

ANNEX 3.10:

EXPERT OPINION IN PREPARATION OF THE WATER MANAGEMENT CONDITIONS, PUBLIC COMPANY SRBIJA VODE, JULY 21, 2005



PUBLIC WATER MANAGEMENT COMPANY

“SRBIJA VODE”, Belgrade

Water Management Centre “Morava” - Nis

No.: 1727/2

Date: 21 July 2005

NIS

Pursuant to the request by the Leskovac Municipality, Municipal Directorate for Urbanism, Civil and Urban Planning, No. 353-371/04-02, dated 16/05/2005 (our No. 1727, dated 18/05/2005), pursuant to Articles 14 and 15 of the Law on Water (Official Gazette of the Republic of Serbia, No. 46/91, 53/93, 48/94, 54/93) and Article 192 of the Law on General Administrative Procedure (Official Gazette FRY No. 33/97) issues the following

OPINION

In the procedure for issuing water management conditions for the elaboration of technical documentation related to the construction of a Central Wastewater Treatment Plant for the Leskovac Municipality, with discharge point into the river South Morava.

The rivers Veternica and South Morava are of particular importance for the Municipality of Leskovac and the surrounding settlements, due to the fact that they ensure the very existence of the town and the surroundings, as well as the economic development of the entire area. In particular, since the town of Leskovac is supplied by drinking water from artesian wells (right bank of the river Veternica on the territory of the town of Leskovac), the new main gravity sewer and the Central Wastewater Treatment Plant should solve the problem of collection, treatment and disposal of treated wastewater, in order to protect the surface and ground waters of the above mentioned area.

The technical documentation for the above plant should fulfill the following requirements:

1. Comply with all current regulations and norms prescribed for this type of plants, via an authorised company and provide for all necessary base maps (urbanistic, geodetic, hydrological, geo-mechanical, etc.);
2. Contain all annexes, pursuant to Article 1 of the Regulation on the content of technical documentation, that is submitted in the procedure for obtaining water approval and water permits (Official Gazette of the Republic of Serbia, No. 3/78);
3. Contain the proposal on the route of the main gravity sewer to the CWWTP, site location and type of the plant, as well as chainage of the outlet on the left bank of the river South Morava. Sizing of the plant should be performed in accordance with hydraulic calculations and analysis.
4. Contain measures and decisions for protection of the above plants against adverse effects of surface and ground waters.

5. Contain measures and decisions for protection of the outlet for effluent discharge from the CWWTP for the town of Leskovac, on the left bank of the river Juzna Morava:
Provide for an adequate position and safety of the outlet, since the river South Morava is regulated in the outlet area.
The Investor will provide for data on low and high flows of the river Juzna Morava from the RHMS of Serbia, in order to establish protective measures for the given facility against high flows (Q1%).
6. Calculate all wastewater from the area of the Leskovac Municipality, in time and space, by expected quantities and quality. Perform the wastewater analysis: sanitary and industrial wastewaters discharged into the river South Morava. The river South Morava is classified as class IIa water, pursuant to the Decree on water courses categorisation t.p./6 (Official Gazette SRS, No. 5/68). The river Juzna Morava, in the area foreseen for discharge, is regulated pursuant to the Decree on water classification (Official Gazette SRS, No. 5/68) – indicators and threshold limit values should be applied for a guaranteed low water of the given water course. All industrial waste water for industrial facilities connected to the sewer system of the Leskovac Municipality should comply with the discharge requirements, that is a protective measure for the collector and the CWWTP.
7. Provide for a solution of the sanitary and industrial waste water treatment, for the town of Leskovac and the surrounding settlements – adequate selection of level and technology of treatment on the CWWTP, in such a manner as to ensure that the water quality complies with the Decree on water courses categorisation and the Decree on water classification (Official Gazette SRS, No.5/68). The Investor, i.e. the Contracting Company, will provide for data on low waters of the river South Morava from the RHMS of Serbia, in order to establish the required treatment level. WWTP should be designed in accordance with the population equivalent – PE.
8. Provide for technical solutions that will not compromise the functioning and maintenance of the existing water structures, hydro-technical infrastructure and water regime of the existing water course: Due to the fact that the above is a protective embankment comprised within the flood protection system (Operational Plan "Official Gazette RS, No. 17/05), it is necessary to obtain the authorisation from the Head of flood protection unit for the given protection section (M.10.1.). Present the data on the site of digging and construction of the left bank embankment on the river South Morava – at the chainage where the embankment will be constructed. Foresee the technology of works on the opening and closure of the protective embankment, as well as the manner of control and criteria for the works carried out, in terms of quality. Foresee the closure of the embankment in conjunction with the existing embankment, as well as coherence and compactness ensuring the stability and water-impermeability of the embankment. The final stage of the embankment construction should comprise the following: putting humus, levelling, putting grass. Foresee the landfill site for disposal of the excavated material and other construction material used during the construction works, which should be located outside the discharge profile, and on sites which do not compromise the existing water regime.

