Unofficial translate

20/11/2023
(date of official publication in the Unified Environmental Impact Assessment Register (automatically generated by the software tools of the Unified Environmental Impact Assessment Register)

The State Enterprise "Ukrainian Sea Ports Authority" represented by the branch "Delta Pilot" of SE "USPA"
EDRPOU code 38728507**,**
54001, 27, Liahina str., Mykolaiv
(applicant name and address)
20/11/2023
(date of issue)
21/01-2020645896/1
(conclusion number)
2020645896
(registration number of the case on environmental impact assessment of the planned activity)
21/01-2020645896/2 dated November 20, 2023
(number and date of the Public Discussion Report)

CONCLUSION
of the environmental impact assessment report

of the planned activity “The reconstruction of the construction facilities of the "Creation of deep-sea shipping channel of the Danube River - Black Sea in the Ukrainian part of the delta”

Pursuant to the results of the assessment of the impact on the environment of the planned activity performed in accordance with Art. 3, 6-7, 9 and 14* of the Law of Ukraine "On Environmental Impact Assessment", namely: the planned activity “The reconstruction of the construction facilities of the "Creation of deep-sea shipping channel of the Danube River - Black Sea in the Ukrainian part of the delta”, it is established that:

the environmental impact assessment procedure (hereinafter - the EIA) was initiated on 16/06/2020 by publishing a notice of the planned activity subject to an environmental impact assessment (case registration number in the Unified

Environmental Impact Assessment Register (hereinafter - the Register) - 2020645896), and the Environmental Impact Assessment Report (hereinafter - the EIA Report), other documents, and the announcement of the start of public discussion of the Environmental Impact Report were placed in the Register on 28/04/2023;

notice about the planned activity subject to an environmental impact assessment was published in the print media "Week Courier-Business" dated 06/06/2020, "Danube Dawn" dated 05/06/2020 and "ChornomorskiNovyny" dated 04/06/2020, as well as posted on the website of the Reni District State Administration and on the notice board of the executive committee of the Reni City Council, on the website of the Izmail District State Administration, on the notice board in the premises of the Kiliya City Council and on the notice board of the Danube Biosphere Reserve, the confirmation of which is photo fixation;

since the day of the official publication of the specified notification about the planned activity subject to environmental impact assessment, the Ministry of Environmental Protection and Natural Resources of Ukraine received the public observations and proposals regarding the planned activity, namely, observations and proposals were filed by Ph.D. in Biology M.E. Zhmud, an expert of international class in the management of wetlands of the Danube Biosphere Reserve; Ph.D. in Technology S.N. Yurasov, the Associate Professor of the Department of Ecology and Environmental Protection of the Odesa State Environmental University, as well as the NGO Ukrainian Environmental Protection Group, whose consideration is reflected in the public discussion report;

the announcement of the start of public discussion of the environmental impact assessment report was published in the print media "Voice of Ukraine" No. 86 (8103) dated 29/04/2023, "Week Courier" No. 9 (1845) dated 29/04/2023 and "ChornomorskiNovyny" No. 18 (22443) dated 27/04/2023, as well as posted on bulletin boards in Vylkove, Izmail, Kiliya and Reni, which is confirmed by photo recording.

Resolution of the Cabinet of Ministers of Ukraine No. 651 dated 27/06/2023 abolished the quarantine from 06/30/2023 on the entire territory of Ukraine, established to prevent the spread of the acute respiratory disease COVID-19 caused by the SARS-CoV-2 coronavirus on the territory of Ukraine.

Pursuant to item 2^1 of part two of article 17 of the Law of Ukraine "On Environmental Impact Assessment" (hereinafter – the Law), the public discussion, provided for by article 7 of the Law, may not be held until the complete cancellation and within 30 days from the day of cancellation of the quarantine, the public discussion of the planned activity shall be held in the form of written comments and proposals (including in electronic form), which shall be indicated in the announcement of the start of public discussion of the environmental impact assessment report and in the public discussion report.

On 29/07/2023, sub-item 12 of item 1 of section I of the Law of Ukraine No. 3227–IX "On Amendments to Some Laws of Ukraine Regarding the Improvement and Digitization of the Environmental Impact Assessment Procedure" came into force. By virtue thereof, any public hearings provided for in Article 7 of the Law shall be held via video conference, which shall be noted in the announcement of the start

of public discussion of the environmental impact assessment report and in the public discussion report.

Since the EIA Report and the announcement of the start of public discussion of the environmental impact assessment report thereon have been entered into the Register by 30/07/2023, then the public hearings for this procedure were not held and were not scheduled, and public discussion of the planned activity was held in the form of written comments and suggestions (including in electronic form).

Consideration of proposals and comments received from the day of the official publication of the notification of the planned activity subject to an environmental impact assessment regarding the planned activity, the scope of research and the level of detail of the information to be included in the EIA Report, as well as during the public discussion of the planned activity after submission of the EIA Report, are reflected in the report on public discussion, which is an integral part hereof.

The procedure of transboundary assessment of the environmental impact of the planned activities of the State Enterprise "Ukrainian Sea Ports Authority" represented by the branch "Delta Pilot" of SE "USPA" (hereinafter - "Delta Pilot" Branch of SE "ASPU") "Reconstruction of the construction facilities "Creation of a deep-sea shipping channel for the Danube-Black Sea on the Ukrainian part of the delta":

– the Ministry of Environmental Protection and Natural Resources of Ukraine notified the Ministry of Environment, Waters and Forests of Romania by letter No. 5/1-50/333-20 dated 07/07/2020;

- letter of the Ministry of Environment, Waters and Forests of Romania No. DEICP/5496/08.07.2020 dated 08/07/2020 with notification on the intention to participate in the environmental impact assessment regarding the planned activity of the SE "USPA" branch "Delta Pilot" "Reconstruction of the construction facilities "Creation of a deep-sea shipping channel for the Danube-Black Sea on the Ukrainian part of the delta";

- letter of the Ministry of Environment, Waters and Forests of Romania No. DEICP/5496/04.08.2020 dated 04/08/2020 containing comments and suggestions regarding the planned activity, the scope of research and the level of detail of information to be included in the environmental impact assessment report;

On 28/04/2023, the EIA Report, other documents and the announcement of the start of public discussion of the EIA Report (case registration number in the Register – 2020645896) were published in the Register;

- letter No. 25/5-21/6721-23 dated 02/05/2023 to the Ministry of Environment, Waters and Forests of Romania containing the EIA Report on the planned activity of the State Enterprise "Ukrainian Sea Ports Authority" represented by the branch "Delta Pilot" of the SE "USPA" "The reconstruction of the construction facilities of the "Creation of deep-sea shipping channel of the Danube River - Black Sea in the Ukrainian part of the delta";

- letter No. DGEICPSC/107958/13.07.2023 dated 13/07/2023 of the Ministry of Environment, Waters and Forests of Romania containing the observations to the EIA Report on the planned activity of the SE "USPA" branch "Delta Pilot" "Reconstruction of the construction facilities "Creation of a deep-sea shipping channel for the Danube-Black Sea on the Ukrainian part of the delta";

- letter No. 25/5-21/12867-23 dated 07/08/2023 of the Ministry of Environmental Protection and Natural Resources of Ukraine to the Ministry of Environment, Waters and Forests of Romania containing answers to the observations to the EIA Report;

On 01/09/2023, Romania and Ukraine held the expert consultations within the framework of the transboundary environmental impact assessment procedure regarding the planned activity of the State Enterprise “Ukrainian Sea Ports Authority” represented by the branch “Delta Pilot” of the SE “USPA” “The reconstruction of the construction facilities of the "Creation of deep-sea shipping channel of the Danube River - Black Sea in the Ukrainian part of the delta”. In the course of expert consultations, the Romanian party requested additional information.

