



# **SEMI-ANNUAL PROGRESS REPORT FOR THE IMPLEMENTATION OF ENVIRONMENTAL TERMS DURING THE CONSTRUCTION PHASE**



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**PROJECT: "STUDY – CONSTRUCTION – FINANCING – OPERATION – MAINTENANCE AND EXPLOITATION OF  
THE PROJECT "IONIA ODOS MOTORWAY FROM ANTIRIO TO IOANNINA, PATHE ATHENS (METAMORFOSI  
I/C) – MALIAKOS (SKARFIA) AND PATHE CONNECTING BRANCH SCHIMATARI – CHALKIDA"**

**SECTION: IONIA ODOS**

- 1. Antirio – Southern end of Agrinio bypass (Kefalovryso)**
- 2. Agrinio bypass**
- 3. Northern end of Agrinio bypass (Kouvaras) – Southern end of Arta bypass (Komboti) and Southern end of Arta bypass (Filippiada) – Ioannina (Eleousa)**
- 4. Arta bypass**

RELEASE No.	1.0
Date	14.07.2010
Created by	Health, Safety and Environment Department Konstantinos Kambas                                  Fotios Kalpakidis
Checked by	Health, Safety and Environment Department's Director Fotios Kalpakidis
Approved by	General Manager of EuroIonia J/V Andreas Christidis

PREVIOUS RELEASES	
No.	Date



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**IONIA ODOS MOTORWAY FROM ANTIRIO TO IOANNINA**

**CONCESSIONAIRE OF THE PROJECT: NEA ODOS S.A.  
CONSTRUCTOR: J/V EURO IONIA**



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**JULY 2010**



## ANTIRIO – SOUTHERN END OF AGRINIO BYPASS (KEFALOVRYSO)

A. PERMITS AND APPROVALS		
S/N	SUBJECT	PROGRESS – PROBLEMS
A.1	Installation permits for any activity or necessary installation for the construction of works.	<p>All foreseen by the legislation permits and approvals, including the environmental permit possibly required, are obtained, when needed.</p> <p>The relevant Special Technical Implementation Studies (STIS) for all required sites (quarries, borrow pits, disposal sites and worksites) have been submitted to the Ministry and their approval is expected.</p> <p><u>Borrow pits</u></p>



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A. PERMITS AND APPROVALS		
S/N	SUBJECT	PROGRESS – PROBLEMS
		<ul style="list-style-type: none"> <li>• STIS (Protocol No. 15264/07-10-2009) for BP A1 has been elaborated and submitted to EYPE.</li> <li>• STISs for the new positions BP A2 – location “Koutsospyrou” and BP A5 – location “Zabara” have been submitted to EYPE/YPEKA (Protocol No. 18383/18-12-2009).</li> <li>• TIS and STIS have been elaborated and are being submitted for positions BP A3 – location “Sarli”, BP A4 – location “Rema Ragou” and BP A6 – location “Diamantopoulou”.</li> </ul> <p><u>Quarry</u></p> <p>Location “Kremasti” (QP 08):CH 40+000:An STIS was submitted to EYPE with Protocol No. 101816/03-03-08. From 7/04/09 all required positive opinions of bodies/revocation of reforestation, etc. have been submitted to EYPE. Additional data were submitted to EYPE with Protocol No. IC-C-S1000-Pro14900/NIK/sfa. EYPE’s approval is expected. The relevant submission for intervention approval by the forest department with Protocol No. CC-X-SB-S10000EIO, dated 9/07/09 was conducted.</p> <p><u>Gravel extraction from Evinos river</u></p> <p>Kalfa location:Submission to EYPE with Protocol No. 135680/10.12.07. Approved with EYPE Protocol No. 141647/5.8.09.</p> <p>Paradission location:Submission to EYPE with Protocol No. 135681/10.12.07. Approved with EYPE Protocol No. 141647/5.8.09.</p>



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A. PERMITS AND APPROVALS		
S/N	SUBJECT	PROGRESS – PROBLEMS
		<p><u>Worksites</u></p> <p>Kalavrouza area: Submission of STIS to EYPE with Protocol No. 14753/23.09.09 for worksite area around ch. 10+500 of the axle.</p> <p>Gavrolimni area: Submission of STIS to EYPE with Protocol No. 14753/23.09.09 for worksite area around ch. 12+000 of the axle.</p> <p>Agios Georgios location - Evinos river: Submission to EYPE with Protocol No. 102919/04.04.08. Re-submission to EYPE with Protocol No 11939/26-06-09. Approval of STIS by EYPE (document with Protocol No. 141505, 23/09/09).</p> <p>“Kourtouga” area – premises of former 3E bottling hall – it is about offices and environmental permits are not required</p> <p>Aetoliko area (CH. 39+000): STIS was submitted to the Service (IC-C-CO-S111N-PRO6030/EM/em/) and following EYPE’s remarks a re-submission was carried out Rev A (24-04-09). The relevant Antiquities Service Approval was issued Φ666/ΣΤ/ΛΣΤ/4184/29-06-09. Furthermore, the relevant supporting documents for the “characterization” were submitted to the Forest Service (IC-C-CO-SL11N-PRO11748 GEP/MAG) on 19/06/09.</p> <p>With respect to the main project, the procedure of intervention permit and revocation of reforestation (Law 355/2007 art.4, par. 4 (a) (Gazette 81A/16.04.2007), Law 2445/1996 (Gazette 274A) paragraph 1 per.c of Article Two) is not required.</p> <p>As far as the additional works that were executed in this period of time (geotechnical researches, works in Kalidona and Makinia tunnel, coating of materials in Evinos Tunnel, drillings, preliminary tunnel works, etc.) no permit was necessary by the competent Forest Service because they were</p>

<b>A. PERMITS AND APPROVALS</b>		
S/N	SUBJECT	PROGRESS – PROBLEMS
		<p>located outside the forest area.</p> <p>For any work or installation, an intervention permit is needed which is granted by the Forest Service responsible.</p> <p>With respect to the revocation of re-forestation, in accordance with Law 3555/2007 (ratification of the Concession Agreement)/ Article 4/ par. 4a and Law 2445/1996/ Article 2/ par. <i>'The occupancy, reclamation or coverage of forests or forest areas that are included in the boundaries specified in the designs of Annex 7 and in accordance with the terms and conditions of the agreement are permitted.' This law approves the change of use, revokes the re-forestation and grants intervention permits and permits for felling works to the above sites.</i>"</p>
<b>A.2</b>	Archaeological Services	<p>The responsible Archaeological Services were notified of the following cases:</p> <p>a) Performance of excavations on the CH 19+050 in fortress remains of your interest (Perithorio area) to 22<sup>nd</sup> EBA (Inspectorate of Byzantine Antiquities) (J/V Letter with protocol no. 19348/26.01.10)</p> <p>b) Execution of excavation works in Section 1 of Ionia Odos to ΛΣΤ' Archaeological Service (J/V Letter with protocol no. 20434/22.02.10)</p> <p>c) Submission of a table of hitherto carried out Archaeological Research Shafts to the ΛΣΤ' Archaeological Service and 22<sup>nd</sup> EBA (Inspectorate of Byzantine Antiquities) (J/V Letter with protocol no. 20507/23.02.10)</p> <p>d) Execution of archaeological works in Evinohori junction (divisions C &amp; D) in ΛΣΤ' Archaeological Service and 22<sup>nd</sup> EBA (J/V Letter with protocol no. 21957 / 26.03.2010)</p> <p>e) Commencement of works for archaeological shafts in the area from CH. 18+600 to CH. 19+200 of the project (Platanias area) to the ΛΣΤ' Archaeological Service and 22<sup>nd</sup> EBA (J/V Letter with protocol no. 22401/08.04.10).</p> <p>f) A letter was sent by the 22<sup>nd</sup> EBA with protocol no. 3862/02.03.10 for Conducting Rescue Excavations for the construction works needs of Ionia Odos, in Antirio - Kefalovriso subsection 1, in Aitolokarnania Prefecture. Under the condition, the works are stopped in the said section (CH. 19+050 – Perithorio</p>



**A. PERMITS AND APPROVALS**

S/N	SUBJECT	PROGRESS – PROBLEMS
		<p>Area).</p> <p>With protocol no. 21560/16-03-10, 1392/12-03-10 LST EPCA, the discovery of tomb monument is stated and the relocation of the Interchange by 15-30m on the west axis of the road is proposed, i.e. in a place where the trial shafts did not revealed any traces of antiquities. The service, in order to avoid additional expropriations and lengthy procedures, launched the solution of overpass construction in the same position. As emerged after the joint meeting with the Head of the Inspectorate of Antiquities, this solution was considered as acceptable in principle. Detailed designs are being prepared in order to drawn up a relevant document addressed to the Archeology for their consent.</p> <p>Ancient remains were found during cuts at the area of ancient Kalidona. The ΛΣΤ' Archaeological Service sent a notification (document with ref. no. Φ666/Α2/ΛΣΤ/381, 23.01.09) to commence the rescue investigations. No construction works are carried out at this particular area.</p> <p>In the event that new antiquities are found, the process referred to in the relevant Environmental Terms will be followed.</p> <p>With respect to the coverage of the expenses incurred during the archaeological surveys, article 1, par. 13.2 of Law 3555/2007 shall apply.</p>
<b>A.3</b>	Borrow pits – Quarries	For all new sites where materials have been delivered, the required STISs have been submitted, as referred to in term d2.1 of paragraph A1, and the relevant opinion of the responsible Archaeological Services shall be requested in order to obtain the appropriate environmental permit.

