ALCOHOL FACTORY WITH CORN STORAGE
SUNAL

NON-TECHNICAL SUMMARY

1. INTRODUCTION

The bioethanol production facility is an industrial complex that produces high-quality ethanol from renewable raw materials - in this case, corn. The main objective of this facility is to produce ethanol of pharmaceutical and food-grade purity, intended for use in the food industry, pharmaceuticals, cosmetics, disinfectants, and other human-use products, as well as ethanol to be used as fuel. The production process will comply with the highest quality standards, including Good Manufacturing Practices (GMP) and the HACCP food safety control system.

Corn is a widely cultivated and sustainable agricultural crop in Serbia, and its use in bioethanol production contributes to the development of domestic agriculture and adds value through local processing. The ethanol produced at this facility will be of a high degree of purity, tailored to meet the requirements of both domestic and international customers in the food and health sectors.

The development of this facility supports the strategic goals of the Republic of Serbia regarding industrialization, sustainable agriculture, and reducing dependence on imported chemicals. It also aligns with development directions defined by the Green Agenda for the Western Balkans and obligations under the Energy Community.

Producing bioethanol from corn has a significantly lower negative environmental impact compared to fossil fuels and petrochemical-based processes. The fermentation and distillation processes do not involve combustion and do not emit harmful gases. By-products, such as Distillers Dried Grains with Solubles (DDGS), are used as high-quality animal feed, closing the loop and contributing to the circular economy.

Although Serbia is not yet a member of the EU, it is actively aligning its policies with European legislation, including energy and environmental regulations. This project is in line with the goals of the EU Green Deal, as well as Serbia's National Energy and Climate Plan (NECP), which includes: the development of sustainable industry and agricultural processing, increasing the share of renewable energy sources in the economy, and strengthening the resilience of the food and health sectors.

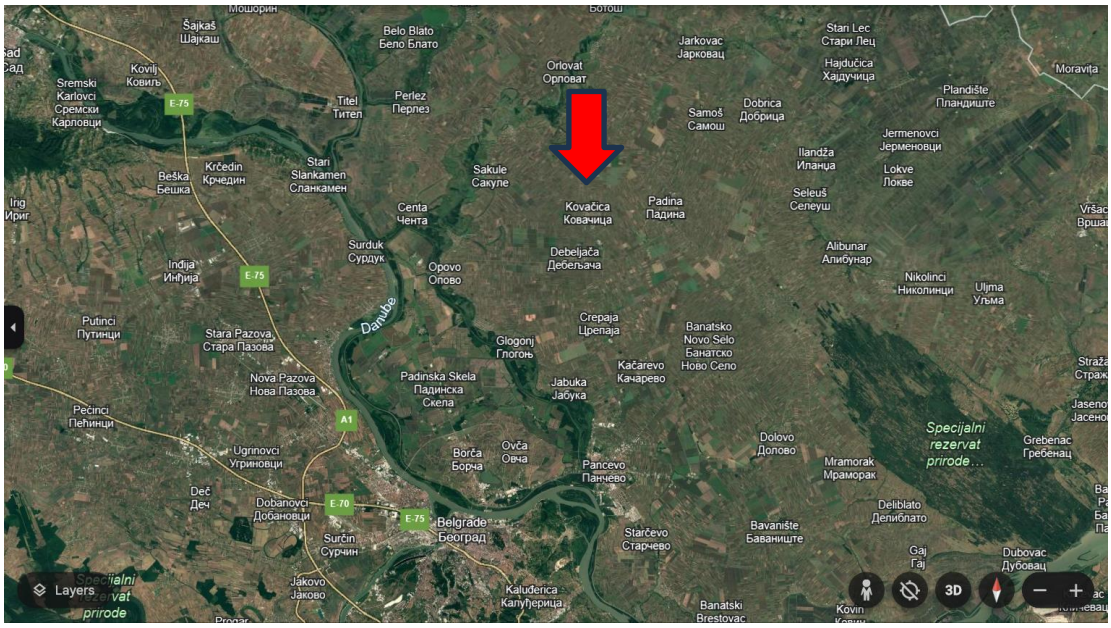
The implementation of this project ensures: the production of high-quality ethanol for the needs of the food and pharmaceutical industries, a stable and long-term demand for domestic corn—thus contributing to agricultural development, job creation and support for rural development, the application of modern technologies and environmental standards (e.g., closed water systems, emission control, and waste management), as well as increased competitiveness of Serbian industry and reduced import dependence.

This Non-Technical Summary (NTS) provides an overview of the key environmental, social, and economic benefits of the project, as well as measures to prevent or mitigate potential negative impacts during the construction and operation of the facility. The project represents a modern, responsible approach to industrial development that contributes to the sustainability and progress of the Republic of Serbia.

2. OPIS LOKACIJE NA KOJOJ SE PLANIRA IZVOĐENJE PROJEKTA

The construction of the planned facilities will take place on cadastral parcel number 8690/4, Cadastral Municipality of Kovačica, next to the sugar factory, within the Kovačica Industrial Zone.

