



PROJECT:

# **EastMed Pipeline Project**



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# EastMed Greek Section – Environmental and Social Impact Assessment

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## ANNEX 9 E.1 SCREENING PROCESS REPORT



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#### 9 E.1.1. INTRODUCTION

#### 9 E.1.1.1. Purpose of This Report

Appropriate Assessment (AA) forms an integral part of the Environmental Impact Assessment process. It aims to provide a detailed ecological description of the Natura 2000 sites that are crossed or in the proximity of the Study area of the EastMed Pipeline Project (the Project), and to assess the potential effects of the Project in terms of the maintenance of the ecological integrity of the sites. Appropriate Assessments are carried out based on the potential Project's impacts on the site's conservation objectives and qualifying interests and, where needed, includes the definition of appropriate mitigation measures so as to ascertain that the Project will not adversely affect the integrity of the protected area.

The EastMed pipeline has offshore and onshore sections and is directly connecting East Mediterranean resources to mainland Greece via Cyprus and Crete. The project is being developed by IGI Poseidon (Project Owner), a company based in Athens and equally owned (50-50%) by the Greek company DEPA International Projects S.A. and the Italian company Edison S.p.A. The ESIA has been prepared on behalf of the Project Owner by the company ERM Italia SpA and the environmental consultancy company ASPROFOS Engineer S.A. (member of the HELPE Group of Companies) and in collaboration with renowned, experienced and specialized consultants, in accordance with applicable environmental legislation. The AAs of the project have been carried out by Nature Conservation Consultants Ltd (NCC), subcontractor of ASPROFOS Engineering S.A.

#### 9 E.1.1.2. Project Overview

The EastMed Pipeline Project aims to transport gas directly from the eastern Mediterranean fields to the European Natural Gas System via Greece.

EastMed consists of a Southern Line and a Northern Line to deliver gas from Israeli and Cypriot sources, respectively, through Crete, Peloponnese and Western Greece, to the Poseidon Pipeline Project in north-west Greece. Upstream of Crete these two lines are designed to work complementarily as well as independently, foreseeing infrastructure in Cyprus dedicated to each line. Thanks to this, the system is highly flexible, contributing to security of supply. The EastMed Pipeline Project comprises the following main components:

#### A. Southern Line of EastMed (Israel $\rightarrow$ Cyprus/Crete $\rightarrow$ SE Peloponnese):





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Transports gas from Israeli sources directly from the EastMed Compression Platform (ECP) in Israeli waters to a compression and metering station in Crete (CS2/MS2) and from there to the mainland Greece and the Poseidon Pipeline Project,

➤ Delivers gas to Cyprus for domestic consumption through a subsea Inline Tee Assembly (ITA) and a branch pipeline from the subsea ITA to Cyprus (OSS1 comes from Israeli platform to ITA, OSS1a from ITA to a Metering and Pressure Reduction Station (MS1a/PRS) in Cyprus and OSS2 from ITA to Crete);

#### B. Northern Line of EastMed (Cyprus $\rightarrow$ Crete $\rightarrow$ SE Peloponnese):

➤ Delivers dry gas originating from one or more of the Cypriot offshore gas discoveries to the compression and metering stations in Cyprus (CS1/MS1) first, through OSS1b and then in Crete (CS2/MS2N), through OSS2N and from there to the mainland Greece and Poseidon Pipeline Project, as referred in the next paragraph;

#### C. Combined System of EastMed (Crete & mainland Greece → Poseidon Pipeline Project):

- ➤ At LF3 the gas flow streams from two pipelines will be combined into a single large-diameter pipeline (CCS1-OSS4-CCS2) for transportation to the Poseidon Pipeline Project Compressor Station at Florovouni¹ in north-west Greece,
- Combination of the Southern and Northern flow streams will require additional compression along the CCS1 section in Peloponnese (CS3).

The 'Northern and Southern Lines' are shown in Figure E-1, where the 'Southern Line' and 'Northern Line' are indicated in blue and dark blue, respectively. The onshore single large diameter pipeline of the 'Combined System' (i.e. CCS1 and CCS2) are shown in light blue.

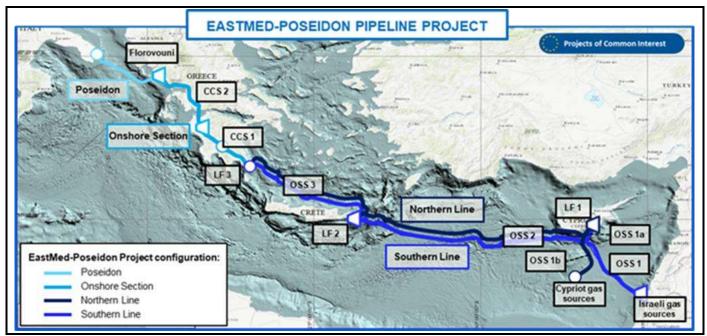
 $<sup>^{1}</sup>$ Compressor Station of the Poseidon Pipeline Project system at Florovouni in north-west Greece belongs to another project with the same owner and has received environmental permitting through a separate procedure (ETA: YΠΕΝ/ΔΙΠΑ/35872/2373/07-06-2019, ΑΔΑ: ΩΠΝ34653Π8-4Ι9)



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Prepared by: EastMed, 2020.

