BEGEJ WATER DOO

STUDY
ON PROJECT ENVIRONMENTAL IMPACT ASSESSMENT:
CONSTRUCTION OF WASTEWATER TREATMENT PLANT (PPOV) OF THE CITY OF ZRENJANIN
On cadastral parcel 15392/5 KO Zrenjanin I

- NON-TECHNICAL DISPLAY –

Belgrade, January 2022
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(PPOV) OF THE CITY OF ZRENJANIN
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- NON-TECHNICAL DISPLAY –

PROJECT CARRIER: BEGEJ WATER DOO
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STUDY DESIGN: "ECO-VOK 2017" doo
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Belgrade, January 2022

ENVIRONMENTAL IMPACT ASSESSMENT
INTRODUCTION


The aim of the Impact Assessment Study (hereinafter referred to as the Study) is to assess the potential impact of the Project on the environment and to propose measures to reduce the impact to eligibility.

1.0. PROJECT HOLDER INFORMATION

<table>
<thead>
<tr>
<th>Business Name:</th>
<th>Begej Water doo</th>
</tr>
</thead>
<tbody>
<tr>
<td>Abbreviated Business Name:</td>
<td>Begej Water doo</td>
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<tr>
<td>Headquarters / address:</td>
<td>Bulevar Mihajla Pupina 6, 1070 Novi Beograd</td>
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<tr>
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</tr>
<tr>
<td>Representative</td>
<td>Branislav Zec</td>
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<td>e-mail:</td>
<td><a href="mailto:info@begejwater.com">info@begejwater.com</a></td>
</tr>
</tbody>
</table>
2.0. LOCATION DESCRIPTION

Macrolocation

The Central Banat administrative district covers the territory of the town of Zrenjanin and the municipalities of Novi Becej, Nova Crnja, Zitiste and Secanj.

The territory of the City of Zrenjanin is located in the central part of Banat and covers an area of 1326 km2. It borders the municipalities of Kikinda (in the north), Zitiste and Secanj (in the east), Opovo and Kovacica (in the southeast), the Belgrade city municipalities of Palilula (in the south), Titel and Zabalj (in the west) and Novi Becej (in the northwest). The city of Zrenjanin is the seat of the Central Banat District and consists of 22 settlements.

According to the data of the Republic Statistical Office (2011 census), 123,362 inhabitants live on the territory of the city of Zrenjanin. The average population density of the territory of the city of Zrenjanin is 93 inhabitants / km2. The town of Zrenjanin has 76,511 inhabitants, and 46,851 inhabitants in rural settlements.

The area of the town of Zrenjanin is 190.9 km2, and the average population density is 400 inhabitants / km2.

The location where the construction of the Wastewater Treatment Plant (hereinafter, WWTP) is planned, is located on the territory of the town of Zrenjanin, in its southeastern part.

Figure 1. Macrolocation of WWTP (R = 1000m)
**Microlocation**

Observed microlocally, the construction of WWTP is planned on KP 15392/5 KO Zrenjanin I (potes Lease), area of 26,857 m² (about 2.7 ha).

From the location of the WWTP complex is the river Begej at a distance of about 250 m to the southwest, in the direction of the southwest (via Begej) at a distance of about 650 m are residential buildings (settlement Mužija).

In the northwest direction, at a distance of about 360 m there are three residential buildings (on the ground floor of these buildings are car service, vulcanizer), and a little further, at a distance of about 500 m is Opel Circom Service Ltd. and Remondis Medison Ltd. at a distance of about 650 m.

In the northeast direction, there is "NIS Petrol" (gas station), at a distance of about 200 m.

On the south side of the WWTP complex there are undeveloped plots of land belonging to the city construction land.

On the north, northeast and east sides of the planned WWTP complex, at distances greater than 300 m there are several industrial facilities and complexes (eg Essex Furukawa Magnet Wire Balkan Ltd., Linglong International Europe Ltd., Slaughterhouse "Macvanka", Sports Airport "Ečka" and other).

