

Report on the state of preservation of the UNESCO World Heritage Site Lake Baikal (Russian Federation, No. 754) in 2022-2023.

1. The response of the Russian Federation in accordance with the resolution of the World Heritage Committee 45 COM 7B.24

On amending the legislation to allow the amplitude of water level fluctuations to increase by more than one metre due to the potential negative impact on the site and its Outstanding Universal Value (OUV) until the impact of all current water use and management regulations on OUV has been fully assessed and requirements for its protection have been established.

In accordance with part 1 of Article 32 of Federal Law No. 7-FZ "On Environmental Protection" dated 10.01.2002, an environmental impact assessment is carried out with respect to planned economic and other activities that may have a direct or indirect impact on the environment, regardless of the organisational and legal forms of ownership of legal entities and individual entrepreneurs.

According to paragraph 1 of the Requirements for Environmental Impact Assessment Materials, approved by the Order of the Ministry of Natural Resources and Environment of Russia No. 999 dated 01.12.2020, environmental impact assessment materials are developed in order to ensure environmental safety and protection, prevent and (or) reduce the impact of planned (proposed) economic and other activities on the environment and related social, economic and other consequences, as well as the choice of the best option for the implementation of such activities, taking into account environmental, technological and social aspects, or refusal of the activity.

Due to the fact that the results of scientific research are not subject to the requirements of these regulations, the procedure for conducting an environmental impact assessment (results of scientific research work) to establish the water level of Lake Baikal is not provided for by the legislation.

Recommendations obtained on the basis of the results of the research work performed in 2015 served as a justification for the issuance of resolutions of the Government of the Russian Federation dated 01.07.2016 No. 626 "On maximum and minimum values of the water level in Lake Baikal in 2016 - 2017" dated 27.12.2017 No. 1667 "On maximum and minimum values of water level in Lake Baikal in 2018 - 2020", dated 27.04.2021 No. 654 "On maximum and minimum values of water level in Lake Baikal in 2021", establishing water level limits in Lake Baikal under conditions of different water content.

The main theses of the mentioned scientific research were sent by the letter of the Ministry of Natural Resources and Environment of Russia dated 26.04.2018 № 10-34/11823 to the Commission of the Russian Federation for UNESCO.

At the same time, the Ministry of Natural Resources and Environment of the Russian Federation made a decision to conduct additional scientific research to study the environmental impact of changes in the water level in Lake Baikal in the regulation range from 455.54 m to 457.85 m on the state of the Lake Baikal ecosystem, as well as to determine the possible damage to economic facilities and infrastructure of the coastal territory of the Republic of

Buryatia, Irkutsk region depending on the levels of Lake Baikal and discharges from the Irkutsk HPP in the Irkutsk region.

Under the guidance of the Ministry of Natural Resources and Environment of the Russian Federation, scientific research institutes subordinated to the Siberian Branch of the Russian Academy of Sciences and the Ministry of Education and Science of the Russian Federation took part in the research work: "Impact of changes in the water level in Lake Baikal on the state of the lake ecosystem, determination of damage to the 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).

For the purpose of rational water resources management on the initiative of the Ministry of Natural Resources of the Russian Federation until the end of the research work for the period - 2022-2023, the Resolution of the Government of the Russian Federation dated 16.03.2022 No. 379 "On maximum and minimum values of the water level in Lake Baikal" was introduced, fixing the range of water level regulation in Lake Baikal in low and high water conditions from 455.54 m to 457.85 m.

The implementation of these scientific studies is carried out in three stages:

Stage 1 – by May 2022,

Stage 2 – until December 2022,

Stage 3 – December 2023.

Thus, consideration of the issue of establishing on a permanent basis a range of limit values of water level in Lake Baikal for conditions of different water content will be carried out based on the results of scientific studies, which are being finalised in December this year.

In general, it should be noted that the water legislation of the Russian Federation represents a reliable institutional framework for the environmental safety of water bodies; ensuring the priority of the protection of water bodies over their use and legislating the need to use water bodies without damaging the environment.

On the issue of regulatory mitigation at a time when the environmental condition of the site continues to deteriorate, such that if all of the proposed changes were to be implemented, the site would face potential jeopardy under paragraphs 180b)(i) and (iv) of the Operational Guidelines

The information is presented in Annex No. 1.

On the submission to the World Heritage Centre by the end of 2023 of a study to analyse and examine the impact of regulatory changes on the property and to use the findings of the study to strengthen the Law on the Protection of Lake Baikal, and on the call on States Parties not to approve any amendments that would lead to a weakening of the property's protection regime.

The information is presented in Annex No. 2.

Regarding the allocation of significant federal funds for research, conservation and sustainable development of the site, as well as measures to identify and remove illegal structures, prevent further illegal construction and improve waste management and tourism management, and recommending that the State party continue these efforts to strengthen the protection of the site

The General Prosecutor's Office of the Russian Federation ensures legality in the use of tourism facilities located in the Central Ecological Zone of the Baikal Natural Territory (hereinafter - CEZ BNT), and the enforcement of judicial acts brought by prosecutors.

A total of 50 court decisions of this category on demolition and dismantling of 319 illegal structures have been issued on the claims of environmental prosecutors in the period since 2018.

For example, the Supreme Court of the Republic of Buryatia upheld the court decision on the claim of the East Baikal Interdistrict Environmental Prosecutor to declare illegal and prohibit the activities of a business entity to place and operate a floating hotel in the Chivyrkuisky Bay of Lake Baikal in the absence of approval by the Ministry of Natural Resources and Ecology of the Russian Federation and the Rosrybolovstvo authorities.

The Irkutsk Regional Court satisfied the claims of the Olkhonsk Interdistrict Environmental Prosecutor to reclaim the lands of the Pribaikalsky National Park in the Baikal Nature Territory (hereinafter - BNT) and demolish an unauthorised recreational complex (15 structures of capital and non-capital nature).

In the current year alone, as a result of the measures taken, 14 judgements were executed in respect of 69 buildings (at present, the actual execution of 7 judicial acts in terms of demolition of 72 objects is being monitored).

The work of federal and regional authorities has been coordinated in order to ensure lawfulness in the BNT, prevent similar offences in the future, as well as to support the development of tourism activities, the rights of entrepreneurs and relieve social tensions.

The Government of the Irkutsk Region and the Chamber of Commerce and Industry of Eastern Siberia explained to the debtors the possible conditions for the continued operation of the challenged facilities, provided assistance in eliminating violations of environmental legislation, as well as information and legal support for their activities.

In cooperation with the Government of the Irkutsk Region, Rosimushchestvo, Rosreestr, Federal Bailiffs Service of Russia, local authorities, FGBU Zapovednoe Pribaikalye, and the Chamber of Commerce and Industry of Eastern Siberia, the circumstances that led to the court rulings were further analysed, as well as the measures taken by the debtors to obtain the necessary permits for the constructed facilities.

The Office of the Procurator-General of the Russian Federation is continuing its work in this area.

As of 10.11.2023, 33 enforcement proceedings on demolition of 160 unauthorised objects are being enforced by the Main Directorate of the Federal Service for Compulsory Enforcement of Bailiffs' Offences in the Irkutsk Region and the Department of the Federal

Service for Compulsory Enforcement of Bailiffs' Offences in the Republic of Buryatia.

Within the framework of these enforcement proceedings, bailiffs are taking the measures provided for in articles 105 and 107 of Federal Act No. 229 of 02 October 2007 on enforcement proceedings, aimed at enforcing the requirements of enforcement documents, including the issuance of 32 decisions on the collection of enforcement fees, the drawing up of 438 protocols on administrative offences under article 17.15 of the Code of Administrative Offences of the Russian Federation and the imposition of administrative fines.

Enforcement proceedings initiated against debtors of legal entities were investigated in accordance with the procedure provided for in articles 144 and 145 of the Code of Criminal Procedure of the Russian Federation, as a result of which three criminal cases were instituted under article 315, part 2, of the Criminal Code of the Russian Federation, and two criminal cases under article 315, part 2, of the Criminal Code of the Russian Federation were refused in accordance with article 24, part 1, paragraph 1, of the Code of Criminal Procedure of the Russian Federation.

Given the amount of funds allocated for the enforcement of non-property enforcement documents under the State Programme of the Russian Federation "Justice", it is not possible to ensure the demolition of unauthorised structures under the enforcement proceedings being enforced by the above territorial bodies of the Federal Bailiff Service of the Russian Federation, as the Federal Bailiff Service of the Russian Federation has repeatedly informed the Ministry of Finance of the Russian Federation.

Rosprirodnadzor has been assigned the task of supervising compliance with the requirements to prohibit the construction of capital construction facilities (or parts thereof) in the CEZ BNT, the operation of which is not related to the creation and development of specially protected natural areas of federal and regional significance and tourist and recreational special economic zones.

In order to identify and suppress violations of mandatory requirements of environmental legislation, Rosprirodnadzor conducted field inspections of the water protection zone of Lake Baikal in the following areas from April to November 2023:

Republic of Buryatia: Lake Baikal coast in the area of Babushkin town, Kabansky district; Lake Baikal coast in the area of Vydrino settlement, Kabansky district; Lake Baikal, coast in the area from Cape Gremyachinsky to the special economic zone "Baikal Harbour", Pribaikalsky district; Pribaikalsky District, Lake Baikal, coastline in the area from the special economic zone "Baikal Harbour" - Turka settlement - Cape Turkinsky to Goryachinsk village; Pribaikalsky District, Lake Baikal, coastline in the area from Goryachinsk village to Cape Bezmyanny; Lake Baikal, Senogda Bay - Cape Onokochan - Slyudyanka Lakes, Severobaikalsky District; Lake Baikal, coast in the area of Severobaikalsk town - 1 km, Severobaikalsky district; Lake Baikal, Khakusy area, Severobaikalsky district; Lake Baikal, coast in the area of Nizhneangarsk village, Severobaikalsky district; Lake Baikal, coast in the area of Maksimikha village to Dukhovoy cape, Barguzinsky district; Lake Baikal, in the area of Novy Enkhaluk village, Kabansky district; Lake Baikal, Selenga river delta, Kabansky district;

Lake Baikal, coast of Sukhaya village, Zarechye village, Kabansky district; Lake Baikal, coast of Zagza locality, Kabansky district; Lake Baikal, Bezymyanny cape, Pribaikalsky district; Lake Baikal, Gremyachinsk village - Gremyachinsky cape, Pribaikalsky district.

Irkutsk region: Bolshoye Goloustnoye settlement, Irkutsk district; Listvyanka working settlement - Bolshaya Rechka working settlement, Irkutsk district; Olkhonsky district, Larchivnichnaya tourist base - Onguren village; Olkhonsky district, Olkhon Island, Maly Khuzhir settlement - Uzury settlement; Olkhonsky district, Bululdeika settlement - Sakhyurta settlement; Olkhonsky district, Mandarkhan locality - Sakhyurta settlement; Olkhonsky District, MRS, Sakhyurta settlement - Tutai locality; Slyudyansky District, Utulik settlement - Baikalsk town; Slyudyansky District, Kultuk working settlement - Slyudyanka town; Olkhonsky District, Maly Khuzhir village - Uzury settlement; Irkutsk District, Bolshoye Goloustnoye settlement; Olkhonsky District, Bululdeika settlement - Sakhyurta settlement.

In the course of field inspections, Rosprirodnadzor did not reveal any violations of environmental legislation requirements during construction of capital construction projects (or parts thereof).

Regarding the development of an integrated management plan covering all government agencies and other stakeholders related to the site, containing a detailed land use plan as it relates to the site, including management objectives, an implementation strategy and a monitoring plan with clear performance and environmental indicators

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 to implement environmental monitoring of the 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 environmental 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 and 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, a 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 stipulated by Article 20 of the Federal Law of 01.05.1999 94-FZ "On Protection of Lake Baikal" (hereinafter - Law 94-FZ)

State monitoring of Lake Baikal is carried out taking into account the protection regime of the Baikal natural territory and standards of maximum permissible harmful impacts on the unique ecological system of Lake Baikal, the procedure for establishing which is defined in Article 13 of Law 94-FZ.

In order to form mechanisms for the state monitoring of Lake Baikal, the Regulation on the state environmental monitoring of the unique ecological system of Lake Baikal (hereinafter

- the Regulation) was approved by the Government of the Russian Federation Resolution 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 - authorised federal executive bodies):

Ministry of Natural Resources and Ecology of the Russian Federation (hereinafter referred to as the Ministry of Natural Resources and Ecology of the Russian Federation),

Ministry of Agriculture of the Russian Federation (hereinafter - the Ministry of Agriculture of the Russian Federation),

Federal Service for Hydrometeorology and Environmental Monitoring (hereinafter referred to as Roshydromet),

Federal Service for State Registration, Cadastre and Cartography, Federal Forestry Agency (hereinafter referred to as Rosreestr),

Federal Agency for Subsoil Use (hereinafter referred to as Rosnedra),

By the Federal Water Resources Agency (hereinafter referred to as Rosvodresursy),

Federal Agency for Fishery (hereinafter referred to as 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 objects (including endemic species) and their habitat,

forests, subsoil, aquatic biological resources (including endemic species) and their habitats,

hunting resources and their habitat.

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

Ø 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);

Ø monitoring of lands (except for agricultural lands) (carried out by Rosreestr);

Ø monitoring of agricultural land (carried out by the Ministry of Agriculture);

Ø 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 in terms of organisation and implementation of state monitoring in the territories of state nature reserves and national parks (carried out by the Ministry of Natural Resources);

Ø forest pathology monitoring, forest reproduction monitoring (carried out by Rosleskhoz);

Ø monitoring of subsoil conditions (carried out by Rosnedra);

Ø monitoring of water bodies with the participation of Roshydromet and Rosnedra (carried out by Rosvodresursy);

Ø monitoring of aquatic biological resources, including observations of distribution, abundance, quality, reproduction of aquatic biological resources, their habitat, fishery and conservation of aquatic biological resources (carried out by Rosrybolovstvo).

2. Practical measures on implementation of ecological monitoring of Lake Baikal ecosystem:

Since 2019, 2,002,157.6 thousand rubles have been allocated for various activities to monitor the unique ecological system of Lake Baikal as part of the special federal project "Lake Baikal Conservation".

Over the five years, the following activities were carried out to monitor and protect the Lake Baikal ecosystem:

1. by Rosrybolovstvo:

- construction of a research vessel (R/V) for ichthyological and hydrobiological research in Lake Baikal.

Rosrybolovstvo needs such research vessels to determine fish stocks and participate in the distribution of quotas for catching bioresources.

- installation of 3 non-capital observation points for monitoring of aquatic biological resources.

Two non-capital observation stations have been placed in the North Baikal and South Baikal fishing areas and one has been installed at the operational site in the Maly Sea area in order to expand the area of research on the feeding aggregations of omul.

2. by Roshydromet:

- commissioning of 9 observation points for atmospheric air pollution.

- modernisation of 35 observation points for atmospheric air pollution.

The above-mentioned measures make it possible to fully inform federal executive authorities, executive authorities of the constituent entities of the Russian Federation, as well as the public with information on the state and pollution of the environment in the Baikal natural territory under the jurisdiction of Roshydromet.

- finalisation of a unified information platform on the ecological state of the Lake Baikal ecosystem (geoportal "Ecological Monitoring of Lake Baikal"), which is the official source of information on the lake's ecology.

3. by Rosleskhoz:

- expanded the network of DNA laboratories for monitoring the state of forest genetic resources on the territory of the Republic of Buryatia.

DNA laboratory is a data bank and preservation of the gene pool of forest resources, including a base for research of genetic material of woody plant species, their resistance to changing environmental conditions and climate change in general, as well as unfavourable impacts of natural and anthropogenic nature.

3. by Rosnedra:

- 32 additional observation points for state monitoring of subsurface conditions equipped with modern automated measuring complexes, including: 6 observation points for groundwater monitoring, 10 observation points for monitoring of hazardous exogenous geological processes and 16 observation points for monitoring of hazardous endogenous geological processes, as

well as monitoring of natural migration of hydrocarbons from sedimentary deposits under the water area of Lake Baikal.

Thus, over the last five years, a powerful observation network for the state of the Lake Baikal ecosystem has been created, which covers all types of environmental monitoring.

Generalised monitoring materials on the state of the unique ecological system of Lake Baikal are posted on the geoportal "Environmental Monitoring of Lake Baikal" (www.baikalake.ru) with an annual frequency starting from 2012 (hereinafter - Geoportal) and are available to the public. The information is also available in foreign languages: English, French and German.

The Geoportal is currently being tested.

It should be additionally cancelled that at present the Ministry of Natural Resources and Environment of Russia is developing regulations for collection, analysis and exchange of information on prevention and response to the 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 indicator (integrated assessment of anthropogenic impact and environmental condition of Lake Baikal). The methodology for calculating this index is also being developed by the Russian Ministry of Natural Resources.

At the same time, the integrated indicator itself was developed within the framework of research work (hereinafter referred to as R&D) of the Federal State Budgetary Educational Institution of Higher Education "Lomonosov

Moscow State University", co-executor - Federal State Budgetary 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.Zh. Garmayev; 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 monitoring of the integrated indicator, the ecological risks of the Lake Baikal ecosystem are identified and assessed according to the relevant blocks, but since any changes in ecological factors in the environment are not rapid, risk assessment is planned to be carried out once a year.

On the issue of providing a complete list and detailed description of all existing and planned development projects within the Special Economic Zones (SEZs), within the boundaries of the property and its surroundings, and ensure that they are subject to thorough EIAs in accordance with the Guidelines and Tools for Impact Assessments in the World Heritage Context, and undertake a comprehensive assessment of the possible cumulative impact of such multiple projects on the HLC of the property, including within the SEZs

Since 2007, 2 special economic zones (SEZ) of tourist-recreational type (TRT) have been functioning in the Lake Baikal region: "Baikal Harbour" in the Republic of Buryatia and "Baikal Gateway" in the Irkutsk Region on the southern shore of Lake Baikal.

There are 29 resident companies operating in these TRT SEZs, which have created 165 jobs and invested 1.2 billion roubles out of 51.8 billion roubles of declared investments.

Some 3.9 billion roubles of federal budget funds and more than 2.4 billion roubles of regional budget funds have been spent on the creation of infrastructure facilities in these TRT SEZs.

More than 48 infrastructure facilities have been built and commissioned in the territories of these TRT SEZs.

Background information on the current status of the TRT SEZ:

1. "Gates of Baikal":

Legal documents on the creation of SEZs:

Resolution of the Government of the Russian Federation of 03.02.2007 72.

Establishment Agreement dated 02.03.2007 2773-GG/F7.

Management Agreement dated 27.09.2017 C-165-AC/D14.

Agreement on transfer of powers to the region dated 05.09.2016 C-574-AC/D14.

The prospective SEZ development plan was approved by the Supervisory Board on 27.04.2017.

General description of the SEZ:

The total area is 768 ha, 276.7 ha are intended for residents, of which 141.5 ha (51.1 %) are leased/owned by residents.

Number of infrastructure facilities commissioned - 1 unit.

Key indicators of SEZ functioning:

The volume of actual financing of construction of SEZ infrastructure facilities as of 01.01.2023 is 1,588.9 million rubles, including:

- Federal budget - RUB 878.8 million.
- Regional budget - RUB 667.2 million.
- The budget of the management company - 42.87 million rubles.

There are 23 registered residents.

The main indicators of residents' activity as of 01.07.2023:

- The volume of investments made by residents SEZ - 587.65 million rubles.
- The number of jobs created by residents of the SEZ is 49 units.
- The amount of taxes paid by residents of the SEZ is 29.28 million rubles.

Key residents:

- LLC "BGC "Sobolinaya Gora" - construction, reconstruction and operation of ski facilities (trails, lifts), a children's recreation center and amusement parks;
- Uyut+ LLC - construction and organisation of activities of a tourist base.

SEZ efficiency:

Federal assessment in 2022 (Ministry of Economic Development of Russia):

- for the year of the assessment (2022) - 71.2%,
- cumulative total since the beginning of operation - 78.4 per cent.

2. "Baikal Harbor":

Legal documents on the creation of SEZs:

Resolution of the Government of the Russian Federation dated 02/03/2007 68

Resolution of the Government of the Russian Federation of 03.02.2007 68

Management Agreement dated 07.02.2018 C-11-SH/D14.

Agreement on the transfer of powers to the region dated 06/01/2017 C-92-AC/D14.

The long-term SEZ development plan was approved by the Supervisory Board on 09.09.2011.

Description of the SEZ:

The total area is 3,622.8 hectares, with 2,465.8 hectares intended for residents, of which 703.8 ha (28.5 %) were leased/owned by residents.

Number of infrastructure facilities commissioned - 47 unit.

Key indicators of SEZ functioning:

The volume of actual financing of construction of SEZ infrastructure facilities as of 01.01.2023 is RUR 4,867.6 million, including:

- Federal budget - 3,012.3 million rubles.
- Regional budget - 1,778.5 million rubles.
- The budget of the management company - 76,8 million rubles.

There are 6 registered residents.

The main indicators of residents' activity as of 01.07.2023:

- The volume of investments made by residents SEZ - 649,80 million rubles.
- The number of jobs created by residents of the SEZ is 27 units.
- The amount of taxes paid by residents of the SEZ is 13,27 million rubles.

Key residents:

- Green Flow Baikal LLC - creation of a 4-star hotel;
- Cosmos Hotel Baikal LLC is a nature and wellness complex.

SEZ efficiency:

Federal assessment in 2022 (Ministry of Economic Development of Russia):

- for the year of the assessment (2022) - 76.1%,
- cumulative total since the beginning of operation - 45,8 per cent.

Legislative regulation of SEZ activities is carried out by special federal law 116-FZ "On Special Economic Zones in the Russian Federation", federal law 94-FZ "On Protection of Lake Baikal", as well as by the Resolution of the Government of the Russian Federation dated 31.12.2020 2399, which approved the list of activities prohibited in the central ecological zone of the Baikal Natural Territory (hereinafter - CEZ BNT).

At the same time, the status of a special economic zone of tourist-recreational type allows for the construction of facilities located outside populated areas and within the boundaries of the water protection zone of Lake Baikal.