It is located on the outskirts of the town of Kovačica, in the direction of Pančevo.



Picture 1. Macrolocation Municipality of Kovačica

Picture 2. Location position (Geosrbija portal)

The complex of the new facility will be located on a parcel that borders the Sunoko d.o.o. sugar production factory complex on its northern side.

Picture 3. Position of parcel 8690/4, Cadastral Municipality of Kovačica (Geosrbija)

Note: A re-parcelation has been carried out, so parcel no. 8690/1 is now parcel no. 8690/4.

3. PROJECT OVERVIEW

3.1 PROJECT INFORMATION

Sunal d.o.o. is a company established in 2021, operating within the MK Group, which has obtained all necessary permits for this project and has commenced construction of an alcohol factory with storage and corn intake facilities.

The Sunal alcohol factory in Kovačica is a €36 million investment and will produce 30 million litres of alcohol annually. The construction of this factory will help Serbia transition from being an importer to becoming a significant net exporter of alcohol. Located in Kovačica, the Sunal alcohol factory will operate under the Sunoko company and will be equipped with state-of-the-art technology.

The subject of the planned project is the construction of production facilities within the plant for the production of extra neutral alcohol (ENA), pharmaceutical-grade alcohol (PG), and ethanol as a fuel component (FUEL) on plots 8690/4, 8690/3 Cadastral Municipality Kovačica and 3573/2 Cadastral Municipality Debeljača. The area of plot 8690/4 in K.O. Kovačica is 111,096.00 m².

The factory is expected to begin operations in 2025, and the construction will include a complex consisting of two spatial-functional units:

1. Construction of facilities for the production of ENA/PG/Fuel alcohol - Spatial-Functional Unit No. 1
2. Construction of a silo facility – Spatial-Functional Unit No. 2

The Sunal factory will produce alcohol in three forms – food-grade, pharmaceutical, and bioethanol. Corn will be used as the raw material for production, and a grain storage facility is also planned within the factory complex.

The project encompasses a modern, integrated facility for the production of high-quality bioethanol using corn as the primary raw material. The plant is designed with a focus on supplying clients in the food and pharmaceutical industries, as well as potential fuel producers, while adhering to the strictest standards of quality, environmental protection, and safety.

The production process begins with the reception and storage of corn, followed by cleaning and milling. The milled corn undergoes liquefaction and saccharification, during which enzymes break down starch into fermentable sugars.

The resulting sugars are fermented in fermentation tanks, where yeast converts the sugars into ethanol and carbon dioxide. The ethanol-water mixture is then sent to distillation columns, where ethanol is separated and concentrated. The final purification stage includes rectification and dehydration using molecular sieves, resulting in ethanol with a purity of 96% to 99.9%, suitable for food and pharmaceutical use.

The main stages of the production process include: 1) Reception, storage, and preparation of raw materials, 2) Enzymatic hydrolysis (liquefaction and saccharification), 3) Fermentation, 4) Distillation and dehydration, and 5) Storage of the finished product and quality control.

A significant by-product of this process is Distillers Dried Grains with Solubles (DDGS), which are rich in protein and used as animal feed. The facility is designed to maximise energy and water efficiency through closed-loop water recycling systems, process heat recovery, and advanced emission control technologies.

The plant operates in compliance with Good Manufacturing Practice (GMP) and HACCP standards for the safe production of ethanol intended for food and pharmaceutical use. Modern automation and process control systems ensure product traceability, consistent quality, and compliance with environmental regulations.

Ethanol is stored in dedicated tanks and distributed via rail or road tankers, under strictly controlled storage and transport conditions.

The project contributes to the development of Serbia's bioeconomy, supports the domestic agricultural market, and enables sustainable industrial growth through the production of high value-added products from local resources. This project represents an important step towards modern, circular, and environmentally responsible industrial production, aligned with national strategic goals.

3.2 PROJECT CATEGORISATION AND SCOPE OF ENVIRONMENTAL IMPACT ASSESSMENT

The project is currently in the construction phase. All necessary permits and approvals required up to this point have been obtained. The building permit is expected by the end of July, in accordance with the applicable spatial plans and legislation of the Republic of Serbia. Environmental Impact Assessment (EIA) approvals have also been secured, including measures for emission control, noise, and wastewater, as well as occupational health and industrial safety approvals, all in line with national laws harmonised with EU standards. Water use and discharge are currently based on the expired water permit of the sugar factory (May 2025), but a request for a new permit has been submitted within the legal deadline.

The planning basis for the project includes the Urban Development Plan for the urban-architectural elaboration of the site, cadastral parcel 8690/1 KO Kovačica, for the construction of the ENA/PG/Fuel alcohol production plant with storage and corn intake, developed by the project owner "SUNAL" DOO from Novi Sad, document no. 03/23 from August 2023, and the Spatial Plan of the Municipality of Kovačica ("Official Gazette of the Municipality of Kovačica", nos. 13/2012, 09/2014, and 07/2019).

