CENTRAL GREECE Motorway E-65 | Gerrovial | DRAGADOS | TIERNA

CENTRAL GREECE MOTORWAY (E-65)

1. INTRODUCTION

This Environmental Management Report is the fourth approach of the Concessionaire's Environmental Management Process and has been drawn up in the context of its contractual obligation deriving from Article 11.2.2 paragraph (ii) of the Concession Agreement, Law 3597/20-07-2007 - OGG 3445A/25-07-2007) and the approved environmental terms of the Project, following which:

"By January 31 of each year a statement on behalf of the body for the construction and operation of the project shall be submitted to EYPE/YPEHODE setting out:

- The road construction works, accompanied by detailed documentation of compliance with environmental conditions.
- Sections of the project that have been received or have been in operation.
- Permits or approvals granted in accordance with the terms hereof.
- •Studies commissioned; qualitative, quantitative and economic data on environmental protection projects and the percentage represented by the expenditure for these projects, in relation to the total expenditure on the construction project.
- Antipollution and environmental protection projects to be done next year
- Summary of the results on the monitoring of noise, air pollution, water quality and wildlife (wolf). Problems that have been encountered, unforeseen circumstances and any information or suggestions that could be useful in order to limit any adverse environmental impacts due to the construction or operation of the project."

This Annual Environmental Management Report refers to the period of 2011.

1.1 DESCRIPTION OF THE PROJECT

State: Hellenic Republic

<u>Concessionaire</u>: CENTRAL GREECE MOTORWAY S.A. <u>Constructor</u>: CENTRAL GREECE MOTORWAY (E65) J.V

Independent Engineer: SCOTT WILSON- OMEK



The scope of the project includes the design, financing, construction, operation and maintenance for thirty (30) years in accordance with the respective Concession Agreement:

- (i) "Central Greece" Motorway with a length of 174 km
- (ii) Skarfia Raches section of the PATHE motorway with a total length of 57 km

The project is a part of the Trans-European Networks (TEN).

It serves international traffic portals in Igoumenitsa and Kristallopigi as well as the trans-regional traffic.

The Central Greece Motorway (E65) starts at CH. 203+000 (almost) of the PATHE motorway and ends at Egnatia Odos, location of Panagia, crossing the prefectures of Fthiotida, Karditsa and Trikala.

It consists of two lanes per direction as well as of one emergency lane. The width of the motorway at the lowland is 24.5 m with a maximum speed limit at 120 km/hour, while at the mountain areas the width is 21.0 m with a maximum speed limit at 110 km/hour.

It includes:

15 Interchanges

7 Toll Stations

6 Motorists Service Stations

3 Operation & Maintenance Centers

5Tunnels

As well as bridges, over- and under-passes, support walls, drain-pipes, fauna passages, etc.



According to the environmental terms of the project, the Central Greece Motorway (E65) is divided in the following three sections:

Section	From CH.	To CH.	A.E.T. Decision*
1 st Section	0+000	85+800	Joint Ministerial Decision 144504/18.11.2005
2 nd Section	85+800	137+550	Joint Ministerial Decision 145521/18.11.2005
3 rd Section	137+550	175+000	Joint Ministerial Decision 147014/18.11.2005

The sections of the Concession Agreement Project are divided in eleven (11) Geographical Units (GU). For each GU, the physical object is analyzed into Groups of similar operations in the Partial Section Bi Price of Designs - Constructions.

The New State Sections that are already being constructed by the State and that after their completion will be incorporated into the Concession Project are as follows:

S/W	SECTION	Km.
12 S/W	Skarfia - Thermopiles section	17,320
13 S/W	Thermopiles - Sperchios section (except for the ERGOSE bridge which is under construction)	8,5
	Bridge under construction by ERGOSE at Thermopiles - Sperchios section	



14 S/W	Sperchios - Ag. Paraskevi I/C	3,5
15 S/W	Ag. Paraskevi I/C - Ag. Marina Section	8,5
16 S/W	Ag. Paraskevi Marina - Raches section	19,200
	Technical works at PATHE - Lianokladi section which is under construction by ERGOSE	

The above New State Sections, pursuant to the relevant environmental terms, are divided into five sections, as stated below:

Section	FROM CH.	то сн.	A.E.T. Decision	Description
Skarfia – Thermopiles in Skarfia – Lamia section of PATHE motorway	Skarfia 179+300 (NEW)	Thermopiles 196+750 (NEW)	JMD 146113/12.07.2005	From OSE (Hellenic Railway Corporation S.A.) Bridge – 250m. NW Edge beginning of Thermopiles I/C 17,5km.
			JMD 126696/06.06.2007	Amendment of the JMD 146113/12.07.2005
Optimization of the National Road to a PATHE motorway in Skarfia – Lamia section, subsection from the beginning of the Thermopiles Interchange to Nea Kiti of Sperchios river".	Thermopiles I/C 198+300	Nea Kiti of Sperchios River	JMD 131550/04.05.2003	8,8km.
"Optimization of the National Road to a PATHE motorway, section from	Nea Kiti of Sperchios	Roditsa I/C	JMD 146109/30.09.2005	3,78km. From 130m. Before



Section	FROM CH.	то сн.	A.E.T. Decision	Description
Nea Kiti of Sperchios river to Roditsa Interchange".	River			the axis of the New Kiti of Sperchios River up to east Roditsa village
"Optimization of Athens – Thessaloniki National Road in PATHE motorway, Lamia – Raches section, subsection from CH. 3+500 to CH. 12+000"	3+500	12+000	JMD 130665/02.05.2003	8,5km. From 211+000
"Overall Bypass at Stilida – Karavomilos"	12+000	31+500	JMD 100198/30.05.2006	19,50km. From New National Road to the western edge of RACHES I/C