Based on the results of expert consultations, the parties signed the Minutes of expert consultations of Romania and Ukraine within the framework of the transboundary environmental impact assessment procedure regarding the planned activity of the State Enterprise “Ukrainian Sea Ports Authority” branch “Delta Pilot” "Creation of deep-sea shipping channel of the Danube River - Black Sea in the Ukrainian part of the delta”. Both parties agreed that the signing of the minutes of the held meeting shall be considered the completion of expert consultations within the framework of the Convention on Environmental Impact Assessment in a Transboundary Context and the bilateral Agreement on the Implementation of the Convention on Environmental Impact Assessment in a Transboundary Context of 2022;

On 17/11/2023, a meeting of the Interdepartmental Coordination Council was held, during which a decision was made to consider the results of the transboundary environmental impact assessment.

Basic characteristics and place of implementation of the planned activity

The planned activity provides for the reconstruction of the construction facilities of the "Creation of deep-sea shipping channel of the Danube River - Black Sea in the Ukrainian part of the delta”.

The planned activity is focused on the Ukrainian section of the Danube Delta, formed when the river flows into the Black Sea. The deep-sea shipping channel (hereinafter - DSSC) runs through the Kiliya arm from its beginning (Cape Izmailskyi Chatal), the Starostambulskyi arm to the branching with the Bystryi arm and then the Bystryi arm (synonyms - Bystryi mouth, Novostambulskyi mouth) and the adjacent part of the coast (Fig. 1.1 of the EIA Report).

The surface of the floodplain is heavily swamped and difficult to pass, cut by a dense network of numerous canals and lakes. Along the channel of the arms, there are floodplains that gradually merge with the floodplains of the delta islands and are thick thickets of aquatic vegetation, mainly reeds. The following hydrographic objects limiting navigation are characteristic of the Danube Delta: not very wide arms (mouths), curved and usually shallow mouths of arms, spillways, shallow mouth bars.

The depth in the shallowest reaches at the Danube estuary can drop to 3÷5 m. The problem of improving navigational conditions on the slipways should be solved by setting up a suitable navigational situation or constructing openings.

The EIA Report considers the territorial alternative options of the planned activity.

More than 10 options were considered when choosing the route of the Danube-Black Sea deep-sea shipping channel (DSSC), developed at the levels of feasibility studies and design proposals. The considered options covered almost all possible ways of ensuring shipping in the Ukrainian part of the Danube Delta and provided for the use of both existing arms and artificial shipping channels. All the developed options for shipping routes include the section of the Danube channel and the Kiliyskyi arm from the port of Reni to the port of Kiliya and, in whole or in part, the section of the Kiliyskyi arm between the port of Kiliya and the port of Vylkove. Eight of the considered variants of the DSSC route in the section from the sea edge of the delta to the channel of the Kiliya arm are characterized in the table. 2.2 of the EIA Report.

For a more objective selection of the DSSC variant, the procedure of comparative multi-criteria comprehensive assessment of environmental safety of DSSC options was implemented, taking into account cross-border aspects, based on the method of analysis of hierarchies of T. Saati (MAI), adapted to the conditions of the task.

Integrated comparative evaluations of alternative options obtained according to global priorities for the entire hierarchy as a whole demonstrated a significant advantage of option of the route of the DSSC along the Bystryi arm - over other options.

In addition, the EIA Report considered technical alternatives to the implementation of the planned activity described in section 2.2 of the EIA Report.

After analysing the technical and territorial alternatives of the planned activity, the EIA Report was adopted and the option of laying the DSCC route, which runs through the Kiliya arm from its beginning (Cape Izmailskyi Chatal), the Starostambulskyi arm to the branching with the Bystryi arm and then the Bystryi arm and the adjacent part of the coast was evaluated.

As of August 2020, the DSSC constructions consist of sea and river parts. The sea part includes a Sea Approach Channel, a barrier dam and a marine dump of dredged soils.

The river part consists of sections:

– sea - town Vylkove (1.0-20.5 km), passes through the Bystryi and Starostambulskyi arms;

– town Vylkove - Cape Izmailskyi Chatal (20.5-116 km), passes through the Kiliya arm;

– Cape Izmailskyi Chatal - town Reni (state border of Ukraine) (116.0-170.36 km), passes along the Danube River.

The river part does not go beyond the boundaries of natural channels, has no paved areas and hydrotechnical structures.

The currently existing depths on the sea approach channel allow the passage of vessels with a draft of no more than 4.0 m.

The reconstruction of the building projects is planned in parallel with the allocation of launch complexes (LC).

As part of LC-1, the construction of an enclosing dam on the northern side of the sea approach channel with a length of 1,670 m, the arrangement of coastal dumps and the construction of a stream directing dam with shore fortifications on 11 km of the shipping lane are foreseen.

As part of LC-2, the reconstruction of the DSCC route with an increase in depth to 7.68 m for the passage of settlement vessels with the following parameters is provided for: length 125.0 m, width 17.0 m and draft 5.0 m and the construction of an enclosing dam on the southern side of the sea approach channel with a length of 2970 m.

As part of the LC-3, the reconstruction of the DSCC route with an increase in depth to 10.0 m to ensure the passage of vessels with a draft of up to 7.2 m is provided, and the extension of the barrier dams built as part of the LC-1 and LC-2 by 1,570 m, with access to the sea at depth >10.0 m (Fig. 1.3 of the EIA Report).

For full development (3 LC), the total length of the DSSC is expected to be 172.4 km, the depth - 9.52 m from the level of 99% availability (10.0 m BS) due to dredging works and the construction of hydraulic structures on the sea section and sections of the river section court proceedings, including:

– On the sea section of the DSSC:

  – sea approach channel with a total length of 4,684 km with a depth of 9.52 m from the level of 99% security (10.0 m BS);

  – two barrier dams (Northern and Southern) on the bar: The Northern - 3,211 m long, including the existing reconstructed part with a length of 756 m, and the Southern - 3,755 m long.

– On the first section of the river part of the DSSC:

  – stream directing underwater dam 350 m long, with the root part adjacent to the Stambulskyi island, district 11 km of river Danube;

  – 100 m long shore fortification of the root part of the stream directing dam, district 11 km of river Danube, on the left bank of the Bystryi mouth;

  – coastal fortification 345 m long, area of the site 10 km of river Danube along the right bank of the Bystryi mouth and the left bank of the Starostambulskyi mouth, at the fork in the western part of the Kubanskyi island.

The construction of protective dams on the sea part of the DSSC is planned in stages:

on LC-1 - reconstruction with straightening of the Northern dam with a total length of 2426 m, including 1670 m - new construction;

on LC-2, the – construction of the Southern dam with a length of 2970;

on LC-3 - continuation of the construction of the North dam to a total length of 3,211 m, including 785 m - new construction, and extension of the South dam also by 785 m, to a total length of 3,755 m.

Dredging works during the reconstruction of the DSSC will be carried out in separate water areas with insufficient depths for the passage of estimated vessels.

The volumes of dredging works on the sea and river part of the DSSC are shown in tables 1.3, 1.4 and 1.5. of the EIA Report.

The scheme of the location of the marine hydraulic dump of the soil is shown in fig. 1.3, and the diagram of the location of the hydraulic dump between the enclosing dams is in fig. 1.5 of the EIA Report.

The general list of hydraulic structures and their purpose are given in table 1.6 of the EIA Report.

The scope of work during the construction of hydraulic structures is given in table 1.7 of the EIA Report.

The creation of a water area (dredging works for scooping) on the DSSC as part of LC-1 is not foreseen. The analysis of the existing depths and the actual achieved parameters on the marine and annual parts of the DSSC correspond safe navigation on the Danube-Black Sea waterway for the specified estimated vessel: length up to 135 m, width - 16.5 m, draft - 4.0 m.

The creation of the water area of the Sea Approach Channel (dredging on the sea side of the DSSC) is provided for in LC-2 and LC-3, to ensure the navigation of estimated vessels with the appropriate linear parameters:

length - 125 m, width - 17.0 m, draft - 5.0 m (LC-2);

length - 125 m, width - 18.1 m, draft - 7.2 m (LC-3).

