Prague, 23 September 2026
Ref. No.: MZP/2026/910/3396

BINDING OPINION

Extension of the Environmental Impact Assessment Opinion

(issued under Ref. No. 2561/ENV/13 and Ref. No. 2562/ENV/13 on 18 January 2013) (hereinafter referred to as the "EIA Opinion")

pursuant to Section 9a(4) of Act No. 100/2001 Coll., on Environmental Impact Assessment and on Amendments to Certain Related Acts (the Environmental Impact Assessment Act), as amended (hereinafter referred to as the "Act") and pursuant to Part Five, Article VIII(1) of Act No. 465/2023 Coll., amending Act No. 416/2009 Coll., on Accelerating the Construction of Transport, Water, and Energy Infrastructure and Electronic Communications Infrastructure (the Linear Infrastructure Act), as amended, and other related acts (hereinafter referred to as "Act No. 465/2023 Coll.")

Binding part:

Identification data:

Project name:

New Nuclear Power Source at Temelín, including Routing of the Output Power into the Kočín Substation (hereinafter referred to as the "NNPS")

Project capacity (scope):

The project involves the construction of a new nuclear power source, including related civil structures and technological facilities. From the perspective of the original Temelín Nuclear Power Plant design, this involves an extension of the existing plant by two new modern blocks (reactors of the III+ generation), including strengthening of power lines routing electricity output to the Kočín substation and anticipated increase in raw water intake into the power plant from the Hněvkovice pumping station. The project envisions operation of the blocks with a power output not exceeding 1,700 MW_e, equipped with generation III+ PWR reactors. The total net installed power output will not exceed 3,400 MW_e.

Project location:

Region: South Bohemian Region

Municipalities: Temelín, Dříteň

Cadastral areas: Březí u Týna nad Vltavou, Křtěnov, Temelín, Temelínec, Litoradlice, Kočín, Chvalešovice

Developer's business name:

Elektrárna Temelín II, a.s.
Duhová 1444/2, 140 00 Prague 4
Company ID No.: 04669134

Note: *In the EIA Opinion, ČEZ a.s., with its registered office at Duhová 2/1444, 140 53 Prague 4, Company ID No. 45274649, was specified as the developer. The developer's current identification is based on an organisational change within the ČEZ Group, as a result of which the new nuclear power source project at the Temelín site has been transferred to a separate subsidiary.*

The "New Nuclear Power Source at Temelín, including Routing of the Output Power into the Kočín Substation" project falls within the scope of Section 3.2 (Nuclear reactor facilities (including their dismantling or final decommissioning), with the exception of research installations whose maximum power does not exceed 1 kW of continuous thermal load) of Category I of Annex No. 1 to the Act (as amended and in force on the date the EIA Opinion was issued). The EIA Opinion was issued under Ref. No. 2561/ENV/13 and Ref. No. 2562/ENV/13 on 18 January 2013, and was valid for 5 years, i.e. until 18 January 2018. On 1 November 2017, Act No. 326/2017 Coll., amending Act No. 100/2001 Coll., entered into force. Article 2(6) of Act No. 326/2017 Coll. extended the validity of the EIA Opinion in question ex lege, i.e. until 18 January 2020. Based on an application submitted by the developer on 11 December 2019, i.e. while the EIA Opinion was still valid, the validity of the EIA Opinion was extended on 16 December 2020, under Ref. No. MZP/2019/710/10492, by 5 years, i.e. until 18 January 2025. The project developer's application to further extend the validity of the EIA Opinion pursuant to Section 9a(4) of the Act and Part Five, Article VIII(1) of Act No. 465/2023 Coll. was received by the Ministry of the Environment (hereinafter also the "MoE") on 11 December 2024, i.e. while the EIA Opinion was still valid. The application includes a document titled "New Nuclear Power Source at Temelín, including Routing of the Output Power into the Kočín Substation – Supporting Documentation for the EIA Opinion Extension" (Jacobs Clean Energy, s.r.o., 11/2024). The application was supplemented with additional supporting documents on 18 September 2026.

The Ministry of the Environment, as the competent authority under Section 21 of the Act, pursuant to Section 9a(4) of the Act and pursuant to Part Five, Article VIII (1) of Act No. 465/2023 Coll.

issues this

B I N D I N G O P I N I O N

whereby, based on the submitted application for the

“New Nuclear Power Source at Temelín, including Routing of the Output Power into the Kočín Substation” project,

the validity of the EIA Opinion issued under Ref. No. 2561/ENV/13 and Ref. No. 2562/ENV/13 on 18 January 2013, shall be extended by 5 years, i.e. until 18 January 2030.

Justification:

The application for the EIA Opinion Extension includes a document titled “New Nuclear Power Source at Temelín, including Routing of the Output Power into the Kočín Substation – Supporting Documentation for the EIA Opinion Extension” prepared by Ing. Petr Mynář at Jacobs Clean Energy, s.r.o. in November 2024 (hereinafter referred to as the “Supporting Documentation”). The Supporting Documentation contains a description of the state of the affected territory (across all environmental aspects) at the time the EIA Opinion was issued, a description of the state of the affected territory (across all environmental aspects) at the time of the first application to extend the validity of the EIA Opinion (2019), as well as a description of the current state of the affected territory (across all environmental aspects), a comparison of these states, a summary of the changes between them, and an evaluation of these changes in terms of the potential emergence of new, significant, as yet unassessed impacts of the project resulting from these changes, an assessment of the state of habitats by a qualified expert, based both on a review of the documentation available and on a current survey of the area, a description of current changes in the area, and a final summary. The Supporting Documentation also includes a description of changes in the current knowledge and assessment methods compared to the EIA process. Attachments to this document include maps

and site plans, as well as the opinion of the Regional Authority for the South Bohemian Region, Department of Environment, Agriculture and Forestry, pursuant to Section 45i of Act No. 114/1992 Coll., on Nature and Landscape Protection, as amended. In connection with the EIA Opinion Extension, the MoE is addressing changes in conditions within the affected territory and changes in the current knowledge and assessment methods, as a result of which the project could have significant, as yet unassessed environmental impacts. Specific changes to the project will be verified during subsequent proceedings conducted in connection with the project (the “coherence stamp” mechanism) in accordance with the procedure set out in Section 9a(6) and (7) of the Act.

Description of changes in the affected territory:

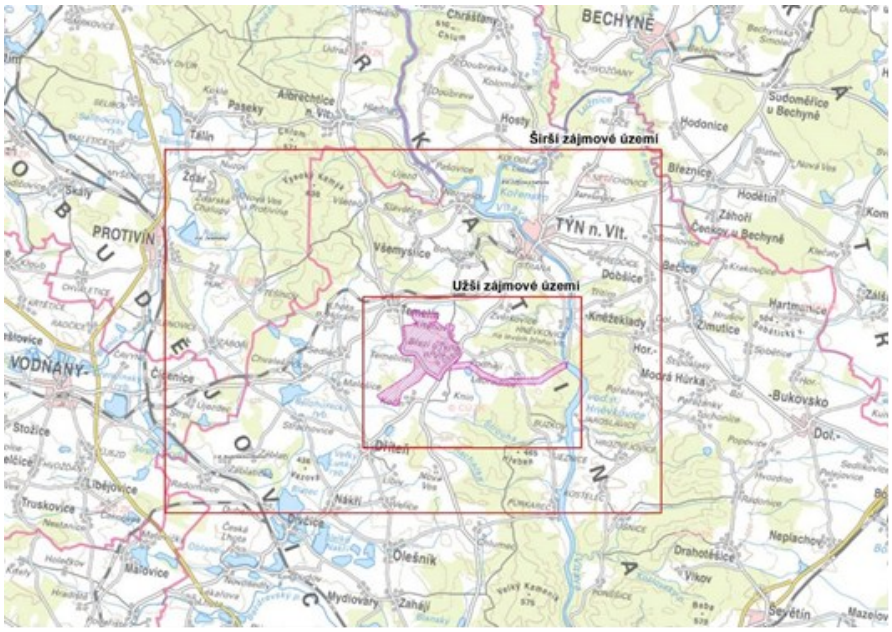
Within the meaning of the Act, the affected territory is understood as an area “whose environment and residents could be significantly affected by the project, if implemented”. This covers an area where significant impacts of the project have been identified. In the context of the NNPS project, this refers to the area specified in the environmental impact documentation for the NNPS project as the area limited to the project site and its immediate surroundings. The affected territory consists of the areas designated for the construction of the project and related buildings and technological facilities, including the construction site's installations. This area is already impacted by the existing 2 × 1,000 MW_e power plant (or rather, by its construction in the past), given the original plan to build a power plant with a capacity of 4 × 1,000 MW_e at the site and given the commencement of that construction in the past. This means, from the perspective of the Supporting Documentation, which describes the current state and development of the environment rather than the impacts, that the definition of the affected territory is only of an accessory nature.

According to the Supporting Documentation, the area of interest refers to the area where surveys were carried out and for which the state and development of individual segments of the environment were described. The definition of this area is not based on any legislative or methodological regulation. It is chosen to enable a relevant description of the current state and development of individual segments of the environment. From the perspective of the Supporting Documentation, this is a decisive definition. For practical reasons, the area of interest (see the map below) is divided into two sections:

- a broader area of interest, which describes the state and development of the environment in a broader context,
- a narrower area of interest, which describes the state and development of the environment within the project site and its immediate vicinity.

Generally speaking, segments of the environment that may be affected beyond the narrower area (typically, for example, as a result of the dispersion of pollutants) are

described in the broader context, whereas segments directly affected by the presence of the project (typically, for example, direct land take) are described in the narrower context.



Population and public health

The submitted documentation shows that no changes have occurred within the affected territory in terms of building development, demographic characteristics, protection of the population, or public health that would result in the project having significant, as yet unassessed environmental impacts. A comparison of the current situation in terms of the “population” and “public health” with the conclusions used to prepare the report on the project’s environmental impacts (hereinafter referred to as the “EIA Report”) and the environmental impact assessment for the project (hereinafter referred to as the “EIA Assessment”), which are also the subject of the EIA Opinion and the binding approval opinion verifying that the EIA Opinion complies with the requirements of the legal regulations transposing Directive 2011/92/EU of the European Parliament and of the Council, issued by the Ministry of the Environment under Ref. No. 80896/ENV/15 on 24 February 2016 (hereinafter referred to as the “Binding Verification Opinion”), indicates that no changes have occurred in these areas that would be significant from an environmental perspective.

No changes in residential development occurred within the affected territory over the period under assessment between 2008 and 2024. No buildings were added or demolished within the borders of the affected territory. No builds/facilities were located in the affected territory whose public health protection requirements (in

relation to noise, air quality, or other factors) would prevent the implementation of the project. On the contrary, the building development is planned and implemented in a manner that prevents conflicts with public health protection requirements.

Within the narrower area of interest, there have been several locations with new builds since 2008. The most significant new built-up area lies within the cadastral area of Dříteň (involving several dozen new buildings), as well as in the cadastral area of Zvěrkovice near Týn nad Vltavou, where construction took place within the designated areas of the land-use plan (several new buildings). Other cadastral areas with building development include Sedlec near Temelín (1 building), Hněvkovice (1 house), and Třitim (1 house). The land-use plans designate extensive areas for future construction, though construction has not yet begun on these sites (they are not yet built up). A large number of existing buildings are undergoing renovation in these municipalities, including the demolition of very old structures.