**B. CONSTRUCTION ISSUES**



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S/N	SUBJECT	PROGRESS - PROBLEMS
<b>B.1</b>		<p>With respect to the environmental permit of the new toll stations for Motorists Service Stations/Maintenance &amp; Exploitation Centers, the relevant permit procedures shall be followed.</p>
<b>B.2</b>	Disposal / Excavations / Explosives	<p>The term on the disposal of inappropriate excavation products is a criteria used during searching locations for possible disposal sites and will be taken into account during the preparation of the respective STIS that will be submitted to the EYPE.</p> <p>In the event that during the construction phase, excavation locations containing waste or other solid waste are found, these will be separated from the excavation materials and will be appropriately disposed. Also, it has been ensured that excavation materials which are free of foreign substances are kept free of waste. During the preparation period of the present report all the excavation materials are reused in fillings and coatings (MSS Evinohori, etc.). If required, any additional or inappropriate materials will be disposed in approved areas. The excavation materials are separated in top soil (surface layer) and other materials. The top soil is stored, where appropriate, for use in the slopes of the Motorway in the final stage of planting.</p>
<b>B.3</b>	Rehabilitation/ Worksites	<p>It has been ensured that the layout planning of concrete and asphalt mix production plants abide by the restrictions specified in the Environmental Term. This issue is reviewed in the submitted STIS and the implementation of the stipulated protective measures is checked. In particular, as far as the concrete production plant that is installed at Evinos worksite, in Agios Georgios, Mesologgi all the aforementioned restrictions are followed. The installation is around 1000m away from Agios Georgios area and in order to protect Evinos river, two water collection tanks have been constructed.</p> <p>In STIS of Aitoliko, Kalavrouza and Gavrolimni worksites, the term has been taken into consideration.</p> <p>A general Environmental Management Plan in terms of the Environmental Monitoring and Control Program, which includes control procedures for all works referred to in the environmental terms, has</p>



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<b>B. CONSTRUCTION ISSUES</b>		
<b>S/N</b>	<b>SUBJECT</b>	<b>PROGRESS - PROBLEMS</b>
		<p>been drawn up. The Plan has been presented to the joint venture's supervising engineers, as well as to any subcontractors that provide the joint venture with their services.</p> <p>The E.T. are followed in the concrete production plant that operates in Evinos worksite. In particular, the dust is minimized via drenching through a water tank, the transportation of aggregates is conducted with closed transportation tapes, the storage silos have dust separation filters and the concrete production system is a wet-type closed one. In the stone crushing installation, which operates at Agios Georgios Messologgi worksite, dust is minimized by springing, since a piping system with becks has been placed on the piles of aggregates and during the "breaking" of the materials, a tall cone of material is allowed to be created so that the creation of dust to be avoided. There are no asphalt mix production plants. With respect to the remaining section of the project, there are no operating stone crushing installations or concrete production and asphalt mix plants.</p> <p>In the worksite area of Aetoliko as well as in the areas of Kalavrouza and Gavrolimni, such installations are provided, while the protection measures of the term refer to the relevant STIS. Their implementation after the installation according to the EMCP (Environmental Monitoring &amp; Control Program) will be checked.</p> <p>During the period mentioned by this report, in some sections and in areas bounded by piles, site clearing was required.</p> <p>For any new worksite installation (or installation from the subcontractor) STISs are being prepared and will be submitted as usual to EYPE for approval. The protection measures referred to in STIS will be observed and will include all details referred to in the respective environmental term. The implementation of the E.T. will be inspected via monitoring in line with the EMCP.</p>



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<b>B. CONSTRUCTION ISSUES</b>		
<b>S/N</b>	<b>SUBJECT</b>	<b>PROGRESS - PROBLEMS</b>
		<p>The final landscaping plans and the corresponding irrigation plans have been assigned, are currently being drafted and will be submitted to the Independent Engineer. The rehabilitation works and their budget is an integral part of each STIS (disposal sites, borrow pits, worksites, etc.). With respect to this section, the rehabilitation landscaping design has been submitted:</p> <ul style="list-style-type: none"> <li>• with Protocol No. IC-C-CO-S103N-PRO18495/GEP/mag dated 23.12.09 and resubmission with protocol no. IC-C-CO-S103N-PRO21703/GEP/mag dated 18.3.2010 and approved by the I.E.</li> <li>• IC-C-CO-S103N-PRO20815/GEP/mag dated 1.3.2010 and expecting for its approval by the I.E.</li> </ul> <p>Vegetative soil retained via the rational storage, condensation etc. in order to be used in landscaping rehabilitation works after the completion of the main works.</p>
<b>B.4</b>	Various construction terms	<p>The term for the implementation of modern methods and technologies for the direct entrance to ancient Kalidona tunnel has been taken into account in the design of the tunnel that was elaborated and has been submitted to the Independent Engineer with Protocol No. 5216/22-10-08.</p> <p>The design of the eastern front of Kalidona tunnel has been approved by the I.E. via the document IC0035 DAC 5/03/09. Based on this design, no surface excavations will be performed at &gt;5m, except for the temporary ones. The layout planning of the front will be carried out via excavation and refilling. A landscaping design will follow.</p> <p>The term regarding the wild fauna passages has been taken into account at the studies already drawn up. This issue will be included in the Environmental Impact Studies.</p>



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<b>B. CONSTRUCTION ISSUES</b>		
<b>S/N</b>	<b>SUBJECT</b>	<b>PROGRESS - PROBLEMS</b>
		The Euroionia Joint Venture has a department of Environment, Health and Safety staffed with the required personnel and external partners. The responsibilities and obligations of the department's staff are described in the Quality Management System of the Joint Venture.
<b>B.5</b>	Superficial runoffs	<p>The relevant hydraulic designs, in which all necessary terms for the uninterrupted flow of surface water are taken into account, have been assigned, prepared and submitted to the Independent Engineer.</p> <p>The term on the protection of natural slopes from corrosion has been taken into account and at the preparation of the existing or future studies. Especially for Evinos River has been taken into account in the design with protocol no. 13774/18-8-09 to the I.E. with IC.C.EN.S107.MO. 0200.110.HYD.XXX.FL..01.01-A code.</p>

<b>C. WORK-SITE MANAGEMENT ISSUES</b>		
<b>S/N</b>	<b>SUBJECT</b>	<b>PROGRESS - PROBLEMS</b>
C.1	Water protection - Liquid waste	<p>The content of the Environmental Term about uninterrupted flow of surface water shall be taken into account during the preparation of the relevant hydraulic designs.</p> <p>The content of the Environmental Term about any type of modification or intervention to an existing infrastructure</p>



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C. WORK-SITE MANAGEMENT ISSUES		
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		<p>work will be taken into account during the elaboration of the relevant rehabilitation designs.</p> <p>The necessary actions will be carried out to rehabilitate the irrigation networks and passages from other irrigation channels to the area with respect to the positive opinion about the hydraulic design from the respective Service of Aetoloakarnania (Protocol No. 6206/30-10-2009 for the section from CH.25+640 –CH. 32+000 and 6207/30-10-2009 for the section CH. 32+000 – CH. 42+000). The final hydraulic design in the section from CH. 25+640 – CH. 32+000 has been approved by the IE (Protocol No. 27004_IC-C-IE-S1000_21-07-2010).</p> <p>For the remaining sections, particular documents have been sent to:</p> <ul style="list-style-type: none"> <li>a) Greek Telecom for the relocation of Networks located within the range of occupation of Ionia Odos Motorway under construction from CH. 24+400 – CH. 42+972 (document with J/V Protocol No. 19527, 29.01.10).</li> <li>b) Greek Telecom for the relocation of Networks located within the range of occupation of Ionia Odos Motorway under construction from CH. 18+300 – CH. 19+600 (document with J/V Protocol No. 23590, 04.05.10).</li> <li>c) Electric Supply Company for the relocation of Networks located within the range of occupation of Ionia Odos Motorway under construction from CH. 19+600 – CH. 22+090 (document with J/V Protocol No. 23591, 04.05.10).</li> <li>d) Greek Telecom for the relocation of Networks located within the range of occupation of Ionia Odos Motorway under construction from CH. 24+400 – CH. 42+972 (document with J/V Protocol No. 24633, 26.05.10).</li> </ul> <p>Liquid waste shall be managed based on the relevant terms. An Environmental Monitoring &amp; Control Program in terms of the overall Plan for Environmental Management which will include protection measures for all works referred to in the environmental terms, has been drawn up. The Program has been presented to the joint venture's supervising engineers, as well as to any subcontractors that will provide the joint venture with their services.</p>



