

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

**IONIA ODOS MOTORWAY FROM ANTIRIO TO IOANNINA  
PROJECT: "DESIGN – 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 (Kefalovriso)
2. Agrinio bypass
3. Northern end of Agrinio bypass (Kouvaras) – Southern end of Arta bypass (Kompoti) and Southern end of Arta bypass (Filippiada) – Ioannina (Eleousa)
4. Arta bypass

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

**A' SEMESTER 2011**



**ANTIRIO – SOUTHERN END OF AGRINIO BYPASS (KEFALOVRYSO)**  
**(JMD 142128/25.07.2005)**

A/A	SUBJECT	Description of Progress - Problems
b.	Specific limit values of pollutant loads and concentrations emission according to the applicable provisions	<p>All foreseen by the legislation limit values, are taken into consideration.</p> <p>Hazardous waste is managed under contract by appropriately licensed companies.</p>
c.	Specific limit values of noise level and vibrations according to the applicable provisions	<p>The control, during the construction phase, is conducted in accordance with the current legislation and the limit values specified in this are met.</p> <p>With respect to the noise during the construction of the project, pursuant to the Program for Environmental Management and in terms of Environmental Monitoring Control Program noise measurements are conducted parametrically of the worksite and the construction faces and the results were within the allowable limits. The said measurements are reflected in maps depicting the extent of the construction of the project and the location the measurements were made. The said maps as well as the measurement, which are repeated at regular intervals (monthly), are included in the noise measurement issue, which is submitted with the annual report.</p> <p>Respectively, vibrations were monitored at the exit of Kalydona tunnel.</p>
d.1	Obligation to comply with the environmental terms	<p>The Environmental Terms and the other contractual obligations regarding the construction phase, have been analyzed in the Environmental Monitoring &amp; Control Program submitted in May 2009 (protocol no. IC-X-CO-S0000-PRO9251/ACH/Kla).</p> <p>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>
d1.1	Ensure Compliance with E.T.	<p>The Environmental Terms and the other contractual obligations regarding the construction phase, have been analyzed in the Environmental Monitoring &amp; Control Program submitted in May 2009 (protocol no. IC-X-CO-S0000-PRO9251/ACH/Kla).</p> <p>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>There are responsible persons for the implementation of the Environmental Management System and the monitoring of compliance with the E.T.</p>
d1.2	Ensuring credits for environmental protection projects	<p>All required costs are taken into account when tendering for the construction of this project. To date expenditures for environmental protection have been submitted in the annual environmental report of the Company for the year 2010 (JV 34116/15-02-11).</p>
d2	Permits and approvals	<p>The procedure for obtaining all necessary permits and approvals in progress, as specified below.</p>

A/A	SUBJECT	Description of Progress - Problems
d2.1	STIS of individual projects or activities relating to construction or operation of the project	<p>The relevant STIS for all required sites (quarries, borrow pits, disposal sites and worksites) have been submitted to EYPE. The submissions of the studies as well as the progress of the approval procedure are as follows:</p> <p><b><u>Quarries:</u></b></p> <ul style="list-style-type: none"> <li>•QP08 "Kremasti", Retsina, Municipality of Mesologgi</li> </ul> <p><b><u>Borrow Pits:</u></b></p> <ul style="list-style-type: none"> <li>•BP08 location "Skinsos", Municipality of Mesologgi</li> <li>•BP03 location "Karanolaggada", Stamna, Municipality of Aitolikos</li> <li>•BPA1 location "Machaira", Galatas, Municipality of Chalkia</li> <li>•BPA2 location "Rena", Evinochori, Municipality of Mesologgi</li> <li>•BPA3 location "Agios Ioannis", Aitoliko, Municipality of Aitoliko</li> <li>•BPA4 location "Rema Ragou", Aitoliko, Municipality of Aitoliko</li> <li>•BPA5 location "Palaiomylos", ΔΔ Γαλατά, Municipality of Chalkia</li> <li>•BPA6 location "Thotokos", Aitoliko, Municipality of Aitoliko</li> </ul> <p><b><u>Disposal Sites:</u></b></p> <ul style="list-style-type: none"> <li>•Προσωρινές αποθέσεις (6 χώροι) υλικών εκσκαφών σήραγγας Καλυδώρας, αδρανών υλικών και φυτικής γης (STIS υπό εκπόνηση).</li> </ul> <p><b><u>Worksites:</u></b></p> <ul style="list-style-type: none"> <li>• <u>Gavrolimni area:</u> Submission of STIS to EYPE with Protocol No. 14753/23.09.09 for worksite area around ch. 12+000 of the axle. Approved with the relevant 122415/8.3.2010 letter.</li> <li>• <u>S1.2 Agios Georgios, Mesologgi:</u> 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).</li> <li>• <u>S1.3 Aitoliko Worksite (CH. 39+000):</u> STIS was submitted to EYPE (IC-C-CO-S111N-PRO6030/EM/em/) and following EYPE's remarks a re-submission was carried out Rev A (24-04-09). STIS approval by EYPE (letter with protocol no.: 25708/29-4-11, 36016/13-05-11).</li> <li>• <u>S1.4 A worksite for Kalydona exit tunnel:</u> Submission of STIS to EYPE with J/V protocol no. 27587/05-08-2010 for worksite area around ch. 26+450 of the axis. STIS approval by EYPE (letter with protocol no.: 36015/13-05-11)</li> <li>•</li> </ul>

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		<p><b><u>Gravel extraction from Evinos river</u></b></p> <p><i><u>Kalfa position:</u></i> Submission to EYPE with protocol no. 135680/10.12.07. STIS approval by EYPE (letter with protocol no.: 141647, 05/08/09). Under decision 98217/4089/11-08-2010 of Western Greece Region the licensed concession for gravel excavation from Kalfa position has been postponed for 7 months and on 21-06-2011 the Land owned company signs the new delivery protocol.</p> <p><i><u>Paradission position:</u></i> Submission to EYPE with protocol no. 135681/10.12.07. STIS approval by EYPE (letter with protocol no.: 141647, 05/08/09).</p>
d2.2	Environmental Approvals by EYPE/YPEHODE	Pursuant to the Environmental Term d2.1, the environmental approvals are given by EYPE after submission of the relevant STIS. The necessary STIS have been elaborated for the relevant authorizations, for which detailed reference is made above.
d2.3	Areas of forest character/ revocation of reforestation	<p>For the ancillary works:</p> <ul style="list-style-type: none"> <li>• Decision of reforestation partial removal (OGG172D/09-04-2010) for the quarry of Kremasti which has been announced to EYPE</li> <li>• Requests for reforestation removal for the borrow pits of Schinos (BP08), Kranollaggada (BP03) and Theotokos (BPA6).</li> <li>• Characterization act has been issued for BPA1 &amp; BPA4 for the borrow pits.</li> <li>• Finally, a request has been submitted to the Forest Service of Mesologgi for issuance of the Characterization Act for the borrow pits BPA2 and BPA3 (new limits).</li> <li>• No characterization act is needed for the worksite in the tunnel exit of Kalydona, since the site is located within the expropriation limits.</li> </ul> <p>The works executed on this semester were carried out within the occupation zone.</p> <p>In January earthworks for construction of Evinos bridge and works in Kalydona tunnel were carried out. All works are carried out within the occupation zone.</p> <p>In February earthworks for construction of Evinos bridge and works in Kalydona tunnel were carried out. All works are carried out within the occupation zone.</p> <p>In March earthworks, structure works, works for construction of Evinos bridge and works in Kalydona tunnel were carried out. All works are carried out within the occupation zone.</p> <p>In April earthworks, structure works, works for construction of Evinos bridge and works in Kalydona tunnel were carried out. All works are</p>

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		<p>carried out within the occupation zone.</p> <p>For the works executed on the said period (works in Kalydona tunnel, construction works in Evinos bridge, coating materials, construction of underpass, construction of culverts etc.) no permit was necessary by the competent Forest Service because the existing forest areas were located within the occupation zone of the project and in that case Law 2445/96 is in force.</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> <p><b><u>Ancillary Works</u></b></p> <p>The procedure could be applied for the "Additional Sites" too (Borrow Pits, Quarries, etc) within forest areas, pursuant to the letter of the Ministry of Rural Development &amp; Food 104117/3192/06-07-09 (14616/21-09-09 J/V, 5527/22-09-09 FA, 3120/29-07-09 Forest Service).</p> <ul style="list-style-type: none"> <li>• "The removal of reforestation" is required by EYPE-YPEKA, and thus the J/V continued the procedure for the borrow pits of Schinos, Kranollaggada and Theotokos</li> <li>• Approval of intervention permit for 29, 3 acres and certificate of finality of the characterization act for 12, 8 acres for the quarry of Kremasti have been issued.</li> <li>• Requests for reforestation removal for the borrow pits of Schinos (BP08), Kranollaggada (BP03) and Theotokos (BPA6).</li> <li>• Characterization act has been issued for BPA3 &amp; BPA4 for the borrow pits; BPA1 is expected.</li> <li>• Finally, a request has been submitted to the Forest Service of Mesologgi for issuance of the Characterization Act for the borrow pit BPA2 and it is still pending.</li> <li>• No characterization act is needed for the worksite in the tunnel exit of Kalydona, since the site is located within the expropriation limits.</li> </ul>
d2.4	Concrete and asphalt mix production plants	<p>It has been ensured that the layout planning of these plants abide by the afore-mentioned restrictions, as 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 unit that is installed in 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</p>

