

## **Updated report on the state of conservation of the UNESCO World Heritage Site “Lake Baikal” (Russian Federation, No. 900) in 2023-2024**

### **1. Response of the Russian Federation in accordance with the Decision of the World Heritage Committee 46 COM 7B.52**

*Notes with utmost concern the conclusion of the 2023 joint World Heritage Centre/IUCN Reactive Monitoring mission that the Outstanding Universal Value (OUV) of the property faces significant ascertained and potential threats due to the long-term degradation of the water quality of Lake Baikal, persistent and increasing anthropogenic pressures, notably related to pollution and tourism development as well as irregular legal protection and lack of integrated management.*

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*On the issue of the long-term deterioration of water quality in Lake Baikal, the continuous and growing anthropogenic pressure, in particular, related to environmental pollution and tourism development:*

For the Republic of Buryatia within the boundaries of the Baikal Natural Territory (hereinafter - BNT) the volume of wastewater discharges in 2023 decreased by 50.59 million m<sup>3</sup> and amounted to 562.07 million m<sup>3</sup> (in 2022 - 612.66 million m<sup>3</sup>). This decrease is mainly due to a decrease in electricity generation by the Gusinoozyorskaya State Regional Power Plant branch of JSC “INTER RAO - Power Generation”. No wastewater is discharged directly into Lake Baikal in the Republic of Buryatia.

In the central ecological zone of BNT (hereinafter also - CEZ BNT) on the territory of the Republic of Buryatia, the volume of wastewater discharge increased compared to 2022 by 30.4% from 2.04 million m<sup>3</sup> in 2022 to 2.65 million m<sup>3</sup> in 2023. The main reason for the increase in the volume of discharge is the completed reconstruction of Bolsherechensk fish breeding plant of the Baikal branch of Federal State Budgetary Institution (hereinafter — FSBI) “Glavrybvod”, which increased the volume of water discharge from 0.5 million m<sup>3</sup> of normative-clean water in 2022 to 1.1 million m<sup>3</sup> in 2023.

The main sources of pollution of the water bodies in the CEZ BNT in the Republic of Buryatia are outdated treatment facilities of housing and communal facilities that discharge polluted wastewater into the tributaries of the first order of Lake Baikal.

In the Irkutsk Region, state accounting covers enterprises of various forms of ownership, whose water discharge into surface water bodies amounted to 569.14 million m<sup>3</sup>, which is 46.39 million m<sup>3</sup> (8.87%) more than in 2022.

The main source of pollution in the Lake Baikal basin that directly discharges wastewater into Lake Baikal is the Municipal Unitary Enterprise “Sewage treatment facilities of Baikal municipal formation”.

Pursuant to the instruction of the Deputy Chairman of the Government of the Russian Federation A.V. Gordeev from 18.12.2019 № AG-P11-11031 in order to ensure coordinated actions of interested parties, as well as more effective work in the field of Lake Baikal protection, the Government Commission on the protection of Lake Baikal (hereinafter - the Commission) was established.

According to paragraph 1 of the Regulations on the Governmental Commission for the Protection of Lake Baikal, approved by the Decree of the Government of the Russian Federation dated 30.04.2020 № 627, the Commission is a coordinating body formed to ensure coordinated actions of the interested federal executive authorities, executive authorities of the Republic of Buryatia, Zabaikalsky Krai and Irkutsk Region in addressing the protection of Lake Baikal as a unique ecological system and an object of the Russian Federation as a unique ecological system and World Natural Heritage site.

Within the national project “Ecology” the federal project “Lake Baikal Preservation” is being implemented by the Ministry of Natural Resources and Environment of the Russian Federation until the end of 2024, the goal of which is the ecological recovery of Lake Baikal.

For further preservation of the Lake Baikal ecosystem, measures aimed at achieving this objective will be implemented in various federal projects of the new national project “Ecological Wellbeing” in 2025-2030 in accordance with its functional content.

*On the issue of irregular legal protection and lack of integrated management we inform.*

The system of management and environmental monitoring of the object “Lake Baikal” consists of two main directions: legislative regulation of the state environmental monitoring of Lake Baikal and practical measures on realization of ecological monitoring of Lake Baikal ecosystem.

1. Legislative regulation of the state environmental monitoring of Lake Baikal:

In accordance with Article 1 of the Federal Law dated 10.01.2002 7-FZ “On Environmental Protection” (hereinafter - Law 7-FZ) state ecological monitoring (state environmental monitoring) is a comprehensive observation of the state of the environment, including components of the natural environment, natural ecological systems, the processes, phenomena occurring in them, assessment and forecast of changes in the state of the environment.

According to paragraph 3 of article 63.1 of Law 7-FZ the unified system of state environmental monitoring (state environmental monitoring) includes, among other things, the subsystem of state environmental monitoring of the unique ecological system of Lake Baikal (hereinafter - state monitoring of Lake Baikal).

The state monitoring of Lake Baikal is provided for by Article 20 of the Federal Law of 01.05.1999 94-FZ “On Protection of Lake Baikal” (hereinafter - the Law 94-FZ) the state monitoring of Lake Baikal is carried out taking into account the protection regime of the Baikal natural territory and standards of maximum permissible 6 harmful impacts on the unique ecological system of Lake Baikal, the procedure for establishing which is defined by Article 13 of the Law 94-FZ.

In order to form mechanisms for the state monitoring of Lake Baikal, the Regulation on State Environmental Monitoring of the Unique Ecological System of Lake Baikal (hereinafter - the Regulation) was approved by the Decree of the Government of the Russian Federation No. 260 dated 18.02.2023.

According to the Regulation, the state monitoring of Lake Baikal in accordance with the competence established by the legislation of the Russian Federation is carried out by (hereinafter - authorized federal executive bodies):

- Ministry of Natural Resources and Environment of the Russian Federation (hereinafter also — the Ministry of Natural Resources);
- Ministry of Agriculture of the Russian Federation (hereinafter also — the Ministry of Agriculture);
- Federal Service for Hydrometeorology and Environmental Monitoring (hereinafter — Roshydromet);
- Federal Service for State Registration, Cadastre and Cartography (hereinafter — Rosreestr);
- Federal Forestry Agency (hereinafter — Rosleskhoz);
- Federal Agency for Subsoil Use (hereinafter — Rosnedra);
- Federal Agency for Water Resources (hereinafter — Rosvodresursy);
- Federal Agency for Fishery (hereinafter — Rosrybolovstvo);
- executive authorities of the Republic of Buryatia, Irkutsk Region, Zabaikalsky Krai (in accordance with their competence established by the legislation of the Russian Federation).

The objects of the state monitoring of Lake Baikal are: atmospheric air, water bodies, including bottom sediments, surface and ground waters, water protection zones, water management systems (including hydraulic structures), soils, lands (including agricultural lands), wildlife (including endemic species) and their habitats, forests, subsoil, aquatic biological resources (including endemic species) and their habitats, hunting, hunting, hunting and fishing and their habitat, hunting resources and their habitat.

The following types of state monitoring of Lake Baikal are distinguished:

- monitoring of the state and pollution of the environment, including hydrometeorological conditions and radiation situation, pollution of atmospheric air, soil, surface waters of water bodies (including hydrobiological indicators) (carried out by Roshydromet);
- monitoring of lands (except for agricultural lands) (carried out by Rosreestr);
- monitoring of agricultural lands (carried out by the Ministry of Agriculture);
- monitoring of wildlife in specially protected natural areas of federal significance and state monitoring of hunting resources located in specially protected natural areas of federal significance and their habitat, as well as monitoring of their habitat (carried out by the Ministry of Agriculture).
- and their habitat, as well as in terms of organization and implementation of state monitoring on the territories of state natural reserves and national parks (carried out by the Ministry of Natural Resources);
- forest pathology monitoring, forest reproduction monitoring (carried out by Rosleskhoz);
- monitoring of subsurface resources (carried out by Rosnedra);
- monitoring of water bodies with participation of Roshydromet and Rosnedra (carried out by Rosvodresursy);
- monitoring of aquatic biological resources, including observations of distribution, abundance, quality, reproduction of aquatic biological resources, their habitat, fishing and conservation of aquatic biological resources (carried out by Rosrybolovstvo).

2. Practical measures to implement environmental monitoring of the Lake Baikal ecosystem:

The federal project “Preservation of Lake Baikal” was implemented within the framework of the national project “Ecology” from 2019 to 2024. According to the passport of the federal project, the total amount of funding from the federal budget for the implementation period amounted to 44 billion rubles.

By the end of 2024, the federal project has achieved the following results:

1. The total area of territories subjected to high and extremely high pollution and impacting Lake Baikal was reduced by 214.13 hectares.

2. On the territory of the former open joint stock company “Baikal Pulp and Paper Mill” the works on liquidation of objects of accumulated environmental damage formed as a result of its activity are being continued.

3. Sewage treatment facilities of the right bank of Irkutsk city with a total capacity of 220 thousand cubic meters per day were put into operation.

4. More than 2 billion omul larvae and young sturgeon were released to preserve and reproduce the unique aquatic biological resources of Lake Baikal.

5. State environmental monitoring covered 100% of the Baikal natural territory. A unified information platform on the state of the environment in Baikal was also created.

Generalized monitoring materials on the state of the unique ecological system of Lake Baikal are placed on the geoportal “Environmental Monitoring of Lake Baikal” ([www.baikalake.ru](http://www.baikalake.ru)) with an annual frequency, starting from 2012 (hereinafter - Geoportal) and are available to the public. The information is presented, including in foreign languages: English, French and German.

The Geoportal is currently being tested.

It should be additionally noted that the Ministry of Natural Resources and Environment of Russia is currently developing regulations for collection, analysis and exchange of information on prevention and response to risks of disturbance of the unique ecological system of Lake Baikal, arising from the negative impact of natural and (or) anthropogenic factors on it.

The Ministry of Natural Resources and Environment of Russia plans to assess and manage the risks of anthropogenic impact on the Lake Baikal ecosystem through an integrated index (integrated assessment of anthropogenic impact and environmental condition of Lake Baikal). The methodology for calculating this index is also being developed by the Ministry of Natural Resources and Environment of Russia.

The integrated indicator itself was developed within the framework of research work (hereinafter — R&D) of the State Federal-Funded Educational Institution of Higher Education “Moscow State University named after M.V. Lomonosov” (hereinafter — MSU), co-executor - State Federal-Funded Educational Institution of Science Baikal Institute of Nature Management of the Siberian Branch of the Russian Academy of Sciences (BIP SB RAS).

The head of the above R&D is Academician of the Russian Academy of Sciences, Doctor of Geographical Sciences N.S. Kasimov.

The authors of the research work were: Corresponding Member of the Russian Academy of Sciences, Doctor of Geographical Sciences E.J. Garmaev; Professor, Doctor of Geographical Sciences V.R. Bityukova; Professor, Doctor of Geographical Sciences A.V. Bredikhin; Professor, Doctor of Geographical Sciences M.S. Savoskul and other scientists.

Through the monitoring of the integrated indicator, according to the relevant blocks, the ecological risks of the Lake Baikal ecosystem are identified and assessed, but since any changes in ecological factors in the environment are not rapid, risk assessment is planned to be carried out once a year.

*Reiterates its concern at the weakening of the legal protection of the property at a time when the property's ecological condition continues to deteriorate, which could place the property in potential danger in accordance with Paragraph 180(b) i) and iv) of the Operational Guidelines, and urges the State Party to secure and stabilise the property's legal status to protect its OUV and to avoid any legal modifications that may lead to potential deleterious effects.*

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See the response above.

*Welcomes the development of the study to assess the environmental and socio-economic impacts of the water level regime of Lake Baikal, requests the State Party to submit the study to the World Heritage Centre and to make it available on the Lake Baikal ecological portal and also urges the State Party to elaborate by the end of 2024, detailed proposals to develop water level regulations of Lake Baikal to be compatible with the protection of the property's OUV and to submit these proposals to the World Heritage Centre for review by IUCN, reminding the State Party to refrain from issuing any legislative amendments which allow extending the water level variation beyond one meter due to potential negative impact on the property and its OUV, until the before-mentioned study and the legislative proposals of all water use and management regulations on the OUV are reviewed by IUCN and the requirements for its protection are set*

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Regarding the Draft Decree of the Government of the Russian Federation “On the maximum and minimum values of the water level in Lake Baikal and the invalidation of certain acts of the Government of the Russian Federation” (hereinafter referred to as the draft decree) — the draft decree, which has undergone the procedure of public discussion and independent anti-corruption expertise on the website [www.regulation.gov.ru](http://www.regulation.gov.ru) (project ID 01/01/05-24/00147795), has not been submitted to the Government of the Russian Federation.

On 18.07.2024 the R&D was placed on the Geoportal of Lake Baikal.

We note that the Ministry of Natural Resources of Russia by letter dated 30.08.2024 No. 20-43/35028 to the Executive Secretary of the Commission of the Russian Federation for UNESCO for study by the experts of UNESCO and IUCN was sent a translation into French of the results of the scientific research “Impact of changes in the water level in Lake Baikal on the state of the lake ecosystem, determination of damage to the objects of economy and infrastructure of the coastal territory of the Republic of Buryatia, Irkutsk region depending on the lake levels and discharges of the Irkutsk HPP” (hereinafter - R&D BWL).