Figure E-1 EastMed Onshore and Offshore sections – overview

#### The **EastMed Onshore Section in Greece** includes the following:

- The Compressor and Metering Stations in Crete (CS2/MS2 and CS2/MS2N) together with the relevant small onshore sections to and from landfall site LF2;
- The onshore section of the 48" pipeline that crosses Peloponnese (CCS1) from landfall site LF3 (SE of R.U. Laconia) to landfall site LF4 (NW of R.U. Achaia on the south coast of the Patraikos Gulf);
- The Megalopoli's Branch line that is foreseen to connect CCS1 with the National System at Megalopoli's area (Perivolia area). The pipeline will have a diameter of 16";
- LF4 (Landfall site in the NW of R.U. of Achaia, close to Lakopetra beach, NW Peloponnese area)
- The offshore section of the 46" pipeline that crosses the Patraikos Gulf (OSS4) from landfall site LF4 to landfall site LF5 (SW of R.U. Etoloakarnania);
- LF5 (Landfall site in the SW of R.U. of Elotoakarnania, close to Evinochori settlement, SW Sterea Ellada)
- The onshore section of the 48" pipeline that crosses Western Greece (CCS2) from landfall site LF5 (south-west of R.U. Etoloakarnania) to the installation site of the Poseidon Pipeline Project compressor station at Florovouni, in R.U. Thesprotia;





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• The Metering and Pressure Reduction Station (MS4/PRS4) in Megalopoli (start of Megalopoli's Branch);

- The Heating Station in Megalopoli in the same plot as MS4/PRS4;
- The compressor station CS3 at R.U. Achaia in Peloponnese; and
- The Dispatching and Operation and Maintenance Centre (O&M) in the R.U. of Achaia.

Along the onshore section, Scraper Stations – SS (in total seven<sup>2</sup>) and Block Valve Stations - BVS (fifteen in total) will be installed as per the current Project design. BVSs will be placed at distances of approximately 30 km. A Landfall Station (LS) (four in total) will be installed near each landfall site.

For the section starting at landfall site LF3 in south-east Peloponnese to the Poseidon Pipeline Project's compressor station at Florovouni (sections CCS1, OSS4 and CCS2), the design pressure of the Project is 100 barg while the maximum operating pressure (MOP) is considered equal to 95 barg. For the Megalopoli's Branch line, the design pressure is 80 barg while the MOP is equal to 75 barg.

#### The **EastMed Offshore Section in Greece**, includes the following:

- OSS2 and OSS2N (the part of the Offshore Section from Cyprus to Crete under Greek jurisdiction): Subsea trunk lines from the start of the Greek Offshore Section to Crete;
- LF2 (Landfall site in Crete): the nearshore and coastal crossing section in the area of Crete;
- OSS3 and OSS3N (Crete to Peloponnese): Subsea trunk lines from Crete to Peloponnese; and
- LF3 (Landfall site in Peloponnese): the nearshore and coastal crossing section in the area of Peloponnese.

The Greek Offshore Section of the Project includes two (i.e. twin) pipelines at an average distance of approximately 100 m. Near the landfall site, the two pipelines approach each other to enter the same shore crossing cofferdam. Up to the landfall site, pipelines will be simply laid on the seabed with the pipelines gradually buried only near the coast.

#### In more detail:

 OSS2 (in Greece) will have an approximate length of 390 km, a diameter of 26" and a transfer capacity of 11 BSCM/yr;

 OSS2N (in Greece) will have an approximate length of 390 km, a diameter of 26" and a transfer capacity of 10 BSCM/yr; and

<sup>&</sup>lt;sup>2</sup> It is clarified that 1 Scraper station will be located within the MS4/PRS4 and Heating Station at Megalopoli area, 1 Scraper station will be located within the future CS3, in the R.U. of Achaia, and 4 Scraper Stations will be located within the same plot as the Landfall Stations, bundling permanent facilities of the project as much as possible. The seventh SS concerns the Megalopoli's Branch.



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• OSS3 and OSS3N will have a diameter of 28" and transfer capacity of 10.5 BSCM/yr each, along an approximate length of 430 km.

Once both lines become operational, the EastMed project will transport a combined total flow rate of 21 BSCM/yr to the EastMed Onshore Section.

The design pressure of the OSS2 and OSS2N sections is 363 barg, while the MOP is considered equal to 345 barg. The design pressure of the OSS3 and OSS3N sections is 231 barg, while the MOP is equal to 220 barg. From a technical point of view, the two pipelines (Southern and Northern) are independent but also parts of a unique project system, and from an environmental point of view, they should be considered as one for most environmental and social parameters. Therefore, unless a clear distinction is necessary, the term "Line OSS2/OSS2N" is introduced to describe pipelines OSS2 and OSS2N as one integrated pipeline system across the south Cretan Sea (from the middle of the sea straits between Greece and Cyprus to the designated landfall in Crete); similarly, the term "Line OSS3/OSS3N" is used for the OSS3 and OSS3N pipelines across the South Aegean Sea from the landfall in Crete (LF2) to the designated landfall in SE Peloponnese (LF3).

## 9 E.1.1.3. Classification of the Project based on National legislation

The project classification according to National legislation (as amended and in force) is provided in Table E-1.

Table E-1 EastMed Classification in Compliance with MD 170225/2014.

Legislation	Classes	Project Classification	
	Group	11 - Transport of energy, fuels and chemical compounds	
MD 1958/2012	a/a	1 – Pipelines of national importance or included in European or international networks and associated/ supporting facilities	
WD 1938/2012	Category	A1 – Project and activities that may have very significant impacts on the environment	
	Comments	-	
	Section	D – Electricity, Gas, Steam and Air Conditioning Supply	
	Division	35 – Electricity, gas, steam and air conditioning supply	
STAKOD 08/ NACE Rev.2*	Group	35.2 – Manufacture of gas; distribution of gaseous fuels through mains	
	Class	35.23	
	Description	Trade of gas through mains	
JMD	Group	n/a	
3137/191/Ф.15/2012*	Subgroup	n/a	





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Legislation	Classes	Project Classification
	s/n	n/a
	Nuisance Class	n/a

<sup>\*</sup> The classification presents the activity most relevant to the Project. The applicable provisions concern also the compressor stations.

