

NON-TECHNICAL SUMMARY OF THE ENVIRONMENTAL IMPACT REPORT: M1/1 CERŠAK - KIDRIČEVO

The Investor, Geoplin Plinovodi d.o.o., as the provider of public service transmission of natural gas, plans to increase the flow capacity of the existing pipeline M1 (DN500, 50 bar) on the section from the border metering and regulation station (MMRP) Ceršak to the compressor station (KP) Kidričevo. As the throughput capacity of the mentioned pipeline M1 is no longer sufficient to cover the increased demand for natural gas in Slovenia, the Investor has decided to build a new parallel pipeline M1/1, with the capacity of DN800 and 70 bar. The parallel pipeline M1/1 is divided into several sections. The Environmental Impact Report concerns the sections MMRP Ceršak - Malečnik, Zrkovci - Srednja Drava 1 hydroelectricity plant channel and Srednja Drava 1 hydroelectricity plant channel -KP Kidričevo, in total length of 35,5 km.

The company Geoplin Plinovodi d.o.o. is the system operator of the natural gas transmission system in Slovenia in accordance with the provisions of the European Gas Directive and the Slovenian Energy Law. Company headquarters are located at Cesta Ljubljanske Brigade 11, 1000 Ljubljana. Part of the company includes a Maintenance center in Maribor, at Bohova 19b, 2311 Hoče. The company provides secure, reliable, economical and environmentally safe transportation of natural gas through the gas transmission network in the Republic of Slovenia and is responsible for planning, development and maintenance of the network. It owns the entire gas transmission network on the territory of Slovenia, which is an important part of international transmission routes for natural gas. The sole owner of the company is Geoplin d.o.o. Ljubljana. The company's main registered activity is H49.500 - Pipeline transportation, date of entry 13/05/2004.

The planned parallel pipeline M1/1 is located in the northeastern part of Slovenia and passes through the area Slovenske Gorice hill range and the Drava plain. Pipeline M1/1 will run through the same corridor as the existing pipeline M1 (DN500, 70 bar). It will cross the territory of the following six municipalities, from north to south: Šentilj, Pesnica, Maribor, Miklavž na Dravskem polju, Starše in Kidričevo.