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<b>C. WORK-SITE MANAGEMENT ISSUES</b>		
<b>S/N</b>	<b>SUBJECT</b>	<b>PROGRESS - PROBLEMS</b>
		<p>With respect to the management of used oils, batteries, tires, etc. relevant agreements with licensed management companies have been signed and depending on the constructional procedure and the payment of the temporary containers, they are delivered for further management. The dangerous waste are temporarily stored in special areas within the worksites, while in some cases the relevant conformance documents are requested by the suppliers and the separate subcontractors.</p> <p>Finally, where required special cleaning areas of vehicles and machines have been constructed in the worksites using a waterproof tank for the collection of waters.</p>
C.2	Air and noise protection	<p>An Environmental Monitoring &amp; Control Program in terms of the overall Plan for Environmental Management which includes protection measures for all works referred to in the environmental terms, has been drawn up.</p> <p>In particular with respect to dust, based on the works foreseen, the following shall be implemented:</p> <ul style="list-style-type: none"> <li>• Worksite roads and piles of aggregates are regularly sprayed. Especially during the summer months care is taken for the continuous spraying of both the worksite roads and the urban network near the worksites. Special attention is paid to the spraying of worksite roads near residential areas and areas with increased human activity. Furthermore, a piping system with becks, placed on the piles of aggregates, realizes the springing of the piles of aggregates.</li> <li>• Special care is taken so that trucks are not overloaded with loose materials, while the trucks that transfer materials are covered.</li> <li>• The trucks are cleaned before they exit the worksite and the existing road network is cleaned when deemed necessary.</li> </ul> <p>With respect to the installation of measurement station, the appropriate actions are taken to determine any possible locations so that they are submitted for approval to EYPE/Ministry. The operation of the station is related</p>



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<b>C. WORK-SITE MANAGEMENT ISSUES</b>		
<b>S/N</b>	<b>SUBJECT</b>	<b>PROGRESS - PROBLEMS</b>
		to the operation of the project.
C.3	Noise - Movable noise barriers - Vibrations	<p>With respect to the noise during the construction of the project, an Environmental Monitoring &amp; Control Program in terms of the overall Plan for Environmental Management which includes control procedures to resolve noise problems in accordance with the environmental terms has been drawn up. In addition, noise measurements are conducted in defined control spots by using the appropriate equipment so that noise levels at the worksites are followed. The measurements are reflected in measurement tables with graphic presentation of the measurement points. The previous measurements did not show any excess of noise levels set by the Legislation and the Environmental Terms.</p> <p>With respect to the provision of placing noise barriers, a Special Acoustics Study for Noise Protection has been assigned, is being prepared and will be submitted for approval to EYPE/YPEXODE.</p> <p>In any case, after the commencement of the works, the relevant legislation for noise will be taken into account, which is referred to in term c.</p> <p>Construction works with a possibility to create vibrations will be equipped with a measurement and recording system in order to monitor all significant variables.</p>
C.4	Solid and hazardous waste	With respect to waste management during the construction of the project, an Environmental Monitoring & Control Program in terms of the overall Plan for Environmental Management, which includes control procedures in compliance with the environmental terms, has been drawn up. The Program has been presented to the joint venture's supervising engineers, as well as to any subcontractors that will provide the joint venture with their





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C. WORK-SITE MANAGEMENT ISSUES		
S/N	SUBJECT	PROGRESS - PROBLEMS
		<p>services.</p> <p>With respect to the management of used oils, batteries, tires, etc. relevant agreements with licensed management companies have been signed and depending on the constructional procedure and the payment of the temporary containers, they are delivered for further management. The dangerous waste are temporarily stored in special areas within the worksites, while in some cases the relevant conformance documents are requested by the suppliers and the separate subcontractors.</p> <p>In any case, domestic waste is transferred to the local authorities via bins located in the work areas upon the Authorities requests or via bin leasing by private owners or under the responsibility of the site manager.</p> <p>The maintenance and washing of vehicles and machines is realized either in licensed worksites with appropriate infrastructure (settling tanks, tank assembly, etc.) or in a licensed external garage or laundry area.</p>
C.5	Fire prevention	<p>An Environmental Monitoring &amp; Control Program in terms of the overall Plan for Environmental Management, which includes control procedures in compliance with the environmental terms, has been drawn up.</p> <p>In any case, after the commencement of the works, the fire protection measures will be inspected in the machinery and worksites, while all specifications and requirements of the Health &amp; Safety Plan of the Project should be observed. Special attention should be given to areas that are near forests and fields during the summer months.</p> <p>Detailed instructions and leaflets have been distributed on the sites in order for the workers to handle fire incidents.</p> <p>With respect to the worksite area of Agios Georgios, K.P .21+000 for which the relevant STIS (d2.1 term) has been submitted, the opinion of the relevant Archaeological Services was requested.</p>

**C. WORK-SITE MANAGEMENT ISSUES**

S/N	SUBJECT	PROGRESS - PROBLEMS
C.6	Safety / Pollution caused by accident	<p>The relevant signage will be installed at the worksites before the commencement of the works, as described in the H&amp;S Plan of the Project and the relevant worksite signage or traffic studies required. In the said period, the Design of Traffic Regulations for the construction of the UP44 underpass (CH. 23+331.35 – Right branch and CH. 23+348.51 – Left branch) has been submitted and approved by the Independent Engineer (Approval ICO195, 23.03.2010). Warning signs and light signals have been placed, where appropriate, during the night.</p> <p>An Intervention Plan, which is a part of the Policing and Fire Fighting Agreement between the Concessionaire and the Ministry of Internal Affairs, has been drawn up.</p> <p>The Intervention Plan for Emergency Situations specifies measures to timely collect and remove hazardous substances while preventing pollution of the water/soil resources, etc.</p> <p>This Intervention Plan includes all measures/required equipment etc. that will be needed in case of accident and leakage of non-biodegradable substances, including the necessity to construct Pollution Control Units or not. The Risk Assessment Study has been assigned in areas of sensitive ecological recipients (Evinos) and is nearing completion, in order for the need for the construction of retention and separation tanks to be estimated.</p> <p>The term regarding the rescue – exit of trapped people in emergency situations has been taken into account based on the risk analysis study submitted to the Independent Engineer with IC-C-CO-S1000-PRO 7293/MC/js dated 23/2/09 for Kalydona Tunnel, where two (2) transverse tunnels, connecting the two branches per around 410m, are foreseen. The tunnel is at the last phase of construction (water proofing etc).</p>
C.7	Public Utility Organizations – traffic settlement	<p>A contact with all involved Public Utility Organizations has been made (in accordance with par.7 of the Special Conditions of Contract) in order to identify the areas for networks relocation. The necessary actions will be carried out to rehabilitate the irrigation networks and passages from other irrigation channels to the area with respect to the positive opinion about the hydraulic design from the respective Service of Aetoloakarnania (Protocol No. 6206/30-10-2009 for the section from CH.25+640 –CH. 32+000 and 6207/30-10-2009 for the section CH. 32+000</p>

**C. WORK-SITE MANAGEMENT ISSUES**

S/N	SUBJECT	PROGRESS - PROBLEMS
		<p>– CH. 42+000). The final hydraulic design in the section from CH. 25+640 – CH. 32+000 has been approved by the IE (Protocol No. 27004_IC-C-IE-S1000_21-07-2010).</p> <p>For the remaining sections, particular document have been sent to:</p> <ul style="list-style-type: none"> <li>a) Greek Telecom for the relocation of Networks located within the range of occupation of Ionia Odos Motorway under construction from CH. 24+400 – CH. 42+972 (document with J/V Protocol No. 19527, 29.01.10).</li> <li>b) Greek Telecom for the relocation of Networks located within the range of occupation of Ionia Odos Motorway under construction from CH. 18+300 – CH. 19+600 (document with J/V Protocol No. 23590, 04.05.10).</li> <li>c) Electric Supply Company for the relocation of Networks located within the range of occupation of Ionia Odos Motorway under construction from CH. 19+600 – CH. 22+090 (document with J/V Protocol No. 23591, 04.05.10).</li> <li>d) Greek Telecom for the relocation of Networks located within the range of occupation of Ionia Odos Motorway under construction from CH. 24+400 – CH. 42+972 (document with J/V Protocol No. 24633, 26.05.10).</li> </ul> <p>Traffic management will be carried out based on the relevant traffic designs, through which adequate and safe communication will be ensured throughout the entire construction phase.</p> <p>The construction of the circumferential road in Klokova section has not started yet.</p> <p>The term referred to the construction of a tunnel near Makyneia is being implemented.</p> <p>Special care will be given according to the term of retention of access to the residential areas. This issue will be controlled through monitoring the Environmental Terms. During the preparation of this report, no need for structures that block access has arisen.</p>



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**AGRINIO BYPASS**

<b>A. PERMITS AND APPROVALS</b>		
<b>S/N</b>	<b>ACTIVITY</b>	<b>PROGRESS – PROBLEMS</b>



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<b>A. PERMITS AND APPROVALS</b>		
S/N	ACTIVITY	PROGRESS – PROBLEMS
<b>A.1</b>	Installation permits for any activity or installation necessary for the construction of works.	<p>The E.T. of the project have been modified based on file with EYPE JMD 144713/23.9.09 For the said section, new additional areas are not required.</p> <p>An Environmental Monitoring &amp; Control Program in terms of the overall Plan for Environmental Management, which includes control procedures for all works referred to in the environmental terms, has been drawn up.</p> <p>The project has been delivered to circulation, while some additional completion works are being realized. The disposals that took place during the construction were temporary and within the occupation zone. With respect to the disposal of inappropriate excavation products the disposal pit E1 has been approved for this section (document with Protocol No. 101105/07.02.08 EYPE).</p> <p>The old project of the Southern section of Agrinio Bypass and the worksite of Agios Georgios constitutes a worksite area of this section. This site has been defined by the relevant studies of the said project. The disposal of excavation products in streams or river beds is avoided.</p> <p>The responsible Forest Service was not updated during this particular period because the works were performed outside forest areas. For any work or installation, an intervention permit, which is granted by the Forest Service responsible, is needed.</p> <p>With respect to the revocation of re-forestation, in accordance with Law 3555/2007 (ratification of the Concession Agreement)/ Article 4/ par. 4a and Law 2445/1996/ Article 2/ par.1c, <i>'The occupancy, reclamation or coverage of forests or forest areas that are included in the boundaries specified in the designs of Annex 7 and in accordance with the terms and conditions of the agreement are permitted.' This law approves the change of use, revokes the re-forestation and grants intervention permits and permits for felling works to the above sites</i>".</p>



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<b>A. PERMITS AND APPROVALS</b>		
<b>S/N</b>	<b>ACTIVITY</b>	<b>PROGRESS – PROBLEMS</b>
<b>A.2</b>	Archaeological Services	Due to the nature of the works completed (completion of the road) the Archaeological Service was not updated during the report period. For any additional completion or installation work, a permit and approval is needed and granted by the responsible Forest Service.
<b>A.3</b>	Borrow pits – Quarries	Referred above in section A1.