At LC-2, it is envisaged to create a 3.059 km long Sea Approach Channel, which consists of two bends.

The first bend with a length of 1,575 km is designed with a bottom width of 85 m and a direction of 306°-126°. The second bend with a length of 1.484 km is designed with a bottom width of 85 m and has a direction of - 281°-101°. The bends joint angle is 27°. Rounding radius - 2000 m. The width of the channel at the bend is 125 m. The design depth in the sea channel of the DS is 7.2 m (7.68 m in BS), at the bend - 7.62 m (8.10 m in BS).

The water area within the projected draw of the marine part of the DSSC:

- as part of LC-II - about 32.24 ha.

- as part of LC-III - about 36.26 ha.

The water area within the projected draw of the river part of the DSSC:

- in the composition of LC-2 - on the first and second sections, on the area of the water area, within the projected drawing area of about 93.4 hectares, including: on the first plot - about 1.31 hectares, on the second plot - 92.06 hectares;

- in the composition of LC-3 - on all sites, on the area of the water area within the projected drawing area of about 464.1 hectares, including: on the first plot - 46.57 hectares, on the second site - about 373.17 hectares, on the third plot - 44.28 hectares.

The total area of the water area within the projected catchment of the DSSC is: for LC-2 – 124,30 hectares; for LC-3 – 500,285 hectares.

The total volume of extracted soil in the course of LC-2 is 2517495 m^3, LC-3 – 10168955 m^3.

The storage of the main amount of dredging soil is foreseen on the existing marine hydraulic dump and on the designed hydraulic dump between the existing enclosing dam and the designed northern channel compression dam.

A total of 7,471,035 m is planned to be stored at the offshore hydraulic dump^3 extracted soil. The marine hydraulic dump of dredging soils of the marine bar part of the DSSC represents a circle with a radius of 926 m and an area of 2,692,475 m^2 with

the coordinates of the centre 45º19’13"N; 29º51’58"S. The capacity of the existing marine dump is 7.8 mln m^3.

The capacity of the hydraulic dump between the existing dam and the designed northern enclosing dam is 1.64 mln m^3.

The dredging soils of the rolling stock of the river part of the DSSC are expected to be deposited on four coastal hydraulic dumps, which are already disturbed due to anthropogenic activity. The total capacity of coastal hydraulic dumps is 3.416 mln m^3, the total area thereof is 63.53 hectares (table 1.2 of the EIA Report).

The general scheme of the location of coastal hydraulic dumps is shown in Fig. 1.6 of the EIA Report.

Diagrams of the territories of coastal hydraulic dumps and soil storage during the dredging of the shipping route in LC-2 and LC-3 are shown in Fig. 1.7-1.10 of the EIA Report.

The panned activity envisages to fill the territory of the hydraulic dumps with primary embankment dams, which ensure the formation of the initial capacity of hydraulic dumps, water filtration from the washed soil and prevent arbitrary spreading of the pulp, and the arrangement of the drainage base.

As part of the implementation of the planned activity, the possibility of further use of the dredging soil, including for construction work, is envisaged.

All dumps have sufficient capacity for storage of dredging soils formed both as a result of project implementation and those that will be formed as a result of further operational dredging.

The dredging soil storage sites are not protected areas.

It is planned to develop soils of I-III group by difficulty of development with self-propelled bilge refuelling earthmoving machines 3C—TP 1030, with a bilge capacity of 1030 m^3, and heavy soils of the IV group - multi-scoop self-propelled dredgers MCIII750, with a productivity of 750 m^3/h, with soil transportation by barges.

Pursuant to the EIA Report, inn connection with the change in the location of the bar part of the DSSC and the construction of the enclosing dams, changes to the regulations of the existing signs and addition of new navigation equipment are foreseen.

The total duration of dam construction work is estimated to be 57 months and 2 months of preparatory period:

Northern dam - 7.8 months;

South dam - 22 months;

Continuation of the North and South dams - 26 months;

Stream-directing dam and shore fortification - 1.2 months.

Arrangement of hydraulic dumps located on the banks of the river Danube - 17 months. The preparatory period will be 2 months.

Description and evaluation of the possible impact on the environment of the planned activity

The planned activity provides for the reconstruction of the construction facilities of the "Creation of deep-sea shipping channel of the Danube River - Black Sea in the

Ukrainian part of the delta". Soils, aquatic environments, flora and fauna can be affected.

Unplanned negative impact on the environment is possible in emergency situations, as a result of natural disasters, terrorist acts and military actions. Emergency situations on the territory of the planned activity are possible in the event of a short circuit of electrical installations, a malfunction of process equipment, non-compliance with the rules of technical operation of the equipment, non-compliance with fire protection requirements, as well as various unforeseen reasons.

Emergency situations are not expected under normal conditions of operation of the object of economic activity. In order to prevent the occurrence of emergency situations, the EIA Report provides for a number of organizational and technical measures aimed at localization and liquidation of the situation, as well as prevention of pollution of the environment, implementation of measures to comply with the requirements of the legislation on environmental protection.

The sanitary protection zone for the facility is determined in accordance with the State Sanitary Rules for Planning and Development of Settlements, approved by Order of the Ministry of Health of Ukraine No. 173 dated 19/06/1996, registered with the Ministry of Justice of Ukraine under No. 379/1404 on 24/07/1996.

THE MINISTRY OF ENVIRONMENTAL PROTECTION AND NATURAL RESOURCES OF UKRAINE, considering the data provided in the Environmental Impact Assessment Report, namely that:

– **the planned activity.** Pursuant to the EIA Report, the goals of the planned activity are:

– - restore national and international navigation on the Ukrainian section of the DSCC Danube river - Black sea (along the route of the 7th international transport corridor)

– create favourable conditions for the work of national shipping companies, ports, shipbuilding and ship repair plants;

– stimulate the economic recovery of the maritime complex of the Ukrainian Danube region;

– - ensure the diversification of export flows of products of the Ukrainian agro-industrial complex in the conditions of military aggression of the russian federation against Ukraine;

– **impact on the atmospheric air in the course of the planned activities**. Pursuant to the EIA Report, the internal combustion engines of construction machines and mechanisms, motor vehicles and hydraulic equipment employed for dredging and construction works are the sources of pollutant emissions into the atmospheric air.

The list of polluting substances released into the atmosphere during construction and dredging works is presented in tables 1.13-1.18 of the EIA Report.

Pursuant to the EIA Report, since the construction equipment and ships that will pass through the waterway are dispersed along the length of the DSSC, and the work sites are sufficiently far from populated areas, under normal conditions, the above-

standard impact of mobile sources of emissions on atmospheric air quality and negative impact on the health of the population of the planned reconstruction activities and further operation of the DSSC is not expected.

Permanent sources of atmospheric air pollution of the planned activity are the hydraulic dump of dredging soils between the existing dam and the designed northern enclosing dam with a capacity of 1.64 million m^3 and four coastal hydraulic impoundments with a capacity of 3,416 million m^3 with a total area of 63.53 hectares.

Pursuant to the EIA Report, the emissions from the inter-dam hydraulic dump, in comparison with the coastal hydraulic dump, will cause the least negative impact on the environmental factors and the health of the population, as it is the most distant from the objects of influence, therefore, dispersion calculations were carried out for four coastal hydraulic dump.

The list of pollutants that will be released into the atmosphere is presented in the table 1.20 of the EIA Report.

Pollutant emissions from hydraulic dumps are insignificant, and the expected concentrations in the surface layer of the atmospheric air do not exceed the maximum permissible concentrations, taking into account the background;

– **impact on the soils and geological environment in the course of the planned activities.** Pursuant to the EIA Report, the planned activity is limited to the areas of the water area of the Danube Delta arms and the adjacent Black Sea water area, with the exception of coastal hydraulic dumps of dredged soils, which are located near the water cut of the Kiliya arm on low-value and unused lands. The water from the hudraulic dumps is removed to the river. No soil and subsoil contamination is expected in the course of implementation of the planned activity.