On the CEZ BNT, a special economic zone is in fact the only possible mechanism for implementing tourism projects, which helps to reduce the anthropogenic load by organising environmental infrastructure and reducing the number of unorganised tourists.

Taking into account the strategic importance of the special economic zone of tourist-recreational type for the development of tourism in the Republic of Buryatia, during its creation, measures were taken to ensure a comprehensive assessment of the impact on the natural component.

Before the creation of SEZ TRT "Baikal Harbour" by the Decree of the Government of the Russian Federation of 03.02.2007 68, a competition of applications of subjects for the right to create SEZ of tourist-recreational type was held in 2006.

The application for the creation of SEZ TRT "Baikal Harbour" prepared by the Government of the Republic of Buryatia for participation in the competition organised by the Ministry of Economic Development of Russia contained materials of the positive opinion of the expert commission of the Department of the Federal Service for Supervision of Natural Resources Management in the Republic of Buryatia from 28.08.2006 of the state environmental expertise of materials justifying the creation of SEZ in the Pribaikalsky district of the Republic of Buryatia for the duration of the project.

The volume of financing of the project SEZ TRT "Baikal Harbour" since its creation has amounted to more than 4.7 billion rubles, including more than 3.0 billion rubles from the federal budget, 1.77 billion rubles from the republican budget, and 3.57 million rubles from the local budget. These funds were used for the construction of supporting infrastructure facilities.

In the period from 2008 to 2015, 47 facilities were built and commissioned at the Turka and Peski sites (including division into construction phases), and engineering infrastructure was created to connect residents' facilities to it.

On 1 June 2017, by an agreement with the Ministry of Economic Development of Russia, the authority to manage the SEZ TRT "Baikal Harbour" was transferred to the regional level. For further management of the special zone a joint-stock company "Baikal Harbour Special Economic Zone" with 100% state participation was established. The joint-stock company manages and operates the created property complex:

1. treatment facilities with a capacity of 1.5 thousand m³ per day.

Treatment facilities located at the Turka site with a capacity of 1,500 m³/day consist of a full biological treatment unit and deep additional treatment of wastewater. The treatment technology provides for a degree of purification that meets the requirements of fishery water bodies. The effluent disinfected at the ultraviolet units is delivered to the filter-absorber fields with these indicators. Raw sludge, sludge is dewatered, treated, stored at the street site and then taken for disposal. The treatment facilities for the projects at the Turka and Peski sites were constructed in 2010 and commissioned in 2019 (1st line of 4 x lines).

At present the sewage treatment facilities of JSC "SEZ "Baikalskaya Gavan" except for the facilities of SEZ TRT "Baikalskaya Gavan" receive wastewater from the main facilities of the Pribaikalsky district of the Republic of Buryatia from Maksimikha village to Gremyachinsk village, including social facilities (2 schools and 2 kindergartens, Oriental medicine centre, etc.), tourist resorts and recreation centres, and the population.

The total volume of wastewater is about 25 thousand m³ per year, and in summer it reaches 4.5 thousand m³ monthly and up to 200 m³ per day.

2. Water intake facilities (confirmed water supply of 3.6 thousand m³ per day).

The water intake facilities are located at the Peski site and are designed to supply water to the facilities of the residents of the Turka and Peski sites and the facilities of the supporting infrastructure of the Baikalskaya Gavan SEZ.

Water supply networks were installed from the water intake facilities to the Turka site, and on-site networks were built for residents.

On the right bank of the Turk River on Reidovaya St. 2 water standpipes for the population were installed.

In 2021, work was completed on the construction of a water pipeline in the village of Turka under the federal programme "Clean Water" to supply water to the population of the village. Water supply is also provided from the water intake facilities of the SEZ TRT "Baikal Harbour". Consumption volume - 314 m³/day.

Currently, the water intake facilities also supply a fire station located within the SEZ and serving the whole territory of the Pribaikalsky District from the Khaim River (Cheremushki Kotokel village) to Bezymyanka village.

3. storm water drainage.

The Turka site is also provided with a storm water drainage system. Stormwater runoff is collected from landscaping surfaces, street and road network, car parks and through the storm sewer system with the help of booster pumping stations is delivered to stormwater treatment facilities with a capacity of 10 l/sec or 720 m³ for one period of rainfall.

Wastewater treatment is carried out in one day.

The treatment plant consists of a storage tank with oil retention booms, followed by mechanical treatment through settling tanks with thin-layer modules and filters. Water quality after treatment complies with the TLV of water bodies. After treatment, the water goes to the filtration fields.

4. Dredging of the Turk River channel, bank reinforcement and creation of modern mooring facilities at the river mouth, and construction of an embankment along the right and left bank shoreline.

The berthing and shore protection facilities on the Turka River at the "Turka" site managed by SEZ "Baikal Harbour" JSC are of high importance for the republic and serve as an important component for the development of cruise tourism on Lake Baikal.

Today these hydraulic structures are the only ones in the region that can accommodate transport vessels of all classes, provide mooring for vessels with a diving depth from 2.5 m to 4.5 m, including their water and power supply and reception of domestic wastewater.

The Bereg 110/10 kV substation with a capacity of 2x10 MW was constructed to supply power to these two sites.

A fire station, a leisure and education centre and outpatient clinic, a waste transfer station were built on the adjacent territory.

The "Turka" and "Peski" sites are provided with the necessary engineering infrastructure and are ready for development.

The established engineering infrastructure of the "Turka" and "Peski" site allows to provide SEZ TRT facilities with drinking water, electricity, heat, collection and treatment of domestic and storm water, rubbish collection and fully allows to ensure the construction and further operation of tourist and hotel infrastructure facilities taking into account all environmental restrictions.

We would also like to note that when creating objects on the territory of SEZ TRT "Baikal Harbour" within the framework of the current legislation the state environmental expertise is carried out and only after its positive decision the state construction expertise is carried out.

In 2021 the project of SEZ resident LLC "Green Flow Baikal" to create a hotel for 153 rooms with SPA-centre, water and recreation, children's centres, restaurant, apartments, bungalows, parking for 66 cars successfully passed the state environmental expertise of project documentation, state construction expertise, the resident received a construction permit.

The general contracting organisation is currently constructing the facility. The total planned investment under the project is RUB 1.6 billion.

A total of 6 companies are currently residents of the SEZ TRT "Baikal Harbour": Green Flow Baikal LLC, AMAR LLC, Baikal Hermitage LLC, Putnik Siberia LLC, Cosmos Hotel Baikal LLC, Molodost. Baikal".

Work is underway to find potential investors for the Gora Bychya and Goryachinsk sites.

Regarding the submission to the World Heritage Centre of an EIA for the reclamation of the former Baikal Pulp and Paper Mill (BPPM) site, as well as a Master Plan for the Baikal Municipality and a concept for the development of the former BPPM site, suspending the implementation process until the mission provides the State Party with recommendations to the State Party on the project--

In accordance with the instructions of the President of the Russian Federation and the Government of the Russian Federation, in 2021-2022, engineering surveys and design of works to eliminate accumulated environmental damage (hereinafter referred to as AED) were carried out in the part of the Babkhinsky landfill and the territory occupied by sewage treatment facilities with production facilities containing black liquor (hereinafter referred to as the territory of the CCS).

In part of the territory of the CCS

In the period from 27.06.2022 to 27.07.2022 public discussions of the project documentation, including preliminary materials of the environmental impact assessment of the planned economic activity were held.

Positive conclusions of state expert appraisals have been received for the project documentation on AED elimination:

- dated 22.11.2022 385-EV of the state environmental expertise of Rosprirodnadzor;
- dated 29.12.2022 38-1-1-3-094704-2022 conclusion of FAU Glavgosekspertiza of Russia.

Industrial environmental control and environmental monitoring are carried out during the period of AED elimination works, and environmental monitoring of the territory will be carried out in the post-elimination period.

The CCS territory is located in close proximity to the shoreline of Lake Baikal within the boundaries of its water protection and fish protection zones and contains black liquor, which poses a high ecological hazard to the lake ecosystem.

as part of the Babkhinsky landfill site

In the period from 05.08.2022 to 15.09.2022 public discussions of the project documentation, including preliminary materials of the environmental impact assessment of the planned economic activity were held.

Positive conclusions of state expert appraisals have been received for the project documentation on AED elimination:

- dated 28.12.2022 2296/GEE of the State Environmental Expertise of Rosprirodnadzor;
- dated 30.12.2022 38-1-1-3-095401-2022 FAU Glavgosexpertsiza of Russia.

Industrial environmental control and environmental monitoring are carried out during the period of AED elimination works, and environmental monitoring of the territory will be carried out in the post-elimination period.

The Babkhinsky landfill is located in the water protection zone of Lake Baikal and its catchment area; the waste and over-sludge water placed in the accumulation maps create a high potential environmental hazard for the lake ecosystem.

As far as the Solzansky landfill is concerned, in accordance with the decisions of the Government of the Russian Federation, the design of AED elimination has been suspended. Additional research and development activities are currently underway, followed by pilot testing (R&D) of lithification and composting technologies aimed at testing and evaluating technological solutions for the elimination of AED at the Solzansky landfill.

The decision to organise R&D is conditioned by the absence in Russian and world practice of ready-made solutions for liquidation of such wastes and their significant volume (more than 6 million m³).

To date, the development of a methodology (technique) for the assessment (including requirements for participants' applications) and selection of promising technologies for the elimination of AED is being finalised, and a draft terms of reference for R&D and draft regulations for R&D have been developed.

R&D will result in a proven technology(s) for the elimination of AED at the landfill site.

Thus, the resumption of AED facility design at the Solzansky landfill site is possible no earlier than 2028.

On improving the efficiency and effectiveness of measures to address future climate change impacts, further accelerate the proposed assessments of fire impacts on forest and lake ecosystems

The forests of the Baikal Natural Area play an important role in preserving the unique ecosystem of Lake Baikal and the natural complex. The total area of BNT is 386.16 thousand km², of which 89.1 thousand km² or 23.1 per cent of the total area of BNT belongs to the CEZ, 217.97 thousand km² (56.4 per cent) to the BEZ, and 79.09 thousand km² (20.5 per cent) to the EZAI. 57.1 per cent of the territory of the Republic of Buryatia, 28.5 per cent of the territory of the Irkutsk Oblast and 14.4 per cent of the territory of the Zabaikalsky Krai are located within the boundaries of the BNT.

There are 11 specially protected natural territories directly adjacent to the Baikal coast, including 3 nature reserves, 3 national parks and 5 wildlife sanctuaries. A total of 32 protected areas (5 reserves, 4 national parks, 21 zakazniks, 1 nature park, 1 educational and research station), 128 natural monuments, 6 recreational areas and 52 forestry areas are located in the territory of the BNT.

For the period from 2003 to 2022, the total number of fires on forest lands of the BNT was 29,418 incidents on an area covered by fire of 4,069 thousand ha, which is 8.4% and 6.5% of the corresponding values for the same period for the Russian Federation (Rosleskhoz).

The most tense situation was in 2015, when 2,676 forest fires (23.8% of the total number of forest fires in the Russian Federation) occurred on the forest lands of the BNT on a total area of 1,095 thousand hectares (41.9% of the total area in the Russian Federation).

Although forests were still highly flammable in the following two years, the area covered by fire was reduced by a factor of 3-6 due to the measures taken.

There have been 3,125 forest fires in the BNT forest fund over the last five years (2018-2022), totalling 510,100 hectares. The average indicators for this period have improved significantly: average annual area covered by fire - 102.0 thousand ha; average area per fire - 129.8 ha. The year 2021 should be considered the calmest in fire terms, when the average area of one extinguished fire was 48.8 hectares, which is almost an order of magnitude less than the period average (2018-2022).

In total for the period, the highest number of wildfires occurred in the buffer ecological zone (60 per cent of the total); in the central ecological zone, 12 per cent; and in the atmospheric influence ecological zone, 28 per cent.

Accordingly, the areas covered by fire were as follows: for BEZ-251.8 thousand ha (49% of the total area covered by fire), for CEZ-33.5 thousand ha (7%), for EZAI-224.7 thousand ha (44%). Lowland fires were the most widespread, predominantly of high intensity. The proportion of area covered by upland fires has averaged 2.7 per cent over the past five years, with the highest proportion in the BEZ-3 per cent, CEZ-2.2 per cent, and EZAI-2.7 per cent.

Assessments of forest fire impact on the lake ecosystem are complicated by its significant variability depending on the type, intensity and frequency of forest fires, terrain, weather conditions, species and age composition of forests, and other reasons.

It is not possible at this level of knowledge to isolate the influence of the pyrogenic factor as a separate component of exposure. Of course, catastrophic forest fires can cause significant damage to the ecological environment of the Baikal natural territory, the consequences of which should be assessed taking into account the restoration potential of ecosystems and the effectiveness of measures taken to protect forests.

However, according to the results of own scientific research and published scientific data of the Research Institute of the Russian Academy of Sciences (Scientific Council of the Siberian Branch of the Russian Academy of Sciences on the problems of Lake Baikal, V.M. Matrosov Institute of Systems Dynamics and Control Theory SB RAS - IDS and TU SB RAS, Institute of Water and Environmental Problems FEB RAS; Irkutsk Institute of Chemistry named after V.N. Sukachev SB RAS - IFM SB RAS; Irkutsk Institute of Chemistry named after

V.M. Matrosov SB RAS - IFM SB RAS. A.E. Favorsky Irkutsk Institute of Chemistry SB RAS ICh SB RAS;), universities (Siberian State University of Geosystems and Technologies - SSUG&T, Irkutsk Agrarian University - IAU) and other organisations, there are no sufficient grounds to consider the forest pyrogenic factor as the main cause, as it is often heard on public platforms in the recent period, of the observed negative changes in the state of Lake Baikal aquatic ecosystem.

Measures to improve the efficiency of forest protection, protection and regeneration - forest conservation measures (part 1 of article 19 of the Forest Code of the Russian Federation) in the BNT fall under the authority of the Ministry of Forestry of the Irkutsk Region, the Republican Forestry Agency of the Republic of Buryatia and the Ministry of Natural Resources of Zabaikalsky Krai.

The total area of forests on the lands of the forest fund within the Baikal natural territory is 30763.9 thousand hectares.

The forest cover of the territory of BNT is 79.8 per cent. As of 01.01.2023, the area of the Baikal natural territory of the Irkutsk Oblast related to the forest fund is 9,548.4 thousand hectares (31.1% of the forest fund land area in the BNT), the Republic of Buryatia - 14,914.7 thousand hectares (48.4%), the Zabaikalsky Krai - 6,300.8 thousand hectares (20.5%).

One of the leading areas of forest management is the protection of forests from fires. Protection of forests from fires is a set of interconnected measures that involves the creation of a system of forest protection from fires, aimed at early detection and suppression of fires, achieving maximum concentration of firefighting forces and means at the initial stages of extinguishing.

In 2023, 359 fires were extinguished in the territory of the BNT, the area covered by fire was 27,155 ha, which compared to the average data for the period (2015-2022) is 1.7 times less in number (625 forest fires) and 3.8 times less in area covered by fire (102,015 ha).

It should be noted that the efficiency of detection of forest fires served increased relative to the five-year average and was 91.1% (in 2022 - 92.4%, five-year average - 85.4%). The average detection area per maintained fire remained at - 2.2 hectares (2022 - 2.0 hectares, five-year average data - 2.2 hectares).

In order to improve legislative regulation of forest fire protection in 2023. Federal Law No. 343-FZ of 24.07.2023 introduces amendments to forest legislation with regard to emergency response measures to forest fire situations and forest firefighting, which creates additional opportunities for preventing forest fires in forests, including in the BNT, and increasing the efficiency of their extinguishment.

On the lands of specially protected natural territories of federal significance, which are part of the Baikal natural territory, the authority to protect forests from fires in forests is vested, in accordance with the Resolution of the Government of the Russian Federation of 09.04.2021 № 573 (exclusively in terms of aviation work to protect forests from fires), subordinate institution of the Federal Forestry Agency FBU "Avialesookhrana".

FBU "Avialesochrana" carries out works on the area of 3,036,610 ha on the territory of 8 PAs (Baikal State Natural Biosphere Reserve, Tunka National Park, Sokhondinsky State Natural Biosphere Reserve, Barguzinsky State Natural Reserve, Zabaikalsky National Park, Djerginsky State Natural Reserve, Baikal-Lensky State Natural Reserve, Pribaikalsky National Park).

In the current fire-hazardous season, 20 fires broke out in the specially protected natural areas of the Baikal natural territory on a total area of 200 hectares. Of these, 8 fires were registered on the territory of protected areas transferred under the protection of FBU "Avialesokhran" on a total area of 131.3 hectares. Fires were recorded in 2 PAs: Tunka NP and Pribaikalsky NP. The main areas were in the territory of "Tunkinsky" NP - 7 fires on the area of 113.3 ha (86.3% of the total area). One fire was registered in Pribaikalsky NP on the area of 18 ha (13.7% of the total area).

All fires were detected in small areas and promptly extinguished: detection efficiency - 87.5%, extinguishing efficiency in the first two days - 75%. There were no major forest fires on the territory of BNT protected areas under the jurisdiction of FBU "Avialesokhrana".

In terms of aerial patrolling and firefighting in the forests of protected areas within the Baikal Natural Area, the institution's performance of these activities has significantly increased the efficiency of forest fire protection in this area due to timely detection and extinguishing of forest fires in small areas, immediate response of forest firefighting forces and timely build-up of the grouping.

In the current year, the order of the Federal Forestry Agency from 20.02.2023 № 118 "On the organisation of aviation work to protect forests from fires in terms of aerial patrolling and forest fire suppression in specially protected natural areas of federal significance, which are part of the Baikal natural territory, for 2023", increased the number and length of air patrolling routes - 14 routes with a total length of 8,070 km.

The work was carried out by three An-2 aircraft, three R-44 helicopters and two Mi-8 MTV helicopters. Aerial patrols were conducted from April to the end of October, with a total flight time of 1,516 hours (including 1,474 hours for aerial patrols and 42 hours for extinguishing).

An important area of activity of the executive authorities in the field of forest relations to reduce the areas covered by fires in the BNT is the measures taken to improve the efficiency of forest protection, including through additional equipment of forest firefighting teams with fire fighting equipment and machinery.

To protect forests from fires, extinguish forest fires and other landscape (natural) fires on forest lands on the territory of 52 forestries within the BNT, 14 forest fire stations of different types (FFS) operate on a permanent basis in Irkutsk Region, 31 FFS in Buryatia, and 6 FFS in Zabaikalsky Krai.

Under the federal project "Forest Conservation" of the national project "Ecology", the constituent entities of the Russian Federation purchased 6,428 pieces of machinery and 4,421 pieces of equipment for the purposes of forest protection, including: The Irkutsk Region purchased 292 units of forest firefighting equipment and 14 units of equipment (91.7 per cent), the Republic of Buryatia - 219 units of equipment and 734 units of equipment (91.0 per cent),

the Trans-Baikal Territory - 174 units of equipment and 1,631 units of equipment (94.5 per cent).

Every year, in preparation for the fire season, each constituent entity develops consolidated forest fire extinguishing plans approved by the highest official of the constituent entity of the Russian Federation, and forest fire extinguishing plans are developed for each forestry. This measure makes it possible to ensure consistency of actions of state authorities in the field of forest relations, local self-government with executive authorities and organisations when addressing issues in the field of forest fire prevention and elimination. In recent years, co-operation between all relevant agencies has been strengthened and a constant exchange of information on forest fires has been established. General management of the implementation of measures is carried out by the operational headquarters for forest protection from fires.

The area of dead stands in BNT identified in the current year as of 10.11.2023 is 14,190.2 ha, including:

- from forest fires - 13,651.2 ha,
- insect damage – 104.6 ha,
- weather conditions – 323.7 ha,
- forest diseases – 84.8 ha,
- anthropogenic factors – 25.9 hectares.

In the central ecological zone, dead forest stands were identified on an area of 4,455.0 ha, including 3,867.0 ha in the Republic of Buryatia and 588.0 ha in the Irkutsk Region.

The area of dead forest stands in the buffer zone is 8,504.7 hectares, including 6,881.4 hectares in the Republic of Buryatia and 1,623.3 hectares in the Transbaikal Territory. In the zone of atmospheric influence the area of dead forest plantations in the Irkutsk region is 1,230.5 hectares.

Reforestation activities in the Baikal natural territory in 2023 were carried out on 58.4 thousand ha, including artificial reforestation of 8.0 thousand ha.

Reforestation in the BNT is carried out primarily by measures to promote natural regeneration, including preservation of viable rooted undergrowth and young growth of the main forest tree species during felling of forest plantations, maintenance of undergrowth of the main forest tree species, and mineralisation of the soil surface.

Improvement of reforestation efficiency is facilitated by amendments to the Forest Code, which provide for a single and indivisible cycle of reforestation works (seed production, reforestation, thinning, and classification of lands as occupied by forest vegetation) and do not allow reforestation activities, primarily artificial reforestation, without ensuring subsequent agrotechnical and silvicultural maintenance.

Thus, analysing the current state of forest conservation, protection and reproduction in the Baikal natural territory over the last five years, we can note a fairly stable level of forest conservation activities.

The following system of measures is proposed in order to improve the efficiency of protection of forests of the Baikal natural territory from fires:

- Ensuring fire protection of forests, primarily in the central ecological zone of BNT;

- проработать вопросы по упреждающему маневрированию, путем заключения соответствующих контрактов между субъектами Российской Федерации;

- to create a unified system of communication and control when involving forces and means of different departmental affiliation;

- Ensure round-the-clock operation of specialised regional dispatch services for forest fire protection and improved transmission of timely and reliable information on fire danger in forests and forest fires;

- Ensure timely and sufficient augmentation of firefighting resources in accordance with the consolidated plan.

- Increasing the scope of forest protection measures within BNT.

Concerning the development with Mongolia, on the basis of a regional environmental assessment, of an assessment of the cumulative impacts of all existing and planned hydropower and water management projects on the Outstanding Universal Value of the site, as well as a post-mission assessment of the full range of transboundary issues that could affect the hydrological and environmental conditions at the site

At the UNESCO mission, which took place from 12 to 16 December 2023 (12-16 December 2023, Irkutsk, Baikalsk, Ulan-Ude) on Lake Baikal monitoring, a meeting with Mongolian experts was held and materials on the projected Egiin-Gol HPP presented earlier by the Mongolian side were discussed.