During the period under review, i.e. between 2009 and 2024, and based on the data of the 2021 census of population, houses and flats, there were no significant changes within the area of interest with respect to the monitored indicators compared with those that had already been evaluated, which included data current as of 2008 or were based on data available from the 2001 nationwide census of population, houses and flats.

From the perspective of the MoE, these do not constitute changes in conditions prevailing in the affected territory that could give rise to significant, as yet unassessed impacts of the project on the environment and public health.

Air quality and climate

According to the Supporting Documentation, the levels of pollutant concentrations monitored at the time the EIA Report was prepared were based on five-year averages from 2007–2011 (i.e. the first five-year averages published in 2013). The current state of air pollution was assessed in the Supporting Documentation based on five-year averages from 2018–2022. At the time when the EIA Report was prepared as well as at the time when the Supporting Documentation was prepared, the background pollution levels in the affected territory were satisfactory, and the pollution limits for all relevant pollutants were met. The air quality limit for the average annual concentration of particulate matter $PM_{2.5}$ – for which the limit value was tightened from 25 μg/m^3 to 20 μg/m^3 – is comfortably met within the narrower area of interest. As verified by the MoE based on publicly available information, the background air quality in the affected territory is satisfactory even when based on five-year averages for the years 2020 to 2024; air quality limits for all relevant pollutants are met with a margin of safety.

The average annual concentration of NO_2 in the narrower area of interest decreased slightly when comparing the five-year averages for 2007–2011 and 2020–2024 (a decrease from 7.4–9.6 µg/m^3 to 4.9–6.3 µg/m^3, with an air quality limit of 40 µg/m^3).

The average annual concentration of PM_{10} in the narrower area of interest decreased slightly when comparing the five-year averages for 2007–2011 and 2020–2024 (a decrease from 16.3–18.5 µg/m^3 to 11.5–13.2 µg/m^3 with an air quality limit of 40 µg/m^3).

The average 24-hour concentration of PM_{10}, the 36th value, in the narrower area of interest decreased slightly when comparing the five-year averages for 2007–2011 and 2020–2024 (a decrease from 32–36.1 µg/m^3 to 21–24 µg/m^3, with an air quality limit of 50 µg/m^3).

The average annual concentration of $PM_{2.5}$ in the narrower area of interest decreased slightly when comparing the five-year averages for 2007–2011 and 2020–2024 (a decrease from 13.6–14.4 µg/m^3 to 8.1–9.4 µg/m^3, with the current air quality limit of 20 µg/m^3).

The average annual concentration of benzene in the narrower area of interest remained the same or decreased slightly when comparing the five-year averages for 2007–2011 and 2020–2024 (a decrease from 0.6–0.7 µg/m^3 to 0.5–0.6 µg/m^3 with the air quality limit of 5 µg/m^3).

The average annual concentration of benzo(a)pyrene in the narrower area of interest decreased slightly when comparing the five-year averages for 2007–2011 and 2020–2024 (a decrease from 0.31–0.39 ng/m^3 to 0.2–0.3 ng/m^3, with the exception of the area around the municipality of Dříteň, where there was a slight increase from 0.34 ng/m^3 to 0.4 ng/m^3, with the air quality limit of 1 ng/m^3).

The average 24-hour concentration of SO_2, the 4th value, in the narrower area of interest decreased when comparing the five-year averages for 2007–2011 and 2020–2024 (a decrease from 10.6–11.1 µg/m^3 to 4 µg/m^3, with the air quality limit of 125 µg/m^3).

The average annual concentration of arsenic in the narrower area of interest decreased when comparing the five-year averages for 2007–2011 and 2020–2024 (a decrease from 1.26–1.42 ng/m^3 to 0.5–0.7 ng/m^3, with the air quality limit of 6 ng/m^3 (concentration in PM10 particles)).

The average annual concentration of lead in the narrower area of interest decreased when comparing the five-year averages for 2007–2011 and 2020–2024 (a decrease from 5.9–6.8 ng/m^3 to 2–2.1 ng/m^3 with the air quality limit of 500 ng/m^3).

The average annual concentration of nickel in the narrower area of interest decreased when comparing the five-year averages for 2007–2011 and 2020–2024

(a decrease from 1.2–1.3 ng/m^3 to 0.3 ng/m^3 with the air quality limit of 20 ng/m^3 (concentration in PM_{10} particles)).

The average annual concentration of cadmium in the narrower area of interest decreased when comparing the five-year averages for 2007–2011 and 2020–2024 (a decrease from 0.35–0.41 ng/m^3 to 0.1 ng/m^3 with the air quality limit of 5 ng/m^3 (concentration in PM_{10} particles)).

A comparison of data from the Czech Hydrometeorological Institute's weather station for the periods 2011–2023 and 2001–2010 is presented in the following table:

	2011–2023 versus 2001–2010
Average annual air temperature	+0.9 °C
Average annual maximum air temperature	+1.1 °C
Absolute annual maximum air temperature	-1.0 °C
Average annual minimum air temperature	+0.8 °C
Absolute annual minimum air temperature	+0.1 °C
Total annual precipitation	-91.1 mm
Number of days with precipitation	-13.9
Seasonal total new snow depth	-17 cm
Average seasonal maximum total snow depth	-6 cm
Number of days with thunderstorms	-3,6
Number of days with fog	+11.9
Number of days with frost, hoarfrost and rime	+3.2
Relative wind speed frequencies	0 m/s: +0.15 pp 0–1 m/s: +3.00 pp 2–4 m/s: +1.50 pp 5–9 m/s: –3.85 pp >9 m/s: -0.81 pp

The above changes in air temperature and precipitation patterns reported at the Temelín station are the result of normal climate variability and ongoing climate change. The projected trends in air temperature and precipitation for the period around 2030 were estimated in a report by the Czech Hydrometeorological Institute (Květoň, V. et al.: Selected Meteorological Data for the Temelín Nuclear Power Plant, May 2009), which served as the basis for the EIA Report. Taking into account the uncertainties of climate models and the short duration of the assessed periods, the changes in the air temperature and precipitation patterns are consistent with the projected trends. There has been no change in the basic climatic classification of the area.

Thus, no changes have occurred in the affected territory that would result in the project having significant, as yet unassessed environmental impacts.

The current project design takes expected climate changes into account, while ensuring resilience to potential climate change is an integral part of the project, at two levels. The initial project design will already be resilient to potential climate change at the NNPS site, while the regularly updated safety assessment of the NNPS will take into account the ongoing impact of climate change at the NNPS site based on actual trends in climate indicators. The project is therefore prepared to incorporate the principles of adaptive management, i.e. readiness to continuously incorporate newly acquired knowledge.

From the perspective of the MoE, these do not constitute changes in conditions prevailing in the affected territory that could give rise to significant, as yet unassessed impacts of the project on the environment and public health.

Noise

The current noise levels in the nearest, and potentially most affected, protected outdoor area surrounding the buildings were verified by measurement. The measurement results are summarised in the following table.

Measurement point	Location description	$L_{Aeq,T}$ [dB], 2024
MB01	Outskirts of the village of Litoradlice	28.6
MB02	Near the former farmstead behind the former village of Knín	31.6
MB03	Northeastern edge of the village of Kočín	33.1
MB04	Northeastern edge of the village of Kočín	33.6
MB05	Southwestern edge of the village of Kočín	31.2
MB06	Outskirts of the village of Malešice	27.9
MB07	Outskirts of the village of Sedlec	28.2
MB08	Outskirts of the village of Temelín	31.8

In none of these cases was the public health limit ($L_{Aeq,T}$ = 50/40 dB day/night) exceeded.

A comparison of the current noise measurement results in the affected territory (2024) with the noise measurements listed in the EIA Report is provided in the following table:

Measurement point	Location description	$\Delta L_{Aeq,T}$ [dB]
MB01	Outskirts of the village of Litoradlice	-5.3
MB02	Near the former farmstead behind the former village of Knín	-2.8
MB03	Northeastern edge of the village of Kočín	-1.3
MB04	Northeastern edge of the village of Kočín	-1.9
MB05	Southwestern edge of the village of Kočín	-5.0

MB06	Outskirts of the village of Malešice	+2.4
MB07	Outskirts of the village of Sedlec	-3.8
MB08	Outskirts of the village of Temelín	-2.4

These differences indicate that the noise level in the affected territory has actually improved. However, the values measured (including a comparison with the 2019 measurement results; see the extension of the validity of the opinion on the project in question dated 16 December 2020) show variable trends, with the differences attributable primarily to the current conditions (i.e. background noise in the vicinity of the measurement points or current meteorological conditions) rather than to changes in the operation of the noise sources.

A comparison of the current noise emission parameters for roads in the affected territory (latest available data, extrapolated to 2025) with the noise emission parameters for roads considered at the time when the EIA Report was prepared or the EIA Opinion issued (forecast for 2015) is provided in the following table:

Road	Profile (the profile location is evident from the Supporting Documentation, pg. 102)	$L_{Aeq,T,7.5m}$ [dB] (day 6:00 a.m. – 10:00 p.m.)	$L_{Aeq,T,7.5m}$ [dB] (night 10:00 p.m. – 6:00 a.m.)
II/105	2-0630	-0.2	-1.2
	2-1215	-0.6	-1.8
	2-1223	-2.8	-4.3
	2-0640	-0.2	-1.3
	2-0656	-1.2	-2.8
	2-0657	-1.3	-2.7
	2-0650	-0.7	-1.7
	2-0660	+0.8	-0.2
II/138	2-4680	+0.2	-2.9
	2-4200	+1.9	+1.4
	2-4209	+0.1	-1.3
II/141	2-2020	+0.4	-1.4
	2-2018	-0.4	-2.0
II/159	2-1200	-0.9	-2.1
	2-1220	-2.0	-3.3
	2-3078	-3.9	-4.4
	2-3060	-1.2	-2.2
II/122	2-2399	-2.5	-4.1
	2-2050	-1.5	-2.4
	2-2040	+1.4	-0.5
II/147	2-2380	-0.2	-1.6
	2-3250	-1.5	-3.4
I/20	2-0369	-1.0	+0.8
	2-0370	-1.0	+0.8
I/3 (D3)	2-0106	+4.2	+6.3

The results clearly show that, in the interim, there has been a general improvement in the noise emission parameters of the roads. This has also largely led to an improvement in the traffic noise level in the affected territory, which is directly proportional to the noise emission parameters of the roads. Minor increases in some profiles are of little significance from an acoustic standpoint. The main reason for this conclusion is the fact that, on the vast majority of sections of the road network in the affected territory, the traffic volume forecast specified in the EIA Report (2009) was not met. As a direct consequence, the traffic noise level in the affected territory, as analysed in the EIA Report, was based on an overestimated traffic forecast, thus leading to overestimated noise data. Subsequent developments in the traffic situation did not meet the assumptions of the original forecasts, while a forecast based on currently available data results in lower noise levels. Profile 2-0106 (road I/3, or the D3 motorway), which at the time when the EIA Report was prepared (the 2015 forecast) and the validity of the EIA Opinion was extended for the first time (the 2020 forecast), represented road I/3, following the historic route through the built-up areas of towns and villages, now (the 2025 forecast) represents the nearly completed D3 motorway, routed along a segregated and noise-protected corridor outside towns and villages. Although the analysis conducted indicates a significant increase in noise emissions in this profile (which is due both to significantly higher motorway speeds and to the gradually increasing traffic volume on the motorway), these emissions will not be felt within the protected built-up areas of towns and villages. It therefore has no impact on the conclusions of the acoustic study conducted as part of the EIA Report, and the net effect is positive (due to the transfer of traffic volume from lower-class roads to the noise-protected motorway).

