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## CONVENTION ON THE CONSERVATION OF EUROPEAN WILDLIFE AND NATURAL HABITATS

### **Standing Committee**

42<sup>nd</sup> meeting Strasbourg, 29 November - 2 December 2022

New complaint: 2022/01

# Alleged habitat destruction in the area of Novi Sad due to proposed infrastructure constructions (Serbia)

- COMPLAINT FORM -

Document prepared by

Earth Thrive Zastitimo Jadar i Radjevinu / Protect Jadar & Radjevina – Serbia /

Earth Law Center - USA

Convention on the Conservation of European Wildlife and Natural Habitats



#### **COMPLAINT FORM**

First name: Zoe
Surname(s): Lujic

On behalf of (if applicable): **Earth Thrive,** international NGO, serving as a stand-in legal guardian to represent the rights of impacted wild flora and fauna species and endangered habitat in Serbia **Zastitimo Jadar i Radjevinu / Protect Jadar & Radjevina – Serbia Earth Law Center – USA** 

Web site: https://www.earth-thrive.org/

Date: 30th September 2021

## 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)

Serbia has violated, at minimum, Articles 3.2, 4.1, 4.2, and 5 of the Bern Convention by failing to take appropriate and necessary legislative and administrative measures to protect wild flora and fauna species (including those listed in Appendices I and II) and endangered natural habitat from Rio Tinto's planned lithium mine in the Jadar River Valley ("Jadar mine" or "mine"). The mine, processing plant, and tailings storage facility area impact a total area of about 293 km² as Europe's largest lithium mine. Rio Tinto (via subsidiary Rio Sava Exploration) expects to begin construction in 2022, with an intended operational date of 2026.

Serbia has thus far approved the mine despite limited information about environmental impacts and inadequate public participation. For example, Serbia's Ministry of Environmental Protection approved the mine's strategic environmental assessment (drafted by the Ministry of Construction, Transport and Infrastructure and commissioned by Rio Tinto) in  $2020^1$  despite major shortcomings and oversights, such as its failure to disclose the mine's water usage and resulting impacts to species and habitat. The Serbian government denied public requests for more information ("Exhibit A"). Additionally, the Serbian government adopted Rio Tinto spatial plan in 2020 despite the mine's preliminary design still being incomplete and other major shortcomings<sup>2</sup>.

The limited available information shows the mine will have widespread severe impacts to wild flora and fauna species and endangered natural habitats (see Questions 2-3). Already, local communities have reported soil and groundwater pollution from two research drills<sup>3</sup>. These early impacts are indicative of the damage to come.

The mine would also violate the inherent rights of impacted species and their habitats. Due to the shortcomings of Serbia's laws, enforcing the Rights of Nature is "necessary" to protect species and their habitats in accordance with the purpose of the Bern Convention (e.g., Arts. 1-10; see "Exhibit B" for an indepth analysis).

https://balkang reenenergy news.com/serbian-prime-minister-rio-tintos-jadarite-mine-investment-is-going-as-planed.

<sup>&</sup>lt;sup>1</sup> Rio Tinto, https://company-announcements.afr.com/asx/rio/4743a6aa-3a64-11eb-9ec1-6a6f205f758b.pdf.

<sup>&</sup>lt;sup>2</sup> Balkan Green Energy News,

<sup>&</sup>lt;sup>3</sup> BIRN, https://birn.rs/posledice-istrazivanja-rio-tinta-bor-iz-podzemnih-voda-osusio-detelinu.

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)

**Location**: The proposed mine is located in the biodiverse Jadar River Valley, south of Iverak Mountain and Cer Mountain, featuring an Important Bird and Biodiversity Area. The major town of Loznica, 22 villages in Loznica and Krupanj municipalities, and the "Cultural Landscape Tršić-Tronoša" are situated within the Spatial Plan. The mine would impact two category I landscapes of outstanding features as defined by Serbian law<sup>4</sup>.

Habitats: Total 807 ha impacted. See "Exhibit C" for habitat types with EUNIS codes.