*Figure 2. Overview of facilities in the WWTP environment*
3.0. PROJECT DESCRIPTION

The subject of the Study on Environmental Impact Assessment is the construction of a Wastewater Treatment Plant in the town of Zrenjanin, on the banks of the river Begej, for the amount of 25,000 m3/per day municipal wastewater. In defining the stated capacity of the plant, the number of equivalent citizens connected to the city sewerage network is 73,500 ES and 15,000 ES originating from industry, which is a total of 88,500 EC.

The future wastewater treatment plant is planned to receive municipal wastewater with an average daily flow of 25,000 m3/day. In addition to mechanical treatment, the water line in this plant also goes through biological treatment and disinfection processes, in order to meet the final quality parameters in the effluent.

The total amount of raw wastewater is introduced into the primary chamber of the plant, through a pressurized pipeline, which should be provided and is not subject to technical documentation which is the basis for the preparation of this Request. After disinfection, the treated wastewater is discharged by gravity into the Aleksandrovac Channel not far from the plant (about 100 m from the plant).

The plan of general regulation "Southeast" in Zrenjanin ("Official Gazette of the City of Zrenjanin" No. 32/14, 24/18, 32/19 and 2/21) the construction of a wastewater treatment plant is planned within the urban unit 7. In November 2020, the City of Zrenjanin signed an Agreement for the construction and management of a wastewater treatment plant with the company "Begej Water" doo.

3.1. Description of facilities, planned production process or activities, their technological and other characteristics

3.1.1. Description of objects

The Zrenjanin wastewater treatment plant is a complex system consisting of several interconnected facilities. The construction of the following facilities and facilities is planned within the WWTP complex:

1. Input flow meter
2. Entrance building
3. Dosing station - FeCl3
4. Biological pools
5. Final clarifier 1
6. Final clarifier 2
7. Pump station for recirculation and excess sludge
8. Building with blowers
9. Sludge dewatering building
10. Supernatant tank
11. Final treatment building
12. Output flow meter
13. Guardhouse
14. Power block building
15. Diesel generator
16. Administrative building
17. Workshop
18. Outflow structure
Around the complex, the installation of a panel wire fence is planned. At the entrance to the complex, there is a sliding car entrance gate with an electric motor for automatic opening, and a single-leaf pedestrian gate.

In order for the newly designed vegetation to perform its intended function - ecological, sanitary and protective, autochthonous species were selected that can be found in the wider environment, or that naturally belong to macro and microlocation conditions, both natural and man-made. Species that are defined as invasive are not included in the newly designed vegetation.

3.1.2. Description of the technological process

Purification of "raw" municipal wastewater is a multi-stage procedure, before the treated water is discharged into the Aleksandrovac Channel. The goal of the wastewater treatment plant is to reduce or remove organic matter, solids, nutrients, organisms, etc. which may adversely affect human health and the environment. The concept of the plant is a form of simulation and acceleration of natural processes of degradation of pollutants emitted into the environment.

The main reasons for municipal wastewater treatment are:

- protection of public health
- reduction of negative impacts and preservation of the environment, primarily natural watercourses and water reservoirs

The wastewater treatment plant (WWTP) is intended for the treatment of municipal wastewater of the City of Zrenjanin, before entering the recipient. The plant is designed for an average wastewater inflow of 25,000 m³/ day (1042 m³/ h).

The concept of the plant envisages the following phases of wastewater treatment:

- primary (physical-mechanical-chemical) treatment,
- secondary (biological) treatment,
- tertiary (nutrient removal and disinfection) treatment, in order to satisfy the law criteria for the discharge of treated wastewater into a natural recipient, and
- sludge treatment.

Typical municipal wastewater treatment takes place on water phase treatment lines (primary, secondary and tertiary treatment) and sludge treatment lines.

Primary treatment (mechanical) is the first step in the treatment process and is intended for the separation of suspended and precipitated solids (sand) and floating substances (grease and oils) from wastewater.