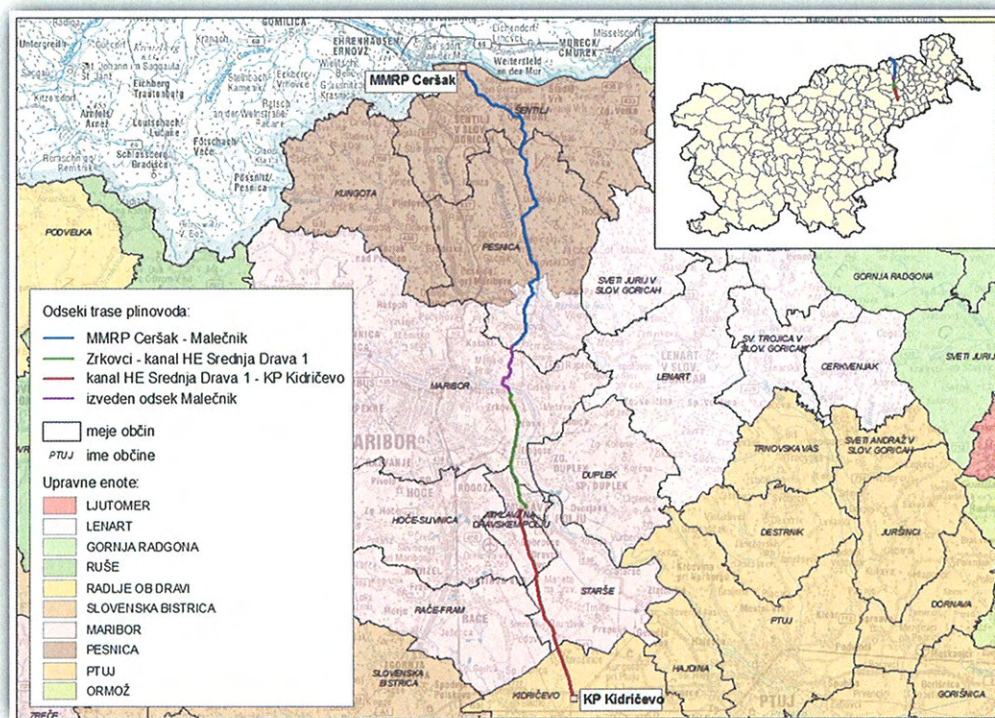


Image 1: Location of works in the wider area

The planned pipeline reaches into protected natural areas (protected areas and Natura 2000), ecologically important areas, areas of natural values and areas of cultural heritage. In the area of the Mura and Drava plains, it crosses protected water source areas. Its route also crosses several rivers, and thus areas of coastal and aquatic lands. For all those areas, there are prescribed specific legal regimes. The pipeline runs through periodically flooded areas, mainly of medium and low flood risk. The route in its current condition is not unduly burdened by noise and smells. There are no illegal landfills in the vicinity of the route. Assessment of air quality shows exceeded thresholds for particulate matter and ozone, as is the case on the entire territory of Slovenia. The quality of groundwater on the Drava plain is poor, mainly due to the occurrence of pesticides. In particular, Pesnica River was for many years considered to be heavily polluted. The largest share of the land crossed by the operating zone of the planned pipeline route M1/1 consists of agricultural land.

The planned gas pipeline facility will comprise an additional pipe of diameter DN 800 mm with a working pressure of 70 bars, placed parallel to the existing pipeline M1 (at a distance of 5-8 m). A number of above-ground structures are foreseen in the scope of the construction of the pipeline, namely modification and upgrading of MMRP Ceršak and three block stations or block valves. Works include cathodic protection of pipelines, instruments in the MMRP Ceršak and laying of optical cable for data transfer along the pipeline. It is foreseen that the pipeline will cross many existing infrastructural facilities (highways, regional, local and uncategorized roads, waterworks, sewers, electricity lines, telecommunications lines). The planned pipeline M1/1 will cross the existing pipeline M1 in several places as well. Due to the capacity of the pipeline, an Environmental Impact Report is required for the works.

Construction work will be undertaken by sections. Works will mainly comprise: execution of the pipeline trench, preparation of the operating zone, filling in the pipeline trench, final arrangement of the operating zone, including protection of the whole pipeline and recreation of the original state of land, installation of cable ducts for optical cable along the pipeline, and construction of the pipeline block stations. Some existing facilities have already been removed beforehand (removal of facilities is not covered by this Environmental Impact Report).

Pipeline M1/1 Ceršak-Kidričevo is, wherever possible, routed parallel to the existing pipeline M1, as is, inter alia, required by Slovenian spatial planning legislation. However, before the final decision of the route, the alternative and variant routes of the pipeline were also considered (at the National Spatial Plan stage). The most important criteria used for choosing the best route were: impact on the natural, social and living environment, safety of the pipeline M1/1, hazards presented by the pipeline M1/1, development in the area, affordability and acceptability to the local population. Results of a comparative study of all variants show that the chosen variant will have the smallest impact on the environment and runs through the most appropriate geological conditions.

Based on the known data of the operation and on the evaluation of the existing environmental situation in the area, in the Environmental impact report the acceptability of the proposed intervention in terms of actual and potential burden on the environment and any other foreseeable consequences for the environment as a whole and its individual components including the impact on human health and human immovable property were analyzed and assessed. In doing so, all relevant laws, acts, regulations and EU reference documents which define standards and norms, rules of conduct and best available techniques were taken into account. Assuming full implementation of all planned protective measures, as well as additional protective measures recommended in the report, it was found that:

- the works will not result in a deterioration of air quality in the area. The impact of local emissions of dust and pollutants from machinery and transport vehicles during the construction is temporary and will be present only during the active construction on site. During the operation of the pipeline, the impact on the air can arise only in case of damage to the pipeline and uncontrolled release of gas, which is highly unlikely;
- during normal operation, the new pipeline will have an indirect positive impact on air quality due to the increased potential for extension of the gas pipeline network to the individual users in the wider

area, and thus the use of natural gas for heating and industrial purposes which will result in replacement of existing energy sources with natural gas;