**Species:** The mine will impact 68+ species in the Bern Convention (all *Appendix III unless listed otherwise.*)

- <u>-3 Mammal species</u>: Roe deer (*Capreolus Capreolus*); Brown hare (*Lepus Europaeus*); Beech marten (*Martes foina*)
- <u>-53 Bird species</u>: A mix of **Appendix II** and Appendix III species (Listed in Exhibit C)
- <u>-2 Reptile species</u>: Slow worm (*Anguis fragilis*); Grass snake (Natrix natrix)
- <u>-5 Amphibian species:</u> Common Toad (*Bufo Bufo*); Alpine Newt (*Ichthyosaura Alpestris*); European Tree Frog (*Hyla Arborea*) (**Appendix II**); Fire Salamander (*Salamandra Salamandra*); The smooth newt (*Lissotriton vulgaris*)
- -2 Insect species: Common slow worm (*Anguis Fragilis*); Large Blue Butterfly (*Maculinea Arion*) (**Appendix II**)
- <u>-3 Fish species</u>: Schneider (*Alburnoides bipunctatus*); Gudgeon (*Gobio obtusirostris*); Undermouth (*Chondrostoma nasus*)

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

As stated above, we lack sufficient information due to the unwillingness of Rio Tinto and the Serbian government to release adequate information for the public. However, based on available information, the project will cause the following impacts, at minimum (additional info in "Exhibit D" of the attached report):

- -A 2021 EIA scoping document from Serbia's Ministry of Environmental Protection finds 15 negative impacts from the mine, including the loss of plant and animal species, reduced habitat connectivity, pollution (air, soil, water), deforestation, bioaccumulation of heavy metals, and leaching within rivers and streams, amongst others<sup>5</sup>. Those impacts notwithstanding, the document has major omissions, e.g., mentioning no bird species.
- -A team of Serbian scientists found immediate damage to forests, meadows, and agricultural areas surrounding the mine in addition to lasting impacts to local water supplies<sup>6</sup>. Further, toxic chemicals being stored by a mere 1.5 millimeter thick foil, if leaked, would result in damage as far as 160 hectares away from the storage facility.
- -The mine will result in major deforestation due to road construction and tailings<sup>7</sup>. The mine will likely have fair-reaching impacts to wildlife and habitat, such as from increased heavy metals in the soil and air pollution.

 $\underline{\text{https://balkangreenenergynews.com/academician-stevanovic-sanu-rio-tintos-jadarite-mine-could-cause-irreversible-damage.}$ 

https://www.mgsi.gov.rs/sites/default/files/SPU%20PPPPN%20JADAR%20JU.pdf

<sup>&</sup>lt;sup>4</sup> Official Gazette of RS Nos. 97/15, 102/10, 36/09, 88/10, 91/10-correction, 14/16, and 95/2018.

<sup>&</sup>lt;sup>5</sup> Захтев за одређивање обима и садржаја Студије о процени утицаја на животну средину пројекта подземне експлоатације лежишта литијума и бора "Јадар" Министарство заштите животне средине Републике Србије (Translated from Serbian to English).

<sup>&</sup>lt;sup>6</sup> Balkan Green Energy News,

<sup>&</sup>lt;sup>7</sup> Ministry of Construction, Transportation and Infrastructure, "Spatial Plan for the Area of Special Purpose of Realisation of the Project of Exploitation and Processing Mineral Jadarite"

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?

In addition to species listed under the Bern Convention, the Jadar mine would impact species listed under other international conventions. Exhibit E of the attached report includes a list of 15 mammal, 55 bird, two plant, 10 amphibian, 4 insect, and 11 fish species that are all on the IUCN Red List. Some of these species are also listed under the Bonn Convention, the EU Conversation of Natural Habitats and of Wild Fauna and Flora, and others.

These listed species are found across Tršić-Tronoša and the NATURA 2000/Emerald sites of Cer ountains and Donje Podrinje (RS023IBA), both of which will be negatively impacted by the mine. The Spatial Plan for the mine contains up to 50 cultural and heritage sites that support many native animal species and plants.

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

Serbia's legal system fails to provide adequate legislative and administrative protection for wildlife and habitats. Serbia has taken a pro-mining stance through its law and policy. Serbia's weak EIA process also makes it difficult for the public to fully review environmental impacts<sup>8</sup>. Despite these hurdles, Serbian lawyers are preparing a case against the Serbian government, Prime Minister, and Rio Tinto for environmental law violations. However, advocates believe it is unlikely the lawsuit will result in meaningful changes to the project. Additionally, the Sustainable Mining Alliance and partners are filing an OECD complaint, and there is also a plan to submit an Aarhus Convention complaint<sup>9</sup>. The Bern Convention complaint itself is essential due to the imminence of the Jadar mine; for example, Rio Tinto is already shipping a processing plant to Serbia<sup>10</sup>.