<b>B. CONSTRUCTION ISSUES</b>		
<b>S/N</b>	<b>SUBJECT</b>	<b>PROGRESS – PROBLEMS</b>
<b>B.1</b>	Buildings - toll stations - Motorists Service Stations - O&M Control Centres	A File for the construction and operation of the foreseen toll stations in the above section of the motorway has been drawn up, submitted and approved according to article 13 of JMD 11017/703/Φ104/14.03.2003 (EYPE Protocol No. 144265/22/09/2009). With respect to this section, the above mentioned environmental license concerns the lateral toll stations: Aggelokastro, Chalikio, A. Ilias, Kouvaras and Rigani. The E.T. of the project were amended based on the file with JMD 144713/23.9.09 of EYPE.



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<b>B. CONSTRUCTION ISSUES</b>		
<b>S/N</b>	<b>SUBJECT</b>	<b>PROGRESS – PROBLEMS</b>
		With respect to the environmental license of EMC and MSS, the relevant licensing procedures will follow.
B.2	Excavations / Explosives / Disposal	<p>All products deriving from the foreseen and approved excavation designs were used to manufacture embankments or any other road works, only after they were proved to be appropriate for this purpose (after several laboratory tests).</p> <p>Disposal was temporary and within the occupancy zone. Furthermore, for the disposal of non-appropriate excavation materials, E1 disposal site has been approved for this part of the project (Protocol No. 101105/07.02.08/EYPE).</p> <p>All terms have been taken into account in the road works design IC-C-EN-S113N-IJ-0200-000-ALI-000-FL.002.01.01.01-C submitted and approved (Approval Certificate: IC0003/10-07-2008, Code: IC.U.IE.S113N.MO.0200.000.A) for Aggelokastro I/C. In the present alignment in the area of Aggelokastro I/C, the cuts are less than 30m and may be 15m in height max. Therefore, there is in no need for small relocations of the axis or for the construction of a cut &amp; cover. The proposed formation of the embankments arises from the geotechnical study so that safety and stability conditions are ensured.</p> <p>With respect to the large cut at CH. 13+400, during the excavation phase of the previous subcontractor, landslide failures and creeping movements presented. The construction was paused and the excavations were re-embanked to restore the failures and movements. At this phase in order to construct the road, the slopes declination was re-defined so as to discharge the problematic area (by removing materials) and to significantly reduce the creeping movement of the land.</p> <p>The solution of mild slopes offers greater safety in the event of earthquake in the area, where the cuts will be moved causing minor compression failures to the pavement, which can be easily repaired.</p> <p>Any other solution to this problem (e.g. Cut &amp; Cover) would be established at a problematic area of possible failure and the compression movements in the event of earthquake would cause irreversible damage.</p>



<b>B. CONSTRUCTION ISSUES</b>		
<b>S/N</b>	<b>SUBJECT</b>	<b>PROGRESS – PROBLEMS</b>
		<p>Following the above, it is clear that the large cut has arisen as a need to manage landslides. Its layout planning in scales with mild declination in combination with the appropriate landscaping measures will lead to its smooth integration into the surrounding area.</p>
<b>B.3</b>	Rehabilitation/ Worksites	<p>The permits granted to worksites by preparing and approving STIS by EYPE/YPEXODE ensures the implementation of the E.T., i.e. the exclusion of the spatial planning of the worksites in river beds.</p> <p>The landscaping recovery design has been approved by The I.E. with IC.C.IE.S113N.CE.DAC005924, dated 15.12.09 for the section of the bypass from ch. 0+620 to ch. 13+541. Suggestions for the protection of slope embankments and excavations, which include, among others, anti-corrosion measures (hydroseeding), have been formulated in the geotechnical designs and have been adopted by the landscaping design too.</p>
B.4	Various construction terms	<p>The term for the box culvert construction regarding the requirement for ensuring uninterrupted moving of fauna has already been met by the constructed technical structures of the existing work in Agrinio bypass, which has been built under the State's responsibility.</p> <p>A File for the construction and operation of the foreseen toll stations of this section of the road has been drawn up, submitted and approved according to article 13 of JMD 11017/703/Φ104/14.03.2003 (EYPE Protocol No. 144265/22/09/2009). For this specific section the above environmental license concerns the lateral toll stations: Aggelokastro, Chalikio, Ag. Ilias, Kouvaras and Rigani. The E.T. of the project were amended according to the file with JMD 144713/23.9.09. of EYPE.</p>
B.5	Superficial runoffs	<p>The hydraulic works are already built at the largest part of this section. Where hydraulic designs (non-completed parts) are required, these are being prepared and will be submitted to the Independent Engineer.</p>

<b>B. CONSTRUCTION ISSUES</b>		
<b>S/N</b>	<b>SUBJECT</b>	<b>PROGRESS – PROBLEMS</b>
		<p>More specifically, with respect to Aggelokastro I/C, the hydraulic design IC-C-EN-S113N-IJ-0200-203-HYD-FL.00000.00.01-B has already been submitted and approved (Approval Certificate: IC0003/10-07-2008, Code: IC.U.IE.S113N.MO.0200.000.A). The approved design ensures the implementation of the E.T. Moreover, the largest part of the alignment in the area has been conducted over a cut and therefore, there will be no need for flood prevention at the adjacent agricultural areas.</p> <p>Other drainage designs approved for the said section are the following:</p> <ul style="list-style-type: none"> <li>• The “rainwater drainage design CH. 1+276 – CH. 2+975 with IC-C-EN-S113N-IJ-0200-203-HYD-FL.00000.00.01-B code number approved with certificate of approval: IC0051/15-05-2009, Code number wbs IC.U.IE.S113N.ALI.PAV.HYD.051. (it refers to the design only of the median).</li> <li>• “The final design of drainage dewatering of lateral Toll Stations (Haliki I/C, Agios Ilias, Aggelokastro, Rigani, Kouvaras) with code numbers:</li> </ul> <p>IC.C.EN.S113N.IJ.0200.000.HYD.FOL.FL.003.02.01.01-A            IC.C.EN.S113N.IJ.0200.000.HYD.FOL.FL.004.02.01.01-A            IC.C.EN.S113N.IJ.0200.000.HYD.FOL.FL.005.02.01.01-A            IC.C.EN.S114N.IJ.0200.000.HYD.FOL.FL.001.02.01.01-A            IC.C.EN.S114N.IJ.0200.000.HYD.FOL.FL.002.02.01.01-A</p> <p>Approved with certificate of approval: IC0266/21-5-10 and code number wbs IC.U.IE.S0000.MLD.266</p>



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<b>B. CONSTRUCTION ISSUES</b>		
<b>S/N</b>	<b>SUBJECT</b>	<b>PROGRESS – PROBLEMS</b>
		No irrigation networks in the area that could be affected by the works performed.

<b>C. WORK-SITE MANAGEMENT ISSUES</b>		
<b>S/N</b>	<b>SUBJECT</b>	<b>PROGRESS – PROBLEMS</b>
<b>C.1</b>	Water protection - Liquid waste	<p>Liquid waste is being managed based on the relevant terms. An Environmental Monitoring &amp; Control Program in terms of the overall Plan for Environmental Management, which includes control procedures for all works referred to in the environmental terms, has been drawn up.</p> <p>In the area of this project there are no worksite installations and the service is conducted by the licensed worksites of the old contract in the Southern section of Agrinio Bypass and Evinos.</p> <p>Urban wastes that may arise are channeled in the urban local authorities network.</p> <p>With respect to the management of used oils, batteries, tires, etc. relevant agreements with licensed management companies have been signed and depending on the constructional procedure and the payment of the temporary containers, they are delivered for further management. The dangerous waste are temporarily stored in special areas within the worksites, while in some cases the relevant conformance documents are requested by the suppliers and the separate subcontractors.</p>



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C. WORK-SITE MANAGEMENT ISSUES		
S/N	SUBJECT	PROGRESS – PROBLEMS
C.2	Air and noise protection	<p>An Environmental Monitoring &amp; Control Program in terms of the overall Plan for Environmental Management, which includes protection measures for all works referred to in the environmental terms, has been drawn up.</p> <p>In particular with respect to dust, based on the works foreseen, the following are implemented:</p> <ul style="list-style-type: none"><li>• Worksite roads are sprang with water on a regular basis.</li><li>• The trucks that transfer materials are not overloaded and all trucks transferring loose materials will be covered.</li><li>• The trucks drive on the existing asphalt-layered road before they exit the worksite. Despite this, the existing worksite network is being cleaned to remove any residuals (dirt, stones, etc.).</li></ul>