It is noted that the compressor stations, having a total capacity >50 MW, fall into the provisions of JMD 36060/1155/E.103 regarding "Establishing a framework of rules, measures and procedures for the integrated prevention and control of environmental pollution from industrial activities, in compliance with the provisions of Directive 2010/75 / EU "On Industrial Emissions (Integrated Pollution Prevention and Control)" of the European Parliament and of the Council of 24 November 2010"

#### 9 E.1.2. INSTITUTIONAL/ LEGAL FRAMEWORK

# 9 E.1.2.1. Legal framework for the conduction of an Appropriate Assessment

According to Greek national legislation Law 4014/2011 an Environmental Impact Assessment is required for technical projects belonging to category A1. In case they are deemed to possible interfere with Natura 2000 sites a specialized Appropriate Assessment (AA) has to be conducted concerning the entire Natura 2000 site, which becomes an indispensable part of the projects' ESIA.

The Greek MD 170225/2014 sets two possible categories of AA described in its Annexes 3.2.1. and Annex 3.2.2. In particular:

- An AA falls under the requirements of Annex 3.2.1 when existing biodiversity data for the Natura 2000 site, where the project or portion of the project is proposed to be implemented, are not recent and/or sufficient, and a detailed biodiversity field survey lasting at least 20 days (for projects of category A1) is required for the collection of biodiversity information; and
- An AA falls under the requirements of Annex 3.2.2 when existing biodiversity data for the Natura 2000 site, where the project or portion of the project is proposed to be implemented, are recent, reliable and sufficient biodiversity data are available from official/public sources, such as the Natura 2000 sites national biodiversity monitoring network and no field survey is required.

#### 9 E.1.2.2. Plans and Projects within Natura 2000 Sites

The Natura 2000 network is an EU network of protected areas, whose main objective is the protection of vulnerable and endangered species of animals, plants and habitat types in the EU, and it constitutes the widest biodiversity conservation network worldwide. Based on the Birds and Habitats Directives (2009/147/EC and 92/43/EEC, respectively), every member of the Union declares Special Protection





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Areas (SPA) and Special Areas of Conservation (SAC), in order to protect the endangered biodiversity of Europe.

The connection between human activities and the protection framework of Natura 2000 sites is clarified in Article 6 of the Habitats Directive. More specifically, for every project or plan that is expected to significantly affect an area, it is noted that:

"Any plan or project not directly connected with or necessary to the management of the site but likely to have a significant effect thereon, either individually or in combination with other plans or projects, shall be subject to appropriate assessment of its implications for the site in view of the site's conservation objectives. In the light of the conclusions of the assessment of the implications for the site and subject to the provisions of paragraph 4, the competent national authorities shall agree to the plan or project only after having ascertained that it will not adversely affect the integrity of the site concerned and, if appropriate, after having obtained the opinion of the general public".

"If, in spite of a negative assessment of the implications for the site and in the absence of alternative solutions, a plan or project must nevertheless be carried out for imperative reasons of overriding public interest, including those of a social or economic nature, the Member State shall take all compensatory measures necessary to ensure that the overall coherence of Natura 2000 is protected. It shall inform the Commission of the compensatory measures adopted".

The two Directives have been transposed into the Greek legislation with the following decrees: JMD 37338/1807/2010, JMD 8353/276/2012, JMD 33318/3028/1998, MD 14849/853/2008.

Concerning Article 6 of Directive, the L. 4014/2011 and the MD 170225/2014 are defining in detail the implementation of respective provisions. The national legislation includes also the L. 3937/11 "Conservation of biodiversity and other provisions".

Based on the above legal framework, the following are noted:

- The consequences of every project must be examined separately and in accordance with other existing projects or plans in the site;
- The criteria must be based on preserving the integrity of the site, keeping in mind the conservation objectives; and
- In the case the construction of the project is necessary for overriding public interest, all necessary compensatory measures shall be taken.

#### 9 E.1.2.3. Natura 2000 Network in Greece





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The national Natura 2000 network has been updated and extended with the JMD 50743/2017, while the Management Bodies for all the Natura 2000 sites are set by the Laws 4519/2018 and 4685/2020. According to L. 4685/2020 the Organization of Natural Environment and Climate Change (OFYPEKA) was established and operates as the successor of the National Center for Environment and Sustainable Development (EKPAA). Among other things, the purpose of OFYPEKA is the implementation of the policy set by the Ministry of Environment and Energy for the management of Natura 2000 protected areas in Greece.

#### 9 E.1.2.4. Environmental Authorization of Activities and Projects

According to Law 4014/2011, the environmental authorisation procedure of project and activities that may affect Natura 2000 sites, the preparation of an Appropriate Assessment is foreseen, constituting an integral part of the Environmental and Social Impact Assessment.

According to the Greek MD 1958/2012 and its subsequent amendments (Greek Decrees MD 20741/2012, MD 65150/1780, MD 173829/2014 and MD 37674/2016) projects are classified in two categories: Category A, when they potentially may cause very significant/significant environmental impacts, or in Category B, when they may cause only locally or of no significance environmental impacts.

The content of the Appropriate Assessment was specified by the MD 170225/2014, which includes

- detailed record of natural environment data with emphasis to the protected elements of the Natura 2000 sites and those likely to be affected by the project or activity,
- appropriate assessment and impact assessment,
- mitigation measures for the potential impacts,
- compensatory measures (if needed)
- monitoring program,
- conclusions summary,
- bibliography sources and
- study team.

