**REPUBLIC OF CROATIA**

MINISTRY OF ENVIRONMENTAL PROTECTION,

PHYSICAL PLANNING AND CONSTRUCTION

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Class: UP/I-351-03/07-02/147

Reg. No.: 531-08-1-1-02-08-10

Zagreb, 19 August 2008

Pursuant to Article 30 of the Environmental Protection Act (Official Gazette 82/94, 128/99) in connection with Article 237, paragraph 1 of the Environmental Protection Act (Official Gazette 110/07), at request of the company “Komunalac” d.o.o. Pakrac, following the completion of the environmental impact assessment (EIA) procedure, the Ministry of Environmental Protection, Physical Planning and Construction hereby issues the following

**DECISION**

1. **The planned project – Šumetlica reservoir – is acceptable for the environment provided that the environmental protection measures and the environmental monitoring program are implemented.**
2. **ENVIRONMENTAL PROTECTION MEASURES**

**Environmental protection measures during project preparation**

***General environmental protection measures***

1. Prepare a Site Management Plan which shall define: internal transport; storage of materials; power and drinking water supply; method of disposal of wastewater, construction waste and other waste; measures for safety at work; fire protection system.
2. Prepare a design on the exploitation of clay sites outside of the reservoir area, which shall define the method and depth of excavation, operating and final slopes, surface drainage, excavation drainage, and final improvement of the exploited site.
3. Prepare a design for technical and biological restoration of clay sites outside of the reservoir area and define phased landscape improvement which shall be implemented parallel with exploitation.
4. As part of the Detailed Design, prepare a Landscaping Design which shall define landscaping using autochthonous plant species.
5. Prepare a traffic regulation design for each road section which is associated with the execution of works.
6. As part of the Detailed Design, prepare an Ordinance on reservoir maintenance and use to define the methods on how to maintain and use the reservoir.

***Water and watercourse protection measures***

1. Design documents shall define the materials and works performance method.

**1.2 Environmental protection measures during construction**

***Water and watercourse protection measures***

1. The mechanical repair of machines or storage of fuels and lubricants at the site shall be forbidden.
2. The supply with fuel and lubricants shall be done exclusively from tanker trucks under expert control and in protected and waterproof areas designated for that particular purpose, equipped with agents to neutralize potential spills of fuels and lubricants.
3. Establish a sufficient number of chemical toilet facilities and make sure they are regularly emptied by an authorised company.
4. Define protection measures in case of a high water event.
5. Through the existing water watchmen service, monitor the status of watercourses in order to identify potential damage done during construction and channel and bank erosion.
6. Remove vegetation residues, residues left from the mowing of grass and cutting down of shrubs and trees, but leave the tree stumps in the area foreseen for inundation in order to minimize the presence of organic matter in the reservoir area and minimize the potential for erosion.

***Erosion protection measures***

1. In order to protect the reservoir area from erosion, the tree stumps shall not be pulled out after the cutting of trees.

***Noise protection measures***

1. Works shall be performed in accordance with the Ordinance on maximum permitted levels of noise in an environment in which people work and stay (OG 145/04).

***Air protection measures***

1. During the transport of dry dusty material, if the truck will take public roads, the material shall be covered with a protective cover and sprayed with water in order to reduce air pollution.

***Soil protection measures***

1. During the exploitation of clay outside of the reservoir area, perform technical and biological restoration in order to enable successful rehabilitation of the clay sites.
2. Excess material from dam excavation shall be disposed in such a way to fit nicely into the landscape and not disturb the environmental quality and the land use purpose, all according to the design.
3. Once the exploitation of clay is finished, remove all used materials in the project area in order to facilitate final biological restoration or change of use.

***Traffic and road protection measures***

1. Maintain the roads in the condition which ensures the safety of traffic and people.
2. Restore the roads upon the completion of works.

***Forest protection measures***

1. Avoid adverse impacts on forests and woodland during construction with proper and thorough site management, supervision and cooperation with the competent forest management authority.
2. Forbid disposal of any material or waste to woodland.
3. Forbid lighting fire in the open in the vicinity of a forest.

***Hunting protection measures***

1. If the game gets hurt, the employer shall compensate the hunting lessee for the damage according to the relevant price list for damaged game.

***Fire protection measures***

1. Provide constant supervision over the part of the construction site where flammable materials are located (fuels and lubricants) in order to prevent fire at the construction site.