It is expected that the review of the results of the R&D BWL by IUCN experts will be completed by the end of 2026. The next visit of the joint UNESCO/IUCN WHC monitoring mission to the Site is also expected in 2026.

Accordingly, work on the preparation of a draft decree of the Government of the Russian Federation, which will establish on a permanent basis the range of water level regulation in Lake Baikal can be resumed not earlier than 2027.

In this regard, the Ministry of Natural Resources of Russia has prepared a draft decree of the Government of the Russian Federation establishing, for the period of review by IUCN experts in 2025 - 2027, the limit values of the water level in Lake Baikal similar to the temporary acts of the Government of the Russian Federation issued in 2016 - 2022 (the range of 456 - 457 m TO and expanding it under conditions of extreme water content to 455.54 - 457.85 m TO).

*Also welcomes the progress made towards eliminating the accumulated environmental damage of the former Baikalsk Pulp and Paper Mill (BPPM) and reiterates its request to the State Party to apply the highest environmental standards in the selection and application of technological solutions in these works and to ensure regular risk assessment, audited environmental monitoring and reporting to the public and the Committee.*

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In accordance with the Order of the Government of the Russian Federation No. 669-r dated 19.03.2020, the Federal State Unitary Enterprise “Federal Environmental Operator” (hereinafter — FSUE “FEO”) was determined to be the sole executor of works related to preparation of the project of works and works on liquidation of accumulated environmental damage (hereinafter — AED), formed in the process of activity of OJSC Baikal Pulp and Paper Mill (BPPM).

Positive conclusions of the state expert reviews were received for the project documentation on liquidation of AED on the territory occupied by sewage-treatment facilities with production facilities containing black liquor (hereinafter — STF) and the landfill “Babkhinsky”.

FSUE “FEO” within the framework of the state contracts from 14.04.2023 No. 1/2023EI and No. 2/2023EI dated 14.04.2023 performs works on the elimination of AED on the territory of the STF and at the Babkhinsky landfill.

Completion of the works is scheduled for 2027.

With regard to the Solzansky landfill, the Russian Academy of Sciences (hereinafter - RAS), the Siberian Branch (hereinafter - SB) of the RAS, and the Ministry of Natural Resources and Environment of the Russian Federation have carried out extensive work to collect, analyze, and evaluate information on the most promising and environmentally efficient technologies for handling wastes accumulated in polymer accumulation cards in the landfill accumulation maps. The Scientific Council of the Russian Academy of Sciences on Global Environmental Problems requested information on available technologies of sludge-lignin waste processing from 135 leading scientific, research, scientific-educational institutions,

commercial and public organizations. According to the results of the analysis of the presented technologies and technological solutions it was established that there are no ready technologies that can be used without additional research and development work and confirmation of their ecological efficiency and operability.

The Ministry of Natural Resources and Environment of the Russian Federation at the suggestion of the Russian Academy of Sciences organized R&D to test the method of accelerated restoration of the ecosystem of the Solzansky landfill using humification of the existing sludge-lignin proposed by the Faculty of Chemistry of MSU.

In August (05.08.2024 - 12.08.2024) and September (25.09.2024 - 01.10.2024), the Faculty of Chemistry of MSU carried out expeditionary works together with institutes of Siberian Branch of Russian Academy of Sciences at the “Solzansky” polygon of OJSC “BPPM” to conduct reconnaissance field work to assess the current state of the accumulation maps, sampling from the polygon maps and their delivery to Moscow for desktop analysis and data processing. Moscow to perform desk analyses and data processing, as well as measures were taken to set up a small-scale experiment on the choice of filler to form a sorbing barrier and approaches to chemical and physical aeration.

Also, the Faculty of Chemistry of MSU together with the institutes of SB RAS perform works on all items of the technical assignment for R&D.

In the course of R&D on application of nature-like technologies, preliminary technological solutions were found for application of technology of accelerated in situ humification of lignin deposits, which will allow solving the issue of neutralization of the entire volume of accumulated waste in the Solzansky landfill maps in situ, without excavation of contaminated substances.

In 2025, the MSU Faculty of Chemistry together with the institutes of the Siberian Branch of the Russian Academy of Sciences will continue research on the application of nature-like technologies in order to solve the issue of transferring the object of accumulated environmental damage of the “Solzansky” landfill into an environmentally safe state.

*Also reiterates its request to the State Party to provide details of all major development initiatives within the property, to ensure that they are subject to Environmental Impact Assessments (EIAs) developed in accordance with the Guidance and Toolkit for Impact Assessments in a World Heritage Context and submitted to the World Heritage Centre, and to conduct a Strategic Environmental Assessment (SEA) in each Special Economic Zone (SEZ) to assess and mitigate the cumulative impacts of the existing and proposed activities on the property's OUV before taking any decision that would be difficult to reverse.*

The Special Economic Zone of tourist and recreational type (SEZ TRT) “Baikal Harbor” was established by the Decree of the Government of the Russian Federation No. 68 dated 03.02.2007.

The total area is 3.6 thousand hectares. The SEZ TRT “Baikal Harbor” consists of 5 sites “Turka”, “Peski”, “Goryachinsk”, “Bezymyannaya Bay”, “Gora Bychya”.

Currently, 7 companies are residents of the SEZ TRT “Baikal Harbor”:

- at the Bezymyannaya Bay site — “Cosmos Hotel Baikal” LLC;
- at the Turka site — LLC “Green Flow Baikal”, LLC “Baikal Hermitage”, LLC “Putnik Siberia”;
- at the Peski site — “Molodost. Baikal”, LLC “AMAR”;
- at the Goryachinsk site — LLC “Chudo Baikal”.
- Free site: Bychya Mountain.

In pursuance of the List of instructions of the President of the Russian Federation following the results of the meeting on the creation of federal year-round resorts on March 28, 2024. No. Pr-998 the Government of the Republic of Buryatia together with the Ministry of Economic Development of the Russian Federation and the Ministry of Construction of the Russian Federation is working on the development of a list of activities on creation of the supporting infrastructure of the resort “Magic Baikal” in the Republic of Buryatia within the framework of the federal project “Five Seas and Lake Baikal”.

There are a number of measures in the legislation to minimise the negative impact of capital construction activities on the entire territory of the CEZ BNT, which includes the territory of the SEZ TRT “Baikal Harbor”.

In accordance with Article 3 of Federal Law No. 7-FZ “On Environmental Protection” dated 10.01.2002, one of the basic principles of environmental protection is the presumption of the environmental danger of planning economic and other activities and the mandatory environmental impact assessment (hereinafter — EIA) when making decisions on the implementation of economic and other activities.

EIA is carried out in respect of planned economic and other activities that may have a direct or indirect impact on the environment, regardless of the organizational and legal forms of ownership of legal entities and individual entrepreneurs.

Federal Law No. 94-FZ dated 01.05.1999 “On Protection of Lake Baikal” establishes a ban on construction of new economic facilities, reconstruction of existing economic facilities without a positive conclusion of the state ecological expertise of the project documentation of such facilities.

According to paragraph 7.1 of Article 11 of the Federal Law of 23.11.1995 № 174-FZ “On Environmental Expert Review” the state environmental expertise of the federal level is subject to the design documentation of facilities, construction, reconstruction of which is supposed to be carried out within the boundaries of specially protected natural territories of federal significance, in the Baikal natural territory.

In addition, the EIA section as part of the development of design and estimate documentation, which subsequently undergoes environmental expertise, is a mandatory section.

Thus, design documentation for construction projects planned to be implemented to be implemented in the CEZ BNT (including the SEZ TRT “Baikal Harbor”) are subject to state environmental expertise (SEA).

Previously, the EIA section was developed as part of the development of site planning projects for the SEZ TRT “Baikal Harbor”:

1. Turka Site — the territory planning project was developed and approved by the order of the Pribaikalsky District Administration dated 05.06.2018 No. 118. The project was amended by the Orders of the Government of the Republic of Buryatia dated 05.03.2021 No. 93-r, from 08.04.2022 No. 204-r.

2. Peski site — the territory planning project was developed and approved by the Order of the Pribaikalsky District Administration dated 05.06.2018 No. 118. Order of the Government of the Republic of Buryatia No. 211-r dated 13.04.2023 on the preparation of documentation on the territory planning of the Peski site was adopted. The site territory planning project was adopted by the Order No. 843-r dated 25.09.2024.

3. Goryachinsk site — the site territory planning project was approved by the Order of the Government of the Republic of Buryatia dated 10.02.2022 No. 68-r.

4. The Bezymyannaya Bay site — the site territory planning project was approved by the order of the Government of the Republic of Buryatia No. 1251-r dated 28.12.2023.

5. Bychya Mountain site — the site territory planning project was approved by the Order of the Government of the Republic of Buryatia No. 263-r dated 28.04.2012 and corrected by Order of the Government of the Republic of Buryatia No. 646-r dated 20.10.2012.

On 31.03.2021 the positive conclusion of the state ecological expertise of the project documentation “Hotel, thermal complex and Healing Center ‘Green Flow Baikal’ was approved by the order of the Zabaikalsky Interregional Department of the Federal Service for Supervision of Natural Resources Management No. 153-p at the Turka site.

There is one special economic zone of tourist-recreational type in the Irkutsk Region, established on the territory of the Slyudyanka Municipal District in the town of Baikalsk (hereinafter referred to as SEZ) within the Baikal natural territory.

The SEZ has 26 registered residents with a planned investment volume of 23.2 billion rubles. As of November 1, 2024, the residents have invested RUB 1,707.5 million.

The Government of the Irkutsk Region is implementing measures to create SEZ supporting infrastructure facilities on a priority basis. The environmental impact assessment was based on the results of the state environmental expertise (hereinafter - SEE).

In order to ensure the functioning of residents within the framework of federal co-financing of the “Storm water drainage networks” facility, all works have been completed in 2021, in 2022 a permit to put the facility into operation was obtained, and the facility was put on the cadastral register.

The positive SEE conclusion was approved by the Order of the Federal Service for Supervision of Natural Resources and Environment (Rosprirodnadzor) for the Irkutsk region dated August 30, 2019 No. 829-od. Also during the public hearings, no negative positions and negative perception of the planned (proposed) activities in terms of environmental impact were revealed. By the Orders of Rosprirodnadzor for the Irkutsk Region dated December 30, 2015, No. 2268-od and Rosprirodnadzor for the Irkutsk Region dated October 2, 2020, No. 1027-od approved positive SEE conclusions for the following objects of the SEZ infrastructure under construction:

- On-site power supply networks of the Predgorny and Pribrezhny districts;
- On-site heat supply networks of Predgorny and Pribrezhny districts;
- On-site water supply networks of Predgorny and Pribrezhny districts;
- On-site domestic sewerage networks of Predgorny and Pribrezhny districts;
- Intra-site information and communication networks and information and computer communication networks of Predgorny and Pribrezhny districts.

Order of the Interregional Department of Rosprirodnadzor in the Irkutsk Region and the Baikal Natural Territory No. 1359-od dated December 29, 2020 approved a positive conclusion on the project “Street and road network with outdoor lighting. Stage I”.

Also, the anchor resident of the SEZ LLC “Baikal ski resort ‘Gora Sobolinaya’ is building a passenger suspended cableway 6-CLD-B (6-CLD-B (chair, length 2300 m), approved by the Order on approval of the conclusion of the expert commission of the state ecological expertise dated September 9, 2021 №

219-3 of the project documentation “Passenger suspended cableway 6-CLD-B (PPKD 6-CLD-B (chair)) Baikalsk ski resort “Sobolinaya Mountain”, 2300 m long, Baikalsk, Slyudyanka District, Irkutsk Region”.

Baikal-Alpika LLC resident is constructing a hotel complex positive conclusion of the State Ecological Expert Review was obtained in accordance with the Order on approval of the conclusion of the expert commission of the state ecological expertise from October 4, 2022 № 526-od on the object “Hotel complex on the land plot with cadastral number: 38:25:041004:152”.

The resident Tau-Tour LLC is creating an all-season, multifunctional hotel complex on the territory with a total area of 3 hectares, the positive conclusion of the State Environmental Expert Review was obtained in accordance with the Order on approval of the conclusion of the expert commission of the State Environmental Expert Review No. 526-od dated October 4, 2022 on the project documentation “All-season, multifunctional hotel complex of Tau-Tour LLC”.

As part of the construction of a 3-star hotel complex, the design and estimate documentation of the resident of Cosmos LLC successfully passed the state environmental expertise, and a construction permit No. 38-24-16-2024 was obtained dated September 24, 2024.

At the stage of designing a 4-star hotel “Predgornyy” is the resident of “Talisman Sobolinaya” LLC. In September 2024, the design and estimate documentation for the facility was submitted for state environmental expertise.

The resident Edelweiss LLC is currently preparing design documentation for external water supply and sewerage networks within the framework of the project for the construction of a 4-star hotel complex with SPA-center, restaurant and conference hall. Engineering-geological, ecological and hydrometeorological surveys are underway.

