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Business-Internal

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BUSINESS-INTERNAL

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10. WATER MANAGEMENT

SIJ Metal Ravne doo (Koroška cesta 14, 2390 Ravne na Koroškem) is located in the northwestern part of the settlement of Ravne na Koroškem, along the regional road Prevalje – Ravne na Koroškem – Dravograd, in the flat part of the Meža Valley. The Meža River, which is the only river in the region, flows through the area of SIJ Metal Ravne doo. surface water directly affected by SIJ Metal Ravne. The location of Metal Ravne in the wider area is given on the map at a scale of 1:25,000

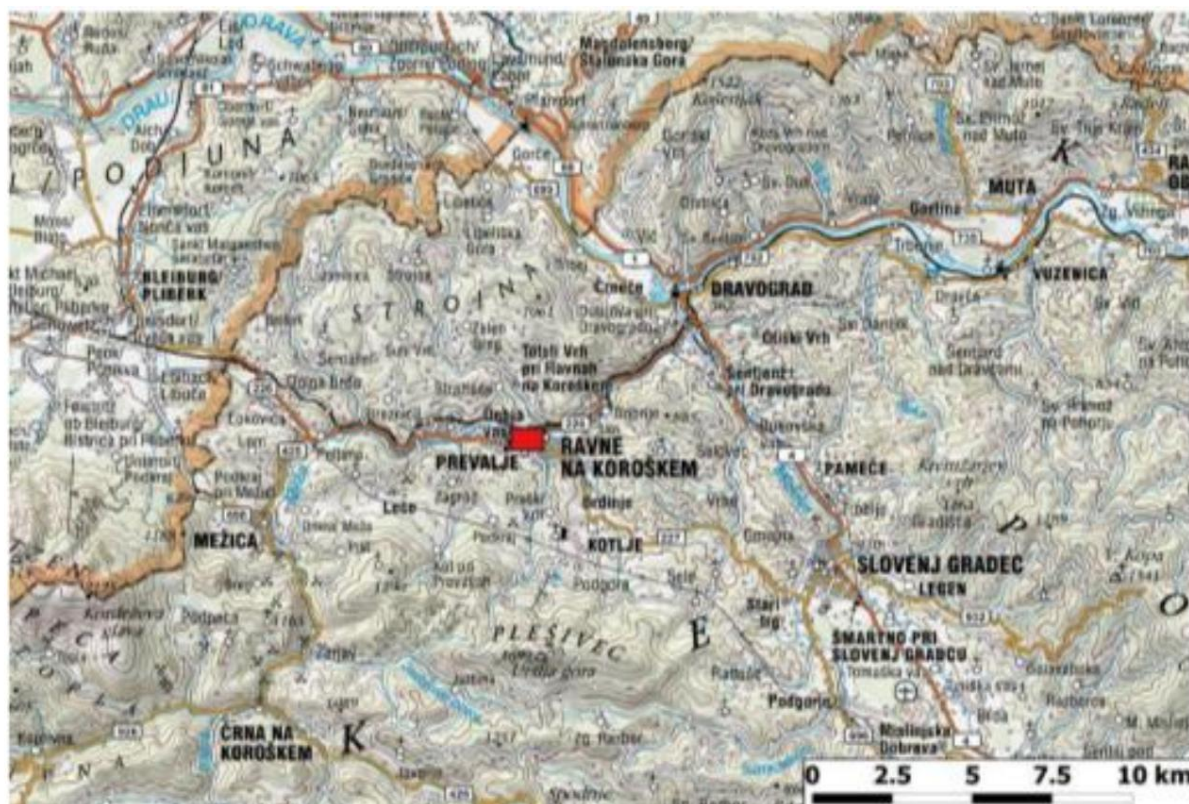



Figure 1: Position of SIJ Metal Ravne in the wider area (Source: Baseline report for SIJ Metal Ravne doo, June 2022)

10.1. CONTEXT IN CONNECTION WITH WATER

10.1.1. Water-related impact area

SIJ Metal Ravne doo is located in the municipality of Ravne na Koroškem. Metal's facilities are located within the location of the former Železarna Ravne and are intertwined with the facilities of other companies. In this area, in addition to SIJ Metal Ravne, there are two other IED facilities, namely Croning livarna doo and Petrol dd. The enclosed economic area of Železarna Ravne (hereinafter referred to as the ZGO ŽR) extends in the direction of Ravne - Prevalje.

In the eastern part, it borders the railway station and the town square of Ravne. South of the railway station, the regional road Ravne – Prevalje runs along the entire area, and further south, there are business and residential settlements. Črčevlje, Janežje and Dobja vas and a hill with an old town castle and a gymnasium with a park. North of the ŽR runs the Ravne - Prevalje railway line, behind it is a strip of industrial area and further the agricultural and residential area of Stražišče. The area under consideration is crossed by the Meža River, which plays an important role in the operation of SIJ Metal Ravne as it is used in technological processes.

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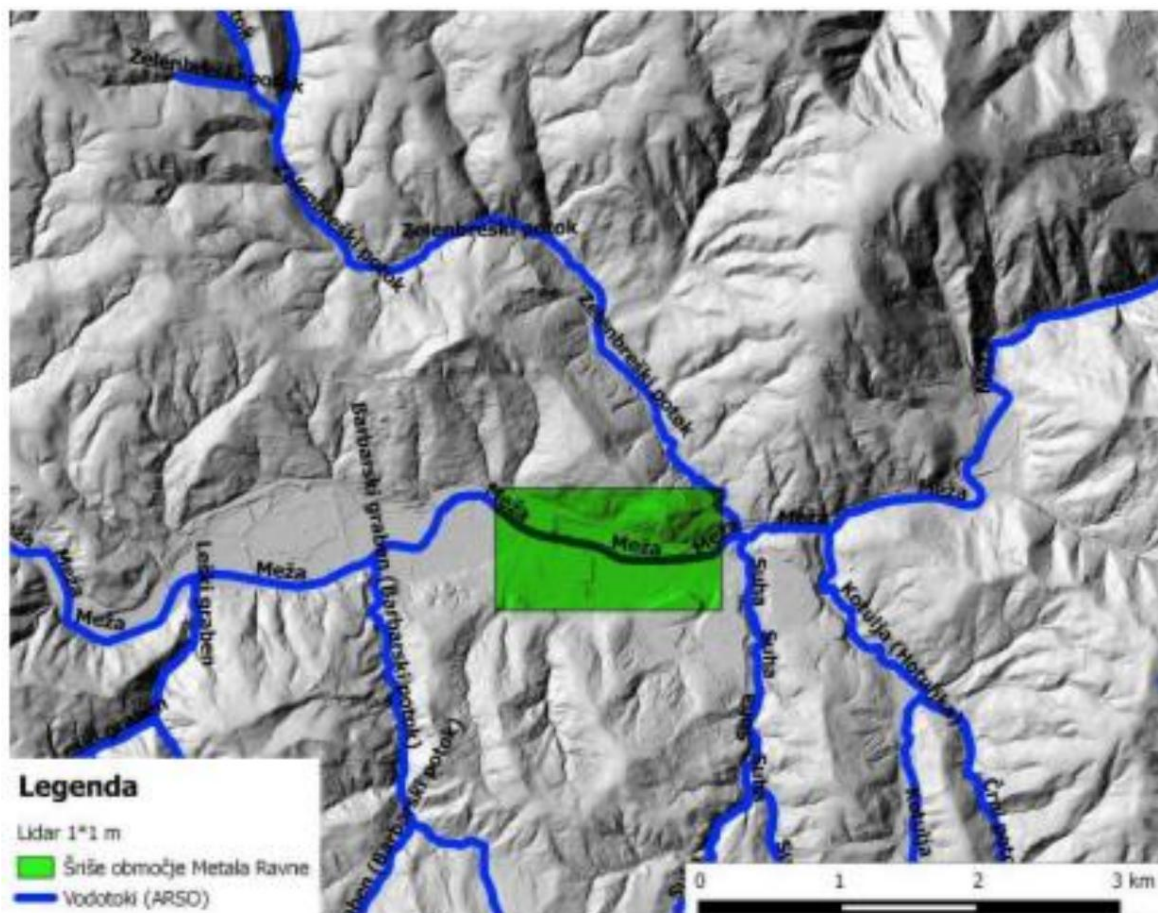