9. Present all existing facilities, with infrastructure, and adequate connections with the newly designed facilities: main collector, central waste water treatment plant, and discharge facility of the treated water into the river South Morava.
10. In order to obtain the water conditions, the Investor shall address the request to the Ministry of Agriculture, Forestry and Water Management, Republic Directorate for Water – Belgrade, 22-26 Nemanjina St., pursuant to the Law on Water.

EXPOSITION

Pursuant to the Law on planning and construction (Official Gazette RS, No. 47/03), the Leskovac Municipality, Municipal Directorate for Urbanism, Civil and Urban Planning, on behalf of the Investor, PUC "Vodovod" - Leskovac, submitted a request to the PWMC Srbijavode Belgrade, WMC Morava – Nis, for the issuance of the opinion in the procedure for issuing water management conditions for the elaboration of technical documentation related to the construction of the Central Waste Water Treatment Plant for the Leskovac Municipality, with discharge point into the river South Morava.

Based on the site visit, on 21 July 2005, it was established that adequate technical-technological facilities, of appropriate dimensions, should be designed and constructed, which shall be optimum for the collection, treatment and drainage of waste water, aimed at protection of surface and ground water of the river South Morava in the given area.

Wastewater of the Leskovac Municipality (sanitary, industrial and storm water) is evacuated without treatment through the main discharge point – collector, on the right bank of the river Veternica, and are directly emptied in the same river (left tributary of the river South Morava).

Central Waste Water Treatment Plant of the Leskovac Municipality is located downstream of the town and of the settlement of Bogojevci, around the confluence of the river Veternica into the river Juzna Morava. This area is comprised within the protected area (Operational Plan "Official Gazette RS, No. 17/05, protection section M.10.1.), against high waters of the above mentioned water courses.

The area of the CWWTP of the Leskovac Municipality comprises the following cadastral lots: CM Bogojevce, Leskovac Municipality: CL; 117, 1178, 1180, 1182, 1184/1, 1184/2, 1189/1, 1190/1, 1191, 1192, 1194, 1195, 1196/1 and 1197.

Due to the fact that polluted water is the main cause of deterioration of quality of the natural water, it is of particular interest from the scientific, expert and practical point of view to pay special attention to the issue of waste water discharge. In such a way, the area where waste water discharge is carried out from, by applying adequate technical measures, would become optimum in terms of sanitation and hygiene.

The Request was accompanied by the following documentation:

Urbanistic conditions for the construction of the Waste Water Treatment Plant for the Leskovac Municipality, prepared by the PC "Municipal Directorate for Urbanism, Civil and Urban Planning" Leskovac, Department for Urbanism, dated January 2005, in Leskovac. The enclosed document contains Urbanistic decision and graphical part (extraction from the Urban General Plan, updated geodetic base map, plan copy,

detailed site purpose, situational plan, technical-technological plan, protective zones plan, etc.).

Based on the documentation submitted and on-site visits, the Department of the PWMC Srbijavode Belgrade, WMC Morava – Nis issues the opinion as in the disposition.

Deliver to:

1. Issuer of the Request
2. Archive

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