*Acknowledging that the State Party is taking remedial action to halt and reverse the deterioration of the property’s OUV and state of conservation, requests furthermore the State Party to intensify these efforts and to implement all recommendations of the 2023 mission, including to:*

- a) Complete the review of past legal changes and assess the impact on the property and its OUV of the proposed additional changes to the Baikal Law, prior to approval of these amendments and their review by the Committee,*

“A review of the legal framework, including a comprehensive review of all approved and proposed changes in legislation that could potentially affect the Site, indicating, where relevant, the relationship of the new changes to the protection and management of the Lake Baikal site” was conducted in 2023 by the Federal

State Scientific Research Institution ‘Institute of Legislation and Comparative Law under the Government of the Russian Federation’ and forwarded to UNESCO WHC.

*Regarding the revision of draft federal law No. 387575-8 “On Amending Article 251 of the Federal Law ‘On the Protection of Lake Baikal’” and article 11 of the Federal Law “On Environmental Expertise” (hereinafter - the draft law).*

The State Duma of the Federal Assembly of the Russian Federation together with the Government of the Russian Federation are currently finalizing the draft law taking into account public discussions, expedition trips with local residents to the BNT, discussions by experts during the visit of a joint mission of the WHC and the IUCN to the UNESCO World Natural Heritage site “Lake Baikal”.

Taking this into consideration, the Ministry of Natural Resources and Environment of the Russian Federation will send article-by-article explanations of the draft law once it is finalised

*b) Minimise and work towards eliminating all major sources of pollution in Lake Baikal and its watershed,*

Construction, reconstruction and modernization of treatment facilities at BNT are under special control of the Ministry of Natural Resources of Russia according to the instruction of the Government of the Russian Federation from 19.09.2019 № AG-P9-7972 on ensuring the implementation of the list of instructions of the President of the Russian Federation on the results of the inspection of the implementation of legislation on the conservation of Lake Baikal and its environmental rehabilitation dated 12.09.2019 № Pr-1818.

The Ministry of Natural Resources of the Russian Federation also implements the instruction of the President of the Russian Federation No. Pr-454 dated 24.03.2021 on the financing of measures for the construction (reconstruction) of wastewater treatment plants in the Republic of Buryatia.

The Governmental Commission on Lake Baikal Protection is a coordinating body established to ensure coordinated actions of interested federal executive bodies, executive authorities of the Republic of Buryatia, Zabaikalsky Krai and Irkutsk Region in addressing the protection of Lake Baikal as a unique ecological system and World Natural Heritage Site.

The agenda of most Commission meetings includes issues on the progress of construction, reconstruction and modernization of treatment facilities at the Baikal Processing Plant.

The Commission's decisions instruct the executive authorities of the Republic of Buryatia and Irkutsk region to prioritize construction, reconstruction and modernization of treatment facilities to include facilities located in the CEZ

BNT, as well as in the BNT as a whole when designing construction, reconstruction and modernization of treatment facilities.

*c) Conduct a SEA of the Baikalsk Master Plan and ensure full compatibility with World Heritage requirements,*

Baikalsk Master Plan was developed and presented in December 2023 during the visit of a joint mission of the WHC and the IUCN to the UNESCO World Natural Heritage site “Lake Baikal”.

*d) Elaborate and implement a clear and comprehensive plan and programme of activities for fire management and forest ecosystem restoration,*

The following system of measures is proposed to improve the effectiveness of fire protection of forests in the BNT:

- Ensuring fire protection of forests, primarily in the central ecological zone of the BNT;
- Elaboration of issues on proactive maneuvering through the conclusion of relevant agreements (contracts) between the subjects of the Russian Federation;
- Creation of a unified communication and control system with the involvement of forces and means of different departmental affiliation;
- Ensuring round-the-clock operation of specialized regional dispatch services for forest protection from fires and improving the transmission of timely and reliable information on fire danger.
- and reliable information on fire danger in forests and forest fires;
- Ensuring timely and sufficient build-up of firefighting resources in accordance with the consolidated forest fire extinguishing plans;
- Equipping forest firefighting units with firefighting machinery and equipment, other means of preventing and extinguishing forest fires, firefighting equipment and supplies;
- Timely detection and extinguishing of forest fires.

With regard to measures to restore forest ecosystems, Rosleskhoz informs that at present, in fulfillment of paragraph 10 of the List of Instructions of the President of the Russian Federation from 22.03.2023 № Pr-562, a set of measures aimed at forest restoration and cultivation of planting material is already being carried out.

As part of the implementation of this set of measures in the territory of the BNT in 2023, reforestation has been carried out on an area of 72,279.8 hectares, in 2024, as of 29.10.2024, the area of 72,279.8 hectares will be reforested.

As of 29.10.2024, reforestation has been completed on an area of 51,612.95 hectares - 75.9% of the annual planned volume of 68,000.0 hectares.

*e) Develop an integrated management plan for the property,*

See the response above.

*f) Finalise the Retrospective Statement of OUV for the property and submit it to the World Heritage Centre together with the map of the boundaries of the World Heritage property as part of the Retrospective Inventory.*

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The Ministry of Natural Resources and Environment of Russia is currently working on this issue. The results of the retrospective inventory of the site with the boundary map will be prepared in 2025 and additionally sent to the World Heritage Center.

*Considers that unless these actions are urgently implemented to halt the ongoing degradation of the property's OUV, the property's urgent conservation needs may require a broad mobilisation to preserve its OUV, including the possible inscription on the List of World Heritage in Danger.*

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Within the framework of the national project "Ecology" the Ministry of Natural Resources and Environment of Russia is implementing until the end of 2024 the federal project "Lake Baikal Conservation", the goal of which is the ecological improvement of Lake Baikal.

For further preservation of the Lake Baikal ecosystem, measures aimed at achieving this objective will be implemented in various federal projects of the new national project "Ecological Wellbeing" in 2025-2030 in accordance with their functional content.

Thus, within the framework of the federal project "Closed Cycle Economy" it is planned to implement measures for the construction of infrastructure for the treatment of solid municipal waste generated in the CEZ BNT, within the framework of the federal project "Water of Russia" - construction and reconstruction of treatment facilities to reduce the volume of polluted wastewater flowing directly into Lake Baikal and tributaries of the first order, within the

framework of the federal project “General Cleanup” will be completed measures for the elimination of NTIs of BPPM, as well as will be carried out the elimination of polluted wastewater.

*Also notes with satisfaction the decision of the State Party of Mongolia to abandon the Shuren and Orkhon river dam projects located in the Selenge watershed and the State Party of Mongolia’s plan to proceed only with the Egiin Gol hydropower plant, which will be subject to an EIA in accordance with international standards and the Guidance and Toolkit for Impact Assessments in a World Heritage Context, further requests the State Party of Mongolia to ensure that this EIA includes measures to mitigate the impact of the project on the Selenga ecosystem and is submitted to the World Heritage Centre for review by IUCN prior to any decision, and further requests the States Parties of the Russian Federation and Mongolia to continue to cooperate on the sustainable management of the shared Lake Baikal watershed.*

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The Russian Federation and Mongolia continue to work together on issues related to the possible implementation of hydropower projects within the framework of the Russian-Mongolian Working Group for the comprehensive consideration of issues related to the planned construction of hydraulic structures in Mongolia in the Selenga River catchment area.

In September 2024, the Memorandum of Understanding was signed between the Ministry of Natural Resources and Environment of the Russian Federation and the Ministry of Environment and Climate Change of Mongolia on cooperation in the field of preserving Lake Baikal. The Memorandum is aimed at:

- prompt exchange of information on the development of the water and energy complex of the countries on the border of Russia and Mongolia, as well as joint visits to the sites of planned HPP construction;
- prompt exchange of information on the water management situation in the Selenga River basin;
- conducting joint research on the protection, preservation and restoration of the ecological system of Lake Baikal;
- development of joint regulatory and methodological documentation;
- involvement of the scientific community in order to obtain scientifically based information on the possible direct or indirect impact on Lake Baikal.

The Action Plan for The Russian Federation and Mongolia on joint work to assess the possible impact of the Egiin-Gol HPP project on Lake Baikal and the Selenga River has been developed and approved. Clause 4.1 of said Action Plan provides for measures to develop technical specifications for research work to

assess the environmental impact of the Egiin-Gol HPP project on Lake Baikal and the Selenga River.

An Expert Group has also been created and is functioning to assess the possible impact of the Egiin-Gol HPP project on Lake Baikal and the Selenga River. The Expert Group includes representatives of the Russian Academy of Sciences and the Mongolian Academy of Sciences. The next meeting of the Expert Group is scheduled for February 2025.

*Requests furthermore the State Party to invite a new Reactive Monitoring mission to the property in 2026, during the summer season, to assess the progress made in reversing the degradation of the OUV of the property and in addressing the threats affecting its state of conservation, notably legal protection, tourism development, pollution, land use pressures and management, including forest management, and to assess whether the property meets the conditions for inscription on the List of World Heritage in Danger.*

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The Ministry of Natural Resources and Environment of Russia is currently working on this issue. A response will be sent additionally.

*Regarding the recommendations of the 2023 Reactive Monitoring mission*

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**Recommendation 1:** *Regarding legal protection of the Object:*

- *Ensure and stabilize the legal status of the Subject Property and avoid any changes to the Lake Baikal Protection Act (Baikal Law) and other legislation that could result in potential harmful impacts on the inherent characteristics of the Property;*
- *Expedite a study to analyze the impact of legislative changes on the property to provide complete clarity on previous changes, and utilize the results of the study to strengthen the Lake Baikal Protection Act as requested by the Committee;*
- *Assess the property and environmental impacts of the proposed additional changes amending the Lake Baikal Act before approving these amendments in the legislation, provide complete information on the activity for which the amendments to the law are requested (location, size, restrictions);*
- *Submit the study and the draft law under discussion for review by the World Heritage Center and IUCN, and for consultation by the Committee, before the draft is put to a vote in the Federal Assembly of the Russian Federation.*

The information regarding draft law is presented above (page 13).

**Recommendation 2:** *Regarding the regulation of the water regime of Lake Baikal:*

- *Welcome the efforts to assess the environmental and socio-economic consequences of the water level regime in Lake Baikal as requested by the Committee;*
- *Invite the State Party to provide a full copy of the study, including the final recommendations, to the World Heritage Center and to publish the study on the Lake Baikal Environmental Portal (<https://baikalake.ru/>) for public access and improved scientific understanding of the property;*
- *By the end of 2024, develop detailed proposals to adapt the current regulations setting the water level in Lake Baikal, to preserve the ecological processes necessary to maintain the OUV of the property in accordance with criteria (ix) and (x), and to restore its integrity as it was at the time of inscription; these proposals should be submitted in a timely manner to the World Heritage Center for consideration by IUCN and reflected in a federal regulation by the end of 2025.*

The information regarding the draft decree is presented above (page 6).

**Recommendation 3:** *Regarding monitoring of the Site:*

- *Commend the State Party for its efforts to establish a comprehensive framework for monitoring the Site and to provide public access to information and data on the Lake Baikal Environmental Portal;*
- *Strengthen this monitoring system, including in the bottom and coastal zones;*
- *Improve coordination between different government agencies and scientific organizations to ensure that monitoring guides management decisions and enables the State party to provide timely, reliable and publicly available annual reports on the overall state of conservation of the site; this monitoring system should be part of the comprehensive management plan requested by the Committee and be based on the latest knowledge and reliable data collected by both administrative and scientific stakeholders.*

In accordance with subparagraph “b” of paragraph 8 of the Decree of the Government of the Russian Federation of 18.02.2023 № 260 “On Approval of the Regulations on State Environmental Monitoring of the Unique Ecological System of Lake Baikal and the invalidation of the Decree of the Government of the Russian Federation of February 2, 2015 № 85” (hereinafter - the Regulations) in order to carry out comprehensive and exhaustive monitoring and assessment of anthropogenic impact on the environment, the list of information on the state of the unique ecological system of Lake Baikal includes information provided by the

Ministry of Education and Science of Russia in terms of scientific and other reports of subordinate organizations on the study of Lake Baikal and the formation of measures for its protection.

In accordance with the Regulations, all information provided by the Ministry of Education and Science of Russia on research and development activities (hereinafter - R&D) on Lake Baikal and BNT is placed on the geoportal “Environmental Monitoring of Lake Baikal” ([www.baikalake.ru](http://www.baikalake.ru)).

In connection with the above R&D in terms of Lake Baikal and BNT monitoring, carried out by scientific institutes, among others, are taken into account by the Ministry of Natural Resources and Environment of Russia.

**Recommendation 4: Regarding pollution of the Site:**

- *In accordance with the State Party's obligations to prohibit all direct discharges of wastewater into Lake Baikal, regardless of their source - domestic, agricultural, industrial or other;*
- *Minimise all major sources of pollution of Lake Baikal and its watershed and work to eliminate them, prioritizing those that have been identified as major pollutants;*
- *Special efforts should be made to increase knowledge of the following forms and sources of pollution: complex molecules, persistent pollutants, plastics, as well as ecological reactions and cross-cutting themes related to climate change, water regulation of runoff, and watershed health, as these are important factors for water quality;*
- *Conduct an ongoing annual inventory of major sources of pollution in the Lake Baikal watershed, including detailed information on progress made and results achieved to minimise and eliminate their impacts on the property;*
- *Among solutions, consider adjusting water protection zone boundaries and land use planning to control direct and diffuse pollution; prioritize increasing the capacity and performance of the wastewater treatment facilities in the central ecological zone, applying the highest environmental standards and advanced technological solutions that will tighten the standards for maximum allowable impact on Lake Baikal's unique ecological system.*

At present, there are no industrial enterprises in the BNT that discharge wastewater directly into Lake Baikal, except for one, which is discharged only by the Municipal Unitary Enterprise “Sewage Treatment Facilities of Baikal Municipality”.