Figure 2: Presentation of the relief and watercourses in the wider area of SIJ Metal Ravne doo (Source: Baseline report for SIJ Metal Ravne doo, June 2022)

10.1.1.1. Relevant surface waters

The Meža River, which flows through the Carinthia region, is a medium-sized river that rises at an altitude of 1,405 meters above sea level on the slopes of Olševa, near the Austrian border. The river flows for about 42 kilometers and flows into the Drava River at an altitude of 362 meters above sea level near Dravograd. The Meža River has a steep descent in the first 13 kilometers, creating an alpine river with a narrow, winding valley and clear water, full of rapids, pools and river terraces. The river calms down from the settlement of ĵrna na Koroškem, the riverbed widens and the water flow increases. However, the valley remains relatively narrow until Poljana. From there, larger gravel terraces appear, on which settlements such as Prevalje, Dobja vas and Ravne na Koroškem are built. At the Ravne Ironworks, the river banks are occupied by industrial facilities. The valley narrows again from Ravne to Podklanec, the river becomes more turbulent. The valley then opens up into a large plain near Podklanec, where the Meža River meets the Drava and Mislinja Rivers. The Meža River has a mixed regime, which includes snowmelt and rainwater, with a primary surplus in spring (April) and a secondary surplus in autumn (November).

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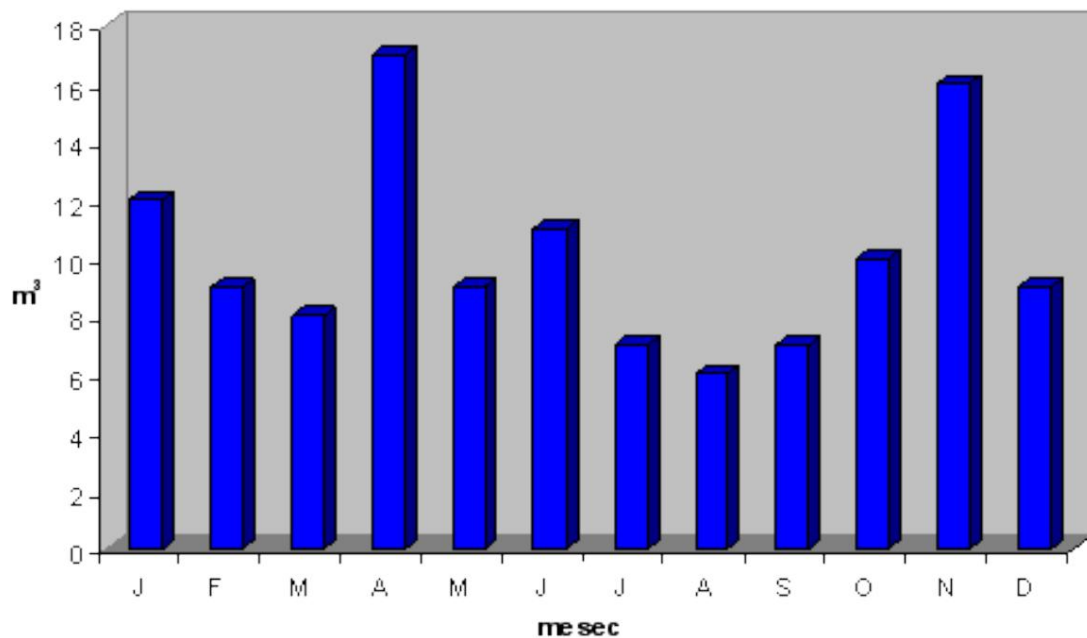


Figure 3: Hydrograph of the Meža River (average annual flow in m³ /s between 1953 and 2020). (Source: Meža River – Koropedija)

In the wider vicinity of SIJ Metal Ravne doo, there are two water gauging stations on the Meža River, the data of which are part of the national monitoring of surface waters, which is carried out within the framework of the national network for observing the quantitative state of surface water. The closest and most relevant to the area in question is the Otiški vrh I water gauging station, which is approximately 7 km downstream from SIJ Metal Ravne doo. More detailed data on the quantitative state of surface waters can be found on the ARSO website (www.arso.gov.si – hydrological archive). Based on 24,685 daily data, the average flow of the Meža River at this water gauging station for the period from 1953 to 2020 is 12.34 m³/s, the minimum recorded average daily flow is 2.17 m³/s and the maximum average daily flow is 249 m³/s.

Between May 2018 and December 2019, a chemical analysis of the Meža River was carried out by the Environmental Agency of the Republic of Slovenia (hereinafter ARSO). In 2020, only an assessment of the chemical status was carried out. The chemical analysis showed high levels of lead, cadmium and nickel.

Lead appears for the TAB factory in ĵrna, and its average annual value increases significantly for the TAB factory in Źerjavo (56.03 µg/l), where the nickel (41.1 µg/l) and cadmium (29.979 µg/l) contents are also very high.

For the SIJ Metal Ravne factory, the next downstream measuring station, Podklanc, only has an elevated content. cadmium (0.216 µg/l), which is significantly lower than the values at upstream measuring points.


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Table 1: Measurements of the chemical state of Meža, May 2018-December 2019 (Source: ARSO – Report on the chemical state of Meža) (State of surface waters in Slovenia for 2020)

VTPV code	Name of water body	Watercourse	Measuring point	Water chemical status 2020	Cause of poor water chemistry	Average annual water concentration	LP-OSK water	Maximum measured water concentration	NDK-OSK water	Number measurement water
SI32VT30	VT Meža žrnja on Carinthia-	Forest	Eyelid	BAD	lead	8.2	1.2	21.2	14	15
					cadmium	0.73	0.19*	3.68	0.94*	15
SI32VT30	VT Meža žrnja on Carinthia-	Forest	in front of the Lek factory - Prevalje	BAD	lead	4.95	1.2	11.4	14	12
					cadmium	0.35	0.19*			12
SI32VT30	VT Meža žrnja on Carinthia-	Forest	in front of the industrial zone Flat	BAD	lead	2.44	1.2	6.09	14	12
					cadmium	0.25	0.19*			12
SI32VT30	VT Meža žrnja on Carinthia-	Forest	for industrial zone Flat	BAD	lead	1.68	1.2			12
					cadmium	0.23	0.19*			12
SI32VT30	VT Meža žrnja on Carinthia-	Forest	Subclank	BAD	lead	1.62	1.2			20
					cadmium	0.25	0.19*			20

Measurements from 2018/19 show that the content of lead and cadmium decreases between the measuring points before the Ravne Industrial Zone and after the Ravne Industrial Zone.

Table 2: Assessment of the chemical status of the Meža River for 2020 (Source: ARSO – Report on the chemical status of surface waters in Slovenia for 2020)


VTPV code	Name of water body	Watercourse	Measuring point	Water chemical status 2020	Cause of bad chemical state of water	Average annual water concentration	LP-OSK water	Maximum measured water concentration	NDK-OSK water	Number water measurement	
SI32VT30	VT Meža žrnja on Carinthia-	Forest	Logs	BAD	cadmium	1.080µg/l	0.19µg/l	4.69µg/l	1.82µg/l	0.94µg/l	3
					lead	1.1.2µg/l	0.783µg/l				3
SI32VT30	VT Meža žrnja on Carinthia-	Forest	Eyelid	BAD	cadmium	0.19µg/l	3.14µg/l	1.2µg/l	1.11µg/l	0.94µg/l	3
					lead						3
SI32VT30	VT Meža žrnja on Carinthia-Dravograd	Forest	Subclank	BAD	cadmium	0.216µg/l	0.19µg/l				12

Given the positions of the measuring points and the fact that SIJ Metal Ravne obtains water from the cooling water intake in Prevalje, where the water outlet from the former Mežica mine is, we can assume that we have the same water as the TAB factory in Žerjav.

Based on the review of heavy metal emissions from the official ARSO records on emissions of substances and heat into the aquatic environment, it was determined that of the three companies in the Upper Mežiška Valley, the point source of metal emissions into the aquatic environment is the TAB dd battery factory. The company discharges metals into the Meža directly with industrial wastewater at both locations, in žrnja and Žerjav. At both locations, industrial wastewater containing arsenic, copper, zinc, cadmium, nickel, lead and iron is discharged (source: official ARSO records on emissions of substances and heat into the aquatic environment). Based on this fact, the content of heavy metals in the Meža before and after the TAB dd factory was monitored at the locations in žrnja and Žerjav. At both locations, in žrnja and Žerjav, purified municipal wastewater is also discharged into the Meža, in žrnja from the TAB dd company, and in Žerjav from the TAB dd and MPI Reciklaža doo companies.