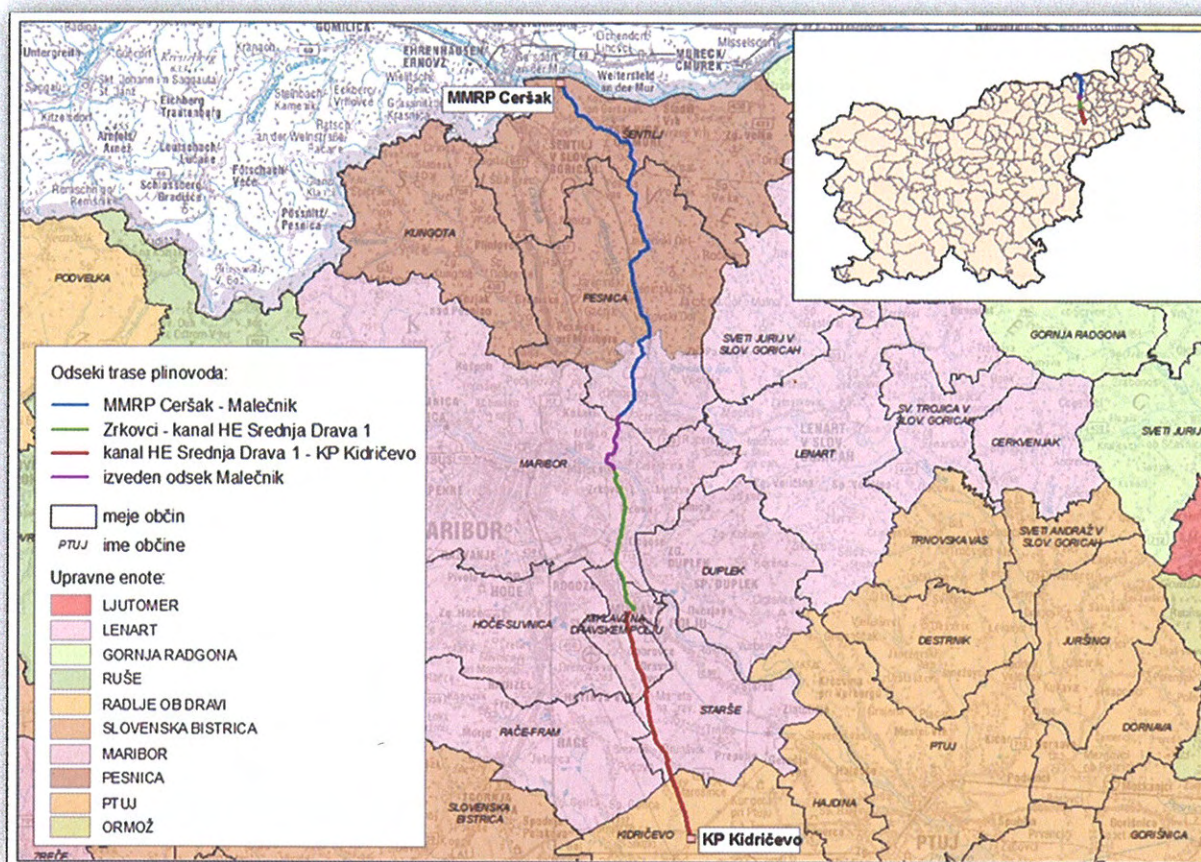
- the works might affect the quality of the soil only during the construction of the pipeline due to the removal of soil layers and the possibility of surface erosion. During the operation of the pipeline, the use of land for agricultural activities will be limited;
- given the nature of the works, an impact on the hydrological regime of rivers can be expected only during the construction phase, when surface cover will be removed in some places (riparian tree and shrub vegetation);
- negative impact on groundwater is not expected during the construction, and no pollution of ground water or water sources is expected during operation of the pipeline;
- during the construction, noise from the construction machinery and transport is expected; during the operation, the four planned shut-off valves will cause occasional noise in case of emergencies. The MMRP Ceršak will continue to cause continuous noise;
- due to the geological structure along the pipeline route, the works will not be a significant source of vibration;
- the works will not be a significant source of light pollution;
- the works will generate mainly construction waste, which will be largely used during the construction of the pipeline (excavation) and will be delivered to the collector/processor of construction waste. Hazardous construction waste is not expected during the construction, except the small amounts of asbestos cement sheets. During operation of the pipeline, waste will be generated as biomass, as a result of cleaning the route or periodic removal of undergrowth;
- there is a large number of archaeological sites in vicinity of the route, thus there is some likelihood that the construction could lead to damage or even destruction of the archaeological heritage; the impact of the pipeline on cultural heritage during construction, is therefore assessed as moderate, as is the impact on the landscape;
- the works will affect wild plants and animals and their habitats in the area and in protected nature areas. Construction of the pipeline will have a major impact on certain habitat types that have high conservation significance. Despite implementation of mitigating measures, construction of the pipeline will have a major impact on butterflies and beetles. The pipeline will have a major impact on the conservation of important species of beetles through impact on the wetland habitats of *Carabus variolosus* and *Osmoderma eremita*. During the operation, the impact of the pipeline will be smaller. In the area of Nature Park *Jereninski dol*, the Natural Monument (NM) *Perniško jezero*, Drava Nature Park, NM *Drava – stara struga* and NM *Miklavž in ribniki*, the impact is expected to be significant during the construction of the pipeline and moderate during its operation. The impact of the construction and operation on the environmental objects of the Natura 2000 will be small or not existing. The impact on conservation objectives of the Natural Value (NV) *Perniško jezero NV Drava – rečna loka1* and NV *Miklavž in ribniki*, EIA *Slovenske gorice – central part*, EIA *Dravsko polje* and EIA *Drava - spodnja* will be significant during construction and moderate during operation. There will be no impact on the other NVs and EIAs during construction or operation.
- the works will not have significant effects on human health or the human immovable property in the area, but is expected to have some impact on the route itself and in the operation and easement zones;
- the works will have no impact on the environment of the neighboring countries;
- during and after the abandonment and removal of the pipeline, the works will have a slight impact on the quantity of waste and noise.