Wastewater discharges are regulated by the order of the Ministry of Natural Resources and Environment of Russia from 21.02.2020 No. 83 “On approval of standards of maximum permissible impacts on the unique ecological system of Lake Baikal and the list of harmful substances, including substances categorized as particularly hazardous, highly hazardous, dangerous and moderately dangerous for the unique ecological system of Lake Baikal” (hereinafter - Order No. 83).

Since Order No. 83 contains requirements for the content of harmful substances in wastewater discharged into Lake Baikal and water bodies with a permanent or temporary hydraulic connection to Lake Baikal, compliance with these requirements is monitored by Rosprirodnadzor within the scope of its authority for state environmental supervision in the field of Lake Baikal protection.

Thus, Order No. 83 prohibits the possibility of discharging harmful and poisonous substances into the lake, the norms for discharging into Lake Baikal are strict and high for wastewaters and do not entail risks for Lake Baikal.

The standards of Order No. 83 are also applied during construction of new treatment facilities and modernization.

Pursuant to the instruction of the Deputy Chairman of the Government of the Russian Federation A.V. Gordeev from 18.12.2019 № AG-P11-11031 in order to ensure coordinated actions of interested parties, as well as more effective work in the field of Lake Baikal protection, the Government Commission on the protection of Lake Baikal (hereinafter - the Commission) was established.

According to paragraph 1 of the Regulations on the Governmental Commission for the Protection of Lake Baikal, approved by the Resolution of the Government of the Russian Federation dated 30.04.2020 № 627, the Commission is a coordinating body formed to ensure coordinated actions of the federal executive authorities concerned, executive authorities of the Republic of Buryatia, Zabaikalsky Krai and Irkutsk Region in addressing the protection of Lake Baikal as a unique ecological system and a World Natural Heritage site.

The agenda of almost every meeting of the Commission, headed by the Deputy Chairman of the Government of the Russian Federation D.N. Patrushev, includes an issue on the progress of construction, reconstruction and modernization of treatment facilities in the CEZ of the Baikal Processing Territory.

The Commission's decisions instruct the executive authorities of the Republic of Buryatia and Irkutsk Region to prioritize the inclusion of facilities located in the CEZ of the Baikal Processing Zone in their plans for construction, reconstruction and modernization of wastewater treatment facilities. The issues of Lake Baikal protection and conservation are under control of the Ministry of Natural Resources and Environment of the Russian Federation, Rosprirodnadzor and other interested federal executive authorities, as well as executive authorities

of the Republic of Buryatia, Zabaikalsky Krai and Irkutsk Region that carry out federal state environmental supervision and regional state environmental supervision, respectively, in accordance with the procedure established by the legislation of the Russian Federation and the legislation of these subjects of the Russian Federation.

For the inventory of enterprises discharging wastewater into water bodies in BNT, Form 2-TP (vodkhoz) is used, which is a form of federal statistical reporting that contains information on the water use of an economic entity (information on water use).

It is filled out by companies and enterprises that discharge harmful substances into water, use water from different sources for their needs and have water recycling systems.

The report on form 2-TP (vodkhoz) combines data that allow assessing the degree of use of a water body and the level of impact on it of polluting factors in the process of economic activity.

**Recommendation 5:** *Regarding the restoration of the Baikal Pulp and Paper Mill territory:*

- *Due to the high toxicity of industrial waste stored in close proximity to Lake Baikal, apply the highest environmental standards when selecting and applying technological solutions for the disposal of industrial substances stored at the industrial site;*
- *Ensure regular risk assessment and verified environmental monitoring in close cooperation with expert and scientific organizations;*
- *Keep the public and the Committee regularly informed about the progress of remediation works and the development of the Research and Development Program (RDP) for the Solzan Landfill, which is not expected to be completed until 2028;*
- *Submit the forthcoming EIA for the plant site and any other forthcoming EIA to the World Heritage Center for review by IUCN as requested by the Committee.*

In accordance with the Order of the Government of the Russian Federation No. 669-r dated 19.03.2020, the Federal State Unitary Enterprise “Federal Environmental Operator” was determined to be the sole executor of works related to preparation of the project of works and works on liquidation of accumulated environmental damage (hereinafter referred to as “EHS”), formed in the process of activity of OJSC BPPM.

Positive conclusions of the state expert reviews were received for the project documentation on liquidation of EIA on the territory occupied by sewage-treatment facilities with production facilities containing black liquor (hereinafter referred to as CDF) and the landfill “Babkhinsky”.

FSUE “FEO” within the framework of the state contracts from 14.04.2023 No. 1/2023EI and No. 2/2023EI dated 14.04.2023 performs works on the elimination of non-VOCs on the territory of the Central Processing Center and at the Babkhinsky landfill.

Completion of the works is scheduled for 2027.

With regard to the Solzansky landfill, the Russian Academy of Sciences (hereinafter also - RAS), the Siberian Branch (hereinafter also - SB) of the RAS, and the Ministry of Natural Resources and Environment of the Russian Federation have carried out extensive work to collect, analyze, and evaluate information on the most promising and environmentally efficient technologies for handling wastes accumulated in polymer accumulation cards in the landfill accumulation maps. The Scientific Council of the Russian Academy of Sciences on Global Environmental Problems requested information on available technologies of sludge-lignin waste processing from 135 leading scientific, research, scientific-educational institutions, commercial and public organizations. According to the results of the analysis of the presented technologies and technological solutions it was established that there are no ready technologies that can be used without additional research and development work and confirmation of their ecological efficiency and operability.

The Ministry of Natural Resources and Environment of the Russian Federation at the suggestion of the Russian Academy of Sciences organized R&D to test the method of accelerated restoration of the ecosystem of the Solzansky landfill using humification of the existing sludge-lignin proposed by the Faculty of Chemistry of the Lomonosov Moscow State University.

In August (05.08.2024 - 12.08.2024) and September (25.09.2024 - 01.10.2024), the Faculty of Chemistry of MSU carried out expeditionary works together with institutes of Siberian Branch of Russian Academy of Sciences at the “Solzansky” polygon of OJSC “BPPM” to conduct reconnaissance field work to assess the current state of the accumulation maps, sampling from the polygon maps and their delivery to Moscow for desktop analysis and data processing. Moscow to perform desk analyses and data processing, as well as measures were taken to set up a small-scale experiment on the choice of filler to form a sorbing barrier and approaches to chemical and physical aeration.

Also, the Faculty of Chemistry of MSU together with the institutes of SB RAS perform works on all items of the technical assignment for R&D.

In the course of R&D on application of nature-like technologies, preliminary technological solutions were found for application of technology of accelerated in situ humification of lignin deposits, which will allow solving the issue of neutralization of the entire volume of accumulated waste in the Solzansky landfill maps in situ, without excavation of contaminated substances.

In 2025, the MSU Faculty of Chemistry together with the institutes of the Siberian Branch of the Russian Academy of Sciences will continue research on the application of nature-like technologies in order to solve the issue of transferring the object of accumulated environmental damage of the “Solzansky” landfill into an environmentally safe state.

**Recommendation 6:** *Regarding the Baikalsk Master Plan:*

- *Conduct a strategic environmental assessment of the plan as requested by the Committee to ensure full compatibility with the World Heritage Requirements and to provide overall guidance for individual projects and their potential cumulative impacts; the assessment could be carried out separately for the master plan or jointly with the assessment of the development plan for the Gates of Baikal SEZ, depending on the overlap between the two initiatives;*
- *Clarify the status of this plan in relation to other planning initiatives (e.g. SEZ, urban development documents).*

In the Russian Federation, Strategic Environmental Assessment (SEA) is implemented through the mechanisms of environmental impact assessment (EIA) and state environmental expertise (SEE).

**Recommendation 7:** *Regarding development of 2 special economic zones (SEZ):*

- *Carry out a strategic environmental assessment in each SEZ, as requested by the Committee, in accordance with the principles of the Guidance and Toolkit for Impact Assessment in the World Heritage Context to assess the cumulative impacts of existing and proposed activities in the SEZ; share the assessment results with the World Heritage Centre for IUCN review;*
- *Based on the assessments, develop and implement an environmental management plan for each SEZ to avoid any negative impacts on the OUV of the property, including its aesthetic and landscape values;*
- *Ensure that EIAs for individual projects in the SEZ are carried out in accordance with the guidance provided above to mitigate negative impacts on the OUV.*

The information regarding the SEZ TRT “Baikal Harbor” is presented above (page 9).

**Recommendation 8:** *In view of the increasing pressure on land and unorganized recreational activities and mass tourism, to*

- *Provide more accurate information on all large-scale initiatives tourism (e.g. cruise tourism, resorts) and assess their impacts on the site and its environment in accordance with the Guidelines and Toolkit for Impact Assessment in the World Heritage Context;*
- *Minimise the negative impacts of tourism and construction on the property and its environment by adapting land use in settlements and through human and technical means, taking into account the carrying capacity of ecosystems;*
- *As part of the integrated management plan for the entire property requested by the Committee, develop a sustainable tourism strategy that provides a clear vision, goals, objectives and management structure to minimise the negative impacts of the tourism sector on the Site and optimize its potential positive environmental impacts.*

The Ministry of Economic Development of Russia within the framework of the national project “Tourism and Hospitality Industry” has developed a master plan for the development of Lake Baikal, the main objective of which is to preserve the natural wealth of the lake and optimize the anthropogenic load on the natural environment. In addition, the concept of the Federal Law “On Protection of Lake Baikal” is to establish a ban on economic activities that have a negative impact on the BNT, in addition to other environmental protection laws. In addition, the federal project “Five Seas and Lake Baikal” is concentrated within special economic zones, thus making them points of attraction. The realization of ecotourism development projects within the BNT offers the construction of infrastructure.

**Recommendation 9:** *With respect to fire prevention and management:*

- *Continue commendable wildfire management efforts to prevent fires and provide human, technical, and financial capabilities to minimise potential future fire hazards on the property;*
- *Address the risks associated with climate change on the property, and implement all mitigation and adaptation measures designed to minimise fire risks while maintaining the integrity of a forest ecosystem that provides*

*essential ecological services and contributes to the integrity and intrinsic characteristics of the Property;*

- *Develop and implement a clear and comprehensive plan and programs of fire management and forest ecosystem restoration activities throughout the property, using management practices that are fully compatible with the natural characteristics of the of the original forests on the property; this plan and programs shall be part of the integrated management plan requested by the Committee for the entire property and shall be submitted to the World Heritage Center for review by IUCN prior to its adoption.*

The information regarding fire prevention is presented above (page 14).

***Recommendation 10: Regarding hydropower projects in Mongolia:***

- *Commending the State Party of Mongolia for its assessment of the potential impacts of the Egiin Gol hydropower project on the biodiversity of the Selenga basin and the site, and its commitment to develop an updated EIA of the project in accordance with international best practices and the Guidelines and Toolkit for Impact Assessment in the World Heritage Context; request that this EIA include measures to be taken to mitigate the impacts of the project on the Selenga ecosystem be brought to the attention of the State Party of the Russian Federation and forwarded to the World Heritage Center for review by IUCN; and for consideration by IUCN;*
- *Request the State Party Mongolia to clarify the final technical concept of the Egiin Gol hydroelectric power plant;*
- *Recognize the commitment of the States Parties of the Russian Federation and Mongolia to cooperate in the sustainable management of the Lake Baikal shared watershed;*
- *Request the States Parties Russian Federation and Mongolia to continue to assess the cumulative impacts of all existing and planned watershed-scale hydropower and water management projects on the property, prior to the approval of any individual projects and to guide the subsequent development of EIAs for all such projects.*

The response is provided in the paragraph related to Russian-Mongolian cooperation (page 16 of the report).

***Recommendation 11: Regarding the property management and general provisions of the Convention:***

- *in accordance with the guidelines and repeatedly, the Committee requested that a Comprehensive Property Management Plan be developed with the participation of all State Authorities and other stakeholders;*
- *ensure that there is mandatory public consultation and scientific expertise on the management plan, amendments to the legal regime and major development initiatives that may affect the site and its appearance;*
- *work closely with the World Heritage Center and IUCN to finalise the management plan. Retrospective Statement of Outstanding Universal Value of the property (RSOUV);*
- *provide a map of the World Heritage Site boundaries as part of the project Retrospective inventory and associated GIS data to be integrated into the World Heritage Online Mapping Platform;*
- *formalize the buffer zones of the property in accordance with the Convention.*

All responses are provided above.