- 2. GENERAL ISSUES
- 2.1 BRIEF REPORT

2.1.1 Outstanding Issues

- 1. On September 2011, the Construction J/V of the project submitted a notice to claim on various problems in the up-to-date implementation of the project.
- 2. On 25/01/2011, the J/V informed the Concessionaire on its decision concerning the exercise of the right of the works suspension. After 14/02/2011 only activities concerning settlement of outstanding works and safety and fencing works of the project's constructed sections took place.
- 3. The 2nd EPD was not achieved due to serious delays in the delivery of land. On 11/10/2010, the Technical Dispute Resolution Committee decided that this time extension should be of 10-months, i.e. 31/10/2011. On 14/12/2010, the J/V informed the Concessionaire that there are still delay events relating to the 2nd EPD and therefore the above extension shall not be achieved and a further extension was requested. On 09/02/2011, EGNATIA ODOS S.A. approved a sixmonth extension. EGNATIA ODOS S.A. and the Concessionaire informed the Independent Engineer to defer the opinion as both parties shall attempt to find a consensual resolution of the subject.
- 4. After request for suspension of JMD with no. 147014/18.11.2005 Environmental Terms Approval for the section CH. 137+550 CH. 175+000 submitted to the Council of State by 3 local associations and 2 local authorities of the broader region, a preliminary injunction on behalf of the President of the Fifth Division of the State of Council regarding the suspension of the said JMD until the issuance of the decision on behalf of the Suspension Committee on the pending application for suspension was issued. All J/V's works in this section have been suspended from 02/07/2010.
- 5. The J/V has not received the approved Certifications 11 to 19 (Works of April, May, June, July, August, September, October, November & December 2010), which amount to 116.108.344,58 € plus VAT and amortization of payment, creating a serious problem of financing and influencing clearly the pace of construction which led to the suspension of the works.
- 6. On 15/11/11, BUREAU VERITAS issued a certification to ISO9001: 2008.
- 7.The revised delivery deadline of $12N\Delta-13N\Delta-14N\Delta-15N\Delta-16N\Delta$, i.e. 25/6/2009, 10/9/2009, 28/06/2010 & 28/06/11 respectively, has not been achieved (only the area for the toll stations construction on Thermopiles I/C, section CH. 9+630-CH. 10+385 for the construction of Agia Triada and Molos toll stations were delivered; Molos lateral toll stations cannot be completed due to additional pending expropriation)
- 8. There is a significant works disruption along the Motorway due to non-delivery of reserved areas where archaeological findings were identified.



9. With respect to the Public Utility Networks, so far relevant applications have been completed until 25/4/2011 (removing mainly electricity networks). The concerned department –DEH (PPC) - has started works on GE 1N.2, 4N, 5N, 6N, 7N, 8N & 9N but the whole process has already been delayed overdue and it should be speeded up since it causes disruption of works.

10. The 31.3.2009 contractual deadline for delivery of the private lands has not been achieved. Furthermore, the public lands of the project have been officially delivered to the J/V with more than one year of delay although the ownership of some sections is not clear. As regards the private land through requisition process, there are still "gaps" (reference date 25.12.2011).

In many cases the received sections are not continuous including nonexpropriated parcels and do not allow the occupation of land across the width of the expropriated zone in sufficient length with obvious implications in the progress of the construction.

- ➢ GU 1N.1 (CH. 0+000 CH. 6+200), on 14/02/2011 all non-delivered sections have been delivered. Also, on February 2011, ERGOSE finally (with one year of delay) suggested sites for the deposition of gravel located at the CH. 5+610/5+680, but due to the current suspension of works, this activity cannot be completed. In GU 1N.2 (CH. 6+200 CH. 14+500), on 14/02/2011 all non-delivered sections have been delivered. It should be noted that up to 14/02/2011 the situation of the expropriations for the critical section CH. 0+000 − CH. 14+500 was remaining unchanged from 05/03/2010 (almost one year of delay), which was the date of the last delivery protocol and thus the finally approved extension of the 2nd EPD completion fails.
- ➤ In GU 2N.1 (CH. 14+500 CH. 28+500), there are still non-delivered sections (63 parcels). Most parcels are located on the main motorway and prevent the construction of embankments, structure and the access to the places of works. As regards the vertical roads and the service roads, they are also prevented.
- ➤ In GU 2N.2 3N.1 (CH. 28+500 CH. 43+200), for G.U. 2N.2 there is a revocatory land register (CH. 29+267 CH. 30+326), for 3N.1 (up to CH. 43+200) the relevant land register study has been approved by the D12. However, no expropriation has taken place in any of those two G.U.
- ➤ In GU 3N.2 & 3N.3 (CH. 43+200 CH. 48+161), on 20/01/2011 some scattered areas between CH. 46+813 CH. 48+145 have been received. Up to date OSE sections CH. 43+200 CH. 47+000 have not been delivered.
- ➤ In GU 4N, 5N, 6N.1 (CH. 48+500 CH. 90+500), some requisitions have been paid but not all of them. In the City of Menelaida (CH. 47+000 CH. 56+000), the parcel owners, accompanied by the police, stopped the works, although these parcels are delivered to the J/V as public land.



Serious delays in the commencement of construction works of Overpasses due to the refusal of the owners of adjacent parcels to lease the land for the diversion of traffic resulting in the creation of large detours causing additional delays. Furthermore, OSE areas on CH. 76+710 have not been delivered. Finally, there is a delay of works due to non-requisitioned parcel in CH. 80+880, which occupies almost the entire width of the road artery.

- ➤ In GU 6N.2 (CH. 90+500 CH. 97+000), the delivery of land has not been completed.
- ➤ In GU 7N.1 (CH. 97+000 CH. 109+500), on 18/05/2011 all pending sections of land have been delivered.
- ➤ In GU 7N.2 (CH. 109+000 CH. 500-111), on 18/05/2011 all pending sections of land have been delivered.
- ➤ In GU 8N (CH. 111+000 CH. 123+000), there are still inconsistencies and undeliverable lands in Raksa area (CH. 116+000 ~ CH. 122+000), resulting in failure to perform the works (i.e. Under Pass CH. 117.1). In this region (Raksa), the non-completion of the delivery of land creates a negative timeframe, given the archaeological involvement in the same region as well.
- ➤ In GU 9N (CH. 123+000 CH. 136+000), there are still properties that appear to be public but they are claimed by individuals and the access to the motorway and the works execution is impossible, creating a negative timeframe.
- ➤ In GU 10N (CH. 136+000 CH. 144+000). Undeliverable lands remain in section CH. 137+200 ~ CH. 144+000. By 02/07/2010 works in the section from CH. 137+553 ~ CH. 144+000 after the temporary injunction by the Council of State have been interrupted (No. 827/2010).
- ➤ In GU 11N.1, 11N.2 & 11N.3 Suspension of all works by 02/07/2010 because of a temporary injunction by the Council of State (No. of request for works suspension 827/2010).
- ▶ Regarding PATHE, the works are delayed because both the contractual and the revised land delivery dates in sections 12NΔ, 13NΔ, 14NΔ have not been achieved (construction area of Thermopiles I/C toll station was delivered on 03-02-2010). Under Protocol VII, a section of motorway from CH. 9+630 CH. 10+385 was delivered to the J/V for the construction of the frontal toll stations of Agia Triada and Molos I/C and in particular the road SRK3 and branches 1.2 for the construction of Molos lateral toll station. The delivered areas have serious problems due to the already established construction work in Agia Triada and the non-delivery of additional land expropriations in Molos I/C. In addition, there are delays in 15NΔ section because of inalienable land in the areas of Mavromantila and Agia Paraskevi toll stations.