Secondary treatment (biological) is a process of biological treatment intended for the removal of organic / inorganic substances from wastewater. In this part of the plant, the anaerobic process, the anoxic process and the combined process with fixed and free activated sludge are used. Also, in this phase of treatment, the removal of suspended and precipitated solids formed in the process of secondary treatment is performed.
Tertiary treatment (nutrient / phosphorus removal and UV disinfection) is a phase of treatment aimed at removing nitrogen, phosphorus and non-pathogenic and pathogenic microorganisms from treated wastewater. The treated wastewater goes through a UV disinfection system, before being discharged into a natural recipient. It is planned that part of this water will be used for fire protection.

Sludge treatment from the secondary treatment takes place on a special processing line. Sludge dewatering is performed on a belt filter press. Dehydrated sludge is still disposed of in accordance with legal regulations. After the belt filter press, the water content in the sludge is reduced to about 20%.

3.2 Demonstration of treatment technology (processing, recycling, disposal, etc.) of all types waste materials

Waste generated on grates and sandpits with grease in the phase of mechanical treatment of wastewater is collected in metal containers and taken to the municipal waste landfill.

Sludge generated by wastewater treatment is disposed of in a landfill (i.e. at a location determined by the city of Zrenjanin) after dewatering and condensation or handed over to an authorized waste management operator for further treatment in accordance with legal regulations (Law on Waste Management and Ordinance on Waste Disposal to landfills).

Unpleasant odors may occur due to the operation of the WWTP, but aerobic and anaerobic wastewater treatment procedures are envisaged within the WWTP, whereby the carriers of unpleasant odors are removed as much as possible.

UV disinfection of treated wastewater is planned before discharge into the natural recipient - Aleksandrovački kanal. Part of the treated water is used for firefighting purposes and as service water.

3.3 Presentation of the environmental impact of the selected and other considered technological solutions

WWTP is a plant that is in the function of reducing the negative impacts of untreated municipal and industrial water in the natural recipient, the river Begej, which is the final recipient of treated wastewater in the city of Zrenjanin.
4.0. OVERVIEW OF MAIN ALTERNATIVES CONSIDERED BY THE PROJECT AUTHORITY

4.1. Location or route

From the aspect of WWTP location, alternatives were not considered because according to the General Regulation Plan "Southeast" in Zrenjanin ("Official Gazette of the City of Zrenjanin", No. 32/14, 24/18, 3219 and 02/21), cadastral parcel 15392/5 KO Zrenjanin I, which is located within the urban unit 7 and work zone 1, intended for communal areas-Wastewater treatment plant.

4.2. Production process or technology

From the aspect of technological and technical solution, the wastewater treatment procedure was chosen, which includes primary, secondary and tertiary treatment (nutrient removal and disinfection). The mentioned wastewater treatment will satisfy the quality of the effluent before discharge into the natural recipient and which is in accordance with the national legislation and regulations of the European Union.

The project in question is in the function of improving the quality of life and environmental protection.

By applying the projected protection measures, respecting the norms and standards, legal regulations and conditions of the competent authorities, the WWTP in question will significantly affect the improvement of the existing quality of the environment, especially the quality of the Begej River.

4.3. Methods of work

During the operation of the plant in question, standard methods for physical-chemical-biological wastewater treatment will be used. In this particular case, primary, secondary and tertiary wastewater treatment is envisaged, as well as treatment of sludge generated in the treatment process.

4.4. Location plans and project plans

According to the General Urban Plan of the City of Zrenjanin, for the period 2006-2026 ("Official Gazette of the Municipality of Zrenjanin", No. 19/07 and 01/08), the cadastral parcel planned for the construction of WWTP is located on the southeast side of the city of Zrenjanin, within V Spatial units "Southeast" which covers an area of 534.4 ha. According to the General Regulation Plan "Southeast" in Zrenjanin ("Official Gazette of the City of Zrenjanin", No. 32/14, 24/18, 3219 and 02/21), cadastral parcel 15392/5 KO Zrenjanin I is located within the urban unit 7 and work zones 1.
5.0. OVERVIEW OF THE STATE OF THE ENVIRONMENT AT THE LOCATION AND NEAR ENVIRONMENT (MICRO AND MACRO LOCATION)

5.1. Population

According to the data of the Republic Statistical Office (2011 census), 123,362 inhabitants live on the territory of the city of Zrenjanin. The average population density of the territory of the city of Zrenjanin is 93 inhabitants / km². The town of Zrenjanin has 76,511 inhabitants, and 46,851 inhabitants in rural settlements.

