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CONVENTION ON THE CONSERVATION OF EUROPEAN WILDLIFE AND NATURAL HABITATS

Standing Committee

42nd meeting Strasbourg, 28 November - 2 December 2022

New complaint: 2022/04

Hydropower plant development on Emerald Network site Komarnica (ME000000P) (Montenegro)

- COMPLAINT FORM -

Document prepared by NGO Montenegrin Ecologists Society, NGO KOD and NGO Društvo mladih ekologa Nikšić

Convention on the Conservation of European Wildlife and Natural Habitats



COMPLAINT FORM

NB: Complaint forms must be submitted in electronic word format, and not exceed 3 pages, including the first administrative page. A maximum 5-page report can be attached. The Secretariat will request additional information on a case-by-case basis.

Please, fill in this form and send it to the attention of:

Bern Convention Secretariat

Directorate of Democratic Participation

Council of Europe

F-67075 Strasbourg Cedex E-mail: Bern.convention@coe.int

First name: Vuk Surname(s): Iković

On behalf of: NGO Montenegrin Ecologists Society, NGO KOD and NGO Društvo mladih ekologa Nikšić

Web site: https://drustvoekologa.me
https://www.kod.org.me

https://dmen.me

Date: 17.03.2022 Electronic Signature:

1. Please state the reason of your complaint (refer also the Contracting Party/es involved and the Articles of the Convention which might be violated).

Montenegro has violated Article 3 and Article 4, point 1, 2 and 3 of the Bern Convention, and Recommendation No. 157 (2011) of the Standing Committee, by adopting a series of documents planning the development of the 172 MW **Komarnica hydropower plant**. The **171 m high dam** and 17.6 km long reservoir would produce significant adverse impacts on protected habitats and species in the Komarnica candidate Emerald site (ME000000P) but no appropriate assessment has been carried out according to art. 45-52 of the Montenegrin Environmental Protection Law.

Over half of the Komarnica river in the site would be flooded and two of the wildest canyons in Montenegro (Komarnica and Pridvorica) and many caves would be transformed into an artificial lake, thus irreversibly damaging the most important ecological features and the integrity of the site. Moreover, the project would flood part of the recently designated Nature park Dragišnica and Komarnica, which according to a 2018 UNESCO/IUCN mission¹" could potentially be an **appropriate addition to the (Durmitor National Park) World Heritage** property enhancing its integrity". The northern part of the potential Special Protected Area (SPA) Bukovica Valley and Vojnik Mountain (under the EU Birds Directive) would also be affected².

Environmental permitting is currently ongoing (see point 5) and the government has, to our knowledge, not yet discussed this issue with the Bern Convention, nor UNESCO. Soon there will be a point of no return, if the procurement procedures for the construction start. The Environmental Impact Assessment procedure is ongoing with public debate planned till April 2022. The **construction permit** could be issued after the EIA consent is granted.

¹ Joint World Heritage Centre/IUCN Advisory mission to the World Heritage property "Durmitor National Park", 2019.

² Rubinić, B., Sackl, P. & Gramatikov, M. (2019): <u>Conserving of wild birds in Montenegro</u>. The first inventory of potential Special Protection Areas in Montenegro. AAM Consulting. Budapest xiii

There is no legal protection of Emerald sites in Montenegro and their status and boundaries have not been updated according to the newly gained data during the process of establishing of Natura 2000 in the country. Obsolete 30 year old data on the value of the sites is still used for EIA processes of different projects.

We therefore urge the Bern Convention, IUCN and UNESCO to arrange an **on-the-spot visit by independent experts** in order to evaluate the actual situation in detail and consider opening a case file.

2. Which are the specific specie/s or habitat/s included in one of the Appendices of the Bern Convention potentially affected? (Please include here information about the geographical area and the population of the species concerned, if applicable)

Many habitats and species present along the Komarnica river are listed in the Appendices of the Bern Convention, and Annexes of the EU Habitats and Birds Directives. The following list is based on the Komarnica hydropower plant EIA³ and SEA⁴ reports, as well as on the projects to establish Natura 2000⁵, scientific articles and our own research. The area is very difficult to access, not enough field research has been done and therefore many habitats and species are missing in the EIA and SEA reports.