## **2. Information on other current issues related to the preservation of heritage site**

**Introduction.** Lake Baikal and the Baikal Natural Territory are a unique region characterized by both a great variety of natural conditions and many types of anthropogenic impact. The unique combination of hydrological characteristics of water bodies and indicators of the aquatic ecosystem as a whole, under the conditions of historically developed forms and peculiarities of natural resources development, forms a system that is highly vulnerable to external factors. The Russian Federation realizes the national significance and outstanding universal value (OUV) of the World Heritage Site Lake Baikal, keeps its condition under constant control and takes necessary measures for its conservation. To protect this unique natural object, Federal Law No. 94-FZ of May 1, 1999 “On Protection of Lake Baikal” was adopted, which establishes a special regime of economic activities in the region and is aimed at preventing negative impacts on the ecosystem. Article 2 of FZ-94 establishes that the Baikal Natural Territory (BNT) includes Lake Baikal, water protection zone adjacent to the lake, its catchment area within the territory of the Russian Federation, specially protected natural areas (SPNA) adjacent to Lake Baikal, as well as the adjacent territory up to 200 kilometers wide to the west and north-west of the lake. The Central Ecological Zone (CEZ), the Buffer Ecological Zone (BEZ) and the Ecological Zone of Atmospheric Influence (EZAI) are distinguished within the BNT. The Central

Ecological Zone includes Baikal itself with its islands, the water protection zone adjacent to Baikal, as well as protected areas adjacent to the lake. The Buffer Zone includes the territory outside the Central Ecological Zone, which includes the catchment area of Lake Baikal within the Russian territory.

The lake suffers from anthropogenic impact as a result of human economic activity and also depends on the natural environment. The lake is affected by anthropogenic impact as a result of human activities and also depends on natural water conditions. The Russian Federation emphasizes the need for strict monitoring and effective environmental protection measures to preserve the unique ecosystem of Lake Baikal. Continuous monitoring is an important part of environmental protection and sustainable management of natural resources in the BNT. Analysis of annually obtained data plays a key role in assessing the effectiveness of conservation measures.

The federal project “Conservation of Lake Baikal”, which is part of the national project “Ecology”, is being implemented in the BNT. Improvement of the environmental situation in the BNT is achieved through active cooperation between governmental authorities in the field of environmental protection and scientific institutions and public organizations. This cooperation is aimed at solving both fundamental and applied problems. The established set of measures aimed at solving environmental problems in the BNT serves as a basis for the annual State Report “On the State of Lake Baikal and Measures for its Protection”. This document summarizes the results of monitoring, assesses the effectiveness of actions taken, identifies the range of problems and proposals for effective measures to address them. The information presented in the annual report serves as an important tool for informing the population and public authorities about the state of the environment.

To provide internet access of people to information in the field of Lake Baikal protection, to increase information and improve its quality, the Geoportal “Environmental Monitoring of Lake Baikal” (<https://baikalake.ru/security/info/reports/report2023/>) was created within the framework of the federal target program “Protection of Lake Baikal and Socio-Economic Development of the Baikal Natural Territory for 2012-2020”. In 2023, the principles of openness and access to information were steadily observed. A positive moment was the formation of a novelty of public discussion of the Report in the form of an open discussion at the Commission on Ecology and Sustainable Development of the Public Chamber of the Russian Federation. This Report is based on the data, analytics and conclusions of the above report.

## **1. STATE OF THE ENVIRONMENT**

**Natural objects.** Lake Baikal. Water resources of Lake Baikal are largely formed in arid conditions, which means that they are highly variable in time. The alternation of low-water and high-water periods and their duration ensure long periods of low and high water levels in the lake in these climatic conditions. The range of lake level fluctuations in natural conditions, according to instrumental observations, is almost two meters, which is a natural factor and to which, in turn, the lake ecosystem has adapted. In 2023, water level management in Lake Baikal took place in wet conditions the water inflow was higher than normal. Filling of Lake Baikal began on May 12, 2023 and continued until October 7, 2023. During this period, the water level increased by 1.01 meters, reaching the mark of 457.15 meters. The decrease in the level of Lake Baikal began on October 8, 2023, and by the end of the year the level was 456.75 m TO (according to the Pacific system of altitude marks).

The multiyear experience of water management of the Angara Reservoir Cascade makes it possible to maintain with high accuracy the water level regime of Lake Baikal near to the natural, this accordance to the Basic management rules of water resources of the reservoirs of the Angara cascade of hydroelectric power plants (Irkutsk, Bratsk and Ust-Ilimsky) (1988). The water levels of the lake in 2024 were within the limits established by the Decree of the Government of the Russian Federation dated March 26, 2001 No. 234 "On the limit values of the water level in Lake Baikal during economic and other activities". During the years 2022-2023 scientific research "Impact of changes in the water level in Lake Baikal on the state of the lake ecosystem, determination of damage to the objects of economy and infrastructure of the coastal territory of the Republic of Buryatia, Irkutsk region depending on the lake levels and discharges of the Irkutsk HPP" was conducted. The report on this research contains complete information about the state of the lake's ecosystem. The Ministry of Natural Resources of Russia by letter dated 30.08.2024 No. 20-43/35028 to the Executive Secretary of the Commission of the Russian Federation for UNESCO for study by the experts of UNESCO and IUCN was sent a translation into French of the results of abovementioned scientific research.

During 2023, observations of Lake Baikal water quality were carried out at the background deep-water stations of the reference transect running along Lake Baikal along its central part; in South Baikal - in the area of wastewater impact of the treatment facilities of the Baikal Pulp and Paper Mill (BPPM) closed in December 2013, in the area of the settlement of Kultuk - S.S. Kultuk. In the middle part of the lake - in the area of Selenginsky shallow water, in the area of Barguzinsky Bay, in the area of the Small Sea; in North Baikal - in the area of influence of the BAM highway. The ecological state of Lake Baikal in 2023 by

hydrochemical indicators on the background longitudinal section remains stable in terms of mineral and suspended solids content. Elevated values of total and organic nitrogen were observed in the Selenginsky Shallow Water area. Compared to other surveyed areas of the lake, the highest average number of heterotrophic microorganisms in bacterioplankton and bottom sediment microflora was also detected here (analyzed in September 2023).

Ichthyofauna of Baikal is represented by 56 species and subspecies of fish from 13 families. The Baikal population of Siberian sturgeon, davatchan, taimen and lenok, as well as two species of broadbills are categorized as rare and endangered. Since the decline in omul stocks observed over the last decade reached a critical level by 2015-2016 and required the establishment of additional restrictions, in accordance with the Order of the Ministry of Agriculture of Russia No. 450 of August 29, 2017, fishing regulations came into force on October 1, 2017, providing for a ban on extraction (catch) for industrial fishing and additional restrictions on recreational fishing. The introduction of the ban did not apply to the extraction (catch) of omul by indigenous and small-numbered peoples of the North, Siberia and the Far East of the Russian Federation for personal needs, as well as all other citizens when they conduct ice fishing for omul. The norm of catching omul in recreational and sport fishing is limited to 5 kg per day per person. In accordance with the defined stocks, taking into account the structural and biological characteristics of individual morpho-ecological groups of omul and the adopted strategy of their commercial use, the volumes of total allowable catches are determined. Given the ban on commercial fishing, the TAC (total allowable catch) of omul for 2023 was set at 150 tons (150 tons in 2022). The same value of the TAC of omul is set for 2024.

In recent years, there has been a steady increase in the number of omul from 35.6 million fish in 2020 to 43.3 million fish in 2023. Strengthening efforts to suppress illegal net fishing for omul in Baikal and watercourses contributes to the conservation of not only Baikal omul, but also young Baikal sturgeon. With the support of businesses and public inspectors, the work on detection of offenses and crimes in the sphere of fishing in the BNT by state inspectors of Rosrybolovstvo has been strengthened. Public inspectors take part in joint raids to stop poaching and prevent it. In order to improve the efficiency of artificial

In order to improve the efficiency of artificial reproduction, Rosrybolovstvo has submitted a proposal to include in the federal project for 2025-2030 the reconstruction of the Gusinoozersky sturgeon aquaculture farm of Glavrybvod FSBI, where the cages are used to keep the repair herd of Baikal sturgeon. The state of stocks of other commercial fish did not differ from the previous year.

However, it is necessary to pay attention to the adoption of a set of measures to restore the stocks of the small sea whitefish population.

The population of those fish species, for which the values of the total allowable catch are not set, does not cause concern.

The Baikal seal occupies the highest trophic level in the lake ecosystem and is therefore a kind of indicator species. The number of the seal population, physical condition of the animals, and accumulation of pollutants in them reflect the state of the Baikal ecosystem as a whole. One of the most important parameters characterizing the state of a species in the ecosystem is its population size.

Traditional counting of the number of seal brood was conducted by the Baikal branch of Federal State Budgetary Institution of Science “VNIRO” in April 2023 in the middle part of Baikal. The estimated number of brood stock for the whole lake is 27.6 thousand heads. The total population of Baikal seals in 2023, according to calculations, amounted to 153.8 thousand animals.

### **Specially protected natural areas.**

In addition to specially protected natural areas of federal significance (SPNA of federal significance) - state nature reserves, including biosphere reserves, “Baikalsky” (biosphere, managed by FSBI “Baikalsky State Reserve”), “Barguzinsky” (biosphere, Baikal-Lensky (managed by FSBI Zapovednoe Podlemorye), Baikalsky (managed by FSBI Zapovednoe Pribaikalye), national parks Zabaikalsky (managed by FSBI Zapovednoe Podlemorye), Pribaikalsky (managed by FSBI Zapovednoe Pribaikalye), “Tunkinsky” (managed by FSBI ‘National Park ‘Tunkinsky’)) the boundaries of the CEZ BNT include state nature reserves of federal significance: “Kabansky” (managed by the FSBI “Baikal State Reserve”), “Frolikhinsky” (managed by the FSBI “Zapovednoe Podlemorye”).

In addition, within the boundaries of CEZ BNT, in addition to these natural monuments, there are five protected areas of regional importance - regional reserves Kochergatsky, Verkhne-Angarsky, Snezhinsky, Pribaikalsky, Enkhaluisky.

There are four SPNAs of federal significance within the boundaries of the BEZ: two state nature reserves: Jerginsky and Sokhondinsky (partially), one national park “Chikoi”, and a state nature reserve of federal significance “Altacheysky”.

Within the boundaries of EZAI there is one SPNA of federal significance - the state nature reserve “Krasny Yar”.

In 2023, 2 natural monuments in the North Baikal district of the Republic of Buryatia were included in the system of SPNAs of the BNT. Also 6 additional sites of recreational area “Baikal Coast” were created with the area of more than 2200 hectares in Pribaikalsky and North Baikalsky districts of the Republic of Buryatia.

To ensure the special protection regime of the protected areas, the number of environmental inspectors increased to 47 people, the length of raids, and the volume of biotechnical measures (feeding animals with salt and grain forage).

The management system of SPNAs in the Baikal region shows its efficiency. The consolidation of organizational structures in the form of state budgetary institutions that manage several SPNAs leads to both cost reduction and a clearer policy in the field of scientific activities and development of conscious tourism and environmental education. There is almost universal public interest in these areas. This is evidenced by the growing tourist flow. According to the results of 2023, the total number of visitors to SPNAs of regional importance of the Republic of Buryatia for tourism and recreation purposes amounted to 23376 people (in 2022 - there were 20285 people). In 2023, 180788 people visited the tourist routes of the Pribaikalsky National Park, while in 2022 - 158194 people. The total number of visitors for 2023 in the “Baikal State Natural Biosphere Reserve” amounted to 52475 people (in 2022 - 45153 people). The number of official visitors to the national park “Tunka” in 2023 amounted to 166575 people, which is more than 60,000 more than in 2022. A noticeable increase in visitors to SPNAs over the past years, including in 2023, actualizes the task of calculating the recreational load on SPNAs of all levels.

Biodiversity monitoring is carried out within the boundaries of SPNAs of federal significance, including state monitoring of fauna, as well as monitoring of fauna and flora listed in the Red Book of the Russian Federation, which in accordance with Russian legislation is carried out by the subjects of the Russian Federation (except for monitoring in SPNAs of federal significance), and in SPNAs of federal significance - by federal state budgetary institutions that manage them.

In federal SPNAs, monitoring is also carried out as part of research work, primarily within the framework of the “Chronicle of Nature” theme, based on the analysis of the results of which the state of PA biodiversity at the level of species and ecosystems is assessed and decisions are made on necessary measures to conserve and restore biodiversity.

The fauna within the Baikal Nature Reserve is diverse and is represented by more than 1000 species of invertebrates and 500 species of vertebrates, including more than 70 species of mammals, more than 300 species of birds, 6 species of reptiles and 6 species of amphibians, more than 50 species of fish and roundworms.

Within the boundaries of the BNT there is a significant number of objects of fauna and flora listed in the National Park of the Russian Federation and regional Red Data Books, including such animals as the Baikal black-necked marmot, the

Altai-Sayan population of wild reindeer, manul, snow leopard and others. The level of endemic species of flora and fauna is high.