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<b>C. WORK-SITE MANAGEMENT ISSUES</b>		
S/N	SUBJECT	PROGRESS – PROBLEMS
C.3	Noise - Movable noise barriers - Vibrations	<p>With respect to the noise during the construction of the project, an Environmental Monitoring &amp; Control Program in terms of the overall Plan for Environmental Management, which includes control procedures to resolve noise problems in accordance with the environmental terms, has been drawn up. The Program will be presented to the joint venture's supervising engineers, as well as to any subcontractors that will provide the joint venture with their services.</p> <p>Furthermore, noise measurements are conducted in specific control points using the appropriate equipment in order to monitor the respect of the worksite noise levels more frequently.</p> <p>For the majority of the machines, there are certificates of EC type. For the old machines, which do not have this certificate, emitted noise measurements are being conducted according to JMD 56206/1613/86 and records of the above measurements and machine certificates of EOK type are kept. Also, all the machines of the project are equipped with the foreseen fire-fighting measures. Also, at Evinos site (offices, workshop, laboratory, concrete laboratory) there are fire-extinguish means, like fire-extinguishers, sand, water.</p> <p>The measurements will be repeated in all the successive phases during which this section undertakes a different traffic role in connection with the realization of the remaining sections of "Agrinio Wide Bypass".</p>



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<b>C. WORK-SITE MANAGEMENT ISSUES</b>		
<b>S/N</b>	<b>SUBJECT</b>	<b>PROGRESS – PROBLEMS</b>
		<p>When sound measurements result in a noise level higher than the permitted limits, measures will be taken, among which is the placement of temporary noise barriers.</p> <p>The measurements will be repeated in all the successive phases during which this section undertakes a different traffic role in connection with the realization of the remaining sections of "Agrinio Wide Bypass".</p>
<b>C.4</b>	Solid and hazardous waste	<p>In the area of this project there are no worksite installations and the service is conducted by the licensed worksites of the old contract in the Southern section of Agrinio Bypass and Evinos.</p> <p>Any waste from the regular cleaning of the road are collected and transported in bins of the Municipality of Agrinio.</p> <p>There is an agreement for the disposal of mineral oils with Licensed Management Company (relevant agreement).</p> <p>Furthermore, an Environmental Monitoring &amp; Control Program in terms of the overall Plan for Environmental Management, which includes control procedures in compliance with the environmental terms, has been drawn up. The Program has been presented to the joint venture's supervising engineers, as well as to any subcontractors that will provide the joint venture with their services.</p>
<b>C.5</b>	Fire prevention	<p>An Environmental Monitoring &amp; Control Program in terms of the overall Plan for Environmental Management, which includes control procedures in compliance with the environmental terms, has been drawn up.</p> <p>In any case, all the content of the H&amp;S Plan should be applied. All the machines of the project are equipped with the foreseen fire-fighting measures. Also, at Evinos site (offices, workshop, laboratory, concrete laboratory) there are fire-extinguish means, like fire-extinguishers, sand, water. Detailed instructions and leaflets have been distributed to the sites in</p>



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<b>C. WORK-SITE MANAGEMENT ISSUES</b>		
<b>S/N</b>	<b>SUBJECT</b>	<b>PROGRESS – PROBLEMS</b>
		order for the employers to front the fire incidents.
<b>C.6</b>	Safety / pollution caused by accident <sup>1</sup>	<p>An Intervention Plan, which is part of the Policing and Fire Fighting Agreement between the Concessionaire and the Ministry of Internal Affairs, has been drawn up.</p> <p>The Intervention Plan for Emergency Situations specifies measures to timely collect and remove hazardous substances while preventing pollution of the water/soil resources, etc.</p> <p>This Intervention Plan includes all measures/required equipment etc. that will be needed in case of accident and leakage of non-biodegradable substances, including the necessity to construct Pollution Control Units.</p> <p>In the case of accidents, adsorption materials such as sand, chippings or a special geotextile will be used immediately after run out. Such materials will exist in the central worksite for immediate use. Their after-use-disposal will be carried out in accordance with the instructions for disposing toxic waste.</p>



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C. WORK-SITE MANAGEMENT ISSUES		
S/N	SUBJECT	PROGRESS – PROBLEMS
C.7	Public Utility Organizations – traffic settlement	<p>The vertical roads, the infrastructure works, the structures of the slab-paved culverts and the majority of the side roads have been constructed during a previous contract work and have been foreseen in the relevant design. The design of the remaining side roads is under development and will be submitted to the Independent Engineer.</p> <p>During the construction phase, the existing mass transport infrastructures are not blocked between the residential districts.</p> <p>This issue is inspected in order to ensure that it complies with the environmental term.</p>



**NORTHERN END OF AGRINIO BYPASS (KOUVARAS) – SOUTHERN END OF ARTA  
BYPASS (KOMBOTI) AND NORTHERN END OF ARTA BYPASS (FILLIPIADA) –  
IOANNINA (ELEOUSA)**

<b>A. PERMITS AND APPROVALS</b>		
<b>S/N</b>	<b>SUBJECT</b>	<b>PROGRESS – PROBLEMS</b>
<b>A.1</b>	Installation permits for any activity or installation necessary for the construction	All foreseen by the legislation permits and approvals, including the environmental licensing possibly required, will be obtained, when needed.

<b>A. PERMITS AND APPROVALS</b>		
<b>S/N</b>	<b>SUBJECT</b>	<b>PROGRESS – PROBLEMS</b>
	of the works.	<p>The relevant STIS for all required sites (quarries, borrow pits, disposal sites and worksites) have been submitted to EYPE and their approval is expected. The submissions of the studies as well as the progress of the approval procedure are as follows:</p> <p><u>Borrow pits</u></p> <p>Pinakoulia location (BP10): Submission to EYPE with Protocol No. 102908/02.04.08 and J/V Protocol No. 2853/IM/ες/01.04.08. Approved with EYPE Protocol No. 138434/03-07-2009</p> <p>Paliokoulia location: Submission to EYPE with EYPE Protocol No. 143393, 10/08/09 and J/V Protocol No. 13478/06.08.09. Approved with EYPE Protocol No. 122353/22.02.2010.</p> <p>Makryvouni location (BP14): Submission to EYPE with Protocol No. 23094, 23/04/10. Approval is expected.</p> <p><u>Quarries</u></p> <p>Toubanos location (QN 08): Submission to EYPE with Protocol No. 12215/6.7.09 of the J/V and approval of STIS by EYPE with Protocol No. 141902/3.9.09.</p> <p>Ag.Georgios Glukorizo location: Submission to EYPE with EYPE Protocol No. 101995, 06/03/08 and J/V Protocol No. 2525/IK/ΕΣ/05.03.08. Approval is expected.</p> <p>Selitoura location (QN 13): (EYPE Protocol No. 2196, 03/02/09 and J/V Protocol No. 6871/IM/kla/30.01.09). Approved with EYPE Protocol No. 135889/21.7.09.</p>



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<b>A. PERMITS AND APPROVALS</b>		
S/N	SUBJECT	PROGRESS – PROBLEMS
		<p><u>Disposal pits</u></p> <p>Pouliana location: (EYPE Protocol No. 143101/04.08.09 and J/V Protocol No. 13265/03.08.09). The approval is pending.</p> <p><u>Restoration of old quarries</u> A technical restoration design of the old quarries E36, E37, E38 and E39 with J/V protocol no.16496/5-11-09 and for E50 Pedini old quarry with J/V protocol no. 22582/12-04-10 was submitted.</p> <p><u>Worksites</u></p> <ul style="list-style-type: none"> <li>• Sikoula location: STIS is drawn up and will be submitted for approval to EYPE with EYPE protocol no. 12763/20-1-10 and J/V protocol no. 19059/18.01.10.</li> <li>• “Agia Triada” location: CH. 176+000 with EYPE approval with protocol no. 136713/23.02.09</li> <li>• Ampelia tunnel exit – CH. 193+000 with EYPE protocol no. 136713/23-02-09</li> <li>• Kampi and Gorgomilos site: STIS has been submitted: protocol no. EYPE:107730/05.09.08 and J/V protocol no. 4759/05.09.08. The STIS have been approved with EYPE protocol no. oik136719.</li> <li>• In “Knauf factory” location, offices have been installed in leased area.</li> </ul> <p>The permit from the relevant Forest Service was required for all works performed during this particular period. More specifically:</p> <p>a) Interventions within the gauge of Ionia Odos from CH. 170+000 to CH. 196+000 to the Directory of Forests of Preveza and Arta (J/V Protocol No. 19058,18.01.10).</p> <p>b) Application for opinion on the Environmental License of the proposed worksite area in Sikoula location of the Municipality</p>