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

There are three upcoming EIAs (for the mine, mineral processing facility, and tailing storage facility site), but even prior to these assessments being approved, the project has already started developing with plans to break ground in 2022. The public believes it to be inevitable. Additional details can be found in the enclosed exhibits.

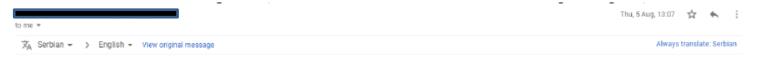
<sup>&</sup>lt;sup>8</sup> Šipka et al.,. *Implementation of the Environmental Impact Assessment in Serbia in the EU Integration Context: Current State and Recommendations* (pp. 97-99) (2014).

<sup>&</sup>lt;sup>9</sup> For more information, contact marija.alimpic@gmail.com and zoelujic@earth-thrive.org.

 $<sup>^{10} \</sup> Balkan \ Green \ Energy \ News, \ www.balkangreenenergynews.com/rio-tinto-to-ship-pilot-lithium-processing-plant-to-serbia-from-australia$ 

#### EXHIBIT A

**Letter from Serbian Government Denying Request for More Information on Environmental Impacts** (Translated; Serbian version available upon request)



#### Respected,

Based on your e-mail from 31.07.2021, year in which you request that you send an inspection to the field as soon as possible and submit a report to us, we inform you of the following:

According to the Law on Waters ("Official Gazette of RS", No. 30/2010, 93/2012, 101/2016, 95/2018 - other law), the water inspector has the right and duty to check the regime and quality of water in watercourses, lakes, reservoirs and groundwater.

The Republic Inspectorate for Environmental Protection performs inspection supervision over legal entities that discharge pollutants into water, ie controls wastewater at the discharge into the recipient, according to the Decree on Limit Values for Emissions of Pollutants into Water and Deadlines for Reaching Them ("Official Gazette of RS", No. 67/2011, 48/2012, 1/2016).

Date 01.08.2021, year, the Republic Inspectorate for Environmental Protection conducted a tour of the location listed in the application, in order to determine whether there are elements of jurisdiction that would act. On that occasion, photo documentation was made. It has been determined that the water surface is neglected, overgrown with bushes, and in its vicinity there is not a single economic entity that would be subject to the supervision of the Republic Inspectorate for Environmental Protection by discharging wastewater.

Date 02.08.2021. year, by sending photos and information about the site visit by the Republic Inspector for Environmental Protection, the Water Inspection of the Ministry of Agriculture, Forestry and Water Management was notified, in order to get acquainted with the allegations from your application.

Regarding the allegations from several submissions, submitted in the same case, that the locals were afraid that the "red water" occurred due to the hydrogeological wells of Rio Sava Exploration doo Belgrade, a subsidiary of Rio Tinto, which has an exploration right in this area, according to the information we have, Rio Sava Exploration doo Belgrade has the approval of the Ministry of Mining and Energy to perform applied geological and hydrogeological research, and the supervision is performed by the competent inspection of the Ministry of Mining and Energy according to the Law on Mining and Geological Research. In accordance with the above, we would like to inform you that the Ministry of Environmental Protection has not issued any act within the competence of this Ministry, on the basis of which the Republic Inspectorate for Environmental Protection would perform supervision.

#### **EXHIBIT B**

#### The Inherent Rights of Nature

**Introduction:** The Jadar mine, if allowed to be opened, would violate the inherent rights of wild flora & fauna species and endangered natural habitats in Serbia. Due to the shortcomings of traditional environmental laws, recognizing & enforcing the Rights of Nature is "necessary" to protect species & their habitats in accordance with the purpose & requirements of the Bern Convention (*see e.g.*, Arts. 4-7).

**Background on the Rights of Nature:** Despite the passage of thousands of environmental laws, Nature's health continues to decline due to biodiversity loss, deforestation, the destruction of rivers and watersheds, climate change, and other harms. For example, there has been a 68 percent loss of global wildlife populations over the last 50 years<sup>11</sup>. Serbia has also experienced massive losses of natural habitats and wild flora and fauna, as showcased in the recent European Rights of Nature Tribunal on the subject of the devastated rivers of the protected Mountain Kopaonik in Serbia<sup>12</sup>. (Full judges' verdict of the case available upon request.) Environmental declines impact humans, as well, because we are part of Nature.