## 9 E.1.2.5. Appropriate Assessment Screening Process

Based on the proposed pipeline route a total of 16 Natura 2000 sites located in the broader area of the Project have been identified. These sites are either located in the vicinity of the pipeline route





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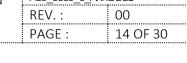
(from several meters to some kilometres) or directly crossed by the proposed route. As potential interaction between the Project and these sites may occur, a Screening Process was necessary to be carried out for each of these sites. The purpose of the Screening is to identify if the project construction and operation may result in potential impacts of the Project upon each of these Natura 2000, either alone or in combination with other projects or plans in the area, and considers whether these impacts are likely to be significant.

Figure E-2 shows the Natura 2000 interested by the Project. Table E-2 presents the screening analyses for each of the Natura 2000 sites and the conclusion on the necessity of Appropriate Assessment conduction.





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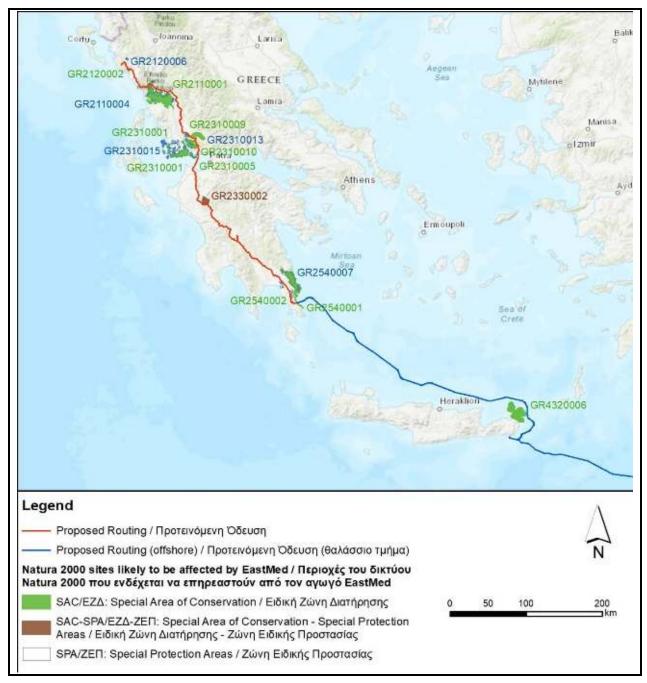


Figure E-2 Natura 2000 sites within the broader area of the Project





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Table E-2 Screening Process for Protected Areas likely to be affected by the Project (within a 3km distance from the pipeline axis)

Pipeline IP	Site Name /EU code	Natura 2000 Description	Individual components of the project likely to give rise to impacts on the Natura 2000 site	Likely impacts/likely changes to the site	Screening result
IP: 2578-2579 & 2513-2514	SAC GR2110001 Amvrakikos Kolpos, Delta Lourou Kai Arachthou (Petra, Mytikas, Evryteri Periochi, Kato Pous Arachthou, Kampi Filippiadas)	The area of Amvrakikos Gulf is designated as a Ramsar site, while the site overlaps with the Special Protection Area GR2110004 "Amvrakikos Kolpos, Limnothalassa Katafourko Kai Korakonisia" and it is part of the National Park of Amvrakikos wetlands. The site consists of a complex ecosystem including the shallow marine waters of the gulf itself, a rare wetlands formation of a double delta of Louros and Arachthos rivers, a lagoon system composed of three major lagoons (Rodia, Tsoukalio, Logarou) and some smaller ones (Mazoma, Tsopeli, Koftra-Paliobouka, Agrilios), as well as a sea zone just south of them. The site functions as a very rich delta ecosystem which provides suitable habitats and conditions for endemic plant species, as well as suitable habitats for important fauna species whom diversity and abundance are high.	The total length of the Project crossing the site is 0.6 km, distributed in two different places (Arachtos and Louros rivers), at the pipeline sections IP 2513-2514 and IP 2578-2579. The crossing of the two rivers will be exclusively trenchless, in order to avoid impacts on aquatic and riparian ecosystems of the protected area. Project activities and interventions will take place only in adjacent rural ecosystems of the area, on either side of the river outside the SAC. At Louros and Arachthos rivers there will be no working strip within the site. The crossing of the two rivers will be exclusively trenchless. The same applies for two tributes of Louros rives and a drainage ditch.	Construction activities may give rise to loss of habitat, fragmentation and disturbance to species outside of the Natura 2000 site, as well as loss of individuals. Qualifying features of the site might be affected.	The site may be affected by the project activities. An Appropriate Assessment is required.



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Pipeline IP	Site Name /EU code	Natura 2000 Description	Individual components of the project likely to give rise to impacts on the Natura 2000 site	Likely impacts/likely changes to the site	Screening result
IP 2578-2579	SPA GR2110004 Amvrakikos Kolpos, Limnothalassa Katafourko Kai Korakonisia	The area of Amvrakikos Gulf is designated as a Ramsar site, while the Study Area overlaps with the Special Area of Conservation GR2110001 "Amvrakikos Kolpos, Delta Lourou Kai Arachthou (Petra, Mytikas, Evryteri Periochi, Kato Pous Arachthou, Kampi Filippiadas)" and it is part of the National Park of Amvrakikos wetlands. The site consists of a complex ecosystem consisting of the shallow marine waters of the gulf itself, a rare wetlands formation of a double delta of Louros and Arachthos rivers, a lagoon system composed of three major lagoons (Rodia, Tsoukalio, Logarou) and some smaller ones (Mazoma, Tsopeli, Koftra-Paliobouka, Agrilios), as well as a sea zone just south of them. The site functions as wetland ecosystem which provides suitable habitats and conditions for many species of fauna (mainly birds) seeking food, rest, and breed. To this mean the SPA holds habitats, with great importance for migratory birds that breed, winter, or stage in the area.	The total length of the Project crossing the site is 0.4 km at the section IP 2578-2579. There will be no working strip within the site, as the crossing of Louros river will be exclusively trenchless. The same applies for two tributes of Louros rives and a drainage ditch.	Construction activities may give rise to loss of habitat outside of the boundaries Natura 2000 site and disturbance to species of the Natura 2000 site. Qualifying features of the site (birds) might be affected.	The site may be affected by the project activities. An Appropriate Assessment is required.