Species list (priority species marked with *):

Cottus gobio and probably other fish species; Ursus arctos*, Canis lupus*, Rupicapra rupicapra balcanica, Lutra lutra, Pipistrellus pipistrellus, Pipistrellus kuhlii/nathusii, Nyctalus leisleri, Rhinolophus hipposideros, Rhinolophus ferrumequinum, Myotis capaccinii, Miniopterus schreibersii; Bombina variegata, Vipera ursinii, Dinarolacerta mosorensis; Austropotamobius torrentium*/pallipes, Cordulegaster heros, Lucanus cervus, Rosalia alpina, Morimus funereus, Cucujus cinnaberinus, Cerambyx cerdo; Aquila chrysaetos (4 pairs in the SPA), Pernis apivorus (common nesting bird), Circaetus gallicus (few pairs), Falco peregrinus, Bonasa bonasia, Bubo bubo, Alectoris graeca (100-150 pairs in the SPA), Crex crex (5-7 pairs), Caprimulgus europaeus, Alcedo atthis, Dryocopus martius, Picus canus, Dendrocopos syriacus, Dendrocopos leucotos, Dendrocopos medius, Lullula arborea, Anthus campestris, Sylvia nisoria (205-411 pairs in the SPA), Lanius collurio, Lanius minor, Ficedula parva, Emberiza hortulana.

Habitats list (priority habitats marked with *):

Riverine habitat types, that according to the Strategic Impact Assessment report would be almost completely destroyed: C2.12, C2.18, C2.19, C2.1A, C2.1B, C2.25, C2.26, C2.27, C2.28, C3.55; E5.4 (subtype dominated by the Balkan endemic *Lactuca pancicii*); F9.1; G1.11; G1.21 (**91E0*** according to the Habitats Directive).

Other habitat types will be partially destroyed because they are developing both in the areas that will be flooded and in the parts that are above the planned level of the reservoir at 811 metres altitude (might also be indirectly affected by microclimate change): E1.2, E3.5; G1.6, G1.7 (91AA*), G1.A1, G1.A4 (9180*); H1 (the caves that would be flooded have not been explored yet), H2.6, H3.2 (cliffs next to the river are crucial for the protection of endemic plants).

3. What might be the negative effects for the specie/s or habitat/s involved?

- Degradation or final disappearance of various habitats and species in the flooded areas.
- Fragmentation of the remaining habitats and disabled communication between neighboring populations.
- Loss of the integrity of areas nominated as candidate Emerald site, potential Natura 2000 sites, the Dragišnica and Komarnica Nature Park and potential extension of Durmitor National Park and UNESCO Heritage Site.
- Total change of the ecosystem and microclimate conditions due to flooding of narrow canyons.
- Disappearance of most riverine species because the only remaining part of river Komarnica in the Emerald site that would not be flooded cannot provide them with refuge it is another type of habitat, i.e. there is not as much sand or large springs as in the lower part of the river.
- Total degradation of the rocky habitats and caves that are recognized as biodiversity hotspots.

1/O1.3.2%20Models%20and%20concept%20of%20Natura%202000%20network%20EN.pdf https://drustvoekologa.me/priroda-kanjona-komarnice/

https://drustvoekologa.me/projects/kartiranje-natura-2000-stanista-od-visokog-prioriteta-za-zastitu-prirode-u-crnoj-gori/https://www.academia.edu/39138586/Research on Natura 2000 network Montenegro Species Reports

³https://www.dropbox.com/s/ddgo41gzun7vjfp/Elaborat%20procjene%20uticaja%20HE%20Komarnica%20na%20životnu%20sredinu%2027.pdf?dl=0

⁴ https://epa.org.me/wp-content/uploads/2020/03/IZVJEŠTAJ%20SPU%20Komaranica.pdf

⁵http://www.natura2000.me/downloads/docs-for-web/component-

- Destruction of biocorridors for species between the Bukovica, Komarnica and Piva rivers, as well as between Durmitor National Park and Sutjeska National Park in Bosnia and Herzegovina.
- Indirect impacts on Durmitor National Park and UNESCO Heritage Site, as the area of the project shares some common populations with Durmitor (fish, reptiles, birds).
 - 4. Do you know if potentially affected species or habitats also fall under the scope of other international Conventions, (for instance: RAMSAR, CMS, ACCOBAMS, Barcelona Convention, etc) or if the area has been identified as a NATURA 2000/Emerald network site?

The area has been identified as candidate Emerald site Komarnica, Key Biodiversity Area, as well as potential Natura 2000 site Bukovica Valley and Vojnik Mountain according to the Birds Directive and Komarica and Pridvorica according to the Habitats Directive.⁶

Several non-Resolution 6 species from the IUCN Redlist are registered: *Aythya ferina* (VU, migration, wintering), *Streptopelia turtur* (VU, breeding), *Dinarolacerta mosorensis* (VU, at cliffs next to the river).