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		<p>tanks have been constructed.</p> <p>In STIS of Aitoliko, Kalavrouza and Gavrolimni worksites, the term has been taken into consideration.</p>
d2.5	Rehabilitation of the intervention zones	<p>Land reclamations and site clearing were carried out before the suspension of works in motorway sections areas bounded by piles. The term is respected and controlled by the responsible of the consortium Environmental department and the "appointed subcontractors" as described in the Monitoring &amp; Control Environmental Program submitted in May 2009 (protocol no. IC-X-CO-S0000-PRO9251/ACH/KIa/12-05-2009</p> <p>During the period mentioned by this report, site clearing was not required. STIS provide the restoration of the intervention sites</p>
d2.6	Excavation products and materials needed for the construction of the project	<p>For all new sites where materials have been delivered, the required STISs have been submitted, as referred to in term d2.1, and the relevant opinion of the responsible Archaeological Services is required.</p>
d2.7	Disposal of the inappropriate excavation materials	<p>So far, no permanent disposal in this area is required. The sites of temporary disposals were selected to leased land, or within limits of expropriation. These are 6 positions where temporary storage of excavation materials from Kalydona tunnel, aggregate materials or topsoil is carried out. STIS was submitted for these sites. No temporary disposal near streams. In any case, during the suspension of the works, the sites of temporary disposal are systematically monitored in order for the protection of streams to be ensured.</p> <p>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>The term on the disposal of inappropriate excavation products is a criteria used during searching locations for possible disposal sites and is taken into account during the preparation of the respective STIS that are submitted to the EYPE.</p>
d2.8	All redundant excavation materials	<p>No cases on excavation materials, which usually include waste or dangerous sewage, have been presented. 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 in specific deposition chambers or integrated per priority in the body of the Project. During the preparation period of the present report all the excavation materials are reused in fillings and coatings. 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>
d3	Archeological Services	<p>Due to the nature of the works completed (works in Kalydona tunnel, construction works in Evinos bridge, coating of materials, construction of underpass, construction of culverts, maintenance works, etc) the Archaeological Service was not updated during the report period.</p>

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d3.1	Localization of antiquities	<p>Pursuant to the submitted Final Road Designs and as checked in the Reports of Environmental Assessment of Final Design στις Εκθέσεις of the subsections 101 (IC-C-CO-S108N-CW-0200-000-ENV-EPR-RP.000-01-01-0/18-06-2009 – protocol no. 2300/19-06-2009 and Technical Report to the ΛΣΤ' ΕΡΚΑ protocol no. 11174/07-06-2010 FA), 108 (IC-C-CO-S108N-CW-0200-000-ENV-EPR-RP.000-01-01-A/05-03-2009 –protocol no. 0208/05-03-2009 FA and IC-C-CO-S109N-CW-0200-000-ENV-EPR-RP.000-01-01-A/18-05-2010 –protocol no. 10942/19-05-2010 FA) and 102 (IC-C-CO-S111N-CW-0200-000-ENV-EPR-RP.000-01-01-0/18-05-2010 – protocol no. 10941/19-05-2010 FA) the adjacent of the alignment with the archeological sites is the following:</p> <p>√ <u>Alikyrna archaeological site</u> from CH. 28+800 – CH. 30+000. From these, only in 200 m. (CH. 29+320 – CH. 29+540) they are in embankment. The Final Road Design foresees the raise of the red line in the area of the archeological site so as for the C-C construction not to be appropriate anymore, while the lateral road is located to the entry step of the embankment in order for the noise to be the minimum one. Regarding the location of “Borbora” hill, the Final Road Design foresees the improvement of the slopes and the reduction of the breadth of the excavation. In both positions a landscape restoration of the trenches is suggested. The above proposals have been submitted to the ΛΣΤ' Archeological Service (25928/24-06-10), which recommends in its letter to Ministry of Culture (27956/11-8-10) the approval of the proposal. A positive opinion has been received by the Ministry of Culture (31712/25-11-10). Finally, it is mentioned that in “Borbora” position CH. 30+450 the 22<sup>nd</sup> Ephory of Byzantine Antiquities (30223/15-10-10) executes from 04-10-10 saving excavation survey.</p> <p>√ <u>Plevrona archaeological site</u> γεινίαση από CH. 34+500 – CH. 39+800 (within archeological site from CH. 35+580 to CH. 38+833). The Independent Engineer κινείται σε επίχωμα με εξαίρεση 730μ. (CH. 38+153 – CH. 38+293, CH. 38+526 – CH. 38+843 and CH. 38+894 – CH. 39+167) όπου κινείται σε χαμηλό όρυγμα. Στην ΟΜΟ και συγκεκριμένα στην περιοχή from CH. 35+578 – CH. 36+360 with the foreseen lowering of the centre line, it is not necessary to construct a wall or reinforced embankments (lowering of the bandwidth occupancy and avoidance of visual disturbance).</p> <p>√ As regards the <u>area of antiquities “Tris Ekklessies”</u>, after the ΛΣΤ' ΕΡΚΑ (Archeological Service) letter with protocol no. Φ666/ΣΤ/ΛΣΤ/1501-26.02.2010, the J/V letter with protocol no. 21359/11-03-1020 (forwarding final alignment layout from CH. 38+000 to CH. 39+000) and joint visit/autopsy in the area, (protocol No. 23080/23-04-2010) an extract layout and cross-sections where the ancient wall is reflected, from which it appears that there is no intervention in the southwestern part of the antiquities as agreed with the competent ΛΣΤ' Archeological Service in earlier meetings, have been submitted, according to the Ministerial Decision ΥΠΠΟ/ΓΔΑΠΚ/ΑΡΧ/Α1/Φ40/115556/5294-28.11.2008 and the Center of Analysis and Study Act no. 29/23-9-2008. The written consent of ΛΣΤ' ΕΡΚΑ (prot. No. 2731/28-04-2010 ΛΣΤ ΕΡΚΑ and 23901/11-05-2010 JV EUROIONIA) has been received.</p> <p>√ <u>Mesologgi I/C: Ancient graves</u> have been found in the region and saving excavations have been conducted. Relocation of the I/C (with protocol no. 21560/16-03-10, 1392/12-03-10 LST EPCA) has been proposed by the archeology. The service launched the</p>



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		<p>solution of Overpass construction in the same position. Detailed designs and a relevant document addressed to the Service for approval and to the Archeology for the written consent have been submitted. The assent of the competent Ephory of Antiquities (27956/11-08-10 J/V) has been notified and the change of the Center of Analysis and Study has been approved (31712/25-11-10 J/V, YPPOT/GDAPK/ARX/F40/70558/3348/08-11-10 Ministry of Culture).</p> <p>Also the Center of Analysis and Study decided the:</p> <ul style="list-style-type: none"> <li>• The placing below of the findings in the locations of Rigeika CH. 27+200 – CH. 27+500 and Katsikorachi or Telagkatho CH. 31+500 – CH. 31+650 (J/V 33319/19-01-11)</li> <li>• The placing below of the findings in the location Hondreika Kalidonas CH. 23+560 – CH. 23+630 (J/V 35661/21-04-11)</li> <li>• The placing below the embankment of the findings in the location of Rigeika CH. 27+920 (J/V 35987/11-05-11).</li> </ul> <p>The General Directorate of Antiquities and Cultural Heritage sent approval on a) conservation and b) degradation of ancient remains discovered at the entrance to the Tunnel of Kalydona CH.23 +550 - CH. 23 +630 (Service letter with protocol. No.: 37105/1622, 12.04.11). Also, the 22nd Ephory of Byzantine Antiquities has sent a document on partial destruction and intervention in the immediate area of antiquities on the CH. 19 +050 (Service letter with prot. No.: 1078, 11.04.11).</p>
d3.2	Works cost for archeological surveys	With respect to the coverage of the expenses incurred during the archaeological surveys, article 1, par. 13.2 of Law 3555/2007 shall apply.
d4	Infrastructure Worksite serving the project's needs during its operation	The issue concerns the operation of the project.
d5	Stone processing and concrete production worksite installations	The E.T. are followed in the concrete production plant that operates in Agios Georgios Mesologgi worksite. In particular, the dust is minimized via the atomization with a water tank, the transportation of aggregates is conducted with closed transportation tapes, the storage bunkers have dust separation filters and the concrete production system is a wet-typed closed one. In the stone processing installation, which operates in Agios Georgios Mesologgi worksite, dust is minimized by springing, since a piping system with beck 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. The transport of aggregates is made with closed conveyors. There are no bitumen production plants and, when needed, an environmental licensed partner shall apply it.
d5.1	Bitumen production plants	<p>In the worksite area of Aitoliko 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>The supply of aggregates and concrete, held in the past by legally operating facilities subcontractors - Suppliers, has been stopped due to suspension of works.</p>
d6	Rubbish, waste materials,	

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	old parts and machinery, oil, all kinds of grout, etc., and materials combustion (tires, oil, etc.) in the work area.	With respect to the collection of urban waste, four waste bins of the Municipality of Mesologgi have been placed in the worksite of Ag. Georgios and there is a relevant agreement with the respective Municipality for emptying the bins and transferring the waste to HYTA 4 <sup>th</sup> Geographical Unit of the Prefecture of Aitolokarnania (there is the relevant document).
d6.1	Toxic solids and scrap metal, tire equipment, etc.	As regards the 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 services. With regard to waste generated by the office and warehouses space that has been developed on the premises of 3E factory (Kourtouga), those are collected in buckets to split it into recyclable and non-recyclable, and also transported from the Municipal Authority of Mesologgi to HYTA.
d6.2	Pollution of surface and ground waters from any kind of oils, fuels, etc.	<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. While, where appropriate, relevant proof of compliance from suppliers and sub contractors are required. 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>A record of contracts and evidence/documentation for the appointed subcontractors is kept in each worksite.</p> <p>During the reporting period complete removal of equipment and waste from the worksite at the exit of Kalydona tunnel has been realized.</p> <p>There are no other worksites of subcontractors in operation due to suspension of works.</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> <p>As regards the urban waste at the worksite of Ag. Georgios, a sewerage system and has built sewers and a watertight septic tank have been constructed and an agreement with the Municipality of Mesologgi on evacuation and transportation of the waste to biological treatment of the municipality has been concluded.</p> <p>There is watertight septic tank at the offices in Kourtouga location.</p> <p>In the worksite for Kalydona exit tunnel a sewage treatment plant was operated.</p>
d7	Uninterrupted flow of the surface water	The compliance with this condition is ensured through the development - approval of hydraulic studies, which take into account the E.T.
d8	Water collection tanks	The Risk Assessment Study has been elaborated and submitted to the I.E. for the area of Evinos river, J/V letter with protocol no. 27580/5-8-10.