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Pipeline IP	Site Name /EU code	Natura 2000 Description	Individual components of the project likely to give rise to impacts on the Natura 2000 site	Likely impacts/likely changes to the site	Screening result
IP 2703-2710	SAC GR2120002 Elos Kalodiki	The site overlaps with the Special Protection Area GR2120006 "Eli Kalodiki, Margariti, Karteri kai Limni Prontani" and includes the Wildlife Reserve "Valtos Kalodikiou". It is part of the "Protected area of the rivers Acherontas, Kalamas estuaries and valleys, of Kalodiki fen, as well as their terrestrial, aquatic and marine areas". The Kalodiki fen is an area of great importance in comparison with the other wetlands of W Greece, and constitutes a unique peatland formation. A forested area is located on the islet of the Kalodiki marsh, while the slopes around the marsh are covered by maquis shrubs. The wetland of Kalodiki is an old, well-conserved lake with a noteworthy fauna. It hosts species such as Lutra lutra, several reptile species, as well as the endemic fish species Pelasgus thesproticus.	The routing of the Onshore pipeline crosses the site for a length of 0.14 km. Blasting might be used at KP 211.308-213.142, which includes also part of the Natura 2000 site crossed by the project (IP: 2708-2709, KP: 212.43-212.57) and adjacent areas.	Construction activities may give rise to loss of habitat, fragmentation and disturbance to species of the Natura 2000 site, as well as loss of individuals. Qualifying features of the site might be affected.	The site may be affected by the project activities. An Appropriate Assessment is required.
IP: 2703-2747	SPA GR2120006	The site overlaps partially with the Special Area of Conservation GR2120002 "Elos Kalodiki" and includes the Wildlife Reserve	The routing of the Onshore pipeline crossing the site for a length of 0.14 km. Blasting might be used at KP	Construction activities may give rise to loss of habitat and	The site may be affected by



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Pipeline IP	Site Name /EU code	Natura 2000 Description	Individual components of the project likely to give rise to impacts on the Natura 2000 site	Likely impacts/likely changes to the site	Screening result
	Eli Kalodiki, Margariti, Karteri kai Limni Prontani	"Valtos Kalodikiou". Part of the Study Area is included in the "Protected area of the rivers Acherontas, Kalamas estuaries and valleys, of Kalodiki fen, as well as their terrestrial, aquatic and marine areas". The northern part of the SPA includes Lake Prontani, while at the southern part lay the marshes of Kalodiki, Margariti and Karteri, remains of the very extended wetland that covered the area in the past. The Kalodiki fen is an area of great importance in comparison with the other wetlands of Western Greece and constitutes a unique peatland formation. A forested area is located on the islet of the Kalodiki marsh, while the slopes around the marsh are covered by maquis shrubs. The site is important for breeding water birds and birds of prey with most important species <i>Aythya nyroca</i> .	211.308-213.142, which includes also part of the Natura 2000 site crossed by the project (IP: 2708-2709, KP: 212.43-212.57) and adjacent areas.	disturbance to species of the Natura 2000 site. Qualifying features of the site (birds) might be affected.	the project activities. An Appropriate Assessment is required.
IP 2008-2020	SAC GR2310001 Delta Acheloou, Limnothalassa	The area overlaps with the Special Protection Area GR2310005 "Delta Acheloou, Limnothalassa Mesolongiou - Aitolikou Kai Ekvoles Evinou, Nisoi	The pipeline does not cross the SAC, it passes about 65 m from it. The pipeline's buffer zone (500 m) overlaps the site.	Construction activities may give rise to habitat deterioration and disturbance to	The site may be affected by the project



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Pipeline IP	Site Name /EU code	Natura 2000 Description	Individual components of the project likely to give rise to impacts on the Natura 2000 site	Likely impacts/likely changes to the site	Screening result
	Mesolongiou - Aitolikou, Ekvoles Evinou, Nisoi Echinades, Nisos Petalas	Echinades, Nisos Petalas, Dytikos Arakynthos Kai Stena Kleisouras", is part of the "National Park of the Messolonghi- Aitoliko Lagoon, lower reaches and estuaries of Acheloos and Evinos rivers and Echinades islands". The area of Messolonghi lagoons is also designated as a Ramsar site. The site is a complex ecosystem located in western Greece. It is one of the most significant wetlands in Greece, as it functions as an important ecosystem based on the presence of extensive areas of salt marshes, sandbanks and mudflats, the pure Fraxinus forest (the only one in Greece) that exists near the Lesini area, as well as other significant life sustaining habitats of the site. The site also functions as an important resting area during bird migration, a significant site for the nesting of many aquatic birds, but above all, the Delta area functions as one of the most important areas of Greece for the wintering of waterfowl in Europe.		species in close proximity to the Natura 2000 site and therefore qualifying features of the site might be affected.	activities. An Appropriate Assessment is required.