***Protection measures concerning disposal of waste***

1. Municipal waste shall be disposed of into closed containers or tanks and collected by an authorised municipal service company.
2. Construction waste shall be disposed of in accordance with the Ordinance on construction waste management (OG 38/08).
3. The cut trees, branches and brushwood shall be disposed of in agreement with the regional office of Hrvatske šume (national forest management company).

**1.3 Environmental protection measures during use**

***General environmental protection measures***

1. Upon the completion of construction of the reservoir, the structure itself and its surroundings shall be regularly maintained according to the Ordinance on reservoir maintenance and use, defining the maintenance and use methods.
2. At the access to the structure, put up a notice specifying the code of conduct in the vicinity of the reservoir (disposal of waste forbidden, lighting of fire forbidden, etc.).

***Water and watercourse protection measures***

1. Prepare a Study on Water Protection Zones and define the water protection areas in accordance with the Ordinance on identification of sanitary water source protection zones (OG 55/02).
2. In case of cleaning the reservoir, transport the collected organic sludge to the area outside of the reservoir area in agreement with the competent authorities of the local community.
3. Excess sediment deposited at the upstream sediment retaining dams shall be used or offered to the local population.

***Landscape protection measures***

1. The area surrounding the reservoir shall be developed in such a way to preserve the features of the surrounding landscape and shall be maintained in accordance with the landscaping design.

**1.4 Environmental protection measures in case of accidents**

1. Prepare an Operating plan for the implementation of measures in the event of sudden water pollution in accordance with the National Water Protection Plan (OG 8/99) and use it even after system completion.
2. Comply with the Detailed Design of Public Alert and Information System – Šumetlica Dam (verified by the National Protection and Rescue Directorate, Service for System 112, Department for Public Alert System and Operational Technique in July 2007).
3. **ENVIRONMENTAL MONITORING PROGRAMME**

2.1 Monitoring the quantities of water in the Šumetlica watercourse

 Monitor the water level in the Šumetlica watercourse downstream at the water level gauge.

2.2 Reservoir and dam monitoring

 Monitor the quality of water in the reservoir according to the schedule defined by Hrvatske vode, at least 4 times per year, by analysing the mandatory parameters under the Regulation on water classification (OG 77/98).

2.3 Monitor the dam structure pursuant to the Design on technical observation of the dam and the reservoir.

2.4 Establish a small weather station in the immediate dam area.

2.5 Monitoring of flood barriers

 Monitor the condition of flood barriers in order to identify the frequency of required cleaning.

1. **The developer, company “Komunalac” d.o.o. Pakrac, shall make sure that the defined environmental protection measures and environmental monitoring programme are implemented.**

**Justification**

The developer, company “Komunalac” d.o.o. Pakrac, submitted on 21 September 2007 a request for an environmental impact assessment (EIA) procedure for the Šumetlica reservoir project. The request was accompanied by an Environmental Impact Study (EIS) prepared by the company Hidroing d.o.o. Osijek.

The Ministry of Environmental Protection, Physical Planning and Construction issued a Decision (Class: UP/I-351-03/07-02/147; Reg. No.: 531-08-1-1-02-07-3, dated 29 October 2007) appointing a Commission to assess the project’s impact on the environment.

The Commission held three meetings. On the first meeting held on 30 October 2007, the Commission concluded that the EIS had to be revised according to the comments of the Commission members and that due to weaknesses in the Study its technical soundness cannot be analysed. The second meeting of the Commission was held on 20 December 2007, but it was interrupted because the author of the EIS failed to comply with all the comments of the Commission members presented at the preceding meeting. The second meeting continued on 27 February 2008, when the Commission members accepted the EIS as technically sound and decided to send it to public inspection.

The EIS was available for public inspection for 14 days, from 4 April 2008 to 18 April 2008, on the territory of the town of Pakrac. Public consultation was held on 15 April 2008, starting at 11 am on the premises of the Pakrac Town Hall. A notice about the public inspection and public consultation was published in the daily Večernji list and on notice boards of the town of Pakrac and the Gornja Šumetlica Local Committee. The public inspection was coordinated by the Spatial Planning Institute of Požega-Slavonia County. During the public inspection, no written comments were received.

The third meeting of the Commission was held on 10 June 2008, when the Commission members reached a conclusion assessing the planned project as environmentally acceptable provided that the environmental protection measures and environmental monitoring programme are implemented, as specified in the Commission’s Conclusion.