The Environmental Impact Assessment Study analysed all aspects of environmental protection at and around the project site. This was conducted using methodological steps aligned with the Law on Environmental Impact Assessment ("Official Gazette of RS" no. 94/2024), the Rulebook on the Content of the EIA Study ("Official Gazette of RS" no. 69/05), and the Decision on the required scope and content of the Study issued by the competent authority. Approvals were granted for the EIA Study for the construction of the neutral alcohol (ENA), pharmaceutical alcohol (PG), and fuel ethanol (FUEL) production plant with supporting infrastructure, as well as for the corn silo with dryer and auxiliary facilities. The introductory section of the Study defines all relevant factors that influenced the research, primarily related to the initial programme framework, legal provisions, and research methodology.

The project has been categorised as a “Category B” project by the European Bank for Reconstruction and Development (EBRD) under its Environmental and Social Policy (2024).

4. SUMMARY OF THE ENVIRONMENTAL IMPACT OF THE PLANNED PROJECT

The project is of local character. During its regular operation, measures are planned for the prevention, minimisation, elimination, and mitigation of the project's environmental impacts, ensuring they remain within legal limits. There are no residential buildings on the site or within the project’s impact zone. The nearest populated area is approximately 2 km away, ensuring that the quality of life of the local community will not be compromised during construction or operation. The land for the project was previously secured through commercial transactions, and the project does not involve altering the physical characteristics of the terrain. The main raw material used in ethanol production will be corn, sourced locally within Serbia, with no imports planned.

There are no significant ecological or cultural resources on or near the site that could be endangered. The land designated for construction has already been secured, with no need for expropriation or resettlement. The natural conditions (climate, geology, hydrogeology) and infrastructure are favourable for project implementation, and the current environmental quality is assessed as satisfactory.

Within the project facilities, water will be used for technological, sanitary, and fire protection purposes. For the administration building, sanitary water treatment is planned using filters and UV lamps. Wastewater generated during regular operations may include water from floor washing, cleaning of spent sludge, seal water, and cooling water. In the newly designed complex, wastewater will be collected via technological sewage systems within the facilities and directed either to the wastewater treatment plant or to the settling lagoons of the “SUNOKO” sugar factory.

The complex will include a softened and demineralised water preparation plant, a cooling water plant with distribution and return pipelines, and a wastewater treatment plant. After distillation and dehydration, the clear stillage and liquid residue will be sent to the wastewater treatment plant, after which the treated water will enter the liquefaction unit and be recycled back into the process.

Gaseous emissions from the technological process may include carbon dioxide with impurities and emissions from distillation and evaporation vacuum pumps. The CO_2-air mixture will be purified in a scrubber to acceptable quality before being released into the atmosphere. A CO_2 processing unit, which is not part of this project, is a separate technological unit intended to process CO_2 into a commercial-grade product. Air aspiration is planned in the milling and pelletising units, where purified air will be released into the atmosphere via two outlets. Additionally, a local filter (F-2161) with a fan (B-2161) is planned at the dryer bunker, which will capture dust during loading and unloading. The dust will be returned to the bunker, and the filtered air will be expelled from the facility.

Noise emissions during regular operations may occur due to equipment use but will be confined to the working environment. Soil contamination will be prevented by constructing all facilities on impermeable concrete platforms. During regular operations, there will be no thermal or light radiation emitted into the environment that could significantly impact environmental aspects. There will also be no ionising radiation from the production process or materials used.

Potential incidents such as raw material leaks, equipment failures, fires, and explosions have been

analysed. It has been determined that these risks can be controlled through existing preventive measures, employee training, modern technologies, and emergency procedures. Such incidents are expected to be localised and short-term, with no long-term environmental consequences.

5. DESCRIPTION OF MEASURES ENVISAGED TO PREVENT, REDUCE, AND WHERE POSSIBLE ELIMINATE ANY SIGNIFICANT ADVERSE IMPACT ON THE ENVIRONMENT

5.1 MEASURES ENVISAGED BY LAW AND OTHER REGULATIONS, NORMS, AND STANDARDS AND DEADLINES FOR THEIR IMPLEMENTATION

In order to minimize potential negative impacts during the reconstruction and operation of the subject facility, and to keep them within acceptable limits while protecting the environment, all standard protective measures prescribed by legal regulations and technical standards in this field will be applied, as well as the measures prescribed by decisions of the competent authorities and institutions:

- Law on Planning and Construction ("Official Gazette of the RS", no. 72/2009, 81/2009 – correction, 64/2010 – Constitutional Court decision, 24/2011, 121/2012, 42/2013 – Constitutional Court decision, 50/2013 – Constitutional Court decision, 98/2013 – Constitutional Court decision, 132/2014, 145/2014, 83/2018, 31/2019, 37/2019 – other law, 9/2020, 52/2021, and 62/2023);
- Law on Environmental Protection ("Official Gazette of the RS", no. 135/2004, 36/2009, 36/2009 – other law, 2/2009 – other law, 43/2011 – Constitutional Court decision, 14/2016, 76/2018, 95/2018 – other law and 95/2018 – other law);
- Law on Environmental Impact Assessment ("Official Gazette of the RS", no. 94/2024);
- Decree on the List of Projects for Which Environmental Impact Assessment is Mandatory and the List of Projects for Which an Environmental Impact Assessment May Be Requested ("Official Gazette of the RS", no. 114/08);
- Law on Waste Management ("Official Gazette of the RS", no. 36/2009, 88/2010, 14/2016, 95/2018 – other law and 35/2023);
- Law on Occupational Safety and Health ("Official Gazette of the RS", no. 35/23);
- Law on Fire Protection ("Official Gazette of the RS", no. 111/2009, 20/2015, 87/2018, and 87/2018 – other law);
- Law on Air Protection ("Official Gazette of the RS", no. 36/2009, 10/2013 and 26/2021 – other law);
- Law on Waters ("Official Gazette of the RS", no. 30/2010, 93/2012, 101/2016, 95/2018 and 95/2018 – other law);
- Law on Noise Protection in the Environment ("Official Gazette of the RS", no. 96/2021);
- Rulebook on the Contents of the Environmental Impact Assessment Study ("Official Gazette of the RS", no. 69/05);
- Rulebook on Technical Standards for Fire Hydrant Network Installations ("Official Gazette of the RS", no. 3/2018);
- Rulebook on Technical Standards for Low Voltage Electrical Installations ("Official Gazette of the SFRY", no. 53/88 and 54/88 and "Official Gazette of the FRY", no. 28/95);
- Rulebook on Technical Standards for Lightning Protection of Structures ("Official Gazette of the FRY", no. 11/96);
- Decree on Emission Limit Values of Pollutants in Water and Deadlines for Their Achievement ("Official Gazette of the RS", no. 67/2011, 48/2012, and 1/2016);
- Decree on Limit Values of Pollutants in Surface and Groundwater and Sediment and Deadlines for Their Achievement ("Official Gazette of the RS", no. 50/2012);
- Rulebook on the Method and Conditions for Measuring the Quantity and Testing the Quality

of Wastewater and the Contents of the Measurement Reports ("Official Gazette of the RS", no. 18/2024);
- Rulebook on Technical Requirements for the Design, Manufacture, and Conformity Assessment of Pressure Equipment ("Official Gazette of the RS", no. 87/11);
- Decree on the Measurement of Air Pollutant Emissions from Stationary Pollution Sources ("Official Gazette of the RS", no. 5/2016);
- Decree on Emission Limit Values of Pollutants in the Air from Stationary Pollution Sources, Except Combustion Plants ("Official Gazette of the RS", no. 111/2015 and 83/2021).

5.2 MEASURES DURING THE PREPARATION OF DESIGN AND TECHNICAL DOCUMENTATION AND EQUIPMENT PROCUREMENT

To carry out construction works or equipment installation, an appropriate work program must first be prepared, including the sequence of operations—what is to be done and how the assigned task should be executed (a simplified project with a described order of operations, enabling the implementation of specific protection measures for each operation). Every work plan and program must comply with the relevant regulations (depending on the nature of the work) to avoid any undesirable consequences.

Workers performing all tasks must be trained in the use of fire extinguishers for initial fires and must know whom to contact and how to respond in case they are unable to extinguish an initial fire.

1. When designing new facilities, it is necessary to:
    - Adapt the existing space to accommodate the layout of facilities and equipment.
    - Construct access roads to the planned buildings and organize the surrounding area according to traffic flow and stormwater drainage needs.
    - Adapt installations to the new spatial configuration.

2. The following basic conditions must also be met during the design process:
    - Ensure sufficient space for the adopted equipment layout and smooth operation of the technological process.
    - Ensure sufficient space for unobstructed maintenance of equipment.
    - Design the construction of new facilities in accordance with existing buildings in terms of materials, spans, structural systems, and appearance.
    - Take into account all specific characteristics of the location (soil features, position and characteristics of neighboring structures, elevation levels, existing infrastructure, etc.).

All investment-technical documentation must be prepared in compliance with the relevant laws, technical regulations, and standards. A technical review of the documentation must be conducted, and the necessary approvals for execution must be obtained.

In addition to the above, during the execution of works and equipment installation, the project owner must implement the following measures:
- Mechanical and technological equipment must be installed fully in accordance with the project and the supplier's instructions;
- Installation must be entrusted to a company registered and authorized to perform such works, with proven technical competence and successful experience in similar equipment installations;
- Connections between fans and ducts on the intake and exhaust sides must be made using flexible joints;

- The installer is obligated to implement all prescribed occupational safety and fire protection measures, as well as protection of equipment from accidents during installation;

Upon completion of installation, the installer must perform a cold test (test run without load) of all machines and devices, followed by any necessary fine-tuning.