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CENTRAL GREECE MOTORWAY (E-65)

2.1.2 Report period

1. At the reporting date of this report (31/12/2011) the main issues of the involved with the Public Utility Networks work are the following:

> PPC:

GU 1N.1: The low-voltage and medium-voltage networks in the area where the sections AB1 & AB2 are crossing the Old National Road have been relocated.

GU 1N.2: The relocation works of High Voltage in Lianokladi MSS remain stopped affecting the safe construction of the embankments higher levels (the PPC conducted an inspection on 17/9/2010). The local Service of PPC has not responded so far on the relocation of networks along the axis (CH.8+470, CH. 10+300, CH. 11+300, CH. 12+040, CH. 12+500) since EOAE has not proceeded with the relevant payment. However, PPC has started the works on the relocation of the electricity network in CH. 9+500 of E-65 main artery, but the quality of the restoration works is not acceptable, since the embankment works of the motorway in this CH. have been completed; hence PPC subcontractors carry out excavations on our embankments so as to create underground passages. Finally, the issue of power cut and relocation of drilling (CH. 8+470, CH. 10+300, CH. 11+300) remains, while impeding the embankments construction. The relocation of the electricity grid from the vertical road to Kompotades in CH. 12+831 has been completed. Also, OSE optical fibers in TE47 1 structure in Karpenissi I/C branch 1 impede the construction of the A1 abutment and thus the completion of branch 1 for the linking of E65 with the existing National Road. On 20/09/2010 a visit was conducted by OSE representatives, but this issue still remains given that the relevant report has been sent to EOAE on 11/01/2011. All the above pending problems have created continuous delays resulting to the failure even of the approved extension for completion and to the request of a new extension.

GU 3N.2 – 4N: Delays in the PPC networks relocation. On 11/2/2011 a relocation of PPC network took place in the section between CH. 43+200 – CH. 47+500 and CH. 53+900 – CH. 54+200. There was timely communication (correspondence) with PPC of Lamia & Karditsa as regards the networks of Anavra - Thavmakos new connecting road.

GU 5N, 6N.1: There are delays due to non-timely networks relocation. The relocation of the electricity network in the area of Karditsa I/C has not been completed in CH. 89+500.



GU 6N.2: All Public Utilities Networks within the expropriation zone of the project have been localized and all necessary arrangements for their relocation have been made.

GU 7N.1: All Public Utilities Networks within the expropriation zone of the project have been localized and all necessary arrangements for their relocation have been made.

GU 7N.2 & 8N: The relocation cost of PPC network from EOAE has been paid. Relocations in progress.

GU 9N: The network design and relocation in the area of Kalampaka I/C is still pending.

GU 10N: Contacts with PPC and additional information and clarifications provision in order for the relevant relocation design to be made.

PATHE/GU 12N: No relocation of PPRC network has been realized in the area from CH. 10+270 and 12+160 SRD1 (Responsibility EYDE PATHE TKE LAMIA).

PATHE/GU 12N: The relocation of PPC network has not been completed in DRS3 (Mavromantila Toll Station)

→ Hellenic Organization of Telecommunications (OTE):

PATHE: Horizontal alignments have been submitted to all the organizations of telecommunications for possible underground networks and their relocation. WIND & COSMOTE have been answered negatively so far. The air network from 12+300 to 12+500 (SRD1) has not been relocated.

Local Organization For Land Improvement (TOEB)

GU 6N.1: The rehabilitation works of TAVROPOS irrigation network have been started on January 2011.

GU 8N&9N: The relocation works of Theopetra TOEB and Vassiliki TOEB have been started. Contact with YEB of Trikala for the acceleration of the design regarding the relocation of Raksa irrigation system (110+500 – 115+600).



Water supply – Drainage

GU 1N.2: The Municipal Water Supply and Sewerage Company of Lamia (DEYAL) has not yet relocated part of the water supply pipeline to the area of TE40 overpass which affects the construction of the embankments in the area.

➤ Military fuel pipeline in CH. 111+950 and 122+990:

GU 8N: GEA submitted the safety standards of the fuel pipeline, and details on the relocation of the pipeline on 26/06/2010. In Vassiliki I/C (CH. 122+800) where, - according to the instructions of GEA - changing of the route of the pipeline will be demanded, a technical solution along with the design of the junction is under consideration.

- 2. The designs preparation and submission is under development.
- 3. The process to obtain permits for quarries, borrow pits, disposal site and equipment is in progress for the project's needs. The requests for the permits have been sent to the relevant services. Moreover, five (5) from these have been approved in their entirety (Kalamaki, Geladaria, Onohonos River, Geladaria, Kioska/Anavra) so far, while many areas have been rejected from the involved Archaeological Services & Forestries. Especially for the area of Lamia the relevant STIS for borrow pits has been submitted in early March 2009 and has been approved on 11/08/09 (lapse of 5 months), having received a final complete approval (including the lease of site) only for one (1) in Kalamaki, and thus the construction of embankments is in severe delay. The whole issue is critical.
- 4. A Certificate of Environmental Control for Thermopiles I/C has been issued. Regarding Molos I/C, despite the fact that a design on traffic regulations has been submitted and implemented, the IE did not issue the Certificate of Environmental Control because of lack of necessary expropriated site in branch 1.
- 5. The implementation of the Environmental Operating System of the Project continues as usual.
- 6. The review of the Environmental Management System of the Project is under development.