In the opinion of the Russian side and experts from UNESCO and IUCN, the documents submitted by the Mongolian side do not constitute an Environmental Impact Assessment (EIA) and need to be finalised.

According to the assurances of the Mongolian side, the finalised EIA materials for the projected Egiin Gol HPP will be submitted to the Russian side for consideration presumably by March 2024.

The Russian Ministry of Natural Resources and Environment, in turn, together with the Russian scientific community, is studying the possibility of conducting studies of the impact of the projected Egiin-Gol HPP on Lake Baikal on the territory of the Russian Federation.

2. State of the environment

Vegetation and animal life

We note that the species diversity of the flora of the Baikal natural territory is about 2500 species. Protected species include 201 species, of which 35 are listed in the Red Book of

the Russian Federation (2008), 180 in the Red Book of the Irkutsk Region (2020), 158 in the Red Book of the Republic of Buryatia (2013), and 65 species in the Red Book of the Zabaikalsky Krai (2017).

The floristic diversity of vascular plants in the Irkutsk region is about 2,300 species. Of the flora species inhabiting the BNT, 161 species of higher vascular plants have been included in the Red Data Book of the Irkutsk Region (2020). The category of probably extinct plants includes *Orobanche glaucantha*, *Platanthera hologlottis*, *Nitraria sibirica*, *Sophora flavescens*. Endangered species whose numbers have decreased to critical levels are *Astragalus olchonensis*, *Euonymus sacrosanctus*, *Gagea granulosa* and others. *Astragalus rytyensis* (*Astragalus rytyensis*), *Cypripedium calceolus* (*Cypripedium calceolus*) and *C. macranthos* (*C. macranthos*), *Rhaponticum carthamoides* (*Rhaponticum carthamoides*), etc. belong to the category of species that are steadily decreasing in numbers and may become endangered in a short period of time if the impact of limiting factors continues. Rare plants with naturally low abundance are *Waldsteinia ternata*, *Eranthis sibirica*, *Daphne mezereum* and others. *Oxytropis bargusinensis* (*Oxytropis bargusinensis*), *O. adenophylla* (*O. adenophylla*) and *O. sylvatica* (*O. sylvatica*), as well as *Crepis tungusica* (*Crepis tungusica*), *Lathyrus vernus* (*Lathyrus vernus*) and others are classified as species of uncertain status. Daurian moonseed (*Menispermum dauricum*) is the only species in the recovering abundance category that is approaching a state where it will not require special conservation measures. The biosurveillance list of the Irkutsk Oblast (a list of species not included in the Red Data Book for various reasons, but requiring increased attention and constant monitoring of their condition) includes 71 species. Among the species living within the BNT, these are such species as Siberian barberry (*Berberis sibirica*), drop slipper (*Cypripedium guttatum*), Daurian juniper (*Juniperus davurica*), variegated tulip (*Tulipa heteropetala*) and others.

Floristic diversity of vascular plants of Buryatia is about 2200 species. The Red Data Book of the Republic of Buryatia (2013) includes 126 species of vascular plants growing in the BNT. *Lagopsis lagopsis eriostachya* (*Lagopsis eriostachya*) is categorised as probably extinct in the region. Endangered species include Tsyden pea (*Vicia tsydenii*), Mongolian nutcracker (*Caryopteris mongholica*), *Circaea quadrifulcata* and others. *Allium altaicum*, *Amygdalus pedunculata*, *Caragana jubata* and others belong to the category of vulnerable and declining species. The category of rare species, which are currently not threatened with extinction, but their numbers are small and they occur in limited areas, includes Siberian old-grass (Insert a tag (Alt+1)*Adonis sibirica*), broad-leaved weed (*Aegopodium latifolium*), Altai windflower (*Anemonoides altaica*) and others. In the category of species of uncertain status for which there is insufficient data are *Astragalus galactites*, *Oxytropis dubia*, *Sagittaria trifolia*, *Trachomitum lancifolium*, and *Kendyrus lancetolium*. The endangered species (subspecies) in the Republic of Buryatia, but listed in the Red Data Books of the Russian Federation, Mongolia and neighbouring regions, includes the nesting-flowered clobber (*Neottianthe cucullata*). The biosurveillance list of the Red Data Book of the Republic of Buryatia (2013) includes eastern daisy (*Alisma orientale*), Ledebouri's wormwood (*Artemisia ledebouriana*), Daurian saussurea (*Saussurea davurica*) and others.

Floristic diversity of vascular plants of the Transbaikal Territory is about 1700 species. There are 164 protected species in the territory of the Krai, of which 59 are recorded in the BNT. Species categorised as threatened include the twiggy perlovnik (*Melica virgata*), the hyena goosefoot (*Gagea hiensis*), the bristly half-bush (*Isoetes setacea*) and the hairy-legged

oxytropis (*Oxytropis lasiopoda*). The category of declining species includes *Allium altaicum*, *Hemerocallis minor*, *Ulmus japonica* and others. The category of rare species with naturally low abundance includes smoothed iris (*Iris laevigata*), bulbous calypso (*Calypso bulbosa*), true slipper (*Cypripedium calceolus*), etc.

Animal life. 1About 480 vertebrate species have been recorded in the BNT, which is almost 83% of the total species diversity of vertebrates in the Baikal region.

The animal life of the Irkutsk Region includes about 60 species of fish, six species of amphibians, six species of reptiles, 414 species of birds and 86 species of mammals. Of these, four crustacean species inhabiting BNT (thick-tailed river gammarus, chestnut chialellopsis, two-horned propachygamarus, long-legged pequilogamarus) and three insect species (black-legged slough, common apollo, Menetrie's bear) are included in the Red Data Book of the Russian Federation (2021), three fish species (Siberian sturgeon, taimen, sharp-finned lenok), 38 bird species (Kloktun, Imperial Eagle, Saker Falcon, Black Crane, etc.) and two mammal species - Baikal black-necked marmot, Altai-Sayan population of reindeer. Of the animal species found in the BTT, the Red Data Book of the Irkutsk Oblast (2020) includes: one species of mollusk (Gerstfeldt's chilanodon), three species of sponges (Baikal Lubomirskia, bushy gum and pinch gum), three species of leeches (Baikal Klepsina Grube, Codonobdella shortened, Glossiphonia warty), 15 species of crustaceans (*Atteiella nordenscheide*, *Propachygammarus bicornis*, *Brandtia armed*, etc.), nine species of insects (Apollon common, *Ascalathus sibirskii*, *Abia pribaikalskaya*, etc.), seven species of fish (Elokhinskaya and dwarf broadbill, etc.), one species of amphibian (Mongolian toad), one species of reptile (patterned stripe), 56 species of birds (whooper swan, peregrine falcon, great spindle, etc.), nine species of mammals (Ikonnikov's noctuid, Siberian trumpet-nosed vole, Olkhon vole, steppe polecat, etc.).

The animal life of the Republic of Buryatia is represented by 66 species of fish, six species of amphibians, seven species of reptiles, 417 species of birds, 86 species of mammals. Five species of insects (Far Eastern hermit, Chersky's bumblebee, steppe bumblebee, common apollo, Menetrie's bear), four species of fish (Baikal sturgeon, Arctic char, fish species (Baikal sturgeon, Arctic char, taimen, sharp-finned lenok), one reptile species (Mongolian Barbur's lizard), 33 bird species (killer whale, white-tailed eagle, osprey, steppe eagle, black crane, bustard, chegrava, owl, etc.), and four mammal species (eagle, white-tailed eagle, osprey, owl, etc.).) and four mammal species (black-necked marmot, manul, wild reindeer and dzeren) are found in the BNT and included in the Red Data Book of the Russian Federation (2021). The Red Data Book of the Republic of Buryatia (2013) lists 185 animal taxa: three species of ciliated worms (*Diplosiphon baikalskii*, *Baikaloplana valida*, *Protocotylus magnus*), one species of leeches (*Acanthobdella pelazhii*), one species of gastropod mollusks (Thermobaikal pondweed), 15 species of higher crustaceans (*Propachygammarus major*, *Metapallacea*, *Polyacanthisca*, etc.), 34 species of insects (White-tailed spotted beetle, *Mantispa scorpoides*, Emerald beetle, etc.), five species of fish (Baikal sturgeon, lenok, Arctic char, etc.), two species of amphibians (Far Eastern quaker, sharp-footed frog), five species of reptiles (pimple lizard, patterned stripe, common eel, etc.), 88 bird species (great sparrow, pegan, golden eagle, Amur pipit, mountain pipit, etc.), and 17 mammal species (Daurian hedgehog, Manchurian white-toothed duck, Ikonnikov's noctuid, jumping marmot, tolai hare, etc.) inhabiting the BNT. For the first time, a biosurveillance list appeared in the Red Book of the Republic of Buryatia (2013). This is a list of species that for various reasons are not included in the Red Data Book, but require increased attention and

constant monitoring of their condition. In particular, this list includes the Mongolian marmot and the Transbaikal hamster.

More than 500 species of vertebrate animals live on the territory of the Zabaikalsky Krai, including 67 species of fish, five species of amphibians and five species of reptiles, more than 330 species of birds, and more than 80 species of mammals. The BNT covers an insignificant part of the territory of Zabaikalsky Krai. Three species of insects (Far Eastern hermit, common apollo, Menetrie's bear), three species of fish (Baikal sturgeon, white Baikal grayling, common taimen), 11 species of birds (black stork, taiga gooseneck, killer whale, steppe eagle, great spotted eagle, red-winged eagle, peregrine falcon, etc.) and one species of mammal - Pallas's manul) and one species of mammal - manul are included in the Red Data Book of the Russian Federation (2021) and found on the BNT. The list of the Red Data Book of the Transbaikal Territory (2012) includes 205 taxa, of which the following are found in the BNT: 15 species of insects (Eversmann's Apollo, Ksut's Sailfinch, Far Eastern Barberry Squirrelfinch, Substitial Overflow, etc.), five species of fish (whitefish, white Baikal grayling, Arachlea sandpiper, etc.), one species of amphibian (Far Eastern quackerel), 44 species of birds (lesser swan, black mallard, kloktun, steppe eagle, grave eagle, grey crane, coot, owl, tanager, etc.) and seven species of mammals (eastern pipistrelle, Siberian abalone, eastern nightjar, river otter, manul, etc.).

Ichthyofauna and seal population

The data obtained in the course of the research allow us to draw conclusions about rather stable state of stocks of commercial species of aquatic bioresources of Lake Baikal, with the exception of Baikal omul. In 2022, the total number of Baikal omul entering spawning rivers was 1.5 million, which is 28.6 % below the 2021 level (2.1 million) and significantly lower (by 64.3 %) than the average annual level (4.2 million). In the Upper Angara River, the spawning stock abundance (0.91 million fish) was 2.4 times lower than the mean annual abundance. The decrease in the number of omul producers is due to the entry of the 2016-2018 low abundance generations into the spawning stock.

The stock status of other commercial fish stocks remains fairly stable, as in previous years.

The total population size of the Baikal seal in 2022 was 160.3 thousand animals, which is 4.3 thousand animals (or 2.6 %) less than in 2021 (164.6 thousand animals). The fishing pressure on the seal population remains at a low level. In 2022, 1,813 seals were harvested. Including illegal harvesting, the seizure totalled about 2,500 animals.

Specially protected natural areas

Within the boundaries of the Baikal natural territory the network of specially protected natural territories (SPNT) is represented by five nature reserves, four national parks, 21 zakazniks, one nature park, 72 natural monuments, one botanical garden. The boundaries of the UNESCO World Natural Heritage Site "Lake Baikal" include Baikal-Lensky State Nature Reserve, Baikal State Nature Biosphere Reserve, Barguzinsky State Nature Biosphere Reserve, Pribaikalsky National Park, and Tunka National Park (its part), Zabaikalsky National Park, Frolikhinsky State Nature Reserve of federal significance, Kabansky State Nature Reserve of federal significance, Snezhinsky State Nature Reserve of regional significance, Verkhne-Angarsky state nature reserve of regional significance, Pribaikalsky state nature biological reserve of regional significance, Enkhaluksky state nature biological reserve of regional significance and Kochergatsky state nature reserve of regional significance with a complex (landscape) profile.

FGBU Zapovednoe Pribaikalye (Irkutsk Region). In 2022, the employees of the institution carried out 2,752 raids to ensure the established regime of special protection of subordinate territories. The number of violations of the conservation regime in PAs in 2022 was 507. All detected violations were observed in the territory of the Pribaikalsky National Park.

In 2022, 16 natural fires were detected and extinguished on a total area of 368.6 hectares, including 10 steppe fires on an area of 331.0 hectares. Nine firefighting teams were established from among the institution's employees, with a total of 52 personnel.

In the reporting year, 158,294 people officially visited the territories under the jurisdiction of the Federal State Budgetary Institution "Zapovednoe Pribaikalye", of which 100 people visited the Baikal-Lensky Reserve and 158,194 people visited the Pribaikalsky National Park. - in the Baikal National Park. Of these, 10,390 people visited the Circum-Baikal railway (CBD) and the Olkhinskoye Plateau, 43,127 people visited the Goloustensky cluster, and 104,677 people visited the Olkhonsky cluster.

In 2022, the art project "Wings over Baikal" was implemented jointly with the Centre for Development of Additional Education for Children, a state educational institution of the Irkutsk Region, involving 300 residents of the Irkutsk Region and a number of other regions (Moscow, St. Petersburg, Ulan-Ude, Samara and Tula Regions). 328 works were received.

In the reporting year, the staff of the Environmental Education Department participated in regional seminars and all-Russian conferences for teachers of general and supplementary education, where they presented 50 methodological developments on environmental topics.

In 2022, the team of the school forestry "Green Sea of Taiga" ("Centre for Development of Additional Education of Children"), operating under the FGBU "Zapovednoe Pribaikalye", took first place in the All-Russian competition of projects "Protected Islands of Russia" in the nomination "Practical assistance to protected islands".

Pocket illustrated brochures "Atlas of Rare Animals", "Atlas of Background Bird Species", "Atlas of Background Plant Species", "Atlas of Insects", 500 copies each, were published for those visiting the territory of the Pribaikalsky National Park. 17 exhibition photo expositions dedicated to the nature of the Baikal region were held, which were visited by 84.5 thousand people. In 2022, the total number of participants in environmental education and awareness-raising activities, as well as persons covered by environmental information, was 315,278.

In the reporting year, 922 volunteers took part in volunteer environmental activities in the Pribaikalsky National Park. Volunteers collected 219 m³ of waste with partial sorting by type of secondary resources.

FGBU Zapovednoe Podlemorye (Republic of Buryatia). The united directorate is responsible for the Barguzinsky State Natural Biosphere Reserve, the Transbaikal National Park and the Frolikhinsky State Nature Reserve of federal significance. All of them are located in the CEZ BNT.

In 2022, 156 violations of the environmental protection regime were recorded in the Zapovednaya Podlemorye PAs, including 127 in the Zabaikalsky National Park, 27 in the Barguzinsky State Nature Reserve, and two in the Frolikhinsky State Nature Reserve of federal significance.

In 2022, three fires were registered in all three PAs of the Joint Directorate on a total area of 14.5 hectares, including one fire in the Zabaikalsky National Park on an area of 9 hectares and two fires in the Barguzin Reserve on a total area of 5.5 hectares.

The total number of official visitors in 2022 was 51,722 (including 163 foreign visitors). Of them 48,878 people (including 137 foreigners) in the Transbaikal National Park, 619 people (including 26 foreigners) in the Barguzin State Natural Biosphere Reserve, and 2,225 people (0 foreigners) in the Frolikha State Nature Reserve of federal significance.

The territories are visited on tourist routes and ecological trails. Two major tourist routes are located within the Zabaikalsky National Park. The Barguzin State Natural Biosphere Reserve has two excursion ecological trails with a total length of 22.0 km, six trails (81.6 km) in the Transbaikal National Park, and two trails (8.0 km) in the Frolikha State Nature Reserve of federal significance.

The number of tourist service facilities in the Zabaikalsky National Park is eight, and the number of recreational infrastructure facilities in the national park is 266.

The main objects for the implementation of environmental education activities of the Joint Directorate: the Museum of Nature in Davsha settlement of the Barguzin State Natural Biosphere Reserve (the area occupied by expositions - 92 m², the number of visitors was 0 due to the closure of the museum for restoration works); 12 visit centres and information centres (total area - 482 m², visitors - 40,190 people). Number of exhibitions organised in 2022 - 13, number of visitors - 47,393.

A periodical newspaper "Bulletin of the Zapovednoe Podlemorye" (two issues with a total circulation of 1,000 copies) was prepared and distributed.

During the reporting year, 169 environmental education events (classes in schools, kindergartens and career guidance sessions) were held with 12,928 participants.

FGBU Baikal State Natural Biosphere Reserve. The Baikal State Natural Biosphere Reserve, as well as the state nature reserves of federal significance "Kabansky" and "Altacheysky" are under the management of the joint directorate of the Federal State Budgetary Institution "Baikal State Nature Reserve".

In 2022, 39 violations of the environmental protection regime were detected in the protected areas: in the Baikal State Natural Biosphere Reserve - 10, no violations were detected in the protected area of the reserve, in the state nature reserve of federal significance "Kabansky" - five, in the state nature reserve of federal significance "Altacheysky" - 24.

In the reporting year, one forest fire was registered on the territory of the Baikal State Nature Biosphere Reserve on the area of 1.01 ha. No fires were registered in other subordinate territories. Firefighting measures have been implemented in full.

The number of visitors for 2022 totalled 45,153. The main objects of the institution's eco-tourism infrastructure are located outside the protected areas: in the protection zone of the Baikal State Natural Biosphere Reserve and in the cooperation zone of the Baikal Biosphere Reserve.

As part of environmental education activities, 4,002 people took part in various environmental education activities in 2022. The staff of the institution participated in the events dedicated to the 105th anniversary of the reserve system of Russia, in the events held within the framework of the IX All-Russian Nature Festival "Pristvazdannaya Rossiya" and the XVI International Wildlife Festival "Golden Turtle", as well as within the framework of the ecological forum "Ecosystem. Sustainable Development."

The second semi-final of the "Ecosophy" project of the presidential platform "Russia - a Country of Opportunities" was held at the Baikal Reserve Visitor Centre. The Visitor Centre became a venue for the Republican Festival of the District Press, as well as for an interregional seminar on environmental ethics.

14 exhibitions were organised at various venues, including the photo exhibitions "The World of Baikal Nature" and "Buryatia - the Heart of Protected Russia" dedicated to Buryatia's protected areas.

New excursion programs for schoolchildren, which are carried out on the basis of FGBU "Baikal State Reserve", are submitted for inclusion in the electronic version of the catalogue of excursion and educational tours "Living Lessons of Buryatia".

The programme for people with disabilities "The Natural World - A World for All" continues to develop. One of the activities is an adaptive trip of children to Lake Baikal.

A series of events were held as part of the "Baikal - Clean Shores" campaign, including events on waste collection and recycling. During the year, a total of 2.5 tonnes of separately collected waste was handed over for recycling. FGBU "Baikal State Reserve" became a member of the Association "Baikal without Plastic", a Memorandum was signed, proposals are included in the "Road Map".

During the year, research and works on popularisation of historical and cultural heritage were carried out, maintenance, improvement and repair of infrastructure facilities were carried out with the involvement of volunteers. A total of 203 people participated in volunteer development activities and programmes.

State Natural Reserve "Jerginsky". The reserve was established to preserve and study the natural course of processes and phenomena, the genetic fund of flora and fauna, individual species and communities of plants and animals, typical and unique ecological systems of the upper reaches of the Barguzin River.

In 2022, the Reserve's protection service did not reveal a single fact of violation of environmental legislation.

In the reporting year, no forest fires were registered in the territory of the State Nature Reserve "Jerginsky".

The number of official visitors in 2022 was 836 people, of which 730 people took part in ecological and educational group excursions of schoolchildren and adults, as well as 106 tourists. The visit centre of the Reserve in Kurumkan village was visited by 467 people in 2022. The total number of all visitors was 2,948.

In 2022, 15 popular science articles on environmental protection were published, and 54 articles were posted on the pages of social networks (VK, Telegram). A total of 600 copies of promotional and ecological-educational polygraphic products were published.

In 2022, six stationary and travelling exhibitions, including children's art, were organised. The Reserve's staff took part in the tourist fair "Baikal Travel Mart - 2022" in Ulan-Ude. The total number of exhibition visitors for the year was 1,645. In 2022, the Reserve's staff held a number of environmental holidays and events, with a total of 2,089 participants.

Sokhondinsky State Natural Biosphere Reserve.

No fires have been recorded in the reserve for the year 2022.

During the reporting year, no violations of the environmental regime of protected areas were noted.

The number of official visitors in 2022 was 1,459.

As part of environmental education activities, the Reserve's staff organised 39 stationary and travelling exhibitions in 2022, which were visited by 27,320 people. Published 14 articles in print media and 120 articles in electronic media. Thirty television appearances and eight radio appearances were made.

8,915 people took part in 120 environmental education events, including an eco-lesson "Bird Migration", a presentation "Zabaikalye Zapovednoe", a presentation and quiz "International Mountain Day", preparation and holding of the Interregional Tour Festival "Kodar-2022", etc.

During the reporting year, district volunteer campaigns were held to clean up the water protection zone. Cycles of events on fire prevention have been organised.

The Tunkinsky National Park is located within the administrative boundaries of the Tunkinsky District on an area of 1,183,662 thousand hectares. 11% of its area falls within the boundaries of the BNT.

In 2022, 12 fires were recorded within the park, totalling 1,256.02 hectares.

The number of officially registered visitors to the park in 2022 was 104,575, including 73 foreign tourists.

In August 2022, employees of the National Park took part in the V All-Russian Geography Festival in Moscow with a lecture "Tunka National Park: the Way to Nature". For the first time in the Tunkinsky National Park, a media school "RGO Reserve School at SPNAs" was held to train state inspectors and park staff in the rules of photography and videography.

250 articles and information messages were published and placed in the media.