A number of fauna objects (snow leopard) were priority species of the federal project “Conservation of biological diversity and development of ecological tourism” of the national project “Ecological tourism” of the national project ‘Ecology’ (2018 - 2024) and special measures have been implemented for them. Scientific research and monitoring in SPNAs is carried out, among other things, in cooperation with institutions of the Russian Academy of Sciences (including regional branches of the Russian Academy of Sciences and universities. The Directorate of “Zapovednoe Pribaikalya” reports on the creation in 2023 of a unified digital cartographic base, including data on flora and fauna, landscape, geological mapping of the territory, which also allows to record environmental violations. In the national park “Tunka” for the first time in 2023 5 new species of mosses and 2 rare species of vascular plants were discovered, 31 new locations of rare plant species were identified. As part of international cooperation with Mongolian colleagues from the Khubsugul National Park, an agreement was reached on territory protection, scientific and ecological-educational activities, development of ecological tourism in protected areas, and a joint program to study the snow leopard.

The flora and fauna of nature reserves and national parks in the central ecological zone of the BNT is very diverse.

*Baikal State Natural Biosphere Reserve.*

Registered: 381 species of vertebrate animals (mammals -52; birds - 308; reptiles - 2; amphibians - 2; fish - 17), 1580 species of invertebrate animals (insects - 1515, crustaceans - 44, mollusks - 21), 2772 objects of flora (vascular plants - 1134, mosses - 298, lichens - 775, algae - 140, mushrooms - 425).

There were 35 objects of fauna listed in the Red Book of the Russian Federation (mammals - 1; birds - 31; fish - 2, insects - 1) and 28 objects of flora listed in the Red Book of the Russian Federation (vascular plants - 13, mosses - 2, lichens - 12, mushrooms - 1).

*Baikal-Lensky State Nature Reserve.*

Registered: 351 species of vertebrate animals (mammals -52; birds - 276; reptiles - 4; amphibians - 3; fish - 16), 1000 species of invertebrate animals, 1881 objects of flora (vascular plants - 953, mosses - 182, lichens - 317, algae - 140, mushrooms - 289).

There were 26 objects of fauna listed in the Red Book of the Russian Federation (mammals - 1; birds - 24; fish - 1) and 42 objects of flora listed in the Red Book of the Russian Federation (vascular plants - 29, lichens - 12, mushrooms - 1).

*Barguzinsky State Natural Biosphere Reserve.*

Registered: 376 species of vertebrate animals (mammals - 44; birds - 286; reptiles - 6; amphibians - 3; fish - 37), 638 species of invertebrate animals (insects - 509, spiders - 109, crustaceans - 11, mollusks - 9), 2834 objects of flora (vascular plants - 879, mosses - 242, lichens - 301, algae - 1241, mushrooms - 171).

There were 39 objects of fauna listed in the Red Book of the Russian Federation (mammals - 2; birds - 34; fish - 3) and 14 objects of flora listed in the Red Book of the Russian Federation (vascular plants - 7, lichens - 7).

*Pribaikalsky National Park.*

Registered: 401 species of vertebrate animals (mammals - 64; birds - 303; reptiles - 5; amphibians - 4; fish - 25), 638 species of invertebrate animals (insects - 509, spiders - 109, crustaceans - 11, mollusks - 9), 3156 objects of flora (vascular plants - 1385, mosses - 339, lichens - 676, algae - 91, mushrooms - 665).

There were 30 objects of fauna listed in the Red Book of the Russian Federation (mammals - 1; birds - 29) and 30 objects of flora listed in the Red Book of the Russian Federation (vascular plants - 18, mosses - 1, lichens - 6, mushrooms - 5).

*Zabaikalsky National Park.*

Registered: 343 species of vertebrate animals (mammals - 50; birds - 257; reptiles - 3; amphibians - 3; fish - 30), 465 species of invertebrate animals (insects), 1615 objects of flora (vascular plants - 978, mosses - 240, lichens - 226, mushrooms - 171).

There were 32 objects of fauna listed in the Red Book of the Russian Federation (mammals - 2; birds - 27, fish - 3) and 15 objects of flora listed in the Red Book of the Russian Federation (vascular plants - 8, lichens - 7).

*State Natural Reserve of federal significance "Frolikhinsky".*

Registered: 123 species of vertebrate animals (mammals - 29; birds - 178; reptiles - 2; amphibians - 3; fish - 11), 465 species of invertebrate animals (insects), 1104 objects of flora (vascular plants - 793, mosses - 216, lichens - 81, fungi - 154).

There were 35 objects of fauna listed in the Red Book of the Russian Federation (mammals - 20; birds - 12, fish - 3) and 6 objects of flora listed in the Red Book of the Russian Federation (vascular plants - 2, lichens - 4).

*Kabansky State Nature Reserve of federal significance.*

Registered: 323 species of vertebrate animals (mammals - 31; birds - 258; reptiles - 2; amphibians - 4; fish - 28), 199 species of invertebrate animals (insects), 180 objects of flora (vascular plants - 165, lichens - 15).

There were 32 objects of fauna listed in the Red Book of the Russian Federation (birds - 29, fish - 3). Management of 14 PAs in the BNT is carried out by 5 federal state budgetary institutions (FSBI PAs).

The staff of these FSBI PAs to address the main tasks in the field of biodiversity conservation and research created special protection services, including operational groups. There are 356 state inspectors working in the protection services of FSBI PAs.

It should be noted the effectiveness of the PA system in 2023, which allowed to quickly respond to fire threats and prevent significant areas of natural fires.

### **Components of the natural environment and their natural resources.**

River runoff is a key component of Lake Baikal recharge, providing on average more than 80% of the total water inflow. The amount of perennial and annual input of suspended and dissolved substances depends on the natural conditions of the entire catchment area of the lake. The Selenga is the largest tributary of Lake Baikal and a transboundary water body, bringing about 30 km<sup>3</sup> of water per year to the lake, which is half of the total inflow. Approximately 46% of the Selenga's annual runoff originates in Mongolia. In 2023, water quality in the Selenga River at the state observation network point. Selenga - Novoselenginsk village remained at the level of the previous year and was characterized as “polluted”.

River water quality at the points of the state observation network: river. Selenga River - village. Kabansk, Selenga River - Murzino village, Selenga River - Murzino village. Murzino, Selenga River - Ulan-Ude city and Selenga River - Ulan-Ude village. Selenga River - Ulan-Ude and Selenga River - Naushki village. Naushki remained at the same level as last year and was assessed as “very polluted”.

Thus, the water of the river. Selenga River water in 2023, as well as in 2022, in general, was assessed as “very polluted”. The condition of other tributaries of Lake Baikal is more favorable. There has been an improvement in the water indicators of the Barguzin and Upper Angara rivers. Other tributaries of the lake either remained unchanged in water quality or worsened their condition. There was a tendency to improve the hydrochemical characteristics of the waters of the rivers of the CEZ of the BNT. Compared to the previous year, the water quality of the Goloustnaya, Buguldeika and Sarma rivers has improved, the rivers have moved from “weakly polluted” to “conditionally clean”, which is associated with a decrease in average annual concentrations of total iron by 1.5, 7.5 and 2.8 times respectively, and copper by 2.1, 3.1 and 1.2 times respectively. Water quality of the rivers Bolshaya Sukhaya, Manturikha, Mysovka, Snezhnaya, Vydrinaya, Khara-Murin, Utulik remained at the same level, the rivers were characterized as

“conditionally clean”. All lakes in the BNT are important ecosystems and recreation sites, but face different environmental challenges. It is important to continue to protect and restore these water bodies to preserve their natural functions and ensure sustainable use of natural resources. Groundwater flow accounts for 4.4% or 3 km<sup>3</sup> annually of the inflow portion of Lake Baikal's balance. This emphasizes the importance of groundwater as a resource capable of providing good quality water to the population, especially in areas remote from surface water bodies and streams.

The maximum volume of their extraction (82.0%) falls on the BEZ. The largest water consumer within the BNT is the city of Ulan-Ude (Buffer Ecological Zone), where slightly less than half (44.7%) of the total population of the Republic lives. The share of groundwater in the household and drinking water supply of the city population is 100%.

**Subsoil.** The Baikal natural territory in 2023 was characterized by relatively low seismic activity. The analysis of relative sensitivity of the points of the regional seismic observation network of geophysical monitoring shows that earthquakes with magnitudes over 3 are reliably registered within the whole Baikal region. Of the 39 earthquakes (occurring during the 12 months of 2023) in the Baikal region and bordering territories, most of them are seismic events with magnitudes from 4 to 4.7. In 2023, there were no activations of exogenous geological processes with catastrophic consequences in the BNT. Examples of such impacts in the past demonstrate the importance of monitoring and studying these processes.

Strict restrictions on the extraction and exploration of mineral resources are in place in the CEZ BNT. These measures are aimed at protecting the region's unique ecosystems and preserving natural resources for future generations.

**Land Fund.** In the municipalities located in the BNT, during 2023 there was a slight redistribution of land area between different categories. This is due to the harmonization of data with the data of the Unified State Register of Natural Resources (USRN) by the territorial office of Rosreestr for the Zabaikalsky Krai Territory. Thus, the lands of industry and other special purpose decreased by 1.276%; the lands of forest fund increased by 0.797%; the lands of water fund slightly increased by 0.003%. The area of lands of SPNA remained unchanged, which demonstrates the stability of land control over the special nature protection regime of the use of such lands. It is noted that the Land Code of the Russian Federation limits the turnover of state or municipally owned land plots occupied by especially valuable objects of cultural heritage of the peoples of the Russian Federation, objects included in the World Heritage List, as a general rule their

privatization is not allowed, which ensures the prevention of potential damage to the Lake Baikal OUV.

**Forests.** According to the Forest Code of the Russian Federation, the authority to manage forest resources has been delegated to the subjects of the Russian Federation. This means that the protection and defense of forests, including protection from forest fires, is entrusted to the state authorities of the constituent entities. The exception is forests located in SPNAs, which are managed by the administrations of these SPNAs.

The total area of forests on the lands of the forest fund within the BNT is 30763.9 thousand hectares, forest cover is 79.8%. As of 01.01.2023, the area of BNT of Irkutsk region, referred to the forest fund, is 9548.4 thousand hectares (31.1% of the area of the forest fund of BNT), the Republic of Buryatia - 14914.7 thousand hectares (48.4%), Zabaikalsky Krai - 6300.8 thousand hectares (20.5%). According to the results of forest pathology monitoring in Baikal forests for 2021-2023, the area of damaged and dead forests amounted to 221.5 thousand ha, less than 1% of all forests in Baikal. The main cause of forest damage and death is fires. Forest fires are most often caused by human fault. Order of the Federal Forestry Agency from 20.02.2023 № 118 “On the organization of aviation work to protect forests from fires in terms of aerial patrolling and suppression of forest fires in specially protected natural areas of federal significance, which are part of the Baikal natural area in 2023” increased the number and length of aerial patrolling routes - 14 routes with a total length of 8070 km. To protect forests from fires, extinguish forest fires and other landscape (natural) fires on forest lands in the territory of the BNT in the Irkutsk region there are 14 forest fire stations of different types, 304 units of forest firefighting equipment and 966 units of forest firefighting equipment.

There are 52 forestry organizations in the BNT, which play an important role in managing the region's forest resources. In 2023, reforestation in the BNT was carried out on an area of 76.3 thousand hectares, including artificial reforestation of 8.9 thousand hectares. With the support of the Lake Baikal Foundation, a mountainous taiga area of 5.4 hectares was restored in the Ivolginsky forestry, where natural regeneration is difficult. In the Irkutsk region in 2023 such works were carried out on the area of 36.9 thousand hectares, including artificial and combined (seeding and planting of forest) on the area of 3.87 thousand hectares. On the territory of Usolskoye forestry, the Megetsy nursery was organized for the purpose of The Megetsy nursery was organized on the territory of Usolskoye forestry to grow planting material with closed root system for artificial reforestation in the BNT. In 2023, reforestation on the territory of the Zabaikalsky Krai in 2023 was carried out on the area of 11.6 thousand hectares, including

artificial reforestation on the area of 1.2 thousand hectares. Thus, reforestation works in the BNT are constantly carried out in a planned manner by governmental structures, as well as by public associations.

Part of the forests in the central ecological zone of the BNT was formed on agricultural land. The forests that have grown naturally on these lands perform generally the same functions as Young forests have the same nature protection and environment-forming functions as any young forests within the Central Ecological Zone, including regulation of runoff during spring snowmelt and heavy rains, prevention of soil particulate matter washing into watercourses, prevention of lake pollution and eutrophication, etc.

**Atmospheric air.** In 2023, no high and extreme-high atmospheric air pollution was registered in the territory of the CEZ BNT. The Priority List of Russian cities with the highest level of air pollution includes Ulan-Ude city and Selenginsk urban-type settlement. There is an increase in the annual average concentrations of suspended solids, sulfur dioxide, carbon monoxide, nitrogen dioxide, nitrogen oxide. At the same time, the annual average concentrations of benz(a)pyrene, PM 10, PM 2.5, carbon (soot), ammonia, lead, nickel, copper, iron, magnesium, chromium and zinc decreased.

Within the Ecological Zone of atmospheric influence of BNT, air pollution monitoring is carried out in six cities of the Irkutsk Region: Angarsk, Irkutsk, Svirsk, Usolye-Sibirskoe, Cheremkhovo and Shelekhov, as well as in the settlement of Meghet.