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Pipeline IP	Site Name /EU code	Natura 2000 Description	Individual components of the project likely to give rise to impacts on the Natura 2000 site	Likely impacts/likely changes to the site	Screening result
IP 2153-2156	SAC GR2310009 Limnes Trichonida Kai Lysimacheia	The site overlaps with the Special Protection Area GR2310013 "Limni Lysimacheia", is part of the National Park of the Messolonghi-Aitoliko Lagoon, lower reaches and estuaries of Acheloos and Evinos rivers and Echinades islands. The site consists of the two large freshwater lakes Trichonida and Lysimachia and their surrounding area. Lake Trichonida is the largest lake in Greece and is connected with Lake Lysimachia through an artificial ditch (Alampei ditch), with water of the first one overflowing to the second. It consists an important wetland ecosystem in western Greece, with significant ecological value. The two lakes support habitats that holds significant amounts of important flora and fauna species and further function as a resting area for migratory waterfowl as they support migratory birds during their journey by providing suitable areas for resting. The lakes ecosystem further functions as a	The total length of the Project crossing the site is 1.2km at the section IP 2153-2156. The pipeline will cross the Alampei Ditch connecting Trichonida and Lysimachia lakes with the use of trenchless method, in order to avoid impacts on aquatic and riparian ecosystems of the protected area. Project activities and interventions will take place at rural ecosystems of the area, both sides of the crossing.	Construction activities may give rise to loss of habitat, fragmentation and disturbance to species of the Natura 2000 site, as well as loss of individuals. Qualifying features of the site might be affected.	The site may be affected by the project activities. An Appropriate Assessment is required.



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Pipeline IP	Site Name /EU code	Natura 2000 Description	Individual components of the project likely to give rise to impacts on the Natura 2000 site	Likely impacts/likely changes to the site	Screening result
		water supply and irrigation assurance for the surrounding area.			
IP: 2044-2060 & 2065-2080	SAC GR2310010 Oros Arakynthos Kai Stena Kleisouras	The site overlaps with the Wildlife Reserve "Asprolithi Dimou Mesolongiou" and partially with the Wildlife Reserve "Oros Arakynthos-Mataragkas-Gavalou". The SAC includes two small parts of the National Park of the Messolonghi-Aitoliko Lagoon, lower reaches and estuaries of Acheloos and Evinos rivers and Echinades islands. The site consists of large cliffs (at the southwestern flanks of a largely forested mountain) which border the wetlands of Aitoliko-Mesolonghi, which are ecologically connected with the wetland and therefore function as a significant overall ecosystem, providing different habitats suitable for species of great importance. The site also provides suitable and important areas for birds of prey, in the southern and southwestern slopes of Mt. Arakynthos as well as the Kleisoura gorge, since these areas neighbour the extensive wetland	The pipeline does not cross this site, it crosses in close proximity to it (about 10m). The pipelines' buffer zone (500 m) overlaps the site.	Construction activities may give rise to loss of habitat, fragmentation and disturbance to species of the Natura 2000 site, as well as loss of individuals. Qualifying features of the site might be affected.	The site may be affected by the project activities. An Appropriate Assessment is required.



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Pipeline IP	Site Name /EU code	Natura 2000 Description	Individual components of the project likely to give rise to impacts on the Natura 2000 site	Likely impacts/likely changes to the site	Screening result
		system of Aitoliko, Mesolongi and the Evinos river estuary, which constitute hunting areas of high productivity for these birds.			
IP 2156-2162	SPA GR2310013 Limni Lysimacheia	The Study Area overlaps with the Special Area of Conservation GR2310009 "Limnes Trichonida Kai Lysimacheia" and its greatest part is part of the National Park of the Messolonghi-Aitoliko Lagoon, lower reaches and estuaries of Acheloos and Evinos rivers and Echinades islands. The site consists of lake Lysimachia and its surrounding area. It is important for wintering ducks and breeding and passage waterbirds. In spite of human activities, the lake conserves a significant amount of its flora and fauna. Around it, extensive reed communities are developed, which offer valuable refuge to wild fauna. Moreover, the lake ensures the water supply and irrigation of the surrounding area. Many interesting plants comprise the flora of the site. The lake is the most important wintering site of <i>Aythya fuligula</i> in Greece	The Onshore pipeline does not cross the site and passes about 300 m from it.	Construction activities may give rise to deterioration of habitat outside of the Natura 2000 boudaries and disturbance to species of the Natura 2000 site. Qualifying features of the site (birds) might be affected.	The site may be affected by the project activities. An Appropriate Assessment is required.



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Pipeline IP	Site Name /EU code	Natura 2000 Description	Individual components of the project likely to give rise to impacts on the Natura 2000 site	Likely impacts/likely changes to the site	Screening result
IP: 2008-2020	SPA GR2310015 Delta Acheloou, Limnothalassa Mesolongiou - Aitolikou Kai Ekvoles Evinou, Nisoi Echinades, Nisos Petalas, Dytikos Arakynthos Kai Stena Kleisouras	The site overlaps with the Special Area of Conservation GR2310001 "Delta Acheloou, Limnothalassa Mesolongiou - Aitolikou, Ekvoles Evinou, Nisoi Echinades, Nisos Petalas" and it is part of the National Park of the Messolonghi-Aitoliko Lagoon, lower reaches and estuaries of Acheloos and Evinos rivers and Echinades islands. The area of Messolonghi lagoons is designated as a Ramsar site. The site is one of the most significant wetlands and ornithological sites in Greece. It is important for breeding, passage and wintering waterbirds, waders and raptors. Each winter it gathers large numbers of waterfowl, in average 12.1% of the total wintering population in Greece. The site is a compact ecosystem which although has been strongly influenced by human activities still has significant ecological value. The flora and fauna of the area is largely specialized due to the extensive presence and dominance of wet-	The Onshore pipeline does not cross the site passing about 65 m from its boundaries. The pipelines' buffer zone (500 m) overlaps the site.	Construction activities may give rise to loss of habitat and disturbance to species of the Natura 2000 site. Qualifying features of the site (birds) might be affected.	The site may be affected by the project activities. An Appropriate Assessment is required.