5.3 ENVIRONMENTAL PROTECTION MEASURES DURING PLANT OPERATION

Protective Measures During Project Operation

- Solid waste generated from packaging materials and employee activities must be collected in metal containers distributed throughout the complex. In coordination with the responsible public utility company, a container emptying schedule must be organized. The number of containers and the frequency of emptying will be determined during facility operation.
- All transport equipment must be well-sealed, with no possibility of dust escaping from the technological systems.
- The parcel must be regularly maintained and kept clean, with no improper waste storage allowed.
- Separated impurities from the grain cleaning process are transported by conveyors to designated bins located next to the intake hopper. If needed, the impurities are emptied into a trailer attached to a tractor and either sold or temporarily stored to be returned to the process later, depending on quality.
- Within the complex, the project includes a separate drainage system.
- For the disposal of sanitary wastewater from the building facilities, a fecal sewage system with appropriate diameters and slopes is designed.
- Fecal wastewater from the buildings is evacuated into the external sewage pipe network of the complex.
- Manholes for inspection and maintenance are planned on the external sewage network, in accordance with engineering standards, to ensure smooth operation and system upkeep.
- Collected sanitary wastewater from the complex is transported via a newly designed pumping station to an existing wastewater treatment plant of the BioDisk 500 type, located on a neighboring parcel within the existing Sunoko factory complex.
- The project boundary, in terms of sanitary sewage, ends at the BioDisk unit.
- The existing BioDisk 500 unit has sufficient capacity to receive and treat wastewater from the future/subject complex.
- For stormwater runoff from rooftops, roads, and operational surfaces within the complex, the project includes a stormwater drainage network.
- The stormwater drainage system consists of pipelines, drains, and channels.
- Under normal operating conditions, all manhole seals remain closed. Before discharge into the recipient, all stormwater from the site will be treated in a light liquid separator (oil separator) with a bypass, of suitable capacity. The recipient for the treated stormwater is an existing open earthen channel within the Sunoko DOO Novi Sad complex.
- Inspection openings are included in the external drainage network, in accordance with engineering practices, to ensure proper operation and maintenance.
- There are no special conditions for waste disposal. The project proponent is required to provide a modern, selective system for collecting and managing waste materials, in accordance with the Law on Waste Management ("Official Gazette of the RS", no. 36/2009, 88/2010, 14/2016, 95/2018 – other law, and 35/2023). A designated area for waste storage is planned within the complex.

Water Supply
The facility's water supply will be provided through a connection to the internal water supply network of the Sunoko DOO sugar factory complex, for which Sunoko DOO Novi Sad has granted connection approval.

Wastewater
The sewage network must be designed as a separate system for the collection and discharge of:

- Conditionally clean stormwater
- Polluted/oily stormwater
- Sanitary wastewater
- Technological wastewater

Discharge of any waters into surface or groundwater bodies is prohibited, except for conditionally clean stormwater and treated wastewater, whose quality ensures at least a good ecological status (Class II water) of the recipient, in accordance with the Water Classification Regulation.

The quality of the effluent must comply with the limit values prescribed by the Regulation on Emission Limit Values of Pollutants in Water and Deadlines for Their Achievement, and the Regulation on Limit Values of Priority and Priority Hazardous Substances Polluting Surface Waters and Deadlines for Their Achievement.

- Achieving the emission limits for pollutants must not be done through dilution, as specified in the Regulation on Emission Limit Values of Pollutants in Water. Conditionally clean stormwater may be discharged without treatment, via the internal stormwater network and through regulated outlets, into the public stormwater sewer system in accordance with the conditions of the competent utility company, or onto green areas, retention zones within the parcel, or roadside ditches, subject to landowner consent.
- Polluted/oily stormwater (from handling areas, parking lots, roads, etc.) must be treated using a pretreatment device for potentially contaminated stormwater, in order to remove mineral and other oils and fast-settling particles.
- The dimensions and treatment efficiency of the pretreatment device for potentially contaminated stormwater must be calculated and proven to ensure the water quality is compliant before connecting it to the internal stormwater network or discharging it into the recipient.
- A cleaning solution for the pretreatment device must be provided, along with procedures for handling the separated oils and sediments, in a manner that fully protects soil and water from contamination, in accordance with the waste management law.
- Sanitary wastewater must be connected to the internal sewage network of the Sunoko DOO sugar factory complex, for which Sunoko DOO Novi Sad has granted approval.

The technical solution for the transformer station must include all measures to prevent uncontrolled transformer oil discharges. In case of oil spillage (e.g., in an accident), the spilled material must be removed safely and in accordance with surface and groundwater protection regulations. Discharging transformer oil into the stormwater system, any sewer network, surrounding surfaces, or surface and groundwater is strictly prohibited.

Condensed technological steam must be recirculated into the production process, with no discharge into surface or groundwater.
Fire protection for the facility must be ensured according to the conditions of the Ministry of Internal Affairs (MUP), Fire Protection Sector. Water for fire protection must be provided in line with the requirements of the competent public utility company, possibly by constructing a reservoir on the parcel.