During the period of operation of the DSCC, there will periodically be a need to restore the design depths in the sea approach channel and within the reefs in the Kiliya branch. These works on different sections of the shipping route will be carried out at different times, depending on the needs of ensuring the safety of shipping on the DSCC route. The characteristics of the main factors of direct impact that will be caused by the implementation of these works and the estimated average annual volumes of repair dredging works are given in table 1.26 of the EIA Report.

The storage of the main amount of dredging soil is foreseen on the existing marine hydraulic dump and on the designed hydraulic dump between the existing enclosing dam and the designed northern channel compression dam.

The dredging soils of the rolling stock of the river part of the DSSC are expected to be deposited on four coastal hydraulic dumps, which are already disturbed due to anthropogenic activity.

As part of the implementation of the planned activity, the possibility of further use of the dredging soil, including for construction work, is envisaged.

All dumps have sufficient capacity for storage of dredging soils formed both as a result of project implementation and those that will be formed as a result of further operational dredging.

The results of studies of the gross content of heavy metals in the bottom sediments of the Ukrainian part of the Danube River and its arms are given in Tables 3 and 4 of Appendix D of the EIA Report.

To mitigate the impact of the planned activity on the soil and geological environment, the EIA Report has a set of developed protective measures. Moreover, the environmental impact assessment report established the relevant ecological conditions;

– **impact on the water environment in the course of the planned activities**. Pursuant to the EIA Report, factors causing pollution of bodies of water during construction works on the highway of DSSC in Danube - Black Sea are:

– • damage to the surface of the bottom in the places of dredging, creation of a protective dam and dumping of soil;

– • inflow of suspended and dissolved pollutants from resuspended and stored bottom sediments into the water during the period of creation and operation of the shipping lane;

– • entry of polluting substances into the water in case of violation of the regime of passage of vessels and in case of accidents.

The main negative effects on the quality of the sea water during the construction period are caused by the work on the laying of the sea access channel through the bar of the Bystryi arm and the creation of a protective dam.

The centre of water pollution in the area of the bar will exist only during the operation of the dredgers, and then it will be quickly dispersed by the flow of the Bystryi arm and sea currents.

In the area of soil dumping, local long-term pollution of the seabed and short-term pollution of the water mass is predicted.

The impact of ships on water quality under normal operating conditions is predicted to be insignificant. Ballast and domestic waste water will be delivered to special vessels according to shipping regulations. Heated waters of engine cooling systems belong to the category of "conditionally clean" and in the volumes that are discharged, they cannot significantly affect the quality of river water.

For the vessels of the technical fleet, there is a generally accepted practice of supplying them with water by water vessels, as well as collecting and delivering various sewage and solid household waste to port oil waste collectors, which are provided at the request of the ship’s captain.

A total of 71,614.11 tons of domestic wastewater will be generated during the period of execution of the planned works.

The EIA Report contains the developed set of measurea aimed at mitigating the impact of the planned activity on the aquatic environment. Moreover, the Annex P to the EIA Report specifies the calculations of compensation for damages to the aquatic environment.

Pursuant to Annex P of the EIA Report, if the entire cycle of dredging works is carried out, the amount of compensation for damages due to the entry of pollutants into the water environment may amount to UAH 81,438,280.01.

Considering the foregoing, the environmental impact assessment report established the relevant ecological conditions;

– **impact on flora and fauna, territories and objects of the nature reserve fund in the course of the implementation of the planned activity**. Pursuant to the EIA Report, when assessing the possible impacts of the planned activity on the flora and fauna, the studies were mainly focused on the territories of the bilateral Biosphere Reserve of the Danube Delta (BRDD), one part of which is the Danube Biosphere Reserve (DBR) on the territory of Ukraine, and the other part is the nature protection territories of the Romanian part of the delta.

Pursuant to the EIA Report, a part of the route of the DSCC Danube river-Black sea will be located within the zone of anthropogenic landscapes of the DBR, wherein the anthropogenic activities, including shipping, are allowed.

Pursuant to the EIA Report, the minor impact is possible to the objects of the nature reserve fund and territories that have a special nature conservation value due to the construction and operational works on clearing the bar of the Bystre estuary and deepening the bed of the Kiliyskyi and Starostambuly branches, as well as due to the intensification of water transport traffic.

The location of the planned activity is located next to the Emerald Network of (Fig. 4.15 of the EIA Report)

As a result of the construction and operational works for clearing the bar of the Bystre mouth and deepening the channel of the Kiliya and Starostambulskyi arms, as well as due to the intensification of water transport traffic, the anthropogenic load will increase first of all on the biotopes adjacent to the DSCC Danube-Black Sea route, which within the territory of the DBR constitute a peculiar a complex caused by the diversity of landscapes and the transitional (ecotone) location between a large river and the Black Sea.

The results of the research on the species composition of mammals, herpetofauna and batrachofauna of the DBR confirmed the presence of 11 species of amphibians and 6 species of reptiles on the territory of the reserve, and the absence of a material direct impact of the operation of the Danube-Black Sea DSSC on the state of the population of amphibians and reptiles of the DBR fauna. The main factor affecting the reproduction of batrachofauna during 2020 was the relatively low water level. The species composition and current protection status of batrachian and herpetofauna species of the DBR territories, located in the area of the Bystre mouth and Yermakiv island, confirmed the presence of previously described species of amphibians and reptiles (Kumka red-bellied Bombinabombina, Danube Triton - Triturus dobrogicus, European terrapin - (Emys orbicularis), their biotope distribution.

According to the EIA Report, the studies showed no material direct impact of DSSC operation on the state of populations of amphibians and reptiles of the DBR fauna. Species composition mammals (wild boar, mink, otter, muskrat, hare, wild cat, etc.) in recent years has been at the level of 42 species.

During the conducted studies, no significant direct impact of the operation of the DSCC Danube river-Black sea on the state of the mammal populations of the DBR fauna was found.

Reports of monitoring works on the territory of the DBR indicate that Ptashyna island has lost its importance for breeding birds due to the destruction of nests by predators. According to the latest data, it was established that the colonial settlements on the DSCC in Bystre mouth, its surroundings (Ptashyna foreland) and mass nesting of ground-nesting species on the Nova Zemlya spit was not detected. Colonial settlements of ground-nesting species were noted only on Taranova foreland, located 15 km from the DSCC along the Bystre mouth. The largest number of species and the number of birds was noted at the beginning of the dam, at a distance of up to 100 m from the island part. This is due to the presence of shallow areas for feeding birds of the wetland complex and the presence of shrubby and grassy vegetation.

Ichthyofauna of river Danube has a rich species composition. 89 species of fish belonging to 30 families were found in the delta area. Up to 40 species are found in industrial catches, but the basis of catches is 10-15 species. In addition to aboriginal species of partial fish, transient species such as sturgeon and Danube herring are present here for most of the year. The lower sections of the Danube are their migration routes to the spawning grounds, the larvae of these fish then passively jump down these sections to the sea. The spawning of larvae usually takes place from April to August, its maximum intensity is at the end of May - the beginning of June.

Ichthyological studies showed that the main impact of dredging, creation of coastal protection structures, and soil storage during the restoration of the DSSC can be on the food base of fish and, to a lesser extent, on their early juveniles. However benthic groups recover quickly enough, and the effect of an increased amount of suspended substances on zoo- and phytoplankton can have only a local value, since planktonic communities are quite dynamic.

The EIA Report contains a developed set of measures to minimize the impact of the planned activity on the ecosystems of the DBR and other territories of the nature reserve fund and the Emerald Network.

Moreover, the Annex P to the EIA Report specifies the calculations of compensation for losses to fish stocks.

Pursuant to Annex P of the EIA Report, in total, compensation payments for damage to aquatic biological resources and deterioration of fish grazing conditions will amount to UAH 47,614,569.04.