A primary cause of these crises is the legal system's treatment of Nature as mere human property, with only humans and human-made entities possessing even the most basic rights. In turn, the economic system in Serbia and globally treats Nature as a commodity, encouraging its exploitation for short-term profits. This fundamentally flawed model has led to the inevitable result of the global degradation of Nature<sup>13</sup>.

The Rights of Nature challenges the notion that Nature is mere property and instead acknowledges that

 $<sup>^{11}\</sup> WWF, \textit{Living Planet Report 2020}, \ https://www.worldwildlife.org/publications/living-planet-report-2020.$ 

<sup>&</sup>lt;sup>12</sup> Balkan Rivers Case, https://www.rightsofnaturetribunal.org/cases/balkans-rivers-case.

<sup>&</sup>lt;sup>13</sup> Grant Wilson, *Envisioning Nature's Right to a Stable Climate*, 10(1) Sea Grant L. & Pol'y J. 60 (2020), https://heinonline.org/HOL/LandingPage?handle=hein.journals/sglum10&div=9&id=&page=.

natural entities—including ecosystems and plant and animal populations—possess inherent rights, just as humans do<sup>14</sup>. The Rights of Nature are similar to human rights but for all life on the planet<sup>15</sup>.

Sometimes, legal guardians are appointed to defend Nature's rights, or they can be enforced by the general public. The Rights of Nature is recognized at some level of government in at least 15 countries<sup>16</sup>.

The Rights of Nature supports the paradigm shift necessary to protect species and habitat. A 2019 United Nations "mega report" on biodiversity loss called repeatedly—21 separate times—for "transformative change" to safeguard life on Earth<sup>17</sup>. In 2020, the "Leaders' Pledge for Nature," signed by more than 60 Heads of State and governments, similarly concluded that "transformative change is needed." The Rights of Nature achieves the "transformative change" being called upon by the international community.

**Rights of Nature and the Bern Convention:** The Bern Convention supports consideration of the |Rights of Nature. First, the Preamble of the Bern Convention explicitly recognizes the "intrinsic value" of wild flora and fauna ("Recognising that wild flora and fauna constitute a natural heritage of (...) **intrinsic value** that needs to be preserved and handed on to future generations")<sup>19</sup>. Therefore, the Bern Convention takes an ecocentric, or Earth-centered, perspective, rather than taking the typical anthropocentric perspective that Nature's value is derived from its human benefits. Legal scholars have posited that "entities that have value for their own sake, rather than for the value they provide others, can have rights." Therefore, recognizing the Rights of Nature is the natural extension of recognizing Nature's inherent value.

We encourage the Secretariat to likewise interpret the Bern Convention in a manner that considers, supports, and/or enforces the Rights of Nature. This is one of the primary purposes of our complaint.

Article 4 of the Bern Convention also supports, if not necessitates, consideration of the Rights of nature (see also Articles 5, 6, 7, 10). Article 4 of the Bern Convention requires Contracting Parties to "take appropriate" and necessary legislative and administrative measures" to conserve the habitat of wild flora and fauna species and endangered natural habitats. As described above, so long as Nature is legally defined as mere human property, its full protection is impossible, and its exploitation and decline are inevitable. As we have already established, Serbia's legislative and administrative measures fail to adequately protect species and their habitats from the proposed Jadar mine and, to the contrary, encourage nature's wholesale exploitation. Recognizing and enforcing the Rights of Nature is "appropriate" and "necessary" to protect species and their habitats. It may be impossible to achieve Article 4 in specific and the overarching purpose of the Bern Convention in general without fundamentally addressing root causes of ecological declines, such as by enforcing the Rights of Nature.

**Conclusion:** We ask the Secretariat to consider the Jadar mine in light of the Rights of Nature. Specifically, we ask you to infer the Rights of Nature based on the purpose of the Bern Convention and to incorporate it into Article 4, at minimum, by finding that upholding the inherent value and rights of Nature is "appropriate and necessary" to conserve wild flora and fauna species and endangered natural habitats

More broadly, we ask that you consider the totality of our complaint based upon the Rights of Nature. In making this analysis, note that oftentimes Nature is determined to possess, at minimum, the rights to exist, thrive, and evolve naturally<sup>21</sup>. We would be pleased to provide additional legal analyses on the Rights of Nature and the Bern Convention upon request.