**The Commission justified the project as follows:**

The Šumetlica dam is located upstream of the village of Gornja Šumetlica and a drinking water treatment plant, and downstream of the existing water intake facility, by means of which water quality is ensured, as it doesn’t get polluted since there are no settlements upstream. It was also assessed that this profile can meet the required quantities of water for water supply.

The purpose of building a reservoir on the Šumetlica watercourse is to secure the supply of water to the Pakrac and Lipik areas. The Šumetlica reservoir is formed by damming the valley at watercourse station 5+300 rkm from its confluence with the Pakra, and lies immediately upstream of the village of Gornja Šumetlica. Selection of the location is conditioned by the width of the valley, geological and hydrogeological characteristics of the location, available building materials for the dam, and the need to develop a dam that is as big as possible. At the highest water level, the volume of water in the reservoir is 2,373 x 106 m3 (of which the effective reservoir volume is 1,817 x 106 m3), the surface area of the reservoir is 17.77 ha, length 1,120 m, and the largest width 450 m.

The Šumetlica reservoir design (Hidroprojekt ing d.o.o. Zagreb) analyses an earth-fill dam, a spillway with a stilling basin, a bottom outlet with an absorption basin, a water intake structure with an access bridge, a guard lodge, an access road to the dam from the existing road in the village of Gornja Šumetlica, a replacement forest road with an access bridge, a road towards the water treatment plant, regulation of the existing channel downstream of the dam (spillway stilling basin), and regulation of torrential streams upstream of the reservoir/dam.

Water is impounded using an earth-fill dam. The dam is 175.23 m long at its crest. The dam crest lies at 382.00 m above sea level (asl), and the maximum reservoir water level at 379.00 m asl. The Šumetlica dam is an earth-fill dam consisting of a clay core, transitional layers and a retaining body made of stone material. The dam volume is 330,000 m3.

The Šumetlica is a torrential stream. Since the reservoir lies in its downstream part, in order to protect the reservoir from the sediment in the main channel of the Šumetlica and in the channels of its tributaries, the construction of in-channel sediment-retaining barriers is foreseen upstream of the future reservoir.

Clay and stone will be used to construct the Šumetlica dam. The stone is foreseen to be used from a quarry downstream of the dam profile from a distance of 3.6 km. The clay core will be built using suitable material from the reservoir area, and potential deficit will be compensated from clay pits planned to be opened some 500 m NW of the dam profile. Once the dam is built, clay pits beyond the reservoir area will be closed and restored.

**The Commision justified the environmental protection measures and environmental monitoring programme as follows:**

The environmental protection measures prior to construction are based on the Environmental Protection Act (OG 82/94, 128/99), the Nature Protection Act (OG 70/05) and the Physical Planning and Building Act (OG 76/07).

The environmental protection measures during construction are based on the Water Act (OG 107/95, 150/05), the Noise Protection Act (OG 20/03), the Forest Act (OG 140/05, 82/06), the Hunting Act (OG 140/05) and the Nature Protection Act (OG 70/05).

The environmental protection measures during use are based on the Water Act (OG 107/95, 150/05) and the Nature Protection Act (OG 70/05).

The environmental protection measures in case of accidents are based on the Environmental Protection Act (OG 82/94, 128/99) and the Nature Protection Act (OG 70/05).

The environmental monitoring programme is based on the Regulation on water classification (OG 77/98) and the Ordinance on habitat types, habitat maps, endangered and rare habitat types and measures to preserve habitat types in Croatia (OG 7/06).

Based on the above, the Ministry of Environmental Protection, Physical Planning and Construction assesses that the environmental protection measures for the proposed project stem from the laws, other regulations, standards and measures which minimize the adverse impact and preserve the environmental quality to the highest possible extent. Pursuant to Article 79, paragraph 1 of the Environmental Protection Act (OG 110/07), the decision is reached as specified in the disposition.

**Legal remedy**

There may be no complaint against this Decision, but an administrative dispute may be initiated. The administrative dispute is initiated by filing a claim before the Administrative Court in person or by post within 30 days from the receipt of this decision.

An administrative fee for this Decision in the form of government stamps in the amount of HRK 50.00 has been paid according to Tariff Class 2 specified in the Administrative Fees Act (OG 8/96, 131/97, 68/98, 66/99, 145/99, 116/00).

 STATE SECRETARY

 Nikola Ružinski

To be delivered to:

1. Komunalac d.o.o., Pakrac, Gavrinica 18
2. Hrvatske vode, VGO Sava, Zagreb, Ulica grada Vukovara 220
3. Inspection Affairs Directorate, here