It follows from this fact that all assumptions regarding the noise level used when preparing the EIA Report remain valid and are sufficiently conservative. No changes have occurred in the affected territory that could result in the project having significant, as yet unassessed environmental impacts.

From the perspective of the MoE, these do not constitute changes in conditions prevailing in the affected territory that could give rise to significant, as yet unassessed impacts of the project on the environment and public health.

Ionising radiation

As of 1 January 2019, state-run territorial monitoring has been conducted in accordance with the National Monitoring Programme. The radiation situation in the Czech Republic is monitored through monitoring networks that meet EU requirements. Organisations and institutions authorised by the State Office for Nuclear Safety (SÚJB) ensure independent monitoring of discharges and the surroundings of nuclear power plants.

The situation and trends regarding artificial radionuclides resulting from atmospheric nuclear weapons testing, as well as from Chernobyl and Fukushima fallout, and deviations in the measurement of other radioactive substances – including subsequent trends in the levels of selected radionuclides in food, the population, the atmosphere (aerosols, fallout) and precipitation – are comparable between 2008 and 2023.

As part of independent monitoring of the surrounding area and discharge points, a comparison of changes in structure, function and content revealed no significant changes between 2008 and 2023 that would warrant further evaluation. Independent monitoring confirms the data reported by the operator. The authorised limit of 40 μSv/year for discharges from the Temelín Power Plant (hereinafter referred to as the "TPP") into the atmosphere was reduced to 10 μSv/year in 2023, while the authorised limit of 3 μSv/year for TPP discharges into the hydrosphere was increased to 4 μSv/year. Balance measurements of radioactive substance concentrations in the discharges confirmed that, in this year, less than 1% of the authorised limit for discharges into the atmosphere and approximately 10% of the authorised limit for discharges into watercourses were released annually.

The monitoring results for individual elements are comparable, with no major fluctuations. Based on the results of radiation monitoring conducted as part of the independent TPP monitoring and the operator's monitoring, it can be concluded that there were no significant releases of radionuclides from the nuclear power plant into the environment. At none of the measurement points were the established action levels exceeded in a way that would require any measures to protect the public or the environment. Variations in dose rate measurements are caused by fluctuations in natural background radiation (seasonal effects, weather conditions). The radioactivity levels measured in watercourses do not exceed the expected impact. The values from 2001–2008 are comparable to those from 2009–2023 and are below the detection limits of the monitoring programmes.

Very low Cs-137 activity was detected in the environment, in food chains, and in the human body; Cs-137 entered the environment primarily following the Chernobyl accident and atmospheric nuclear weapons testing. Its specific activity levels have remained virtually unchanged.

A comparison of the current situation regarding ionising radiation with the conditions used when preparing the EIA Report and the EIA Assessment shows that no changes have occurred in this area that would be significant from an environmental perspective.

From the perspective of the MoE, these do not constitute changes in conditions prevailing in the affected territory that could give rise to significant, as yet unassessed impacts of the project on the environment and public health.

Other physical and biological factors

The situation regarding vibrations, non-ionising radiation, and other factors currently corresponds to that described in the EIA Report.

From the perspective of the MoE, these do not constitute changes in conditions prevailing in the affected territory that could give rise to significant, as yet unassessed impacts of the project on the environment and public health.

Surface water and groundwater

Water bodies have been newly delineated within the area, and a requirement has been added to assess the status of surface water and groundwater bodies (see "Changes in the Current Knowledge and Assessment Methods").

The assessment of surface water bodies was prepared for three planning periods. The first planning period was based on the results of monitoring programmes launched in 2006. The assessment results were reflected in the Vltava Basin Plans (for 2009–2015) in 2009 for the first time and served as the basis for the proposed measures aimed at improving the overall water status in the Vltava Basin. The methodology for assessing the status of surface water bodies in the second planning cycle (2015–2021) underwent significant development (assessment based on multimetric indices); methodologies approved by the MoE were used, and the same approach to assessment was maintained for the third planning period. Furthermore, procedures for assessing hydromorphological elements have been defined for the third planning period (current reference condition).

There are six surface water bodies in the assessed area during both planning periods under comparison. The table below provides an overview of these bodies (identification data according to the third planning period). The definition of the water bodies is nearly identical, with the exception of the Vltava water body downstream of the Kořensko Reservoir backwater (11689000), where the catchment profile was shifted approximately 4.5 km upstream along the Vltava River for the second planning period, reducing this water body in size. Conversely, the adjacent water body, the Kořensko Reservoir (107050010002), was expanded to include this section.

WATER BODY ID	**Name of the water body (WB)**	**WB category**	**Heavily modified or artificial WB**
HVL_3030	The Vltava River from the Hněvkovice Reservoir dam to the Kořensko Reservoir backwater	River	NO
HVL_1035_J	Kořensko Reservoir on the Vltava River	Lake	YES
HVL_1055_J	Orlík I Reservoir on the Vltava River	Lake	YES

DVL_0015_J	Orlík III Reservoir on the Vltava River (from the confluence with the Otava River to the dam)	Lake	YES
DVL_0030	The Vltava River from the Orlík Reservoir dam to the Slapy Reservoir backwater	River	YES
HVL_1010	The Lužnice River from the Košínský Stream to the Kořensko Reservoir backwater	River	NO

In the third planning period, failure to achieve a good chemical status is noted on the Lužnice River (water body HVL_1010 Lužnice from the Košínský Stream to the Kořensko Reservoir backwater). The reason for the negative assessment is the occurrence of concentrations exceeding the limits for substances in the PAH and PBDE groups and mercury. The chemical status of the other water bodies is classified as unknown. In general, however, the concentration of pollutants must not exceed the environmental quality standards set out in Government Regulation No. 401/2015 Coll., on Indicators and Permissible Pollution Levels for Surface Waters and Wastewater, Requirements for Permits to Discharge Wastewater into Surface Waters and Sewer Systems, and on Sensitive Areas, as amended. Data on the status of these water bodies in the vicinity of the Temelín Nuclear Power Plant are specifically evaluated as part of the Programme for Monitoring and Assessing the Environmental Impacts of the Temelín Nuclear Power Plant (VÚV TGM, v.v.i.). The results clearly show that the average annual concentrations of individual indicators do not change significantly. A comparison of concentrations from 2009–2023 with the government regulation shows that emission standards for the COD_{Cr} indicator are slightly exceeded at three profiles (likely due to wastewater discharges from municipal wastewater treatment plants), and in three cases, the oxygen saturation level (O_2) was not achieved.

In terms of the ecological status/potential assessment, all the water bodies are classified as degraded. In the overall ecological status/potential assessment, the biological elements are the determining factor for most water bodies, as they have the worst rating. The most common reason for the poor assessment of general physicochemical elements is nutrient conditions, particularly phosphorus levels. The highest number of non-compliant indicators was identified in the Lužnice River (water body HVL_1010), where, in addition to the general physicochemical elements, some indicators from the group of specific pollutants also failed to meet the standards.

The overall status of all surface water bodies is currently (in the third planning period) assessed as non-compliant, i.e. there has been no change compared to the initial reference condition (first planning period).

The comparison was based on the results of the first (initial reference condition) and third (current reference condition) planning periods; however, it should be noted that the results are not easily comparable. Changes in the assessment of the overall status and individual elements can be attributed not only to actual changes in the quality of water bodies but also to developments in the assessment methodology. Not only do some target values for assessing water quality differ (primarily general physical-chemical parameters), but so does the overall approach (e.g. biological elements). In some cases, a change in the status assessment is also due to the fact that certain elements are or, conversely, are not assessed, or a different set of indicators is monitored. A comparison of the status of water bodies in the area does not reveal any significant changes in relation to the information presented in the EIA Report. No changes have occurred that would result in the project having significant, as yet unassessed environmental impacts.

The quality of raw water abstracted from the Hněvkovice Reservoir has not changed significantly since 2001. An assessment of changes in the monitored surface water quality at the Vltava Hněvkovice, Vltava Kořensko (left bank and right bank), Vltava Hladná, Vltava Solenice and Lužnice Koloděje profiles between the reference period of 2001–2008 and the assessment period of 2009–2023 shows that no significant changes have been identified (or such changes cannot be assessed due to the nature of the data). Due to the nature of the data available, it is not possible to statistically evaluate changes in the SS_{105} and $C_{10\text{-}C40}$ indicators (at all profiles) and in the DIS indicator at the Solenice profile. No statistically significant changes were observed between the reference and evaluation periods for the indicators DS_{105}, DIS (Hněvkovice, Kořensko LB and PB, and Hladná profiles), pH, NEL, $N\text{-}NH_{4+}$, and COD_{Mn}. For the other indicators, a significant change was observed at some profiles. The causes of these changes, which were improvements in most cases, can be attributed to several society-wide phenomena.

Among the main factors is the reduction in atmospheric deposition – particularly of sulphates, nitrogen compounds (i.e. nitrogen oxides and ammoniacal nitrogen) and phosphorus (both organically and inorganically bound). This factor is dominant in the case of sulphates, up to half of which in surface waters originate from atmospheric deposition. The concentrations of nitrogen compounds (i.e. $N\text{-}NH_{4+}$ and $N\text{-}NO_{3-}$) and summary indicators (COD_{Mn}, COD_{Cr}, and BOD_5) are also significantly influenced by reduced pollution discharged from municipal or industrial point sources in connection with the construction or modernisation of wastewater treatment plants. However, the construction of wastewater treatment plants has not had as much of an impact on changes in phosphorus compounds or the P_{total} indicator. Although a statistically significant decrease in this indicator was observed at the Solenice profile, an increase in concentrations, albeit statistically insignificant, was observed at the other profiles. The decline in phosphates, specifically $P\text{-}PO_4^{3-}$, is primarily due to the discontinuation of the production and use of laundry and cleaning products

containing polyphosphates, which occurred in 2006. Similarly, the decline in anionic surfactants is attributable to the transition to biodegradable surfactants in laundry and cleaning products. However, a steady, slight increase in phosphorus concentrations remains a general problem. For the section of the Vltava Basin under consideration, this is likely due to the negative impact of the Lužnice River.

Chlorides (Cl^-) represent the only indicator for which a significant increase in concentrations has been observed at multiple profiles. Chlorides in surface waters originate primarily from sewage, specifically from urine. In municipal wastewater, chloride concentrations are significantly elevated due to the use of sodium chloride as road salt during the winter months and for neutralisation purposes in industrial plants and households. In the Czech Republic, an increase in household NaCl consumption can be attributed to the growing prevalence of automatic dishwashers, which use NaCl to soften water. Increased chloride concentrations are also associated with increased sodium (Na) concentrations.

Changes in Ca and Mg concentrations are linked to overall anthropogenic pressure; i.e. these changes are related to general trends, particularly the decline in atmospheric deposition and increased wastewater treatment, and consequently to an overall reduction in the load on surface waters.

More significant changes are observed at the Vltava-Solenice profile; for example, a statistically significant increase in conductivity, potassium (K), and sodium (Na) was detected only at this location. The Orlík Reservoir itself may have a significant influence here (processes of dilution, sedimentation, and nutrient consumption by phytoplankton, along with the resulting decrease in oxygen levels and the possible release of substances from sediments), as do activities within the reservoir's watershed, which affect runoff and the inflow of nutrients and suspended solids. A decline is also observed for the radioactive indicators Sr-90 and Cs-137 (at all profiles) and H-3 (at profiles unaffected by TPP operations), due to the decay of residual environmental contamination by these radionuclides, which, as expected, will also continue in the future. An increase was observed for tritium in the Vltava Solenice profile, which is related to the gradual increase in total tritium discharges from the existing TPP. When comparing the period 2009–2023 with the years 2005–2008, this increase is not statistically significant.