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	and separation. For addressing the accidental pollution	An Environmental Monitoring & 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. 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.
d9	Modification or intervention to an existing infrastructure project in collaboration with the relevant agencies	<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 to CH. 32+000 and 6207/30-10-2009 for section CH.32+000 to CH. 42+000). The final hydraulic study to the section from CH. 25+640 to CH. 32+000 has been also approved by the I.E. (protocol no. 27004_IC-C-IE-S1000_21-07-2010). The final hydraulic study to the section from CH. 36+940 to CH. 43+502 (protocol no. 32061/06-12-10) as well as the design of the irrigation canal in CH. 40+116 has been approved by the I.E.</p> <p>The final hydraulic Study of the <b>108</b> rev. D has been approved (J/V 35915/ 4-05-11).</p> <p>In the reference period for the remaining PUOs, particular document have been sent to:</p> <ul style="list-style-type: none"> <li>a) Greek Telecom for information of network operator in the area of Gavrolimni and Ano Vassiliki Administrative Division of the Municipality of Halkia, within Ionia Odos alignment (document with J/V Protocol No. 28157, 13.08.10).</li> <li>b) Halkia Municipality, Hania of Gavrolimni for information network operation in Gavrolimni and Ano Vassiliki Administrative Division of Halkia Municipality within Ionia Odos alignment (document with J/V Protocol No. 28158, 13.08.10).</li> <li>c) PPC of Agrinio for the relocation of network from CH. 14+300 – CH. 18+000 (document with J/V Protocol No. 31199, 12.11.10).</li> <li>d) PPC of Mesologgi for the relocation of network located from CH. 17+250 CH. 17+980 and CH. 18+200 - 18+400 (document with J/V Protocol No. 35383, 13.04.11).</li> </ul> <p>Also, a document was sent to the PPC of grinio for the relocation of network in Ano Vassiliki CH. 17+250, CH. 17+980 and CH. 18+200, CH. 18+400 (PPC letter with protocol no.: 1271, 12.05.11).</p>
d10	The construction of the large technical (bridge), on the section of Klokova	The construction works in Klokova section have not started yet.
d10.1	Ensure continuous 24-hour traffic of the existing national road, including the region of Klokova	

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d10.2	Prohibition of tipping on excavation products in the marine area or in the slopes of the mountain during the construction of Klokova section.	
d10.3	smooth traffic circulation from Peloponnese and Eastern Continental Greece to the west of Klokova	
d10.4	Makynia tunnel	The term is implemented
d11	Study on Worksite Signage	<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> <p>The Design for temporary traffic arrangements for the construction of UP44 underpass (CH. 23+331.35 – Right Branch and CH. 23+348.51 - Left Branch (Approval ICo0255, 17.05.10) has been submitted and approved by the Independent Engineer (Approval ICO195, 23.03.10) and the appropriate signs have been placed where appropriate.</p> <p>Warning signs and light signals have been placed, where appropriate, during the night.</p> <p>Ως εκ τούτου δεν παρεμποδίστηκε η κυκλοφορία της υφιστάμενης ΕΟ.</p> <p>At the current period, because of suspension of works, maintenance works have been mostly performed and those locally. Therefore the traffic of the existing National Road was not obstructed.</p> <p>During the drilling for the formation of the faces of Kalydona and Makynia tunnel an incorporated dust containment equipment has been used.</p>
d12	Use of mechanical equipment in order to contain the dust.	
d13	Regular wetting of worksite materials	
d13.1	Regular wetting of all bare surfaces	
d13.2	Wetting of excavated materials and aggregates	
d13.3	Wash the wheels of trucks	
d14	Planting after carrying out specific landscaping studies	

A/A	SUBJECT	Description of Progress - Problems
d14.1	Collection and preservation of top soil	no. EI: 35450/15-04-2011). The relevant landscaping designs are elaborated for the subsections from 24+400 – 30+900 (101), 30+900 -36+940 (108) and 36+940-43+525 (102).
d14.2	Watering	The rehabilitation works and their budget is an integral part of each STIS (disposal sites, borrow pits, worksites, etc.).  For the topsoil resulting from the construction works, care is taken in order to preserve it and used it in plantings - restorations.
d15	Fire protection	The term is met through the implementation of the Environmental Monitoring & 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.  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&S Plan should be respected. Special attention should be given to areas that are near forests and fields during the summer months. Emphasis is given in order for the machines located at the project area to be equipped with the provided firefighting equipment. Regarding the premises of the site (offices, workshop, laboratory and concrete preparatory) the adequate firefighting equipment like fire extinguishers, sand and water supply to be provided.  For the worksites (Ag. Georgios, Kalydona) the opinions of the responsible Archeological Services are positive.
d16	Noise	With respect to the noise 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 order to resolve noise problems in accordance with the environmental terms, has been drawn up. 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.  The measurements are shown in measuring tables with measurement points' graphics which are given analytically to the Annex of Measurements of the Annual Environmental Terms Report. During the construction, where vibrations may have occurred (Kalydona tunnel) vibration measurements in specific locations have been realized.  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.  In any case, the legislation applicable on noise is referred to in term c. 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.
d16.1	Noise Barriers	
d16.2	Protection of settlements by the noise during the construction phase	
d16.3	Περιφράγματα – worksites noise barriers	
d16.4	Project's Machines	
d17	Direct entrance to the tunnel in ancient	The design of the eastern front of Kalydona tunnel has been approved by the I.E. via the document IC0035 DAC 5/03/09 and 5216/22-10-08).

A/A	SUBJECT	Description of Progress - Problems
	Kalydona	Based on this design, no surface excavations will be performed at >5m, except for the temporary ones. The layout planning of the front will be carried out via excavation and re-embankment. A landscaping design will follow.
d18	Vibrations	<p>In formulating the front of the tunnel in Kalydona and during the construction, measurements were made during construction vibrations. There were no exceedances of the nearest receivers (worksite offices 3E, and nearest farm building).</p> <p>During the said period, limited explosions were made for construction of trenches, but given that there is no sensitive recipient near the works front (houses, buildings, etc.) no measurements of vibrations were required to be made.</p> <p>More specifically, blasting were made in January for the construction of trenches by an external partner (TSELLOS k 'CO), who is licensed with explosives (there is a copy of its license). There was no adverse impact on local residents and in man-made structure generally and at in archaeological sites, because of the construction of the road. Also, Perithori (approximately 2.5 km) and Agios Georgios (approximately 2 km) are the closest settlements to the work fronts.</p> <p>In February, March, April, there were no blasting/explosions</p>
d19	Rescue – Escape of the entrapped in case of emergency in the tunnel of Kalydona.	<p>The ILF Tunnel Risk assessment Final Report has been submitted to the I.E. via letter IC-C-CO-S1000-PRO 7293/MC/js 23/2/09, has been approved by the I.E. via the letter no. IC0035 DAC 5/03/09 The term 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 arcades, connecting the two branches per around 410m, are foreseen.</p> <p>The tunnel is at the final construction phase (watertightness etc.). Two transverse arcades connecting tunnel tubes along the tunnel have been constructed.</p>
d20	Maintain access to settlements	The issue is controlled through the monitoring of the Environmental Conditions. During the preparation of this report, no need for structures that block access has arisen.
d21	Securing passage of wildlife	It is taken into consideration in the designs already elaborated. This matter is also under examination in the Environmental Assessment Reports of the corresponding definitive road designs which are approved by the IE.
d22	Protection from corrosion of the natural slopes	It is taken into consideration in the hydraulic studies submitted for approval to the Independent Engineer. Especially for Evinos river, the design with J/V protocol no. 13774/18-8-09 with IC.C.EN.S107.MO. 0200.110.HYD.XXX.FL.01.01-A is taken into consideration.
d23	Proper operation of facilities and removal of waste	It concerns the operation phase.
d24	Noise Measurements	It concerns the operation phase.

A/A	SUBJECT	Description of Progress - Problems
d25	Automatic station measuring air and wind pollution -	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 to the operation of the project.
d.26 d26.1	Concessionaire's Department of Environment	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.
d.27	Annual Environmental Report	The relevant annual report for 2010 has been submitted to EYPE - YPEKA (341183/ 18-02-11)
d.28	Relocation of the S/W alignment	The relocation of the S/W alignment is not feasible because of the dispersed building. The Final Road Design foresees the raise of the red line in the area of the archeological site so as for the C-C construction not to be appropriate anymore, while the lateral road is located to the entry step of the embankment in order for the noise to be the minimum one. Regarding the location of "Borbora" hill, the Final Road Design foresees the improvement of the slopes and the reduction of the breadth of the excavation. In both positions a landscape restoration of the trenches is suggested. The above proposals have been submitted to the ΛΣΤ' Archeological Service (25928/24-06-10), which recommends in its letter to Ministry of Culture (27956/11-8-10) the approval of the proposal. A positive opinion has been received by the Ministry of Culture (31712/25-11-10). After the relevant opinions by the Ministry of Culture, and for the amendment of the term, the procedure provided by article 13 of the JMD 11014/703/Φ104/14.3.2003 is met. It is included in the relevant design submitted to EYPE/YPEKA.
d.29	E.T. suggested to the EIA	They are taken into consideration.
e1	Local environment - Sensitive elements – Specially Protected Areas	Sensitive environmental elements (settlements, protected areas and sites) were taken into account during the investigation of borrow sites positions, etc. and the elaboration of the STIS and Technical Design TME. The Department of Environment has elaborated a map with the environmental commitments, and pursuant to data under the EIA, which constitutes a tool for exploring of additional spaces and other works, and assistance for all persons involved to the construction.
e2	Measures and projects for the conservation of the above elements	-
f	Validity of E.T.	-
g	Modernization,	The additional EIA on the improvement of the alignment in Evinos River (CH. 19+200 – CH. 22+090), for which there is the assent on