Status in 2021:

"The results of the investigative monitoring analyses in 2021 showed that the Meža in Podklanec is not excessively polluted with cadmium and lead and is classified as having good chemical status. The poor chemical status of the Meža was determined in 2021 at the measuring point for the TAB Žerjav factory. The

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both heavy metals in the water matrix, lead and cadmium. Lead for the TAB Žerjav factory exceeds the LP-OSK quality standard for the bioavailable concentration of the substance (1.2 µg/L). Cadmium also exceeds the LP-OSK limit value (0.19 µg/L) at the mentioned measuring point. Likewise, the highest cadmium concentration of 0.92 µg/L in Meža was measured at the measuring point for the TAB Žerjav factory and is just below the NDK-OSK limit value (0.94 µg/L). The same applies to lead, where the highest lead concentration of 10.6 µg/L in Meža was also measured at the measuring point for the TAB Žerjav factory, but did not exceed the NDK-OSK limit value (14 µg/L)." (source: Chemical state of surface waters in Slovenia - Report for 2021)

Status in 2022:

"The results of the investigative monitoring analyses in 2022 showed that the Meža River in Podklanec is not excessively polluted with cadmium and lead and is classified as having good chemical status. The Meža River in Podklanec was already in good chemical status in 2021. The poor chemical status of the Meža River was found at one measuring point in both 2021 and 2022, namely for the TAB Žerjav factory. There, both heavy metals in the water matrix, lead and cadmium, are exceeded (Table 3). In 2022, lead with an average annual concentration of 2.73 µg/L for the TAB Žerjav factory exceeds the LP-OSK quality standard for the biologically available concentration of substances (1.2 µg/L, Graph 13). Cadmium, with an average annual concentration of 0.46 µg/L, also exceeds the LPOSK limit value (0.19 µg/L, graph 14) at the aforementioned measuring point. The highest cadmium concentration of 2.91 µg/L in Meža in 2022 was also measured at the measuring point for the TAB Žerjav factory and exceeded the NDK-OSK limit value (0.94 µg/L, graph 15). In 2021, the NDK-OSK limit value for cadmium in Meža for the TAB Žerjav factory was not exceeded.

The maximum lead concentration of 8.36 µg/L in Meža, measured at the measuring point for the TAB Žerjavni factory, exceeded the NDK-OSK limit values (14 µg/L) neither in 2021 nor in 2022." (source: Chemical state of surface waters in Slovenia - Report for 2022)

10.1.1.2. Relevant groundwater

On 20.06.2022, one-time simultaneous measurements of groundwater levels were carried out in all facilities in the area where measurements could be made. The groundwater level corresponds to low water level (calculated from a longer data set of measurements at the heap). The groundwater level map resulting from the measurements is shown in the figure below.

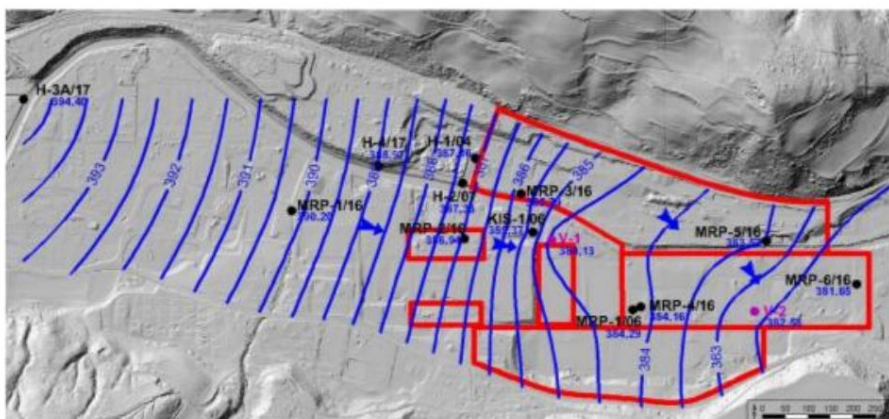

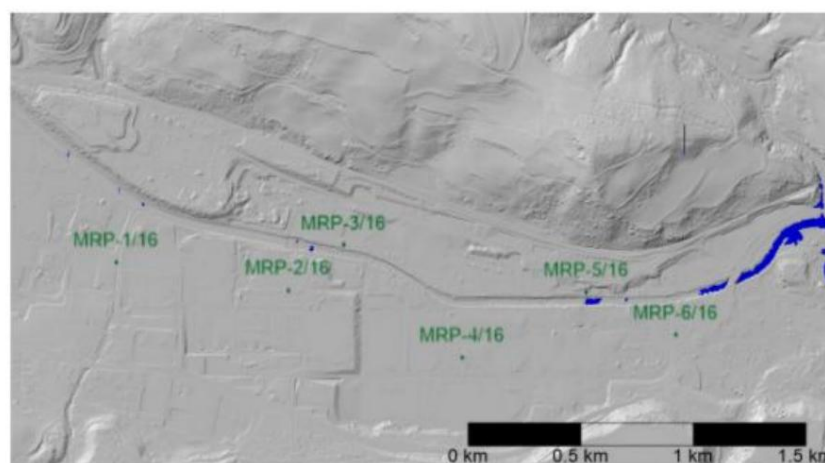


Figure 4: Map of groundwater levels in the wider area (image taken on 20.06.2022) (Source: Baseline report for SIJ Metal Ravne doo, June 2022)

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Due to interpretation needs, measurements were taken in a wider area, including directly outside the area. SIJ Metal Ravne doo. Thus, the area covered is upstream, but there are no suitable groundwater monitoring points below the area downstream.

To analyze the relationship between the Meža River and groundwater, a detailed Comparison between the elevation of the riverbed and the groundwater level. This comparison shows areas where the groundwater level is higher than the riverbed, and are marked in blue in the Meža riverbed. This interpretation is based on a lidar image taken in 2014 and an extrapolation of groundwater levels from a groundwater level image taken on 20.06.2022 below well MRP-6/16. This comparison is shown in the figure below.




*Figure 5: Display of the area of groundwater exfiltration into the Meža riverbed (measurement 20.06.2022)
(Source: Baseline report for SIJ Metal Ravne doo, June 2022)*

From the shape of the hydroisohyps, we can conclude that groundwater is fed to the west in the area of the alluvial fill, where the Meža River makes a bend. In the entire leveled part of the riverbed, the groundwater level flows parallel to the riverbed from west to east and during the low water period, which is reflected in the measurements from 20.06.2022, it is not in contact with the river. The contact of groundwater with the river does not occur until the area downstream of the ZGO ŽR. The contact between the river and groundwater occurs only at the point where the Malgajeva road crosses the Meža River with a bridge. From here, in an eastward direction, we observe the exfiltration of groundwater into the Meža River. This is also expected, since the Meža Riverbed narrows in the extreme eastern part of the valley under the Javornik hill to the extent that very poorly permeable metamorphic rocks are present in the riverbed and in this area all groundwater must completely drain into the Meža Riverbed. We can conclude that the Meža River in the area of the ZR PGI "hangs" above the groundwater and is not in contact with it. In the area of the left and right banks of the Meža River, we are dealing with the same single aquifer with a closed groundwater level.

The contact with metamorphic rocks to the south and north of the alluvial fill is considered impermeable. The performed interpolations of groundwater levels prove this. Minor groundwater recharge from the metamorphic rock area may come from the northeastern area, where the hydroisohyps are somewhat curved and indicate a local flow from northwest to southeast.

10.1.1.3. Environmental specificities

There are no registered natural values in the area of SIJ Metal Ravne doo and in its vicinity (< 1 km), but to the east, at a distance of approximately 700 m, there is a Natura 2000 area called Votla peč (ID: SI3000136 type

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SAC – Special Area of Conservation). This area is also defined as an “ecologically important area”. The area is defined under the Birds Directive and the Habitats Directive. In the ecologically important area of Votla peč (ID: 48800), there is a natural bridge over the Meža River in the form of a broken block of pegmatite and a 6.5 m deep and 6 m wide undercut in muscovite-biotite gneiss, which is an important zoological site for some rare cave fauna. In the vicinity of the company's location, there are natural values of local and national importance (individual trees, caves).