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2.1.3 Problems and possible risks

- Since the J/V works are suspended, all G.U. are entrusted with additional delays corresponding to at least the period from 14/02/2011 to the end of the suspension of works and the remobilisation time of the resources required.
- Delays in the process of requisition which also lead to delay in the delivery of certain sites and in turn of several parts of the project, as in GU 1N.1 & 1N.2 (0+000 14+500) where the 2nd Exclusive Deadline was not achieved and a 10-month extension has been granted. The fact that these expropriations are finally completed on 14/02/2011, and the aforementioned delays in Public Utility Network relocations resulted in failure to achieve the approved extension (31/01/2011), and an extra extension has been requested.
- Also, delays occur in the G.U. 8N, 9N, 10N, 11N where, in addition to the last two sections, the construction J/V works have been interrupted on 02/07/2010 (CH. 137+000 - CH. 553+175), due to a temporary order of the Council of State (no. 827/2010). Under these circumstances, the 3rd Exclusive Partial Deadline was not achieved.
- A temporary bypass of ERGOSE of the existing Lamia-Karpenissi National Road, along with the suspension of the works of ERGOSE Bridge (constructor MICHANIKI S.A.) prevents the construction works on E-65 motorway in CH. 15+375, until the completion of this bridge.
- Delays in the test archaeological cuts due to the fact that the sites are not delivered and also due to the inadequacy of the staff provided by the Archaeological Services at GUs 2N, 4N, 5N, 6N, 9N & 10N. The continued delays are in contradiction with the approved schedule (according to which most of the works should have been completed on June 2009. For example, in G.U. 1N.2 (CH. 14+200), the archaeological salvage works were interrupted on 06/12/2010 following the termination of the on-site personnel contract. The works were restarted in March 2011.
- Delays due to the delayed relocation of Public Utility Organizations at GU 1N.2, 5N, 6N, 7N, 8N.
- Delays due to the lack of the appropriate sites of withdrawal or rejection (borrow pits/disposal pits), as up to now a number of many sites suggested by the Construction J/V has been rejected by the Archaeological & Forest Services. Delays were also due to the delay of the competent Service to



reply to our submissions. For example, up to now, only one (Kalamaki Vryssi) of the four (4) borrow pits to be approved in the area of Lamia has received a permit on April 2010 – thirteen (13) months following the relevant request which seriously affected the progress of the embankments at GU 1N. Moreover, the Cadastral Service of Karditsa Prefecture received approval to intervene in the withdrawal of material and arrangement of the Onohonos' riverbed, in accordance with the approved studies (Special Technical Implementation Study <STIS> & River Delimitation Study). During the progress of the works, some residents appeared who claimed that they own the area of the works without having proprietary titles which led to the disruption of the works.

- Letter from the Prefecture of Karditsa, which asks the modification of the approved studies at E65 Motorway and additional crossings, issues that lead to delays and increase the cost.
- Officially, specific regulations from EOAE regarding the design of KO34 area (CH.108+450) are still pending, given that the study of the basic design has been basically annulled since the relevant land and property register has been withdrawn.
- In the area of Raksa (CH. 118+000 CH. 122+000), the commencement of works for the relocation of the irrigation network, which impede the earthworks, is impossible due to the non-completion of the delivery of land. The situation is serious creating a negative time delay since there are no designs for its relocation, due to the non-response on behalf of the competent local services.
- The logging of the area CH. 139+000 ~ CH. 139+200 is still pending (abandoned military camp) due to on behalf of the unit.
- Delay due to failure to accomplish the revised delivery deadline of the site for sections (12ΝΔ-13ΝΔ-14ΝΔ-15ΝΔ-16 ΝΔ) on 25/6/2009, 10/9/2009, 11/9/2009, 28/6/2010 & 28/06/2011respectively. Delay in the entire completion of the toll station at Molos I/C due to the additional expropriation, although the toll stations have been delivered with appropriate traffic regulations. Non-delivery of land for the construction of toll station in Ag. Marina & Karavomilos.
- Delay due to the existence of worksite installations by third parties within the range of works occupancy (Agia Triada Toll Stations) at the section 12NΔ thus creating serious problems for the works until the sites are completely



free. Furthermore, there is a delay in the construction of the ITS network at Roditsa I/C (14N Δ) due to the incomplete works at PATHE.

 Delays in the construction of toll stations on G.U. 15NΔ due to nonexpropriation in the construction areas of Mavromantila and Agia Paraskevi toll stations. Possible delays in the progress of works of SRD1 due to failure to relocate the PPC network in CH. 10+270 and 12+160.

2.2 ENVIRONMENTAL REQUIREMENTS

The design, construction and operation of the project are in full compliance with the Approved Environmental Terms as well as with all the requirements that derive from the Concession Agreement (C.A) and the attached contractual documents (Design & Construction Agreement, Special Conditions of Contract, Technical Conditions of Contract, Project Design Regulation) as well as with the applicable legislation.

Basic requirement for the construction of the project is the Law No. 3597/20.07.2007 (GG 3445A/25.07.2007), which includes the contractual issues, the current legislation, as detailed in the previous Environmental Management Reports (semi-annual and annual ones), as well as the conditions and restrictions arising from the individual permits and approvals, including STIS of the various individual projects, the approvals of amendments of the main road project, etc., for which the contractor of the Project is responsible.

Finally, it is noted that in 2011 there has been rapid progress in the legislative work of YPEKA, changing radically the Environmental Legislation. It is significant that the way of projects' environmental license and activities as well as the environmental control system have been reset (Law 4014/2011 - OGG 209A/21.09.2011). The new legislative framework aims to provide effective protection of the environment while reducing the time required to process and the number of projects requiring environmental authorization so that the EU average to be approached. Moreover, it develops a "red line" on illegal construction so as to be effectively combated in the future and the environmental balance in the existing exceedances that can and should be addressed, to be restored.



The 2011 legislative work of YPEKA is set out in the table below.