**SEMI-ANNUAL PROGRESS REPORT FOR THE IMPLEMENTATION OF ENVIRONMENTAL  
TERMS DURING THE CONSTRUCTION PHASE (A' SEMESTER 2011)**

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A/A	SUBJECT	Description of Progress - Problems
	improvement, expansion or modification of the project	behalf of the Ministry of Infrastructure, under the M.D. with protocol no. A/1/00/01/01/8583/21-09-2010, has been submitted by the J/V to EYDE EPA & IO (prot. No. 27883/ 10-8-10) and from EYDE EPA & IO to EYPE (protocol no. A/1 /00a/08/24/8989/ 26-10-10). Also, a File of article 13 (JMD 11014/03) has been submitted from the J/V to EYDE EPA & IO (protocol no. 30628/27-10-10) and from EYDE EPA & IO to EYPE (protocol no. A/1/00a/08/24/9497/21-12-10), for small changes of section S1, which resulted by the elaboration of the final designs.
h	E.T. Amendment	
i	EIA presence on the worksite	The term is met.
j	Non-compliance with the E.T.	-





## **AGRINIO BYPASS**

**(JMD 84982/96/11.04.1997, JMD 105886/03.07.08**

**& JMD 144713/23.9.09)**

A/A	SUBJECT	Description of Progress - Problems
b	Specific limit values of pollutant loads and concentrations emission according to the applicable provisions	All limits are taken into consideration pursuant to the current legislation.
c	Specific limit values of noise level and vibrations according to the applicable provisions	As regards the noise during the construction phase of the project, pursuant to the Environmental Management Plan and in the framework of the Environmental Monitoring and Control Program, noise level measurements have been realized by an external partner (A.L.A PLANNING PARTNERSHIP (ENVIRONMENT) Ltd.) and no excess of limits was resulted. The measurements have been submitted in the annual report of 2010. As regards the vibrations, no explosions have been realized on the said section of the road.
d1.a	Obligation to comply with the E.T.	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 lateral environmental terms, has 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.
d1.b	Ensure Compliance with E.T.	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 lateral environmental terms, has 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.
d1.c	Ensuring credits for environmental protection projects	It is taken into consideration
d1.d	Process monitoring planning	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 lateral environmental terms, has 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. There are people responsible for implementing the Environmental Management Plan and the compliance with the E.T.
d2.a	Licenses and approvals	There are no new additional spaces for the said department. When required, the concrete production units and sand production units respectively of Terna – Michaniki J/V, which are coated and environmentally licensed (letter with EYPE protocol number:132637/04.10.07), were used. At this period unused materials from concrete production units and sand production units were used. Also, there is cooperation with companies producing concrete and asphalt, and their procurement is done by the latter. (Ergobeton of Agrinio S.A. and Hefaistos S.A. There are their environmental permits. The cooperation with the above companies is supported by vouchers and invoices which are in the accounting department. A general Environmental Management Plan in terms of the Environmental Monitoring and Control Program for all activities and facilities including control procedures on those referred to the adjacent environmental conditions.
d2.b	Materials required for the	-
d2.c	construction of the project	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). All products deriving from the foreseen and approved excavation designs were used to manufacture embankments or any other

A/A	SUBJECT	Description of Progress - Problems
		road works, only after they were proved to be appropriate for this purpose (after several laboratory tests).
d2.d	Disposal of inappropriate excavation products	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).
d2.e	Worksites	The licensed worksites of the old contract in the Southern section of Agrinio Bypass and Evinos constitute worksite area of this section.
d2.f		The permits granted to worksites ensure the implementation of the E.T., i.e. the exclusion of the spatial planning of the worksites in river beds.
d2.g		An Environmental Monitoring & 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.
d2.h	Forest Areas/ revocation of reforestation	<p>In January, February, March, April construction works in I/C Aggelokastro and I/C Chaliki have been made and neither additional sites nor intervention permit were required by the Forest Service.</p> <p>The construction of the road has been completed and the works held are within the limited zone (fencing, improvements and construction of junctions). The said period no deforestation and clearing works are held.</p> <p>No construction works in May and June.</p> <p>For any work or installation, an intervention permit, which is granted by the Forest Service responsible, is needed.</p> <p>With respect to the projects within the occupation zone, 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>
d3	Archeological 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.
d4.a	Uninterrupted flow of the surface waters	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.
d4.b	Avoid flooding of the adjacent agricultural areas	<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</li> </ul>

A/A	SUBJECT	Description of Progress - Problems
		<p>IC.U.IE.S113N.ALI.PAV.HYD.051. (it refers to the design only of the central island).</p> <ul style="list-style-type: none"> <li>• “The final design of drainage dewatering of lateral Toll Stations (Haliki I/C, Agios Ilias, Aggelokastro, Rigani, Kouvaras) with code numbers: 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 Approved with certificate of approval: IC0266/21-5-10 and code number wbs IC.U.IE.S0000.MLD.266.</li> <li>• The design of “Additional hydraulic projects of Agrinio Bypass” with code number IC.C.EN.S100.CW.0200.901.HYD.FL.901.01.01-A approved with the certificate of approval: IC0145/13-11-09 and code number wbs IC.U.IE.S1000.HYD.145.</li> <li>• Finally, the approval of the final design of hydraulic projects of Ag. Ilias I/C with code number wbs IC.C.EN.S100.CW.0200.901.HYD.FL.901.01.01.01-B is mentioned approved with the certificate of Approval: IC0276/02-06-10 and code wbs IC.U.IE.S113N. HYD.276.</li> </ul> <p>After the change of the tolls type, the hydraulic designs for Aggelokastro I/C (32647/20-12-10), Ag. Ilias (32931/7-1-11), Kouvaras I/C (prot. no. 33137/12-1-11), Chaliki I/C (36426/14-06-2011) have been re-submitted.</p>
d4.c	Uninterrupted operation of irrigation systems	No irrigation networks in the area that could be affected by the present alignment.
d5.a	Smooth operation of service facilities, removal of wastes and maintaining the cleanliness of premises	It concerns the operation phase. The available personnel of the project construction clean and maintain the road and the triangular kennel when needed. Works in the main artery of this section are completed (the works done are for the construction of the junctions) and it is given to traffic. Nea Odos S.A. undertakes the general maintenance and supervision of this section.
d5.b	Rubbish, waste materials, old parts and machinery, oil, all kinds of grout, etc., and materials combustion (tires, oil, etc.) in the work area.	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. Any waste from the regular cleaning of the road are collected and transported in bins of the Municipality of Agrinio. Regarding the management of the environmentally dangerous materials the following agreements have been contracted and are valid with the responsible companies:
d5.c	Pollution of surface and ground waters from any kind of oils, fuels, etc.	<p><b>A)</b> For the management of used oil – ELTEPE S.A.</p> <p><b>B)</b> For the management of used oil and petroleum filters, used χρησιμοποιημένου τίλματος (στουπί) and contaminated material (soil, sorbents) from any possible leaking of oil – INTERGEO ΕΠΕ</p>

A/A	SUBJECT	Description of Progress - Problems
		<p><b>C)</b> For management of used accumulators (batteries) – SIDESIS S.A.  <b>D)</b> For management of used tires – ECOELASTIKA</p> <p>The separation of the above materials is conducted in a specially designed area on the worksite of Evinos and the temporary storage is done in special buckets and barrels sent from the above management companies.</p> <p>Finally, a special place for machines vehicles and washing is constructed at the worksite of Evinos, with sealed settlement tank for collection of the flowing waters.</p> <p>Furthermore it is stated that there is no water receiver in the immediate project area. The nearest water receivers are Acheloos River and the Lagoon of Aitoliko located within 3km and 2km respectively from the project.</p>
d5.d	Intervention or modification of the existing infrastructure in projects in collaboration with the relevant agencies	Special care is given. The issue is controlled via the monitoring of the E.T.
d5.e	Smooth communication between the residential areas	Special care is given. is controlled via the Environmental Monitoring & Control Program. The issue is controlled via the monitoring of the E.T.
d5.f	circulation of agricultural machinery and farmed animals with adequate passages	The vertical roads and most of the lateral ones are already constructed.
d5.g	Use of mechanical equipment to contain the dust.	An Environmental Monitoring & 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.
d5.h	Passage of full trucks carrying materials for the project needs	In particular with respect to dust, based on the works foreseen, the following are implemented:
d5.i	Regular wetting of worksite materials	<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>
d6.j	Restrictions on excavations to the absolute necessary ones	<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,</p>

A/A	SUBJECT	Description of Progress - Problems
		<p>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> <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>
d6.c	Unhindered passage of fauna	This request has already been met by the constructed technical structures.
d7	Planting after elaboration of landscaping studies	<p>The relevant final landscaping studies have been submitted and approved (DAC IC00165/11-12-2009) by the Independent Engineer.</p> <p>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>
d8	Fire protection	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.
d9.a	Project's Machinery	<p>For some 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.</p> <p>Finally, 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>
d9.b	Noise	<p>With respect to the noise, pursuant to the Plan for Environmental Management in terms of the Environmental Monitoring &amp; Control Program noise level measurements have been conducted by an external partner (ΣΣΕ &amp; Environment) and there was no excess of limits. The measurements had been re-submitted in the 2010 annual report.</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>
d9.c	Noise measurements	
d9.d	Noise Barriers	
d9.e	Noise level measurements	
d10	E.T. suggested in the EIA	
d11	Change of the project's basic characteristics	<p>A file of article 13 of the JMD 11014/2003 regarding the amelioration proposal of Aggelokastro I/C, in order for the process of the environmental license (J/V protocol no. 5400/20-10-08) to be followed, has been submitted to EYDE/YPEHODE. The certification has been approved under the project's JMD of E.T. amendment with protocol no. 144713/23-09-2009. A file of article 13 of JMD 11014/2003 regarding the proposal for lateral toll stations placing with J/V protocol no. 12938/24-7-09 has been submitted. The file has been submitted to EYPE by EYDE with EYDE protocol no.: A/1/013/06/24/4176/17-12-09. After the change of the toll</p>