The technical design and execution methods must ensure that neither construction nor operation of the facility endangers the stability of the water regime.
If negative impacts on the water regime occur during construction or operation, the investor is obligated—at their own expense and within a timeframe specified by the water management inspector—to carry out all necessary actions to restore the conditions that existed prior to the damage.
According to Article 118a, Paragraph 1 of the Water Law, the competent authority is required to electronically deliver the building permit and the construction project documentation to this company.
The investor is required to notify the Public Water Management Company Vode Vojvodine in writing about the start of construction works, so the impact on the water regime can be monitored.

After construction, the investor must obtain a water permit for the entire complex from this company. The permit will define the manner, conditions, and scope of water use, as well as the manner, conditions, and scope of wastewater discharge, storage and release of hazardous and other substances that could pollute the water, and conditions for any other works affecting the water regime.

Cultural Heritage Protection Measures
From the perspective of protecting immovable cultural heritage and assets under preliminary protection, the following conditions must be observed:

- The investor is required to provide funds for continuous archaeological supervision by experts from the Institute for the Protection of Cultural Monuments in Pančevo during all future earthworks;
- The investor and the contractor must inform the Institute for the Protection of Cultural Monuments in Pančevo in a timely manner—before submitting the notice of commencement of earthworks to the relevant authority—about the start of the excavation works;
- If, during construction or other works, archaeological sites or artifacts are encountered, the contractor is obliged to immediately and without delay suspend the works and notify the Institute for the Protection of Cultural Monuments in Pančevo. The contractor must also take measures to ensure the find is not destroyed or damaged and that it is preserved in the exact location and position in which it was discovered.

Based on the review of literature and documentation from the Institute, it has been determined that the subject area is located within a zone containing archaeological material (assets under preliminary protection according to Article 27, Paragraph 1, Item 1 of the Law on Cultural Heritage):

Location of the Sugar Factory in Kovačica – Orientation-protective excavations revealed a necropolis belonging to the "Gava" culture.

These conditions for preservation, maintenance, and use are incorporated into the urban planning project for the construction of the alcohol factory with storage and corn reception facilities on parcels 8690/1, 8690/2, and 8690/3, Cadastral Municipality of Kovačica, in accordance with Article 107, Paragraph 1 of the Law on Cultural Heritage.

Solid Waste Disposal Measures
There are no special conditions for waste disposal. The investor is required to ensure a modern, selective method of collecting and handling waste materials and substances, in accordance with the Law on Waste Management ("Official Gazette of RS", nos. 36/2009, 88/2010, 14/2016, 95/2018 – other law, and 35/2023).

Natural Heritage Protection Measures
Within the area covered by the urban development plan and its wider surroundings, there are no protected natural assets or sites proposed for protection (Provincial Secretariat for Nature Protection – conditions no. 020-3004/4 dated 18.11.2022).

The location planned for the construction of the alcohol factory with storage facilities and corn intake on cadastral parcels no. 8690/1 KO (which represents the core scope of the Urban Plan) has no buildings. On parcels 8690/2 and 8690/3 KO Kovačica, there is an existing plant of the Sunoko sugar factory, from which the future Sunal alcohol factory will be supplied. According to the above-stated conditions, this location is not categorized as a protected area (per document no. 020-3004/4 dated 18.11.2022), but it is located near habitats and protected wild species site KOV02, named "Šećeranska bara." Due to the importance of maintaining and minimizing the environmental impact of this future facility on the surrounding habitats and the overall microclimate, all established measures listed in the conditions must be fully implemented. Within the parcels designated for construction, no facilities are planned that could in any way endanger the environment, neighboring structures, or their functions—functionally, ecologically, or aesthetically. For the planned facility, an opinion must be obtained from the competent environmental protection authority regarding compliance with nature protection conditions.

Fire Protection

- To ensure fire safety, buildings must be constructed in accordance with applicable regulations, technical standards, and fire and explosion protection norms.
- The buildings must be equipped with an appropriate hydrant network and dedicated fire and explosion protection systems.
- Access roads for fire-fighting vehicles must be provided.
- All designed fire protection systems, fire access roads and platforms, and the fire station (as shown in the original document's graphics) must comply with laws, regulations, and all applicable fire safety standards for this type of building.

Occupational Health and Safety Measures

- Workers involved in this project must be informed of all necessary personal safety measures during the work process.
- Workers must be briefed by the company's designated occupational safety services.
- Responsibility for implementing safety measures lies with the site supervisor and the individual worker.
- Tools, equipment, and other work devices must be fitted with protective devices and certified for safe operation.
- Work tasks must be organized so that each worker can perform their duties without risking their life or health, and without endangering work equipment.
- Each worker must perform tasks carefully and use protective gear and equipment properly.
- Workers are obliged to immediately report to their direct supervisor any deficiency, event, or suspicious occurrence that may pose a risk to personnel, operations, or the environment.
- Supervisors and workers must be trained in first aid to assist colleagues in case of accidents.
- Workers involved in unloading operations must wear masks during the vehicle dumping process.