In 2022, the number of advertising and publishing products totalled 33 types with a total circulation of 18,633 copies, including. "Herald of Tunkinsky NP - four issues with a circulation of 6,080 copies, polygraphic products - nine types with a circulation of 6,000 copies, and other advertising and souvenir products - 20 types with a circulation of 6,553 copies.

Together with educational institutions of the Tunka district, local residents and volunteers, the national park organises seminars, conferences, contests and conducts environmental education events and activities. Population coverage in the reporting year totalled 4,500 people. As part of the "March of Parks - 2022" in April 2022, an environmental action "No to agricultural landfills!" was held. At the traditional agricultural fair "Spring - 2022", warning and explanatory work with local residents on fire safety rules was carried out. The Tunkinsky National Park was a co-organiser of the republican festival "Land of the Snow Leopard", which took place from October to November 2022 in order to attract the attention of residents of the Tunkinsky and Okinsky districts of the Republic of Buryatia to the problem of preserving the irbis (snow leopard).

The Chikoi National Park was created to preserve the untouched nature of the northern part of the Hantei-Chikoi Plateau and has included within its boundaries the territories of the state natural reserve of federal significance "Burkalsky" and the state zoological reserve of regional significance "Atsinsky". The unique natural objects of the park are recognised as solid cedar forests, a special population of the Chikoi sable, the rocky Lama town - baisanids

No fires have been reported within the park in 2022. In the reporting year, the National Park staff published six articles on fire safety; 1,905 leaflets were printed; one radio broadcast on fire safety; a seminar for state inspectors was organised; 24 lessons on fire safety were given to 1,014 students and teachers at schools in the Krasnochikoyksy District.

The total number of violations of the environmental regime for the reporting year was 68, the vast majority of which were illegal presence, passage and travel in the territory of protected areas.

In 2022, 23 exhibitions have been prepared. 38 articles were published in print media and 66 in electronic media. 20 types of souvenirs (2,000 copies), 15 types of printed products (1,500 copies) and 5 video clips filmed in protected areas were produced.

In 2022, the territory of the Chikoi National Park was visited by six groups of 48 excursionists and 758 tourists.

Adjacent to the park boundaries is the Menza State Training and Research Station, established in 2017 and partially located within the BNT. The Station is a regional level PA under the patronage of the Directorate of Regional PAs. Since 1975, continuous studies of cedar forests have been carried out here, as well as populations of animal species such as squirrels, sables, chipmunks, capercaillie and others. The study of population dynamics of sedentary animal species is an informative type of environmental monitoring. The accumulated material is of certain value in the creation of the international transboundary protected area "Hantei-Chikoi Plateau", in the centre of which is the territory of the Menza training and research station.

Environmental offenses

In 2022, the number of administrative offences under certain articles of the Code of Administrative Offences of the Russian Federation in the field of environmental protection and nature management identified by territorial bodies of Rosprirodnadzor in the BNT, compared to 2021 (740 offences) decreased by 31.9% and amounted to 504. The main administrative offences registered within the boundaries of BNT in 2022 were non-compliance with environmental requirements when carrying out urban planning activities and operating enterprises, structures or other facilities; non-compliance with environmental and sanitary-epidemiological requirements when handling production and consumption waste, ozone-depleting substances or other hazardous substances; and concealment or misrepresentation of environmental information.

In 2022, six court decisions on environmental damage to the Lake Baikal ecosystem caused by the activities of business entities entered into legal force for a total amount of 92,694,611 rubles. 09 kop. According to two judicial acts, installments for the execution of a court decision have been provided.

Programmes, projects and activities to protect Lake Baikal

The federal project "Preservation of Lake Baikal" (hereinafter - federal project, project) is implemented within the framework of the national project "Ecology" by the Ministry of Natural Resources and Environment of the Russian Federation together with the interested federal executive authorities. The project is aimed at preserving and restoring the bioresource potential and biodiversity of water bodies in the Baikal Natural Area and reducing the anthropogenic load on the Lake Baikal ecosystem.

Reduction of the total area of territories subjected to high and extremely high pollution and impacting Lake Baikal. As part of measures to reduce the level of over-sludge water in the accumulation pits of OJSC BPPM, over-sludge water in the accumulation pits of the Solzansky and Babkhinsky landfills was treated in the amount of at least 70 thousand m³.

Within the framework of works on liquidation of the accumulated environmental damage carried out by OJSC BPPM, positive conclusions of Rosprirodnadzor (dated 22.11.2022 No. 385-EV) and FAU Glavgosexpertiza of Russia (dated 29.12.2022 No. 38-1-1-3-097404-2022) were received for the project documentation in respect of the territory of the Central Clearing Station, and, for the Babkhinsky landfill, positive conclusions of

Rosprirodnadzor (dated 28.12.2022 No. 2296/GEE) and FAU Glavgosexpertsiza of Russia (dated 30.12.2022 No. 38-1-1-3-095401-2022) were received.

In 2022, nine landfills with a total area of 28.9 hectares were eliminated in specially protected natural areas located in the Central Ecological Zone of the Baikal Natural Area, which exceeds the target set by the project passport by 12.7 hectares. Work has also begun to eliminate an unauthorised dump site within the boundaries of the Tunkinsky National Park with a total area of 15.9 hectares. By the end of 2022, more than 5 hectares of contaminated areas have been cleaned up.

Treatment of polluted wastewater entering Lake Baikal and other water bodies of the Baikal Natural Area through modernisation and construction of treatment facilities. The reconstruction of sewage treatment facilities on the right bank of the Irkutsk city continued. The work is carried out in 10 stages. Stages four, five and six have been implemented. Work is being carried out on stages 7-9. Work on Phase 10 is scheduled to commence in 2023. Upon completion of the phases, the capacity of the sewage treatment facilities will increase to 220,000 m³/day.

In the reporting year, Zabaikalsky Krai continued reconstruction of sewage treatment facilities in Khilk and construction of sewage treatment facilities in Zhiphegen and Tarbagatai. In the reporting year, the construction readiness of the first facility was 78.89 %, the second - 69.8 %, and the third - 82.31 %. The facilities are scheduled to be commissioned in the first half of 2023.

The reconstruction of the right-bank sewage treatment facilities in Ulan-Ude with a capacity of 130,000 m³ will have a significant impact on reducing the amount of polluted wastewater discharged into the water facilities of the BNT. The facility is under control of the President of the Russian Federation within the framework of the instruction No. Pr-454 dated 24.03.2021. The facility is scheduled to be commissioned in 2024. In the reporting year, preparatory work was partially completed and the building axes were removed.

Conservation and reproduction of unique aquatic biological resources of Lake Baikal. Release of omul larvae, juvenile omul and juvenile sturgeon. Reproduction of Baikal omul and other valuable fish species in the basin of Lake Baikal is carried out by four fish breeding plants and one fish farm, which in 2022 released 339.66 million young fish (larvae) of aquatic biological resources into Lake Baikal. Under the state task in 2022, 338.886 million juvenile fish (larvae) were released into Lake Baikal, including 0.87 million sturgeon species and 338.016 million whitefish species. In order to compensate for the damage caused to aquatic bioresources and their habitat, 0.718 million young fish (larvae) of aquatic biological resources were released into Lake Baikal, including 0.196 million sturgeon species, 0.505 million salmon, 0.0165 million carp and perch. 0.056 million young fish (larvae) of aquatic biological resources were released into Lake Baikal at their own expense, including 0.001 million sturgeon, 0.005 million salmon, 0.05 million carp and perch.

Whitefish, grayling, and carp are the objects of artificial reproduction (in much smaller volumes compared to omul) in the Lake Baikal basin. The implementation of artificial reproduction of these species, which is necessary to preserve the biodiversity of water bodies in the Baikal region, was constrained in 2022 by the lack of targeted funding.

In the reporting year, a favourable opinion on the design documentation was obtained and a contract was signed as part of the reconstruction of the Bolsherechenskoye fish hatchery to enable the conservation and reproduction of unique aquatic bioresources of Lake Baikal within the framework of a federal project.

Coverage of state environmental monitoring (state environmental monitoring) of the Baikal natural territory. Order of the Ministry of Natural Resources and Environment of the Russian Federation No. 261 dated 08.04.2022 approved a new methodology for calculating the indicator "Coverage of the area of the Baikal natural territory by state environmental monitoring (G7)" of the federal project "Preservation of Lake Baikal", which is part of the national project "Ecology". State environmental monitoring is carried out by the Ministry of Natural Resources and Environment of Russia together with Roshydromet, Rosleskhoz, Rosnedra and Rosrybolovstvo.

In 2022, Rosrybolovstvo established an observation point for monitoring aquatic biological resources in the southern part of Lake Baikal in Utulik settlement, Slyudyanka district, Irkutsk region. A contract was signed for the construction of a research vessel for hydroacoustic and trawl surveys in areas inhabited by aquatic biological resources.

As part of Rosnedra's activities, 11 modern automated observation points have been established to monitor the ecological state of groundwater, dangerous exogenous and endogenous geological processes in the Baikal natural territory.

Roshydromet purchased and installed two stations on persistent organic pollutants, modernised nine observation points for atmospheric air pollution, purchased four mobile laboratories, and re-equipped nine chemical-analytical laboratories with instruments and equipment.

Rosleskhoz conducted state forest pathology monitoring through expeditionary surveys, remote observations of the sanitary and forest pathology condition of forests using high spatial resolution images, within the framework of which in 2022 the reliability of data was 87%, as well as monitoring of the condition of forest genetic resources of the BNT using molecular genetic diagnostics methods through DNA analyses.

In order to ensure high reliability, promptness, accessibility and completeness of the data of the state environmental monitoring (state environmental monitoring) of the Baikal natural territory, the work on finalisation of the unified information platform on the state of the environment on Lake Baikal - geoportal "Environmental Monitoring of Lake Baikal" (www.baikalake.ru), which is presented in four languages and is the official source of information on the lake's ecology, was continued.

Measures on improvement and development of tourist and other infrastructure facilities, protection of natural complexes and objects in the Baikal natural territory. A register of tourist industry facilities has been maintained, which includes information on the environmental passports of tourist industry facilities in the CEZ BNT. Resolution of the Government of the Irkutsk Oblast No. 181-pp of 14 March 2022 "On Amendments to the Rules for Tourism and Recreation in the Central Ecological Zone of the Baikal Natural Area in the Irkutsk Oblast" was adopted, which clarifies the concept of "tourist industry facility". Monitoring of the organisation of tourism and recreation in the CEZ BNT has been carried out.

In order to reduce the anthropogenic load on the Lake Baikal ecosystem and increase the tourist attractiveness of the Baikal natural area, construction of a guest complex with a car park in the Monakhovo area continued in the reporting year. The Monakhovo area is one of the most popular destinations for recreation and transit travel, therefore, this guest complex will be an important reference point for environmental education, development of cognitive tourism and recreation directly in the territory of the Transbaikal National Park.

Construction of the administrative and information centre "Protected Northern Baikal" and two fire and chemical stations on the territory of the Pribaikalsky National Park was started.

Formation of ecological culture

Irkutsk Region. The Ministry of Natural Resources and Ecology within the framework of the state programme "Environmental Protection" together with public environmental organisations annually conducts work within the framework of the Days of Protection from Environmental Danger approved by the order of the Government of the Irkutsk region from 27.03.2012 № 91-rp, aimed at supporting "green" projects, the main objective of which is environmental education, education of responsible consumption, active citizenship and the desire to preserve the environment for future generations. In 2022, the Ministry organised a celebration of Lake Baikal Day with the participation of about 1,000 people. On the Day of Volunteer of Russia 05.12.2022 for the first time a regional festival of eco-volunteer groups was held, in which 35 teams (more than 350 people) took part. In the reporting year, the Ministry, together with public organisations, State and commercial enterprises and institutions, organised more than 20 environmental events.

The Ministry of Natural Resources and Ecology of the Republic of Buryatia carries out work in the field of environmental education and upbringing, supports the volunteer movement, organises socially significant events to clean up the territory of the Republic of Buryatia from rubbish, as well as awareness-raising activities. During the reporting year, the Ministry, together with non-governmental organisations, State and commercial enterprises and institutions, held more than 30 events, including the "Voda Rossii" ("Coast of Good Deeds") all-Russian action to clean up the shores of water bodies from litter, which is part of the federal project "Conservation of Unique Water Bodies" of the national project "Ecology".

Zabaykalsky Krai. As part of the federal project "Preservation of Unique Water Bodies", an annual All-Russian action "Water of Russia" is held to clean the shores of water bodies from rubbish. In 2022, the coastal areas of lakes Arakhlei, Undugun, Shaksha, Ivan located in the BNT were cleaned. In accordance with the plan for the development of the school forestry movement in pursuance of the instruction of the Government of the Russian Federation from 11.07.2017 № AH-P9-4475, the instruction of the Deputy Chairman of the Government of the Russian Federation from 14.12.2017 № AH-P9-8369 "On ensuring the implementation of the action plan of the "road map" for the development of school forestry for 2018-2027", The Ministry of Natural Resources of the Zabaikalsky Krai organised the work of school forestries in the districts of the BPT zone. In the reporting year, the Ministry organised more than 20 environmental actions and events.

3. No major changes are foreseen within the World Heritage Site under consideration.

I. Review of the legal and regulatory framework for the protection of Lake Baikal and the Baikal Natural Area

Articulation of issue

Lake Baikal, inscribed in the World Heritage List in 1996, is located in southeastern Siberia and covers an area of 3.15 million hectares. Baikal is recognized as the most ancient (25 million years) and the deepest (about 1700 m) lake of the planet Earth. The reservoir holds approximately 20% of the world's freshwater reserves. Due to its old age and isolation, Lake Baikal has formed a unique freshwater ecosystem, even by world standards, the study of which is of transcendent importance to understanding the Evolutionary history of life.

The Baikal Natural Area (hereinafter referred to as BNA) is also a unique natural object, which includes Lake Baikal itself, the water protection zone adjacent to Lake Baikal, its catchment area within the territory of the Russian Federation, specially protected natural areas adjacent to Lake Baikal. Moreover, there is area adjacent to Lake Baikal up to 200 kilometers wide to the west and northwest of the lake.

The Baikal natural area includes natural objects and areas of different importance and special use regulations:

- water bodies (Lake Baikal, hundreds of rivers (Selenga, Upper Angara, Barguzin, Turka, Angara, etc.) and streams);
- Lake Baikal water protection zone (the area adjacent to the shoreline of Lake Baikal¹);
- the catchment area of Lake Baikal within the territory of the Russian Federation;
- specially protected natural areas of federal, regional and local significance, including five natural reserves (Barguzinsky, Baikal-Lensky, Baikal, Jerginsky, Vitimsky), four national parks (Pribaikalsky, Zabaikalsky, Tunkinsky, Alkhanay) and five wildlife sanctuaries (Frolikhinsky, Kabansky, Altacheevsky, Tofalarsky, Krasny Yar);
- the area adjacent to Lake Baikal up to 200 kilometers wide to the west and northwest of Lake Baikal.

Considering the scale (the length of Lake Baikal is 636 km, its width varies from 24 to 79 km, the length of the shoreline - 2 100 km), uniqueness (the oldest and deepest lake in the world; Baikal is home to about 2600 species and subspecies of aquatic fauna, more than half of which are endemics (epishura crayfish, freshwater sponges, etc.) and the importance (natural, social,

¹ The borders of the water protection zone of Lake Baikal are approved by Decree of the Government of the Russian Federation No. 368-r dated 05.03.2015 "On establishing the borders of the water protection zone and the fish protection zone of Lake Baikal".

economic) of Lake Baikal, ²in order to preserve its unique ecological system and prevent the negative impact of anthropogenic activities on its condition, the ecological zoning of the Baikal natural territory is carried out. Such zoning is aimed at regulating, including through restrictions, economic activities depending on the degree of their impact on the sustainability of the Baikal biogeocenosis, as well as at determining the conditions of natural resource use in each of the identified zones.

Pursuant to Article 2 of the Federal Law No. 94-FZ “On the Protection of Lake Baikal” dated 1 May 1999 (hereinafter - the Law on the Protection of Lake Baikal), three ecological zones are identified within the borders of the Baikal natural area: central, buffer and atmospheric influence zone. The borders of each zone are approved by the Order of the Government of the Russian Federation No. 1641-r dated November 27, 2006 –“On the Borders of the Baikal Natural Area and its Ecological Zones”.

Each zone has its own legal regime for the use and protection of the area and natural objects located therein in order to differentiate the mandatory requirements imposed on the participants of economic and other activities affecting the Baikal Natural Area.

The resolution of environmental issues in the Baikal Natural Area refers to the main mechanisms for the conservation of the natural environment, including natural ecological systems, objects of fauna and flora (subparagraph “e” of paragraph 16 of the Principles of State Policy in the sphere of ecological development of the Russian Federation for the period up to 2030, approved by the President of the Russian Federation on April 30, 2012).

Ensuring environmental security in the Baikal natural area should be understood in a broad perspective: relevant measures should not be limited only to the implementation of new, more stringent mandatory requirements to limit the negative impact on the environment and strengthening legal liability for their violation. Measures to ensure environmental safety in the Baikal natural area should be reasonable, feasible, comprehensive, and include organizational, managerial and other measures. For example, more stringent environmental impact standards should not be imposed if enterprises lack the actual ability to comply with them. This will lead to violation of environmental legislation requirements, corrupt practices, and other negative consequences.

The introduction of prohibitive or restrictive measures alone will not only fail to achieve the goals of preserving the unique ecological system of Lake Baikal, but may also lead to the opposite, negative result. Such a situation, in particular, occurred with the inclusion in 2014 in

² Lake Baikal is: 1) living and activity base of the local population (about 140 thousand people live on the Baikal shore); 2) the most important element of the environment, habitat of fauna and flora - a freshwater ecological system containing 20% of the Earth's surface waters in a non-freezing state; 3) World Heritage Site since 1996; 4) a natural resource used by a human for personal needs, carrying out authorized economic and other activities.

the Federal Law of 23 November 1995 No. 174-FZ “On Environmental Expert Review” of the requirement to conduct a federal-level state environmental expert review in relation to any capital structures planned to be built or reconstructed within the borders of the Baikal Natural Area. This excessive requirement led to increased expenses to budgets of all levels and became an administrative burden for citizens. Consequently, the said Federal Law was amended in 2019 to provide for exemptions concerning certain categories of capital structures.

It should be taken into account that many environmental issues of Lake Baikal are not only of legal, but also of technological, managerial, and social nature. Therefore, environmental monitoring of Lake Baikal and environmental education and awareness of citizens are essential for ensuring environmental safety.

International agreements also play an important role in the legal protection of Lake Baikal. Pursuant to the provisions of subparagraph “g” of paragraph 11 of the Decree No. 260 of the Government of the Russian Federation dated February 18, 2023 “On Approval of the Regulations on State Environmental Monitoring of the Unique Ecological System of Lake Baikal and Annulment of the Decree No. 85 of the Government of the Russian Federation dated February 2, 2015”, the Ministry of Natural Resources and Environment of the Russian Federation cooperates with organizations under international and interagency agreements in the implementation of state monitoring.

One of the leading organizations involved in ensuring the status of Lake Baikal as a cultural heritage site is the United Nations Specialized Agency for Education, Science and Culture (UNESCO), which operates under the World Heritage Convention of 1972. The main objective of the UNESCO World Heritage Convention is to unite the efforts of the international community to identify, protect and fully support the world's outstanding artifacts and natural sites.

In order to strengthen the efficiency of this Convention, the World Heritage Committee and Fund were organized in 1976 and two years later, the first cultural and natural sites were inscribed in the World Heritage List (hereinafter referred to as the List).

The Russian Federation is represented in the World Heritage List by 15 cultural and 10 natural sites.

The site to be included in the List should comply with at least one of the following criteria:

VII - the presence of unique natural phenomena or areas of exceptional natural beauty and aesthetic significance;

VIII - the presence of outstanding examples reflecting major stages of the Earth's history, including traces of ancient life, significant geological processes that continue to occur in the

development of landforms, and significant geomorphological or physiographic terrain features;

IX - the presence of outstanding, important, ongoing and current ecological and biological processes in the evolution and development of terrestrial, freshwater, coastal and marine ecosystems and communities of flora and fauna;

X - the presence of natural habitats of the greatest importance and significance in terms of biodiversity conservation, including habitats of endangered species that represent an outstanding world heritage in terms of science and conservation.

In addition, the site should be protected, have a management system, and fulfil the criteria of authenticity and integrity. Lake Baikal fully complies with all the above criteria.

In addition to the above World Heritage Convention of 1972, the legal regulation of environmental protection of Lake Baikal is carried out in accordance with the Convention on Biological Diversity of 1992.

The Convention on Biological Diversity of 1992 emphasizes the importance of such an institution in the sphere of environmental protection as environmental monitoring for biodiversity conservation. The Convention, in particular, establishes the obligation of States Parties to monitor, through sampling and other methods, components of biological diversity, paying particular attention to those requiring urgent conservation measures and those offering the greatest potential for the sustainable use of biological resources.

The ecosystem of Lake Baikal includes unique natural complexes and the Selenga River delta is undoubtedly one of them. A special international legal regime for the protection of the Selenga river delta is provided by the Convention on Wetlands of International Importance especially as Waterfowl Habitat, 1971. This international treaty is a unique document dedicated to the protection of a specialized, but very important element for maintaining the stability of biosystems - wetlands. The essential element of the Convention and its system of wetland protection is the List of Wetlands of International Importance, to which the Selenga River Delta was inscribed on September 13, 1994. Upon its inclusion in the List, the land is noted as an example of a special land type that is rare or uncommon in the biogeographic region concerned. It supports the existence of a significant number of rare, vulnerable or endangered species of flora or fauna, or a significant number of specimens of one or more of those species and supports more than twenty thousand waterfowl on a regular basis.

This Convention sets out a range of obligations for States, in relation to both listed lands and the rest. Therefore, the conceptualization of international legal protection of Lake Baikal should necessarily include an analysis of the peculiarities of the legal regime established by the Convention.