Considering the foregoing, the environmental impact assessment report established the relevant ecological conditions;

– **impact on climate and microclimate in the course of the planned activities**. Pursuant to the EIA Report, the impact of the planned activity on the climate is limited to emissions of greenhouse gases by diesel engines of technical equipment, which are used to perform work during the construction period and to maintain the depths necessary for navigation during the period of operation.

Pursuant to the EIA Report, during the entire construction period, the amount of greenhouse gas emissions will be 28524.420 tons of CO_2 and 2.272 tons of methane.

The sensitivity of the activity to climate changes is due to the connected with climatic conditions changes in the flow regime of the river Danube, on which the conditions of navigation on the DSCC Danube river-Black sea depend.

– **impact on the social and technogenic environment in the course of the planned activities.** Pursuant to the EIA Report, the assessment of the risk of the planned activity impact on the health of the population from air pollution is carried out by calculating the risk of non-carcinogenic and carcinogenic effects.

Pursuant to the EIA Report, the carcinogenic risk to human health due to the influence of air polluting substances contained in the emissions of construction machines and mechanisms during the reconstruction of DSCC can be considered acceptable.

Pursuant to the EIA Report, there are no material objects, including architectural, archaeological and cultural heritage, directly in the area of the planned activity.

The material objects of national importance located in the area of the planned activity are listed in the Table 4.34 of the EIA Report.

Pursuant to the EIA Report, the risks of impact of the planned activity on objects of cultural heritage and the environment, including due to the possibility of emergency situations, are absent due to the significant distance of these objects from the planned activity;

– **impact of noise and vibration on the environment in the course of the planned activities**. Pursuant to the EIA Report, the main sources of acoustic impact on the reconstruction site and their acoustic characteristics, determined according to the corresponding analogues, are listed in Table 1.24 of the EIA Report.

Pursuant to the EIA Report, for the calculation, a point in the middle of the Sea Approach Channel was chosen, where the largest number of powerful technical means will be concentrated during the construction period at a distance of 850 m from the territory of the Danube Biosphere Reserve. Territories adjacent to the coastline, with the exception of island Ptashyna foreland, are characterized by a continuous spread of common reed thickets. The sound is partially reflected from the surface of the water and absorbed by thickets, which leads to a significant additional weakening of the acoustic impact of noise sources, thus, the acoustic situation in the area of the works is characterized as favourable.

Pursuant to the EIA Report, the sound level at the calculated point at a distance of 850 m from the noise source is 21.67 dBA. Thus, during the reconstruction of the barrier dam, there is no above-standard acoustic impact on the territory of the protected zone of the Danube Biosphere Reserve.

– **waste management in the course of the implementation of the planned activity.** Pursuant to the EIA Report, in the course of the planned activity, the technological and household needs of the crews of the vessels of the technical fleet are provided on board the floating equipment, which leads to the formation of both household and operational waste.

The results of calculating the amount of solid household waste are presented in Table 1.10 of the EIA Report. A total of 1,635.71 tons of solid household waste will be generated during the period of execution of the planned works.

The results of calculating the amount of household wastewater are presented in Table 1.12 of the EIA Report. A total of 71,614.11 tons of domestic wastewater will be generated during the period of execution of the planned works.

– **transboundary impact of the planned activity in the course of the implementation of the planned activity.** Pursuant to the EIA Report, the planned activity is focused on the Ukrainian section of the Danube Delta, formed when the river flows into the Black Sea. The DSCC route runs through the Kiliya arm from its beginning (Cape Izmailskyi Chatal), the Starostambulskyi arm to the branching with the Bystre arm and then the Bystre arm and the adjacent part of the coast.

According to the Romanian side, the environmental objects that may be subject to the potential influence of the DSCC Danube river-Black sea on the territory of Romania are nature conservation areas located in the Romanian part of the Danube Delta (Fig. 9.4-9.6 of the EIA Report) and included in Biosphere Reserve of the Danube Delta (BRDD) (Fig. 9.7 of the EIA Report). When assessing the possible transboundary impacts of the construction and operation of the DSCC, this reserve is considered as one of the parts of the bilateral biosphere reserve in the Danube Delta, the second part of which is the Danube Biosphere Reserve on the territory of Ukraine.

The results of a detailed analysis of the complex effects of DSCC on environmental components, which are transboundary in nature, are given in Tables 9.4 - 9.7 of the EIA Report.

In the course of the transboundary impact of the planned activity, the following studies were performed:

- studies of the influence of the configurations of the dams of the sea approach channel during the reconstruction of the DSCC on the redistribution of the flow between the arms of the Danube delta;
- simulation results of the spread of a patch of increased turbidity from dumping on a sea dump of soil under the action of along-shore southerly currents;
- model studies of the influence of the marine approach channel of the DSCC and the barrier dam on the alongshore transport of sediments;
- assessment of the impact of the stream directing dam on the flows and water levels in the Bystre and Starostambulskyi arms;
- calculation of the increase in the concentration of suspended substances downstream from the dredging sites;
- transboundary aspects of the impact of the placement of soil dumps, dredging operations and the creation of coastal protection structures on ichthyfauna and avifauna due to the loss of their habitats based on the results of field studies
- analysis of the structure of possible transboundary cumulative impacts of shipping, habitat loss and/or disturbance to fish and bird life and evaluation of the effectiveness of mitigation measures

Results of studies of the influence of the configurations of the dams of the sea approach channel during the reconstruction of the DSCC on the redistribution of the flow between the arms of the Danube delta allow to conclude that such flow changes are in ranges smaller than the accuracy of water flow measurements in river systems, and such a minor redistribution of flow cannot affect the state of the hydro-ecological

system of the Danube delta. The obtained results allow to conclude that the reconstruction of the DSCC will not lead to a significant redistribution of flow in the delta arms.

Pursuant to the EIA Report, the highest average concentration of sludge on the Romanian border is 2 mg/l under the given calculation scenario. At the same time, it can be seen that the surface concentration is somewhat higher than the average and bottom concentration, and can reach a value of 3 mg/l. This is explained by the fact that the sedimentation rate of silt particles is very low and near-surface turbulence is able to hold them for a long time. In the calculations of the Commission's experts, an estimated value of 5 mg/l was obtained at a distance of 16 km from the emission point. The difference in the results is explained by taking into account the vertical mixing, the three-dimensional structure of the currents, which accelerates the settling of particles to the bottom, as well as the variable topography of the bottom.

Pursuant to the EIA Report, the results of model studies of the influence of the marine approach channel of the DSSC and the barrier dam on the alongshore transport of sediments demonstrate that the influence of the construction of the DSSC and the dam on the dynamics of erosion and siltation is observed at a distance of not more than 5-6 km south of the mouth of the Bystre mouth, while the Ukrainian-Romanian sea border passes at a distance of about 16 km from the Bystre mouth. Such results are in good agreement with the general characteristics of sediment fields in this area, which, according to space images, form two main, practically independent systems of suspended silts: in the northern part of the district it is a field of sediments generated by an outflow from the Bystre, in the southern part – a field of sediments formed by an outflow from the Starostambulskyi arm. The presence of an enclosing dam affects only the northern system. This gives every reason to assume that even with the reconstruction of the DSCC with the construction of the southern parallel MAC enclosing dam, local changes in the morphodynamic processes in the DSCC area will not be able to cause significant transboundary effects.

Pursuant to the EIA Report, the jet dam reduces the impact of the construction of the water treatment plant on the hydrological parameters of the Starostambulskyi arm by 40-60% in terms of water consumption and by 50-75% in terms of water levels. Thus, the results of the model calculations do not give grounds for predicting an increase in the instability of the right bank of the Starostambulskyi arm due to the construction of a jet-directing dam in the area of the branching of the Bystre arm.