Table 2.2-1: YPEKA legislative work

Date	Number	Subject			
LAWS & PRES	SIDENTIAL DECREES	,			
21.09.2011	Law 4014/2011 OGG 209/A/2011	Environmental licensing of projects and activities, measures against illegal constructions in relation to creating environmental balance and other provisions falling within the Ministry of Environment competence.			
22.08.2011	Law 4001/2011 OGG 179/A/2011	Operation of Electricity and Gas Energy Markets, for Exploration, Production and transmission networks of Hydrocarbons and other provisions.			
17.6.2011	Law 3983/2011 OGG144/A/2011	"National strategy for protecting and managing the marine environment - Compliance with Directive 2008/56/EC of the European Parliament and Council of June 17, 2008 and other provisions"			
31.03.2011	Law 3937/2011 OGG 60/A/2011	Biodiversity conservation and other provisions			
DECISIONS &	DECISIONS & CIRCULARS				
13.01.2011	Decision with protocol no. 1958, 13.01.2012.	Classification of public and private projects and activities into categories and subcategories pursuant to article (4) of Law 4014/2011 (OGG A'209/2011)			
12.12.2011	Circular with protocol no. oik.4631.109	Permits for collecting and transporting waste			
8.12.2011	Amendment of the olk.150559/10-6-2011 (OGG B' 1440) KYA	Amendment of Decision no. oik.150559/10-6-2011 of the Ministers of Interior and Decentralization and E-Government, Finance, Economics, Competitiveness and Shipping, Environment, Energy and Climate Change, Infrastructure, Transport and Networks, Rural Development and Food, Culture and Tourism: "Procedures, terms and conditions for granting permits on existing rights of water use"			
18.11.2011	Circular with protocol no. ок. 4151.87/18.11.2011	Issue of exculpatory certificates during the process of environmental licensing of AΠE projects			
10.11.2011	Circular with protocol no. ок. 4095.82/10.11.2011	Clarifications on the elimination of waste management licenses pursuant to Article 12 of Law 4014/2011			
7.11.2011	Circular with protocol no. 1589/03.11.2011	Clarifications on the proper implementation of the JDM 45116/02-02-2011 (OGG B'354/2011) "Determination of measures, conditions and procedures for the reuse of treated wastewater and other provisions" after the issue of Law 4014/2011 (OGG 209/21-09-2011)			
4.10.2011	Circular with protocol no. оік.	Clarifications on the proper implementation of the JMD oik. 150559/10-6-2011 (OGG 1440 B')			



Date	Number	Subject
	150977/04.10.2011	"Procedures, terms and conditions for granting licenses on existing rights of water use" and the JMD no. 43504/2005 (OGG 1784 B')
09.09.2011	JMD with protocol no. ок. 140384	Definition of National Monitoring Network of the quality and quantity of water by determining the measurement positions (stations) and bodies which are required to operate them, pursuant to Article 4 (4) of Law 3199/2003 (A´280).
10.06.2011	Circular with protocol no. ок.150895/13.09.2011	Clarifications on the proper implementation of JMD oik. 150559/10-6-2011 (OGG 1440 B') "Procedures, terms and conditions for granting licenses on existing rights of water use" and the JMD no. 3504/2005 (OGG 1784 B')
13.7.2011	Circular with protocol no. οικ.150673/13.7.2011 (4ΑΣΡΟ-Ν1Ν	Responsibilities of the Decentralized Administrations and Regions of the country in the water section based on Law 3852/2010
02.02.2011	JMD with protocol no. 150559/10.06.2011 (AΔA: 4A2X0-Φ)	Procedures, terms and conditions for existing rights of water use
02.02.2011	Circular with protocol no. οικ.145447/23.06.2011 (ΑΔΑ: 4Α3Υ0-4)	Clarifications on the proper implementation of the JMD 45116/02-02-2011 (OGG B'354/2011) "Determination of measures, terms and conditions for the reuse of treated waterwaste and other provisions"
05.01.2011	No. oik. 171164 OGG B 2 05.01.2011	Determination of the amount of allowances for greenhouse gas emissions that are available for auction according to the National Allocation Plan (NAP) for greenhouse gas of 2008-2012 period.



3. ENVIRONMENTAL MANAGEMENT OF THE PROJECT

3.1 ENVIRONMENTAL MONITORING & CONTROL PROGRAM

The "Environmental Monitoring & Control Program" is based on the environmental terms of the project and on the Concession Agreement and includes the following:

- Prioritisation of protective actions measures that should be taken by the Constructional J/V according to the Environmental Terms and other contractual obligations.
- The designs, studies and technical reports that should be drawn up in the framework of construction and operation of the project and that involve several environmental issues.
- The implementation control process of the terms and actions by the competent authorities.

The purpose of the Environmental Monitoring & Control Program is to clearly determine the actions and measures required for the environmental management of the construction phase of the project and that derive from recording and assessing the environmental terms, other obligations or guidelines arising from the contractual documents and the applicable legislation.

The Environmental Monitoring & Control Program has been prepared for issues concerning the construction of the project and submitted to the Concessionaire.

3.2 ENVIRONMENTAL MANAGEMENT SYSTEM – ENVIRONMENTAL TERMS COMPLIANCE CHECKLISTS



The Environmental Management System is drawn up based on the Environmental Monitoring & Control Program where relevant procedures on the project's environmental management are included.

The responsible department for the environment in cooperation with the project engineers carry out regular inspections and complete relevant checklists by applying the "Environmental Monitoring & Control Program". Furthermore, they provide the necessary orders or guidelines that are based on the Environmental Monitoring & Control Program for every issue related to the environment.

The Environmental Management System, which is applied by the J/V, has been drawn up under ISO 14001:2004 and consists of the Manual, the Procedures, the Guidelines and the Forms that are related to the environment and the observance of the project's environmental requirements. The Environmental Management System is applied uniformly throughout the project and is currently in continuous progress in order to meet the project's needs.

3.3 MONTHLY, SEMI-ANNUAL AND ANNUAL PROGRESS REPORT FOR THE IMPLEMENTATION OF ENVIRONMENTAL TERMS

At the same time, in order to control the Program and shortly inform the bodies monitoring the construction of the project, monthly and annual progress reports for the implementation of the environmental terms are drawn up. These monthly reports include:

- Works or designs carried out regarding the implementation of the Environmental Terms and all possible variations on the Environmental Monitoring & Control Program.
- The relevant actions of the persons responsible (inspections, special reports, etc.).
- The results of the inspections and the conclusion of the monthly checklists
- A full photographic presentation of the environmental issues



At the end of each semester, a semi-annual progress report is being drawn up with respect to the implementation of the Environmental Terms in accordance with article 11.2.2., case (ii) of the Concession Agreement.

In January of each year, an annual progress report is being drawn up, pursuant to article 11.2.2 (iii) of the Concession Agreement, which includes the annual review of all issues described in the periodical reports.



4. ENVIRONMENTAL ISSUES PROGRESS – WORKS CONSTRUCTION

The progress of the construction works is submitted by the joint venture Central Greece Motorway E65 to the Concessionaire via monthly reports of progress.

The above paragraphs constitute the documentation for the compliance of the environmental commitments regarding the construction works progress.

4.1 PERMITS - DESIGNS - APPROVALS

This section presents all requests submitted by the Constructional Joint Venture in order to obtain permits for the implementation of the project. Furthermore, the relevant designs that arise from the obligation to observe the contractual requirements, the applicable legislation and the environmental terms of the project are presented.

4.1.1 Permits and approvals in accordance with the environmental terms of the project.

In the context of observing the environmental terms and other requirements on the environmental licensing of the ancillary works, relevant Special Technical Implementation Studies (STIS) are being prepared and submitted. The competent authority for this approval is EYPE/YPEKA.