In terms of water quantity, temperature trends and precipitation totals are important factors. Air temperature shows an upward trend over the long term, and this increase is evident for all monitored periods and locations. Rising temperatures may affect the hydrological cycle, particularly evapotranspiration and water temperature. Annual precipitation totals show a slight decrease in 2010–2023 compared with 2003–2009, particularly in the months of January to April. This decrease in precipitation may affect the overall flow of the river and the availability of water

resources in the region. From a long-term perspective, precipitation totals for 2010–2023 are higher than those for 1981–2023.

The average annual rate of flow (modified, i.e. the natural rate of flow that has been affected by human activity – water abstraction and discharge – as well as natural rate of flow) at the "tributary to the Hněvkovice Reservoir" profile for the years 2003–2023 is shown in the following table:

Year	Modified rate of flow	Natural rate of flow
2003	25.62	22.95
2004	26.73	29.05
2005	33.70	33.89
2006	39.22	39.48
2007	26.13	28.20
2008	25.63	25.50
2009	37.73	38.52
2010	37.96	37.81
2011	20.22	21.43
2012	27.27	27.87
2013	41.46	40.64
2014	20.01	20.96
2015	19.11	19.05
2016	22.67	23.29
2017	16.93	17.27
2018	19.03	20.43
2019	22.83	21.81
2020	25.95	26.81
2021	23.68	23.79
2022	23.53	25.36
2023	29.72	31.02

The table shows that the years 2019–2023 no longer exhibit extremely low rates of flow as seen in 2015–2018 (extreme hydrological drought).

The average modified rate of flow at the Hněvkovice Reservoir is:

- 2003–2009: ≈ 30.7 m³/s
- 2010–2018: ≈ 24.3 m³/s
- 2010–2023: ≈ 26.0 m³/s

The average annual rate of flow (modified, i.e. the natural rate of flow that has been affected by human activity – water abstraction and discharge – as well as the natural rate of flow) at the "discharge from the Kořensko Reservoir" profile for the years 2003–2023 is shown in the following table:

Year	Modified rate of flow	Natural rate of flow
2003	41.36	39.48
2004	51.63	55.76
2005	59.14	61.15
2006	84.66	83.10
2007	39.73	45.14
2008	40.26	41.35
2009	63.79	66.92
2010	69.42	74.14
2011	39.18	40.99
2012	49.09	51.00
2013	86.46	84.58
2014	35.64	37.23
2015	31.53	31.74
2016	36.48	37.58
2017	30.57	31.28
2018	26.23	34.86
2019	36.78	36.16
2020	40.23	43.73
2021	53.56	43.06
2022	39.47	39.71
2023	51.72	51.82

The table shows that the years 2019–2023 no longer exhibit extremely low rates of flow as seen in 2015–2018 (extreme hydrological drought).

The average modified rate of flow at the Kořensko Reservoir is:

- 2003–2009: ≈ 54.4 m³/s
- 2010–2018: ≈ 44.3 m³/s
- 2010–2023: ≈ 47.9 m³/s

The data for 2019–2023 at both profiles above do not indicate a continuing trend of a significant decrease in rates of flow (*note: compared to the period covered in the Supporting Documentation for the first EIA Opinion extension*). On the contrary, the data confirm that the extremely low values from 2015–2018 represented an exceptional dry period, followed by a partial recovery in the river flow. The hydrological assessment for 2018–2023 was added to the original assessment from the EIA process, specifically the first EIA Opinion extension. The data are now based on the period 2003–2023 and do not reveal any new facts that would necessitate a change in the conclusions of the original assessment. Although the average rates of flow since 2010 have been lower than the long-term historical average, trends from 2019 to 2023 show a stabilisation of the hydrological conditions following a period of extreme drought (2015–2018).

Water abstraction related to the operation of TPP 1, 2 accounts for only a small proportion of the flows available and does not represent a significant factor affecting the water balance of the river. Similarly, this conclusion can also be applied to the assessed water abstraction for the NNPS TPP project. It can therefore be concluded that the availability of water resources remains sufficient to meet the needs of both projects and that there has been no change in conditions in the affected territory or in the current knowledge and assessment methods that would result in the project having significant, as yet unassessed environmental impacts. Based on the foregoing, there have been no changes in conditions in the affected territory or in the current knowledge and assessment methods that would result in the project having significant, as yet unassessed environmental impacts.

From the perspective of groundwater regime monitoring, a stable – or expected – groundwater level is evident in the monitoring wells when comparing the periods 2001–2008 and 2009–2023, in terms of maximums and minimums, averages, and the magnitude of level fluctuations. The observed differences fall within the range of natural fluctuations in hydrogeological conditions, depending on changes in precipitation and climatic conditions.

For all qualitative indicators (groundwater quality), it was found that the hydrogeological conditions at the site are stable and that no significant or unexpected changes occurred during the periods under assessment (2001–2008 and 2009–2023), neither due to natural conditions nor due to the TPP operation. Any differences observed result from long-term fluctuations in the monitored parameters (primarily fluctuations in precipitation and other climatic parameters), for which no clear trend can be identified in the period under assessment.

In the affected territory, one groundwater body has been delineated. The overall status of the groundwater body is currently (in the third planning period) assessed as non-compliant, with the quantitative status assessed as good and the chemical status as non-compliant (primarily due to PAHs, nitrates, metals, and pesticides resulting from historical environmental contamination and agriculture, i.e. for reasons unrelated to the TPP operation).

These are not changes in conditions within the affected territory that could give rise to significant, as yet unassessed impacts of the project on the environment and public health.

Soil

A comparison of current information with the status described in the original assessment reveals the following facts. The soil types present in the area of interest correspond to the data presented in the EIA Report; with cambisols prevailing, followed by pseudogleys and gleys. New classes of evaluated soil ecological units (hereinafter referred to as “SEU”) have been defined in the area; the existing

10 classes have been expanded to 27 classes. The higher number of classes is partly the result of the chosen overlap of 100m in contrast with the original delimitation of areas where the project was to be located and constructed – or, in other words, their “encasement”. However, the expansion is more significantly attributable to the more precise soil description and evaluation methods, which are based on measurement accuracy and requirements for a methodologically consistent interpretation of results. The analysis shows that, despite the higher number of newly defined SEU, there has been no significant change in the character and/or type of the evaluated soil ecological units in the area compared to the original assessment. There has been no significant change in the classification of the relevant agricultural land fund (hereinafter referred to as the “ALF”) protection classes within the area. None of the affected sites fall within Class I of agricultural land protection; i.e. there are no prime quality soils within the affected territory. The Soil Register also records the presence of Class II protection areas on land belonging to the existing TPP site, i.e. on sites that are not protected as part of the ALF according to the Land Register. The largest share on the land take consists of Class III protected land (approximately 51%), which can be used for potential construction. The areas where the main part of the construction work will take place, i.e. the location and construction of the NNPS, primarily consist of Class IV and V protected soils.

The areas of interest are moderately at risk of water erosion and susceptible to wind erosion. The decisive factors for erosion are the nature of land cultivation and the type of vegetation. Excavation work (exposure of the soil profile in areas at risk of erosion), which is an integral part of any proposed construction, poses a potential risk that will be taken into account during further project preparation. The permissible values for soil loss due to erosion (defined as the long-term average soil loss limit of 4 t/ha/year) are locally exceeded in the area of interest. Soil loss values in the area of interest were calculated to range from approximately 0.5 t/ha in isolated cases to approximately 20.0 t/ha/year. Across most of the study area, the estimated soil loss is 2 t/ha/year, while on gently sloping land it reaches up to 4 t/ha/year. Soils potentially at risk of water erosion are predominantly grassed.

Information from regular annual monitoring of the state of agricultural and forest soils in the vicinity of the Temelín Nuclear Power Plant does not indicate any potential contamination related to the plant’s operation. A comprehensive set of data covering the period 2000–2023 is currently available. Since 2009, neither the number nor the location of sampling sites nor the scope of the parameters monitored has changed. In none of the groups of the parameters monitored was a direct or indirect correlation found between any changes and the operation of the Temelín Nuclear Power Plant throughout the entire monitored period, specifically the 2009–2023 interval. The results are influenced more by macroclimatic indicators or changes in farming practices (use of industrial fertilisers) than by the plant’s operation.

During the monitored period, there were no significant changes to the legislative framework regarding the ALF protection and/or forest management, particularly with regard to potential changes in the conditions for classifying the affected soils, changes in the definition of SEU (there were no changes to the main soil units; any expansion of the number of SEU is always identified within their framework), inclusion in ALF protection classes and/or requirements for permanent/temporary land withdrawal, which would require the preparation of a different type of assessment than that specified in the EIA Report.

By comparing information about the area and projected development trends, it can be concluded that there have been no significant changes in the conditions for assessing the soil condition in the affected territory and/or no new findings related to the information presented in the EIA Report. Therefore, no changes have occurred that would result in the project having significant, as yet unassessed environmental impacts.

From the perspective of the MoE, these do not constitute changes in conditions within the affected territory that could give rise to significant, as yet unassessed impacts of the project on the environment and public health.

Geological conditions and natural resources

No conflicts with active mineral deposits, protected deposit areas, or mining areas, as recorded on mineral deposit protection maps, were identified in the affected territory. No geological or paleontological sites are anticipated in the area. In the affected territory, no new conflicts with natural resources have arisen in the interim, i.e. between the time when the EIA Opinion was issued and the present, given the absence of natural resources in the affected territory. Natural resources, currently recorded in a broader scope than at the time when the EIA Opinion was issued, do not conflict with the areas designated for the project.

From the perspective of the MoE, these do not constitute changes in conditions prevailing in the affected territory that could give rise to significant, as yet unassessed impacts of the project on the environment and public health.

Biological diversity (fauna, flora, and ecosystems)

In terms of fauna and flora, natural development occurred in the area during the comparison period (2009–2024), manifested by partial changes in communities (changes in the representation of individual habitats). Differences between the periods being compared reflect the variability of flora and fauna, particularly among species with low population densities, which may not be captured by annual surveys; alternatively, these differences may result from changes in habitat conditions (e.g. ongoing construction work, changes in pond management, advancing succession, etc.).