A/A	SUBJECT	Description of Progress - Problems
		stations type, the lateral tolls of Aggelokastro, Agios Ilias, Rigani, Haliki are repealed and thus a new 13 File will be submitted, which shall include the new situation created.
e1	Local environment - Sensitive elements - Special Protected Areas	Sensitive environmental elements (settlements, protected areas and archeological sites) are taken into account in the elaboration of the Designs and the execution of the works construction.
e2	Measures and projects for the conservation of the above elements	Sensitive environmental elements (settlements, protected areas and sites) are taken into account in the studies
f	Validity of E.T.	-
g	Amendment of E.T.	-
h	Presence of EIA στα γραφεία	The term is met.
i	Non-compliance with the E.T.	-

**NORTHERN END OF AGRINIO BYPASS (KOUVARAS) – SOUTHERN END OF  
ARTA BYPASS (KOMPOTI) AND SOUTHERN END OF ARTA BYPASS  
(FILIPPIADA) – IOANNINA (ELEOUSA)**

**(JMD 141564/25.07.2005)**



A/A	OEMA	Description of Progress - Problems
b.	Specific limit values of pollutant loads and concentrations emission according to the applicable provisions	The control, during the construction phase, is conducted in accordance with the current legislation and the limit values specified in this are met.
c.	Specific limit values of noise level and vibrations according to the applicable provisions	<p>The control, during the construction phase, is conducted in accordance with the current legislation and the limit values specified in this are met.</p> <p>With respect to the noise during the construction of the project, pursuant to the Program for Environmental Management and in terms of Environmental Monitoring Control Program noise measurements are conducted parametrically of the worksite and the construction faces and the results were within the allowable limits. The said measurements are reflected in maps depicting the extent of the construction of the project and the location the measurements were made. The said maps as well as the measurement, which are repeated at regular intervals (monthly), are included in the noise measurement issue, which is submitted with the annual report.</p> <p>As regards the vibrations during the construction of the project, for sections S2 and S3 a vibration grapher is supplied measuring vibrations on sensitive recipients (houses, constructions etc.). The effects of vibrations are attached in the annual report.</p>
d.1	Obligation to comply with the environmental terms	<p>An Environmental Monitoring &amp; Control Program in terms of the overall Plan for Environmental Management (submitted in May 2009 protocol no. IC-X-CO-S0000-PRO9251/ACH/Kla/12-05-2009), which includes control procedures for all works referred to in the environmental terms, has been drawn up.</p> <p>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. The monitoring of the terms implementation is held as analyzed in the overall Plan for Environmental Management.</p>
d1.1	Ensure Compliance with E.T.	<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 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. There are people responsible for implementing the Environmental Management Plan and the compliance with the E.T.</p>
d1.2	Ensuring credits for environmental protection projects	It is taken into consideration. All required costs are taken into account when tendering for the construction of this project. To date expenditures for environmental protection have been submitted in the annual environmental report of the Company for the year 2010 (JV 34116/15-02-11).
d.2	<p>In the area of the Prefecture of Ioannina:</p> <p>i) To construct a J/V in</p>	<p>i) The J/V of Terovo in CH. 175+708 has been studied in the OMO of the subsection (Approval protocol no. 23714/07-05-10).</p> <p>ii) The tunnel of Ampelia 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-</p>

A/A	OEMA	Description of Progress - Problems
	<p>the CH. 175+700 (area of Terovo)</p> <p>ii) To remove the alignment from the settlement of Ampelia, with the construction of a tunnel</p> <p>iii) A degradation of the motorway to be done in the area of Episkopiko</p>	<p>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. The A' and B' phase of excavation of Ampelia Tunnel has been completed.</p> <p>iii) The Finalized Design includes a hypsometrical lowering (protocol no. J/V 25989/25-06-10, DAC IC09B/21-06-10). In the area of the overpass at Episkopiko, the embankments have a height of 3mMotorists (Service Station - Episkopiko - height of 4m).</p>
d.3	Permits and approvals	The procedure for obtaining all necessary permits and approvals is underway, as specified below.
d.4	<p>STIS of individual projects or activities related to the construction or operation of the project</p>	<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><b><u>Borrow pits</u></b>  <i><u>Pinakoulia location:</u></i> (Submission to EYPE with Protocol No. 102908/02.04.08 and J/V Protocol No. 2853/IM/εϕ/01.04.08. Approved with EYPE Protocol No. 138434/03-07-2009)  <i><u>Paliokoulia location:</u></i> (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).  <i><u>Makryvouni location:</u></i> The Technical Studies and the STIS (31285/16-11-10 &amp; 33717/01-02-11 respectively). The approved studies have been sent along with the explanatory report and other opinions to the responsible of the Municipality of Dodoni. Also, A meeting was held with the current Mayor, where the study has been presented. The BoD decision and the leasing of the place are expected.</p> <p><b><u>Quarries</u></b>  <i><u>Toubanos location</u></i> (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.  <i><u>Ag.Georgios Glykorizo location:</u></i> 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.  <i><u>Selitoura location</u></i> (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> <p><b><u>Disposal pits</u></b>  <i><u>Pouliana location:</u></i> (EYPE Protocol No. 143101/04.08.09 and J/V Protocol No. 13265/03.08.09). The design has been returned by EYPE: 195360/18-1-11 (J/V: 34603/3-3-11).</p>

A/A	OEMA	Description of Progress - Problems
		<p><b><u>Worksites</u></b></p> <ul style="list-style-type: none"> <li>• <u>Kampi and Gorgomylos site</u>: 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. oik136719/23.02.09.</li> <li>• <u>Sikoula location</u>: 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. The approval is pending.</li> <li>• <u>"Gymnotopos" location</u>: (STIS Submission: EYPE protocol no.132846/26.11.10 and J/V protocol no. 31644/23.11.10). The approval is pending.</li> <li>• <u>In "Knauf factory" location</u>, offices have been installed in leased area.</li> <li>• <u>"Agia Triada" location</u>: CH. 176+000 with EYPE approval with protocol no. 136713/23.02.09. A new STIS has been resubmitted in order for the site to be used and for the temporary materials disposal 31008/09-11-10.</li> <li>• <u>Ampelia tunnel exit S3.6</u>, ex Municipality of Bizani, now Municipality Ioannina (CH. 193+000 at the exit of Ampelia tunnel). The relevant STIS has been submitted approved (7611/11-03-09)</li> <li>• <u>Ampelia tunnel exit S3.7</u>, ex Municipality of Bizani, now Municipality Ioannina (CH. 192+000 at the exit of Ampelia tunnel). STIS has been approved (36014/13-05-11).</li> </ul> <p><b><u>Temporary Disposals:</u></b> <u>Within the worksite of Agia Triada (S3.4)</u>. STIS submitted (31008/09-11-10); the approval is pending.</p> <p><b><u>Restoration of old quarries:</u></b> <u>E36 "Mirodafni" location</u>, Mirodafni, ex municipality of Ag. Dimitrios, now Municipality of Dodoni (CH. 178+500). The relevant study (EMAA) has been elaborated and submitted to the Municipality (16496/5-11-09). The approval is pending. <u>E37 "Makrivouni" location</u>, Perdika, now Municipality of Dodoni (CH. 180+000). The restoration of the area is included in the STIS of ΔΘ BP14. <u>E38 "Vasseika" location</u>, Perdika, now Municipality of Dodoni (CH. 181+200). The licensing procedures stopped due to negative opinion by the IB ΕΠΚΑ. <u>E39 "Krifovo" location</u>, Krifovo, now Municipality of Dodoni (CH. 182+600). The relevant study (EMAA) has been elaborated and submitted to the Municipality (16496/5-11-09). The approval is pending. <u>E50 "Old quarry of Pedini"</u>, Pedini, ex Municipality of Bizani, now Municipality of Ioannina. The relevant study (EMAA) has been elaborated and submitted to the Municipality (22582/12-04-10). The approval is pending.</p>

A/A	OEMA	Description of Progress - Problems
d.5	Environmental approvals by EYPE/YPEHODE.	Pursuant to the Environmental Term d4, the environmental approvals are given after the elaboration and approval of the relevant STIS by EYPE. For all licensing submitted up to now, the necessary STIS have been elaborated, for which a detailed report is being held above.
d.6	Concrete and Asphalt production units	It has been ensured that the layout planning of concrete and asphalt mix production units abide by the afore-mentioned restrictions, as specified in the submitted STISs.
d.7	Rehabilitation of the intervention zones	The observance of the term will be controlled by the Environmental Monitoring & Control Program. The clearings in the section made this year were held within the zone of occupation.
d.8	Excavation products and materials needed for the construction of the project	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 d4. 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. Also, the suppliers of concrete obtain aggregates from quarries operating legally. The embankments in section S3 are constructed by excavation products of the cut (177+140 -178+380) and of Ampelia tunnel.
d.9	Disposal of inappropriate excavation materials	It 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 & Control Program.  The term was a criteria used during searching locations for possible disposal sites in section S3 conducted in collaboration with the Department of Environment and Construction Division, via the following actions: 1. Imprinting the limitations of the term in orthophoto maps, 2. Autopsy at preselected locations, reflection of the locations, selection of the locations, contact with relevant bodies. As the majority of land is forest area, old quarries for reconstruction were selected to be used. A technical restoration design of the old quarries E36 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.  Temporary disposal of materials has been held in the lateral road of Ampelia tunnel exit. The volume of the disposal in Ampelia exit, on the left side of the front, has been significantly reduced. The complete removal of the materials will be carried out via the restarting of the works. Finally, temporary disposal of materials is carried out inside the worksite of Agia Triada for which a relevant STIS has been submitted to EYPE.
d.10	Forest areas/revocation of reforestation	As regards the works within the of the occupation zone of the project (Motorway, lateral roads etc. as described in the Concession Agreement), pursuant to Law 3555/2007 (Ratification of the Concession Agreement) /Article 4/ Paragraph 4a and Law 2445/1996/ Article 2/ Paragraph 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>  As regards the ancillary works, the required procedure is preceded by the STIS submissions pursuant to 998/79. During the current period, the following actions were made:

A/A	OEMA	Description of Progress - Problems
		<ul style="list-style-type: none"> <li>• For the proposed disposal pits (reconstruction of old quarries E36, E37, E39 και E50) an application for issue of characterization act has been elaborated (17795/07-12-09).</li> <li>• For the worksites of Agia Triada S3.4 and Ampelia exit tunnel S3.6 applications for characterization act have been sent (J/V prot. no. 26604/13-07-10). (27590/05-08-10) and a positive opinion has been received (31034/09-11-10).</li> <li>• Also, STIS decision approval has been sent (35972/10-05-11).</li> </ul>
d.11	All redundant excavation materials	<p>The removal of the materials will be held after the re-start of the works</p> <p>The excavation materials do not usually contain waste or toxic waste. All redundant excavation materials (after the necessary split) shall be transported in approved deposition chambers or in rehabilitation of borrow pits/old quarries, as provided by STIS and TMA.</p> <p>Temporary disposal of suitable excavated materials is carried out in the approved worksite of Agia Triada (relative STIS has been submitted). There is also disposal in Ampelia exit, on the left side of the front. The removal of the materials will be carried out with the re-start of the works.</p>
d.12	Worksite infrastructure serving the project's needs during its operation	<p>O&amp;M Control Centres Maintenance Control Centers (TBR) are to be built, which will dispose the necessary worksite infrastructure in order to serve the needs of the project during the operation phase.</p>
d.13	Stone processing and concrete production worksite installations	<p>Two crushers (a mobile and a stable one) are used within S3 section and a mobile crusher within S2. To minimize dust generation, especially in stable systems a continuous erosion of piles of aggregate is held -chemical and a wetting system of the material with beck is placed onto the crusher conveyor belt. Also, during the fall of materials tall from the conveyor belt, a material tall cone is left to be created, in order to avoid the dust generation. Finally, the transfer is realized with closed conveyors.</p>
d.14	Bitumen production plants	<p>There are no facilities of bituminous production and concrete production in the said sections. The supply, when required, is being realized by external, environmentally licensed, partners. In cases of future facilities, the content of terms d13 and d14 will be examined under the Plan for Environmental Management and the Environmental Monitoring &amp; Control Program which includes protection measures for all the aforementioned to the environmental terms. 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>
d.15	Archeological Service/ Archeological Findings	<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> <ol style="list-style-type: none"> <li>1) Application for opinion as regards the environmental permit of the quarry in the location of "Ag. Georgios Glykorizo" has been sent to the 18<sup>th</sup> Ephory of Byzantine Antiquities and Service of Contemporary Monuments and Technical Projects (J/V letter with prot. No: 33141, 12.01.11)</li> <li>2) Letter sent by IB' EPKA for suspension of excavation works in CH. 124+800 (Service letter with prot. No: 25, 04.01.11)</li> <li>3) Letter sent by the General Directorate of Antiquities which approves the J/V automatic right of approval, regarding the quarry of aggregates in the location of "Ag. Georgios Glykorizo" (Service letter with prot. No.: 869/118, 04.01.11)</li> <li>4) Letter sent to IB' EPKA for interventions within the occupation zone CH. 168+000 to CH. 169+200 (J/V letter with prot. No.: 33306,</li> </ol>

A/A	ΘΕΜΑ	Description of Progress - Problems
		<p>19.01.11)</p> <p>5) Letter sent by IB' EPKA for personnel recruitment in order to monitor the excavation works (Service letter with prot. No.: 326, 24.01.11)</p> <p>6) Letter sent by IB' EPKA for site clearing works from CH. 152+500 to CH. 154+270 (Service letter with protocol no.: 502, 01.02.11)</p> <p>7) Letter sent by IB' EPKA for excavation works from CH. 168+000 to CH. 169+200 (Service letter with protocol no.: 615, 04.02.11)</p> <p>8) Letter sent by IB' EPKA for exploratory and excavating work of works suspension period (Terna letter with protocol no.: 1587, 17.02.11)</p> <p>9) Letter sent by the 18<sup>th</sup> Ephory of Byzantine Antiquities requesting for additional elements, in order to give an opinion on the environmental licensing of the quarry in the location of Ag. Georgios Glykorizo. (Service letter with protocol no.: 246, 14.02.11)</p> <p>10) Letter sent by TERNA to the J/V aiming to send documentation to the 18<sup>th</sup> Ephory of Byzantine Antiquities, in order to give an opinion on the licensing of the quarry in the location of "Ag. Georgios Glykorizo" (TERNA letter with protocol no.: 99509, 17.03.11).</p> <p>11) 18<sup>th</sup> Ephory of Byzantine Antiquities Positive opinion (protocol no. 492/ 24-3-11).</p> <p>12) Decision approval on automatic right of appeal by the Directorate of Prehistorical and Classical Antiquities (ΥΠΠΟ.Τ./ΓΔΑΠΚ/ΑΡΧ/Α1/Φ40/869/118/4-1-11)</p> <p>13) Memorandum of Understanding on Major Public Projects sent by IB' EPKA (Service letter with protocol no.: 931, 24.02.11)</p> <p>13) The competent Ephory 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 digging works form CH. 170+000 – Ch. 196+000 with J/V protocol no. IC-X-CO-S322N-PRO8467/IM/sfa/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>
d.16	Proper operation of facilities and removal of waste	It concerns the operation phase.
d.17	Rubbish, waste materials, old parts and machinery, oil, all kinds of grouting agents, etc., and materials combustion (tires, oil, etc.) in the work area.	<p>Controls are regularly held by the responsible of environment in the manner described in the Environmental Monitoring and Control Program and it is found that:</p> <p>An agreement with the Municipality of Filippiada and Ksirovounio has been made on the disposal of urban waste, which is collected in special bins of the Municipalities using garbage trucks and is led to HYTA of Vlaherna.</p>
d.18	Toxic solids and scrap metal, tire equipment, etc.	<p>For the management of dangerous materials the above agreements have been contracted and the following agreements with the competent services are in force:</p> <p><b>A)</b> For the management of used oil – ELTEPE S.A.</p>
d.19	Pollution of surface and ground waters from any kind of oils, fuels, etc.	<p><b>B)</b> For the management of used oil and petroleum filters, used wad and contaminated material (soil, sorbents) from any possible leaking of oil – INTERGEO ΕΠΕ</p> <p><b>C)</b> For management of used accumulators (batteries) – SIDESIS S.A.</p> <p><b>D)</b> For management of used tires – ECOELASTIKA</p> <p>The separation of the above materials is conducted in a specially designed area on the worksite of Kampi and the temporary storage is done in special buckets and barrels sent from the above management companies.</p> <p>The maintenance of vehicles and machinery are made by a J/V's oil vehicle and in a licensed garage-laundry-lubrication of the area (there is the relevant license).</p>

A/A	OEMA	Description of Progress - Problems
		<p><u>Worksite area of Ag. Triada</u>: Not used as a worksite. There are no waste- toxic parts or other waste.</p> <p><u>Worksite areas of Ampelia entrance and exit tunnel</u>(S3.6 &amp; S3.7): Under the suspension of works, the subcontractor removed its equipment, facilities and any kind of waste. Any kind of hazardous waste has been received from authorized recycling companies.</p>
d.20	Modification or intervention to an existing infrastructure project in collaboration with the relevant agencies	<p>All PUOs involved have been contacted (pursuant to paragraph 7 of Special Conditions of Contract) in order to opinion on their networks and the relocation of those. More specifically, letters have been sent to:</p> <p><b>a)</b> PPC and Greek Telecom of Arta for relocation of networks from CH. X0148+100 to CH.148+350 (J/V letter with protocol no.: 26888,20.07.10)</p> <p><b>b)</b> PPC for blockage of High voltage network under Ionia Odos contraction (J/V letter with protocol no.: 29114,15.09.10)</p> <p><b>c)</b> Municipality of Kompoti for blockage of network road lighting under Ionia Odos construction (TERNALIA letter with protocol no.: 1142,07.09.10)</p> <p><b>d)</b> PPC for blockage of High voltage network under Ionia Odos contraction (J/V letter with protocol no.: 28851,09.09.10)</p> <p><b>e)</b> PPC for blockage of High Voltage network under Ionia Odos construction (J/V letter with protocol no.: 29610,28.09.10)</p> <p><b>f)</b> PPC of Arta to connect the complex of Terna SA worksite facilities to Kampi. (TERNALIA letter with protocol no. 1968, 17.05.11).</p> <p><b>g)</b> Letter sent for PPC of Arta for change of network (PPC letter with protocol no.: 0792, 17.03.11)</p> <p><b>h)</b> There is a blockage with the high voltage network of PPC in the section from CH. 175+000 to CH. 185+000. The relevant actions and discussions with the competent service of PPC have been interrupted due to suspension of works.</p> <p>For sections where there will be a blockage with irrigation or sewerage systems the relevant actions shall be held in order for the PUO to be informed.</p>
d.21	Relocation of the alignment of the road axle under design	<p>The term is taken into account in elaborating the designs and is documented in the Environmental Protection Report which accompanies each road study, when submitted for approval to the IE. This means that the realization of the condition is ensured through the designs approval process held by the Independent Engineer.</p> <p>Pursuant to the submitted Final Road Designs and as checked in the Reports of Environmental Assessment of Final Design στις Εκθέσεις of the subsections 302, 303 and 306, the alignment does not cut approved limits of settlements and passes through in a distance of more than 100m. from them. Small residential complexes, located in proximity to the project are the "Pente Pigadia" – Brigka and Krounes. These are non-bound rural settlements, and not newly built ones.</p> <p>As regards the subsection 306, branch 3 of the I/C is near "Pindos" hatchery. In this position, the layout relocation of the branch compared with the relevant one of EIS, is the largest one observed (39m), resulting in the removal from the hatchery. It has to be noted that the proximity of the hatchery was foreseen during the phase of elaboration and during the phase of the EIS publication, where the involved parties are informed and are entitled to protest. Such action of complaint was not reported. In addition, as mentioned the branch has been removed at 20-39m., therefore it is optimized with respect to the EIS. To protect the hatchery noise barriers may be requested in the branch 3. During the construction phase regular measurements will be carried out.</p>