Natural values in a wider area (> 1 km): of local and national importance

- Points - individual trees (Dobja vas – linden, Votla peč) (yellow color)
- Protective forests (Protection forest number: 110Z5) (green color)
- Natural values – caves (Ravbarska luknja, Cave at Votli peči near Ravne) (light green color)
- Natura 2000 (2016) (Hollow kiln) (ochre color)




Figure 5: Natural values in the wider area of SIJ Metal Ravne doo of local and national importance (Source: Environmental Atlas as of 3.4.2023)

Several units of immovable cultural heritage are registered near the IED plant: the Church of St. Anthony the Hermit, the Church of St. Egidius, the Castle, the park next to the Castle, the old Ironworks, and several residential buildings.

There are no water protection areas in the area of influence of SIJ Metal Ravne doo. The nearest water protection area is located about 1.3 km from SIJ Metal Ravne doo in a northwesterly direction. It is the water source Stražišče nad Prevaljemi, whose water protection areas are defined at the municipal level, two water protection areas have been defined. The catchment is located high above the valley in which SIJ Metal Ravne is located. In accordance with the provisions of the Water Act and subordinate legal regulations, the area in question is located in the area of the water body VT30 Meža.

10.1.1.4. Water collection and discharge

Technological and cooling wastewater. Cooling wastewater originates from the cooling processes of aggregates required for the implementation of technological processes. The main source is the collection of cooling water at

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Prevalje, where the water outlet from the former Mežica mine is located. A filtering device has been installed in front of the users at the location, where the water is cleaned of particles larger than 500 microns. The filtering device has built-in pumps to increase the pressure to 1.5 bar. A distribution system has been built at the location, from which all the draw-off points at the ZGO ŽR location are supplied. Currently, the existing water supply system (pumping in Vodnjaki I and II) in the ZGO ŽR area is used for technological drinking water. The infrastructure for connection to the public water supply (Šumc and Šumc 1 catchment) has been prepared at two locations. The first connection will be at Janeže, where a direct connection to the main valley water supply Salonit DN 200 will be made. The second connection will be at the existing PE 160 connection, which is connected to the Janeže reservoir. A circular supply system will be created, which will enable supply from one or another connection on the public water supply. Technological and cooling wastewater from the Metal Ravne production facilities flows into the internal sewage network of ŽR and then through channels no.: 1, 3, 4, 5, 10, 12, 13, 16, 31, 33 and 35 into the Meža River. The sewage network is managed and maintained by Petrol dd.

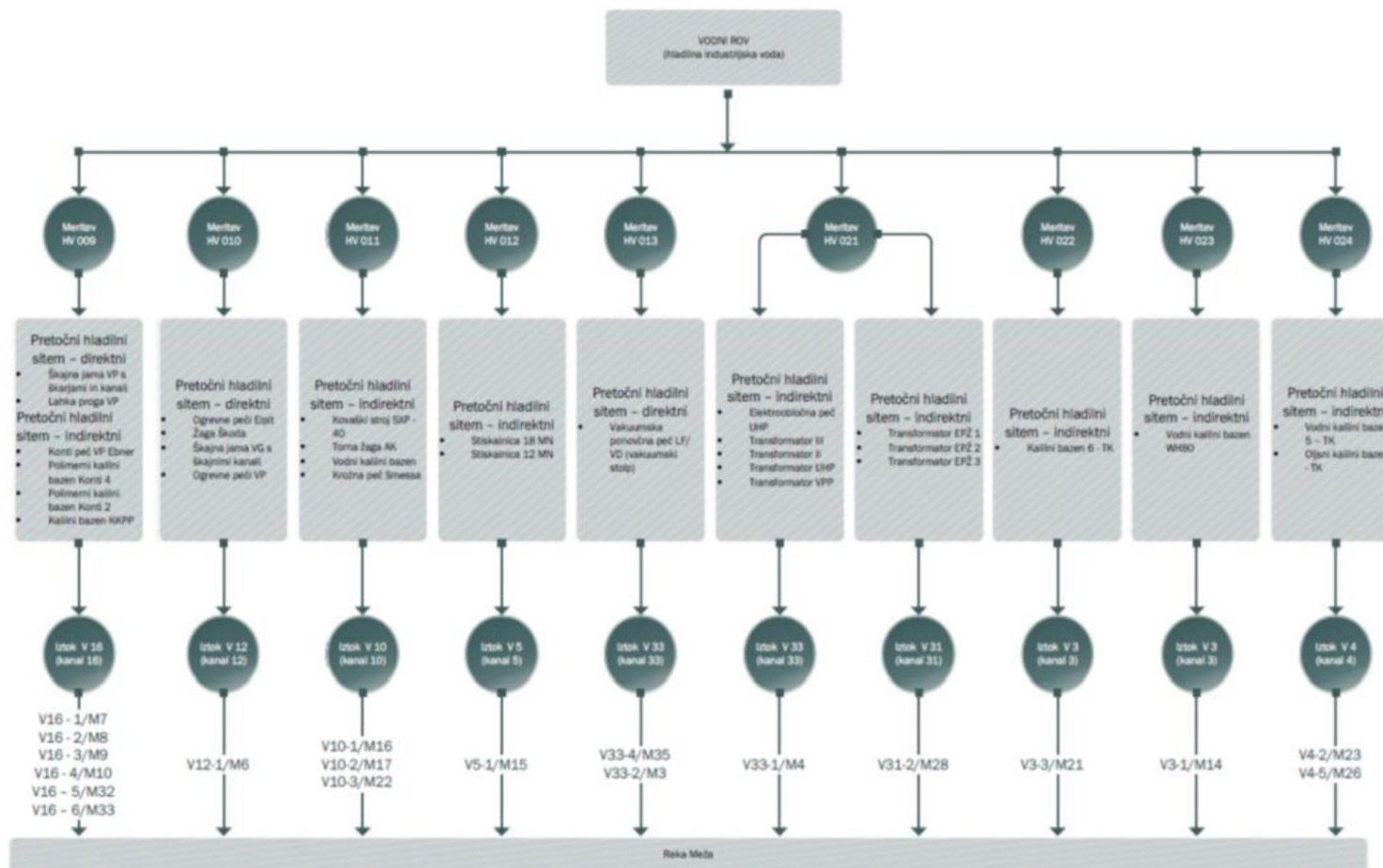



Figure 6: Scheme of cooling industrial water outflows (Source: Report on operational wastewater monitoring for the company SIJ Metal Ravne doo, for 2022)