In order to assess the cross-border impact of increasing the turbidity of the Danube water during dredging operations in the channel part of the DSCC, predictive calculations of the distribution of finely dispersed suspended solids in the channel of the Kiliya and Starostambulskyi arms were performed, since the state border between Ukraine and Romania passes along the channel of these arms.

According to the results of the model calculations of the spread downstream of plumes of suspended substances from dredgers in critical sections of the Kiliyskyi and Starostambulskyi arms from the point of view of possible direct transboundary impact, the increase in the concentration of suspended substances in watercourses on the territory of Romania will not exceed 0.1 mg/dm^3, which will in no way affect the conditions of existence and reproduction of ichthyofauna.

Along the axis of the plume of increased water turbidity, the concentration of finely dispersed suspended substances at a distance of 1 km downstream will not exceed 4 mg/dm^3, and at a distance of 8 km will be less than 3 mg/dm^3. Under the conditions of normal background concentrations of suspended substances in the branches of the Danube, such an increase is practically imperceptible and cannot have a significant large-scale impact on the ichthyofauna, i.e. the transboundary impact of dredging is likely to be only minor.

Moreover, there will be no significant redistribution of solid runoff through the Starostambulske delta arm in the direction of Sulina, since it shall be compensated by the increase of liquid runoff towards the Bystre mouth due to dredging, as the processes of redistribution of liquid and solid runoff are interrelated.

Pursuant to the EIA Report, according to the results of on-site studies under the Program of Integrated Ecological Monitoring of the Environment, it was established that the sections of the riverbed, where dredging and shore fortification work is concentrated - namely, the embankments and coastal slopes that are eroded - are subject to permanent reshaping in natural conditions, as a result of which they are characterized as poorly developed in quantitative terms. relationships of macrozoobenthos and are not of great importance as places of food and habitat for fish and birds. Therefore, both their natural and man-made damage cannot lead to significant negative effects on ichthyfauna and avifauna, especially in a transboundary context.

The results of a complex of faunal studies carried out during the period since the beginning of works on the restoration of navigation in the Ukrainian part of the Danube Delta indicate the absence of a significant transboundary impact on the ichthyo- and avifauna caused by the construction works and the low probability of such impacts in the future, taking into account the established seasonal and spatial restrictions on carrying out such works, as well as refusal to use coastal dumps on the Yermakiv island and channel underwater dumps in the Kiliya arm.

At the same time, the research results indicate the relevance of an in-depth consideration of the feasibility of implementing measures to artificially maintain optimal depths in the Bystre corner areas.

The EIA Report provides for the measures for the complete renaturalization of Yermakiv with the restoration of the state of a natural strait island with an unregulated hydrological regime, the clearing of the Vostochny - Anankina corner channel and the Rybachyzhlobok arm, which is considered by them to be the most significant compensation for possible local damage to the fauna of the DBR due to the construction of the DSCC Danube river-Black sea.

According to the results of the analysis, the most effective measure was the compensatory restoration of habitats in the northern sections of the DBR, where the degradation of biocenoses occurred as a result of the joint action of the processes of the natural evolution of the delta and economic activity to maintain shipping on the arms. The second in terms of effectiveness was the creation of a jet-directing dam in the city of the branch of the Bystre arm, which should prevent man-made redistribution of the flow between the Bystre and Starostambulskyi arms. In third place in terms of efficiency is the restoration of natural vegetation of the channel

banks of the Bystre arm, degraded as a result of the natural processes of the development of this arm. This tool will preserve the habitats of animals along the banks of the arm.

Moreover, the EIA Report and this Conclusion set out the limitation of dredging during the spawning period, spawning of young fish and nesting birds, as well as opening the bar of the Starostambulskyi arm.

Pursuant to the EIA Report, the sturgeon monitoring is carried out as part of ichthyological monitoring as part of the integrated environmental monitoring program.

Full-scale ichthyological surveys are carried out in a number of areas downstream of the Danube River and along the DSSC in accordance with standard ichthyological research methods adopted by the State Fisheries Agency and the National Academy of Sciences of Ukraine.

The EIA Report provides for the measures for the sturgeon conservation.

Based on the foregoing, the environmental impact assessment report established the relevant ecological conditions,

as well as considering all the information, comments and suggestions received during the period of public discussion (the report on public discussion together with the table of full, partial consideration or justified rejection of comments and suggestions is an integral part hereof), the performance of the planned activity is considered admissible/~~inadmissible~~ in view of the following:

on the basis of the assessments of impacts on environmental components (soils and land resources, atmospheric air, water environment, geological environment, flora and fauna, climate and microclimate, social and man-made environment) provided in the EIA Report, the cumulative impact of the planned activity is admissible;

pursuant to the environmental impact assessment report analysis, the main impact of the planned activity is expected on the soil, water environment, flora and fauna. When fulfilling the environmental conditions established for the planned activity, the specified impacts on the environmental components can be characterized as ecologically admissible.

Environmental conditions of the planned activity:

1. For the planned activity, the following conditions for the use of the territory and natural resources during the implementation of preparatory and construction works and the implementation of the planned activity are established, namely:

– prior to the dredging works, it is necessary to carry out trawling or diving survey of dredged areas in order to identify explosive objects, obstacles that can cause damage to equipment and the health of personnel;

– if explosive objects are discovered on the dredging site, the release of gases harmful to the human body from the soil, the work must be stopped immediately until

the sources of danger are eliminated and permission from the relevant authorities is obtained;

– planned activity, in particular emissions of pollutants into the atmospheric air, shall be performed in accordance with the Law of Ukraine "On Protection of Atmospheric Air";

– measures aimed at minimizing pollutant emissions into atmospheric air during process operations shall be provided for;

– maximum permissible concentrations of the main pollutants at the border of the sanitary protection zone, the nearest residential buildings shall not be exceeded;

– indicators of industrial noise and vibration at the border of residential buildings, the sanitary protection zone, established by regulatory acts and sanitary standards shall not be exceeded;

– use of sound-insulating and vibration-insulating materials on equipment that is a source of noise and vibration shall be provided for;

– timely planned, preventive repairs of equipment with mandatory post-repair monitoring of noise and vibration characteristics shall be provided for;

– planned activities shall be implemented in accordance with the Water Code of Ukraine;

– planned activities shall be implemented in accordance with art. 87, 88, 89 of the Water Code of Ukraine;

– compliance of regimes of zones of sanitary protection of surface and underground water in the course of the activity implementation shall be provided for;

– the planned activities shall be performed with mandatory compliance with the Rules for the Protection of Inland Sea Waters and the Territorial Sea from Pollution and Clogging, approved by the Resolution of the CMU No. 269 dated 29/02/1996;

– the planned activities shall be performed in compliance with the Rules for the Protection of Surface Water from Pollution with Return Water, approved by the Resolution of the CMU No. 465 dated March 25, 1999, and the Rules for Accepting Wastewater into Centralized Drainage Systems, approved by Order of the Ministry of Regional Development, Construction and Housing of Ukraine No. 316 dated 01/12/2017, registered with the Ministry of Justice of Ukraine under No. 56/31508 on 15/01/2018;

– removal of water from coastal hydraulic dumps shall be performed in accordance with the Rules for the Protection of Surface Water from Pollution with Return Water, approved by the Resolution of the CMU No. 465 dated March 25, 1999;

– compliance with art. 44 of the Water Code of Ukraine shall be provided for;

– watercraft intended for underwater soil development (pump dredges and dredges) shall be equipped with the fish protection devices;

– water intake from surface water bodies and discharge of return water into surface water bodies shall be performed on the basis of a permit for special water use;

– organization of collection, cleaning and removal of rainwater and meltwater from the territory of coastal hydraulic dumps shall be provided for;

– discharge of wastewater onto the relief of the area shall be prohibited;

– planned measures for the protection and rational use of water resources shall be performed;

– the organization of collection, cleaning, drainage and reuse of rainwater and meltwater shall be provided for;

– regular recording of the amount of treated wastewater discharged into the surface water body shall be maintained;