9. POLJUDNI POVZETEK POROČILA

Investitor Geoplin plinovodi d.o.o., kot izvajalec gospodarske javne službe prenosa zemeljskega plina, načrtuje povečanje pretočnih zmogljivosti obstoječega plinovoda M1, DN500, 50 bar, na odseku od mejne merilno regulacijske postaje (MMRP) Ceršak do kompresorske postaje (KP) Kidričevo. Ker pretočne zmogljivosti omenjega plinovoda M1 ne zadostujejo več pokritju povečanih potreb po zemeljskem plinu v Sloveniji, se je investitor odločil za izgradnjo novega vzporednega plinovoda M1/1, z zmogljivostjo DN800 in 70 bar. Vzporedni plinovod M1/1 je razdeljen na več odsekov, predmet obravnave v poročilu o vplivih na okolje pa so odseki MMRP Ceršak – Malečnik, Zrkovci - kanal HE Srednja Drava 1 in kanal HE Srednja Drava 1 - KP Kidričevo, v skupni dolžini 35,5 km.

Družba Geoplin plinovodi d.o.o. je v skladu z določbami evropske plinske direktive in slovenskega energetskega zakona sistemski operater prenosnega omrežja zemeljskega plina. Sedež družbe je na naslovu Cesta Ljubljanske brigade 11, 1000 Ljubljana, del družbe je Vzdrževalni center Maribor, Bohova 19b, 2311 Hoče. Družba zagotavlja varen, zanesljiv, gospodaren in okolju neškodljiv prenos zemeljskega plina po prenosnem plinovodnem omrežju v Republiki Sloveniji ter skrbi za načrtovanje, razvoj in vzdrževanje omrežja. V njeni lasti je celotno prenosno plinovodno omrežje na slovenskem ozemlju, ki je tudi pomemben del mednarodnih prenosnih poti za zemeljski plin. Edini lastnik družbe je družba Geoplin d.o.o. Ljubljana. Glavna registrirana dejavnost družbe je H49.500 - cevovodni transport, datum vpisa 13.5.2004.

Lokacija načrtovanega vzporednega plinovoda M1/1 se nahaja v severovzhodnem delu Slovenije in poteka po ozemlju Slovenskih goric in Dravske ravnine. Plinovod M1/1 bo potekal v istem koridorju kot obstoječi plinovod M1, DN500, 70 bar. In sicer bo potekal po ozemlju šestih občin, ki si od severa proti jugu sledijo: Šentilj, Pesnica, Maribor, Miklavž na Dravskem polju, Starše in Kidričevo.



Slika 1: Prikaz lokacije posega v širšem prostoru

Načrtovani plinovod sega na varovana območja narave (zavarovana območja in Naturo 2000), ekološko pomembna območja in območja naravnih vrednot, ter območja varovanja kulturne dediščine. Na območju Murske ravnin in Dravskega polja prečka območja varstva vodnih virov, prav tako na svoji trasi prečka več vodotokov in s tem območja priobalnih in vodnih zemljišč. Za vsa navedena območja so predpisani posebni pravni režimi. Plinovod poteka po območjih, ki so občasno poplavljeni, poplavna območja pa spadajo v glavnem v razred srednje in majhne poplavne nevarnosti. Območje v obstoječem stanju ni čezmerno obremenjeno s hrupom in vojavami, v bližini trase ni divjih odlagališč odpadkov. Ocena kvalitete zraka kaže na presežene vrednosti za delce in ozon, kot na območju celotne Slovenije. Kvaliteta podzemne vode na Dravskem polju je slaba, predvsem zaradi pojavljanja pesticidov. Zlasti reka Pesnica je dolga leta veljala za močno onesnažen vodotok. Med vsemi zemljišči, ki jih prečka delovni pas trase predvidenega plinovoda M1/1, prevladujejo kmetijska zemljišča.