The botanical survey documents the occurrence of one specially protected species – common adder's tongue (*Ophioglossum vulgatum)*, in contrast to the originally zero count. Its presence was noted in an atypical habitat and over a small area (near the fence of the current pumping station at the Hněvkovice Reservoir). Since no construction work is expected to take place at this site, this species will not be affected by the project. The site with the greatest botanical diversity, the Dvorčice Pond, has a stable species composition and remains virtually unchanged. Hydrobiological monitoring of the originally surveyed sites (selected profiles of the Vltava River) was not conducted due to the minimal risk of impact and the absence of specially protected species or rare species. Water conductivity measurements (an indicator of the degree of pollution by dissolved solids and, consequently, the environmental impact on, among other things, invertebrate fauna) conducted as part of the hydrobiological monitoring show, compared to the results of the first survey update, a deterioration in water quality (in 2019, values reached up to 200 µS/cm, while in 2024 they ranged from 279 to 808 µS/cm). Most sites show a significant degree of eutrophication. The zoobenthos consists predominantly of common ubiquitous species that are highly mobile and capable of colonising new habitats. None of the taxa found are endangered or legally protected species that would require special attention. The entomofauna of the study area continues to fully correspond to the character of the region. Differences in species occurrence fully correspond to the development of the surveyed sites (the development of reclaimed areas with gradual vegetation establishment). The changes between the results of the first survey update and those of the second survey update are minor; the ecosystem has stabilised. There has been no significant change in the species composition of insects (the representation of common species reflects the expected development of the surveyed sites). However, the EIA Report listed 7 specially protected species (SPS); the results of the first survey update confirmed 5 SPS, and the results of the second survey update confirmed 4 SPS, all in Category O. Of the identified aquatic and terrestrial mollusk species, none are classified as specially protected species, consistent with previous findings. The malacofauna of the study area is stable; no significant changes have occurred. The fish community profile in the Vltava River was not verified. However, it is reasonable to assume a similar species composition (as there has been no change in habitat conditions). The fish community structure in standing waters does not include any specially protected species or endangered fish species; on the contrary, the species identified – Prussian carp (*Carassius gibelio*), pumpkinseed (*Lepomis gibbosus*), and topmouth gudgeon (*Pseudorasbora parva*) – are classified as invasive fish species. Other identified species are common commercial fish species with relatively simple environmental requirements – common carp (*Cyprinus carpio*), grass carp (Ctenopharyngodon idella). Rescue relocations (transfer of animals to alternative locations) and remediation were carried out directly within the project area. As a result, there are no longer any suitable habitats for the reproduction of specially

protected species of amphibians and/or reptiles in this area. The structure of the surrounding landscape is very conducive to the formation of habitats suitable for amphibians. However, a significant factor affecting local populations is the method of local pond management (carp stocking, fish feeding, fertilisation, and pond liming), which changes annually. Consequently, populations of less abundant species may not be detected during surveys. A comparison of batrachological results shows that 14 amphibian species were described in the EIA Report, the results of the first update listed 10 species, while the results of the second update showed 8 species. Herpetological findings are stable; the species composition identified has not changed significantly. Ornithological results show a certain change in the composition of specially protected species. Compared to the baseline (the EIA Report), the results of the first survey update also showed some new rare species at the Karlovec and Hůrecký Ponds, which was interpreted as a consequence of extensive fish farming after 2010. However, the results of the second survey update show that, although 5 more species were recorded compared with the EIA Report and 3 more species compared with the results of the first update, the results of the second update newly recorded a decline in the number of specially protected species from a total of 22 (EIA Report and the 2017–2019 update) to 13, compared to the EIA Report and the results of the first update, particularly among species associated with aquatic habitats. This phenomenon may be a consequence of the currently deteriorated condition of the ponds (transition to intensive fish farming, removal of littoral vegetation, etc.). The survey confirmed the presence of the European otter (*Lutra lutra*), whose population in the vicinity of the Temelín Nuclear Power Plant can be considered stable. The results of the first update also identified the presence of the bicoloured white-toothed shrew (*Crocidura leucodon*), which was not described in the EIA Report. However, this species was recorded in the results of the second update. Update surveys conducted during the 2024 season, which were expanded to include a chiropterological survey, confirmed the presence of 11 bat species (10 in the endangered category, 1 in the critically endangered category).

When comparing the results from different years of survey, it is important to note that exactly the same plant and animal species can never be found at the same locations. For plants, the survey focuses primarily on verifying the presence of valuable species that occur at the site even when their populations are small, whereas for animals, consistent findings are primarily observed among the most abundant species, which are generally recorded every year. With regard to the common adder's tongue (*Ophioglossum vulgatum*), this plant species was identified at the pumping station near the Hněvkovice Reservoir during a biological survey in 2017, and subsequently in 2019, when the population was smaller because it had been outcompeted by other plant species at the water supply facility. Its presence was also confirmed by surveys conducted in 2024. The species grows near

development areas (near the planned raw water intake). It was found at a single location by the fence of the current pumping station at the Hněvkovice Reservoir, in an unusual habitat of a small area. Less abundant species may not be detected in a given year, as the likelihood of detecting each species depends on the population size and, in general, on the fauna mobility. Animal occurrence is also influenced by natural fluctuations in species abundance from year to year, the weather conditions during the year of survey, and trends in the distribution and population size of species, which have been accelerating in recent years in connection with climate change. Over the long term, there has been a slight decline in biodiversity, particularly in the Hůrecký, Karlovec, and Dvorčice Ponds, which was likely caused by higher fish stocking densities, supplementary feeding, and pond fertilisation, leading to increased eutrophication. Despite the decline in the pond diversity, all the ponds remain the most biologically rich sites in the entire area, with the Dvorčice Pond and the adjacent wetland meadow being the most valuable. The newly identified specially protected species, the bicoloured white-toothed shrew (*Crocidura leucodon*), was found in the area of interest during surveys in 2019 and 2023 (it was not detected in 2017). Since its first identification in 2019, the bicoloured white-toothed shrew has been expanding in the vicinity of the Temelín Nuclear Power Plant due to the presence of suitable habitats. It was originally found only at the railway siding and in Temelínec; in 2024, it was found at the Dvorčice Pond, in Temelínec, and in Křtěnov. These areas are not directly affected by the project, or they are affected only during the construction phase. During the operational phase of the NNPS TPP project, this species will not be significantly affected, as it also occurs in habitats heavily affected by human activity. It can also be stated that there is a sufficient number of suitable habitats in the vicinity of the project that can be utilised by this species during the construction phase of the project. As for bats, chiropterological surveys were conducted in 2024 that had not been carried out in previous years. These surveys involved detecting bats using a “bat detector”, a method that does not allow for determining, or even estimating, population sizes, as it does not distinguish whether a bat is merely a bat passing through, a local hunting bat, a migrant bat, or a local nesting bat; only the presence of bats can be detected.

With regard to specially protected areas (hereinafter referred to as “SPAs”), a comparison of the changes revealed the following:

- Lužnice Nature Monument – promulgated by Regulation No. 14/2013 of the Regional Authority of the South Bohemian Region, with effect from 2 January 2014, i.e. during the period following the preparation of the EIA Report.

- Zelendárky Nature Monument – although not listed in the EIA Report, this nature monument has long been officially registered. Between 2019 and 2024, its boundaries were adjusted and its area was changed.

- Radomilická mokřina Nature Reserve – its area was likely revised in 2011.

- Velký a Malý Kamýk Nature Reserve – between 2019 and 2024, its boundaries were adjusted and its area changed; at the same time, a 50-meter buffer zone was established. During this period, it was also reclassified from IUCN Category IV (managed reserve) to Category III (nature monument or feature).

- Žďárské louky Nature Monument – this nature monument was abolished without replacement.

- The Dvorčice site is not currently on the list of sites being considered for designation as a specially protected area (although such a designation cannot be ruled out in the future).

- The Hradní strouha site is no longer being considered for designation as a specially protected area.

- Preparations are currently underway to designate the Podhorský Pond site as a specially protected area.

In terms of changes within the narrower area of interest between 2010 and 2024, it can be stated that they are insignificant from the perspective of the project's feasibility.

The current status of the definition of the constituent parts of the Territorial System of Ecological Stability (TSES) within the narrower area of interest (with the exception of certain peripheral parts) has remained virtually unchanged between 2010 and 2023 and more or less corresponds to the situation at the time the EIA Report was prepared. Minor changes to the TSES definition, which affect the narrower area of interest only marginally, occurred between 2019 and 2024 in just a few of the TSES components (the current Všemyslice land-use plan and the Žimutice land-use plan). The majority of changes to the definition of certain TSES components in the land-use plans of other municipalities are therefore located within the broader area of interest and result from the incorporation of the supraregional and regional (SR-R) TSES from the Principles of Territorial Development of the South Bohemian Region into the more detailed spatial contexts of the municipalities' land-use plans.

With regard to changes within the narrower area of interest, it can be stated that the situation concerning significant landscape elements has not changed in the interim. Regarding the designation of landmark trees within the narrower area of interest, between 2010 and 2024, one landmark tree (standing at a considerable distance from the affected territory) was designated and subsequently delisted, and the protected status of another landmark tree (also located on the edge of the narrower area of interest) was revoked.

The biodiversity criteria will not be affected, and the diversity of species and habitats, as well as the diversity of objects of protection within specially protected areas, will not be impacted. An assessment of the current state of the habitats indicates that

natural development has occurred in the area, manifested by partial changes in communities (changes in the representation of individual habitats). However, the surveys conducted clearly demonstrate that changes in the structure of flora and fauna communities and in the functions of the ecosystems in the area are not significant and correspond to the expected state. Therefore, the site continues to show no significant conflict with nature conservation interests.

Although the number of specially protected species of plants listed in the biological assessment has increased, the newly discovered species, the common adder's tongue (Ophioglossum vulgatum), will not be affected by the project, as no construction work is expected to take place at its location. Likewise, ornithologically significant sites at the adjacent ponds (Dvorčice, Karlovec, and Hůrecký) will not be directly disturbed by the construction. However, at the ponds closest to the construction activities (Dvorčice and, possibly, Hůrecký), there may be temporary disturbance to birds during the nesting season due to noise from the construction site and heavy equipment traffic. The installation of the raw water supply pipeline around the Hůrecký Pond could directly disrupt the nesting of the northern lapwing (Vanellus vanellus) or the little ringed plover (Charadrius dubius) during the spring months. In general, however, the disturbance caused by the movement of machinery on waterlogged terrain is more likely to benefit both species by creating suitable habitats. The presence of otters was identified based on traces of their activity in the vicinity of the Dvorčice and Karlovec Ponds. Neither the construction work nor the operation will affect these sites. The sites where the bicoloured white-toothed shrew (Crocidura leucodon) occurs will be affected by the project only during the construction phase. However, there is a sufficient number of suitable habitats in the vicinity of the project that this species can utilise during construction. Chiropterological surveys were newly conducted at the TPP site as part of their inclusion in the regular biological surveys at the TPP site. These surveys were not conducted at the time when the EIA Report was prepared, nor at the time when the Supporting Documentation for the first EIA Opinion extension was prepared; they were not carried out until 2024. Nevertheless, the EIA Report did take the presence of bats into account to a certain extent and even proposed, as one of the mitigation measures to support their presence, the installation of special bat boxes to bolster their population.

Therefore, Condition No. 32 of the EIA Opinion – or Condition No. 30 of the Binding Verification Opinion – remains in effect, which implies that changes in community structure at the start of the construction are anticipated. This condition requires that additional zoological surveys be conducted in the vicinity of the NNPS site no later than one growing season before the start of the construction, and that measures resulting from these surveys be implemented.

In light of the above, the MoE does not consider these to be changes in conditions within the affected territory that could give rise to significant, as yet unassessed impacts on the environment or public health.

Natura 2000 network sites

From the perspective of the Natura 2000 network sites, a comparison of the changes revealed the following findings:

- Českobudějovické Ponds Bird Area (BA) – the EIA Report does not list it, as it had already been designated by Government Regulation No. 405/2009 Coll. at the time when the report was prepared.

- Lužnice and Nežárka Site of European Importance (SEI) – this site was included in the draft European list even before the EIA Report was prepared (Government Regulation No. 132/2005 Coll.), and its designation as part of the implementation of the Natura 2000 network took place in 2012 (Government Regulation No. 208/2012 Coll.).