– strict implementation of environmental protection measures and prevention of pollution of the water surface with fuel and lubricants shall be provided for;

– spillage in dump doors of the soil removal machinery shall be excluded;

– planned activities shall be implemented in accordance with the Land Code of Ukraine;

– use of land plots shall be allowed in compliance with the requirements of the Land code of Ukraine;

– measures to exclude the soil contamination shall be provided for;

– measures to ensure protection of soil rocks from wind shall be implemented;

– measures to prevent or mitigate the development of dangerous geological processes and phenomena shall be provided for;

– land reclamation and improvement of the territory after implementation of the planned activity in accordance with the current legislation of Ukraine shall be provided for;

– systematic control measurements of dredging areas shall be provided for;

– measures to exclude the dredging soils contamination shall be provided for;

– storage of bottom soils at the coastal hydraulic dumps is possible provided that physical, chemical and microbiological analyses are carried out and the compliance with regulatory indicators is confirmed;

– chemical and microbiological analyses of bottom soils shall be carried out by organizations with the appropriate accreditation in accordance with the established legislation;

– bottom soil storage shall be organized strictly within the boundaries of the territories allocated for bottom soil dumps;

– implementation of measures to prevent erosion of deposited bottom soils from waves and currents shall be provided for;

– exceeding the soil capacity of marine and coastal hydraulic dumps shall be excluded;

– tightness of the slurry pipeline, through which bottom soil will be transported to the coastal dump, shall be provided for;

– dredging shall be performed considering the technical characteristics of hydraulic structures and ensuring their strength and stability;

– soil shall be discharged to the sea underwater dump by circulation around the buoy installed in the centre of the loading block;

– total volume of dredging soils shall not be exceeded;

– overfilling of barges shall be prohibited;

– dumping of soil shall be performed strictly within the area allocated for the sea underwater dump;

– the systematic control measurements of the areas of soil dumps for timely prevention of soil spreading beyond the allocated territory of the sea underwater dump shall be provided for;

– mandatory compliance with the Order of the Ministry of Infrastructure of Ukraine No. 631 dated 21/08/2013 "On approval of the Procedure for the provision of services to ensure the prevention and elimination of spills of polluting substances in seaports of Ukraine", registered with the Ministry of Justice of Ukraine under No. 1533/24065 on September 06, 2013, shall be provided for;

– operations on cargo complexes shall be performed in compliance and on the basis of work process maps developed and approved in compliance with the order of the Ministry of Infrastructure of Ukraine No. 348 dated 06/05/2013 "On approval of the Rules for the provision of services in seaports of Ukraine", registered with the Ministry of Justice of Ukraine under No. 1401/23933 on August 15, 2013;

– mandatory compliance with the Order of the Ministry of Transport and Communications of Ukraine No. 257 dated 27/05/2005 "On approval of the Rules for the technical operation of port hydraulic structures", registered with the Ministry of Justice of Ukraine under No. 1191/11471 on October 13, 2005, shall be provided for;

– following shall be coordinated prior to commencement of the dredging works: movement of vessels of the technical fleet in the port water area, procedure for works, the procedure and places of berthing of watercraft;

– technological changes of the technical fleet shall take place only in agreement with the port administration and under the leadership of dredge masters;

– watercraft equipped with closed systems for the accumulation of fecal and waste water shall be employed;

– waste management shall comply with the requirements of the Law of Ukraine "On Waste Management", permits and concluded contracts with business entities in the field of waste management, including hazardous waste;

– prior to the activity implementation, the contracts with business entities in the field of waste management shall be concluded;

– the enterprise activity shall be organized and maintained in the way excluding waste generation, reducing its generation, preventing its negative impact on human health and the surrounding natural environment;

– reduction of the volume of waste generation, considering the implementation of the best available technologies and management methods in the industrial production process, shall be provided for;

– mixing of waste that can be recovered with waste that cannot be recovered shall be avoided;

– maintenance of the waste generation and storage sites in proper sanitary and technical condition, compliance with the established rules of safety and fire safety in such places shall be provided for;

– persons responsible for the waste management issues shall be appointed;

– the transfer of hazardous waste to business entities that have a permit to carry out waste processing operations and a license to carry out hazardous waste management business activities on the basis of concluded contracts shall be provided for;

– record keeping of waste generated as a result of activities and relevant report submission shall be provided for;

– systematic control of the tightness of valves, oil seals, and flange connections shall be provided for;

– maximum tightness of equipment employed for draining and filling operations shall be provided for;

– only intact process equipment shall be employed;

– if required, repair work of machinery, equipment, etc., intended for use in the implementation of the planned activity, shall be performed in specially provided and organized places;

– use of equipment with leakage of fuel and lubricants and excess of the legally established CO and CH in the exhaust gases shall be avoided;

– operation of machines and mechanisms at idle speed shall be avoided;

– operation of process equipment in forced mode shall be avoided;

– technological process management and equipment maintenance shall strictly comply with the operation manual (mode maps), project documentation, production instructions, safety, fire and environmental safety instructions;

– serviceability of electrical equipment, grounding, insulation and protection of live parts shall be provided for;

– constant control over the technical condition of the equipment and compliance with admissible standards shall be provided for;

– in the case of establishing the fact of exceeding any monitored indicator - measures to bring the technological process to the standard state shall be taken, the immediate notification of the Ministry of Environmental Protection and Natural Resources of Ukraine and implementation of appropriate response measures shall be provided for;

– the planned activity shall be performed in compliance with the requirements of the Law of Ukraine "On Animal World";

– it is forbidden to carry out hydraulic works during the spawning period. Timelines of the prohibited periods shall be set out by the fisheries authorities;

– works with an increased level of acoustic impact during the silence periods shall be prohibited;

– comprehensive environmental monitoring, with compensation for damages caused to the surrounding natural environment and aquatic biological resources, based on the actually performed works calculated in accordance with the procedure established by law shall be provided for;

– activities shall be performed in compliance with the Law of Ukraine "On Protection of Archaeological Heritage", Law of Ukraine "On Protection of Cultural Heritage", Law of Ukraine "On Nature Reserve Fund of Ukraine";

– activity shall be implemented in compliance with the Law of Ukraine “On Ecological Network of Ukraine”;

– compliance with the principles of formation, preservation and use of the ecological network shall be provided for;

– planned activity shall be implemented in compliance with the Law of Ukraine "On Environmental Protection";

– planned activity shall be performed subject to the presence of all permits, which, in view of the legislation, regulate the specified activity;

– planned activities shall be implemented using modern advanced technologies and equipment, in particular, vessels and dredges shall be equipped in accordance with the requirements of the Convention on the Prevention of Pollution from Ships (MARPOL 73/78) and in compliance with the requirements of relevant European and international standards;

– environmental impact assessment shall be performed in case of changes to the planned activity subject to an environmental impact assessment in accordance with the requirements of the Resolution of the Cabinet of Ministers of Ukraine No. 1010 dated 13/12/2017 "On approval of the criteria for determining the planned activity not subject to an environmental impact assessment and the criteria for determining expansions and changes of activities and objects not subject to environmental impact assessment".