The area of the town of Zrenjanin is 190.9 km², and the average population density of the city of Zrenjanin is 400 inhabitants / km².

The nearest residential buildings are located at a distance of about 50-60m north of the subject cadastral parcel (15392/5 KO Zrenjanin 1).

5.2. Fauna and flora

Data on flora and fauna are presented in detail in Chapter 2.6. Studies.

5.3. Land, water and air

LAND

Regular monitoring of land quality at the site of the planned WWTP and the wider environment was not performed.

WATER

The nearest surface flow is the Begej River (into which the Aleksandrovac Canal flows, which is the recipient of treated wastewater at the planned WWTP), located about 100 m west of the site. The Begej River is an artificial watercourse, canalized and regulated for navigation, which originates in Romania and flows through Banat until it flows into the Tisza River near Perlez. The total length of the river is 254 km, of which 76 km in Serbia.

State network: The Environmental Protection Agency of the Republic of Serbia is in charge of controlling surface waters through a network of monitoring stations. There are three locations for monitoring the longer Begej River as follows from the picture of the monitoring station on the Begej River: (1) Srpski Itebej, (2) Klek and (3) Stajićevo. Samples and analyzes are taken once a month and include physico-chemical, biological and microbiological parameters. The results are published annually and are available to the public.

City monitoring: The Institute of Public Health in Zrenjanin is in charge of monitoring the Begej River in the Zrenjanin area. There are four monitoring points (see Figure). Samples and analyzes are carried out periodically (2-4 times a year), mostly during the summer period. Analyzes include only basic physicochemical and microbiological parameters. The amount of data and the sampling regime (May to September only) may not be considered sufficient for a complete analysis but may provide indications of the ecological status of the river.

ENVIRONMENTAL IMPACT ASSESSMENT
AIR


ENVIRONMENTAL NOISE LEVEL

Regular monitoring of noise levels in the environment at the site of the planned WWTP was not performed.


6.0. DESCRIPTION OF POSSIBLE SIGNIFICANT IMPACTS OF THE PROJECT ON THE ENVIRONMENT

6.1. Air quality, water, soil, noise level, vibration intensity

Impacts on air

Unpleasant odors may occur due to the operation of the WWTP, but aerobic and anaerobic wastewater treatment procedures are envisaged within the WWTP, so that the possible impacts of the plant will be minimized and limited to the location of the complex. The monitoring plan envisages 4 measuring points for measuring air quality in the immediate and wider environment of the WWTP.

Impacts on water

The planned WWTP is in the function of improving the quality of life, protection of the environment and especially natural watercourses - recipients in which wastewater is discharged without or with prior treatment. The monitoring plan envisages 8 measuring points for measuring the quality of surface waters in the immediate and wider vicinity of the WWTP.

Impacts on land

The construction of the planned WWTP will not endanger the existing quality of the land. It is not planned to release effluent, sludge or other substances to the surrounding land. The monitoring plan envisages 4 measuring points for measuring the quality of land in the immediate and wider vicinity of the WWTP.

Impacts on environmental noise and vibration

The increase in noise levels in the environment is due to the execution of works on the construction of the planned WWTP as well as in the regular operation of the plant. Considering that the location of the planned WWTP is within the industrial zone, no harmful impact on the residential part of the city settlement of Zrenjanin is expected. Vibrations are not expected. The monitoring plan envisages 4 measuring points for measuring noise levels in the immediate and wider environment of the WWTP.

ENVIRONMENTAL IMPACT ASSESSMENT
6.2. Population health

By reducing the pollution of natural watercourses - recipients, the negative effects of the same on the health of the population are reduced, i.e. the risk of disease of the population is reduced.

6.3. Ecosystem

The realization of the project in question reduces the impact on the ecosystem.