A/A	ΘΕΜΑ	Description of Progress - Problems
d.22	Worksite signage Design	<p>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> <p>The implementation of ET22 is controlled by the persons responsible for safety and health. For the current period the following are mentioned:</p> <p>The design on temporary traffic regulations for the construction of the underpass TR08 has been submitted and approved by the IE, CH. 148+213.46 (Approval ICO0255, 17.05.10) and the appropriate signs have been placed where appropriate.</p> <ol style="list-style-type: none"> <li>1. Letter sent to the Traffic Service and Municipality of Filippiada in order for them to be updated on the Traffic as regards the needs for the work execution of Gymnopotamos Bridge, on the provincial road of Gymnopotamos – Dryofuto (Terna letter with protocol no.: 1421, 20.01.11)</li> <li>2. Decision – Approval sent by the Directorate of Technical Works – Department of Transportation Projects of Preveza – as regards the “Bypass of Gymnopotamos – Dryofuto, county of Preveza, provincial road”, by the Director of the Police Department of Preveza (Service letter with protocol no: TE 111, 04.02.11).</li> <li>3. As regards the dust, based on the works provided, the following are implemented: <ul style="list-style-type: none"> <li>▪ The worksite roads are regularly soaked as well as the piles of materials</li> <li>▪ There is no overloading of the bulk material trucks and all trucks transporting loose materials are covered.</li> <li>▪ Cleaning debris materials from trucks before leaving the worksite and regular cleaning of the existing road network to be used,.</li> </ul> </li> <li>4. The penetrating machines used in Ampelia tunnel, had been certified holding dust filters. The penetrations in the tunnel were completed.</li> <li>5. In the pile of material temporary drop at Ag. Triada was in regular wetting of the surface with a tanker. Wetting was held in all worksite roads, before the suspension of the works.</li> </ol>
d.23	Use of mechanical equipment in order to contain the dust.	
d.24	Regular wetting of worksite materials etc.	
d.25	Regular wetting of all bare surfaces	
d.26	υλικών Wetting of excavated products and aggregates	
d.27	Washing the wheels of trucks	
d.28	Creation of large embankments	<p>The term is taken under consideration in the designs and is documented in the respective Environmental Protection Report accompanying the current road design when submitted for approval to the IE. This means that the realization of the condition is ensured through the designs approval process held by the Independent Engineer.</p>
d.29	Planting and preparation of special planting designs	<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 will be controlled by the Environmental Monitoring &amp; Control Program. Regarding the relevant designs for the reference period:</p> <ul style="list-style-type: none"> <li>• The final landscaping designs for the section from CH. 120+706 - Ch. 129+626 have been submitted to the Independent Engineer for approval with J/V protocol no. 35577/19-04-2011, X.Θ. 145+706 – 168+924,13, α.π. ΚΕ ΕΙ: 35575/19-04-2011).</li> <li>• The final landscaping designs for the sub-sections of 302 from CH. 168+800 to CH. 178+500 (35635/21-04-11 – DAC</li> </ul>
	Watering	
	Collection of topsoil	



A/A	OEMA	Description of Progress - Problems
		<p>IC0487/15-04-11) and 303 &amp; 306 from CH. 188+000 to CH. 196+000 (35636/21-04-11 – DAC IC0486/15-04-11) have been submitted and approved by the IE.</p> <p>The design of restoration works and their budget constitute an integral part of every ETME design (disposal pits, borrow pits, worksites, etc.)</p>
d.30	Fire 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 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. Special attention should be given to areas that are near forests and fields during the summer months. Emphasis is given in order for the machines located at the project area to be equipped with the provided firefighting equipment. Regarding the premises of the site (offices, workshop, laboratory and concrete preparatory) the adequate firefighting equipment like fire extinguishers, sand and water supply to be provided. On the said section there is no worksite. The service is provided from the J/V offices in Kampi of Arta where firefighting equipment are placed (fire extinguishers). Finally, fire stations have been installed at critical points in the work fronts.</p> <p>Finally, to those mentioned in P-18 process are met under the Health and Safety Plan.</p>
d.31	Noise	<p>With respect to the noise during the construction of the project, pursuant to the Program for Environmental Management and in terms of Environmental Monitoring Control Program noise measurements are conducted parametrically of the worksite and the construction faces and the results were within the allowable limits. The said measurements are reflected in maps depicting the extent of the construction of the project and the location the measurements were made. The said maps as well as the measurement, which are repeated at regular intervals (monthly), are included in the noise measurement issue, which is submitted with the annual report.</p> <p>In any case, the legislation applicable on noise is referred to in term c.</p>
d.32	Noise Measurements	It concerns the operation phase.
d.33	Noise barriers	<p>With respect to the provision of placing noise barriers, which concerns the operational phase of the project, with the finalization of the road designs, a Special Acoustics Study for Noise Protection, which shall be submitted for approval to EYPE/YPEXODE, shall be assigned and submitted.</p> <p>The Noise Acoustic Study will examine the areas that are less than 200 m. from the town plan boundary, as well as any existing sensitive uses in areas outside the village limits.</p> <p>Pursuant to the submitted Final Road Designs and as tested in the Final Environmental Assessment Reports of the subsections 302 (IC-C-CO-S322N-CW-0200-000-ENV-EPR-RP.000-01-01-0/11-06-2009) 303 (IC-C-CO-S323N-CW-0200-000-ENV-EPR-RP.000-01-01-0/26-05-2009) and 306 (IC-C-CO-S323N-CW-0200-000-ENV-EPR-RP.000-01-01-0/17-05-2010), the installation of noise barriers may be required in the settlements of Ag. Christoforos (settlement – subsection 302), Επισκοπικού (subsection 303) and in "Pindos" incubator (subsection 306). In</p>

A/A	OEMA	Description of Progress - Problems
		these positions, the cross section of the motorway is such that it allows to install noise barriers in the future, on the shoulder of the road.
d34	Dealing with noise during the construction phase	<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 areas with construction of trenches, is conducted, Amfilohia, Menidi, Gymnotopos etc. 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 monitoring programs and if they exceed the limits, the appropriate measures will be taken.</p> <p>During the preparation period of this report, locations of noise disturbance are not identified. Noisy works are done outside the populated areas and are avoided during quiet hours.</p> <p>In section S2, Marlesi is the settlement closest to the work front, situated about 1,5 km away from where the works are carried out</p> <p>In section S3, the settlements closer to the work front are:</p> <ul style="list-style-type: none"> <li>▪ Ammotopos and Gymnotopos located within 2 km and 1 km around respectively, from where the works are carried out.</li> <li>▪ Ampelia settlement, where the tunnel is constructed. Noise and vibration measurements were carried out in the past, and no limits exceedances were noticed. In the nearest house, in the front entrance, the noise recorded (September &amp; October 2010) did not exceed 52 dbA. The last time there were no other noise measurements due to the suspension of the construction works.</li> </ul>
d.35	Enclosures – worksite noise barriers	<p>If and when shown by the noise measurements that the produced worksite noise exceeds the statutory noise limits, then the issue will be addressed through the Management Plan by taking appropriate measures, including installation of temporary noise barriers.</p> <p>The worksite of Agia Triada was used as a disposal area and has been temporarily fenced. The subcontractors worksites were fenced, except for the worksites on the body of the road (entrance and exit of Ampelia)</p>
d.36	Protection of amphibian crossings in the area of Amvrakia	It will be taken into account during the design and the construction of the fencings of the motorway in this section and if these sections of the project are identified in a distance less than 300m from the Lake Amvrakia.
d.37	Project's Machinery	For some 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.
d.38	Vibrations	<p>A vibration grapher has been procured, control and vibration measurements are carried out and the results, which are attached to the annual reports, were within the allowable limits.</p> <p>In January, February explosions were held in the area of Menidi (S2) and in section S3 (trenches). Explosions are done by external partners who have licensed explosives (there is a copy of the license). Also, during the explosions and vibration measurements, the results are recorded. The works done this specific period of time does not cause any damage to manmade structures and antiquities and cause no nuisance to neighbors and passers-by.</p> <p>In the S2, Marlesi is the closest settlement to the work front, situated at a distance of approximately 1,5 km from the point of the works.</p> <p>In section S3, Ammotopos and Gymnotopos are the settlements closest to the front work, located within 2 km and about 1 km,</p>

A/A	OEMA	Description of Progress - Problems
		<p>respectively, from the point of the work done. Measurements were also made in the past, in the entrance and exit of Ampelia, and the nearest receivers. There was no vibration at the nearest receiver (residence in Ampelia and the nearest building - tank). No construction works during the current period</p>
d.39	Intervention Plan	<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. 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>
d.40	Direct entry of the tunnels in the mountain	<p>It is taken into consideration from the tunnel designs. The implementation of the term is ensured through the studies approval process by the Independent Engineer.</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-embankment. 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 gabions 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>
d41	Rescue – Escape of the entrapped in case of emergency in the tunnel of Ampelia	<p>For Ampelia tunnel, a risk analysis study has already been elaborated - risk analysis study (ar.prot. 12796/21-07-2009), which provides the opening of two escape cross routes.</p>
d42	Maintaining access to the settlements	<p>The observance of the term will be controlled by the Environmental Monitoring &amp; Control Program.</p> <p>Within the time period of this report, there was the need to construct structures in passing roads in Menidi Area and Stanos of Amfilohia, where, via bypasses, the access to villages, rural areas etc. special care is given so that the access to neighbouring properties is not blocked.</p> <p>Letter was sent to the Traffic Service and the Municipality of Filippiada in order for them to be informed as regards the Traffic Regulation for the needs of the construction works execution on Gymnopotamos Bridge, at the village road of Gymnopotamos – Dryofuto (Terna letter with protocol no.: 1421, 20.01.11)</p>
d43	Uninterrupted flow of water	<p>It is taken into consideration in the hydraulic designs. The implementation of the term is ensured through the studies approval process by the Independent Engineer.</p>