The Komarnica river was identified in a joint mission by UNESCO and IUCN as potential area to be included in the Durmitor National Park and UNESCO site to compensate for the area excluded from the national park in the municipality of Žabljak which has been damaged by unsustainable urbanization.

Crex crex, Accipitridae, Falconidae, Laniidae, Sylviidae are in Appendix II of CMS.

5. Do you know if there are any pending procedures at the national or international level regarding the object of your complaint?

The Montenegrin authorities have: 1) approved the Strategic Impact Assessment report of the detailed spatial plan for the area of the multipurpose reservoir on the river Komarnica in May 2020^7 ; 2) approved a detailed spatial plan in May 2020^8 and an Amendment in June 2020^9 ; 3) chosen EPCG as the concession-holder for a new 172 MW hydropower plant on the Komarnica River in February 2022^{10} .

Elektroprivreda Crne Gore (EPCG), a state-owned Montenegrin electricity utility, is currently working on the construction project development.

The Environmental Impact Assessment procedure has started and the public debate on the EIA is ongoing till April 2022. It does not include any appropriate assessment, as underlined above. Two public hearings were held in the small towns of Plužine and Šavnik, EPCG refusing to organise a hearing in Podgorica besides Komarnica being a project of national interest. Many interested people could not attend the meetings because of the remote locations.

6. Any other information (existence of an Environmental Impact Assessment (EIA), size of projects, maps of the area, etc)

The EIA report for Komarnica hydropower plant is available from 2022.¹¹

A detailed map and description of the Komarnica hydropower plant is provided in the Annex to this complaint.

⁶ https://www.academia.edu/39138586/Research on Natura 2000 network Montenegro Species Reports

⁷ http://www.epa.org.me/images/dozvole2020/369-22.pdf

⁸ https://www.gov.me/dokumenta/30cabe4f-22b4-4ed7-a231-e5ea1b15a6aa

⁹ https://www.gov.me/dokumenta/76377f50-cc20-42e5-83c9-59b44746f735

¹⁰ https://www.gov.me/clanak/odluka-o-izboru-najpovoljnije-ponude-2

¹¹ https://www.dropbox.com/s/ddgo41gzun7vjfp/Elaborat%20procjene%20uticaja%20HE%20Komarnica%20na%20životnu%20sredinu%2027.pdf?dl=0

Annex I to Complaint Form - threats to Komarnica candidate Emerald site (ME000000P)



Image 1. Komarnica river and canyon within the Emerald site planned to be flooded, @ Dobrica Mitrović

The 172 MW Komarnica hydropower project is planned to be built on the river Komarnica, 45 km upstream of the existing 342 MW Piva power plant, just where the Piva reservoir ends. Komarnica is planned to generate up to 213 GWh of electricity annually, operating as a peaking plant. The Komarnica reservoir would flood the middle course of the river Komarnica, the Mala (Small) Komarnica up to Nevidio canyon and the river Pridvorica, about 1 km from the town of Šavnik. According to the report on the Strategic Impact Assessment¹² of the *Detailed spatial plan for the area of the multipurpose accumulation on the river Komarnica*, there will be an overlap between the hydropower plant, the Komarnica candidate Emerald Site (ME000000P) and the Dragišnica and Komarnica Nature Park. The reservoir would flood the western part of the Emerald Site and the southern part of the Nature Park.

Impacts on protected and internationally recognised areas:

Piva canyon and Komarnica canyon monument of nature: The canyon of the river Komarnica, together with the canyon of the river Piva, was declared in 1969 a monument of nature (III IUCN category). The total area of the Komarnica Canyon covers 2,300 ha. This area will be under the direct influence of the construction of the hydrotechnical facilities. Impacts will include, above all, the loss and degradation of a number of habitat types - some completely flooded and some partially, according to the EIA report. Without mentioning if this contradicts the protection the authors say: "The area of individual habitats that will be degraded in the immersion zone is not known, because it was not possible to do habitat mapping and surface identification. Therefore, it is not possible to determine the share of these habitats in the total area of the same in Montenegro."