Atmospheric air pollution in BNT is caused by anthropogenic impact of emissions from motor transport, life support and infrastructure facilities located in the CEZ, as well as enterprises of the Irkutsk-Cheremkhovo industrial complex located in the EZAI.

**Precipitation, snow cover.** The amount of precipitation in part of the Irkutsk Region, which is part of the BNT, in 2023 was close to the long-term average. On the territory of the Republic of Buryatia precipitation was about or more than the climatic norm. In the Zabaikalsky Krai, the total precipitation in 2023 amounted to 411-524 mm, which is about and more than the climatic norm (120-148 %). The snow cover height over most of the BNT was above the multiyear average. Destruction of stable snow cover occurred in late March - mid-April, while snow cover formation was observed from early October to mid-November.

**Climatic conditions.** Despite significant temperature anomalies observed in some months of 2023 in part of the Irkutsk Region, which is part of the BNT, the average annual air temperature was close to multiyear values. At the same time in the Republic of Buryatia, the temperature anomalies were more pronounced: on

January 23 in the village of Tankhoy in the Kaban District, the January minimum ( $-40.9^{\circ}\text{C}$ ) was exceeded, the previous one ( $-40.3^{\circ}\text{C}$ ) was in 1936. September 2023 was the third warmest September in the history of regular meteorological observations in Russia, since 1891 only September 2020 and 2016 were warmer. There is an increase and frequency of occurrence of temperature anomalies - climatic extremes, which is characteristic of the entire territory of the Russian Federation.

**Anthropogenic objects and their impact on the environment.** The use of water resources and the volume of water disposal remains stable within the BNT. In the Republic of Buryatia within the boundaries of the BNT the volume of wastewater discharge decreased by 8.25% compared to 2022. At the same time, no wastewater is discharged directly into Lake Baikal in the Republic of Buryatia. In the BNT of the Irkutsk region, wastewater discharge to surface water bodies was recorded 8.87% higher than in 2022. In the Zabaikalsky Krai, the volume of wastewater discharge decreased by 15.6% compared to the previous period.

Baikalsk Pulp and Paper Mill (BPPM), launched in 1966, was closed in December 2013. Since that time, only socially important thermal power plants facilities have been functioning at the mill. The volume of water withdrawal from Lake Baikal in 2023 amounted to 1.06 million  $\text{m}^3$  (1.02 million  $\text{m}^3$  in 2022), which is 0.04 million  $\text{m}^3$  (3.9%) more than in 2022. In general, water use in the BPPM area is directly dependent on the increase/decrease in water use for heat and power generation and transferred water for municipal needs.

Water levels in Lake Baikal in 2023 were within the regulation range of 455.54 - 457.85 m TO, established by Resolution of the Government of the Russian Federation No. 379 of March 16, 2022 "On maximum and minimum values of water level in Lake Baikal in 2022-2023". In 2023, the operation of water intake structures in the lower and upper embankments of hydroelectric facilities, as well as navigation on the Lower Angara River (northern delivery) was ensured in full. Water resources reserves accumulated in 2022 in the reservoirs of the Angara HPP cascade and their rational use under the current hydrometeorological situation allowed to ensure navigation in 2023. At agricultural enterprises located in the BNT, in 2023 there was an increase in the volume of water intake and wastewater discharge, which is associated with an increase in irrigation of fields due to low precipitation in the summer period of 2023.

Environmental safety of vessels, including those operating on Lake Baikal, represents one of the key objectives of the classification activities of the East Siberian branch of the Russian Classification Society. In the course of ship certification, control is exercised over compliance with the normative values of harmful emissions and smokiness of gases emitted from ship diesel engines. Motor

transport is one of the main sources of greenhouse gas emissions, such as carbon dioxide (CO<sub>2</sub>), methane (CH<sub>4</sub>) and nitrogen oxides (NO<sub>x</sub>). Within the Baikal region, an annual increase in the number of road transport is recorded. In the Irkutsk Region, this figure has increased by 1.33% compared to 2022, in the Republic of Buryatia by 1.4%, and in the Zabaikalsky Krai by 0.91%. This reflects the trend of continued motorization of the Baikal region. In 2023 compared to 2022, BNT achieved a 0.1% reduction in air emissions and a 2% reduction in waste generation from railway transportation units. Since 2016, there has been a steady downward trend in the anthropogenic impact of railway transportation enterprises on the CEZ and BEZ.

The crystal clear waters of the lake, delightful landscapes, rich flora and fauna, as well as the unique culture of local peoples make Lake Baikal a popular destination for various types of tourism. Organized tourist activities in the Central Ecological Zone of Lake Baikal are regulated by the Rules of Tourism and Recreation Organization in the Republic of Buryatia and the Rules of Tourism and Recreation Organization in the Irkutsk Region, adopted in 2019. These rules provide for the compilation of regional tourist routes, the admission of tourist groups with their subsequent registration in a special regional register is allowed. The rules of tourism in the Irkutsk region provide for the certification of tourist industry facilities in the territory of the Central Ecological Zone of the BNT with renewal every three years. These rules provide for the (voluntary) certification of tour guides and guides-interpreters, as well as the maintenance of a special register of certified tour guides and guides-interpreters; prohibitions on certain actions are established. The crisis of the tourism industry caused by the restrictions during the pandemic is completely overcome in 2023. With the growing popularity of Lake Baikal as a tourist destination, the issue of sustainable tourism becomes important. In 2023, on behalf of the Government of the Russian Federation, MSU scientists developed “Integral indicators of anthropogenic impact and environmental conditions of Lake Baikal”. To assess the anthropogenic impact on the Baikal Nature Reserve and the ecological state of protection of the unique ecological system of Lake Baikal, a draft order of the Ministry of Natural Resources and Environment of Russia on the methodology for calculating the integral index of anthropogenic impact on the Baikal Nature Reserve, as well as integrated indicators of the ecological state and protection of the unique ecological system of Lake Baikal has been prepared, and its public discussion has been held on the federal portal of draft regulatory legal acts. Today there is an increase in the number of hotel rooms and guest houses, more jobs and employment opportunities for the indigenous population.

So far, tourism projects with new technological solutions are only planned to be launched within the SEZs united in the tourist cluster “Magic Baikal”: “Baikal Gate”, “Baikal Sloboda” in the Irkutsk Region and “Baikal Harbor” in Buryatia, as well as in the “Buryatia” territory of advanced development.

In 2023, the territorial bodies of Rosprirodnadzor on the territory of the BNT identified 231 cases of administrative offenses related to the protection of the natural environment and nature management. The main categories of identified offenses were: non-compliance with environmental requirements in urban planning activities and the operation of enterprises, structures or other facilities; non-compliance with environmental protection requirements in the handling of production and consumption waste; and concealment or misrepresentation of environmental information. Rosprirodnadzor is also tasked with monitoring compliance with requirements to prohibit the construction of capital construction facilities (parts thereof) in the territory of the central ecological zone of the BNT, the operation of which is not related to the creation and development of protected areas of federal and regional significance, tourist and recreational tourism, and the development of protected areas of regional significance and tourist and recreational SEZs. The inspections did not reveal any violations of environmental legislation requirements during the construction of capital construction projects (parts thereof). The activities of the prosecutor's office and environmental authorities are supported by the country's judicial system. There is an extensive arbitration practice of protecting BNT from illegal development, land privatization and prohibited activities. As of 10.11.2023, 33 enforcement proceedings for the demolition of 160 unauthorized objects are pending with the Main Department of the Federal Service for Compulsory Enforcement of Punishments in the Irkutsk Region and the Department of the Federal Service for Compulsory Enforcement of Punishments in the Irkutsk Region. Thus, despite regular violations of legislation and requirements for the preservation of the Lake Baikal OUV, the Russian Federation takes all necessary actions to control and prevent illegal use of natural resources damaging the natural heritage site.

## **2. MEASURES TO PROTECT LAKE BAIKAL**

**Legal regulation and programs.** The President of the Russian Federation has repeatedly noted that preserving Lake Baikal for present and future generations is an undoubted state priority. Taking into account the need to improve the management system of Lake Baikal as a World Heritage Site, in 2019, based on the results of the inspection of the implementation of legislation on the conservation of Lake Baikal and its environmental condition, the President of the

Russian Federation instructed to assess the activities of the Interdepartmental Commission for the Protection of Lake Baikal. As a result, the commission was transformed into a governmental commission, headed by the Deputy Chairman of the Government of the Russian Federation (Decree of the Government of the Russian Federation No. 627 of April 30, 2020). Meetings of the Commission are held at least once a year, it includes members of the Government of the Russian Federation, heads of the subjects of the Federation whose territories cover the BNT, representatives of science, and it considers the most significant issues of the BNT development. The Commission is a coordinating body established to ensure coordinated actions of interested federal executive authorities, executive authorities of the Republic of Buryatia, Zabaikalsky Krai and Irkutsk Region in addressing the tasks of protecting Lake Baikal as a unique ecological system and World Natural Heritage site. During the meeting of the Government Commission on the protection of Lake Baikal in 2023, topical issues on the conservation and reproduction of Baikal omul, sturgeon and seal, on the objects of accumulated environmental damage in the BNT that have an impact on Lake Baikal and the elimination of such objects, on the functioning of national parks in the CEZ of the BNT, on the organization of tourism in the BNT were discussed.

The issues of organizing permanent control over the reconstruction of the Bolsherechensk fish hatchery; conducting an inventory, including using remote sensing data, to determine the number and location of unauthorized dumps located in the BNT also were considered.

Preservation of Lake Baikal at the level of subordinate legislation in accordance with FZ-94 is ensured by the Government of the Russian Federation and its bodies. All draft decisions related to the BNT are discussed on the portal of public discussion of regulations of the Government of the Russian Federation <http://regulation.gov.ru>.

In 2023, the implementation of the federal project “Lake Baikal Conservation”, which is an integral part of the National Project “Ecology”, continued.

The key objectives of the project are to preserve and restore the bioresource potential and biodiversity of water bodies in the BNT. In addition, the project is aimed at reducing the anthropogenic load on the Lake Baikal ecosystem. This includes a set of measures aimed at protecting unique ecosystems, improving the condition of water resources and ensuring sustainable use of natural resources, which in turn will help to preserve this natural heritage for future generations. natural heritage for future generations. Among the initiatives supported by the public is the adoption in the spring of 2023 in the first reading of the bill to ban the sale of disposable plastic bags and utensils in Baikal.

In 2023, an unauthorized dump located in the area of Taloe village within the boundaries of the national park “Tunka” with a total area of 15.9 hectares was eliminated, as well as an unauthorized waste disposal site on the land plot west of the village of Onguren, Olkhon district, Irkutsk region, with an area of 0.057 hectares within the boundaries of the Pribaikalsky National Park was eliminated. In the CEZ of the BNT, 17 unauthorized waste disposal sites with a total area of 26.28 hectares were eliminated, including 7 dumps with an area of 2.89 hectares in the Irkutsk Region and 10 dumps with an area of 23.39 hectares in the Republic of Buryatia.

To assess possible consequences of large-scale hydrological disasters in the area of BPPM, to determine scenarios of occurrence and development of mudflows in the area of industrial sites, it is planned to develop prognostic models and assessment methods, to conduct detailed hydrological, climatic, meteorological, geological and geomorphological studies of the area, systems of complex ecological monitoring of environmental components in the area of BPPM accumulated damage facilities, including complex monitoring of hazardous geological wastes. The condition of the BPPM facilities and the level of protection of risks from them for the Lake Baikal OUV are under constant control of the Government of the Russian Federation and the Federal Environmental Operator responsible for the safety of the BPPM facilities for the environment, controlled by Rosatom State Corporation. In June 2023, within the framework of government contracts FSUE “FEO” started works on liquidation of accumulated environmental damage at the landfill “Babkhinsky” and the territory of the shop of the treatment facilities of OJSC BPPM. The Siberian Branch of the Russian Academy of Sciences and the Scientific Council of the Siberian Branch of the Russian Academy of Sciences proposed to develop a system of integrated environmental monitoring of a wide list of environmental components in the area of the objects of accumulated harm of BPPM, for objective instrumental tracking of the dynamics of changes over time and formation of information and analytical system for management decision-making.

Elimination of the consequences of environmental pollution in the territory of Usolye-Sibirskoye town in Irkutsk region continues. This settlement is located within the boundaries of the EZAI. In 2023, demolition of buildings was completed and construction of a plant for processing of waste of hazard classes 1 and 2 began. The town of Usolye-Sibirskoye became an environmental disaster zone after the town-forming enterprise Usolyekhimprom closed down there. A significant part of the production chemicals that had been accumulating for decades was placed in underground reservoirs. The President instructed the Government to develop and implement an action plan to neutralize and eliminate

all accumulated waste and clean up contaminated areas. In August 2020, the Government has already allocated more than 400 million rubles for priority measures to eliminate contamination within the framework of the federal project “Clean Country” of the national project “Ecology”.

In 2023, the sewage treatment facilities on the right bank of the Irkutsk city (stages 7-9) with a capacity of 220,000 cubic meters per day will be commissioned ahead of schedule. In 2023, the actual release of aquatic biological resources (Baikal omul and other valuable fish species) amounted to 450.5 million fish. In 2023, Rosrybolovstvo carried out work on the construction of a research vessel for ichthyological and hydrobiological studies of Lake Baikal. In addition, Rosrybolovstvo established a third observation point in the area of the Small Sea in order to expand the area of research of feeding aggregations of omul.