In addition to international multilateral treaties, Russian-Mongolian bilateral agreements,

being the key elements of international legal protection of the “Lake Baikal - Selenga River” ecosystem, are of great importance. Relations between the Russian Federation and the Mongolian People's Republic have a long history, including on the environmental protection issues. The conceptualization of international legal protection of Lake Baikal includes bilateral agreements ensuring effective cooperation in the sphere of environmental protection: the Treaty between Mongolia and the Russian Federation on Friendly Relations and Comprehensive Strategic Partnership of 2019, the Agreement between the Government of the Russian Federation and the Government of Mongolia on cooperation in the sphere of environmental protection of 1994, the Agreement between the Government of the Russian Federation and the Government of Mongolia on protection and management of transboundary waters of 1995. The efficiency of bilateral cooperation in transboundary river protection issues largely predetermines the condition of the Selenga River and, therefore, Lake Baikal, which receives its waters.

History of legal regulation of Lake Baikal protection issues

There was no special legislative regulation of Lake Baikal protection in the Soviet period. However, normative legal acts affecting certain aspects of nature management and preservation of the unique system of the lake can be singled out.

In particular, the issue of fishing regulation in Baikal and conservation of fish stocks was the most settled issue. Thus, by the Decree of the All-Russian Central Executive Committee and the RSFSR Council of People's Commissars dated 14 May 1928, Lake Baikal and the rivers flowing into the lake were included in the fishing lands of all-republican importance of the RSFSR. Subsequently, fishing on the lake was regulated within the scope of normative legal acts establishing the practice of such fishing on the water bodies of the republic (e.g., the Decree of the RSFSR Council of People's Commissars of April 10, 1941 No. 176 “On Approval of the List of Fishing Water Bodies of Republican Importance”, the Decree of the Council of Ministers of the RSFSR dated October 18, 1958 No. 1190 “On Reproduction and Protection of Fish Stocks in Inland Water Bodies of the RSFSR”, the Order of the USSR Fisheries Ministry of December 1, 1969 No. 401 “On Approval of the Rules of Fishing in the Lake Baikal Basin and Other Fishing Water Bodies of the Buryat ASSR, Irkutsk and Chita Regions”, the Order of the USSR Fisheries Ministry of September 10, 1969 No. 315 “On Approval of the Temporary Rules for the Protection and Fishing of Aquatic fauna for Soviet vessels, organizations and citizens”, the Order of the USSR Fisheries Ministry of June 24, 1969 No. 223 “On Approval of the Rules of Fishing in the Water Bodies of the Far East”, etc.).

The Decree of the Council of Ministers of the RSFSR of May 9, 1960 No. 652 “On Protection and Use of Natural Resources in the Lake Baikal Basin” specified that there were serious shortcomings in the protection and use of natural resources in the Lake Baikal Basin. In

particular, logging, fishing and furbearer hunting were not properly regulated, water protection zones were insufficiently allocated, logging on mountain slopes was carried out without limitation, which sometimes led to slope exposure and soil erosion, floating rivers in the basin were polluted with sunken timber, which worsened fish spawning. The prevention of fishing and hunting violations was insufficient. The negative practice of releasing untreated sewage into the Selenga River causing harm to the fisheries of Lake Baikal was also reported.

In order to eliminate the said deficiencies, the above decree directed: to establish green zones within a 10-kilometer radius around Baikal resorts, to prohibit clear felling on slopes higher than 15° and selective felling on slopes higher than 25° in all forests of the second and third groups,³ to provide in plans, starting from 1961, the allocation of capital investments and material and technical resources for targeted measures for the rational use of water resources and for the elimination of pollution of the waters of Lake Baikal, the Selenga River and other rivers flowing into Lake Baikal, as well as to oblige the local authorities to organize the protection of geological, paleontological, archaeological and other natural sanctuaries, as well as artifacts of scientific and historical significance in the Lake Baikal region.

Subsequently, both at the all-union level and at the republican level, a considerable number of various normative acts regulating the issues of protection of Lake Baikal and the adjacent territory were adopted. In particular, the decree of the USSR Supreme Council of National Economy No. 50 of July 27, 1965 “On measures to protect Lake Baikal from pollution by sewage from the Baikal pulp mill of the East Siberian council of national economy”, the decree of the USSR Council of Ministers of January 21, 1969 No. 52 “On measures to preserve and rationally use the natural complexes of the Lake Baikal basin”, the decree of the RSFSR Council of Ministers of March 28, 1979, No. 167 “On additional measures to strengthen nature protection and improve the use of natural resources”, the decree of the RSFSR Council of Ministers No. 197 of May 15, 1987 “On measures to ensure protection and rational use of natural resources of the Lake Baikal basin in 1987-1995”, the order of the RSFSR Ministry of River Fleet No. 238-pr of December 22, 1987 “On integrated development of productive forces of Far Eastern Economic Region, Buryat ASSR and Chita Region for the period up to 2000”, etc.

The issues of forest protection in the central ecological zone of Lake Baikal were the subject of normative acts regulation of both the RSFSR and the Soviet Union. The issues of

³ In accordance with the legislation in force in the period under review, the second group of forests included forests in areas with high population density and a developed network of transportation routes, which had protective and limited operational significance, as well as forests with insufficient raw material resources, which required a stricter regime of forest management to preserve their protective functions, continuity and sustainability of their use. The forests of the third group include forests of heavily forested areas, which mainly have operational significance and are intended for continuous satisfaction of the national economy's needs for timber without compromising the protective properties of these forests.

forest protection around Lake Baikal were raised at the legislative level for the first time in 1960 in the above mentioned decree of the RSFSR Council of Ministers dated May 9, 1960 № 652 “On the protection and use of natural resources in the Lake Baikal basin”. However, even the adoption of the above decree did not resolve the issue of protection of Baikal forests and the consideration of the issue was transferred from the republican to the all-union level.

In 1969, the USSR Council of Ministers adopted a decree of January 21, 1969 № 52 “On measures for the conservation and rational use of natural complexes of the Lake Baikal basin”⁴. Since the previously implemented measures did not have a significant impact on improving the situation with the protection of Baikal forests, it was decided to develop projects for agroforestry, agrotechnical and hydrotechnical measures on the territory of the Lake Baikal basin, which should stipulate, in particular, the creation of protective forest vegetation.

Moreover, it was ordered to finish forest management fieldwork in all forests of the state forest fund, including forests of collective and state farms, in the area of the Lake Baikal basin and to approve in 1969-1971 projects of organization and development of forestry and new rules of forest felling, corresponding to the special regime of use of resources of the basin, which should provide for necessary measures to ensure the conservation of forest plantations, reproduction and rational use of forest resources in order to significantly increase water conservation and protection of water resources.

The legal act under consideration for the first time raised the issue of attributing the⁵ mountain protection forests on mountain slopes over 25° steep, forests with soil protection and water protection role, steppe and forest-steppe forests, forests of resort significance and nature reserves in the area of the Lake Baikal basin to the first group, excluding them from merchantable forests and principal felling calculations. The remaining forests in the Lake Baikal basin were to be distributed into groups⁶ and transferred from one group to another if necessary.

Furthermore, it was decided to strengthen control over the proper management of forests and ensuring the rational use of the felling-area resources, including the preservation of undergrowth and forest regeneration in the felling areas by all enterprises and organizations engaged in logging or other forestry operations in the area of the Lake Baikal basin.

Another interesting fact was that the forests of the Lake Baikal basin at that time were not subject to the conditions of logging stipulated for heavily forested areas, which provided for the preservation of the approved amount of forest yield in allocated timber supply areas for the entire period of their development, as well as the requirements for the allotment of felling-area

⁴ The document became invalid on the territory of the Russian Federation following the issuance of the Decree of the Government of the Russian Federation No. 80 dated February 3, 2020.

⁵ That is, in the terminology of modern legislation - to protective forests.

⁶ That was accomplished in 1971, as evidenced by the adoption of the Order of the RSFSR Council of Ministers No. 2459-r of December 8, 1971 “On the distribution of forests by groups in the Lake Baikal”

resources in the sites of logging enterprises operation.

In order to prevent erosion processes, timber extraction was also carried out on the mountain slopes of the Lake Baikal basin using a special procedure: tractor units were replaced with aerial skidders. However, since some logging enterprises violated the logging technology established for this area, which led to soil erosion and deterioration of water protection properties of forests in the Lake Baikal basin, two years later it was necessary to adopt a new act, which was the Decree of the Central Committee of the CPSU and the USSR Council of Ministers of June 16, 1971 No. 391 "On additional measures to ensure the rational use and conservation of natural resources of the Lake Baikal basin".

This decree specified that the State Forestry Committee of the USSR Council of Ministers did not take the necessary measures for the rational use of forest resources in the area of the Lake Baikal basin, in particular, measures to improve forestry management in that area. Sanitary and forest maintenance felling was practically not carried out in the Baikal forests, which led to the loss of a large amount of fine wood, including because of wildfires.

The necessary measures included actions to improve forest management and the organization of logging in the Lake Baikal basin, ensuring the expansion of sanitary and forest maintenance felling in the area, forest restoration in the areas being felled, as well as a more comprehensive use of forest resources and timely involvement in the exploitation of mature and overmature forest stands.

In the decree of the Central Committee of the CPSU, the USSR Council of Ministers of July 21, 1977 No. 679 "On measures to further ensuring of protection and rational use of natural riches of the Lake Baikal basin" the issues of logging operations organization were considered again. In particular, priority was given to the implementation of research and development activities on the creation of pilot samples of special logging equipment for selective and gradual felling in order to preserve soil protection and water protection functions of forests located on mountain slopes and rational use of mature wood reserves in those forests.

A special decree of the Central Committee of the CPSU, the USSR Council of Ministers of April 13, 1987 No. 434 approved measures to ensure the protection and rational use of natural resources of the Lake Baikal basin in 1987 - 1995.

To enhance water protection, soil protection and other useful natural properties of forests located in the Lake Baikal basin, it was decided to establish protected shoreline belt around Lake Baikal, including the areas assigned to forestry enterprises.(forestries), nature reserves and natural national parks. The complex forest enterprises for the protection, reproduction and rational use of forests, located in the protected shoreline belt of Lake Baikal and established within the logging and forestry enterprises of the USSR State Forestry Committee, were to focus

their activities on timely sanitary felling, forest maintenance felling, fire protection of forests and other measures for the protection and reproduction of forests.

Since 1988, logging of principal felling forests has been prohibited in the established protected belt. To enhance the liability for forest offenses, the USSR Council of Ministers adopted Decree No. 1047 of August 25, 1988 “On Liability for Certain Forest Offenses in the Forests of the Water Protection Zone of the Lake Baikal Basin”.

The decree established the liability of forest users for certain types of offenses in the forests of the Lake Baikal water protection zone in the form of penalties in the following amounts:

- for the destruction of undergrowth and young growth caused by the logger's failure to comply with the established procedure for the development of felling sites - 160 rubles per each hectare of destroyed undergrowth and young growth; for damage or destruction of forest crops - 270 rubles per each hectare of damaged or destroyed forest crops;

- for unsatisfactory or untimely clearing of felling sites from felling residues, littering of glades and adjacent forest clearings of 50 meters width through the fault of forest users - 35 rubles per each hectare of uncleared or littered area. Payment of the penalty does not release the forest user from clearing the specified areas within the period established by the forestry enterprise;

- for the harvesting and logging of wood by methods and other forest uses resulted in erosion in the mountains - 200 rubles per each hectare of eroded area on which the humus layer of the soil is completely destroyed.

The issue of major reconstruction of nature protection in the country was raised at the all-union level in 1988⁷. However, it was stated that the country did not provide an integrated approach to addressing the issues of nature protection and rational use of natural resources. Special measures were proposed to protect the basins of Ladoga and Baikal lakes from pollution, as well as to stop the transfer of part of the flow of northern and Siberian Rivers and to protect unique natural sanctuaries and artifacts. Furthermore, the draft long-term state program on environmental protection and rational use of natural resources for the thirteenth five-year plan and for the period up to 2005, which was adopted in the Russian Federation in 1990, was outlined⁸.

The goal of the program was to ensure the preservation of the unique natural complex of the Lake Baikal basin as an object of global significance:

⁷ The Decree of the Central Committee of the CPSU, the USSR Council of Ministers of January 7, 1988 No. 32

⁸ The Decree of the RSFSR Council of Ministers No. 93 of 16 March 1990 “On urgent measures to improve the ecological situation in the RSFSR in 1990-1995 and the main directions of nature protection in the thirteenth five-year plan and for the period up to 2005”.

- implementation of the program for construction, reconstruction and expansion of facilities for treatment of wastewater and gas emissions in 1990-1995, implementation of other measures to prevent environmental pollution and improve the use of natural resources in the Lake Baikal basin;
- regulation of navigation and cargo transportation on Lake Baikal, cessation of timber towing in rafts, organization of its transportation by ships. Providing collection of the entire volume of oily and domestic wastewater from ships to onshore and floating reception facilities for treatment;
- development of high-performing units for purification of flue gases from sulphur compounds by 1990 and equipping Gusinozerskaya SDPP, Ulan-Ude CHPP-1 and other power enterprises located in areas adjacent to Lake Baikal with these units in 1991-1995;
- implementation by 1991 of actions to ensure strict compliance with the standards of maximum allowable emission of contaminants into the atmosphere by the Baikal pulp and paper mill and the Selenginsk pulp and cardboard mill;
- conversion of the Baikal pulp and paper mill to environmentally friendly production in the thirteenth five-year plan with the cessation of pulping in 1993;
- completion of activities to establish in-plant recycling at the Selenga pulp and paperboard mill in 1991, with the aim to stop discharging the mill's industrial wastewater into the Selenga River;
- comprehensive implementation of measures to combat wind and water erosion of soils provided for by zoned conservation cropping systems, establishment of protective forest plantations in the Buryat ASSR in 1991-1995 in the square of at least 20,000 hectares;
- completion of construction and reconstruction of warehouses for mineral fertilizers, pesticides, fuels and lubricants and workshops for repair of agricultural machinery and, by 1996, of manure storage facilities on farms located in the above basin;
- implementation of economic activities in the water protection zone of Lake Baikal in strict compliance with the scientifically substantiated regime of natural resources use, based on the priority of preserving this unique natural complex. However, the construction of new and expansion of existing enterprises in the specified areas was allowed only in exceptional cases with the permission of the RSFSR Council of Ministers;
- conversion to electric heat supply of settlements located on the shore of Lake Baikal, as well as construction of facilities related to gas supply of industry and public utilities in the Lake Baikal basin and Irkutsk-Cheremkhovo industrial hub;
- completion of the protected shoreline belt around Lake Baikal, including areas assigned to forestry enterprises (forestries), nature reserves and natural national parks.

Not all of the above measures have been implemented, but the main guidelines for the protection of Lake Baikal and the adjacent area served as the basis for the adoption of the Law on Lake Baikal Protection in 1999.

Main Problems of Ensuring the Preservation of Lake Baikal and Approaches to Their Legal Solution

Strategic planning and problems of integrated development of the Baikal natural territory

The Baikal natural territory, as noted above, affects the territory of three constituent entities of the Russian Federation: Irkutsk region, Republic of Buryatia and Zabaykalsky Krai. However, at the legislative level, the need to coordinate the activities of government authorities of these regions in terms of issues of socio-economic development of the BNA and the protection of Lake Baikal has not been established. To solve the problem of ensuring such coordination, an advisory body could be created with the participation of three constituent entities of the Russian Federation as well as federal executive authorities. This body could also include representatives of the public. It could prepare proposals for the development of the BNA, conduct an examination of legislative drafts relating to the BNA and Lake Baikal. The legal status of this authority can be enshrined in the Law on the Protection of Baikal.

In order to ensure the comprehensive development of the BNA at the federal level, the BNA Development Strategic Plan can be approved and regularly reviewed. It may be included in the number of strategic planning documents specified in the Federal Law No. 172-FZ dated June 28, 2014 “On Strategic Planning in the Russian Federation”.

This document should be taken into account when preparing territorial planning documents for the Russian Federation, constituent entities of the Russian Federation, municipalities, and should determine the main directions for the development of the BNA as a territory with a special legal regime. The Strategic Plan shall be comprehensive and address both issues of socio-economic development and ensuring environmental safety and rational use of natural resources. It is important to carry out a procedure for public discussion of the draft strategic plan with the public, and after its approval, develop a detailed road map (action plan) for its implementation.

The Federal Target Program “Protection of Lake Baikal and Socio-Economic Development of the Baikal Natural Area for 2012–2020” expired quite recently, so it is necessary to analyze the results of the implementation of this strategic planning document.

This FTP specifies as a goal the protection of Lake Baikal and Baikal Natural Area from the negative impact of anthropogenic, technogenic and natural factors. The tasks of the FTP generally coincided with the tasks that were established by program documents back in Soviet times: reducing the discharge of pollutants into water bodies and decreasing the level of waste

pollution in the BNA; increasing the efficiency of using recreational potential; conservation and reproduction of biological resources of the BNA; development of state monitoring of the ecological system of Lake Baikal, etc.

The main results of the implementation of this FTP can be considered the reconstruction of wastewater treatment facilities in the cities of Irkutsk and Ulan-Ude; construction of 5 and commissioning of 3 waste sorting and waste transfer stations and landfills for solid municipal waste; construction of tourist and recreational infrastructure; performing bank protection works; annual preparation of a consolidated state report on the state of Lake Baikal and the creation of a special website <http://www.baikalake.ru>; remediation of many contaminated areas and liquidation of facilities of accumulated harm. However, one of the main problems of Baikal has not been solved yet, no work has been carried out to eliminate the accumulated damage to the environment resulting from the activities of the Baikal Pulp and Paper Mill.

The implementation of unfinished activities of the Federal Target Program “Protection of Lake Baikal and Socio-Economic Development of the Baikal Natural Area for 2012–2020” was continued within the framework of the Federal Project “Preservation of Lake Baikal”, which is aimed at:

- preservation and restoration of the bioresource potential and biological diversity of water bodies of the Baikal Natural Area, reducing the anthropogenic load on the ecosystem of Lake Baikal, including coverage of the Baikal Natural Area by state environmental monitoring;
- preservation and restoration of Lake Baikal, including reducing the volume of discharges of contaminated wastewater into water bodies of the Baikal Natural Area.

It should be noted that similar goals were provided for in the subprogram “Protection of Lake Baikal and the Baikal Natural Area” of the Federal Target Program “Ecology and Natural Resources of Russia (2002–2010)”, approved by Decree of the Government of the Russian Federation dated December 7, 2001, No. 860. However, none of the above environmental problems have been completely resolved, and the implementation of the specified Federal Target Program, by Decree of the Government of the Russian Federation of November 17, 2005, No. 1952-r, was completed ahead of schedule in 2005.

Article 16 of the Law on the Protection of Lake Baikal provides for the development of “comprehensive schemes for the protection and use of natural resources of the Baikal Natural Area”. However, this rule does not actually work in practice; it is “dormant”; no corresponding comprehensive schemes have been developed at the federal level.

This is explained by the fact that environmental legislation, including Federal Law No. 7-FZ dated January 10, 2002 “On Environmental Protection” (hereinafter referred to as the Law on Environmental Protection), does not establish any procedure for the development and approval

of these comprehensive schemes. In this regard, it is necessary to make changes to the Law on the Protection of Lake Baikal or to the Law on Environmental Protection in terms of regulating the procedure for developing such schemes. In addition, it is necessary to link them with territorial planning documents at the federal, regional and local levels, which will require changes to urban planning legislation.

It is important for the integrated development of the territory adjacent to Lake Baikal to take into account the interests of the population of this territory while maintaining the overall balance of social, environmental and economic interests. In particular, one of the significant problems of the region is the impossibility of providing, for instance, land plots within the boundaries of the BNA and in the central ecological zone for the ownership of citizens and legal entities.

The unresolved nature of this problem is due, first of all, to the fact that land plots within the boundaries of these areas, as a rule, belong to such categories of land as forest lands and lands of specially protected areas and objects. In accordance with Article 27 of the Land Code of the Russian Federation (hereinafter referred to as the LC RF), land plots from these categories of land are either withdrawn from rotation (territories of state natural reserves and national parks, with the exception of land plots located within the boundaries of settlements included in national parks) or limited in rotation (land plots within specially protected natural areas, as well as land plots from forest fund lands).

The withdrawn from the general rule of land turnover in relation to land plots of the central ecological zone of the BNA entails legal risks of loss of the ecological significance of this area.

Particular attention should be paid to the position on the issue under consideration of the Constitutional Court of the Russian Federation, which, in the Decision dated February 28, 2019, No. 369-O “On the refusal to accept for consideration the complaint of citizens Oksana Nikolaevna Borkina, Galina Nikolaevna Ershova and others regarding violation of their constitutional rights by subitem 4 of item 5 of Article 27 of the Land Code of the Russian Federation, paragraph two of item 2 of Article 2 and item 1 of Article 3 of the Federal Law “On the Protection of Lake Baikal” and part two of Article 23 of the Federal Constitutional Law “On the Government of the Russian Federation”, noted the special importance of land plots occupied by objects included in the World Heritage List, the legal regime of which is aimed at protecting, preserving, popularizing and transferring to future generations the world cultural and natural heritage located on the territory of the Russian Federation and ensures the use of land within the boundaries of these objects in accordance with their purpose and considers the necessary balance of constitutionally significant interests of the state and citizens, in relation to the legislative

regulation of the right to privatization.

A similar position is expressed in the Decision of the Constitutional Court of the Russian Federation dated January 31, 2023, No. 163-0 “On the refusal to accept for consideration the complaint of citizen Evgeniy Leonidovich Belyaevsky about the violation of his constitutional rights by a number of legal provisions” and the Decision of the Constitutional Court of the Russian Federation dated March 30, 2023, No. 661-O “On the refusal to accept for consideration the complaint of citizen Aleksander Aleksandrovich Burmeister about the violation of his constitutional rights by a number of legal provisions”.

One of the areas of comprehensive development of the BNA is the active development of eco-tourism, which not only brings benefits for the residents of the BNA, creates new jobs, contributes to the development of infrastructure, but can also have a significant negative impact on the environment. At the same time, there is no legal regulation of eco-tourism at the federal level. This creates significant risks of uncontrolled anthropogenic impact on the unique ecological systems of Lake Baikal and gives rise to social conflicts.

According to Article 12 of the Law on the Protection of Lake Baikal, the rules for organizing tourism and recreation in the central ecological zone are approved by state authorities of the Republic of Buryatia and state authorities of the Irkutsk region.