Dragišnica and Komarnica Nature Park: this Park (III IUCN category) was protected on 29 November 2017 based on a Decision of the Municipal Assembly of Šavnik. The Komarnica plant will flood the lowest

¹² https://epa.org.me/wp-content/uploads/2020/03/IZVJEŠTAJ%20SPU%20Komaranica.pdf

2.5 km of the Komarnica river and valley in the park. No information is given in the EIA on the regimes of the park.

Durmitor National Park UNESCO World Heritage site: The damage from construction and ski facilities on the Durmitor World Heritage site has for many years been on the agenda of UNESCO.¹³ In its state of conservation reports of 2012 and 2014, Montenegro informed UNESCO of a new initiative started in 2009 to exclude some parts damaged by illegal construction from the Durmitor National Park. The national park boundaries were subsequently changed in 2013 through the approval of the Law on National Parks. The World Heritage Centre requested Montenegro, *inter alia*, to submit the Feasibility Study on which the review of national park boundaries was based. In 2013 the Institute for Nature Protection of Montenegro prepared a Feasibility Study for the Revision of the Durmitor National Park Boundaries¹⁴. The Feasibility Study concluded that 1199.9 ha of the national park would be excluded due to "devastation" and compensated by 2570.6 ha of similar properties. However, the compensation area has not been proposed for national park status, and has instead been designated as a nature park, namely the Dragišnica and Komarnica Nature Park.

A report of a joint World Heritage Centre/IUCN Advisory mission to the World Heritage property (12-16 November 2018)¹⁵ assessed the area: "endemic, sub-endemic, relict and rare flora in the area of Dragišnica and Komarnica are conditioned by historical factors and the great diversity of orographic and microclimatic conditions. Regarding geological characteristics, rocks of different geological composition and age are present in this area, and most of them have Mesozoic sediments, with different variations of limestone, dolomite and flysch. The above characteristics of the proposed area demonstrate the variety of geological and biodiversity features, similar to those inside the Durmitor National Park. The proposed area could therefore potentially be an appropriate addition to the World Heritage property enhancing its integrity. However, unlike initially planned, Dragišnica and Komarnica have not been included into the National Park Durmitor but designated as a Nature Park only, which implies that the protection regime for this area is weaker than for National Park Durmitor, according to national legislation on nature in Montenegro. The management of the Nature Park is in the view of the mission not effective enough to prevent some uses of natural resources that would not be in line with the high protection standards of the national park and the World Heritage property. (...) In conclusion, the mission considers that the proposed area of the Dragišnica and Komarnica Nature Park only qualifies for inclusion of the area into the World Heritage property if it meets the same high-level protection standards of the property, i.e. if it becomes a part of the National Park Durmitor.".

The national and local authorities have so far disregarded the recommendations by UNESCO/IUCN for strict protection of the Komarnica river and inclusion in the national park and World Heritage list. The construction of the Komarnica hydropower plant would not be allowed if the provisions from the National Parks Act (Article 16 and 18) were followed.¹⁶

Impacts on selected protected species and habitats:

The EIA report describes many protected species and habitats, but the field surveys were insufficient to quantify the impacts. Not all the river stretches to be flooded were visited - for example, fish were researched only at two points of the river Komarnica and flora at four. On p.126 of the EIA report it is written: "based

¹³ http://whc.unesco.org/en/list/100/documents/

¹⁴ Institute for Nature Protection of Montenegro (2013). Expert Base – Feasibility Study for the Revision of the Durmitor National Park Boundaries (revised version)

¹⁵ https://whc.unesco.org/en/documents/174707

¹⁶ https://epa.org.me/wp-content/uploads/2017/12/zakon-o-nacionalnim-parkovima.pdf

on the available data, it is not possible to reliably determine the area of the (plant) community that will be flooded if a reservoir is formed." Additionally, the biodiversity experts visited the site for a very short time and not in all seasons. Thus most of the impacts cannot be predicted, and in this case **the precautionary principle should be applied** - not to carry out any harmful activities before there is scientific knowledge. Still, even with the limited knowledge now available, the impacts on some species and habitats would be so significant that the project could not go forward according to the Bern Convention and the EU Habitats, Birds and Water Framework Directives.