A/A	ΘΕΜΑ	Description of Progress - Problems
		Besides, it constitutes the principle of the design which is imposed by the KME
d44	Passage of wildlife	It is taken into consideration in the Final Road and Hydraulic Studies. The implementation of the term is ensured through the studies approval process by the Independent Engineer. Also, as part of the Final Environmental Assessment Reports of subsections designs, the distances of structures of the Final Hydraulic Studies are controlled and compliance with the Term is certified. Finally, there will also be concern during the construction phase.
d45	Protection from corrosion of the natural slope of the project	It is taken into consideration in the elaboration of the hydraulic studies. The implementation of the term is ensured through the studies approval process by the IE.
d46	Automatic stations measuring air pollution and wind	A relevant report is going to be submitted for the location of the stations, which will be submitted to EYPE/Ministry for approval. The operation of the station concerns the operation phase of the project.
d47	Environmental Service	Environmental Service with permanent staff and external partners.
d48		
d49	Annual Environmental Report	The annual report for 2010 has been submitted to EYPE _YPEKA (34183/18-02-2011); the same for the whole J/V. At the end of 2011, a relevant report will be submitted.
d50	ET suggested in the EIS	It is taken into consideration
e1	Local environment - Sensitive elements – Specially Protected Areas	Sensitive environmental elements (settlements, protected areas and sites) were taken into account during the investigation of borrow sites positions, etc. and the elaboration of the STIS and Technical Design TME. The Department of Environment has elaborated a map with the environmental commitments, and pursuant to data under the EIA, which constitutes a tool for exploring of additional spaces and other works, and assistance for all persons involved to the construction.
e2	Μέτρα και έργα για τη διατήρηση των ανωτέρω στοιχείων	-
f	Validity of E.T.	-
g	Modernization, improvement, expansion or modification of the project	As regards the improvements of the alignment, which have been studied, a file is going to be submitted to EYPE, pursuant to Article 13 of the JMD 11014/703/Φ104/14.3.2003, after having the consent of the Service (EYΔΕ ΕΠΑ & IO).
h	E.T. Amendment	-



**SEMI-ANNUAL PROGRESS REPORT FOR THE IMPLEMENTATION OF ENVIRONMENTAL TERMS DURING THE CONSTRUCTION PHASE (A' SEMESTER 2011)**

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A/A	OEMA	Description of Progress - Problems
i	EIA presence on the worksite	The term is met. The EIS and the JMD are kept in the J/V's headquarters, as well as in the subcontractors' and the worksite offices.
j	Non-compliance with the E.T.	-

## ARTA BYPASS

(JMD 120756/96/03.06.1997, JMD 132550/31.07.2003 & JMD  
137938/31.12.2003)

A/A	SUBJECT	Description of Progress - Problems
b	Specific limit values of pollutant loads and concentrations emission according to the applicable provisions	All measures are taken into consideration pursuant to the current legislation.
c	Specific limit values of noise level and vibrations according to the applicable provisions	<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>During the preparation of this report, there was no location/section causing a nuisance. If this happens, the appropriate measurements will be made and the necessary measures will be taken. It has to be noted, however, that the works carried out in that section (construction of fiber-optic network – improvement of the existing road) do not cause nuisance because they are conducted outside the residential areas.</p>
d1.a	Obligation to comply with the environmental terms	<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 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. There are people responsible for implementing the Environmental Management Plan and the compliance with the E.T.</p>
d1.b	Ensure Compliance with E.T.	<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 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. There are people responsible for implementing the Environmental Management Plan and the compliance with the E.T.</p>
d1.c	Ensuring credits for environmental protection projects	It is taken into consideration
d2.a	Permits and Approvals	<p>During the preparation of this report, there was no need for this kind of facilities, because in the said section the works have been executed. In case such need of material, the supply will be realized by subcontractors licensed facilities in the area. The control and monitoring of environmental terms is carried out in accordance with the Environmental Management Plan under the Environmental Monitoring and Control.</p> <p>There is cooperation with a company producing and supplying cement concrete (Artaiki S.A. There is the environmental permit of the said company). The cooperation with this company is supported by vouchers and invoices which are in the accounting department. The said</p>

A/A	SUBJECT	Description of Progress - Problems
		period no use of concrete was made.
d2.b	Materials necessary for the construction of the project	There were no works or activities during the period covered by this report in order to be a need for such facilities. The works and materials are covered by sub-contractors already licensed premises in the area as provided in the E.T. d2v.
d2.c	Disposal of inappropriate excavation products	There were no works or activities during the period covered by this report so as to be a need for new additional areas.
d2.d	Worksites	In this area there is no worksite. The service is available from the offices of the J/V in Kampi, Arta. Also there are two licensed worksites in Campi and Gorgomylo with EYPE protocol no. 107730/05.09.08. Moreover, an overall Environmental Management Plan has been developed under the Environmental Monitoring and Control Program including control procedures referred to in the next environmental conditions.
d2.e	Worksite facilities restoration	
d2.p	Forest areas/ reforestation	For any works or installation the intervention license is needed; this will be requested by the Forest Service. As regards the works within the occupation zone, pursuant to Law 3555/2007 (ratification of the Concession Agreement)/ Article 4/ Par..4a και Law 2445/1996/ Article 2/ Par. 1c.
d3	Archeological Service	No works or activities during the period covered by this report and therefore neither information nor authorization were required by the competent Archeological Service. If required, the term will be met.
d4.a	Uninterrupted flow of waters	These specific requirements of the E.T. mainly concern the current project. In addition, E.T. issues related to the design, are controlled at the time of submission of the study by the Independent Engineer and are substantiated by the Environmental Protection Report, which accompanies each submission of Study.
d4.b	Operation of the existing irrigation and drainage network	
d5.a	Uninterrupted operation of the service facilities	This section has been completed and put into circulation. Cleaning, maintenance and supervision of this department is undertaken by NEA ODOS S.A.
d5.b	Rubbish, waste materials, old parts and machinery, oil, all kinds of grout, etc., and materials combustion (tires, oil, etc.) in the work area.	For the disposal of municipal solid waste there is an agreement with the municipalities and Ksirovouni and Filippiada (there is a relevant document) to receive waste which is collected in special bins of the municipalities with a garbage truck and they are driven to the HYTA of Vlacherna. For the management of the environmentally hazardous materials and the following agreements are concluded and are in force with relevant



A/A	SUBJECT	Description of Progress - Problems
δ5.c	Pollution of surface and ground waters from any oil, fuel, etc.	<p>companies:</p> <p>A) For the management of used oil – ELTEPE S.A.            B) For the management of used oil and petroleum filters, used χρησιμοποιημένου τιλματος (στουπι) and contaminated material (soil, sorbents) from any possible leaking of oil – INTERGEO ΕΠΕ            C) For management of used accumulators (batteries) – SIDESIS S.A.            D) For management of used tires – ECOELASTIKA</p> <p>The separation of these materials is carried out in a specially designed area in a licensed worksite in Kampi and the temporary storage is done in bins and barrels sent from these management companies.            The maintenance of vehicles and machinery are made from a J/V's oil vehicle and in a licensed garage-laundry-lubrication area (there is a license).</p>
d5.d	Operation or modification of existing infrastructure works	No works or activities carried out during the period covered by this report so as for a need for intervention or modification of the existing infrastructure works to be resulted.
d5.e	Ensuring smooth circulation between the residential areas	The subject is controlled through the monitoring of the environmental conditions. In the period covered by this report, no problems are detected as regards the communication/circulation between the residential areas.
d5.f	Use of mechanical dust restraint equipment	
d5.g	Passage of filled trucks transporting materials	The control and compliance relating to adjacent environmental conditions is held in accordance with the Environmental Management Plan under the Environmental Monitoring and Control.
d5.h	Regular wetting of worksite materials etc	No works or activities during the period covered by this report on the said section.
d6.i	Creating a junction in the broader region of Kampi - Chanopoulos circulation from and to Preveza.	These specific requirements of the E.T. mainly concern the current project. Additional E.T. issues related to the design, are controlled at the time of submission of the study by the Independent Engineer and are substantiated by the Environmental Protection Report, which accompanies each submission of Study.
d6.b	Red line adjustment on the section of the motorway adjacent to Ag. Dimitrios settlement	-
δ6.c	Section of road passing through the region of Vlacherna	-

A/A	SUBJECT	Description of Progress - Problems
d6.d	Arachthos bridge	-
d6.e	Arachthos passage	-
d6.f	Louros valley	-
d6.g	Amfithea - cut and cover or small tunnel	-
d6.h	Option B, which bypasses in south the villages of Skamnia and Grammenitsa settlements	-
d7.a	Configuration of the slopes at high levels trenching	-
d7.b	Construction of support measures of small scale in embankments over 10m in height	-
d8	Planting and elaboration of special landscaping designs	The final landscaping designs have been submitted for approval to the IE, and have been approved with D.A.C. – IC0293/29-06-2010.
d9	Fire Protection	There is no worksite. The service is held by the offices of the J/V in Kampi, Arta, where there is firefighting equipment (fire extinguishers). Also all vehicles and equipment have the adequate firefighting equipment.
d10	Farm units not removed from this project until about a decade	-
d11.a	Project's Machinery	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.
d11.b	Noise from the Constructor	For some 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. Finally, 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.
d12		The specific requirements of the E.T. concern mainly the current project. Additional subjects of the E.T. related to the design, are controlled at the time of submission of the Study by the Independent Engineer and are substantiated by the Environmental Protection Report, which accompanies each submission of the Study.
d13	E.T proposed in the EIS	
d14	Change of Project's basic characteristics	

e1	Local environment - Sensitive elements – Specially Protected Areas	Sensitive environmental elements (settlements, protected areas and sites) were taken into account during the investigation of borrow sites positions, etc. and the elaboration of the STIS and Technical Design TME.
e2	Measures and projects in order to maintain the above documentation Described in paragraph d.	-
f	Validity of E.T.	-
g	E.T. Amendment	-
h	EIA presence on the headquarters	-
i	Non-compliance with the E.T.	-