<sup>&</sup>lt;sup>14</sup> See generally Zelle et al., Earth Law: Emerging Ecocentric Law—A Guide for Practitioners (2021).

<sup>&</sup>lt;sup>15</sup> Interactive Dialogue on Harmony with Nature (Apr. 2020) http://files.harmony.withnatureun.org/uploads/upload905.pdf.

<sup>&</sup>lt;sup>16</sup> See UN Harmony with Nature, http://www.harmonywithnatureun.org/rightsOfNature/.

<sup>&</sup>lt;sup>17</sup> IPBES, https://www.cbd.int/doc/press/2019/pr-2019-05-06-IPBES-en.pdf.

<sup>&</sup>lt;sup>18</sup> Leaders Pledge for Nature (2020), https://www.leaderspledgefornature.org/Leaders\_Pledge\_for\_Nature\_27.09.20.pdf.

<sup>&</sup>lt;sup>19</sup> Convention on the Conservation of European Wildlife and Natural Habitats Rm.coe.int, https://rm.coe.int/1680078aff

<sup>&</sup>lt;sup>20</sup> See Chapron, Epstein, and López-Bao, A Rights Revolution for Nature, Science (2019), citing J. Raz, The Morality of Freedom (Clarendon Press, 1986) (emphasis added).

<sup>&</sup>lt;sup>21</sup> See e.g., UN Harmony with Nature Initiative, http://www.harmonywithnatureun.org/rightsOfNature/. Colombian courts found the rights of ecosystems to protection, conservation, maintenance and restoration. See id. Thomas Berry found that

#### EXHIBIT C

#### Part 1: Impacted Habitats with EUNIS Codes from Question 2

G1.1112 White willow (Salix alba) and poplar (Populus spp.); G1.1216 Alder forests (Alnus spp.) and Narrow-leaved ash (Fraxinus angustifolia); G1.22311 English Oakforests (Quercus robur) and Narrow-leaved ash (Fraxinus angustifolia); G1.22311 English Oak forests (Quercus robur) and European or common hornbeam (Carpinus betulus); G1.8733 Broad-leaved xerophilous forests; G1.2233 English oak forests (Quercus robur) with Tatar maple (Acer tataricum); G1.7D4 Forest plantations of deciduous trees; G1.D2 Groves, tree lines and individual trees; G1.A614 Shrubs; G1.1216 Broad-leaved hygrophilous shrubs; G1.221, G1.2232 shrubs of hygrophilous willows; E3.46 Moderately moist grass formations; E3.41D, E3.415 Moderately humid mountain meadows; FB.3 Cultivated agricultural and horticultural habitats; I1.3 Arable land on which plants are grown for the market; E1.332, E6.24, X18 Rural mosaics of forests, hedges, pastures and crops.

#### Part 1: Bird Species from Question 2

Syrian Woodpecker (Dendrocopos syriacus), The woodlark or wood lark (Lullula arborea), red-backed shrike (Lanius collurio), Sand Martin (Riparia Riparia); Common Kingfisher (Alcedo Atthis); European Nightjar (Caprimulgus Europaeus); European Serin (Serinus Serinus); Cirl Bunting (Emberiza Cirlus); Yellowhammer (Emberiza Citronella); Hawfinch (Coccothraustes Coccothraustes); Short-toed Treecreeper (Certhia Brachydactyla); African Stonechat (Saxicola Torquata); Grey Wagtail (Motacilla Cinerea); Barn Swallow (Hirundo Rustica); Green woodpecker (Picus Viridis), Common swift (Apus apus), Common cuckoo (Cuculus canorus), Grey heron (Ardea cinerea), Great cormorant (Phalacrocorax carbo), Barn owl (Tyto alba), Little owl (Athene noctua), Scops Owl (Otus Scops); Long-eared owl (Asio otus), Tawny Owl (Strix Aluco), Eurasian sparrowhawk (Accipiter nisus), Northern goshawk (Accipiter gentilis), Eurasian hoopoe (Upupa epops), European bee-eater (Merops apiaster), Northern wryneck (Jynx torquilla), Lesser spotted woodpecker (Dryobates minor), Great spotted woodpecker (Dendrocopos major), Common kestrel (Falco tinnunculus), Eurasian hobby (Falco subbuteo), Great grey shrike (Lanius excubitor), Marsh Tit (Parus palustris), Coal tit (Parus ater), Red-rumped Swallow (Hirundo daurica) Long-tailed bushtit (Aegithalos caudatus), European robin (Erithacus rubecula), Black redstart (Phoenicurus ochruros), Common redstart (Phoenicurus phoenicurus), Whinchat (Saxicola rubetra), Wheatear (Oenanthe oenanthe), Spotted flycatcher (Muscicapa striata), European pied flycatcher (Ficedula hypoleuca), Eurasian tree sparrow (Passer montanus), Dunnock (Prunella modularis), White wagtail (Motacilla alba)- also Motacilla flava/cinerea, Meadow pipit (Anthus pratensis), Tree pipit (Anthus trivialis), Chaffinch (Fringilla coelebs), Brambling (Fringilla montifringilla), Greenfinch (Chloris chloris), Goldfinch (Carduelis carduelis), Common linnet (Linaria cannabina), Crossbill (Loxia curvirostra), Bullfinch (Pyrrhula pyrrhula), Hawfinch (Coccothraustes coccothraustes)