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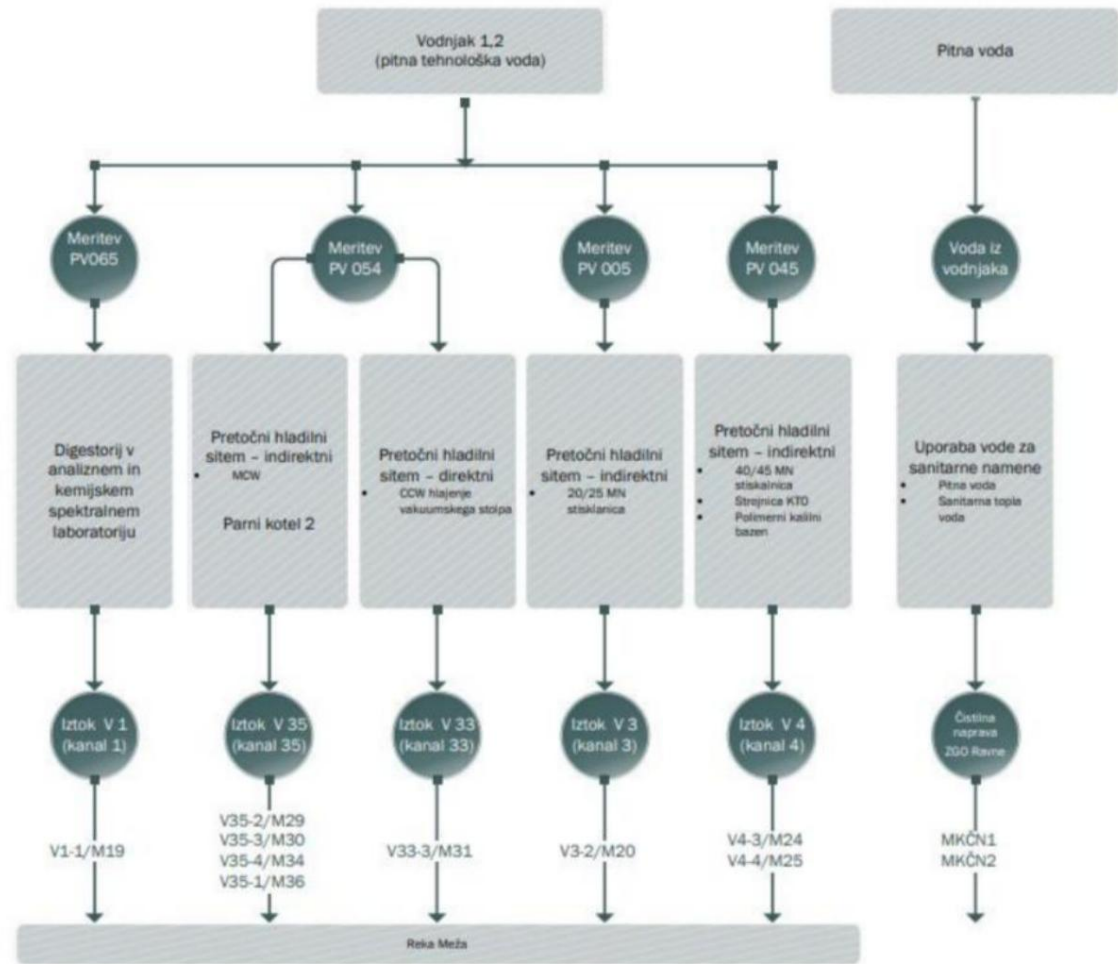



Figure 7: Scheme of potable process water outflows (Source: Report on operational wastewater monitoring for the company SIJ Metal Ravne doo, for 2022)

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Precipitation wastewater Precipitation (meteorological) water is drained from certain structures (roofs) into a septic tank (underground), the rest of the precipitation water is drained from hardened asphalt surfaces via oil traps and sedimentation tanks directly into the sewer shaft next to the technological and cooling water, which flows into the Meža River.

Municipal wastewater Municipal wastewater is generated at the Metal Ravne location in the kitchen and in the toilets and changing rooms. Several vacuum branches have been built inside the ZGO ŽR location, to which individual lines from the toilets and changing rooms are connected. Municipal wastewater is discharged via vacuum lines to the treatment plant inside the ZGO ŽR, which is managed by Petrol dd.

10.1.3. Collaborate with stakeholders in the area of influence to identify and understand current and future water use and the shared water challenges of the basin.

Despite supplying its own water resources, SIJ Metal Ravne doo is committed to continuously reducing water consumption and reducing harmful impacts on water.

10.1.3.1. Seasonal and temporal variability of surface and groundwater quantity and quality

According to data on water-related risks, the area in which SIJ Metal Ravne doo is located is in the low-medium risk zone, as can be seen in the image below.

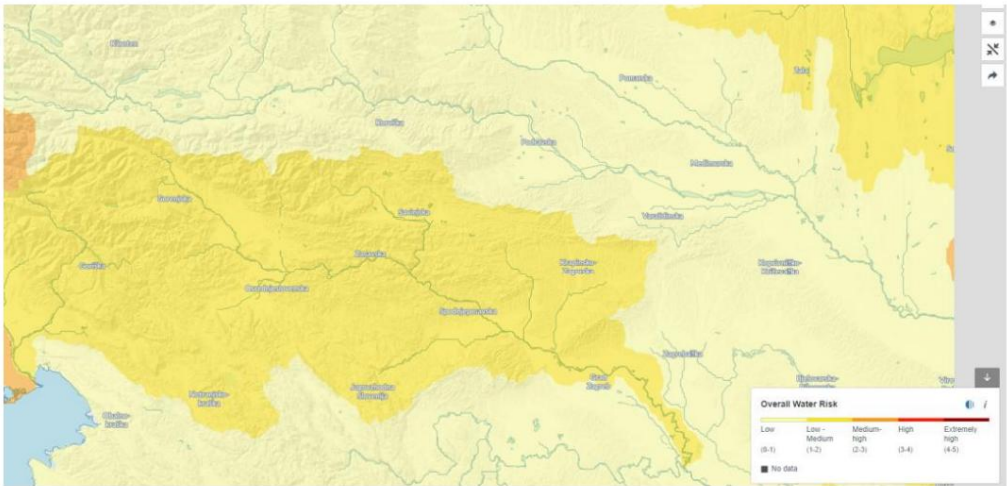



Figure 8: Water Risk Atlas (source: Aqueduct, water risk atlas, dated 7.4.2023)

10.1.3.2. Climate change projections

The graph below shows the average annual air temperature in Ravne na Koroškem, which increased from 1950 to 2022 with a trend of 0.3°C/decade. The period from 1991 to 2020 was taken as a comparison period, with an average annual temperature of 9.5°C (dashed line - deviation 0°C). Positive deviations are marked in red, and negative ones in blue. The black curve indicates the smoothed average. The data were measured using the meteorological measuring station in Dobja vas, Ravne na Koroškem.

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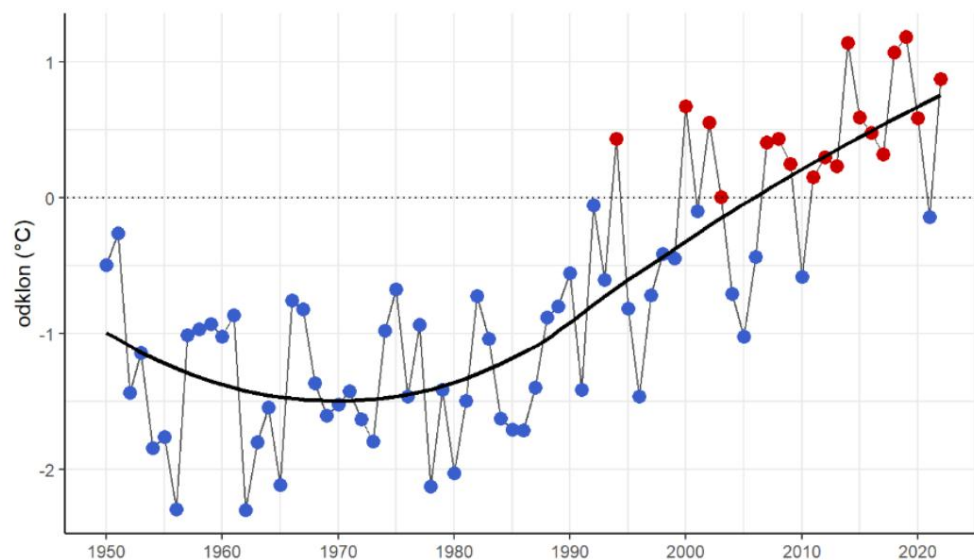


Figure 9: Deviation of the average annual air temperature in Ravne na Koroškem (source: ARSO METEO, on 13.4.2023)

The consequence of the increase in the average annual temperature is an increase in the number of hot days. A hot day is considered to be a day when the temperature exceeds 30°C. As the number of hot days increases, the heat load increases. On the other hand, the number of cold days decreases due to the increase in the average annual temperature. A cold day is considered a day when the temperature drops below -10°C. Due to the reduced number of cold days, the burden due to cold also decreases.

The same meteorological station measured precipitation from 1950 to 2022, but it does not show a significant trend. The period from 1991 to 2020 was used as a comparison period, with an average annual precipitation of 1002 mm. In recent years, a trend of decreasing precipitation in summer has begun to appear, but in contrast, precipitation in winter and spring has begun to increase.