According to the Strategic Impact Assessment report, 21 of the 88 Natura 2000 habitats in Montenegro are present in the Komarnica river basin. The authors of the EIA report accept that the project would flood many limestone cliffs with "significant numbers" of endemic plant species. Even more, they made there the first discovery outside Croatia of the highly threatened *Degenia velebitica*, 17 but didn't propose any changes to the project design. The proposed ex situ protection measures are unacceptable as there is no detailed baseline study to quantify the populations of the endemic plants that would be flooded, and as there is barely any experience in ex situ cultivation of these plants to prove that the measures will be successful: "as the subject area, according to research conducted during this study, is one of the centers of endemism of vascular flora of Montenegro, including the Komarnica gorge and tributaries in the wider area of planned works, it is necessary to monitor endemic flora, especially local endemics, to identify all current and potential habitats, in order to provide conditions for the movement of endangered endemic species from habitats that will be changed due to the performance of works and the formation of reservoirs". Additionally, Montenegro has the obligation to protect the limestone cliffs in the Emerald site as habitat H3.2 Basic and ultra-basic inland cliffs and in the future Natura 2000 network as habitat 8210. The proposed ex situ protection projects would be de facto compensation measures, according to the Habitats Directive Art.6.4, but would also be unacceptable because there are alternative solutions to the project and the measures would not ensure that the overall coherence of the ecological network is protected - it is impossible to compensate with ex situ measures for the destruction of some of the most representative cliffs in the country.

According to the EIA report, of the 7 caves recorded during the field visits in 2019, none has been explored yet. At the same time, according to the 2018 report *Establishment Of Natura 2000 Network In Montenegro*. General Report On Cave Habitat Type¹⁸: "KBA (Key Biodiversity Area) Durmitor and Tara Canyon with Komarnica river has the greatest speleological value among those KBAs analysed under the project. KBA Durmitor and Tara Canyon with Komarnica river is the most investigated area, but biodiversity is still far from complete inventory. Speleological objects in this KBA are great in number, in morphological diversity and in biological richness.".

The authors affirm that the project will impact priority habitat 91EO* from Annex I of the Habitats Directive (black and gray alder communities), but wrongly conclude that because this is the mountain sub-type of the habitat it is not of priority for conservation. The Habitats Directive doesn't differentiate between the lowland and mountain sub-types of this habitat - all are priority for conservation and consequently Art.6.4. should apply (transposed as Art.52 of the Nature Protection Law in Montenegro). The project will impact also other priority habitats: 91AA*, 9180*.

The authors claim that the five species of fish recorded are not protected by law and are widespread in the Montenegrin part of the Black Sea basin. But *Cottus gobio* is from Annex II of the Habitats Directive and resolution 6 of the Bern Convention, so its habitats should be protected. More research on fish is needed *before* any construction and not *during* construction as proposed. Moreover, the proposed mitigation measures for restocking are completely counterproductive for such a pristine river: "in case changes in

¹⁷ https://www.researchgate.net/publication/343413693 The Rivers of Montenegro

¹⁸ https://www.speleo.cz/file/11909/caves-montenegro-natura2000.pdf

communities of aquatic organisms are identified during construction, it is necessary to consider the introduction of additional measures, such as restocking" (p.285). No fish pass is proposed or possible.

The Eurasian otter (*Lutra lutra*) was registered at several points of the river Komarnica. But more importantly, in an otter scat, in the area of the lower course of the river Komarnica, in the zone of the dam construction, the remains of decapod crabs of the genus *Austropotamobius* were recorded. Based on the found remains, the species could not be reliably determined. There are two species of this genus in Montenegro and both are listed in Annex II of the Habitats Directive and Resolution 6 of the Bern Convention 1979. In the Danube Basin, this probably is the priority species - stone crayfish *A. torrentium*.

The richness of birds is proven by the data collected for the proposed Natura 2000 site Bukovica Valley and Vojnik Mountain: Komarnica is one of the most important areas for protection of species nesting on rocky habitats (golden eagle *Aquila chrysaetos*, rock partridge *Alectoris graeca*, eagle owl *Bubo bubo*, etc.). Nevertheless, the impact of the flooding of cliffs or the possibilities for collision with the new transmission lines was not assessed, only wishful recommendations were given in the EIA: "special attention should be paid to the impact of the transmission line, the construction of which is planned, which includes the selection of technical solutions that are least harmful to ornithofauna, ie those that reduce the possibility of increased mortality of birds from electric shock".

As shown in Table 6.3.13. of the EIA in the area of Komarnica the presence of 126 species of diurnal butterflies has been determined. Compared to 192 identified species of diurnal butterflies in Montenegro (Franeta, 2018), this number represents 65%, which shows the biological diversity of the area.