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<b>A. PERMITS AND APPROVALS</b>		
<b>S/N</b>	<b>SUBJECT</b>	<b>PROGRESS – PROBLEMS</b>
		<p>of Menidi to Amfilochia Forest Department (J/V Protocol No. 19905, 08.02.10).</p> <p>c) Application of characterization for the site of E1 disposal pit in Pouliana location in Municipality of Anogia (letter with J/V protocol no. 21377/12.03.10)</p> <p>d) Application for approval authorization response for borrow pit BP11, in Paliokoulia location (J/V Protocol No. 21608, 17.03.10).</p> <p>e) Interventions within the gauge of Ionia Odos from CH. 155+494 to CH. 170+052 (J/V Protocol No. 23227, 26.04.10).</p> <p>f) Submission of surveys for the issuance of Characterization of E1 disposal pit in Pouliana location in Municipality of Anogia (letter with J/V protocol no. 23887/11.05.10)</p> <p>g) Application of characterization for the space site in Sakoula position in Municipality of Menidi (letter with J/V protocol no. 25796/21.06.10)</p> <p>h) Regarding the proposed locations of disposal pits (rehabilitation of old quarries E36, E37, E38, E39, E42 and E50) and the BP14 borrow pit, a letter to the Forest Service for advice was drawn up (J/V protocol no. 13552/31-07-2009) and then an application and graphic diagrams for the issuance of a characterization were submitted (J/V protocol no. 17795/07-12-09, 7431/30-11-09 FA).</p> <p>i) Applications for the issuance of a characterization have been sent for the sites of Agia Triada S3.4 and Ampelias tunnel exit S3.6 (J/V protocol no. 26604/13-07-10).</p> <p>j) Interventions within the gauge of Ionia Odos from CH. 170+000 to CH. 196+000 to the Directory of Forests of Ioannina (J/V Protocol No. 23290, 27.04.10).</p>

<b>A. PERMITS AND APPROVALS</b>		
<b>S/N</b>	<b>SUBJECT</b>	<b>PROGRESS – PROBLEMS</b>
		<p>With respect to the abrogation of re-forestation, in accordance with Law 3555/2007 (ratification of the Concession Agreement)/ Article 4/ par. 4a and Law 2445/1996/ Article 2/ par.1c, <i>'The occupancy, reclamation or coverage of forests or forest areas that are included in the boundaries specified in the designs of Annex 7 and in accordance with the terms and conditions of the agreement are permitted. This law approves the change of use, revokes the re-forestation and grants intervention permits and permits for felling works to the above sites'</i>.</p>
A.2	Archaeological Services	<p>Before layout planning and installation of the worksites, the opinions of the above will be taken into account.</p> <p>The section from Amfilohia I/C to Komboti I/C and the location "Paliokoulia" have been taken into account as to their archaeological significance during the phase of the design; the remaining areas will be taken into account during the phase of future elaboration of designs.</p> <p>Before the commencement of works that were executed during this specific period of time, the competent Archaeology Department was notified in all cases. More specifically:</p> <p>a) Application for the opinion on Environmental License of the proposed worksite area in Sikoula location of the Municipality of Menidi to ΛΣΤ' Inspectorate of Antiquities (EA) (letter with Protocol No. 19907/08.02.10).</p> <p>b) Application for the opinion on Environmental License of the proposed worksite areas in Sikoula location of Municipality of Menidi to Department of Contemporary Monuments and Technical Structures of Epirus and to 22<sup>nd</sup> EBA (J/V protocol no. 19058, 18.01.2010)</p> <p>c) Interventions within the gauge of Ionia Odos from ch. 145+706 to ch. 168+770 to ΑΓ' EPKA, 18th EBA of Arta-Preveza, Department of Contemporary Monuments and Technical Structures of Epirus, IB' EA and 8th EBA (J/V Protocol No.</p>



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<b>A. PERMITS AND APPROVALS</b>		
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		<p>12736/20.07.09).</p> <p>d) Submission of table with the heretofore realized Archeological Shifts (J/V letter with protocol no. 20507, 23.02.10)</p> <p>e) Interventions within the gauge of Ionia Odos from ch. 145+706 to ch. 168+770 to ΑΓ' EPKA, 18th EBA of Arta-Preveza, Department of Contemporary Monuments and Technical Structures of Epirus, IB' EA and 8th EBA (J/V Protocol No. 20635/25.02.10).</p> <p>f) The competent Inspectorate of Antiquities IB' EPKA has been informed about the commencement of the construction, and the works are being controlled with an archeologist's suggestions for the monitoring of excavation works form CH. 170+000 – Ch. 196+000 with J/V protocol no. 8467/07-04-2009. The alignment of the project in the area of "pente pigadia" follows the approved change without any minor relocation or other change. Consequently and based on the findings of the DEC, the proximity of Frourio and the environment are not affected by the area.</p>
A.3	Borrow pits – Quarries	The need for delivery is mainly covered by the excavation products and any further estimated needs will be ensured by the sites referred to in paragraph A1. It is ensured that small amounts of crushed material, which may be required for the seating of culverts and other small technical structures, are supplied by legally operating mines in the area.

<b>B. CONSTRUCTION ISSUES</b>		
<b>S/N</b>	<b>SUBJECT</b>	<b>PROGRESS – PROBLEMS</b>



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<b>B. CONSTRUCTION ISSUES</b>		
<b>S/N</b>	<b>SUBJECT</b>	<b>PROGRESS – PROBLEMS</b>
<b>B.1</b>	Buildings - Toll Stations – MSS - EMC	With respect to the environmental permit of the new toll stations for Motorists Service Stations/E&M Centres, the relevant permit procedures shall be followed.
<b>B.2</b>	Disposal / Excavations / Explosives	<p>The E.T. that concerns the disposal of inappropriate materials has been taken into account in order to find possible sites to dispose materials and has also been taken into account for the preparation of the respective STISs that were submitted to EYPE. The implementation of the E.T. with respect to the protection of water recipients from the disposed soil material is controlled via the Environmental Monitoring &amp; Control Program.</p> <p>All redundant excavation materials (after separation) will be transferred to the approved disposal sites.</p> <p>The excavated materials do not usually contain scraps or toxic waste. Once identified, the necessary separation will be realized. The topsoil is retained for use in the Motorway embankments. The excavated material (after the necessary separation) will be transported in approved disposal pits as provided by the relevant ETME. The licensing of disposal pits has already been started at various locations along the axis.</p> <p>According to the layout planning design of Ambela tunnel exit (IC-C-CO-S323N-MO-0200-000-TUN-PRX-FL.093.IS.01.01-0 and IC-C-CO-S323N-MO-0200-000-TUN-GTD-FL.193.IS.01.01-0) no surface excavations arise at the front &gt;5m, except for the temporary ones. The layout planning of the front will be carried out via excavation and re-filling. A report of environmental assessment has been submitted to the Independent Engineer for the Design of layout planning of entrance where cover structures and front support with metal casings are foreseen (IC-C-CO-S323N-CW-0200-000-ENV-EPR-RP.000.01.01-0/25-11-2009). The filling material will be rock, resulting from the excavation of the front. The relevant design has been approved.</p>
<b>B.3</b>	Rehabilitation/ Worksites	<p>It has been ensured that the layout planning of concrete and asphalt mix production plants abide by the afore-mentioned restrictions, as specified in the submitted STISs.</p> <p>An Environmental Monitoring &amp; Control Program in terms of the overall Plan for Environmental Management which will include control procedures for all works referred to in the environmental terms, has been drawn up. The Program has been presented</p>



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		<p>to the joint venture’s supervising engineers, as well as to any subcontractors that will provide the joint venture with THEIR services.</p> <p>The content of terms d13 and d14 will be examined when there is a need for such installations.</p> <p>There are no facilities of concrete production plant and concrete production in the said section. The supply, when required, is being realized by external, environmentally licensed, partners.</p> <p>Site clearance has been carried out within the occupancy zone of the project. In cases of new works the implementation of term d7 will be checked.</p> <p>No need for reconstruction of any site during the report time period has arisen, but in any case, the term will be observed. The observance of the term concerning the planting of all the surfaces that can be planted will be controlled by the Environmental Monitoring &amp; Control Program. Regarding the relevant designs:</p> <ul style="list-style-type: none"> <li>• The landscaping design for the section from CH. 108+700 - Ch. 116+200 has been submitted to the Independent Engineer for approval with J/V protocol no. 25218/8.6.2010.</li> <li>• The landscaping design for the section from CH. 96+400 - Ch. 105+500 has been submitted to the Independent Engineer for approval and has been approved by the Independent Engineer with IC0256/17-05-2010.</li> <li>• The landscaping design for the section from CH. 76+618 - Ch. 93+000 has been submitted to the Independent Engineer for approval with J/V protocol no. 25217/8.6.2010.</li> <li>• The landscaping design for the section from CH. 168 + 800 to CH. 178+500 has been confined and is being prepared.</li> </ul> <p>The design of restoration works and their budget constitute an integral part of every ETME design (disposal pits, borrow pits,</p>