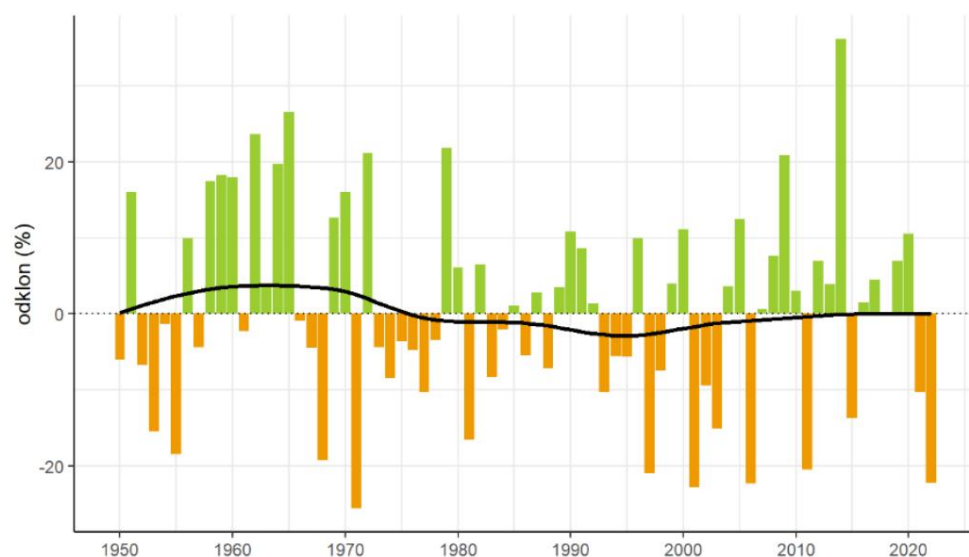


Figure 10: Deviation of annual precipitation in Ravne na Koroškem (source: ARSO METEO, April 13, 2023)

10.1.3.3. Expected population growth

In recent years, the natural population growth rate in Slovenia has been decreasing. Natural population growth shows the difference between the number of live births and the number of deaths in a given year.



Figure 11: Natural population growth in Slovenia until 2021 (source: SORS)

On the other hand, Slovenia has a large migration growth of its population, which in recent years has ensured a positive Total Population Growth and thus an increase in the population of Slovenia. Migration growth shows the difference between the number of emigrations from the country and immigration into the country.



Figure 12: Migration growth of the population in Slovenia by 2021 (source: SORS)

From 2025 to 2100, Slovenia's population is expected to decrease to 1,888,364, which is a good 10% less than the current 2,110,547 inhabitants (data for October 1, 2022). The largest drop in population is expected between 2030 and 2080.

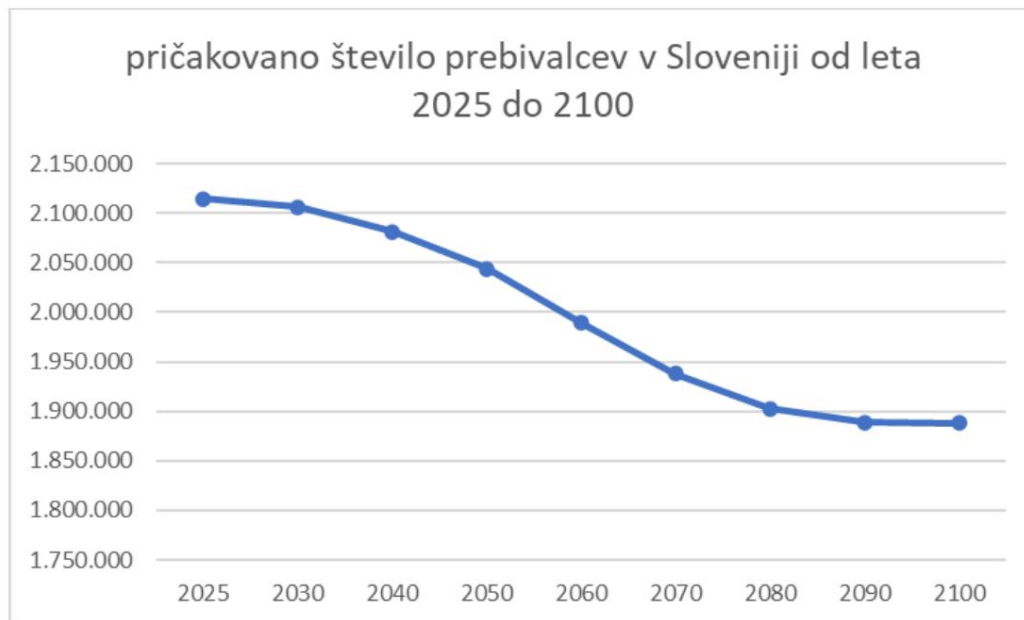



Figure 13: Expected population growth from 2025 to 2100 (source: SORS, 13.4.2023)

The graph shows that the expected population of Slovenia will decrease significantly over the years. In 2100, the expected population of Slovenia is 1,888,364, which is a good 10% less than the current population of 2,110,547 (data for October 1, 2022).



Figure 14: Population in Carinthia from 2008 to 2021 (source: SiStat)

In Carinthia, the population decreased from 73,114 to 70,751 from 2008 to 2022. Data on the expected future population in Carinthia cannot be found.

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10.2. WATER BALANCE AND EMISSIONS

Reports on operational monitoring of wastewater on an annual basis for SIJ Metal Ravne doo are performed by Eko Ekoinženiring doo on a contractual basis. The reports cover emissions of individual effluents and the company's water balance. Reports on operational monitoring of wastewater are available on the company's SharePoint under ISO 14.001 Management Systems.

10.3. IMPACTS ON WATER

10.3.1. Identification and assessment of current and potential future environmental and social harmful effects related to water

10.3.1.1. Amount of water used and chemical state of wastewater

Both the amount of water consumed and the total unit load are decreasing at SIJ Metal Ravne. The amount of wastewater decreased by 40.2% between 2019 and 2024. The total unit load decreased by 37.7%.



Figure 15: Amount of water consumed and total unit load (Source: Report on operational wastewater monitoring for the company SIJ Metal Ravne doo, for 2023 and 2024)

Before flowing into the Meža River, municipal wastewater is treated through a municipal wastewater treatment plant, which reduces its EO.

The environmental load unit (EO) due to wastewater discharge is the unit determined as the basis for calculating the base and billing of the environmental tax.

The graph below shows the emissions of total hydrocarbons, zinc, nickel, chromium, lead and cadmium into the Meža River in individual years. The emissions are monitored through monitoring.

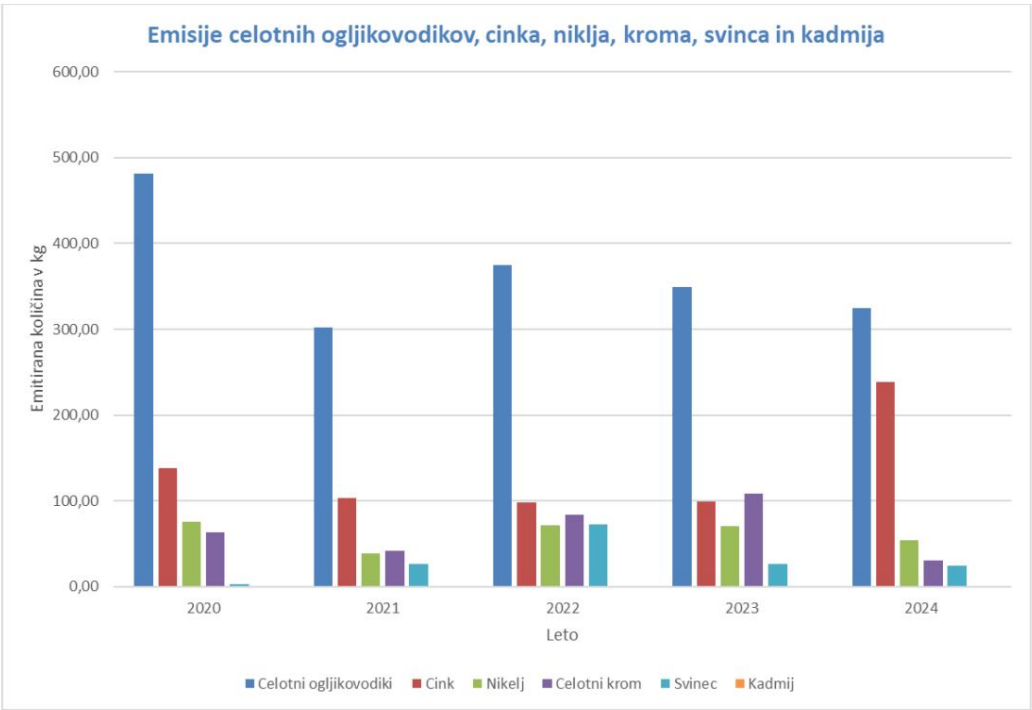


Figure 16: Emissions of total hydrocarbons, zinc, nickel, chromium, lead and cadmium (Source: Report on operational wastewater monitoring for the company SIJ Metal Ravne doo, for 2023 and 2024)

10.3.1.2. Consideration of extreme events such as floods and droughts

According to the flood risk scenario, SIJ Metal Ravne doo is classified as having a low flood risk.