- Radomilická Mokřina Site of European Importance – was included in the draft European list even before the EIA Report was prepared (Government Regulation No. 132/2005 Coll.), and its designation as part of the implementation of the Natura 2000 network took place in 2012 (Government Regulation No. 208/2012 Coll.).

- Velký a Malý Kamýk Site of European Importance – the EIA Report does not list it, at the time it was prepared, the SEI had already been included as part of an amendment to the national list (Government Regulation No. 371/2009), and its designation as part of the implementation of the Natura 2000 network took place in 2012 (Government Regulation No. 208/2012).

- Zelendárky Site of European Importance – the EIA Report does not list it, at the time it was prepared, the SEI had already been included as part of an amendment to the national list (Government Regulation No. 371/2009 Coll.). It was designated as part of the implementation of the Natura 2000 network in 2012 (Government Regulation No. 208/2012 Coll.).

Between 2010 and 2024, there were no significant changes regarding the definition of Natura 2000 network sites or their objects of protection.

On 18 November 2024, the Regional Authority of the South Bohemian Region issued, under Ref. No. KUJCK 135409/2024, a statement concluding that the project in question cannot, neither on its own nor in conjunction with other projects and plans, have a significant impact on the favourable conservation status of the object of protection or the integrity of the SEI and BA located within the jurisdiction of the Regional Authority of the South Bohemian Region.

From the perspective of the MoE, these do not constitute changes in conditions prevailing in the affected territory that could give rise to significant, as yet unassessed impacts of the project on the environment and public health.

Landscape character

Between 2009 and 2024, there were no changes in the morphology or land use of the landscape that would necessitate a new visual analysis. The new nuclear power source project also remains unchanged from its visual perspective. Similarly, there have been no changes to the methodologies for assessing impacts on the landscape character or for assessing the impact of shading on residential areas resulting from steam plumes above the cooling towers.

In the meantime, a new protected landscape area (hereinafter referred to as the "PLA") named Brdy was established as of 1 January 2016 (by Government Regulation No. 292/2015 Coll.). This new PLA extends into the peripheral areas of the outer perimeter of the NNPS visibility zone specified in the landscape impact study (Appendix to the EIA Report). This study specified and assessed the impact on the affected Brdy landscape area, which also includes the Brdy and Třemšín Nature Parks, currently located within the Brdy Protected Landscape Area. The designation of the Brdy Protected Landscape Area thus created a new element of nature conservation. However, this is merely an administrative measure – a new special protection status for the area – which does not, in itself, create a new impact of the project. Within the newly designated Brdy Protected Landscape Area, given the high forest cover in this area, only the western slope of the Tok Peak – which is not covered by trees – and a small section of the Skelná Huť area, located approximately 68 km from the project site, i.e. at the border of visibility by the naked eye and beyond the discernible impact of the existing TPP and NNPS, could be considered to be areas visually affected by the NNPS project. From the above, it can be concluded that no new visual impact of a quantitative character will arise, and given the nature of the impact on the area within the Brdy Protected Landscape Area, there will be no increased impact on the landscape character from a qualitative perspective in connection with the designation of a new category of protection for this area.

A comparison of the current situation with the source data used to prepare the EIA Report – which also forms the basis of the EIA Opinion – shows that no changes have occurred in the areas of morphology and landscape use that would be significant from an environmental perspective. This means that no changes have occurred that would result in the project having significant, as yet unassessed environmental impacts.

From the perspective of the MoE, these do not constitute changes in conditions prevailing in the affected territory that could give rise to significant, as yet unassessed impacts of the project on the environment and public health.

Tangible property and cultural heritage, including architectural and archaeological aspects

There is no third-party tangible property within the affected territory. From this perspective, no changes have occurred that would result in the project having significant, as yet unassessed environmental impacts. Similarly, in terms of the protection of immovable cultural heritage and archaeological sites, no changes have occurred in the affected territory that could result in the project having significant, as yet unassessed environmental impacts. A comparison of the current situation with the conclusions used to prepare the EIA Report and the EIA Assessment – which are also the subject of the EIA Opinion and the binding opinion on compliance verification – shows that no changes in terms of tangible assets and cultural heritage have occurred that would be significant from an environmental perspective.

Several monuments and archaeological sites were merely administratively reassigned from one part of a municipality to another or, in other cases, from a municipality originally within the area of interest to another municipality outside this area. Nevertheless, the protection afforded to the individual sites remains unchanged, with no further impact.

Five immovable cultural heritage sites were newly identified within the broader area of interest (including one new cultural heritage site designated since the last EIA Opinion extension for the project in question in 2020). In the municipality of Olešník: the Chapel of St. Rozálie (Register No. 5263) – this chapel was not listed in the EIA Report. However, given its distance (approximately 6.8 km southeast of the boundary of the existing power plant), it has no impact on the conclusions of the assessment. In the municipality of Týn nad Vltavou: the wayside cross Boží Muka (Register No. 201) – this monument was not listed in the EIA Report. Although it is listed in the Czech Register of Immovable Monuments, it was not located on-site even by staff of the National Heritage Institute. However, given its distance (approximately 8 km northeast of the boundary of the existing power plant), it has no impact on the conclusions of the assessment. In the municipality of Týn nad Vltavou: a watermill and weir no. 221 (Register No. 105633) – not listed in the EIA Report; entered into the register in 2015; however, given its distance (approximately 4.6 km east of the boundary of the existing power plant), it has no impact on the conclusions of the assessment. In the municipality of Týn nad Vltavou: a fountain (registry no. 103753) – it was not listed in the EIA Report. However, given its distance (approximately 6 km northeast of the boundary of the existing power plant), it has no impact on the conclusions of the assessment. In the municipality of Týn nad Vltavou: the Barger Villa at No. 445 (registry no. 106577) – it was not listed in the

EIA Report (protected since 15 October 2020). However, given its distance (approximately 5.6 km northeast of the boundary of the existing power plant), it has no impact on the conclusions of the assessment.

Six monuments are no longer relevant. Either they are no longer protected (one monument – a rural homestead, registry no. 457, in Temelín) or they are not listed separately in the Register of Immovable Cultural Heritage Sites as they are part of protected monument complexes or sites (two monuments – the statue of Virgin Mary and the statues of St. Aloysius and St. Francis Xavier). Three monuments, previously listed within the study area, were re-registered in municipalities outside the area of interest following more precise surveying. These changes again have no impact on the conclusions of the assessment. A road bridge (Register No. 5616), a niche chapel (Register No. 419), and a rural homestead (Register No. 418) were reclassified as located outside the area of interest.

Based on a difference analysis of the archaeological sites, one decommissioned archaeological site was identified (Mohylník, archaeological traces, registry no. 5283, in Všemyslice – it has not been a subject of protection since 22 February 2013, the burial ground was destroyed by mining) and one site was recorded outside the area of interest following a more precise survey (Tvrz, archaeological traces (registry no. 5604)). These changes have no impact on the conclusions of the assessment.

From the perspective of the MoE, these do not constitute changes in conditions prevailing in the affected territory that could give rise to significant, as yet unassessed impacts of the project on the environment and public health.

Transport and other infrastructure

No significant changes have occurred in the layout and structure of the road network within the affected territory and the broader area of interest in the interim. Partial modifications have been made within the road network, primarily to improve its safety (modifications/remodelling of certain intersections, completion of pavements, and partial broadening of roads as part of repairs or reconstructions). In addition, there have been instances of routine repairs of road surfaces, as well as replacement and installation of safety equipment, in in recent years. No bypass projects have been implemented. With the exception of the gradual completion of the D3 motorway, which is progressively taking over traffic volumes from the existing road network, the modifications carried out have no impact on traffic routing or traffic volumes within the road network in the affected territory.

A comparison of the current and projected traffic volumes on the road network with the traffic volumes considered and projected at the time when the EIA Opinion was issued is evident from the following table (Comparison of the current (2020) and projected (2025, 2035) traffic volumes with the projection (2015) presented in the

EIA Report). The projection in the EIA Report was made as of 2015; this forecast is compared with the traffic volumes determined by the current traffic count in 2020, as well as with the traffic volumes projected based on the current 2020 traffic count for the years 2025 and 2035.

Road	Profile	Annual average daily traffic volumes [vehicles/24 h]											
		2020 Road and Motorway Directorate (ŘSD) Traffic Count				2025 forecast				2035 forecast			
		Heavy	Passenger	Motorcycles	Total	Heavy	Passenger	Motorcycles	Total	Heavy	Passenger	Motorcycles	Total
II/105	2-0630	-15	+45	-3	+27	-2	+145	-2	+141	+15	+269	+2	+256
	2-1215	-169	-1361	+42	-1488	-119	-1109	+47	-1181	-56	-795	+12	+691
	2-1223	-2204	-1886	+7	-4083	-2150	-1416	+14	-3553	-2083	-829	+16	+1194
	2-0640	-183	+130	+10	-43	-136	+406	+12	+282	-76	+750	+5	+732
	2-0656	-544	+3	+39	-502	-508	+202	+41	-264	-462	+451	+6	+535
	2-0657	-597	+474	+19	-104	-563	+692	+21	+150	-520	+964	+4	+571
	2-0650	-278	-237	-10	-525	-244	-19	-8	-271	-201	+253	+4	+571
	2-0660	+148	+735	+47	+930	+199	+992	+51	+1242	+263	+1313	+9	+702
II/138	2-4680	-64	+312	±0	+248	-52	+343	±0	+292	-36	+383	±0	+99
	2-4200	+55	+145	+9	+209	+61	+165	+10	+235	+68	+190	+1	+59
	2-4209	+3	+45	+4	+52	+9	+65	+5	+78	+16	+90	+1	+59
II/141	2-2020	+11	-6	+10	+15	+29	+46	+11	+86	+52	+110	+2	+160
	2-2018	-100	-410	-17	-527	-85	-379	-17	-481	-66	-340	+1	+104
II/159	2-1200	-102	-260	+11	-351	-88	-192	+12	-268	-71	-107	+3	+187
	2-1220	-260	-425	-58	-743	-248	-349	-57	-655	-233	-255	+1	+198
	2-3078	-217	-657	-25	-899	-212	-626	-23	-862	-206	-588	+4	+84
	2-3060	-106	-253	-9	-368	-95	-192	-8	-295	-81	-116	+2	+164
II/122	2-2399	-352	-38	-14	-404	-341	+14	-13	-341	-328	+80	+1	+143
	2-2050	-289	+175	+19	-95	-276	+236	+21	-19	-259	+312	+4	+170
	2-2040	+26	+170	+7	+203	+36	+203	+8	+246	+48	+244	+2	+98
II/147	2-2380	-57	-449	-7	-513	-40	-392	-6	-438	-18	-321	+2	+168
	2-3250	-313	-214	-2	-529	-296	-157	-1	-454	-274	-86	+2	+168
I/20	2-0369	-742	-1319	+50	-2011	-654	-896	+54	-1496	-479	-558	+7	+1032
	2-0370	-742	-1319	+50	-2011	-654	-896	+54	-1496	-479	-558	+7	+1032
I/3 (D3)	2-0106,2-8610	+601	+487	+20	-1108	+752	+1027	+23	+1802	+1017	+1567	+5	+1501

In percentage terms, the figures are as follows:

Road	Profile	[%]											
		2020 Road and Motorway Directorate (ŘSD) Traffic Count				2025 forecast				2035 forecast			
		Heavy	Passenger	Motorcycles	Total	Heavy	Passenger	Motorcycles	Total	Heavy	Passenger	Motorcycles	Total
II/105	2-0630	-4%	+2%	-10%	+1%	±0%	+6%	-6%	+5%	+4%	+11%	+8%	+9%
	2-1215	-12%	-18%	+45%	-16%	-8%	-14%	+51%	-13%	-4%	-10%	+13%	+8%
	2-1223	-62%	-14%	+4%	-24%	-61%	-10%	+8%	-20%	-59%	-6%	+9%	+7%
	2-0640	-13%	+2%	+22%	-1%	-10%	+6%	+27%	+3%	-6%	+11%	+11%	+9%
	2-0656	-37%	±0%	+170%	-8%	-35%	+4%	+180%	-4%	-32%	+9%	+24%	+8%
	2-0657	-41%	+10%	+83%	-2%	-39%	+14%	+90%	+2%	-36%	+19%	+16%	+9%

	2-0650	-24%	-4%	-19%	-8%	-21%	±0%	-16%	-4%	-18%	+4%	+7%	+8%
	2-0660	+13%	+13%	+90%	+14%	+18%	+17%	+98%	+18%	+23%	+23%	+17%	+10%
II/138	2-4680	-17%	+66%	±0%	+29%	-14%	+72%	+4%	+34%	-10%	+81%	+9%	+12%
	2-4200	+63%	+41%	+225%	+47%	+70%	+47%	+238%	+53%	+78%	+54%	+29%	+13%
	2-4209	+2%	+10%	+44%	+9%	+6%	+14%	+50%	+13%	+11%	+20%	+13%	+10%
II/141	2-2020	+2%	±0%	+71%	+1%	+7%	+4%	+78%	+5%	+12%	+8%	+15%	+9%
	2-2018	-21%	-35%	-68%	-31%	-18%	-32%	-67%	-29%	-14%	-29%	+3%	+6%
II/159	2-1200	-23%	-13%	+52%	-14%	-20%	-10%	+58%	-11%	-16%	-5%	+14%	+8%
	2-1220	-47%	-18%	-82%	-25%	-45%	-15%	-81%	-22%	-42%	-11%	+2%	+7%
	2-3078	-64%	-46%	-34%	-49%	-63%	-44%	-32%	-47%	-61%	-41%	+6%	+5%
	2-3060	-28%	-14%	-26%	-17%	-25%	-11%	-24%	-13%	-21%	-7%	+7%	+7%
II/122	2-2399	-57%	-3%	-52%	-20%	-55%	+1%	-50%	-17%	-53%	+6%	+4%	+7%
	2-2050	-47%	+13%	+70%	-5%	-45%	+18%	+77%	-1%	-42%	+23%	+15%	+9%
	2-2040	+12%	+26%	+54%	+23%	+16%	+31%	+60%	+28%	+22%	+38%	+14%	+11%
II/147	2-2380	-12%	-24%	-28%	-22%	-8%	-21%	-25%	-18%	-4%	-17%	+6%	+7%
	2-3250	-42%	-13%	-10%	-22%	-40%	-10%	-6%	-19%	-37%	-5%	+8%	+7%
I/20	2-0369	-25%	-13%	+152%	-16%	-22%	-9%	+164%	-12%	-16%	-6%	+23%	+8%
	2-0370	-25%	-13%	+152%	-16%	-22%	-9%	+164%	-12%	-16%	-6%	+23%	+8%
I/3 (D3)	2-0106,2-8610	+19%	+5%	+61%	+8%	+24%	+10%	+69%	+13%	+32%	+15%	+16%	+11%

The results show that as of 2020 (the most recent traffic count available as of the date the application to extend the validity of the EIA Opinion was submitted), the traffic volume projections indicated in the EIA Report were not met on most sections of the road network. On roads passing directly through the affected territory (II/105, II/138, II/141), the decrease in traffic volume relates mostly to heavy vehicles, amounting to several dozen per cent, which is a highly favourable development from an environmental impact perspective. Similar trends can be discerned in relation to passenger traffic volumes, which also show a decrease. However, in some cases (road II/138), an increase is also evident. From an environmental perspective, this is a less significant factor, and it is further offset by the decline in heavy vehicles traffic. A more significant increase in both heavy vehicles traffic and passenger traffic was observed only a section of the II/138 road (profile 2-4200), though the reason for this is not entirely clear. It may either be related to the impact of ongoing construction work during 2020 (the section was used as a detour route, etc.), or to rounding resulting from the calculation methodology (in the 2020 count, sections 2-4200 and 2-4209 are reported as a single value, whereas in previous counts they were reported separately). In any case, however, these are very low traffic volumes (the total traffic volume does not exceed 1,000 vehicles/24 h). As can be seen from the data presented, from an overall perspective, the forecast included in the 2015 EIA Report accurately describes the traffic situation in the affected territory, even in relation to the current state in 2020, and is sufficiently conservative. The same can be said about the projected time horizons of 2025 and 2035. The differences relative to the target forecast year of 2035 are insignificant from the traffic perspective, by a few percent, at most by the low tens of percent, which is a favourable result in terms of the accuracy of the traffic forecast. The traffic trends considered in the EIA Report are therefore described correctly and are applicable to the projected time horizons, while remaining sufficiently conservative.

No significant changes have occurred with regard to the rail network, other transportation systems, and technical infrastructure. On the Vltava River, measures are also being gradually taken for the transport of oversized and heavy components for the NNPS TPP, involving the construction of transshipment points upstream and downstream of the dams and related detour routes connecting these transshipment points.

From the perspective of the MoE, these do not constitute changes in conditions prevailing in the affected territory that could give rise to significant, as yet unassessed impacts of the project on the environment and public health.

Other characteristics of the environment (geological and geomorphological conditions and seismicity of the site)

The area affected by the project has not undergone any changes in terms of its geomorphological classification. The description of the geological development of the wider surroundings of the TPP, as well as the geological conditions of the construction site, remains applicable, and no changes occurred during the period under assessment. With regard to the progress in the exploration of the area, the specific findings have been refined. The technological scheme of the site has been refined by adding certain local faults from the immediate vicinity of the TPP site (i.e. the area within 5 km of the boundary of the NNPS TPP site), while the orientation and naming of the main fault structures remained unchanged.

The fieldwork and exploration conducted have deepened our understanding of the condition and nature of the rock environment in the surveyed area. Newly validated seismicity data for the affected territory confirm the original assumptions. The most recent revalidation of the seismic hazard at the TPP site was conducted in 2022. These seismic hazard calculations for the TPP site confirm the accuracy of the original seismic hazard estimate and the sufficient margin of the adopted value SL2 = 0.1 g, used as the project basis for existing nuclear facilities at the Temelín site (TPP 1, 2, and Spent Nuclear Storage Facility). The required minimum seismic resistance for the NNPS TPP project, represented by the postulated peak ground acceleration in the horizontal direction (PGAH) of the subsoil beneath the nuclear facility, will be 0.1 g in accordance with the requirements of SÚJB Decree No. 329/2017 Coll. and international recommendations for sites with low seismic hazard, and thus, with a safety margin, higher than the SL-2 seismic hazard level specifically defined for the TPP site. Small earthquakes have been recorded within a 50-kilometer radius of the Temelín Power Plant; the largest of these had a magnitude of 3.5 on the Richter scale, a value several times lower than the existing power plant’s resistance. Based on Condition No. 2, which was formulated in the binding EIA Opinion on the project “Spent Nuclear Fuel Storage Facility at the TPP Site – Expansion of Storage Capacity” (Ref. No. MZP/2025/710/2810 dated 22 October 2025), the significance of the earthquake of 7 March 2024 near Mirotice

and its impact on the seismic hazard assessment of the TPP site will be evaluated as part of the subsequent project preparation for the expansion of the spent nuclear fuel storage facility. It is clear that if the seismic hazard at the TPP site were to be reassessed, this fact would have to be taken into account and incorporated into the subsequent phases of preparation and implementation of all projects planned at the TPP site, i.e. not only the extension of the spent nuclear fuel storage facility but also the NNPS TPP (and the TPP SMR). At the same time, Condition No. 79 of the EIA Opinion – or Condition No. 66 of the Binding Verification Opinion – remains in effect, requiring the continuation of seismicity monitoring, including regular evaluation.

This means that no changes have occurred that would result in the project having significant, as yet unassessed environmental impacts. By comparing the status of the originally assessed segments of the environment with their current status, it can be concluded that there have been no changes in the characteristics of the assessed segments of the environment that would negatively affect the assessment of the condition of the affected territory. At the same time, no trends in the condition of the affected territory have been identified that could lead to the possible emergence of new, as yet unassessed significant impacts of the project.

From the perspective of the MoE, these do not constitute changes in conditions prevailing in the affected territory that could give rise to significant, as yet unassessed impacts of the project on the environment and public health.

Changes in the current knowledge and assessment methods:

According to the documentation submitted for the EIA Opinion Extension, since the EIA Report was prepared, there have been not only changes in legislation but also updates to methods and findings in the following areas:

• Legislative framework for the Environmental Impact Assessment process – throughout the period when the environmental impact assessment documentation was prepared and the opinion was issued (2008–2013), Act No. 100/2001 Coll., on Environmental Impact Assessment, was in effect. This Act remains in effect; in the meantime, it has undergone a number of updates, which, however, have preserved the original intent and methods of assessment. A more significant change was brought about by Amendment No. 326/2017 Coll., implementing Directive 2014/52/EU of the European Parliament and of the Council of 16 April 2014, amending Council Directive 2011/92/EU on the assessment of the effects of certain public and private projects on the environment. This amendment placed greater emphasis on the assessment of impacts on biological diversity and climate impacts. To this end, a Methodological Interpretation was issued regarding the application of selected new terms and requirements of Act No. 100/2001 Coll., on Environmental Impact Assessment and on Amendments to Certain Related Acts (the Environmental Impact Assessment Act), as amended, and in particular as

amended by Act No. 326/2017 Coll. (Ref. No. MZP/2017/710/1985 dated October 20, 2017). This methodological interpretation defines the newly used terms “biological diversity” and “climate change”.

• In the case of biological diversity (biodiversity), the EIA Report – which includes an assessment of impacts on the biota – evaluates all interrelationships necessary to ensure the variability of organisms, including ecosystems, and encompasses diversity within species, between species, and among ecosystems. The assessment shows that the biodiversity status criteria will not be affected, and that the diversity of species and habitats, as well as the diversity of objects of protection within specially protected areas, will not be impacted.

• With regard to climatic impacts, the EIA Report, which includes an assessment of impacts on air quality and climate, evaluates all relevant climatic impacts. The assessment covers both impacts on the local climate (potential effects on local macroclimatic, mesoclimatic, and microclimatic characteristics) and impacts on the global climate (the potential impact of the project on climate change, including relevant mitigation and adaptation measures). The project has significant potential to reduce greenhouse gas emissions. In terms of operation, nuclear energy is a near-zero emitter of greenhouse gases. The project is also prepared for the expected climate developments, particularly in terms of resilience to extreme weather events, such as floods, temperatures, and precipitation, and their distribution over time along with appropriate technical solutions (design parameters) for the relevant facilities. The new nuclear power source project represents a robust solution that is reliably resilient to potential climate change. This is ensured at two levels. The initial project design will already be resilient to potential climate change at the NNPS site, while the regularly updated safety assessment of the NNPS will take into account the ongoing impact of climate change at the NNPS site based on actual trends in climate indicators. This also fulfils the requirement of the EU 2013 Guidance on Integrating Climate Change and Biodiversity into Environmental Impact Assessment (EIA) to incorporate the principles of adaptive management, i.e. the readiness to continuously incorporate newly acquired knowledge.