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<b>B. CONSTRUCTION ISSUES</b>		
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		<p>worksites, etc.)</p> <p>It has been ensured that the relevant landscaping plans are assigned and drawn up in order to be submitted to the Independent Engineer for approval.</p>
<b>B.4</b>	Various construction terms	<p>i) The Terovo I/C in CH. 175+708 has been included in the Finalized Design of the subsection (Ref. No. IC-C-CO-S322N-PRO11353/10-06-2009).</p> <p>ii) A tunnel with an approximate length of 870 - 900m has been included in the Finalized Design, a layout planning design of the tunnel is currently under preparation and the exit layout planning design has been submitted, IC-C-CO-S323N-MO-0200-000-TUN-PRX-FL.093.IS.01.01-0 &amp; IC-C-CO-S323N-MO-0200-000-TUN-GTD-FL.193.IS.01.01-0.</p> <p>iii) The Finalized Design includes a hypsometrical lowering. In the area of the overpass at Episkopiko, the embankments have a height of 3m Motorists Service Station - Episkopiko - height of 4m) – (Prot. No. IC-C-CO-S323N-PRO6595/MC/js/2009).</p> <p>The term to avoid access to nestling amphibians will be taken into account during the construction phase if there are parts of the project in a distance less than 300m from the Lake Amvrakia.</p> <p>The compliance with the term that ensures access to wild fauna is being reviewed in terms of Environmental Impact Assessments of the final designs so that there is compatibility of the design phase with the requirements of this term. It has been included in the designs under preparation and also during the construction phase.</p> <p>Various proposals to be reviewed have been submitted to the Service (EYDE/EPA &amp; IO) that concern optimizations of the alignment. The Service's opinion is expected in order to further proceed to the obtainment of the environmental permit as provided by article 13 of the JMD 11014/703/Φ104/14.3.2003, (OGG 332B).</p>



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<b>B. CONSTRUCTION ISSUES</b>		
<b>S/N</b>	<b>SUBJECT</b>	<b>PROGRESS – PROBLEMS</b>
<b>B.5</b>	Superficial runoffs	<p>The relevant hydraulic designs, in which the necessary terms are taken into account, have been assigned, prepared and submitted to the Independent Engineer.</p> <p>The term for the creation of large embankments has been taken into account in the studies and is being documented in the relevant Environmental Protection Report which accompanies the current road design when submitted for approval to the Independent Engineer. That is, the implementation of the guaranteed term, through the designs approval process by the Independent Engineer.</p> <p>The term for the protection from corrosion of natural slopes is taken into account during the elaboration of hydraulic designs.</p> <p>The application of the term is being ensured through the designs approval process by the Independent Engineer.</p>

<b>C. WORK-SITE MANAGEMENT ISSUES</b>		
<b>S/N</b>	<b>ACTIVITY</b>	<b>PROGRESS - PROBLEMS</b>
<b>C.1</b>	Water protection - Liquid waste	<p>An Environmental Monitoring &amp; Control Program in terms of the overall Plan for Environmental Management, which includes protection measures for all works referred to in the environmental terms, has been drawn up. The Program has been presented</p>



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C. WORK-SITE MANAGEMENT ISSUES		
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		<p>to the joint venture's supervising engineers, as well as to any subcontractors that will provide the joint venture with their services.</p> <p>Urban wastes that may arise are channeled to the urban waste collection network of the local authorities.</p> <p>With respect to the management of used oils, batteries, tires, etc. relevant agreements with licensed management companies have been signed and depending on the constructional procedure and the payment of the temporary containers, they are delivered for further management. The dangerous waste are temporarily stored in special areas within the worksites, while in some cases the relevant conformance documents are requested by the suppliers and the separate subcontractors.</p>
C.2	Air and noise protection	<p>An Environmental Monitoring &amp; Control Program in terms of the overall Plan for Environmental Management, which includes protection measures for all works referred to in the environmental terms, has been drawn up.</p> <p>The Program has been presented to the supervising engineers of the J/V and the subcontractors that will offer their services to the J/V. In addition, noise measurements are conducted in specific points using the appropriate equipment, in order to monitor the noise level at the worksites more frequently.</p> <p>In particular with respect to dust, based on the works foreseen, the following are implemented:</p> <ul style="list-style-type: none"> <li>• Worksite roads and piles of materials are regularly sprayed.</li> <li>• The trucks that transfer materials are not overloaded and all trucks transferring loose materials are covered.</li> <li>• During the drilling works, a mechanical equipment will be used that will hold dust.</li> <li>• The trucks will be cleaned before they exit the worksite and the existing road network that will be used to reach the worksites will be regularly cleaned from residuals.</li> </ul>



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<b>C. WORK-SITE MANAGEMENT ISSUES</b>		
<b>S/N</b>	<b>ACTIVITY</b>	<b>PROGRESS - PROBLEMS</b>
		The stations specifications and installation study is being under development and will be submitted to EYPE/YPEXODE for approval. The operation of the station is related to the operation phase of the project.
<b>C.3</b>	Noise - Movable noise barriers - Vibrations	<p>With respect to the noise during the construction of the project, an Environmental Monitoring &amp; Control Program in terms of the overall Plan for Environmental Management, which includes control procedures to resolve noise problems in accordance with the environmental terms, has been drawn up. In addition, noise measurements are conducted in specific points using the appropriate equipment, in order to monitor the noise level at the worksites more frequently. The measurements are presented in measuring tables with measurement points' graphics. From previous measurements, no noise levels' excess, set by the Legislation and the Environmental Terms, has been observed.</p> <p>Regarding the provision for implementation of noise barriers, concerning the operation phase of the project, with the finalization of road designs, a Special Acoustic Design for Noise Protection (ETME), submitted for approval to EYPE/YPEHODE, will be assigned and produced. The Acoustics Study for Noise Protection examines the areas with a distance less than 200m from the town limits as well as any existing sensitive uses in areas outside the town limits.</p> <p>During the reporting period, the works are carried out on a sufficient long distance from settlements. Following the sound measuring process, in the closest settlements, no excess of the permitted levels has been recorded. If the produced worksite noise exceeds the applicable sound limits, then the issue should be addressed using the Environmental Management Plan and taking the appropriate corrective measures, among which is the installation of temporary noise barriers. In any case, no sonorous works will be performed when worksites are adjacent to residential areas in order to avoid breaching of the peace.</p> <p>The Environmental Management Plan and the Environmental Monitoring &amp; Control Program control the compliance with the applicable legislation for noise. In any case, the legislation applicable on noise is referred to in term c.</p> <p>The monitoring of the parameters, mentioned in the E.T. through vibration monitoring program, in the areas of entry-exit tunnel of Ampelia and in the construction of trenches, is conducted and the results were within limits. When construction works with vibrations are conducted, with possible cause of vibrations, the parameters referred to in the E.T. will be monitored via vibration</p>



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<b>C. WORK-SITE MANAGEMENT ISSUES</b>		
<b>S/N</b>	<b>ACTIVITY</b>	<b>PROGRESS - PROBLEMS</b>
		monitoring programs and if they exceed the limits, the appropriate measures will be taken.
<b>C.4</b>	Solid and hazardous waste	<p>With respect to waste management during the construction of the project, an Environmental Monitoring &amp; Control Program in terms of the overall Plan for Environmental Management, which includes control procedures in compliance with the environmental terms, has been drawn up. The Program has been presented to the joint venture's supervising engineers, as well as to any subcontractors that will provide the joint venture with their services.</p> <p>With respect to worksites of the project in CH. 118+350 – CH. 129+629 and from CH. 145+706 – CH. 170+000, an agreement with the Municipality of Xerovounio and Filippiada has been made on the disposal of urban waste, which is collected in special bins of the Municipalities using garbage trucks. There is an agreement for the disposal of mineral oils with ELTEPE S.A. (relevant agreement).</p> <p>With respect to worksites of the project at CH. 170+000 – CH.196+000, the approved subcontractor's manufacturing area is currently being used, where the term constitutes an E.T. of the installation. An inspection was carried out as described in the Environmental Monitoring &amp; Control Program and the results showed full compliance with the term (inspection checklist 07/09). Full compliance has also been ensured in the construction sites (box culverts) at the same section. As far as the separate subcontractors the production of the relevant contracts and certificates of delivery of such waste is required.</p>
<b>C.5</b>	Fire prevention	<p>An Environmental Monitoring &amp; Control Program in terms of the overall Plan for Environmental Management, which includes control procedures in compliance with the environmental terms, has been drawn up.</p> <p>In any event, after the commencement of works, the fire measures in the project's machines and the scope of works are controlled and the provided H&amp;S Plan should be respected. Particular attention is given to areas adjacent to forest or grassland</p>

<b>C. WORK-SITE MANAGEMENT ISSUES</b>		
<b>S/N</b>	<b>ACTIVITY</b>	<b>PROGRESS - PROBLEMS</b>
		during the summer. Detailed instructions and leaflets have been distributed on the sites to deal with incidents of fire from the workers.
<b>C.6</b>	Safety / pollution caused by accident	<p>The relevant worksite signage will be installed at the worksites before the commencement of the works, as described in the H&amp;S Plan and the relevant worksite signage or traffic studies required. Especially, for the said period, the Design for temporary traffic arrangements for the construction of TR08 underpass, CH. 148+213.46 (Approval ICo0255, 17.05.10) has been submitted and approved by the Independent Engineer and the appropriate signs have been placed where appropriate.</p> <p>The Intervention Plan, which is a part of the Policing and Fire Fighting Agreement between the Concessionaire and the Ministry of Internal Affairs, has been drawn up.</p> <p>The Intervention Plan for Emergency Situations specifies measures to timely collect and remove hazardous substances while preventing pollution of the water/soil resources, etc.</p> <p>This Intervention Plan includes all measures/required equipment etc. that will be needed in case of accident and leakage of non-biodegradable substances, including the necessity to construct Pollution Control Units or not.</p> <p>A risk analysis study from accidental pollution has been submitted with ref. no. IC-L-CO-S215N-PRO5876/EM/em on 17/11/2008 for the section in Amvrakia.</p> <p>A risk analysis study is currently under development for Ambelia tunnel (protocol no. 12796/21-07-2009), in which the opening of two escape cross passages is foreseen.</p>
<b>C.7</b>	Public Utility Organizations – traffic settlement	The networks have been designed and the relevant documents with all involved Public Utility Organizations have been submitted (in accordance with par7 of the Special Conditions of Contract) in order to proceed to the necessary actions. The data have been given to the Designers/Consultants in order to be taken into account when drawing up their designs.