In 2023, Roshydromet started work to expand the hydrobiological monitoring program in the shallow water zone of Lake Baikal, namely: in the area of four ports of southern Baikal, in the area of the village of Kultuk - S. S. Kultuk. Kultuk - Slyudyanka, in the coastal part from Cape Slyudyansky to Cape Kurla at the northern end of the lake. At present, a unified information platform on the state of the environment on Lake Baikal - geoportal “Environmental Monitoring of Lake Baikal” - has been created and is being finalised, which will become an official source of information on the lake's ecology, presented in four languages. In the territory of the Irkutsk region in 2023, the structural units of the Government of the region ensured the implementation of measures of the state program of the Irkutsk region “Environmental Protection” for 2019-2024, approved by the resolution of the Government of the Irkutsk region, the purpose of which is to preserve and protect the environment.

**Scientific support.** The scope of scientific research of the BNT ecosystems and Lake Baikal itself in 2023 included the work of scientific groups in various directions.

Lake Baikal in 2023 included the work of scientific groups in various areas. Features of development and symbiosis of natural complexes of the BNT and human impact were studied by institutes of the Siberian Branch of the Russian Academy of Sciences, academic organizations, as well as within the framework of scientific activities of protected areas. Within the framework of the Siberian Branch of the Russian Academy of Sciences, 11 separate institutes conducted research on the BNT, of which the Limnological Institute of the Siberian Branch of the Russian Academy of Sciences (LIN SB RAS), which conducted many studies on Lake Baikal in 2023, stands out. Within the Irkutsk State University, the Research Institute of Biology and the UNESCO Chair conducted research in 2023. Institutes of the Siberian Branch of the Russian Academy of Sciences in 2023

completed the work in the part of scientific research on the issue of studying the impact of the water level in Lake Baikal under conditions of different water content on the state of the lake ecosystem and assessment of possible damage to the objects of economy and infrastructure. One of the most actively discussed in 2023 were the problems of forest management, forest monitoring and forest pathology of forests of the BNT. In particular, special attention was paid to these problems in connection with the initiation by a group of deputies of the State Duma of the Federal Assembly of the Russian Federation of amendments to the Federal Law “On Protection of Lake Baikal”, which authorizes clear-cut logging, including on the shores of Lake Baikal. The meeting of the Scientific Council on October 10, 2023 was devoted to this issue, which was attended by scientists of the SB RAS, Ural Branch of the RAS, Far Eastern Branch of the RAS, RAS, authorities of the subjects of the Russian Federation. The Proposals following the results of the Scientific Council on October 10, 2023 were sent to the State Duma of the Federal Assembly of the Russian Federation by letter dated November 2, 2023 No. 15001-15237-2115.4/440. The bill has not yet been considered in the second reading in 2023.

**Formation of environmental culture.** The most important bases for the formation of environmental culture, enshrined in legislation, are: universal and comprehensive environmental education; teaching the basics of environmental knowledge in educational institutions; training of heads of organizations and specialists in the field of environmental protection and environmental safety; and environmental education. Two UNESCO academic departments are active in the Baikal region: the UNESCO academic department in Environmental Ethics at the East Siberian State University of Technology and Management in Ulan-Ude and the UNESCO academic department in Water Resources at the Irkutsk State University. The UNESCO academic department of Water Resources at Irkutsk State University in 2023, within the framework of the work carried out under the theme “Development of approaches to assess the impact of Lake Baikal level fluctuations on diversity, qualitative and quantitative indicators of zoobenthos and fish of littoral and coastal zones”, described the impact of changes in the Baikal water level on the population characteristics of zooplankton and zoobenthos organisms, which are the main part of the food base of Baikal fish. Observations on the dynamics of macrozoobenthos production indicators in the coastal littoral zone of the south-west coast and in the Maloye More Strait depending on water level changes were carried out, and the groups of organisms most adapted to this impact were identified. In 2023, the UNESCO Department of the East Siberian State University of Technology and Management successfully completed the project of the Russian Science Foundation “Ecological Ethics of Buddhism”. The

research focuses on modern initiatives of various Buddhist communities aimed at improving the environmental situation, both in localized regions and of global significance.

Limnological Institute of the SB RAS held two events:

- Floating University “Baikal-Evolution” for undergraduates, graduate students, young scientists of biological specialties from Irkutsk, Novosibirsk, Vladivostok, Moscow;
- Scientific and educational expedition “Baikal - Natural Laboratory”, which was attended by schoolchildren of 8-11 grades.

In 2023, the regional ministries of Irkutsk Region, Republic of Buryatia and Zabaikalsky Krai conducted several hundreds of environmental and educational activities, through which schoolchildren of 8-11 grades participated.

Several hundred environmental education activities were organized in 2023 by the regional ministries of the Irkutsk Region, the Republic of Buryatia and the Zabaikalsky Krai. In particular, the following events and activities took place in the regions. The Baikal Environmental Dictant was written in Irkutsk Region with the participation of 22 other Russian regions. More than 10,000 people took part in it and wrote the dictation at 380 sites. The region also held a regional contest #Say No to Waste! to collect waste paper among educational institutions. As a result, 29.7 tons of recyclable materials were collected and more than 200 environmental education events were held. An environmental campaign to clean the shores of water bodies from garbage was organized and carried out on the territory of regional natural monuments “Cape Shamansky” and “Slyudyanskoe Lake” in Slyudyanka District. For the first time, the project “When I Grow Up Big” was organized to promote environmental, cultural, aesthetic and patriotic education of preschool and primary school children, and others. In the Republic of Buryatia in 2023, meetings were held on the implementation of the territorial scheme of waste management, the elimination of landfills in the Baikal natural territory, the development of the mineral and raw materials complex and the development of the system of environmental education, awareness and upbringing. The Baikal Youth Forum was held in June. At the “International Cooperation” platform, participants were told about the Baikal natural territory, the special nature protection regime, and the types of activities prohibited in the Central Ecological Zone. In Zabaikalsky Krai in 2023, events were held within the framework of the All-Russian project for the development of school forestry organizations in Russia “There is a case for forestry”. In Zabaikalsky Krai there are 30 school forestries on the basis of secondary general education organizations and institutions of additional education with a total coverage of more than 2,200 people.

Drawing attention to the state of Lake Baikal and measures to protect it has a positive preventive role and increases the effectiveness of cooperation and work of authorized bodies and organizations in environmental protection. At the regional level, three state reports were issued in 2023 for the Irkutsk Region, the Republic of Buryatia and the Zabaikalsky Krai. They describe the features and state of natural complexes of the Baikal region.

**Public environmental movement.** For the first time in 2023, the Coordination Council of the Public Chamber of the Russian Federation on environmental well-being and development of non-financial public reporting practices co-authored a section of the state report “On the state of Lake Baikal and measures for its protection in 2023”. Citizen participation has always been of particular importance in preserving the natural and cultural heritage of Lake Baikal.

The most notable role it played in the multi-year campaign to stop the activities of the BPPM, relocation of the Eastern Siberia-Pacific Ocean pipeline route from the shores of the lake, discussion of the Mongolian HPP project, development of the “Strategy for the Conservation of Lake Baikal Ecosystem Biodiversity”, lawmaking activities and others. Public associations and NGOs of the region are engaged in activities to conserve the BNT both directly, by holding clean-up days and actions to clean up the lake shores, planting trees at fire sites, separate waste collection, monitoring and studying nature, and by participating in decision-making by authorities and businesses.

Petitions and appeals are the most popular tool used by civil society in the protection of Lake Baikal. Thus, the petition 2023 with the call “To withdraw the bill authorizing clear-cut logging on Baikal” collected 112,108 signatures. The bill in question is Bill No. 387575-8 “On Amendments to Article 25.1 of the Federal Law ‘On Protection of Lake Baikal’ and Article 11 of the Federal Law ‘On Environmental Expert Review’, developed by the inter-factional working group ‘Baikal’ of the State Duma of the Russian Federation.

Issues of protection of the unique ecological system of Lake Baikal are constantly in the field of attention of the Commission on Ecology and Sustainable Development of the Public Chamber of the Russian Federation and the Coordination Council on Ecological Wellbeing of the Public Chamber of the Russian Federation.

In 2023, the Public Chamber of the Russian Federation held several events to review the situation on Lake Baikal. At the beginning of 2023, the Recommendations of the Public Chamber of the Russian Federation were published based on the results of the round table on the topic “Taking Care of Baikal. Three years to the instructions of the President of the Russian Federation to

preserve Lake Baikal”, held in September 2022. On May 23, 2023, a joint meeting was held on “Protection of Lake Baikal and peculiarities of ecological and socio-economic development of the Baikal natural territory”. On October 16, together with the Scientific Council of the RAS on Global Environmental Problems, the Scientific Council of the RAS on Forests, the Scientific Council of the RAS “Land Water Resources” held a scientific-practical conference “Actual Issues of changing the Federal Law “On Protection of Lake Baikal” and sustainable development of the Baikal natural territory”, which was attended by deputies of the State Duma of the Russian Federation, heads of the Irkutsk region and the Republic of Buryatia, representatives of the scientific community and environmental organizations. The main topic of discussion was the draft federal law № 387575-8, adopted in the first reading in July 2023. The experts noted the lack of scientific assessment of the consequences and analysis of existing alternatives to the measures proposed by the bill. According to the results of the review, the developers of the bill were recommended to organize, including with the involvement of the scientific community, work to substantiate the need and feasibility of changing the legal regime of Lake Baikal and the BNT, including in terms of the formation and consolidation at the legislative level clear criteria for possible (in case of reasonable need) exemptions from the current legal regime. Also it was recommended to take into account the exclusively targeted nature of the transfer of land from one category to another and clear felling, secure their exhaustive list, and provide for additional measures of control when finalizing the text of the bill.

Among the active public organizations working in Baikal, the following can be highlighted. The All-Russian Society for Nature Protection has been conducting a wide range of projects and programs related to environmental protection for 70 years. “Ecological-Educational Center “Zapovedniki” works on education and protection of biodiversity and ecosystems, as well as researches in the field of ecological tourism in protected areas. The project “Point No. 1” The Lake Baikal Applied Ecological Research and Development Support Fund was included in the Russian Book of Records as the longest regular environmental monitoring project in the history of science: the project has been running continuously for more than 75 years.

In 2023, the Ice Crossing “EcoYouth on Baikal” (150 participants) and the All-Russian Youth EcoForum “EcoYouth 2023” (about 250 people) were continued. Many projects of the public environmental movement are devoted to the development of eco-tourism in protected areas - construction of eco-trails, environmental education and involvement of citizens in solving the problems of protected areas.

At the same time, the public environmental movement notes the inadmissibility of the situation when tourist activities are developed without taking into account their impact on nature, without developed scientifically substantiated standards of maximum permissible impact on the unique ecosystem of the lake.

The Baikal Plastic Free Alliance (<https://baikalplasticfree.ru/en>) unites business, scientific communities, Baikal protected areas and NGOs. In 2023, the Alliance conducted scientific research on the content and distribution of microplastics in the lake, held lectures in schools and across children's camps, organized conferences with the professional community, as well as volunteer activities to clean up litter from the shores of the lake. An expedition to lift abandoned fishing nets from the bottom of the lake was also organized.

**International cooperation.** Russian-Mongolian cooperation in Russian-Mongolian cooperation in the field of transboundary water resources management is based on significant geographical and ecological interaction between the two countries. Mongolia has about 66% of the catchment area of the Selenga River, which results in a water flow of 14.0-15.0 cubic kilometers per year. This volume is about 45-50% of the total Selenga River flow that enters Lake Baikal, which emphasizes the importance of conservation and rational use of water resources. The priority areas of Russian-Mongolian cooperation in the transboundary water sector are: analysis of the water situation in the Selenga and Onon river basins, as well as preparation for flood periods; assessment of water quality in transboundary rivers, taking into account hydrochemical and sanitary-hygienic indicators; study of the impact of economic activities on water bodies and implementation of measures to protect water resources in the Selenga, Onon and Uldza-Golon river basins, Onon and Uldza-Gol; discuss plans for construction of hydropower facilities in the Selenga River basin in Mongolia; exchange information on water management and water protection measures.

In the period from October 16 to 17, 2023, the 3rd meeting of the Russian-Mongolian Working Group for a comprehensive consideration of issues related to the planned construction of hydropower facilities in the Selenga River watershed in Mongolia was held, during which the Mongolian side considered “Additional studies of the impact of the Egiin Gol HPP project on the biodiversity of the Selenga River and Lake Baikal”. Selenga River and Lake Baikal”. During the event, the Mongolian party presented proposals and comments on the observations of the Russian party. On November 23, 2023, a set of comments was sent to the Mongolian side based on the results of the analysis conducted on the Russian side. The Russian side continues to insist that a full-fledged environmental impact assessment in the two countries is required to assess the impact of construction.

**3. Serious changes within the boundaries of the World Heritage property under consideration - are not observed and are not predicted.**