• In addition, surface water bodies have been redefined, whereby they are now represented by indicators of chemical status and ecological status/potential. The requirement to assess the status of surface water bodies and groundwater bodies in EU member states is based on Directive 2000/60/EC of the European Parliament and of the Council of 23 October 2000 establishing a framework for Community action in the field of water policy (hereinafter referred to as the “Water Framework Directive”). The requirements for assessing surface water bodies and groundwater bodies were transposed into Czech legislation primarily through Title III of Act No. 254/2001 Coll., on Water and on Amendments to Certain Acts (the Water Act), as amended. The tools for achieving this objective are river basin management plans, which are prepared on a six-year cycle (for the periods 2009–2015, 2015–

2021, and 2021–2027). Since the first planning period, the methodology for assessing the status of surface water bodies has undergone significant development, and although the results cannot be compared with complete precision, they are used in this document as supplementary information on the status of the territory.

• In 2020, Regulation (EU) 2020/852 of the European Parliament and of the Council of 18 June 2020 on the establishment of a framework to facilitate sustainable investment (the "Taxonomy Regulation") was issued. Its purpose is to identify sustainable economic activities. To this end, the taxonomy sets out six objectives (climate change mitigation, climate change adaptation, protection and restoration of biodiversity and ecosystems, sustainable use and protection of water resources, pollution prevention and control, and transition to a circular economy), with the basic conditions for meeting the taxonomy requirements being 1) to contribute substantially to at least one of the six objectives listed and 2) not to do significant harm to the other objectives. Procedures for assessing the compliance of projects with the taxonomy are not the subject of the EIA (they are covered by an assessment of the project funding scheme). Nevertheless, nuclear energy (including the NNPS TPP project) is considered a sustainable activity in accordance with this taxonomy.

• Air Quality – With regard to air quality, legislative changes have occurred since the EIA Report was prepared (Act No. 201/2012 Coll., on Air Protection, as amended (hereinafter referred to as "Act No. 201/2012 Coll."), and Decree of the Ministry of the Environment No. 415/2012 Coll., on Permissible Pollution Levels and Their Measurement and on the Implementation of Certain Other Provisions of the Act on Air Protection, as amended, entered into force), but the air quality limits have remained unchanged, with the exception of the limit for the average annual concentration of particulate matter $PM_{2.5}$, which was tightened from 25 $\mu g/m^3$ to 20 $\mu g/m^3$ effective 1 January 2020. To assess the background air pollution in the affected territory, or to determine whether any of the air pollution limits are being exceeded, Section 11(6) of Act No. 201/2012 Coll. stipulates that the average concentration values for a an area of 1 km^2 over the preceding five calendar years shall be used. These values are published annually by the Czech Hydrometeorological Institute in Q4 of the following year. The five-year average for the years 2018 to 2022 used in the Supporting Documentation can be considered the most up-to-date available, given the time of its compilation. The air quality situation in the affected territory remains satisfactory even at present (averages for 2020–2024), while the air quality limits for all relevant pollutants are being met.

• Noise – At the time the documentation was prepared, Government Regulation No. 148/2006 Coll., on the Protection of Health against the Adverse Effects of Noise and Vibrations, was in effect. Currently, Government Regulation No. 272/2011 Coll., on the Protection of Health against the Adverse Effects of Noise

and Vibrations, as amended by Government Regulation No. 433/2022 Coll., is in effect. The amended government regulation is based on identical public health limit values for stationary noise sources, although the public health limit values for traffic noise have been increased for certain types of roadways. Thus, there has been no change to the reference conditions for assessment; rather, with regard to traffic noise, these conditions have been somewhat relaxed.

- Ionising radiation – At the time the EIA Report was prepared, Act No. 18/1997 Coll., on Peaceful Use of Nuclear Energy and Ionising Radiation (the Atomic Act), was in effect. Currently, Act No. 263/2016 Coll., the Atomic Act, is in force. Both laws are based on identical requirements regarding the conditions for the use of nuclear energy. Therefore, there has been no change in the reference conditions for the assessment.

- Non-ionising radiation – At the time the EIA Report was prepared, Government Regulation No. 1/2008 Coll., on Health Protection from Non-Ionising Radiation, was in effect. Currently, Government Regulation No. 291/2015 Coll., on Health Protection from Non-Ionising Radiation, is in effect. Both government regulations establish different reference values for the assessment. However, these are based on identical assumptions regarding the assessment of human exposure. Therefore, there has been no change in the reference conditions for the assessment.

- Within the European Union, nuclear safety is overseen by Euroatom (http://www.euratom.org/). Safety standards are developed within international organisations, particularly the IAEA, WENRA, and others, where experts from regulatory authorities, nuclear facility operators, research institutes, and industry are involved in the development of these standards. The most up-to-date safety standards are always applied when preparing or updating safety reports for new nuclear power sources (initial safety report, pre-operational safety report, etc.), which assess nuclear facilities in terms of operational safety throughout their entire life cycle, as required by Act No. 263/2016 Coll., the Atomic Act. The requirement to apply the latest safety standards is also included in the procurement documentation for the selection of a contractor for the New Nuclear Power Source at Dukovany (request for proposals), which also lists a summary of the main safety standards. The same approach would also be applied when selecting a contractor and implementing the New Nuclear Power Source at the Temelín Site.

- Stress tests at power plants in operation within the EU were conducted in response to the accident at the Fukushima Nuclear Power Plant (2011), with the aim of assessing the risks and safety (stress tests) of nuclear facilities operated in Europe. The goal of the tests was to verify whether the safety standards used in the licensing of the power plants were sufficient to cover unexpected extreme events, such as earthquakes, floods, terrorist attacks, or aircraft collisions. According to the tests, the safety standards of European nuclear power plants were generally high,

but further improvements were recommended. In the Czech Republic, the findings from these stress tests were incorporated into Act No. 263/2016 Coll., the Atomic Act, and its implementing regulations.

As evidenced by the above data, the assessment of the project conducted as part of the EIA Report substantively adheres to current methods of assessing environmental impact. This also applies to individual environmental sectors, including nuclear safety. Although there have been some developments in legislation in the meantime, no significant changes have been made to the legislative reference conditions for the assessment in any area of the environment or public health. The regulations have undergone minor revisions but do not introduce fundamentally new requirements that would conflict with the assessment conducted. In this regard, it is essential that compliance with the requirements of all legislative regulations, as currently in force at the time of the project preparation (and subsequent proceedings), is a necessary condition; it is therefore reasonably assumed that such compliance will be ensured and verified during the subsequent proceedings.

Based on the above, it can be stated that there have been changes in the current knowledge and assessment methods in certain areas. However, there is no conflict between the new findings and assessment methods and the conclusions of the EIA Report. Generally, there has only been a refinement of the methodologies and computational models used.

With regard to the application to extend the validity of the EIA Opinion, one may note that between date of the issuance of the EIA Opinion of 18 January 2013, under Ref. No. 2561/ENV/13 and Ref. No. 2562/ENV/13, and the date of submission of the application under consideration, there have been changes in the current knowledge and assessment methods. However, these changes are not of such a nature as to affect the assessment of the project or its results. From the perspective of the MoE, these do not constitute changes in the current knowledge or assessment methods that could give rise to significant, as yet unassessed impacts of the project on the environment and public health.

Pursuant to Section 9a(4) of the Act, based on the developer's application to extend the validity of the EIA Opinion and the attached Supporting Documentation – which, in accordance with Section 9a(4) of the Act, formed part of the application or its supplement – the competent authority has concluded that with regard to the "New Nuclear Power Source at Temelín, including Routing of the Output Power into the Kočín Substation" project there have been no changes in the conditions within the affected territory or in the current knowledge and assessment methods that would result in the project having significant, as yet unassessed, environmental impacts. The author of the Supporting Documentation states that no changes of such

significance have occurred in the area of interest that would constitute an obstacle to extending the validity of the EIA Opinion, a view with which the competent authority concurs. The conditions of the EIA Opinion will be respected in the subsequent stages of the project documentation and will be included as the decision conditions in subsequent proceedings. In light of the above, it is clear that, compared to the EIA process, there have been no changes in the state of individual segments of the environment and public health in the affected territory that, given their nature, could – either on their own or in combination with all the changes described above – generate new, unassessed impacts on individual segments of the environment and public health, as well as on the environment and public health as a whole.

In processing the application to extend the validity of the EIA Opinion, or rather, in issuing this binding opinion, a decision was made to extend the validity of the Opinion for the period from 18 January 2025 to 18 January 2030. The time taken to process the application (i.e. its completion as of 23 September 2026) had no effect on the beginning or end of this period of interest, and therefore the competent authority concludes that the currency of the Supporting Documentation as of the date of application submission is sufficient for the issuance of this binding opinion, since this application and the attached Supporting Documentation, at the time of the application submission, were already intended and formulated for the EIA Opinion Extension by the specified 5-year period, which is not affected by the timing of the application processing.

The EIA Opinion was issued on 18 January 2013, under Ref. No. 2561/ENV/13 and Ref. No. 2562/ENV/13, with a validity period of 5 years, i.e. until 18 January 2018. On 1 November 2017, Act No. 326/2017 Coll., amending Act No. 100/2001 Coll., entered into force. Section 2(6) of Act No. 326/2017 Coll. extended the validity of the EIA Opinion in question ex lege by two years, i.e. until 18 January 2020. Based on an application submitted by the developer on 11 December 2019, i.e. while the EIA Opinion was still valid, the validity of the EIA Opinion was extended on 16 December 2020, under Ref. No. MZP/2019/710/10492, by five years, i.e. until 18 January 2025. The current application was received on 11 December 2024 while the EIA Opinion was still valid; this is the second time the validity of the EIA Opinion was extended. On 1 January 2024, Act No. 465/2023 Coll. entered into force, which, in Section 9a(4) generally limited the number of possible extensions of the validity of EIA Opinions to one. However, pursuant to Part Five, Article VIII, point 1 of Act No. 465/2023 Coll., this limitation does not apply to opinions issued on or before 31 December 2023, including, among other things, those concerning projects for a new nuclear power source. The validity of such EIA opinions may, pursuant to this provision, continue to be extended repeatedly (provided that the additional requirements of Section 9a(4) of the Act are met). The EIA Opinion in question meets the specified criteria; therefore, it is possible to extend its validity for the second time.

Based on the foregoing, the MoE has concluded that it will extend the validity of the EIA Opinion in accordance with Section 9a(4) of the Act and in accordance with Part Five, Article VIII(1) of Act No. 465/2023 Coll. by 5 years, i.e. until 18 January 2030.

Instruction:

A separate appeal against this binding decision is not admissible. In accordance with Section 149(7) of the Code of Administrative Procedure, this binding opinion may be reviewed upon appeal filed against a decision issued in subsequent proceedings that were contingent upon this binding opinion.

This binding opinion does not replace any other binding opinions or statements issued by the relevant administrative authorities, nor does it replace any decisions, permits, or approvals issued under specific legal regulations.

The validity of the EIA Opinion may be extended repeatedly at the request of the developer in accordance with Section 9a(4) of the Act and in accordance with Part Five, Article VIII(1) of Act No. 465/2023 Coll.