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C. WORK-SITE MANAGEMENT ISSUES		
S/N	ACTIVITY	PROGRESS - PROBLEMS
		<p>In particular the following have been sent to:</p> <p>a) Electricity Supply Company for the Passing of High Voltage Network under Ionia Odos motorway construction (J/V Protocol No.: 21052, 05.03.10).</p> <p>b) Electricity Supply Company for the relocation of network within the range of occupation of Ionia Odos from CH. 152+500 to CH. 170+000 (J/V Protocol No.: 20941, 03.03.10).</p> <p>c) Electricity Supply Company for the Passing of High Voltage Network under Ionia Odos motorway construction (J/V Protocol No.: 25793, 21.06.10).</p> <p>The term for the displacement of the axis under study is taken into account in the designs and is documented in the relevant Environmental Protection Report which accompanies the current road design when submitted for approval to the Independent Engineer. This means that the implementation of the term is ensured by the Independent Engineer through the designs approval process.</p> <p>The observance of the term on the retention of access to the villages/towns is controlled through the implementation of the E.T. Within the time period of this report, no need to construct structures that block access to the said part of the motorway has arisen. Special care is given so that the access to neighbouring properties is not blocked.</p>



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**ARTA BYPASS**

<b>A. PERMITS AND APPROVALS</b>		
<b>S/N</b>	<b>SUBJECT</b>	<b>PROGRESS - PROBLEMS</b>



<b>A. PERMITS AND APPROVALS</b>		
<b>S/N</b>	<b>SUBJECT</b>	<b>PROGRESS - PROBLEMS</b>
<b>A.1</b>	Installation permits for any activity or installation necessary for the construction of works.	<p>During the preparation of this report, no need for such installations has arisen and the materials are covered by licensed installations of subcontractors in the area.</p> <p>Furthermore, an Environmental Monitoring &amp; Control Program in terms of the overall Plan for Environmental Management, which includes control procedures for all works referred to in the environmental terms, has been drawn up.</p> <p>Service is performed by the offices in Kambi, Arta. There are two worksites at Kambi and Gorgomylos with ref. no. EYΠE 107730/05.09.08. Furthermore, an Environmental Monitoring &amp; Control Program in terms of the overall Plan for Environmental Management, which includes control procedures for all works referred to in the environmental terms, has been drawn up.</p> <p>With respect to the works that were executed during this specific period (construction of safety barrier in the central island, completion of island with plants and improvement works of the existing road in general), no communication or intervention permit were requested by the competent Forest Department.</p> <p>For any work or installation requiring intervention permit, this will be provided by the competent Forest Department.</p> <p>As far as the revocation of reforestation, pursuant to Law 3555/2007 (Ratification of Concession Agreement)/Article 4/ Par. 4a and Law 2445/1996/ Article 2/ Par. 1c, "<i>The occupancy, reclamation or coverage of forests or forest areas that are included in the boundaries specified in the designs of Annex 7 and in accordance with the terms and conditions of the agreement are permitted. This law approves the change of use, revokes the re-forestation and grants intervention permits and permits for felling works to the above sites.</i>"</p>
<b>A.2</b>	Archaeological Services	No works or activities were performed during the preparation of this report and therefore it was not necessary to inform or receive a permit by the competent Archaeological Department. If required, the term will be followed.
<b>A.3</b>	Borrow pits – Quarries	No works or activities were performed during the preparation of this report that would need such installations.



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<b>A. PERMITS AND APPROVALS</b>		
<b>S/N</b>	<b>SUBJECT</b>	<b>PROGRESS - PROBLEMS</b>
		The works and the materials are covered from the already licensed installations of subcontractors of the area according to the E.T. d2.b.

<b>B. CONSTRUCTION-RELATED ISSUES</b>		
<b>S/N</b>	<b>SUBJECT</b>	<b>PROGRESS – PROBLEMS</b>
<b>B.1</b>	Toll Station Building works – MSS - E&M Centres	With respect to the environmental permit of any new toll stations for Motorists Service Stations/E&M Centres, the relevant permit procedures shall be followed.
<b>B.2</b>	Disposal / Excavations / Explosives	Due to the nature of works (improvement of the existing road), no new additional areas were required. No disposals were required during this specific period of time. In case there are disposals in the future, they will be conducted within the gauge zone and will be temporarily covered until reused.
<b>B.3</b>	Rehabilitation/ Worksites	<p>Service is conducted from the offices in Kambi, Arta while there are two licensed worksite areas in Kambi and Gorgomilos with Protocol No. EYPTE 107730/05.09.08. After using these areas, the term will be followed rehabilitating the areas upon the completion of works.</p> <p>The relevant final planting designs have been assigned, elaborated and will be submitted to the I.E. for approval.</p> <p>An Environmental Monitoring &amp; Control Program in terms of the overall Plan for Environmental Management, which includes control procedures for the implementation of planting works, has been drawn up.</p>



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<b>B. CONSTRUCTION-RELATED ISSUES</b>		
<b>S/N</b>	<b>SUBJECT</b>	<b>PROGRESS – PROBLEMS</b>
<b>B.4</b>	Various construction terms	-
<b>B.5</b>	Superficial runoffs	The requirements of the specific E.T. concern mainly the existing project. Additional issues of E.T. that relate to the design are controlled by the I.E. during the submission of the Design and documented by the Environmental Protection Report, which accompanies every Design submission.



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<b>C. WORK-SITE MANAGEMENT ISSUES</b>		
<b>S/N</b>	<b>SUBJECT</b>	<b>PROGRESS - PROBLEMS</b>
<b>C.1</b>	Water protection - Liquid waste	<p>With respect to the disposal of urban wastes, an agreement has been made with Xyrovounio and Fiippiada Municipalities (see relevant document) to collect the wastes, which will be put in special Municipality bins using a refuse collection vehicle.</p> <p>As far as the disposal of oils there is an agreement with the Licensed Management Companies.</p> <p>An Environmental Monitoring &amp; Control Program in terms of the overall Plan for Environmental Management, which includes protection measures for all works referred to in the environmental terms, has been drawn up. The Program has been presented to the joint venture's supervising engineers, as well as to any subcontractors that will provide the joint venture with their services.</p>
<b>C.2</b>	Air and noise protection	<p>An Environmental Monitoring &amp; Control Program in terms of the overall Plan for Environmental Management, which includes protection measures for all works referred to in the environmental terms, has been drawn up.</p> <p>No operations or activities were realized during the period covered by this report in the said section.</p>
<b>C.3</b>	Noise - Movable noise barriers	<p>With respect to the noise during the construction of the project, an Environmental Monitoring &amp; Control Program in terms of the overall Plan for Environmental Management, which includes control procedures to resolve noise problems in accordance with the environmental terms, has been drawn up. The Program has been presented to the joint venture's supervising engineers, as well as to any subcontractors that will provide the joint venture with their services.</p> <p>If required, noise measurements will be conducted in specific points using the appropriate equipment in order to monitor the compliance with the noise levels.</p>
<b>C.4</b>	Solid and hazardous waste	<p>With respect to the disposal of urban wastes of the project, an agreement (see relevant document) with the Municipality of Xyrovounio and Filippiada has been made to collect the wastes in special bins of the Municipalities using a refuse collection vehicle. There is an agreement for the disposal of mineral oils with the Licensed Management Companies.</p> <p>With respect to waste management during the construction of the project, an Environmental Monitoring &amp; Control Program in terms</p>



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<b>C. WORK-SITE MANAGEMENT ISSUES</b>		
<b>S/N</b>	<b>SUBJECT</b>	<b>PROGRESS - PROBLEMS</b>
		of the overall Plan for Environmental Management, which includes control procedures in compliance with the environmental terms, has been drawn up. The Program has been presented to the joint venture's supervising engineers, as well as to any subcontractors that will provide the joint venture with their services.
C.5	Fire prevention	Service is conducted from the offices of the J/V in Kambi, Arta where there are fire-extinguishers. In addition, it is ensured that fire-extinguishers are present in all the machines of the project and the cars executing improvement works in Arta Bypass. Detailed instructions and leaflets have been distributed on the sites in order for the workers to front fire incidents.
C.6	Safety / pollution caused by accident	<p>The Intervention Plan, which is a part of the Policing and Fire Fighting Agreement between the Concessionaire and the Ministry of Internal Affairs, has been drawn up.</p> <p>The Intervention Plan for Emergency Situations specifies measures to timely collect and remove hazardous substances while preventing pollution of the water/soil resources, etc.</p> <p>This Intervention Plan includes all the measures/required equipment etc. that will be needed in case of accident and leakage of non-biodegradable substances, including the necessity to construct Pollution Control Units or not.</p>
C.7	Public Utility Organizations – traffic settlement	It concerns an existing section of the motorway and the E.T. concern the previous contract. In any case, issues related to the design are checked by the I.E. during the submission of the Design and documented by the Report of Environmental Protection, which accompanies each Design submission.



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