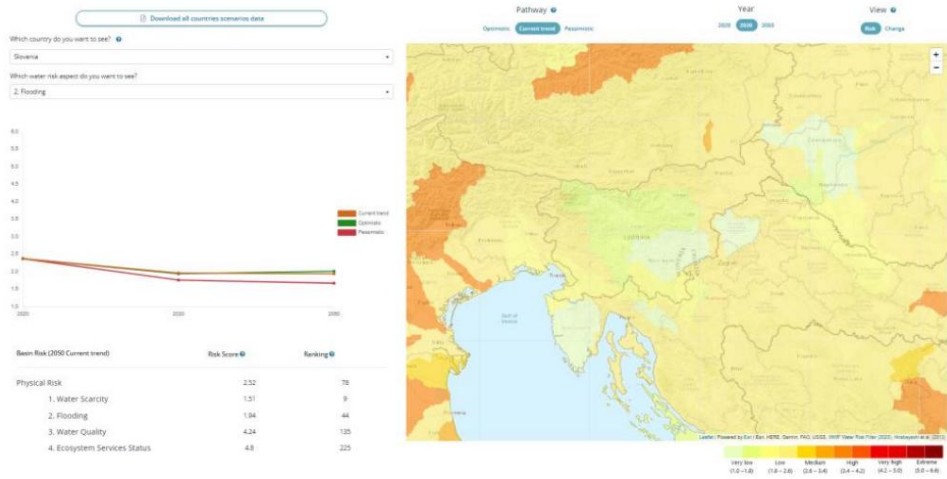



Figure 17: Flood risk scenario (source: WWF Water Risk Filter, as of 13.4.2023)

Between 2018 and 2020, the state ensured flood safety within the ZGR by deepening the Meža riverbed and constructing retaining walls. In order to avoid the possibility of flooding in the ZGR area, the Meža 2021 exercise was carried out in 2021, the aim of which was to:

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1. Verify the competence of KGZ (Carinthian Fire Service) to install flood barriers on bridges over the Meža River and coordinate operations with Metal Ravne and other companies at the ZGO ŽR location,
2. Test the installation of IBS TECHNICS flood protection systems (KGZ Ravne and PGD Ravne), 3. Determine how much time is actually needed to install IBS TECHNICS flood protection systems at both locations,
4. Determine how many firefighters are actually needed to install IBS flood protection systems TECHNICS at both locations and
5. Check whether the associated tools are appropriate/sufficient for the installation of IBS flood protection systems TECHNICS.

The exercise plan and minutes for managing emergency situations of flood safety of the Meža River at the ZGO ŽR are located in the company's archives.

Considering the risk of drought, SIJ Metal Ravne doo is classified as moderately at risk.

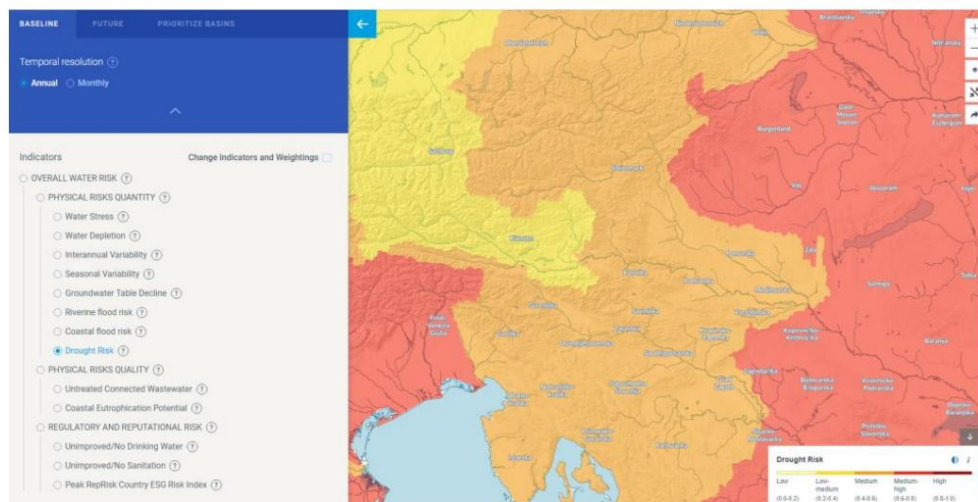



Figure 18: Drought risk (source: Aqueduct Water Risk Atlas, as of 13.4.2023)

According to known data, the location has not yet had problems with drought or water shortages, and we do not expect this to happen either.

10.3.1.3. Views of interested parties

SIJ Metal Ravne doo participated in the project of deepening and regulating the Meža riverbed at the company's location with the Directorate of the Republic of Slovenia for Water and the project contractors VGP Drava doo. A fish pass was also created as part of the project.

Petrol dd operates and maintains the cooling and drinking water system for the supply of SIJ Metal Ravne doo on the basis of contracts. Petrol dd also operates a small treatment plant, to which SIJ Metal Ravne doo discharges municipal wastewater on the basis of contracts. Petrol dd ensures the quality of drinking water and regularly performs the necessary analyses. Given the previous cooperation with Petrol dd, SIJ Metal Ravne doo aims to continue its cooperation. It provides reports on operational monitoring of wastewater on the basis of a contract.

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Ekoinženiring doo and sends them annually to the client - SIJ Metal Ravne doo SIJ Metal Ravne doo cooperates intensively with the owner of the cooling water intake - Elektrarne RM doo

In addition, SIJ Metal Ravne doo cooperates with the local community and non-governmental organizations, as well as with anyone who shows interest or a need to resolve any open issues and questions.

10.4. WATER MANAGEMENT

10.4.1. Integrating conscious water management into business planning

The company SIJ Metal Ravne doo includes water consumption through its KPIs in each annual Business Plan. The KPI being tracked is:

- the amount of cooling water collected and the associated costs
- amount of drinking water used

10.4.1.1. Monitoring of cooling and drinking water consumption and flows

Consumption and flow monitoring is provided by Petrol dd and is available on the Petrol Portal for both cooling water and drinking water. Data is recorded every 15 minutes. The figure below shows the cooling water consumption and flow diagrams for the entire SIJ Metal Ravne doo for one day. It is also possible to display the diagram for individual measuring points.



Figure 19: Monitoring of cooling water consumption and flows on a daily basis (Source: Petrol Portal for 25.4.2023)

In the area of drinking water consumption, the system is the same, and the diagram can be seen in the image below.

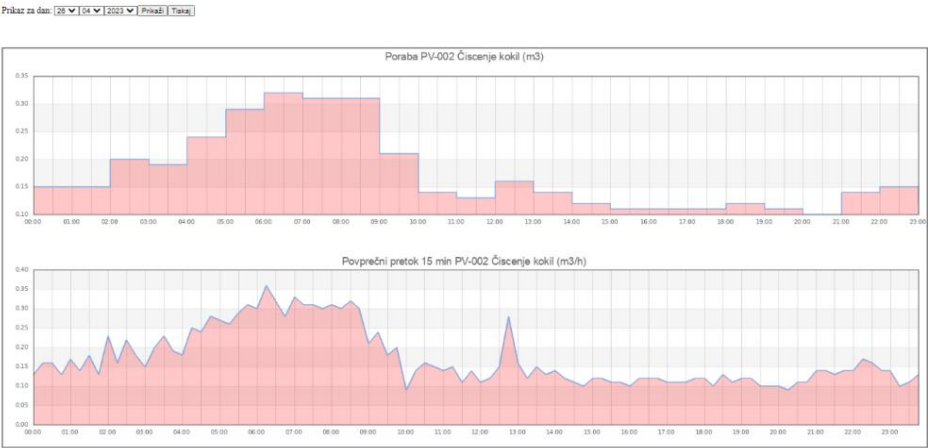


Figure 20: Monitoring of drinking water consumption and flows on a daily basis (Source: Petrol Portal for 26.4.2023)

In accordance with the legislation, operational monitoring of wastewater is carried out at wastewater outlets by ARSO or an authorized contractor.