The following table (table 4.1.1-1) presents all relevant information on the submissions conducted to EYPE/YPEKA.



Table 4.1.1-1 Ancillary Works Environmental permit

No.	Ancillary work	Area	Submission to EYPE (ref. no. EYPE)	EYPE's Decision	(Approval, resubmission-rejection, etc.)
1.	MATERIAL WITHDRAWAL FROM ONOHONO RIVER (BP5N1)	Municipality of Sofades, Prefecture of Karditsa	141388/25-6-2009	141388/04.08.2009	STIS approval
2.	BORROW PIT AT AGIA PARASKEVI, "KALAMAKI BR" (BP1N3)	Municipality of Agia Paraskevi, Prefecture of Lamia, Prefecture of Fthiotida	136998/05.03.2009	136998/28.07.2009	STIS approval
3.	WORKSITE AT AGIOS TRIFONAS, LAMIA (MSS CH. 12+000) (IS1N1)	Stavros, Municipality of Lamia, Prefecture of Fthiotida.	136998/05.03.2009	136998/28.07.2009	STIS approval
4.	BORROW PIT / DISPOSAL SITE "Pyrgaki - Kofina" (BP/DS1N1)	Stavros, Municipality of Lamia, Prefecture of Fthiotida.	136998/05.03.2009	136998/28.07.2009	STIS approval The Regional Forestry Directorate does not approve the license of intervention
5.	BORROW PIT "Platana - Rema" (BP1N2)	Lygaria, Municipality of Lamia, Prefecture of Fthiotida.	136998/05.03.2009	136998/28.07.2009	STIS approval
6.	BORROW PIT AT "MAGOULA" SPERCHIOS RIVER (BP1N4)	Magoula, among Municipality of Ypati and Lianokladi, Prefecture of Fthiotida	136998/05.03.2009	136998/28.07.2009	The position has been rejected by STIS
7.	BORROW PIT AT Asprokambos, GERAKARIS STREAM(BP1N5)	Kompotades, Municipality of Ypati, Prefecture of Fthiotida.	136998/05.03.2009	136998/28.07.2009	STIS approval
8.	BORROW PIT AT "AERODROMIO" AREA (BP6N1)	Kefalovrysso, Municipality of Faloria, Prefecture of Trikala	140546/04.06.2009	140546/29.07.2009	STIS approval



No.	Ancillary work	Area	Submission to EYPE (ref. no. EYPE)	EYPE's Decision	Comments
			110. 211 2)		(Approval, resubmission-rejection, etc.)
9.	ETME Review	Kefalovrysso, Municipality of	148761/18.12.2009	121188/29.01.2010	STIS approval
	Borrow Pit "AERODROMIO"	Faloria, Prefecture of Trikala			
	(BP6N1)				
10.	Borrow Pit "Kioskia" (BP4N1)	Municipality of Tamassi, Prefecture of Karditsa, Anavra	143395/10-08-2009	143395/02-09-2009	STIS approval
11.	Borrow Pit "Geladaria" (BP4N2)	Municipality of Tamassi, Prefecture of Karditsa, Anavra	145522/16-10-2009	145522/17-11-2009	STIS approval
12.	Anavra Worksite "Kedrakos" position (IS5N1)	Municipality of Tamassi, Prefecture of Karditsa, Anavra	143394/10-08-2009	143394/02-09-2009	STIS approval
13.	Agios Georgios Worksite "Voulgarolakka" position	Municipality of Kampos, Agios Theodoros, Prefecture of Karditsa	143394/10-08-2009	143394/02-09-2009	STIS approval
14.	"GKOLNA" Worksite (BP5N4)	Municipality of Goriani, Prefecture of Grevena	121768/10-02-2010		The study has been returned due to the decision of the Council of State for temporary suspension of works in the 3 rd JMD.
15.	Borrow Pit in "Mavrogies" position (BP5N4)	Sikeona, Municipality of Filo, Prefecture of Karditsa	121768/10-2-2010	14693/10.11.2011	STIS approval
16.			Resubmission 14076/16.06.2011 (J/V protocol no.)		
17.	Borrow Pit in "Vrontaria" Position (BP6N2)	Fiki, Municipality of Pialia, Prefecture of Trikala	124501/21.04.2010	127798/08.07.2010	STIS approval
18.	Stone processing installation in the quarry materials – borrow pit in "Pyrgaki" Position (IS1N2)	Stavros, Municipality of Lamia, Prefecture of Fthiotida	144259/11.09.2009	144259/17.11.2009	STIS approval
19.	Stone processing installation in the quarry materials – borrow pit in "Kalamaki Vr." Position (IS1N3)	Agia Paraskevi, Municipality of Lamia, Prefecture of Fthiotida	144259/11.09.2009	144259/17.11.2009	STIS approval



No.	Ancillary work	Area	Submission to EYPE (ref.	EYPE's Decision	Comments
			no. EYPE)		(Approval, resubmission-rejection, etc.)
20.	Stone processing installation in the worksite facilities of Lamia (IS1N4)	Stavros, Municipality of Lamia, Prefecture of Fthiotida	144259/11.09.2009	144259/17.11.2009	STIS approval
21.	Washing of aggregates with a sieve in the sand borrow pit in Gerakaris r. (IS1N5)	Kompotades, Municipality of Ypati, Prefecture of Fthiotida	144259/11.09.2009	144259/17.11.2009	Rejected due to refusal of the leasing application by the Mortgage Service of Prefecture of Fthiotida
22.	Worksite in Kalampaka MSS position (CH. 132+000) (IS9N1)	Municipality of Kalampaka, Prefecture of Trikala	125561/17.05.2010	199070/09.05.2011	Rejected by EYPE due to location within the region of Natura 2000.
23.	Worksite in "Lampes" position (IS6N1)	Proastio, Municipality of Selana, Prefecture of Karditsa	126671/11.06.2010	195831/31.01.2011	STIS approval
24.	Worksite in "Samolaka" position (IS2N1)	Styrfaka, Municipality of Lianokladi, Prefecture of Fthiotida	126332/04.06.2010	127799/08.07.2010	STIS approval
25.	Borrow Pit "Ammoudes" (BP5N5)	Filia, Municipality of Sofades, Prefecture of Karditsa	9285/26.07.2010 (J/V prot. no.)	132626/ 22.11.2010	STIS approval
26.	Borrow Pit "Haliades" (BP5N6)	Filia, Municipality of Sofades, Prefecture of Karditsa	9567/03.08.2010 (J/V prot. no.)	132626/ 22.11.2010	STIS approval
27.	Worksite of Perivoli (IS3N1)	Perivoli, Municipality of Ksiniada, Prefecture of Fthiotida	9575/06.08.2010 (J/V prot. no.)		Expected to be approved
28.	Worksite (IS2N3) in "Ohiro" position (T2 tunnel exit area)	Moshokaria, Municipality of Lianokladi, Prefecture of Fthiotida	128699/09.08.2010	201981/01.08.2011	
29.	Temporary deposit in "Fteres" position (DS2N1)	Moshokaria, Municipality of Lianokladi, Prefecture of Fthiotida	128343/23.07.2010	201981/01.08.2011	



