habitats

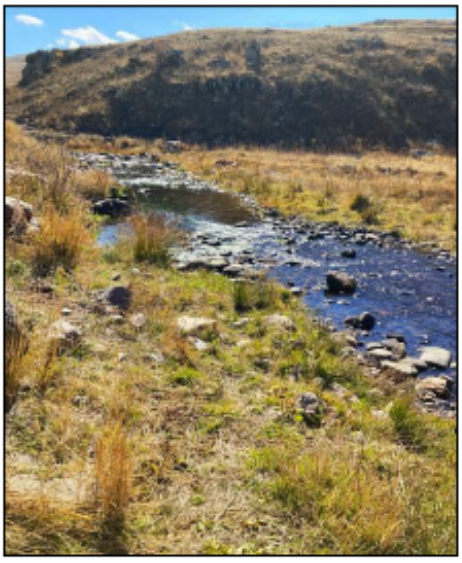


Habitat disturbance: The project's direct footprint includes the open pits (on two mountain peaks), a heap leach facility, waste dumps, and infrastructure such as roads. The total disturbed area is a few hundred hectares. Based on the habitat survey (section 3 of the report), none of the affected habitats are unique or high-value at the national scale. The vegetation is mostly alpine meadow-steppe and rock outcrops that are widespread in Armenia. No forests, wetlands, or other sensitive habitats will be directly lost. Moreover, as noted, no Emerald Network Annex I habitats are significantly impacted – out of 20 habitat types of concern, only three occur in tiny proportions on Amulsar (each <1% of their national area). The majority of the mining area (even within the Emerald site overlap) is composed of common habitat types (e.g. subalpine grassland) that are well-represented elsewhere and not listed as conservation priorities. Therefore, the risk of irreversible habitat loss is low. To further reduce habitat impacts, the project has committed to rehabilitate disturbed areas progressively. Topsoil is being stockpiled and will be used in future reclamation to re-seed native vegetation on waste dumps and closed facility areas. A Biodiversity Management Plan guides the salvage of any sensitive plants and restoration of habitats post-mining.

Flora: As described, no Bern Convention Appendix plant species exist on site, eliminating risk to those species. The main floral concern was Potentilla porphyrantha, which has a specific conservation plan. To avoid impacting this species, the mine's design was adjusted to exclude certain outcrop areas where Potentilla grows densely. In addition, hundreds of Potentilla specimens were translocated out of planned disturbance zones (successfully establishing a new population on a protected slope). Ongoing monitoring shows this measure is working, with transplanted individuals surviving and flowering. The risk to Potentilla porphyrantha is thus being mitigated to an acceptable level, aiming for no net loss of its population (indeed, ex situ propagation may increase overall numbers). Other rare plants (e.g. Acantholimon, certain orchids) were not found in the footprint, so risk to them is negligible. Weeds and invasive species are monitored as well – an influx of invasives could be a risk after disturbance, so a control plan is in place.

Fauna – large mammals: With no resident populations of leopard, mouflon, or lynx in the area, there is no direct risk to these species from the project. The Brown Bear, which does occasionally roam Amulsar, has been considered carefully. Potential risks to bears include disturbance from noise or human activity, and attraction to waste if not managed. To address this, the project implements strict waste management to avoid food scraps or other attractants being accessible (thus preventing bears from being lured close to camps). Blasting and heavy machinery could disturb wildlife; hence, a "wildlife protocol" is in place: for example, if bear activity is observed in the vicinity, certain works can be temporally adjusted. There is also a designated conservation zone (set-aside) on Amulsar specifically left undeveloped as a wildlife corridor/refuge. This set-aside area on the mountain's north side (towards Arshak peak) preserves a block of habitat that can be used by bears or other wildlife to bypass the mine. Camera trap results so far show bears largely skirt around active work areas. Continued monitoring (including DNA sampling and movement tracking) will ensure any change in bear usage is detected. In summary, while bears do occur, the risk to the local bear population is low and being actively managed.

For Bezoar goats, since Amulsar is not a regular habitat, the project does not significantly affect their populations. Nonetheless, nearby cliffs outside the project are left untouched, preserving any potential future use by goats. Grey wolves may on rare occasions be affected by increased traffic or noise, but since they are transient and mostly appear when livestock are present (which is also limited by the mine's presence), the risk is minimal. No incidents of wolf mortality or conflict have been recorded during construction phases.