Federal Law No. 77-FZ dated March 18, 2023 “On Amendments to Certain Legislative Acts of the Russian Federation” amended Federal Law No. 33-FZ dated March 14, 1995 “On Specially Protected Natural Areas” in terms of legal regulation of tourism in specially protected natural areas. However, the features of organizing eco-tourism outside specially protected natural areas still remain unregulated.

The Strategy for the Development of Tourism in the Russian Federation for the period until 2035, approved by Decree of the Government of the Russian Federation dated September 20, 2019, No. 2129-r, includes a section dedicated to eco-tourism in Russia, which provides for the development of a separate concept for the development of eco-tourism in the Russian Federation for the period until 2035, which has not been developed and approved. As a result, there are no approaches to legislative regulation of eco-tourism in the Russian Federation.

In connection with the above, it seems necessary to accelerate the development of this concept. In addition, in relation to the BNA territory, a separate strategy for eco-tourism within the BNA boundaries can be developed, taking into account the geographical, climatic and other features of this territory.

According to available official statistics, there is a slight but steady increase in tourist flow to Lake Baikal and the Baikal Natural Area. The number of tourists who visited Baikal in 2017 compared to 2016 increased by 3% and amounted to 2,661.95 thousand officially registered

tourists, incl. 274.3 thousand foreign tourists (in 2016 – 2,586.8 thousand tourists, including 527.8 thousand foreign tourists). In the Irkutsk region in 2017, compared to the previous year, the number of tourists increased by 4%, and in the Republic of Buryatia – by 0.3%.

In accordance with Part 2 of Article 12 of the Law on the Protection of Lake Baikal, the rules for organizing tourism and recreation in the central ecological zone are approved by the authorities of the constituent entities of the Russian Federation – the Republic of Buryatia and the Irkutsk region.

Currently, tourism activities in the central ecological zone of Lake Baikal are regulated by the Rules for the Organization of Tourism and Recreation in the Republic of Buryatia and the Rules for the Organization of Tourism and Recreation in the Irkutsk Region, adopted in 2019.

The rules for organizing tourism and recreation in the central ecological zone of the Baikal Natural Area in the Republic of Buryatia (hereinafter referred to as the Rules of Tourism in the Republic of Buryatia) were approved by Decree No. 416 of the Government of the Republic of Buryatia dated August 1, 2019.

In order to localize the recreational load on the environment, the Rules of Tourism in the Republic of Buryatia, in particular, provide for the allocation in the territorial planning documents of the Republic of Buryatia and municipalities of the Republic of Buryatia, located in the Central Economic Zone of the Baikal Natural Area, of special zones to create favorable conditions for development of tourism and recreational activities. Along with this, in order to reduce the negative impact on natural complexes from subjects of the tourism industry, it is planned to develop regional tourist routes, the register of which is maintained by the authorized executive body of the Republic of Buryatia in the field of tourism. Attention is paid to the problems of interaction between subjects of tourism and recreational activities.

The rules for organizing tourism and recreation in the central ecological zone of the Baikal Natural Area in the Irkutsk region (hereinafter referred to as the Rules of Tourism in the Irkutsk Region) were approved by Decree No. 777-pp of the Government of the Irkutsk region dated September 19, 2019.

These Rules, in order to reduce the impact on natural complexes by subjects of tourism activities, provide for the compilation of regional tourist routes along which the movement of tourist groups is allowed, with their subsequent registration in a special register of regional tourist routes maintained by the authorized body. Separate requirements regarding the behavior and modes of movement of tourists have been developed for eco-tours. It should be noted that in specially protected natural areas located in the Irkutsk region, the norms of the Rules are advisory in nature (item 5).

Thus, as can be seen from the analysis, the regional rules for organizing tourism and

recreation in the BNA CEZ, adopted in the Republic of Buryatia and the Irkutsk region, reflect the features and specifics of the territories to which they apply. One can note the similarity of their structure, goals and principles of regulation, the presence of a set of environmental requirements for the organization and implementation of tourism activities in designated territories (for example, the priority development of eco-tourism). To localize the anthropogenic load, in particular, the allocation of special tourist and recreational zones is provided.

In order to analyze tourism activities and inform its participants, the rules of the Republic of Buryatia and the Irkutsk region provide for monitoring. The rules of the Irkutsk region stipulate that information on the level of negative impact of recreational facilities and the environmental situation in the territories of tourist and recreational zones is published in the annual report on the environment state.

Thus, the possibility of implementing the right to environmental information has been created. In addition, the Rules of Tourism in the Irkutsk Region provide for certification of tourism industry facilities in the territory of the BNA CEZ with updating every three years. The tourism rules of the specified constituent entities of the Russian Federation provide for the (voluntary) certification of tour guides, guides-translators, as well as the maintenance of a special Register of certified guides and guides-translators. Prohibitions have been established on the performance of certain actions by persons located in the BNA CEZ.

Based on the above, we can note the consistency and logic of the development of legal regulation of tourism activities in the Central Ecological Zone of the Baikal Natural Area, which helps protect Lake Baikal, a World Heritage Site, but does not exclude further improvement of legislation at both the federal and regional levels.

Protection of the BNA during business activities

The Law on the Protection of Lake Baikal and other regulatory legal acts, primarily of a natural resource and environmental nature, establish a significant number of legal restrictions, including in the form of an absolute ban, on the implementation of certain types of activities that have a direct or indirect negative impact on the state of the environment of the Baikal Natural Area. At the same time, these mandatory requirements are currently not set out in a systematic form either in the Law on the Protection of Lake Baikal or in any other legislative act. As a result, in practice, for subjects of economic and other activities, that have an impact on the Baikal Natural Area, determining the boundaries of legal behavior within a specific ecological zone becomes an intractable task.

The strictest legal regime is provided for the central ecological zone, since Lake Baikal is located within its borders. Thus, within the central ecological zone it is prohibited to: extract crude oil and natural gas, radioactive and metal ores; procure soft resin; construct and reconstruct

particularly dangerous and technically complex facilities⁹; raft wood along rivers flowing into Lake Baikal, etc.¹⁰

In addition, according to Article 11 of the Law on the Protection of Lake Baikal in the central ecological zone, as a general rule, it is not permitted to carry out clear cuttings and transfer forest fund lands occupied by protective forests to lands of other categories, except for the cases provided for by the Law: transfer of lands into lands of specially protected territories and objects when creating specially protected natural areas: construction/reconstruction of infrastructure facilities not related to the creation of forest infrastructure, necessary to increase the capacity of the Baikal-Amur and Trans-Siberian railways, etc.

In order to prevent (minimize) the negative impact on the unique ecological system of Lake Baikal, standards for permissible anthropogenic load on it are established, the values of which are ranked depending on the zone of the Baikal Natural Area in which anthropogenic activities are carried out¹¹. In particular, for the purpose of environmental regulation of anthropogenic impact on the natural ecological systems of the central ecological zone of the Baikal Natural Area, standards for permissible impact during grazing of farm animals, etc. are established.

In accordance with sub-item 7.8 of Article 11 of the Federal Law No. 174-FZ dated November 23, 1995 “On Environmental Examination”, design documentation of capital construction projects proposed for construction or reconstruction within the boundaries of the Baikal Natural Area, with the exception of design documentation of social infrastructure facilities, a list of which are established by the Government of the Russian Federation, which, in accordance with the environmental legislation, do not belong to objects of categories I, II and the construction/reconstruction of which is supposed to be carried out within the boundaries of settlements located within the boundaries of the buffer ecological zone and the ecological zone of atmospheric influence of the BNA, outside of specially protected natural areas, is the subject of state environmental examination at the federal level.

It should be noted that the system of mandatory requirements defining the legal regime of ecological zones of the Baikal Natural Area does not remain unchanged. Thus, requirements are periodically tightened or softened, providing for the need to conduct a state environmental examination in relation to the design documentation of capital construction facilities being

⁹ See: Part 1 of Article 48.1 of the Civil Code of the Russian Federation.

¹⁰ See: Decree No. 2399 of the Government of the Russian Federation dated December 31, 2020 “On approval of the list of activities prohibited in the central ecological zone of the Baikal Natural Area”.

¹¹ See: Order No. 83 of the Ministry of Natural Resources of Russia dated February 21, 2020 “On approval of standards for maximum permissible impacts on the unique ecological system of Lake Baikal and a list of harmful substances, including substances falling into the categories of particularly hazardous, highly hazardous, hazardous and moderately hazardous for the unique ecological systems of Lake Baikal”.

constructed or reconstructed within the boundaries of different ecological zones of the Baikal Natural Area¹²; the list of activities prohibited in the central ecological zone of the Baikal Natural Area was repeatedly clarified¹³, the requirements for regulating the permissible impact on the unique ecological system of Lake Baikal were changed, etc.

Such permanent changes do not contribute to the formation of uniform law enforcement practice, which leads to legal disputes. Thus, cases have repeatedly arisen of challenging the norms of the Decree No. 643 of the Government of the Russian Federation of August 30, 2001, defining the types of activities prohibited in the central ecological zone of the Baikal Natural Area¹⁴.

Let us also give as an example a legal dispute that arose in connection with an ambiguous interpretation by a subsoil user and an interregional environmental prosecutor of the content of the ban established by Decree No. 643 of the Government of the Russian Federation dated August 30, 2001 on the exploration and development of new deposits within the boundaries of the central ecological zone that were not previously affected by operational work. In particular, the Decision No. F02-4621/2021, F02-6249/2021 of the Arbitration Court of the East Siberian District dated December 15, 2021 in case No. A10-2918/2020 canceled the decision of the Arbitration Court of the Republic of Buryatia dated January 24, 2021 in case No. A10-2918/2020 and the decision of the Fourth Arbitration Court of Appeal dated May 20, 2021, which satisfied the prosecutor's demands to invalidate the decision to grant Regionstroy JSC the right to use a subsoil plot located within the boundaries of the central ecological zone and a license for the right to use this subsoil plot for geological study, exploration and sand production.

The court sent the case for a new trial, considering the issue of the legal qualification of the subsoil user's activities such as exploration and development of a new deposit unclear, since the disputed subsoil area belongs to territories previously affected by exploitation work – until 2001, a common mineral resource (sand) was mined for company's own needs in this territory.

The boundaries of the ecological zones of the Baikal Natural Area include various territories with special conditions for the use of territories: water protection zones; coastal protective strips; specially protected natural areas; protective forests; specially protected forest

¹² See for example: Federal Law No. 440-FZ dated December 16, 2019 “On Amendments to Articles 11 and 12 of the Federal Law “On Environmental Examination” and Article 49 of the Urban Planning Code of the Russian Federation”.

¹³ Thus, until 2010, within the boundaries of the central ecological zone, the production of pulp, paper, cardboard and products made of them was allowed using drainless water management systems for production needs (see: Decree No. 1 of the Government of the Russian Federation dated January 13, 2010 “On introducing changes to the list of activities prohibited in the central ecological zone of the Baikal Natural Area”).

¹⁴ See for example: Decision No. GKPI10-321 of the Supreme Court of the Russian Federation dated June 17, 2010 “On the refusal to satisfy applications to challenge the Decree No. 1 of the Government of the Russian Federation dated January 13, 2010 “On amending the list of activities prohibited in the central ecological zone of the Baikal Natural Area”, Appeal Ruling No. APL19-175 of the Appeal Board of the Supreme Court of the Russian Federation dated June 13, 2019.

areas; particularly valuable productive agricultural land, the use of which for purposes not related to agriculture is not permitted; special economic zones of tourist and recreational type; territories of habitat (growth) of rare objects listed in the red books of the Russian Federation and constituent entities of the Russian Federation (Republic of Buryatia, Irkutsk region, Zabaykalsky Krai); hunting grounds, etc. In this regard, the legal regime for the protection and use of the Baikal Natural Area also forms the requirements for economic and other activities planned and/or implemented within the boundaries of a particular zone with special conditions for the use of territories.

Thus, in accordance with Article 65 of the Water Code of the Russian Federation (hereinafter referred to as WC RF), the following are not allowed within the boundaries of the water protection zone: 1) use of wastewater to increase soil fertility; 2) placement of cemeteries, cattle burial grounds, facilities for disposal of production and consumption waste, chemical, explosive, toxic, and poisonous substances, radioactive waste disposal sites, as well as contamination of the territory with pollutants, the maximum permissible concentrations of which in the waters of water bodies of fishery importance have not been established; 3) implementation of aviation measures to combat pests; 4) movement and parking of vehicles (except for special vehicles), with the exception of their movement on roads and parking on roads and in specially equipped places with hard surfaces; 5) discharge of wastewater, including drainage water, etc.

Within the coastal protective strips that are established within the boundaries of water protection zones, the WC RF introduced additional restrictions in the form of a ban on plowing land, placing dumps of eroded soil, grazing farm animals and organizing summer camps and baths for them.

The legal regime of specially protected natural areas is regulated by the Federal Law No. 33-FZ dated March 14, 1995 “On Specially Protected Natural Areas” (hereinafter referred to as the Law on Specially Protected Natural Areas) and regulations that are approved by authorized public authorities in relation to a specific specially protected natural area.

As noted earlier, different categories of specially protected natural areas have been created on the territory of the Baikal Natural Area with different legal regimes for the protection and use of natural objects located on them. Thus, the legal regulation of the protection of Frolikhinsky State Natural Reserve of Federal Significance is based on the norms of Articles 22-24 of the Law on Specially Protected Natural Areas and the Regulations on Frolikhinsky State Natural Reserve of Federal Significance approved by Order No. 255 of the Ministry of Natural Resources of Russia dated August 19, 2009.

In the said order of the Russian Ministry of Natural Resources, the types of activities prohibited on the territory of the Frolikhinsky Federal Nature Reserve include: 1) commercial,

sport and amateur hunting; 2) timber harvesting (with the exception of timber harvesting by citizens for their own needs); 3) procurement of soft resin; 4) procurement and collection of non-timber forest resources (except for the procurement and collection of non-timber forest resources by citizens for their own needs), procurement of food forest resources and collection of medicinal plants (except for the procurement of food forest resources and collection of medicinal plants by citizens for their own needs); 5) carrying out drainage and irrigation works; 6) plowing of land; 7) geological study, exploration and extraction of mineral resources, as well as performance of other work related to the use of subsoil, etc.

Requirements for the protection of protective forests and specially protected forest areas that are located within the boundaries of the Baikal Natural Area are established by Chapter 17 of the Forest Code of the Russian Federation (hereinafter referred to as the FC RF). Thus, in protective forests it is prohibited to change the intended purpose of the forest areas on which the protective forests are grow. In protected forest areas the following is prohibited: felling of forest plantations; use of toxic chemicals; farming; exploration and mining; construction and operation of capital construction facilities.

It should be noted that not all of the restrictions provided for by the FC RF for the purpose of protecting protective forests and specially protected forest areas can be implemented in practice. Thus, the FC RF prohibits the implementation of activities in protective forests that are incompatible with their intended purpose and useful functions (Part 6 of Article 111). Obviously, such types of activities include clear cutting of forest plantations, since as a result of it, the useful functions of forest plantations will be lost. However, in the Baikal Natural Area such cutting can be carried out, for example, during the construction (reconstruction) of infrastructure facilities not related to the creation of forest infrastructure necessary to increase the capacity of the Baikal-Amur and Trans-Siberian railways (item 2 of Article 25.1 of the Law on the Protection of Lake Baikal).

The LC RF recognizes land plots that are in state or municipal ownership and occupied by objects included in the World Heritage List, limited in rotation (sub-item 4 of item 5 of Article 27). In this regard, the activities of owners of land plots located within the boundaries of the central ecological zone of the Baikal Natural Area are significantly limited by law.

The legal regime of ecological zones of the Baikal Natural Area is also formed by regulatory legal acts of the constituent entities of the Russian Federation and municipal legal acts.

For example, Decree No. 772 of the Government of the Republic of Buryatia dated December 20, 2012 approved the List of especially valuable productive agricultural lands located on the territory of the Republic of Buryatia, the use of which for purposes not related to

agriculture is not allowed. This List includes, among other things, agricultural land located within the boundaries of the Baikal Natural Area. In addition, the Government of the Republic of Buryatia approved environmental and other requirements for the organization of tourism and recreation in the central ecological zone of the Baikal Natural Area within the Republic of Buryatia¹⁵, created a working group on the implementation of permitted activities in the central ecological zone of the Baikal Natural Area in the Republic of Buryatia¹⁶, etc.

Separately, the Law on the Protection of Lake Baikal regulates the implementation of activities necessary to increase the capacity of the Baikal-Amur and Trans-Siberian railways within the boundaries of the Baikal Natural Area. For these purposes, Article 25.1 was included into Federal Law No. 254-FZ dated July 31, 2020 “On the peculiarities of regulating certain relations for the purpose of modernizing and expanding the trunk infrastructure and on introducing amendments to certain legislative acts of the Russian Federation”.

The effect of item 1 of this article is temporary – until December 31, 2024, which is due to the need to implement one-time measures to increase the capacity of two railways, Baikal-Amur (BAM) and Trans-Siberian, passing through the territory of the central ecological zone.

Order No. 2774-r of the Government of the Russian Federation dated October 26, 2020 approved: a list of measures (projects) for the construction and reconstruction of infrastructure facilities necessary to increase the capacity of the Baikal-Amur and Trans-Siberian railways, a list of environmental protection measures related to the construction and reconstruction of infrastructure facilities necessary to increase the capacity of these railways within the boundaries of the Baikal Natural Area, a list of infrastructure facilities necessary to increase the capacity of railways outside the boundaries of the Baikal Natural Area, in respect of which the peculiarities established by the Federal Law “On the peculiarities of regulating certain relations for the purpose of modernizing and expanding the trunk infrastructure and on introducing amendments to certain legislative acts of the Russian Federation” apply.

At the same time, the application of the environmental management peculiarities specified in Article 25.1 of the Law on the Protection of Lake Baikal when carrying out activities not related to such an increase in the capacity of the Baikal-Amur and Trans-Siberian railways is not allowed.

Standardization of negative impact and anthropogenic load on the Baikal Natural Area

For the purpose of state regulation of the negative impact of anthropogenic activities on

¹⁵ See: Decree No. 416 of the Government of the Republic of Buryatia dated August 1, 2019 “On approval of the Rules for organizing tourism and recreation in the central ecological zone of the Baikal Natural Area in the Republic of Buryatia”.

¹⁶ See: Order No. 491-r of the Government of the Republic of Buryatia dated September 2, 2021 “On the creation of a working group on the implementation of permitted activities in the central ecological zone of the Baikal Natural Area in the Republic of Buryatia”.

the BNA, the Law on the Protection of Lake Baikal provides for the establishment of standards for maximum permissible harmful impacts on the unique ecological system of Lake Baikal.

Standardization of permissible impacts on the ecological system of Lake Baikal has been carried out since 1987. The USSR Academy of Sciences, together with the USSR State Committee for Hydrometeorology and Natural Environment Control, the USSR Ministry of Land Reclamation and Water Management, the USSR Ministry of Fisheries and the USSR Ministry of Health, were required to develop and approve standards for permissible impacts on the ecological system of Lake Baikal. In November 1987, these standards were approved for the period until 1995.¹⁷

In order to normalize the negative impact on Lake Baikal, maximum permissible concentrations of harmful substances were established, determined at control sites, requirements for the discharge of environmentally highly hazardous substances into Lake Baikal and its tributaries were established, and a ban was introduced on the discharge into Lake Baikal and its tributaries of substances that are particularly dangerous to the ecological system of Lake Baikal¹⁸.

With the adoption of the Law on the Protection of Lake Baikal, the approach to establishing standards for permissible impacts on a unique ecological system was slightly changed. Thus, discharge standards (in terms of requirements for concentrations of harmful substances) began to apply to the entire Baikal Natural Area, including the zone of atmospheric influence that is not related to the drainage area. In addition, the ban on the discharge of harmful substances classified as “particularly hazardous” was removed, which significantly reduced the requirements for existing and new industries that have a negative impact on the catchment basin of Lake Baikal¹⁹.

Specific standards for maximum permissible impacts on the unique ecological system of Lake Baikal were approved by Order No. 63 of the Russian Ministry of Natural Resources dated March 5, 2010²⁰. In particular, it established standard values for the mass of harmful substances (sulfates, chlorides, nitrates, nitrites, phenols, etc.) discharged into Lake Baikal with wastewater, indicators of the permissible content of such substances in wastewater when discharged into Lake Baikal and surface water bodies located within the central and buffer ecological zones that

¹⁷ Resolution No. 434 of the CPSU Central Committee and the Council of Ministers of the USSR dated April 13, 1987 “On measures to ensure the protection and rational use of natural resources of the Lake Baikal basin in 1987-1995” //URL: https://www.sbras.ru/files/news/docs/dlva_publicatsii_po_normativam_28.04.2020.pdf

¹⁸ Ibid.

¹⁹ Ibid.

²⁰ See: Order No. 63 of the Ministry of Natural Resources of Russia dated March 5, 2010 “On approval of standards for maximum permissible impacts on the unique ecological system of Lake Baikal and a list of harmful substances, including substances falling into the categories of especially hazardous, highly hazardous, hazardous and moderately hazardous for the unique ecological system of Lake Baikal” (become invalid).

have permanent or temporary hydraulic connection with Lake Baikal, standards for permissible physical impacts on Lake Baikal and rivers flowing into Lake Baikal, indicators of permissible emissions into the air of the unique ecological system of Lake Baikal, standards for permissible removals of Baikal omul and seals, standards for permissible anthropogenic load on local terrestrial (coastal stripes, plant communities, forests) and natural (steppe and valley pastures) ecosystems of the central ecological zone of the Baikal Natural Area.

The experience of applying the standards established by the said order of the Ministry of Natural Resources of Russia has shown their weak feasibility in practice and, as a result, the inability to prevent environmental damage to the Baikal Natural Area in general and Lake Baikal in particular. The main source of pollution remains wastewater discharged into Lake Baikal and water bodies that are hydraulically connected to it. Due to the technical backwardness of treatment facilities, the level of purification of such waters does not meet the established standards for permissible discharges.

Thus, in the Irkutsk region, the sources of pollution in the Lake Baikal basin are enterprises that directly discharge wastewater: into Lake Baikal – Municipal Unitary Enterprise “Sewerage Treatment Plants of the Baikal Municipality”; into water bodies, first order tributaries of Lake Baikal: Pokhabikha river – UKS LLC, Slyudyanka; Pravaya Angasolka river (facilities are located in the village of Kultuk) – KKS LLC, Slyudyanka²¹.