No.	Ancillary work	Area	Submission to EYPE (ref. no. EYPE)	EYPE's Decision	Comments (Approval, resubmission-rejection, etc.)
30.	Asphalt plant and material mixer 3A	Anavra, Municipality of Tamassi, Prefecture of Karditsa	128343/23.07.2010	201980/01.08.2011	STIS approval
31.	Environmental permit on wells drilling within the project "Planting - Irrigation and Rehabilitation of the area for the section CH. 56+000 – CH. 90+000 of Central Greece motorway (E65)."	CH. 56+000 – CH. 90+000	13323/01.04.2011 (J/V protocol no.)		Submission of Pre-study on Environmental Assessment
32.	Materials and 2units of asphalt mix in "Sykia" position (IS1N7)	Koma, Municipality of Lamia, Prefecture of Fthiotida	201026/06.07.2011		Expected to be approved
33.	Borrow pit in "Fournia" position (BP3N2)	Makryrachi, Municipality of Ksiniada, Prefecture of Fthiotida	204542/27.10.2011		Expected to be approved
34.	Lateral toll Station in CH. 60+200	Anavra, Municipality of Sofades, Prefecture of Karditsa	204541/27.10.2011		Expected to be approved
35.	Operation and Maintenance Centre in CH. 69+700	Municipality of Sofades, Prefecture of Karditsa	204544/27.10.2011		Expected to be approved
36.	Frontal Toll Station and administration building in CH. 65+650	Municipality of Sofades, Prefecture of Karditsa	204543/27.10.2011		Expected to be approved
37.	Borrow pit in the region of Agios Stefanos (BP3N5)	Agios Stefanos, Municipality of Ksiniada, Prefecture of Fthiotida	204863/08.11.2011		Expected to be approved

Within 2012, additional relevant designs of more ancillary works such as disposal sites, worksites, borrow pits, etc. are expected to be submitted in order to receive environmental permit.

Moreover, in line with the environmental terms of the project, the respective permits and opinions are obtained by the competent authorities, such as Forest Services, Archaeological Services, Local Administration Services, etc.



The Constructional Joint Venture submits the required requests to obtain relevant permits. The main competent services involved in the project are the following:

- Forest Service of Lamia
- Forest Service of Karditsa
- Forest Service of Trikala
- Forest Service of Kalampaka
- Forest Directorate of Grevena
- I\(\Delta \) Service of Prehistorical and Classical Antiquities
- ΛΔ Service of Prehistorical and Classical Antiquities
- A Service of Prehistorical and Classical Antiquities
- 19th Service of Byzantine Antiquities
- 24th Service of Byzantine Antiquities
- 17th Service of Byzantine Antiquities
- · Regional Unit of Fthiotida
- Regional Unit of Karditsa
- Regional Unit of Trikala
- Regional Unit of Grevena
- etc.

The following table (table 4.1.1-2) presents all requests submitted by the Constructional Joint Venture in order to obtain the relevant permits and opinions issued by the services in the framework of the project.

Table 4.1.1-2
Requests for permit by the relevant competent authorities (2011)

A/A	Service	Subject	Request	Response		Remarks
			J/V protocol no.	J/V protocol no.	Service protocol no.	
1.	YPEKA / Mining inspectorate of Southern Greece	Submission of Activity Statements on exploitation of aggregates quarry / Borrow Pit at "Kalamaki Vryssi", Municipality of Lamia, for the year 2010	13643/29.04.2011			For information
2.	Prefectural Administration of Fthiotida Directorate of Technical	Request for opinion on renting of quarry area / Borrow pit at "Fournia", Municipality of Ksiniada	10252/21.09.2010	12002/04.01.2011	TY9173,10676/20.12.2 010	Positive opinion



A/A	Service	Subject	Request	Response		Remarks
			J/V protocol no.	J/V protocol no.	Service protocol no.	
	Services					
3.	Forest Service of Lamia	Request for opinion on renting of quarry area / Borrow pit at "Fournia", Municipality of Ksiniada (BP3N2)	10252/21.09.2010	12562/09.02.2011	9333/22.12.2010	Positive opinion
4.	Forest service of Lamia	Request for issue of Characterization Act of quarry area / Borrow pit at "Fournia", Municipality of Ksiniada (BP3N2)	13174/22.03.2011	14497/09.09.2011	4402/02.08.2011	Request for issue of Characterization Act
5.	Prefectural Administration of Fthiotida Directorate of Technical Services	Opinion on renting of quarry area / Borrow pit at "Agios Stefanos", Municipality of Ksiniada (BP3N5)	10251/21.09.2010	12003/04.01.2011	TY9174,10686/20.12.2 010	Opinion
6.	Forest service of Lamia	Opinion on renting of quarry area / Borrow pit at "Agios Stefanos", Municipality of Ksiniada (BP3N5)	10251/21.09.2010	12562/09.02.2011	9665/22.12.2010	Issue of Characterization Act is required
7.	Forest service of Lamia	Request for issue of Characterization Act of quarry area / Borrow pit at "Agios Stefanos", Municipality of Ksiniada (BP3N5)	12569/10.02.2011	14753/28.11.2011	66848/8227/08.11.201 1	Issue of Characterization Act
8.	Forest service of Lamia	Request for issue of Characterization Act of quarry area / Borrow pit at "Fteres", Municipality of Lianokladi	13514/15.04.2011	Pending	Pending	Request for issue of Characterization Act
9.	YPEKA / Mining inspectorate of Southern Greece	Call on reasoning as regards the Borrow pit at "Aerodromio/Airport", Municipality of Faloria		12455/02.02.2011	377/31.01.2011	Annual Activity Statement is requested
10.			12525/04.02.2011			J/V answer on 377/31-01-11 of Mining inspectorate of Southern Greece