Avifauna (birds): The main risks to birds from mining activities would be: habitat loss (e.g., nesting sites destroyed), disturbance (noise, lights), or direct mortality (collisions, poisoning). At Amulsar, no critical nesting sites for large raptors or other protected birds are located within the project footprint. Golden Eagles, for example, nest in remote gorges, not on the mine site. Montagu's Harriers nest far from the area. Thus, habitat loss for these raptors is essentially zero. Smaller birds that do nest on Amulsar (like larks, wheatears, buntings) will lose some habitat in the footprint, but these species are common and will relocate to adjacent areas; progressive reclamation will eventually recreate habitat for them.

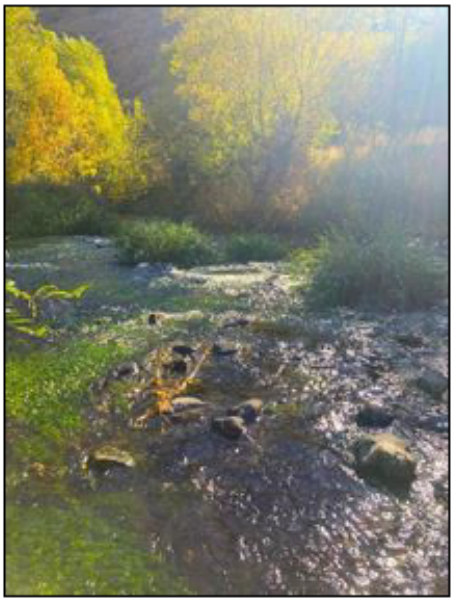
Disturbance from blasting is localized and infrequent; wildlife tends to habituate or temporarily avoid the immediate blast zone. Blasting is scheduled during daylight and outside of any known breeding seasons for sensitive fauna to further minimize impact (e.g., avoiding any hypothetical nesting period of raptors in case one is discovered). Noise and vibration monitoring is conducted and kept within regulatory limits. Lights are directed downward and limited at night to avoid disorienting nocturnal birds or insects.

A potential risk was identified regarding cyanide solution in the heap leach process, which could attract and poison birds or other animals if not managed. To mitigate this, the heap leach facility will be fenced and bird deterrents (netting or bird-scaring devices) will be installed over solution ponds. This is a standard practice to prevent waterfowl or raptors from attempting to drink from process ponds. Additionally, cyanide detoxification processes will ensure weak-acid dissociable cyanide levels are kept low in any open water. With these measures, the risk of wildlife cyanide poisoning is extremely low.

Cinereous Vulture, Golden Eagle, Bearded Vulture: These scavenging birds could theoretically be affected if mine-related activities resulted in reduced prey or carrion availability. However, given they do not forage heavily on Amulsar itself (preferring larger expanses and livestock areas), this is not significant. The project will enforce a no-hunting policy for workers, ensuring no persecution or poisoning of wildlife that could indirectly harm scavengers. Powerlines associated with the project are being built with bird-safe designs (line markers, insulated components) to prevent raptor electrocution – further reducing risk.

Overall, the bird studies concluded that Amulsar cannot serve as a primary habitat for the "target" bird species and that exploitation of the area is unlikely to affect the overall viability of their populations. This conclusion is based on the extremely low usage of the area by those species (often <1% of their populations) and the widespread availability of alternative habitats countrywide.

Reptiles and others: The Armenian mountain viper present on site could be at risk from vehicle traffic or clearing. Mitigation includes training workers to recognize and avoid harming snakes. Before starting new ground clearance, herpetologists conduct walk-throughs to relocate any reptiles from the area. Small rock piles are left in some areas as refuge for snakes. These steps minimize direct harm. Amphibians are virtually absent, so no specific risk there. Invertebrates like butterflies and moths see negligible risk since, as noted, key species like Apollo are not present. The project's habitat rehabilitation will in fact aim to plant native flora that support pollinators, possibly improving conditions for common butterflies and bees post-closure.