Wastewater entering Lake Baikal from pollution sources located in the Irkutsk region in 2020 contained pollutants, the mass of which, compared to 2019, increased: ammonium ion – by 93.1% (0.70 t), BOD_{tot} – by 3.1% (7.50 t), petroleum products – by 76.0% (0.04 t), nitrite anion – by 41.9% (321.21 kg), phosphates – by 28.9% (0.66 t); reduced: suspended substances – by 15.5% (10.07 t), sulfate anion – by 0.9% (62.79 t), chlorides – by 5.8% (35.60 t), nonionic synthetic surfactants – by 19, 3% (74.15), COD – by 17.4% (32.18 t), nitrate anion – by 11.1% (58.82 t); aluminum – by 30.8% (1124.62 kg)²².

By Order No. 83 of the Russian Ministry of Natural Resources dated February 21, 2020, new standards for maximum permissible impacts on the Baikal Natural Area were approved: on Lake Baikal and surface water bodies having a hydraulic connection with it; on the atmospheric air above the unique ecological system of Lake Baikal and aquatic biological resources, the habitat of which is Lake Baikal; on local terrestrial ecosystems of the central ecological zone of the Baikal Natural Area²³.

²¹ State report “On the state and protection of the environment of the Irkutsk region in 2020”. Irkutsk: Megaprint LLC, 2021. P. 42.

²² Ibid.

²³ See: Order No. 83 of the Ministry of Natural Resources of Russia dated February 21, 2020 “On approval of standards for maximum permissible impacts on the unique ecological system of Lake Baikal and a list of harmful substances falling into the categories of especially hazardous, highly hazardous, hazardous and moderately

It should be noted that the approach to standardizing the maximum permissible impact on Lake Baikal as a whole remained the same, however, the standard values for individual pollutants were changed in the direction of tightening. Having de jure confirmed the possibility of discharging wastewater directly into Lake Baikal, the Russian Ministry of Natural Resources established standards for maximum permissible discharges at the level of background values of Lake Baikal water quality in the pelagic zone.

In addition, the said order of the Ministry of Natural Resources of Russia provides for special regulation of the standardization of wastewater discharged by centralized and local sewerage systems of settlements or urban districts within the central and buffer ecological zones of the Baikal Natural Area, and also expanded the list of regulated pollutants (for example, those contained in wastewater discharged into Lake Baikal – from 22 to 28).

Indicators of the maximum permissible impact on the atmospheric air over the southern, middle and northern basins of the unique ecological system of Lake Baikal, as well as the standards for the permissible anthropogenic load on it, remained at the same standard values.

For the purposes of state regulation of anthropogenic impact on the unique ecological system of Lake Baikal, the Law on the Protection of Lake Baikal provides for the need to differentiate pollutants according to the degree of their danger to this ecological system.

In accordance with the List of substances harmful to the unique ecological system of Lake Baikal, approved by Order No. 83 of the Ministry of Natural Resources of Russia dated February 21, 2020, the category of especially hazardous substances includes: highly toxic foreign substances; toxic foreign substances that accumulate in aquatic organisms and in food chains; slowly decomposing substances (for example, pentachlorophenol, chlorate anion, 2,4,6-trichlorophenol, chlorobenzenes, etc.).

Substances contained in the natural background of the waters of Lake Baikal and water bodies that have a permanent or temporary connection with Lake Baikal, which pose a danger to aquatic organisms at concentrations exceeding background values, are recognized as highly dangerous for the unique ecological system of Lake Baikal (for example, mercury, cadmium, zinc, lead, phenol, petroleum products, etc.).

The category of hazardous substances includes foreign substances of moderate toxicity that quickly decompose, are volatile, or are otherwise quickly removed from water (for example, methylmercaptan, sulfides, acetone, methanol, etc.).

Substances present in the waters of Lake Baikal and water bodies that have a permanent or temporary connection with Lake Baikal, which do not have pronounced acute toxicity for aquatic organisms, are moderately dangerous for the unique ecological system of Lake Baikal hazardous for the unique ecological system of Lake Baikal”.

(for example, aluminum, iron, sodium, manganese, potassium, etc.).

Categorization of substances harmful to the unique ecological system of Lake Baikal allows us to differentiate government regulatory measures implemented in the Baikal Natural Area for the purpose of environmental protection.

In addition to the categorization of substances harmful to Lake Baikal, Order No. 83 of the Russian Ministry of Natural Resources dated February 21, 2020 identifies typical sources of their supply: chlorination of wastewater, pulp, chemical, woodworking, and textile industries, combustion of household waste, solid and liquid organic substances, including oil and petroleum products, wood, anthropogenic waste, forest fires, etc.

In order to prevent negative changes in the state of the waters of Lake Baikal, the Law on the Protection of Lake Baikal establishes the requirement that the amount of hazardous and highly hazardous pollutants in discharges from economic and other facilities located in the central and buffer zones of the Baikal Natural Area should not exceed the same amount when water resources are withdrawn from water bodies.

Legal mechanisms for limiting the turnover of disposable plastic products as a way to protect Lake Baikal and the Baikal Natural Area from microplastic pollution

The development of domestic tourism on Lake Baikal has led to significant pollution of the lake with microplastics. As Russian scientists have established, the lake water contains 30-40 thousand microplastic particles per square kilometer of surface. At the same time, the accumulation of microplastics in the waters of Baikal and in the fish living in it poses a threat to humans and animals, since small microplastic particles formed as a result of the destruction and disintegration of plastic bags, disposable plastic tableware and other disposable plastic products enter the bodies of living beings through the food chain.

One of the main sources of microplastics entering the environment within the boundaries of the Baikal Natural Area, including the waters of Lake Baikal, soil, as well as other components of the natural environment and ecosystem, are plastic package, bags and sacks, disposable plastic dishes and cutlery, discarded by numerous citizens on vacation. Reducing the degree of potential environmental hazard of solid municipal waste both within the boundaries of the Baikal Natural Area and throughout the Russian Federation can be achieved by introducing a gradual or one-time elimination of disposable plastic products and non-recyclable materials.

Currently, limiting or completely banning the turnover of disposable products is one of the most important directions in building a circular economy, the transition to which is planned as one of the key vectors of state policy by the President of the Russian Federation V.V. Putin. In particular, the President of the Russian Federation, in his Address to the Federal Assembly of the Russian Federation dated February 21, 2023, noted progress in promoting reform of the waste

management industry, in particular, increasing waste processing and sorting capacity in order to transition to a circular economy.

In addition, further work was also planned towards improving the health of unique water bodies, including Lake Baikal.

Reducing the level of pollution of Lake Baikal and the Baikal Natural Area with plastic waste and microplastic particles formed as a result of their decay is possible by establishing restrictions or a complete ban on the turnover of disposable products made of plastic or non-recyclable materials, which will correspond to the priorities of Russian state environmental policy related to Russia's gradual transition to a circular economy model.

A possible ban on the production and sale of disposable plastic products in our country has been repeatedly worked out and publicly discussed, however, at present, the main reasons that this ban has not yet been introduced is the lack of a well-developed legal mechanism for such a ban and corresponding alternatives to all of these products that could fully replace them in households and among other consumers.

Limiting the turnover of disposable plastic products or products made from non-recyclable materials within the boundaries of the Baikal Natural Area, especially in the central ecological zone and in the buffer ecological zone, in which the water protection zone of Lake Baikal and its drainage areas are located, should significantly reduce the volume of microplastic particles entering the water body, and through it – into the human body.

The considered ban on the turnover of polyethylene and plastic package, bags and sacks, as well as disposable plastic tableware and other disposable plastic products within the boundaries of the central and buffer ecological zones of the Baikal Natural Area is fully consistent with the main theses of the Concept for improving the institution of extended responsibility of producers and importers of goods and packaging, approved by the Deputy Prime Minister of the Russian Federation V.V. Abramchenko on December 28, 2020 No. 12888p-P11, which notes that in relation to certain types of goods and packaging, in the event of a complete impossibility of their disposal and in the presence of available alternatives, bans on their production and other restrictive measures should be applied.

Currently, the main indicators of the Federal Project "Preservation of Lake Baikal", implemented within the framework of the National Project "Ecology", include the preservation and restoration of the bioresource potential and biological diversity of water bodies of the Baikal Natural Area, reducing the anthropogenic load on the ecosystem of Lake Baikal, as well as its preservation and restoration (passport of the National Project "Ecology", approved by the Presidium of the Council under the President of the Russian Federation for Strategic Development and National Projects (minutes No. 16 dated December 24, 2018), passport of the

Federal Project “Preservation of Lake Baikal”, approved by the minutes No. 3 of the meeting of the project committee for the National Project “Ecology” dated December 21, 2018).

To achieve these goals, a draft federal law No. 154856-8 was prepared “On amendments to Article 6 of the Federal Law “On the Protection of Lake Baikal” (in terms of limiting certain types of activities in the Baikal Natural Area)²⁴, aimed at reducing pollution of Lake Baikal and the natural complex of the Baikal Natural Area by regulating relations with the most common types of disposable plastic products used in this territory, such as polyethylene and plastic package, bags and sacks, as well as disposable plastic dishes and cutlery.

This legislative draft establishes a ban on the retail sale and gratuitous transfer by organizations and individual entrepreneurs engaged in retail trade of packages, bags, sacks made of polymer and combined materials, dishes and cutlery made of plastic in the central ecological zone and buffer ecological zone of the Baikal Natural Area in accordance with the list established by the authorized federal executive body.

At the same time, the requirements of the legislative draft regarding the ban on the retail sale of certain types of goods made from plastic materials are being introduced in stages: first for the central ecological zone of the Baikal Natural Area and later for the buffer ecological zone.

The ban on the retail sale of certain types of goods made from plastic materials introduced by the legislative draft will help level out the socio-economic burden for citizens, business and other economic entities within the boundaries of the Baikal Natural Area, and will also ensure a smooth transition to new regulation aimed at ensuring a balance of environmental, economic and social interests of the Baikal region.

It seems that these legal mechanisms for limiting the turnover of disposable plastic products, aimed at protecting Lake Baikal and the Baikal Natural Area from pollution by microplastic particles, if the practice of their successful use is developed, can be used to limit the turnover of disposable plastic products in other individual areas that are important for preventing pollution of water bodies.

Improving legal regulation in the field of protecting Lake Baikal from pollution by chemicals

Collecting information on chemicals for chemical management has been part of the global chemical safety agenda since 1972, when the United Nations Conference on the Human Environment adopted the Stockholm Declaration on the Human Environment, which provides that chemical information and data required internationally include the physical and toxicological properties of chemicals, data on their production and use, effects on human health

²⁴ Adopted by the State Duma of the Federal Assembly of the Russian Federation in the first reading on April 5, 2023 (Resolution No. 3503-8 GD)

and the environment, exposure levels, standards, laws and regulations, as well as measures taken in emergency situations.

In order to reduce the anthropogenic impact on the unique ecological system of Lake Baikal and combat the processes of eutrophication as a result of excessive entry of phosphorus-containing compounds into Lake Baikal, a draft federal law No. 62502-8 “On amendments to Article 6 of the Federal Law “On the Protection of Lake Baikal” has been developed²⁵.

The legislative draft's proposed ban on the retail sale of synthetic detergents and household chemicals containing information in consumer labeling about the content of phosphates and phosphonates of 5 percent or more in the list of ingredients included in such products will reduce the flow of phosphorus-containing compounds through household wastewater into Lake Baikal and will help reduce the processes of eutrophication of coastal waters in the medium term.

The legislative draft proposes to prohibit in the central ecological and buffer ecological zones the circulation (including sale, transportation, storage, use, removal (destruction, disposal)) of synthetic detergents and household chemical products (goods) if the consumer labeling in the list of ingredients included in such products (goods) contains information about the content of 5 or more percent of phosphates, phosphonates.

In the original version of the legislative draft, it was proposed to prohibit in the central ecological and buffer ecological zones the retail sale of synthetic detergents and household chemical products (goods) subject to sanitary and epidemiological control (supervision) if the consumer labeling in the list of ingredients included in such products (goods) contains information about the content of 5 or more percent of phosphates, phosphonates. However, the introduction of this ban would not mean a ban on the use (application) of such goods in everyday life and at work. Such goods can be purchased outside the central ecological and buffer ecological zones for use in their territory. In addition, there remains the possibility of purchasing prohibited goods in wholesale (including small wholesale) trade.

The version of the legislative draft adopted by the State Duma of the Federal Assembly of the Russian Federation in the first reading is also not without shortcomings. For example, the legislative draft contains legal uncertainty regarding the type of state control (supervision) or municipal control that will exercise control (supervision) over compliance with the ban on the use of synthetic detergents and household chemicals specified in the legislative draft, introduced by the legislative draft. In addition, the introduced regulation in this part must be correlated with the norms of the Federal Law No. 248-FZ dated July 31, 2020 “On State Control (Supervision)

²⁵ Adopted by the State Duma of the Federal Assembly of the Russian Federation in the first reading on November 24, 2022 (Resolution No. 2495-8 GD)

and Municipal Control in the Russian Federation”.

In addition, the legislative draft includes the removal (destruction, disposal) of these objects in the list of activities that will be prohibited in relation to synthetic detergents and household chemical products (goods).

The terms “removal” and “disposal” are used in legislation on industrial and consumer waste in relation to actions performed with the corresponding waste. Thus, legal uncertainty arises as to whether the legislative draft deals with the disposal of products or waste generated as a result of the use of such products.

The established ban on the implementation of certain types of activities, included in the legislative draft under the concept of “circulation of synthetic detergents and household chemical products (goods)”, seems to be an insufficiently effective mechanism for protecting the environment of the BNA, since it does not contain provisions on liability for violation of this ban. Therefore, it seems necessary to introduce corresponding amendments to the Code of the Russian Federation on Administrative Offenses or the Criminal Code of the Russian Federation.

Thus, due to the great environmental significance of the ban on the circulation of synthetic detergents and household chemical products (goods) within the boundaries of the BNA, it seems necessary to refine the mechanism for its introduction proposed by the legislative draft.

Legal problems of protection of waters and aquatic biological resources of Lake Baikal

Article 1 of the WC RF defines the protection of water bodies as a system of measures aimed at preserving and restoring water bodies, the totality of which makes up the water fund of Russia. Measures for the protection of water bodies are provided for by the regulations on water and other natural resource, environmental and sanitary-epidemiological legislation, which are designed to prevent, suppress and eliminate the consequences of harmful anthropogenic impacts on the water fund²⁶. The water fund of Russia also includes the unique Lake Baikal, which has a strict legal regime for its use and protection, specially defined by the legislator.

Since 1960, the water level in the lake largely depends on the operating mode of the Irkutsk, Bratsk and Ust-Ilimsk hydroelectric power plants, which operate in an interdependent mode. Meeting the needs of navigation and water supply in the Angara-Yenisei basin is also interconnected with the levels of Lake Baikal and reservoirs at the above-mentioned HPPs. Thanks to the backing of the dam of the Irkutsk HPP, the average long-term regulated level of the lake is maintained 1 m above the average level of Lake Baikal before the construction of the HPP.

In 2022–2023, the maximum and minimum values of the water level in Lake Baikal

²⁶ O.A. Romanova. Legal protection of surface waters from pollution in the Russian Federation: Thesis for a Candidate Degree in Law Sciences. M., 2008

during the period of average water content were set at 457 and 456 meters, respectively (in the Pacific elevation system). At the same time, the maximum value of the water level in Lake Baikal during the period of high water content (high-water period) was recorded at 457.85 meters (in the Pacific elevation system), and the minimum value of the water level in Lake Baikal during the period of low water content (low-water period) was recorded at 455.54 meters (in the Pacific elevation system)²⁷.

These water level values are set in order to prevent the negative impact of water on nearby land areas.

In accordance with the legislation on fisheries and the conservation of aquatic biological resources²⁸, the unit of fisheries management is the fishery basin, within which the permissible types of fishing and the use of fishing gear are regulated in detail. The authorized authorities, within the framework of their competence, establish the specifics of regulation of industrial, recreational and traditional fishing within the Baikal fishery basin²⁹.

According to the Order No. 226 of the Ministry of Agriculture of Russia dated April 24, 2020 “On approval of fishing rules for the Baikal fishery basin”, the order includes to the specified fishery basin Lake Baikal with the basins of the rivers flowing into it, the Angara River with reservoirs located on it, and other water bodies of fishery importance located on the land territory of the Russian Federation within the borders of the Republic of Buryatia, the Zabaykalsky Krai and the Irkutsk Region. The exception is ponds, flooded quarries, which are owned by constituent entities of the Russian Federation, municipal and private property.

The most vulnerable part of Baikal’s aquatic biological resources is listed in the Red Book of the Russian Federation. At the same time, the harvesting of Baikal endemic species of aquatic animals and the collection of endemic species of aquatic plants are carried out within the limits of the total permissible catches of these types of aquatic biological resources, determined and approved annually in the prescribed manner.

For example, Decree No. 67 of the Government of the Russian Federation dated January 28, 2002 “On the peculiarities of the protection, catching (harvesting) of endemic species of aquatic animals and collecting endemic species of aquatic plants of Lake Baikal” establishes a ban on catching Baikal omul along spawning migration routes; an exception to the ban is its catch for research, control and fish farming purposes. In addition, the hunting of a rare mammal,

²⁷ See also Decree No. 379 of the Government of the Russian Federation dated March 16, 2022 “On the maximum and minimum values of water level in Lake Baikal in 2022–2023”

²⁸ Federal Law No. 166-FZ dated December 20, 2004 “On fisheries and conservation of aquatic biological resources”

²⁹ Scientific and practical commentary on the Federal Law “On fisheries and conservation of aquatic biological resources” (E.A. Galinovskaya, Yu.G. Zharikov, D.O. Sivakov, E.L. Minina, N.V. Kichigin, N.I. Khludeneva, D.B. Gorokhov, M.V. Ponomarev). M., Institute of Legislation and Comparative Law. Prospekt 2020-p.73-75

the Baikal seal, during the reproduction period is also prohibited.

As noted above, according to Article 16 of the Law on the Protection of Lake Baikal, the basis for carrying out economic and other activities on the BNA are comprehensive schemes for the protection and use of its natural resources, developed and approved in the manner established by the legislation of the Russian Federation and the legislation of the constituent entities of the Russian Federation.

It should be noted that the development of these comprehensive schemes must be correlated with the Schemes for the integrated use and protection of water bodies, the rules for the development of which are approved by Decree No. 883 of the Government of the Russian Federation dated December 30, 2006, and which are mandatory for participants in water relations. According to these specified Rules, the Schemes reflect quantitative and qualitative indicators of the state of water resources and water use parameters for the river basin, sub-basins, water management areas and territories of the constituent entities of the Russian Federation.

These schemes are the basis for the implementation of water management activities within the boundaries of river basins and are developed in order to determine the permissible anthropogenic load on water bodies and the needs for water resources in the future. Another goal is to determine the main areas of activity to prevent the negative impact of water. The schemes provide for the main targets for reducing the negative consequences of floods and other types of negative impacts of water. Such a scheme was developed and adopted, for example, in the Angara-Baikal Basin District.

In contrast to schemes for the integrated use and protection of water bodies, integrated schemes for the protection and use of natural resources shall determine the anthropogenic load not only on water bodies, but also on the entire BNA.

Great harm to various water bodies of our country, including the waters of the BNA, is caused by the so-called “diffuse pollution”. At the same time, the current system of legal protection of water in Russia is not intended to neutralize diffuse pollution of water bodies. This type of pollution is not always visually noticeable; it is characterized by non-point (scattered, dispersed) sources of pollution. Diffuse pollution occurs during runoff from various water catchment areas as a result of the use of mineral fertilizers and pesticides, as well as the recreational use of such areas.

The concept of diffuse pollution is not established in legislation, and no special legal means to counter this dangerous phenomenon are provided. At the same time, at the level of by-laws and regulatory legal acts, the presence of area-based diffuse sources of pollution is recognized, “the management of which is technically impracticable or ineffective at the present

stage”³⁰. Associations of Russian water users, along with government authorities, also recognize the uncontrollability of sources of diffuse pollution, the lack of observations and assessment of such pollution, and therefore it is proposed to include monitoring of diffuse pollution of water bodies in the program of state monitoring of water bodies³¹. This monitoring can take place with the participation of water users and their associations, which, it seems, is advisable for government agencies to rely on.

It seems that the tasks of preventing, identifying, and neutralizing the consequences of diffuse pollution of Russian waters can largely be solved at the level of management of basins and sub-basins, based on the degree of economic development of the area. This statement also applies to the Angara-Yenisei basin.

Since the BNA constantly hosts numerous activities that contribute to diffuse water pollution, such as agriculture, recreation and tourism, it seems that this problem must be solved at the legal level.

Legal issues of forest protection within the BNA boundaries

The ban on clear cutting established by the Law on the Protection of Lake Baikal (item 1 of Article 11) is a special norm that sets restrictions on the implementation of certain types of activities in protective forests. A general ban on clear cutting in forests that perform the functions of protecting natural and other objects, forests located in water protection zones, forests in specially protected natural areas, as well as in valuable forests, is regulated by Article 111 of the FC RF.

It should be noted that the inconsistency noted in the scientific literature³² between the requirements of the specified article of the Law on the Protection of Lake Baikal and the norms of the LC RF, in particular, Article 53.6, which establishes the possibility of clear cutting in forest areas located within the boundaries of the territory recognized as an emergency zone, also applies to the Article 111 of the LC RF under consideration.

Part 3 of this article allows for clear cutting in protective forests in cases where selective cutting does not ensure the replacement of forest plantings that have lost their environment-forming, water-protective, sanitary-hygienic, health-improving and other useful functions, it also allows for cutting of forest plantations that ensure the preservation of the intended purpose of protective forests and the useful functions they perform, unless otherwise established by the LC RF. At the same time, this Code does not establish any exceptions to this rule in relation to the

³⁰ See Order No. 328 of the Ministry of Natural Resources of the Russian Federation dated December 12, 2007 “On approval of Guidelines for the development of standards for permissible impact on water bodies”

³¹ Clause 6 of the Conference Resolution dated February 2, 2021 “State-business-science-civil society: A mechanism for making agreed decisions at the basin level”.