Sestavne dele načrtovanega plinovodnega objekta predstavlja dodatna plinovodna cev premera DN 800 mm z delovnim tlakom 70 barov, položena vzporedno ob obstoječo cev plinovoda M1 (v oddaljenosti 5 – 8 m). V sklopu izgradnje plinovoda so predvideni tudi nekateri nadzemni objekti in sicer predelava in dograditev MMRP Ceršak ter tri zaporne postaje oz. blok ventili. Poseg vključuje tudi katodno zaščito plinovoda, instrumentacijo v MMRP Ceršak ter položitev optičnega kabla za prenos podatkov ob plinovodu. Na trasi plinovoda je predvidenih večje število križanj z obstoječimi infrastrukturnimi objekti (avtocesti, regionalne, lokalne in nekategorizirane ceste, vodovodi, kanalizacije, elektroenergetski vodi, telekomunikacijski vodi), na nekaj mestih bo predvideni plinovod M1/1 prečkal tudi obstoječi plinovod M1. Iz zmogljivosti posega izhaja predpisana obvezna izdelava poročila o vplivih na okolje.

Gradbena dela bodo potekala po odsekih, obsegala pa bodo predvsem izvedbo plinovodnega jarka, pripravo delovnega pasu, zasip plinovodne cevi, končno ureditev delovnega pasu vključno z zaščito plinovoda v celoti in vzpostavitvijo prvotnega stanja površin, izdelavo kableske kanalizacije za informacijski optični kabel ob plinovodni cevi, in gradbeni del zapornih postaj na plinovodu. Pred gradnjo so že bili odstranjeni nekateri obstoječi objekti (odstranitev objektov ni predmet tega poročila o vplivih na okolje).

Trasa plinovoda M1/1 Ceršak – Kidričevo je povsod tam, kjer je to mogoče, umeščena v prostor vzporedno z obstoječim plinovodom M1, kar med drugim nalaga tudi Prostorski red Slovenije. Kljub temu so bile pred končno izbiro trase plinovoda obravnavane v tem poročilu o vplivih na okolje preučene alternativne možnosti oz. variantne rešitve poteka plinovoda (v fazi DLN). Pri izbiri trase so bili upoštevani predvsem kriteriji z vidika vplivov na naravno okolje, družbeno in bivalno okolje, vidika varnosti objekta plinovoda M1/1, vidika ogroženosti plinovoda M1/1, vidika razvoja v prostoru, ekonomskega vidika in sprejemljivost za lokalno prebivalstvo. Na osnovi rezultatov primerjalne študije variant je bila izbrana predlagana varianta trase plinovoda, ki od vseh vrednotenih variant v najmanjši meri vpliva na obremenitve okolja in poteka po najustreznejših geoloških razmerah.

Na osnovi znanih podatkov o posegu in ocene obstoječega stanja okolja na obravnavanem območju, smo v poročilu o vplivih na okolje analizirali in ocenili sprejemljivost nameravanega posega z vidika vseh dejanskih in možnih obremenitev okolja in glede vseh predvidljivih posledic za okolje kot celoto in za njegove posamezne sestavine, vključno z vplivom na zdravje človeka in človekovo nepremično premoženje. Pri tem smo upoštevali vse relevantne zakone in podzakonske akte ter referenčne dokumente EU, ki določajo standarde in normative, pravila ravnanja in najboljše razpoložljive tehnike. Pod predpostavko, da bodo v celoti upoštevani vsi predvideni in v poročilu dodatno predlagani zaščitni ukrepi, je bilo ugotovljeno, da:

- poseg ne bo povzročil poslabšanja kvalitete zraka na obravnavanem območju. Vpliv lokalnega prašenja in emisij škodljivih snovi iz delovnih strojev in transportnih vozil v času gradbenih del je začasen in prisoten le v času aktivnih del na gradbišču, v času obratovanja plinovoda pa bi vplivi na zrak lahko nastali le v primeru poškodb plinovoda in nenadzorovanega izpuščanja plina iz plinovoda, kar je zelo malo verjetno;
- poseg bo v času normalnega obratovanja novega plinovoda na kakovost zraka vplival posredno pozitivno, in sicer zaradi večje možnosti izgradnje plinovodnega omrežja za individualne uporabnike na širšem območju in uporabo zemeljskega plina za ogrevanje in v tehnološke namene, kar bo pomenilo zamenjavo obstoječih energentov z zemeljskim plinom;

- poseg bo lahko vplival na kvalitete tal le v času gradnje plinovoda zaradi odstranitve sloja prsti in možnosti površinske erozije, v času obratovanja plinovoda pa bo omejena uporaba tal za potrebe kmetijske dejavnosti;
- glede na naravo posega lahko pričakujemo njegov vpliv na vodni režim površinskih vodotokov le med samo gradnjo, takrat bo mestoma prišlo tudi do odstranitve površinskega pokrova (obvodna drevesna in grmovna vegetacija);
- v času gradnje posega ni pričakovati negativnih vplivov na podzemne vode, prav tako ni pričakovati onesnaženja podtalnice in vodnih virov v času obratovanja plinovoda;
- v času gradnje je pričakovati hrup zaradi gradbene mehanizacije in transporta, v času obratovanja bodo občasen hrup v primeru izrednih dogodkov povzročali štirje predvideni zaporni ventili, stalen hrup bo tudi v prihodnje povzročala MMRP Ceršak;
- poseg, zaradi geološke sestave na trasi plinovoda, ne bo pomemben vir vibracij;
- poseg ne bo pomemben vir svetlobnega onesnaževanja;
- v času gradnje plinovoda bodo nastali predvsem gradbeni odpadki, ki se bodo v večji meri porabili pri vgradnji plinovoda (zemeljski izkop) oz. se oddali zbiralcu/predelovalcu gradbenih odpadkov. Pri izvedbi predmetnega plinovoda ni pričakovati nevarnih gradbenih odpadkov, razen manjše količine cementno azbestnih plošč. V času obratovanja se bo kot odpadek pojavljal zeleni odrez (biomasa), kot posledica čiščenja trase oz. periodičnega odstranjevanja podrasti;
- ker je v bližini trase večje število arheoloških najdišč, obstaja določena verjetnost, da bi med gradnjo lahko prišlo do poškodb ali celo uničenja arheološke dediščine, vpliv plinovoda na kulturno dediščino je zato v času gradnje ocenjen kot zmeren, enako je ocenjen tudi vpliv na krajino;
- poseg bo vplival na prosto živeče rastline in živali ter njihove življenjske prostore v okolici in na varovana območja narave. Gradnja plinovoda bo imela velik vpliv na nekatere habitatne tipe, ki imajo velik naravovarstven pomen. Kljub izvedbi omilitvenih ukrepov bo velik vpliv izgradnje plinovoda na metulje in hrošče. Na varstveno pomembne vrste hroščev bo imel plinovod velik vpliv zaradi poseganja v habitate močvirskega krešiča in puščavnika. V času obratovanja bodo vplivi plinovoda manjši. Na območju Krajinskega parka Jereninski dol in NS Perniško jezero, Krajinskega parka Drava, NS Drava – stara struga in NS Miklavž in ribniki, se pričakuje velik vpliv v času gradnje plinovoda in zmeren vpliv v času obratovanja. Vpliv gradnje oz. obratovanja na varstvene cilje Natura 2000 območij bo majhen oz. ga ne bo. Vpliv na varstvene cilje območij NV Perniško jezero, NV Drava - rečna loka 1 in NV Miklavž in ribniki ter na EPO Slovenske gorice-osrednji del, EPO Dravsko polje in EPO Drava – spodnja bo v času izgradnje plinovoda velik, v času obratovanja pa zmeren. Na ostale NV in EPO vpliva v času gradnje in obratovanja ne bo.
- poseg ne bo pomembno vplival na človekovo zdravje ali na človekovo nepremično premoženje v okolici, pričakuje pa se določen vpliv na sami trasi oz. v delovnem in služnostnem pasu;
- poseg ne bo vplival na okolje na območju sosednjih držav;
- v času opustitve posega in po njej bo imel poseg v majhni meri vpliv le na določeno količino odpadkov in hrup.