#### **EXHIBIT D**

#### **Additional Expected Impacts of the Jadar Mine** (continuation of Question 3)

Additional impacts of the Jadar mine on surrounding wildlife and habitats include the following: - Chemical compounds that Rio Sava will use in the process of lithium extraction on an annual basis, among others, are: Emulsion explosives - 1. 300 t, Sulfuric acid 94-98% conc. - 320. 000 t, Sodium hydroxide (caustic soda) 45% and 5% conc. - 1. 500 t, Hydrochloric acid 29% and 5% conc - 1. 900 t, Soda ash - 110. 000t, Quicklime  $60.000t^{22}$ .

Deterioration of habitats due to dust from excavation and blasting and emissions from vehicles, introduction of alien species, erosion, water pollution, change in surface and groundwater hydrology.

- -Direct killing of animals and plants during construction and exploitation, by traffic, collision, etc.
- -Direct destruction of breeding and wintering habitats (including feeding areas).

nature has at least three rights: the right to be, the right to habitat, and the right to fulfill its role in the ever-renewing processes of the Earth community. See <a href="https://www.therightsofnature.org/thomas-berrys-ten-principles-of-jurisprudence/">https://www.therightsofnature.org/thomas-berrys-ten-principles-of-jurisprudence/</a>. From brochure, "Questions & Answers about the Jadar project," issued by Rio Tinto in February 2021.

- -Deterioration of habitats due to change in land use (lack of grazing), altered topography and substrate, change in hydrological regime, leaks, spills and other pollution.
- -Disturbance and increased poaching on species populations because of 24-hour noise and light and enhanced permeability of the habitat with all-year-round maintained roads and human presence.
- -Pollution from toxic chemicals used to extract the lithium within nearby rivers, water streams, and other water sources<sup>23</sup>.
- -Negative impacts for up to 15,000 agricultural households.

#### **EXHIBIT E**

Additional details on potentially affected species or habitats (Continuation of Question 4)