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Pipeline IP	Site Name /EU code	Natura 2000 Description	Individual components of the project likely to give rise to impacts on the Natura 2000 site	Likely impacts/likely changes to the site	Screening result
		element taxa. These areas have large ornithological and ecological value.			
IP 1017-1073	SPA/SAC GR2330002 Oropedio Folois	The site is characterized by forests of <i>Quercus frainetto</i> . On the westerly exposed sites, <i>Quercus frainetto</i> is found mixed with <i>Pinus halepensis</i> while at the edge of the forest it is mixed with evergreen broadleaved species, which also represent its understorey. The absence of natural regeneration is quite characteristic together with illegal tree-felling and the presence of a mosaic of cultivated and grazed land. The woodlands of the site also contain a seed producing population of <i>Pinus nigra</i> species. The <i>Pinus halepensis</i> woods cover lower altitudes up to 700m and are used by farmers for resin collection. Their understorey is composed of evergreen broad-leaved species. The area around the human settlements is occupied by phrygana, abandoned fields and wooded areas. Cultivated land covers areas around the buildings but also occurs in the forests of <i>Quercus frainetto</i>	The routing of the Onshore pipeline crossing the site for a length of 10.3 km at the section IP 1017-1073	Construction activities may give rise to loss of habitat, fragmentation and disturbance to species of the Natura 2000 site, as well as loss of individuals. Qualifying features of the site might be affected.	The site will be affected by the project activities. An Appropriate Assessment is required.



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Pipeline IP	Site Name /EU code	Natura 2000 Description	Individual components of the project likely to give rise to impacts on the Natura 2000 site	Likely impacts/likely changes to the site	Screening result
		originating from fires, transgression and tree-felling. It is an important site for species characteristic of a mosaic of forest, pasture and olive-groves. Species of concern include <i>Dendrocopos medius</i> and <i>Emberiza caesia</i> .			
KP 426-428	SAC GR2540001 Ori Gidovouni, Chionovouni, Gaidourovouni, Korakia, Kalogerovouni, Koulochera Kai Periochi Monemvasias Spilaio Solomou Trypa Kai Pyrgos Ag. Stefanou Kai Thalassia Zoni Eos Akrotirio Kamili	The site partially overlaps with the Special Protected Area GR2540007 "Ori Anatolikis Lakonias", it includes the Wildlife Reserve "Gaidourovouni Dimotikon Diamerismaton Kremastis - Lampokampou Dimon Niaton - Zaraka". The site consists of bare or sparsely forested mountains and scrub in many places. The coastal line often ends with steep sea-cliffs and rocky shores. The site has an extensive marine part that extends ~45 km along the coastline and 1nm off, including several reefs and islets, while the coastal area is characterized by the presence of well-developed Posidonia meadows that cover the largest part of the infralittoral sediments at depths between 5-30m. Biodiversity rich rocky shores and reefs are common and extensive, hosting	The total length of the Project crossing the site is 2km at the section KP 426-428. Trenching will take place at a corridor of approximate width of 55m and 600 m length, acting as a working strip. At the first 200 m from shore two causeways will be created and excavation will take place with terrestrial machinery, while for the rest 400m shallow and deep-water backhoe dredgers or cutter suction dredgers will be used (no cofferdam will be performed). The working strip will be about 55m nearshore, decreasing to 25m and increasing again to 40 m in deeper water. In the additional 1.4 km of the area the	Construction activities may give rise to loss of habitat, fragmentation and disturbance to species of the Natura 2000 site. Qualifying features of the site might be affected.	The site may be affected by the project activities. An Appropriate Assessment is required.



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Pipeline IP	Site Name /EU code	Natura 2000 Description	Individual components of the project likely to give rise to impacts on the Natura 2000 site	Likely impacts/likely changes to the site	Screening result
		important and well-preserved stands of both shallow and deep Cystoseira and Sargassum canopies. <i>Caretta caretta</i> is a common encounter in the area.	pipeline will be directly laid on the seabed.		
	SAC GR2540002 Periochi Neapolis kai Nisos Elafonisos	The greatest part of the area forms a peninsula ending in cape Maleas. Phytogeographically this is the northern part of the South Aegean area, starting from the SW Asia and through Rodos, Karpathos, Kriti and Kythira ends at the eastern part of the three peninsulas of S. Peloponnisos. The island of Elafonisos lies to the west of the peninsula and is a geological and ecological continuation of the area. The variety of biotopes give shelter to a great number of very interesting plant taxa which are endemic to Greece. While formations with Euphorbia dendroides follow phrygana formations and coastal sand dunes and sand beaches house Juniperus macrocarpa "forest" especially on the island of Elafonisos. A rich and diverse vertebrate fauna inhabits this site. Of the non-bird taxa, some	The routing of the Onshore pipeline is not crossing the site, it runs at approximately 2.5 km from its nearest boundary point. As result, no impacts to the site qualifying characteristics are anticipated due to the Project activities.	Due to the distance of the pipeline from the site it is not likely for the proposed project to have effects on the site, either individually or in combination with other plans or projects	The site will not be affected by the project. No AA is required for this site