Accident Protection Measures

- Silo cells are designed with temperature and level monitoring systems.
- Ensure unobstructed access to all facilities.
- Install mobile dry fire extinguishers, which must be regularly inspected and refilled.
- Fire hydrants must always be operational. The required pressure in the external hydrant network is determined by calculation but must not be less than 2.5 bar at the discharge point.
- Monitor dust accumulation on equipment and facilities.
- When cleaning dust, use industrial vacuum cleaners only—sweeping with brooms or blowing dust is strictly prohibited.
- Any breakdown must be addressed and resolved in the shortest possible time.

- The project owner must keep fire protection equipment in working order and ensure employees are trained to use it.
- In case of malfunction in installations, electrical power must be turned off before attempting repairs. After repairs, installations must be tested and inspected before being put back into operation.
- Due to the potential for accidents—such as fuel or hydraulic fluid spills from transport vehicles—a sorbent must be selected (e.g., highly absorbent Primasorb pads or cotton fabrics), procured, properly stored, and designated for use. Its collection after use and disposal must comply with the Rulebook on the Method of Storing, Packaging, and Labeling Hazardous Waste ("Official Gazette of RS", no. 95/2024).

Silos

- Before the grain reception season, carry out a detailed inspection, check, and test of all technological equipment and devices in the silo, and promptly and safely address any malfunctions or deficiencies. Also, thoroughly clean the facility of residual seeds, accumulated dust, and unnecessary equipment parts, packaging, or other materials.
- Handle technological processes of receiving, storing, and drying grain with special care, constant monitoring, and compliance with established technological parameters and automation.
- Pay particular attention to moisture control of grain during reception.
- During grain unloading on the platform, vehicle engines must be turned off, and the vehicle secured against movement or tipping.
- Install and maintain a protective wire mesh above receiving pits to catch foreign objects, and regularly remove anything caught on the mesh.
- Smoking, use of open flames, welding, cutting, soldering, use of additional thermal-electric devices, and storage of flammable liquids and gases are prohibited under the canopy at the intake hopper and in the silo's machine room.
- Grain must be cleaned of impurities and foreign objects after reception and before storage.
- Regularly monitor the condition and temperature of stored grain and record the results. Temperature measuring and control devices must be regularly inspected and periodically tested.
- If the temperature of stored grain exceeds 35°C or begins to rise sharply, immediately implement measures to interrupt the self-heating process using technological operations such as elevating, cooling, or drying.
- To safely perform operations aimed at halting self-heating, a vacant cell in the silo must be available for manipulation.
- Maintain all grain transport equipment in working condition and inspect it daily.
- Keep the dust extraction system in good condition.
- During silo maintenance, pay special attention to the daily removal of accumulated dust from technological equipment, installations, structures, and floors.
- This applies to the silo, including intake/discharge points and all auxiliary rooms directly involved in silo operations—from all four sides.

5.4 PROTECTION MEASURES IN CASE OF PROJECT TERMINATION OR DECOMMISSIONING

In the event the Project is shut down, the Project Owner must restore the site to a satisfactory condition in accordance with legal regulations.

During site restoration works after project termination, organized collection of municipal waste, construction waste, waste with characteristics of secondary raw materials, hazardous waste is mandatory, and must be handled and evacuated in compliance with:

- Rulebook on the Method of Storing, Packaging, and Labeling Hazardous Waste ("Official Gazette of RS", no. 95/2024),
- Rulebook on Waste Categories, Testing, and Classification ("Official Gazette of RS", nos. 56/2010, 93/2019, 39/2021, 65/2024).

All remaining waste materials generated by the Project that still have value must be delivered to operators authorized and licensed by competent authorities for the collection, trade, and processing of secondary raw materials.

All quantities of remaining municipal-type waste must be safely removed from the site and deposited at a municipal landfill through specialized services of the Public Utility Company.

After project termination, it is mandatory to dismantle and safely remove all technological and other equipment and devices that were installed as part of the Project's operation.

6. ENVIRONMENTAL IMPACT MONITORING PROGRAM

The programme for monitoring the environmental impact of the project is carried out through systematic measurement, testing, and evaluation of environmental condition and pollution indicators. The environmental monitoring system will track all significant sources of pollution and emitted pollutants resulting from activities related to the project. This approach enables the identification of adverse environmental impacts and creates conditions for their elimination.

There is no existing data on the environmental condition of the project site. The location is influenced by mobile sources of pollution, as there are no buildings nearby.

Parameters that can be used to determine harmful environmental impacts:

To control the potential impact of the silo on air quality, it is necessary to measure the emission of pollutants into the air in accordance with the Regulation on Limit Values of Pollutant Emissions into the Air from Stationary Sources of Pollution, excluding combustion plants ("Official Gazette of RS", nos. 111/2015 and 83/2021).

It is not necessary to monitor noise in the environment because the area designated for the construction of the facilities is within parcel 8690/4, Cadastral Municipality Kovačica, which is classified as construction land outside the urban area (industrial zone) in an area of arable agricultural land.

The technological process of grain drying is not accompanied by the production of technological wastewater.

It is not necessary to monitor wastewater on the project in accordance with the Regulation on Limit Values of Pollutant Emissions into Water and Deadlines for Their Achievement ("Official Gazette of RS" nos. 67/2011, 48/2012, and 1/2016).