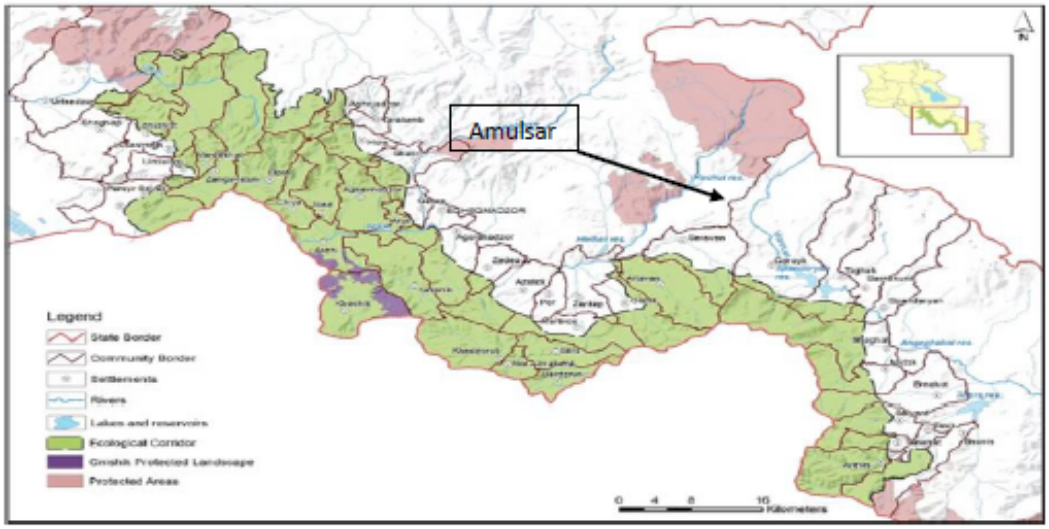
Water and downstream habitats: One major environmental risk often cited is potential water pollution (acid rock drainage, heavy metals, or cyanide) affecting downstream rivers (Arpa and Vorotan) and even Lake Sevan via the Arpa-Sevan tunnel. The Government and project have placed utmost importance on preventing such impacts. Detailed hydro-geological assessments show that with proper management, contamination can be prevented. Lydian Armenia has developed an elaborate Surface Water and Groundwater Management Plan, including drainage controls, contact water capture and treatment systems, and continuous water monitoring at numerous points (upstream and downstream). For instance, contact water from the pits will be collected and treated in a water treatment plant; heap leach pad solutions are in closed circuit with zero discharge; sediment traps are installed to prevent silt runoff. These engineering controls greatly reduce the risk of any harmful substances reaching natural water bodies. Additionally, a comprehensive water quality monitoring network (with automatic sensors and regular sampling) is in place to detect any change in parameters like pH, heavy metals, cyanide, etc., in real time. If any parameter approaches a threshold, contingency responses (e.g., stop leach circulation, add neutralizers) will be activated.

It bears noting that the 2021 Investigative Committee study and subsequent audits have confirmed that the mine does not pose a significant threat to Jermuk's mineral springs or Lake Sevan's water, provided mitigation is implemented. Independent experts have similarly highlighted that robust measures (such as those Amulsar has committed to: treatment of drainage, lined facilities, etc.) can effectively safeguard water resources. The project's design was reviewed by international financial institutions against IFC Environmental Standards, which led to additional safeguards like secondary liners and emergency holding ponds to contain extreme events. With these in place, the risk of acid drainage is managed to be extremely low (extensive static and kinetic geochemical testing indicated Amulsar ore and waste have relatively low acid-generating potential, and a limestone buffering material is present naturally in some waste rock to neutralize any acidity).

Risks to Emerald network site "Jermuk": The Emerald site's conservation targets include certain species and habitats as discussed. Based on the evidence, none of those targets are significantly at risk from Amulsar's operations. The species that are conservation targets either do not exist on Amulsar or will not be impacted due to negligible interaction (for example, no impact on Lake Sevan's fish or ecosystem can occur, as Amulsar's drainage is effectively managed and the distance is great). Likewise, the separate Emerald sites "Sevan" and "Gorayk" which were a concern in the complaint are geographically removed from Amulsar by mountain ranges and valleys, with no ecological connectivity. Therefore, activities at Amulsar cannot have any adverse impact on the flora, fauna, or habitats of those

other Emerald Network sites. This addresses fears that were raised about far-ranging effects: scientifically, such effects are implausible given the lack of hydrological or migratory linkage.

Also the view that the Amulsar area has a key role as a biodiversity migration corridor, is also not justified. This does not correspond to reality, as the Amulsar area is not included in and is spatially located at a significant distance from the designated ecological corridor (see Armenia's eco-corridors, corresponding cartographic and spatial data).



In summary, through rigorous assessment and proactive mitigation, the risks to species and habitats have been reduced to an acceptable level. The project's measures align with the Bern Convention's principles of avoiding significant adverse effects on protected wildlife.

Bern Appendix species present? – Very few; those present are transient or in very low numbers (e.g., 1–2 bears occasionally, a few raptor fly-overs).

Key habitats affected? – None of high concern; mostly common habitat disturbed.

Primary risks? – Local disturbance, water management, cyanide use.

Mitigation in place? – Yes: wildlife set-asides, noise scheduling, habitat rehab, strict water/cyanide management, continuous monitoring.

Crucially, these conclusions are evidence-based: multiple years of data support the view that Amulsar is not a biodiversity hotspot and that with ongoing mitigation, the project is compatible with conservation objectives. The Ministry remains vigilant: if any unexpected risk to a species is observed, operations will be adaptively managed to address it. This approach ensures that development and conservation proceed hand in hand.