7.0. ENVIRONMENTAL IMPACT ASSESSMENT IN THE EVENT OF AN ACCIDENT

An accident, as defined by the European Union, is the sudden occurrence of large emissions of pollutants, fire or explosion as a result of unplanned events within a particular industrial activity occurring inside or outside the industry, including one or more chemicals. The extent of each accident can be viewed from several aspects: according to the threat to the environment, as well as the duration of adverse effects and the extent of remedial measures. The division of accidents according to the scope depending on the estimated level of the accident, the place of the accident and the method of management is accepted here. Possible accident levels are:

I - level (plant level). The negative consequences of the accident are limited to the plant and can be controlled by process personnel. The funds of the company are sufficient for organizing measures and suppressing harmful and dangerous influences, because no consequences for the community are expected.

II - level (company level). The negative consequences of the accident affected the entire plant, or the entire production complex of the plant. Environmental consequences can be expected. To respond to this level of accident, in addition to company funds, community assistance is needed.

III - level (communal level). It refers to accidents in which the negative consequences are transferred to the public sector - the commune, and the funds of the wider community (municipality or city) are required to respond to the accident.

IV - level (regional level). It is a wider and more serious accident that has regional significance, because the negative consequences of the accident can spread to the territory of several municipalities. Forces and resources at the regional or national level must be used in response to the accident.

From the above, it follows that the expected levels of accidents -I and II level, i.e. level of plant / complex. This means that possible fire and other accident situations (leaks) can be expected only in certain parts of the WWTP.
8.0. DESCRIPTION OF THE MEASURES PROVIDED FOR THE PREVENTION, REDUCTION OR ELIMINATION OF ANY SIGNIFICANT HARMFUL IMPACT ON THE ENVIRONMENT

Measures necessary to prevent, reduce and eliminate any significant adverse effects on the environment can be classified into the following:

- measures provided by law and other regulations, norms and standards for this type of activity and deadlines for their implementation,
- accident prevention measures as in the case of an accident
- plans and technical solutions for environmental protection (recycling, treatment and disposal waste materials, reclamation, remediation, etc.);
- other measures that may affect the prevention or reduction of harmful effects on life the middle.

8.1. Measures provided by law and other regulations, norms and standards and deadlines for their implementation

**Fire protection measures are defined in accordance with the following legal acts:**
- Law on Fire Protection (“Official Gazette of RS”, No. 111/09, 20/2015 and 87/18);

It is the responsibility of the Project Proponent to prepare a Fire Protection Study.

**Air protection measures are defined in accordance with the following legal acts:**
- Decree on Limit Values for Emissions of Pollutants into the Air (“Official RS Gazette”, No. 71/10 and 6/11);

Based on the Decree, the Project Holder is obliged to regularly monitor general and specific pollutants that are broadcast from defined broadcasters.

**Water protection measures are defined in accordance with the following legal acts:**
- Decree on limit values for the emission of pollutants into water and deadlines for their achievement (“Official Gazette of RS”, No. 67/11, 48/12 and 1/16);
- Decree on emission limit values for pollutants in surface and groundwater and sediment and deadlines for their achievement (“Official Gazette of RS”, No. 50/2012);
- Rulebook on the manner and conditions for measuring the quantity and testing the quality of wastewater and the content of the report on the performed measurements (“Official Gazette of RS”, No. 33/16);

In accordance with the above, it is the obligation of the Project Holder to regularly monitor the quality of water discharged into recipients.

**Noise protection measures are defined in accordance with the following legal acts:**

Decree on noise indicators, limit values, methods for assessment of noise indicators, harassment and harmful effects of noise in the environment (“Official Gazette of RS", No. 75/2010);

Pursuant to the Regulation, it is the obligation of the Project Holder to perform a one-time measurement of noise in the environment in the "zero" state and in the regular operation of the project.
Treatment of waste materials is defined in accordance with the following legal acts:

- Law on Waste Management “Official Gazette of RS”, No. 36/09, 88/2010 and 14/2016 and 95 / 18-other law); The Project Manager is obliged to:
  - keeps proper records on the types and quantities of generated waste streams and on that once reports annually to the Environmental Protection Agency,
  - obtain a Report on the examination of certain waste streams that have the character of hazardous waste before handing it over to authorized companies for their collection,
  - conclude contracts with authorized companies for taking over certain waste streams,