- -15 mammal species. The golden jackal (Canis aureus); Wildcat (Felis silvestris); The Eurasian otter (Lutra lutra); Schreiber Bat (Miniopterus Schreibersii); Mediterranean Horseshoe Bat (Rhinolophus Euryale); Common Noctule (Nyctalus Noctula); Greater Horseshoe Bat (Rhinolophus Ferrumequinum); Lesser Horseshoe Bat (Rhinolophus Hipposideros); Serotine bat (Eptesicus serotinus), Daubenton's myotis (Myotis Daubentonii); Natterer's bat (Myotis nattereri); Kuhl's pipistrelle (Pipistrellus kuhlii); Nathusius' pipistrelle (Pipistrellus Nathusii); Common pipistrelle (Pipistrellus Pipistrellus); Bat (Vespertilio sp.)
- -55 bird species. Common Tern (Sterna Hirundo); Common Whitethroat (Sylvia Communis), Common Nightingale (Luscinia Megarhynchos); Middle Spotted Woodpecker (Dendrocopos Medius); Ortolan Bunting (Emberiza Hortulana); Syrian Woodpecker (Dendrocopos Syriacus); Woodlark (Lullula Arborea); Eurasian skylark (Alauda arvensis), European Honey Buzzard (Pernis Apivorus); Common Buzzard (Buteo Buteo); Eurasain Woodcock (Scolopax Rusticola); Turtle Dove (Streptopelia Turtur); Song Thrus (Turdus Philomelos); Mistle Thrush (Turdus Viscivorus); Collared Flycatcher (Ficedula Albicollis); Little Tern (Sterna Albifrons), Lesser Spotted Eagle (Aquila Pomarina); White-tailed Eagle (Haliaeetus Albicilla); Imperial Eagle (Aquila Heliacal); Red-backed Shrike (Lanius Collurio), Lesser grey shrike (Lanius minor), Common quail (Coturnix coturnix), Common pheasant (Phasianus colchicus), Grey partridge (Perdix perdix), Wild duck (Anas platyrhynchos), Greater white-fronted goose (Anser albifrons), Stock dove (Columba oenas), Common wood pigeon (Columba palumbus), Eurasian collared dove (Streptopelia decaocto), Common crane (Grus grus), Black stork (Ciconia nigra), White stork (Ciconia ciconia), Great egret (Ardea alba), Purple heron (Ardea purpurea), Great bittern (Botaurus stellaris), Black-crowned night heron (Nycticorax nycticorax), Little egret (Egretta garzetta), Northern lapwing (Vanellus vanellus), Common curlew (Numenius arquata), Western osprey (Pandion haliaetus), Short-toed snake eagle (Circaetus gallicus), Egyptian vulture (Neophron percnopterus), Griffon vulture (Gyps fulvus), Greater spotted eagle (Clanga clanga), Booted eagle (Hieraaetus pennatus), Western marsh harrier (Circus aeruginosus), Hen harrier (Circus cyaneus), Montagu's harrier (Circus pygargus), Black kite (Milvus migrans), Rough-legged buzzard (Buteo lagopus), Long-legged buzzard (Buteo rufinus), European roller (Coracias garrulus), Grey-headed woodpecker (Picus canus), Black woodpecker (Dryocopus martius), Red-footed falcon (Falco vespertinus), Peregrine falcon (Falco peregrinus), Eurasian jay (Garrulus glandarius), Common magpie (Pica pica), Jackdaw (Corvus monedula), Rook (Corvus frugilegus), Hooded crow (Corvus cornix), European starling (Sturnus vulgaris), Common blackbird (Turdus merula), Redwing (Turdus iliacus), Song thrush (Turdus philomelos), Tawny pipit.
- -3 plant species. Spanish Chestnut Tree (Castanea Sativa L); Common Holly (Ilex Aquifolium L).
- -10 amphibian species. Agile Frog (Rana Dalmatina); Common Frog (Rana Temporaria); The Greek stream frog (Rana graeca); Lake Frog (Rana Ridibunda); Pool Frog (Rana Lessonae); Yellow-bellied Toad (Bombina Variegata); The Danube Crested Newt (Triturus dobrogicus); the Macedonian crested newt (Triturus macedonicus); The European green toad (Bufotes viridis); The marsh frog (Pelophylax ridibundus)

<sup>&</sup>lt;sup>23</sup> Balkan Green Energy News,

- -10 reptile species. Aesculapian Snake (Zamenis Longissimus); Smooth Snake (Coronella austriaca); Dice snake (Natrix tessellata) Hermann's Mediterranean Tortoise (Testudo Hermanni); Nose-horned Viper (Vipera Ammodytes), European Pond Terrapin (Emys Orbicularis); Snake-eyed Skink (Ablepharus Kitaibelii); European Green Lizard (Lacerta Viridis); Sand lizard (Lacerta agilis); Common wall lizard (Podarcis muralis).
- -4 Insect Species. Epemeroptera, Chlorophorus varius, Dorcus parallelipipedus, Lucanus cervus.
- -11 fish species. Danube barbell (Barbus balcanicus) Natura 2000 code 5261; Mediterranean barbel (Barbus meridionalis); Streber (Zingel streber); Balkan Loach (Cobitis elongata), Lamprey (Eudontomyzun sp); The European bitterling (Rhodeus amarus) Natura 2000 code 1134; Balkan spined loach (Sabaejewia balcanica) Natura 2000 code 5197; European chub (Squalius cephalus) Natura 2000 code 5944; Common minnow (Phoxinus phoxinus); Bleak (Alburnus alburnus); Burbot (Lota lota).

Map of Proposed Mine in relation to Nature Areas and cultural heritage (based upon the maps from the Government's Spatial Plan, 2020)

Jadar, mine project in relation to Nature areas and cultural heritage sites

MECHANIS BIRD AND BIODIVERSITY AREA CER (RS024IBA)

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