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Pipeline IP	Site Name /EU code	Natura 2000 Description	Individual components of the project likely to give rise to impacts on the Natura 2000 site	Likely impacts/likely changes to the site	Screening result
		mammalian and reptilian species are listed in Annex II of the Directive 92/43EEC (section 3.2), whereas many others are evaluated as Other Important Species. This site is also important for many migratory bird species, since it is one of the two southernmost areas of the Greek mainland which are valuable stations for the birds, before and after their exhausting travel over Mediterrranean Sea.			
IP 0112-0130 & 0154-0156	SPA GR2540007 Ori Anatolikis Lakonias	The site consists of bare or sparsely forested mountains and in scrub in many places. The coastal line often ends with steep sea-cliffs and rocky shores. The site is an important corridor for migratory passerines and breeding and migrant raptors.	The routing of the Onshore pipeline crosses the site for 2km at the section IP 0114-0130. Blasting might be used during the construction at KP: 19.840-20.322 and 21.348-21.845 for a total length of 979m	Construction activities may give rise to loss of habitat outside of the Natura 2000 boundaries and disturbance to species of the Natura 2000 site. Qualifying features of the site (birds) might be affected.	The site may be affected by the project activities. An Appropriate Assessment is required.
KP 0058-0065	SAC GR4320006	The site includes the Wildlife Reserves "Plai Marazaki Dimou Itanou", "Vai Dimou Itanou" and "Dionysades nisoi Dimou	The routing of the Offshore pipeline doesnot cross the site but it passes	Construction activities may give rise to disturbance towards	The site may be affected by



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Pipeline IP	Site Name /EU code	Natura 2000 Description	Individual components of the project likely to give rise to impacts on the Natura 2000 site	Likely impacts/likely changes to the site	Screening result
	Voreioanatoliko Akro Kritis: Dionysades, Elasa Kai Chersonisos Sidero (Akra Mavro Mouri – Vai – Akra Plakas) Kai Thalassia Zoni	Siteias", while it also partially overlaps with the Special Protection Area GR4320011 "Dionysades Nisoi". The site, includes the easternmost area of Crete, the peninsula of Sidero, and the nearby islets, Dionysades and Elasa. The whole area is very important for its flora and fauna, both marine and terrestrial. The palm forest is one of the most important characteristics of the area.	about 800 m from it, in an area of great depth.	species present in the Natura 2000 site. Qualifying features of the site might be affected.	the project activities. An Appropriate Assessment is required.
	SAC GR2310005 Oros Varasova	The site holds a special interest as a unique biotope is due to its steep almost vertical slopes occurring mainly on its southern, south-western and south-eastern sides. These slopes make approach difficult or impossible, and for that reason the mountain remains a significant refuge for an important flora and fauna. The most important area of the mountain is concentrated on the bare, almost vertical cliffs. In these places, many endemic or rare plants live. A remarkable avifauna inhabits this site. The extensive wetlands of Mesolongi and Evinos river neighbouring	The routing of the Onshore pipeline does not cross the site, it runs along a valley at approximately 700m from its nearest boundary point.	Due to the distance of the pipeline from the site it is not likely for the proposed project to have effects on the site, either individually or in combination with other plans or projects	The site will not be affected by the project. No AA is required for this site.



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Pipeline IP	Site Name /EU code	Natura 2000 Description	Individual components of the project likely to give rise to impacts on the Natura 2000 site	Likely impacts/likely changes to the site	Screening result
		Mt. Varasova is one more reason indicating its major importance and quality.			





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#### 9 E.1.3. CONCLUSIONS

As per the results of the screening process, it can be concluded that for 13 sites out of 16, a complete Appropriate Assessment is required as there exists the possibility of occurring impacts on the qualifying values of the Natura 2000 sites. These sites are specifically:

- SAC, GR2110001, Amvrakikos Kolpos, Delta Lourou Kai Arachthou (Petra, Mytikas, Evryteri Periochi, Kato Pous Arachthou, Kampi Filippiadas);
- SPA, GR2110004, Amvrakikos Kolpos, Limnothalassa Katafourko Kai Korakonisia;
- SAC, GR2120002, Elos Kalodiki;
- SPA, GR2120006, Eli Kalodiki, Margariti, Karteri kai Limni Prontani;
- SAC, GR2310001, Delta Acheloou, Limnothalassa Mesolongiou Aitolikou, Ekvoles Evinou, Nisoi Echinades, Nisos Petalas;
- SAC, GR2310009, Limnes Trichonida Kai Lysimacheia;
- SAC, GR2310010, Oros Arakynthos Kai Stena Kleisouras;
- SPA, GR2310013, Limni Lysimacheia;
- SPA, GR2310015, Delta Acheloou, Limnothalassa Mesolongiou Aitolikou Kai Ekvoles Evinou, Nisoi Echinades, Nisos Petalas, Dytikos Arakynthos Kai Stena Kleisouras;
- SPA/SAC, GR2330002, Oropedio Folois;
- SAC, GR2540001, Ori Gidovouni, Chionovouni, Gaidourovouni, Korakia, Kalogerovouni, Koulochera Kai Periochi Monemvasias Spilaio Solomou Trypa Kai Pyrgos Ag. Stefanou Kai Thalassia Zoni Eos Akrotirio Kamili;
- SPA, GR2540007, Ori Anatolikis Lakonias; and
- SAC, GR4320006, Voreioanatoliko Akro Kritis: Dionysades, Elasa Kai Chersonisos Sidero (Akra Mavro Mouri Vai Akra Plakas) Kai Thalassia Zoni.