³² N.I. Khludeneva. Defects in legal regulation of environmental protection: monograph. M.: Institute of Legislation and Comparative Law, INFRA-M, 2014, 172 p.

Baikal Natural Area.

Since, as noted above, the norm of item 1 of Article 11 of the Law on the Protection of Lake Baikal is special in relation to the norms of forestry legislation, the existing contradiction should be resolved as follows: clear cuttings in the central ecological zone shall be considered prohibited.

Regarding the established ban on the transfer of forest fund lands in the same zone, occupied by protective forests, into lands of other categories, with the exception of the transfer of such forest fund lands into lands of specially protected territories and objects when creating specially protected natural areas, it should also be recognized as a special case of restrictions on the transfer of forest fund lands occupied by protective forests, or land plots as part of such lands into lands of other categories, established by Article 11 of the Federal Law No. 172-FZ dated December 21, 2004 “On the transfer of lands or land plots from one category to another”.

It should be noted that currently there are no regulations, except for the Law on the Protection of Lake Baikal, establishing special regulation regarding the protection of forests within the boundaries of the BNA. At the same time, according to the Russian Ministry of Natural Resources and Rosleskhoz, more than 2/3 of all volumes and cases of illegal cutting in Russia occur in the Irkutsk region. In addition, the Irkutsk region currently ranks first in Russia in the number of criminal cases initiated in connection with violations of the rules for sanitary cutting.

According to the international organization Global Forest Watch, based on data from remote monitoring of the Earth, in the 12 years after the entry into force of the FC RF and the transfer of forest powers to the constituent entities of the Russian Federation, the loss of tree stand in the Irkutsk region occurred on an area of about 6 million hectares³³. In addition, as noted in the recommendations of the visiting meeting of the Council under the President of the Russian Federation for the Development of Civil Society and Human Rights, held on February 25-28, 2019, as in Soviet times, problems with forest reproduction, violations of forest cutting technology, etc. are noted.

One of the legislative drafts affecting the use of forests within the boundaries of the BNA is the draft Federal Law No. 161119-8 “On amendments to the Federal Law “On the Protection of Lake Baikal” and Article 1 of the Federal Law “On Environmental Protection”. The project, in particular, proposes a new version of Article 10 of the Law on the Protection of Lake Baikal, which establishes the features of land relations in the central ecological and buffer ecological zones of the Baikal Natural Area. In addition, the legislative draft establishes a ban on timber

harvesting in the central ecological zone, with the exception of timber harvesting by citizens for their own needs, and also clarifies the concepts of “natural heritage objects” and “world natural heritage objects”.

This legislative draft caused significant public debate, since its adoption would create risks of deforestation of a significant area of forests within the BNA boundaries. When considering the legislative draft at parliamentary hearings in the State Duma of the Federal Assembly of the Russian Federation, as well as during expert meetings, reasonable comments were made regarding the inconsistency of the legislative draft with the principles of clarity and consistency of the proposed legal regulation of certain issues, and concerns were also expressed regarding the possible negative consequences of an unreasonably broad interpretation of certain wordings of the legislative draft, including with regard to deforestation in the BNA.

Another significant legislative draft is the draft Federal Law No. 387575-8 “On amendments to Article 25.1 of the Federal Law “On the Protection of Lake Baikal” and Article 11 of the Federal Law “On Environmental Expertise”³⁴.

Until December 31, 2030, this legislative draft provides for the possibility of clear cutting for the purpose of construction, reconstruction and operation of engineering protection structures for territories and facilities, municipal infrastructure systems, temporary accommodation facilities, public catering and consumer services, highways and street transport to ensure the functioning of settlements and the special economic zone “Gates of Baikal” within certain boundaries. The legislative draft also establishes additional grounds for the transfer of forest fund lands in the central ecological zone into lands of other categories until December 31, 2025.

It should be noted that the grounds established in the legislative draft for clear cutting in the central ecological zone of the BNA, including in the case of construction, reconstruction and operation of various types of facilities necessary to prevent the negative impact of water; ensuring the functioning of settlements; ensuring the functioning of the special economic zone “Gates of Baikal”; highways of federal, regional, intermunicipal and local significance; implementation of a set of measures to create and ensure fire clearances, as well as linear facilities intended for the implementation of all these types of activities, cannot have a time limit, since most of these types of activities are of a permanent nature.

In this regard, legal uncertainty arises as to how, without clear cutting, it will be possible, for example, to ensure the maintenance of fire clearances or the operation of linear facilities after the expiration of the proposed norm.

Thus, it should be stated that there is a need to further improve the legislation on the

³⁴ Adopted by the State Duma of the Federal Assembly of the Russian Federation in the first reading on July 11, 2023 (Resolution No. 4361-8 GD)

protection of Lake Baikal in terms of protecting the use of forests in the BNA.

II. Assessing the adequacy and effectiveness of legal protection for Lake Baikal to preserve its outstanding universal value

One of the indicators of the effectiveness of legislation in general and a specific regulatory legal act in particular is its stability. Taking into account the validity period of the Law on the Protection of Lake Baikal, 24 years (from 1999 to 2023), it belongs to the group of the “oldest” laws in the field of environmental protection and natural resource management³⁵.

The stability of the law is also indicated by the frequency of its changes. Thus, during the period of existence of the Law in question, it was amended by twenty-two (22) federal laws, which gives an indicator of 0.9 federal laws on amendments in one year. For comparison, the same indicator for the FC RF is 4, and for the Law on Environmental Protection – 2.8. According to this indicator, the Law on the Protection of Lake Baikal can be considered one of the most stable acts of environmental legislation.

In addition, the provisions of this Law three times became the subject of consideration by the Constitutional Court of the Russian Federation and were recognized as consistent with the Constitution of the Russian Federation and aimed at protecting, preserving, popularizing and transferring to future generations the world cultural and natural heritage located on the territory of the Russian Federation, ensuring the use of land within the boundaries of these objects in accordance with their purpose and considering the necessary balance of constitutionally significant interests of the state and citizens.

All of the above indicates sufficient stability, efficiency and adequacy of legal regulation at the national level, aimed at preserving the unique natural value of Lake Baikal.

However, considering the growing anthropogenic load on the BNA and Lake Baikal, it directly seems necessary to take additional measures for their legal protection, taking into account the need to ensure the socially significant interests of the local population. In particular, improvement of legislation can be proposed in the following areas:

- introducing amendments to the Law on the Protection of Lake Baikal and/or to the Law on Environmental Protection in terms of regulating the procedure for developing comprehensive schemes for the protection and use of natural resources of the Baikal Natural Area, which must be consistent with territorial planning documents at the federal, regional and local levels, and also with the schemes for integrated use and protection of water bodies. These innovations will also require the introduction of corresponding changes to urban planning legislation;

³⁵ This group may also include the Law of the Russian Federation “On Subsoil” (1992), the Federal Law “On Specially Protected Natural Area” (1995), the Federal Law “On Wildlife” (1995), the Federal Law “On Environmental Examination” (1995), the Federal Law “On the Protection of Atmospheric Air” (1999).

- development of a concept for the development of eco-tourism in the Russian Federation with the allocation of a separate block for the development of eco-tourism within the BNA boundaries, taking into account the geographical, climatic and other features of the given territory, as well as the existing tourist and recreational potential of the territory;
- introducing amendments to federal legislation providing for the development at the federal level of a Strategic Plan for the Development of the Baikal Natural Area with the participation of state authorities of the constituent entities of the Russian Federation, municipalities, and the interested public;
- establishing a restriction or complete ban on the turnover of disposable plastic products or non-recyclable materials within the BNA, which will ensure a reduction in the level of pollution of Lake Baikal and the Baikal Natural Area, especially in the central ecological zone and in the buffer ecological zone, by plastic waste and microplastic particles resulting from their decay, within the framework of the priorities of Russian state environmental policy related to Russia's gradual transition to a circular economy model;
- establishing restrictions or a complete ban on the turnover of synthetic detergents and household chemical products (goods) within the BNA boundaries with the simultaneous introduction of replacement mechanisms of the corresponding goods used in everyday life by public;
- resolving issues of legal regulation of reducing diffuse pollution of various water bodies in the BNA and adjacent areas;
- solving issues of integrated development of the Baikal Natural Area, taking into account the need to ensure the preservation of the unique natural object "Lake Baikal" while achieving a balance of environmental, social and economic interests. As part of the introduced regulation, it seems important to establish a ban on the expansion of cases of clear cutting of forest plantations within the BNA boundaries, as well as the transfer of forest fund lands to other categories of land.

**Amendments to Federal Law No. 94-FZ dated 05/01/1999 "On the Protection of Lake Baikal" and Article 11 of Federal Law No. 174-FZ dated November 23, 1995 "On Environmental Expertise"
(Draft law No. 387575-8)
(hereinafter – the draft law)**

№	The paragraph/Article where the changes are being made	The essence of changes	The changes aimed at	Availability of public and scientific discussions	Impact on Lake Baikal	Compensatory measures
Amendments to Federal Law No. 94-FZ dated 05/01/1999 "On the Protection of Lake Baikal"						
1	Subparagraph 1 paragraph 5 Article 25 ¹	By December 31, 2030, continuous felling is allowed in the central ecological zone of the Baikal Natural territory in order to: construction, reconstruction and operation of structures for the engineering protection of territories and facilities (mud protective and other hydraulic structures) designed to prevent the negative effects of waters of water bodies (the list of which is established by law) as well as other structures that are an integral technological part of these facilities.	The possibility of construction / reconstruction of engineering protection structures (floods, high water, etc.) is being established.	Public and scientific discussions were held (scientific and practical conferences, All-Russian round table, meetings of the Scientific Council of the Siberian Branch of the Russian Academy of Sciences on the problems of Lake Baikal)	In general, there is no impact on the ecosystem of Lake Baikal. There is minimal impact on the local areas where constructs will be built/reconstructed.	The draft law provides for reforestation measures and compensatory planting of trees and shrubs in the amount of 5 to 1 relative to the amount of felled forest plantations and individual trees and shrubs.
2	Subparagraph 2 paragraph 5 Article 25 ¹	By December 31, 2030, continuous felling is allowed in the central ecological zone of the Baikal Natural territory in order to: construction, reconstruction and operation of facilities of communal infrastructure systems necessary to ensure the functioning of settlements, information about which is included in the Unified State Register of Real Estate.	The possibility of construction / reconstruction of power supply facilities, heat supply, gas supply, water supply in settlements is being established	Public and scientific discussions were held (scientific and practical conferences, All-Russian round table, meetings of the Scientific Council of the Siberian Branch of the Russian Academy of Sciences on the problems of Lake Baikal)	In general, there is no impact on the ecosystem of Lake Baikal. There is minimal impact on the local areas where communal infrastructure facilities will be built/reconstructed.	The draft law provides for reforestation measures and compensatory planting of trees and shrubs in the amount of 5 to 1 relative to the amount of felled forest plantations and individual trees and shrubs.
3	Subparagraph 3 paragraph 5 Article 25 ¹	By December 31, 2030, continuous felling is allowed in the central ecological zone of the Baikal Natural territory in order to: construction, reconstruction and operation of facilities of communal infrastructure systems necessary to ensure the functioning of the special economic zone "Gates of Baikal" within the boundaries of land plots, the list of which is established by this law.	The possibility of construction / reconstruction of power supply facilities, heat supply, gas supply, water supply in the territory of the special economic zone "Gates of Baikal" is being established	Public and scientific discussions were held (scientific and practical conferences, All-Russian round table, meetings of the Scientific Council of the Siberian Branch of the Russian Academy of Sciences on the problems of Lake Baikal)	In general, there is no impact on the ecosystem of Lake Baikal. There is minimal impact on the local areas where communal infrastructure facilities will be built/reconstructed.	The draft law provides for reforestation measures and compensatory planting of trees and shrubs in the amount of 5 to 1 relative to the amount of felled forest plantations and individual trees and shrubs.
4	Subparagraph 4 paragraph 5 Article 25 ¹	By December 31, 2030, continuous felling is allowed in the central ecological zone of the Baikal Natural territory in order to: construction, reconstruction and operation of temporary accommodation facilities, catering and consumer services for the organization and implementation of the movement of visitors,	The possibility of construction / reconstruction of accommodation, catering and consumer services facilities on the territory of the special economic zone "Gates of Baikal" is being	Public and scientific discussions were held (scientific and practical conferences, All-Russian round table, meetings of the Scientific Council of the Siberian Branch of the Russian Academy of	In general, there is no impact on the ecosystem of Lake Baikal. There is minimal impact on the local areas where accommodation, catering and consumer services facilities will be built/ reconstructed on the territory of the special economic zone "Gates of Baikal"	The draft law provides for reforestation measures and compensatory planting of trees and shrubs in the amount of 5 to 1 relative to the amount of felled forest plantations and individual trees and shrubs.

		ensuring personal hygiene of visitors, off-site transport of the special economic zone "Gates of Baikal" within the boundaries of land plots, the list of which is established by this law.	established	Sciences on the problems of Lake Baikal)		
5	Subparagraph 5 paragraph 5 Article 25 ¹	By December 31, 2030, continuous felling is allowed in the central ecological zone of the Baikal Natural territory in order to: construction, reconstruction and operation of highways of federal, regional, inter-municipal and local significance, the list of which is established by this law.	The possibility of construction/ operation of highways is being established	Public and scientific discussions were held (scientific and practical conferences, All-Russian round table, meetings of the Scientific Council of the Siberian Branch of the Russian Academy of Sciences on the problems of Lake Baikal)	In general, there is no impact on the ecosystem of Lake Baikal. There is minimal impact on the local areas where highways will be built.	The draft law provides for reforestation measures and compensatory planting of trees and shrubs in the amount of 5 to 1 relative to the amount of felled forest plantations and individual trees and shrubs.
6	Subparagraph 6 paragraph 5 Article 25 ¹	By December 31, 2030, continuous felling is allowed in the central ecological zone of the Baikal Natural territory in order to: implementation of a set of measures to create and ensure fire-fighting gaps (fire-fighting distances) for populated areas in accordance with Appendix 4 to this federal law.	The possibility of providing a complex of fire-fighting measures is being established	Public and scientific discussions were held (scientific and practical conferences, All-Russian round table, meetings of the Scientific Council of the Siberian Branch of the Russian Academy of Sciences on the problems of Lake Baikal)	In general, there is no impact on the ecosystem of Lake Baikal. There is minimal impact on the local areas where fire breaks will be built.	The draft law provides for reforestation measures and compensatory planting of trees and shrubs in the amount of 5 to 1 relative to the amount of felled forest plantations and individual trees and shrubs.
7	Subparagraph 7 paragraph 5 Article 25 ¹	By December 31, 2030, continuous felling is allowed in the central ecological zone of the Baikal Natural territory in order to: construction, reconstruction and operation of linear facilities necessary to ensure the functioning of facilities created (implemented) as part of the construction of the aforementioned facilities (Paragraphs 1-6 of the table).	The possibility of construction / operation of linear facilities for the implementation of the measures specified in paragraphs 1-6 of the table is established	Public and scientific discussions were held (scientific and practical conferences, All-Russian round table, meetings of the Scientific Council of the Siberian Branch of the Russian Academy of Sciences on the problems of Lake Baikal)	In general, there is no impact on the ecosystem of Lake Baikal. There is minimal impact on the local areas where linear objects will be built.	The draft law provides for reforestation measures and compensatory planting of trees and shrubs in the amount of 5 to 1 relative to the amount of felled forest plantations and individual trees and shrubs..
8	Paragraph 6 Article 25 ¹	The list of structures, facilities and activities indicated in Paragraph 5 of this Article is established by the Government of the Russian Federation. The specified list, along with such structures, facilities and activities, includes environmental protection measures related to the construction (creation), reconstruction and operation of such facilities.	A closed list of facilities and activities specified in paragraphs 1-6 of the table is established. This list is approved by the Government of the Russian Federation.	Public and scientific discussions were held (scientific and practical conferences, All-Russian round table, meetings of the Scientific Council of the Siberian Branch of the Russian Academy of Sciences on the problems of Lake Baikal)	There is no impact on the ecosystem of Lake Baikal.	Not required
9	Paragraph 7 Article 25 ¹	Reforestation measures and compensatory planting of trees and shrubs are carried out in the amount of 5 to 1 relative to the amount of felled forest plantations and individual trees and shrubs in accordance with Paragraph 5 of this Article.	A compensatory reforestation measure is being established	Public and scientific discussions were held (scientific and practical conferences, All-Russian round table, meetings of the Scientific Council of the Siberian Branch of the Russian Academy of Sciences on the problems of Lake Baikal)		Not required

10	Paragraph 8 Article 25 ¹	During the construction, reconstruction and operation of capital construction facilities and non-capital buildings and structures within the boundaries of the special economic zone "Gates of Baikal", the construction of which requires continuous felling in accordance with subparagraph 3 and 4 paragraph 5 of this Article, it is necessary to conduct a comprehensive environmental survey of the territory where such economic activities are planned, the materials of which are the object of state environmental expertise at the federal level.	A mandatory to conduct a comprehensive environmental survey of the territory during the construction/reconstruction of capital construction facilities and non-capital buildings within the boundaries of the special economic zone "Gates of Baikal" is being established	Public and scientific discussions were held (scientific and practical conferences, All-Russian round table, meetings of the Scientific Council of the Siberian Branch of the Russian Academy of Sciences on the problems of Lake Baikal)	There is no impact on the ecosystem of Lake Baikal.	Not required
11	Paragraph 9 Article 25 ¹	The materials of a comprehensive environmental survey of the territory where economic activity is planned should contain: 1) the name of the planned economic activity, the legal and (or) actual address (for legal entities) or the address of the place of residence (for individual entrepreneurs) of the customer (contractor); 2) the timing of a comprehensive environmental survey of the territory where economic activity is planned; 3) the main methods of conducting a comprehensive environmental survey of the territory where economic activity is planned; 4) the main data sources for conducting a comprehensive environmental survey of the territory where economic activity is planned; 5) the estimated composition of the materials of a comprehensive environmental survey of the territory where economic activity is planned; 6) information on the risks of violation of the unique ecological system of Lake Baikal and the natural landscapes of its water protection zone arising from planned economic activities; 7) conclusion on the possibility of carrying out the planned economic activity, taking into account the protection regime of the Baikal natural territory and the standards of maximum permissible harmful effects the unique ecological system of Lake Baikal, the requirements for which are established by Article 13 of this Federal Law, as well as the level of impact on atmospheric air, water bodies, soils, lands, wildlife and their habitat, forests, subsoil, aquatic biological resources and their habitat, hunting resources and their habitat.	A specific list of materials for a comprehensive environmental survey of the territory, reconstruction of capital construction facilities and non-capital buildings within the boundaries of the special economic zone "Gates of Baikal" is being determined	Public and scientific discussions were held (scientific and practical conferences, All-Russian round table, meetings of the Scientific Council of the Siberian Branch of the Russian Academy of Sciences on the problems of Lake Baikal)	There is no impact on the ecosystem of Lake Baikal.	Not required
12	Paragraph 10 Article 25 ¹	The increase in the area of the special economic zones "Baikal Harbor" and "Baikal Gate" and the creation of new economic zones in the central ecological zone of the Baikal natural territory is not allowed.	A prohibition is being imposed on increasing the area of special economic zones	Public and scientific discussions were held (scientific and practical conferences, All-Russian round table, meetings of the Scientific Council of the	There is no impact on the ecosystem of Lake Baikal.	Not required

				Siberian Branch of the Russian Academy of Sciences on the problems of Lake Baikal)		
13	Subparagraph 1 paragraph 11 Article 25 ¹	By December 31, 2025, in the central ecological zone of the Baikal natural territory, the transfer of forest lands is allowed in the following cases: transfer of lands and land plots to lands and land plots of specially protected territories and objects during the organization and creation of military and civilian gravesites	The possibility of creating gravesites is being established	Public and scientific discussions were held (scientific and practical conferences, All-Russian round table, meetings of the Scientific Council of the Siberian Branch of the Russian Academy of Sciences on the problems of Lake Baikal)	There is no impact on the ecosystem of Lake Baikal.	Not required
14	Subparagraph 2 paragraph 11 Article 25 ¹	By December 31, 2025, in the central ecological zone of the Baikal natural territory, the transfer of forest lands is allowed in the following cases: the transfer of land to the lands of settlements when establishing the territorial planning documents of the boundaries of settlements within the territory actually occupied by them as of January 1, 2018 in accordance with the procedure provided for in parts 20-26 of Article 24 of the Urban Planning Code of the Russian Federation."	The possibility of establishing lands of the appropriate category in the territories of settlements is being established	Public and scientific discussions were held (scientific and practical conferences, All-Russian round table, meetings of the Scientific Council of the Siberian Branch of the Russian Academy of Sciences on the problems of Lake Baikal)	There is no impact on the ecosystem of Lake Baikal.	Not required
15	Paragraph 12 Article 25 ¹	The transfer of lands and land plots on the basis of paragraph 9 of this Article is allowed in settlements, the list of which is established by this law.	A closed list of settlements is established in which the transfer of land to other categories is allowed	Public and scientific discussions were held (scientific and practical conferences, All-Russian round table, meetings of the Scientific Council of the Siberian Branch of the Russian Academy of Sciences on the problems of Lake Baikal)	There is no impact on the ecosystem of Lake Baikal.	Not required
Amendments to Federal Law No. 174-FZ dated November 23, 1995 "On Environmental Expertise"						
16	Article 11	It is determined that the objects of state environmental expertise at the federal level are the materials of a comprehensive environmental survey of the territory where economic activity is planned, specified in Subparagraph 8 and 9 Article 251 of Federal Law No. 94-FZ dated May 05, 1999 "On the Protection of Lake Baikal".	The obligation to conduct a state environmental expertise of the materials of a comprehensive environmental survey of the territory is established (paragraph 9 of the table)	Public and scientific discussions were held (scientific and practical conferences, All-Russian round table, meetings of the Scientific Council of the Siberian Branch of the Russian Academy of Sciences on the problems of Lake Baikal)	There is no impact on the ecosystem of Lake Baikal.	Not required