According to the preliminary results of the hydrobiological survey of the area, 38 macroinvertebrate taxa were recorded in the Komarnica river (Table 6.3.15). The dominance of fast flowing water organisms is recorded in the community, with 51% of the total number of recorded organisms. According to the same classification, more than 40% of the recorded species are lithophilic, ie, characteristic of rocky substrate. All these organisms are sensitive to changes in the type of substrate and to changed hydrological conditions.

History and procedures of the development of the Komarnica hydropower plant:

The construction of the Komarnica power plant was first mentioned in 1972, followed by additional studies of energy utilization in the basin of the river Komarnica in the mid-eighties. In 2012, the Montenegrin government adopted a draft detailed plan for a multipurpose reservoir on the river Komarnica as a part of the Energy Development Strategy of Montenegro until 2025 (EDS 2025), and some preparatory work started (galleries and boreholes on both banks of the river). In June 2012, NGO Green Home held a roundtable on multipurpose reservoirs on the river Komarnica, attended by government representatives. The NGO put forward its suggestions after which it was agreed by the government to carry out a better quality assessment of the impact of the planned project on the environment and development of the area. In 2013, the Komarnica project was stopped due to potential geological problems.¹⁹

 $^{^{19} \, \}underline{\text{https://serbia-energy.eu/montenegro-large-hydrological-projects-stopped-due-to-the-lack-of-investors-interest/}$

In October 2015, the Government of Montenegro signed a memorandum of cooperation with Chinese company Norinco International²⁰ as well as a document with the government of Slovenia and Turkey²¹ related to the construction of hydropower plants in Montenegro including Komarnica. As stated in the public debates, the project is planned to be developed by Elektroprivreda Crne Gore AD Niksic (EPCG) and Elektroprivreda Srbije (EPS).²² In the beginning of 2018, EPCG signed an agreement worth over EUR 1.6 million with a group of bidders from Serbia to produce a preliminary design plan for Komarnica. Financing for the project has not yet been secured, to the best of the complainants 'knowledge. In March 2022 public hearings were held on the EIA report in the small towns of Plužine and Šavnik, EPCG refusing to organise a hearing in Podgorica besides Komarnica being a project of national interest. Many interested people could not attend the meetings because of the remote locations.

Readily available more sustainable solutions like combining wind and solar energy with the already existing hydro-power stations have not been investigated in detail by EPCG or the Montenegrin government. EPCG claims another dispatchable peaking plant is needed despite Komarnica's proximity to the existing Piva peaking hydropower plant. Thus, the planned Komarnica hydropower station has also been planned without taking alternative solutions seriously into account.

Maps:

²⁰https://www.gov.me/clanak/153673--potpisan-memorandum-o-razumijevanju-izmedu-vlade-crne-gore-i-norinco-international-coorporation-ltd , https://serbia-energy.eu/sr/crna-gora-nekoliko-kompanija-zele-da-grade-male-he/

https://balkans.aljazeera.net/news/balkan/2015/10/28/plan-za-gradnju-hidrocentrala-u-crnoj-gori

²² https://www.power-technology.com/marketdata/komarnica-montenegro/

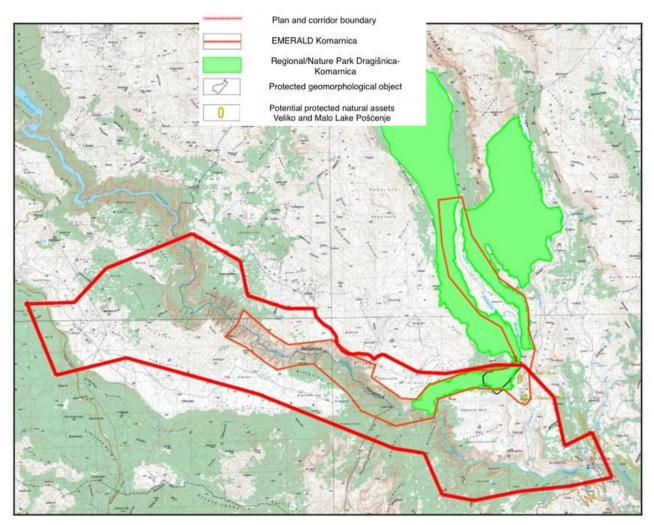


Image 2. Boundaries of the spatial plan of the Komarnica hydropower plant (thick red line), the Emerald Site, the Dragišnica-Komarnica Nature Park, the Nevidio Canyon geomorphological object, and the Veliko and Malo Lake Pošćenje potential natural monuments.



Image 3. Map of the proposed reservoir flooding Komanica, Mala Komarnica and Pridvorica rivers