Locations, methods, and frequency of measuring established parameters for air pollutant emissions:

According to the Regulation on Limit Values of Pollutant Emissions into the Air from Stationary Sources of Pollution, excluding combustion plants ("Official Gazette of RS", nos. 111/2015 and 83/2021), the emission limit values for total particulate matter in waste gas are:

150 mg/normal m³ for a mass flow of less than 200 g/h.

Periodic emission measurements are carried out twice a year, at least once every six months, in accordance with Article 58, point 5, of the Law on Air Protection ("Official Gazette of RS", nos. 36/2009, 10/2013, and 26/2021 – other law), by engaging an authorised and accredited laboratory (or multiple laboratories).

The project proponent is obliged to regularly inform the inspector responsible for environmental protection about the results of testing, and in the event of exceeding limit values, to undertake technical and technological measures to reduce the concentrations of the monitored parameters to permissible levels.

Waste Monitoring
Waste monitoring involves maintaining a daily record of waste and secondary raw materials and preparing a Waste Testing Report by an authorised institution. Information on the types and quantities of waste must be reported once a year to the Environmental Protection Agency via the NRIZ portal.

For the movement of non-hazardous/hazardous waste, a Document on the Movement of Non-Hazardous/Hazardous Waste must be completed. Completing this document is the responsibility of the waste owner under Article 46 of the Law on Waste Management ("Official Gazette of RS", nos. 36/2009, 88/2010, 14/2016, 95/2018 – other law, and 35/2023), and in accordance with the Rulebook on the Form of the Waste Movement Document and Instructions for Its Completion ("Official Gazette of RS", no. 114/13) and the Rulebook on the Form of the Hazardous Waste Movement Document, the Form of Prior Notification, the Method of Submission, and Instructions for Their Completion ("Official Gazette of RS", nos. 37/2025, 47/2025).

Monitoring Plan
Only laboratories authorised (accredited) for the relevant measurements may be engaged for monitoring activities. These laboratories are responsible for the quality of the measurements.

Based on the previous points, a clear and consolidated Monitoring Plan for the project is provided.

Table 4.1. Monitoring Plan

Subject of monitoring	Parameter Monitored	Location of monitoring	Time and method of monitoring	Reason for monitoring the specific parameter	Responsibility
Air Emission Measurement Measurement of emissions is carried out at emission points as point sources of pollution.	Total Particulate Matter	Silo aspiration	After the construction of the facility, during the period between the third and sixth month from the start of trial operation.	To verify whether air emissions are within the limit values for air and to confirm the proper functioning of the process and purification equipment, i.e. the functionality of the waste gas treatment system.	**Responsibility:** Competent authority or Project Proponent (operator). **Executor:** Authorised air monitoring laboratory. **Supervision:** Competent authority or Project Proponent (operator) or authorised person.

7. NEXT STEPS

Communication with the public during construction will include the collection and analysis of complaints that may arise due to increased traffic or disturbances caused by construction activities. A complaint form and brief instructions will be available on the project website (www.sunoko.rs), in local community offices, and at the ethanol production plant locations.

During the construction phase, as well as during later operations, communication with the competent authorities will focus on fulfilling legal obligations related to reporting, providing additional explanations, resolving outstanding issues, and participating in official meetings.

In accordance with the obligations from all conditions and approvals obtained from the competent authorities, Sunal will regularly report to the relevant bodies. Project status reports, as well as reports on environmental and social aspects, will also be prepared regularly and published at least on the Project's website.

Additionally, information about the start of trial operations will be published in local (and, if necessary, national) media, and all competent authorities will be notified, based on the conditions and approvals received. If needed, further information will be published in the media (local and national) and shared with the local community.

To mark the official start of operations at the ethanol production facility, a special event may be organised.

Sunal will maintain a Stakeholder Engagement Plan (SEP) and a grievance mechanism to ensure appropriate information exchange with all stakeholders, including the local population, and to adequately address any issues that individuals or organisations consider important.

The grievance mechanism will be implemented as part of the project management system

- a standardised complaint form is included at the end of this document.

Stakeholders may submit complaints in one of the following ways:

- In writing: by completing the basic complaint information and delivering it to the following address: Novi vinogradi BB, Kovačica
- Electronically: by sending an email with the basic complaint information to: info@sunoko.rs
- By phone: by calling the following number: +381 21 4878 111

ANNEX 1. – PUBLIC COMPLAINT FORM

The same public complaint form is available in the Stakeholder Engagement Plan (SEP), which is publicly accessible on the official company website www.sunoko.rs.

Name:
Surname:
E-mail address:
Phone number (mobile or landline):
• I agree that my personal data from this complaint may be used for the purposes of submitting and processing my complaint
• I wish to remain anonymous
Description of the incident / complaint / issue
What happened?
When did it happen?
Where did it happen?
Who are the participants in the event?
Were there any immediate injuries?

Could this have a significant impact on people and/or the environment?
What could be possible concequences?
What needs to be done to resolve this complaint/issue?

Date

_____

Signature

_____