8.2. Measures to be taken in the event of an accident

- Prepare a Fire Protection Study;
- Obtain the consent of the competent body of the Ministry of the Interior to the technical documentation;
- The project envisages evacuation routes, determines a safe gathering place and care for vulnerable persons;
- In critical, visible and easily accessible places inside the complex (inside and outside the facilities facilities) to install mobile FF devices for initial firefighting;
- Regularly service mobile FF fire extinguishers. They must review execute appropriate authorized companies;
- All employees are required to complete a fire protection course;
- All employees are required to complete a course of safety and security at work;
- Provide a fire route for access of fire trucks;

8.3. Environmental protection plans and solutions

- The obligation of the Project Holder is that during the preparation of project / technical documentation in fully complies with the measures prescribed by law, as well as measures from the conditions determined by the competent authorities and organizations when issuing conditions for the preparation of project documentation and for construction;
- Take care of underground installations on the site (hot water and gas installation);
- Facilities and communal infrastructure, water supply, sewerage, electric power, TT installations, thermal energy installations, gas pipeline installations…) report in accordance with technical conditions and norms;
- The collected atmospheric water is brought and discharged into the supernatant tank from where it comes from pump at the beginning of the purification process.
- Sanitary-fecal wastewater from the facilities on the complex should be discharged to the plant;
- Concrete / asphalt all manipulative surfaces and internal roads;
- Carry out landscaping of all areas that are not under facilities and infrastructure facilities;
- Avoid the use of invasive species for landscaping;
8.4. Other measures that may affect the prevention or reduction of adverse effects on environment