10.4.2. Involving stakeholders in their area of influence in the development and maintenance of the water management plan

An integral part of preparing investment projects is reviewing optimal water consumption and considering possible solutions to reduce water consumption and reduce wastewater pollution.

Water intake and consumption are monitored daily through an information system.

The graph below shows the projected and achieved cooling water consumption from 2023 to 2035.

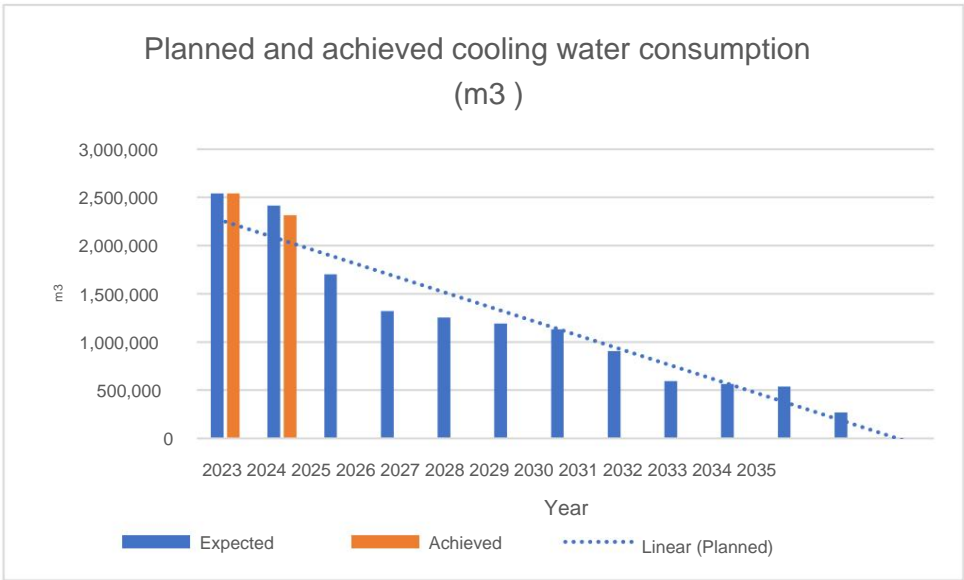



Figure 21: Planned and achieved cooling water consumption by 2035 (based on guidelines and targets in 2023)

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Planned activities to reduce cooling water consumption:

- By 2025, we will complete the closed cooling system project at the rolling mill plant.
- By 2035, we expect to complete the closed cooling system project at the plant forges and steelworks, which means there will be no longer a need for cooling water.

The graph below shows the projected **and achieved** consumption of technological drinking water from 2023 to 2050.

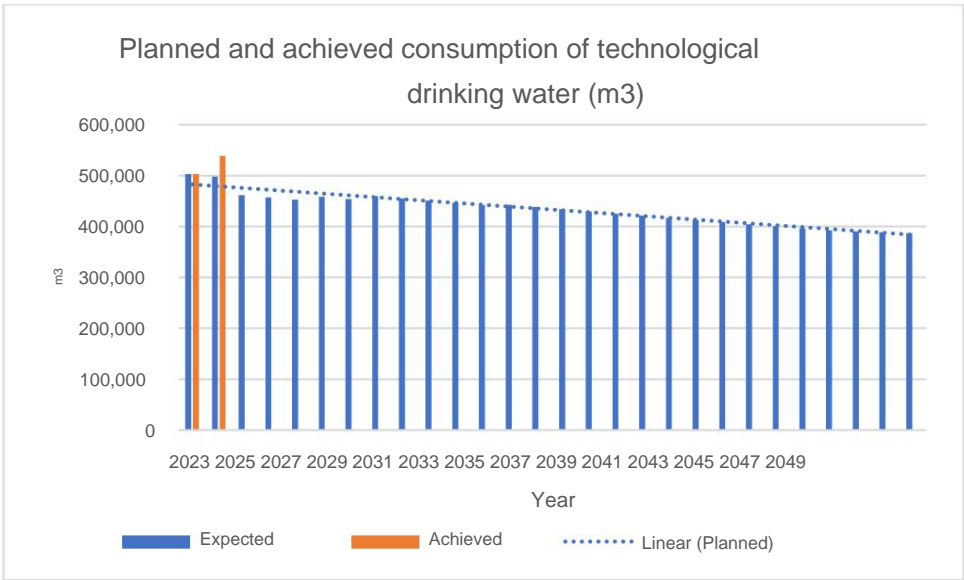



Figure 22: Planned **and achieved** consumption of technological drinking water by 2050 (based on achieved quantities in 2023)

The consumption of technological drinking water is not expected to decrease significantly (approx. 10%), it will be used as make-up water in closed cooling systems. Optimization of consumption will be based on:

- Improving the efficiency of technological drinking water consumption
- Eliminating leaks.

The graph below shows the projected **and achieved** drinking water consumption from 2023 to 2050.

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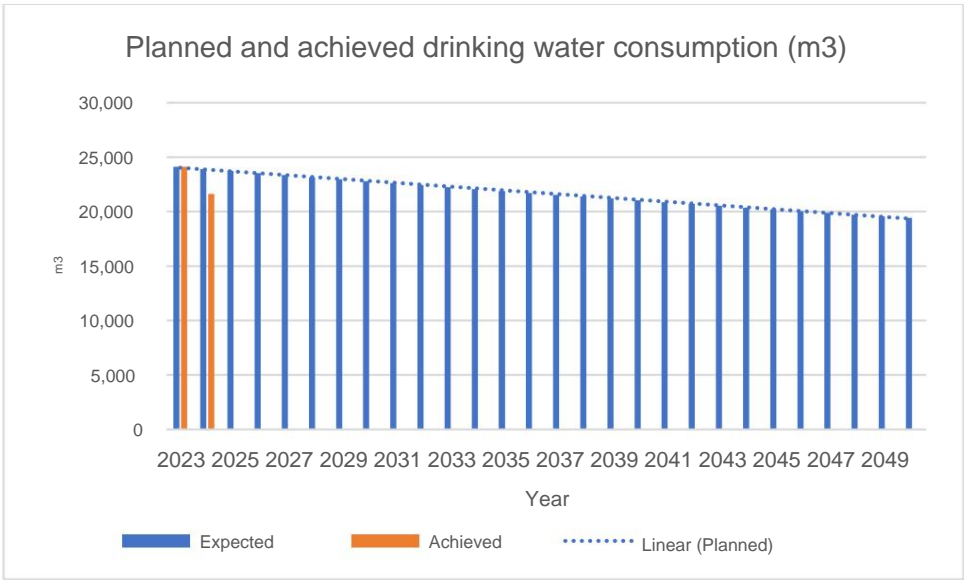


Figure 23: Projected and achieved drinking water consumption by 2050 (based on achieved quantities in 2023)

Planned activities to reduce drinking water consumption:

- Raising awareness among staff about the efficient use of drinking water
- Eliminating leaks

Over the years, we expect a reduction in the number of employees and consequently lower consumption.

10.4.3. Documentation of procedures or action plans for implementing the water management plan

The management system monitors risks and opportunities for the entire business and operation of SIJ Metal Ravne doo. We see the installation of closed cooling systems in all plants, starting in the rolling mill, then in the forge, and finally in the steel mill, as opportunities to reduce water consumption.

10.4.4. Monitoring and documenting performance against the water management plan

The water management plan is presented once a year at the management review of the environmental management system and the energy management system. Based on the KPIs, appropriate measures are taken and the water management plan is adjusted.

10.5. Resources

1. Environmental


Atlas 2. Coreopedia, Meža River

3. ARSO, waters 4.

ARSO: Chemical state of surface waters in Slovenia, Report for 2020 5. NLZOH: Baseline report for

SIJ Metal Ravne doo, June 2022 6. Aqueduct Water Risk Atlas 7. ARSO: ARSO Meteo

8. ARSO: Environmental indicators in Slovenia

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9. SORS: EUROPOP2019

10. SORS: SiStat

11. WWF Water Risk Filter [12.](#)

[Report on operational monitoring of wastewater for the company SIJ Metal Ravne doo since 2019 to 2024, responsible person: Vesna Rapnik / Primož Karlovšek.](#)