2. Following conditions are established for the planned activity regarding the prevention of emergency situations and the elimination of consequences thereof, namely:

– compliance with the requirements of the Procedure for Identification of High-Risk Objects and Their Accounting, approved by the Resolution of the Cabinet of Ministers of Ukraine No. 1030 dated 13/09/2022 shall be provided for;

– in case of abnormal situations (accidents, malfunctions, etc.), any works shall be terminated until the technological process is brought into compliance with the regulatory conditions;

– in adverse weather conditions, any works on the development and storage of soil shall be terminated;

– in case of disturbance with a wave height of 3% of guarantee up to 1.0 m, wind force of up to 20 m/s, the ambient temperature of up to -5°C, stop work in the water area shall be terminated;

– compliance of the design and technical condition of the vessels, the composition of the crew and its suitability for the operation of vessels with international requirements for the prevention of pollution of the surface waters of the Danube River and the Black Sea in the area of production activity shall be provided for;

– ships shall be equipped with stationary or portable pallets to collect possible leaks of liquids, which must be installed in the places of flanged connections;

– mandatory availability of a constant stock of sand, sorbents (Ekonadinbiodestructor or similar product), rags in quantities sufficient for localization and liquidation of possible pollution on the territory of the enterprise and on board watercraft shall be provided for;

– watercraft shall be equipped with the emergency warning system (EWS) with level indicators in the oil product tanks;

– cargo transportation watercraft shall be equipped with closed systems for the accumulation of household, fecal and condensate water with the deployed emergency warning system (EWS);

– the installation of floating booms around the vessel when carrying out operations with petroleum products shall be provided for;

– the mobile embankment around the gas station and the firefighting equipment stand in the standard configuration when carrying out operations with petroleum products shall be available;

– the use of dispersants (chemical sorbents) in the water area of the Danube River and the Black Sea in the area of production activity shall be prohibited;

– the fuel bunkering operations shall be organized with the involvement of specialized refuellers and the use of integral certified oil product supply pipes;

– the plan of organizational measures for the localization and liquidation of emergency situations, accidents shall be developed;

– the availability of a clear regulation and the full necessary number of means for localization and liquidation shall be provided for to minimize the possible negative impact of any emergency situation on the surrounding natural environment;

– the planned activity shall be implemented considering the Rules of Fire Safety on Sea Vessels of Ukraine, approved by the Order of the Ministry of Transport and Communications of Ukraine No. 159 dated 24/02/2007;

– organization of staff training in fire safety rules at the enterprise shall be provided for;

– regular preventive inspections and equipment repair shall be performed;

– in the event of emergencies and extraordinary situations, the characteristics of the quantitative and qualitative impact on the components of the environment, compensatory measures shall be determined in accordance with the requirements of current legislative norms and acts;

– in the event of emergency situations during operations with waste, the quantitative and qualitative composition of waste shall be determined on the spot, as it is generated, in accordance with the requirements of current legislative norms and acts; to eliminate the emergency spills (if any), the necessary amount of appropriate

packaging materials and means for localization and liquidation of emergency situations shall be provided for;

– in case of an extraordinary situation - force majeure circumstances that led to an increased level of pollution of the marine environment - organize measures to eliminate the emergency situation that has arisen, and immediately notify the State Environmental Inspection and fish protection authorities.

3. The planned activity shall have the following conditions for reducing the transboundary impact of the planned activity set out,* namely:

– provide the organization of joint of sturgeon monitoring studies before and after the start of the planned activity activities according to the procedure agreed with the Romanian side, taking into account the security situation and the relevant procedures in force at the time of the monitoring studies;

– it is forbidden to carry out hydraulic works during the spawning period;

– exceeding the soil capacity of marine and coastal hydraulic dumps shall be excluded;

– bottom soil storage shall be organized strictly within the boundaries of the territories allocated for bottom soil dumps;

– implementation of measures to prevent erosion of deposited bottom soils from waves and currents shall be provided for;

– permanent control over the level of filling of soil dumps with dredging soils shall be provided for;

– observation of the redistribution of solid runoff (sedimentary rocks) towards the Sulina spit through the Starostambulske delta arm as a result of dredging works and dam construction shall be provided for;

– development of aquaculture, breeding of sturgeon fish and stocking of the Danube River shall be facilitated.

4. The business entity shall be responsible for implementing the following compensatory measures:**

– compensation payments for damages to water resources and biological resources as a result of dredging works, as well as in emergency situations, shall be provided for;

– compensation payments for damages for the ingress of pollutants into the water environment, as a result of dredging works, as well as in emergency situations, shall be provided for;

– compensation payments for damages for discharges of polluting substances into a water body as a result of dredging works, as well as in emergency situations shall be provided for;

– mandatory environmental payments shall be paid in a timely manner and in full;

– compensation for the destruction or damage of species of animal and plant life listed in the Red Book of Ukraine (calculations shall be performed by the relevant scientific institution), as well as for the destruction or deterioration of their habitat

(growth) shall be provided for pursuant to the Resolution of the CMU No. 1030 dated 07/11/2012 "On the Amount of Compensation for Illegal Hunting, Destruction or Damage to Species of Animal and Plant Life Listed in the Red Book of Ukraine, as well as for the Destruction or Deterioration of Their Habitat (Growth)"

5. The business entity shall bear the obligation to prevent, avoid, reduce (mitigate), eliminate, limit the impact of planned activities on the environment[**], namely:

– employees shall be provided with means of group and individual protection (special clothing and footwear), the effective use thereof shall be provided for;

– lifebuoys, buoys, halyards, as well as a lifeboat, equipped with the required number of lifesaving equipment and first aid items, must be placed on specially designated visible places of the vessels of the technical fleet;

– environmental safety, rational use of natural resources, compliance with the requirements of environmental legislation shall be provided for.

6. The business entity shall be responsible for the post-project monitoring[**], namely:

– physical-and-chemical and microbiological analyses of bottom soils (1 time during each launching complex of dredging works) shall be provided for;

– the state of surface waters in the dredging work sites and at the turbidity plume edge in terms of the content of suspended substances (1 time during each launching complex of dredging works) shall be monitored;

– permanent monitoring of the capacity of sea and coastal hydraulic dumps shall be provided for;

– monitoring of the state and quantitative indicators of phytoplankton, zooplankton, zoobenthos, ichthyoplankton, ichthyofauna in the area of impact of dredging works (constantly during dredging works) shall be provided for;

– monitoring of the state of plant and animal communities of the shoreline and flood plains in the territory of the Danube Biosphere Reserve (every 6 months) shall be provided for;

– ornithological monitoring of the shoreline and flood plains in the territory of the Danube Biosphere Reserve (every 6 months) shall be provided for;

– monitoring of the state of atmospheric air in the territory of the Danube Biosphere Reserve (every 6 months) shall be provided for;

– monitoring of the noise level from the planned activity in the territory of the Danube Biosphere Reserve (every 6 months) shall be provided for;

– monitoring of the quality of return water discharged into the Danube River from the onshore soil dumps (quarterly) shall be provided for;

– monitoring of the state of surface water at the point of discharge of return water and in control section lines above and below the point of discharge (quarterly) shall be provided for;

– monitoring of the condition of the soils around coastal hydraulic dumps (annually) shall be provided for.

The results of post-project monitoring (reports of post-project monitoring along with copies of protocols of laboratory studies of environmental parameters carried out as part of post-project monitoring or other materials containing the results of studies) shall be submitted annually during the month next to the reporting one to the authorized central body. Moreover, the publication of the results on own website (if available) or sending to the local self-government bodies of the relevant administrative-territorial units eventually to be affected by the planned activity for publication on their websites shall be provided for.Monitoring is carried out annually for five years from the start of the planned activity.

Note: *If during the implementation of economic activity, a significant negative impact of this activity on the life and health of the population or the environment is detected and if such impact was not assessed during the environmental impact assessment and/or significantly changes the results of the assessment of the impact of this activity on the environment, the decision on the implementation of such planned activity shall be subject to cancellation by court decision, and the activity shall be terminated.*

7. The business entity shall be responsible for implementing the additional environmental impact assessment at another design stage, namely:**

– no additional environmental impact assessment for the planned activity is provided for if compliance with environmental conditions is ensured.

The compliance with the environmental impact assessment report shall be mandatory. The environmental conditions stipulated in this report shall be mandatory.

The conclusion on the environmental impact assessment shall become invalid after five years if no decision was made to implement the planned activity.

Director of Department of Environmental Assessment M.O. Shymkus

Deputy Minister O.V. Kramarenko

Prepared by:
O.A. Hrytsak

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* If the transboundary impact assessment procedure was carried out.

** If such a need arises from the environmental impact assessment.