- The sewerage network of the complex should be of a separate type, especially for collection and removal:
  - conditionally clean atmospheric waters,
  - polluted / oily atmospheric water,
  - sanitary wastewater,
  - treated wastewater of the WWTP.
- It is forbidden to bring dangerous and into the surrounding land and groundwater harmful substances that can endanger the quality (chemical status), i.e. cause physical, chemical, biological or bacteriological changes in water
- It is forbidden to discharge any water into surface and groundwater, except conditionally clean atmospheric and treated wastewater whose quality ensures the maintenance of a minimum of good ecological status (water class II) of the recipient
- The quality of the effluent should meet the limit values prescribed by the Regulation on limit values for the emission of pollutants into water and deadlines for their achievement and the Decree on limit values for priority and priority hazardous substances polluting surface waters and deadlines for their achievement
- Contaminated / oily atmospheric water from roads, manipulative space, parking lot, etc., to be cleaned on the device for pre-treatment of potentially oily atmospheric waters, in order to separate mineral and other oils and fast-settling particles
- The quality of the effluent from the WWTP at the outlet to the Aleksandrovac Canal must be ensured maintaining the minimum good environmental status of the water body type 5, based on the Regulation on limit values of pollutants in surface and groundwater and sediment and deadlines for their achievement and must meet emission limit values in accordance with Annex 2, Chapter III, Tables 2 and 3 on the limit values for the emission of pollutants into water and the deadlines for reaching them. Concentrations of harmful and hazardous substances in the effluent must be in accordance with the Regulation on limit values of priority and priority hazardous substances that pollute surface waters and deadlines for reaching them
- Effluent quality, given that the recipient of treated wastewater serves for bathing, recreation, drainage and irrigation, must meet the emission limit values for sensitive areas, in accordance with Table 4 of Annex 2, Chapter III of the Regulation on emission limit values for pollutants in water and deadlines for reaching them
- Emission limit values for residues from the process of municipal treatment wastewater (sludge) in accordance with Article 15 and Table 7 of Annex 2, Chapter III of the Regulation on emission limit values for pollutants and deadlines for their achievement, according to the defined purpose
- Provide for the installation of a flow meter for the effluent in order to register the amount of discharges purified water
- Define the effluent structure for the discharge of treated water into the recipient so that it is high the water levels of the recipient do not prevent the evacuation of water and do not cause erosion of the riverbed and shores, with all flow regimes and all water flow regimes
- At the place of the spill, the recipient should be protected from erosion by lining the riverbed stone or concrete elements, at least 3.0m upstream and downstream of the outflow site
- The technical solution of the substation must contain all protection measures against uncontrolled transformer oil discharges from transformers, method of collecting any discharged and used oil. In the event of any spillage of transformer oil (in the event of an accident), dispose of the contents in a safe manner in accordance with the regulations on the protection of surface and groundwater.
- Any discharge of transformer oil into watercourses is prohibited atmospheric or any other sewerage network, surrounding areas, open canals and absorption wells.
- After the construction of the facility and obtaining a report on the fulfillment of the conditions from the water conditions and water consents for issuing a water permit from the competent public water management company, obtain a water permit.
- Preparatory works and during their execution, provide wood and other vegetation from damage that may occur due to manipulation of construction machinery, storage of equipment, installations, etc.
- Temporary storage of any hazardous waste in accordance with Law on Waste Management.
- Upon completion of works, remove all remaining construction materials and other auxiliary materials material, and return the terrain to its original condition.
- It is forbidden to dispose of sludge from the treatment process and the area of the ecological corridor or in the zone of hydrological impact.
- The minimum width of the green buffer zone in the vicinity of the complex should be 3 to 5 m, depending on space possibilities.
- Protective greenery should contain at least 50% of indigenous woody species (shrubs and trees).
- Use mostly deciduous trees for landscaping.
- It is forbidden to use invasive species to raise green areas.
- Ensure constant conservation supervision of archaeologists during earthworks.
- If during the excavation works an archeological site is found or archeological object, as well as geological or paleontological documents that could represent a protected natural value, suspend works and inform the competent institutions.
- For generated waste (stabilized sludge and other waste generated during sludge generation) prepare a Waste Report (categorization and characterization of waste), and then, on the basis of the Report, further treat the waste.
- Perform regular maintenance of facilities and complexes.
- All waste, as well as disposal of sludge, grease and oil derivatives, entrust to the company with appropriate permission.
- Dispose of solid municipal waste in metal containers that will be regularly emptied in public utility company.
- Dispose of waste that has use value in special containers that will be emptied authorized Operator.
- Provide places for containers / bins for municipal waste and waste that is non-hazardous and has use value.
- Temporarily store hazardous waste until delivery to an authorized Operator.
- It is forbidden to burn any waste, materials and substances on and off the complex.
- Before the regular work of the Project, perform a "zero" examination of the basic factors of life environments (air, water, soil and noise level in the environment).
- In the regular work of the Project, repeat the examination of the basic factors of the environment, a then in accordance with applicable legislation.
- Organize permanent physical and technical supervision of the complex.
9.0. ENVIRONMENTAL IMPACT MONITORING PROGRAM

9.1. Presentation of the state of the environment before the start of operation of the project on sites where environmental impact is expected

In order to monitor the impact of the project on the quality of the environment of micro and macro sites, before the construction of the WWTP in Zrenjanin, "zero" monitoring of basic environmental factors (air, water, land, noise) was performed. Environmental monitoring was performed by the accredited laboratory "Anahem" Ltd. from Belgrade.

An overview of the state of the environment before the start of the project, ie before the construction of the WWTP in Zrenjanin, is described in detail in the Study.

9.2. Parameters on the basis of which harmful effects on the environment can be determined

The parameters on the basis of which the harmful effects on the environment can be determined are determined by the legislation, for each of the environmental factors.

9.3. Locations, manner and frequency of measuring the determined parameters

The places, manner and frequency of measuring the determined parameters are given in the table:

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<tr>
<th>Type of measurement</th>
<th>Place of sampling/measurement</th>
<th>Measurement Frequency</th>
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<tbody>
<tr>
<td>wastewater quality</td>
<td>before and after purification</td>
<td>once every 2 months</td>
</tr>
<tr>
<td>surface water quality - recipient</td>
<td>upstream and downstream of the outflow treated wastewater</td>
<td>once every 2 months</td>
</tr>
<tr>
<td>noise level in ŢS</td>
<td>at the boundaries of the complex</td>
<td>in the &quot;zero&quot; state and in the regular work of the project, a then by order inspector or as required</td>
</tr>
</tbody>
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