A/A	Service	Subject	Request	Response		Remarks
			J/V protocol no.	J/V protocol no.	Service protocol no.	
11.	YPEKA /Mining inspectorate of Southern Greece	Submission of Activity Statement on exploitation of aggregates quarry/Borrow Pits at "Aerodromio", Municipality of Faloria for 2010	13627/28.04.2011			For information
12.	YPEKA/EYPE	Submission of STIS opinion on the worksite area of "Lampes", Municipality of Proastio	8291/10.06.2010	12607/14.02.2011	195831/31.01.2011	STIS opinion
13.	Decentralized Administration of Thessaly – Central Greece	Delimitation Design of Iona River, Municipality of Hassies & Kalampaka	10512/06.10.2010	13734/10.05.2011	3630/158712/Tu/04.05. 2011	Remarks on the study– Corrections requested
14.	Independent Engineer	Submission of hydraulic study for lona river	13955/02.06.2011			
15.	Municipal Company for Water Supply and Sewerage of Lamia	Intersection of DEYAL (Municipal Company for Water Supply and Sewerage of Lamia) networks with E65 motorway		12216/20.01.2011	58/ε/10.01.2011	Protection of water supply pipeline CH. 6+794 (area ΠΕΟ Lamia - Athens
16.	Municipal Company for Water Supply and Sewerage of Lamia	Intersection of DEYAL (Municipal Company for Water Supply and Sewerage of Lamia) networks with E65 motorway		13246/28.03.2011	753/3/14.03.2011	Protection of water supply pipeline CH. 4+853
17.	PPC/Directorate of Transport Project	Complication of transport line 400KV KYT of Trikala – KYT of Distomo with the under construction Central Greece Motorway	6496/11.03.2010	12866/28.02.2011	20483/18.02.2011	Complication with transport line in section 28+500 to 31+250 – necessary actions
18.	ΛΔ' Service of Prehistorical and Classical Antiquities	Update on the construction works at "Palioklissi" or "Agia Eleni", Municipality of Mouzaki		13188/23.03.2011	1101/23.03.2011	Update on technical construction details for section 99+350 to 99+351 is requested



A/A	Service	Service Subject Request Response		sponse	Remarks	
			J/V protocol no.	J/V protocol no.	Service protocol no.	-
19.	Local Organization For Land Improvement (TOEB) of Selana	Delivery of Water Supply Pipeline	FA2349/13.04.2011		117/14.04.2011	
20.	Forest Service of Karditsa	Request for issue of characterization act finality / Borrow Pit Limani, Kedros, Municipality of Menelaida, Prefecture of Karditsa (BP4N4)	14001/07.06.2011	14096/20.06.2011	1866/6321/08.06.2011	Finality of Characterization Act
21.	Ministry of Culture and Tourism, Department of Prehistoric and Classical Antiquities	Request for study on the archeological site of Sikeona	12051/11.01.2011			
22.	YPEKA/EYPE	Transmission of positive opinions for the B/P of 'Sikeona' (BP5N4)	13531/15.04.2011			
23.	YPEKA/EYPE	Send additional STIS B/P of 'Sikeona' (BP5N4)	13625/28.04.2011			
24.	YPEKA/EYPE	Resubmission of STIS B/P of 'Sikeona' (BP5N4)	14076/16.06.2011	14693/10.11.2011	200173/17.10.2011	STIS opinion
25.	YPEKA / Directorate of Quarries Marbles and Aggregates	Submit receipts of designers fees and state rights for the approval of STIS B/P of 'Sikeona' (BP5N4)	14078/16.06.2011	14182/07.07.2011	Δ10- B/Φ.25.11/14274/2482/ 27.06.2011	Approval STIS
26.	Ministry of Culture & Tourism	Request for settlement (hierarchical appeal) against rejection ΥΠΠΟ.Τ/ΓΔΠΚ/ΑΡΧ/Α1/ Φ34/46449/2011/31.05. 2010 for the B/P of 'Sikeona' (BP5N4)	10786/21.10.2010	13804/17.05.2011	ΥΠΠΟΤ/ΓΔΑΠΚ/ΑΡΧ/Α 1/Φ40/45157/2090/09. 05.2011	Positive Opinion on settlement (hierarchical appeal) of J/V
27.	ҮРЕКА/ЕҮПЕ	Request for STIS return 'Sikeona' (BP5N4) for	13808/15.7.2011	13919/27.05.2011	199453/20.05.2011	STIS return



A/A	Service	Subject	Request	Response		Remarks
			J/V protocol no.	J/V protocol no.	Service protocol no.	_
		correction				
28.	YPEKA/EΥΠΕ	Submission of STIS for worksite at Gkolna position, Municipality of Goriani, Prefecture of Grevena (IS11N1)	7434/27.04.2010	13316/01.04.2011	124771/22.10.2010	Return of STIS due to temporary suspension of works under Council of State decision for the 3 rd JMD
29.	ΛΔ' ΕΠΚΑ	Commitment of sites of archaeological interest within the occupation zone in the land area of Anavra, Municipality of Tamassi, Prefecture of Karditsa		11977/03.01.2011	3782/20.12.2010	
30.	19η ΕΒΑ	Unblocking site for executing archaeological works in the land region of Krinitsa, Municipality of Paliokastro, Prefecture of Trikala		12077/12.01.2011	4299/10.01.2011	
31.	Δ.E.Y.A.K.	Complication of sewerage network of the Municipality of Kalampaka, in section CH. 135+700 – CH. 136+500	12181/18.01.2011			
32.	Technical Service of the Municipality of Kalampaka	Complication of constructed stormwater pipeline in Ch. 133+380	12244/21.01.2011			
33.	Forest Service of Kalampaka	Update of Forest Service for the Temporary Order of EΠΟ JMD 147014/18.11.2005	12356/28.01.2011			
34.	Traffic Police Service of the Prefecture of Karditsa	Update on necessary traffic regulations so as for AΔ G018 to be constructed	12361/28.01.2011			
35.	OTE (Hellenic Organization of Telecommunicatio	Update and request for actions concerning the transportation of OTE air network at the region of	12370/28.01.2011			



A/A	Service	Subject	Request	Re	sponse	Remarks
			J/V protocol no.	J/V protocol no.	Service protocol no.	
	ns) of Lamia	lateral SRD1				
36.	Fire Brigade Service of Lamia	Submission of fire protection studies of the administration buildings in frontal toll stations of Mavromantila	12444/02.02.2011			
37.	CENTRAL GREECE REGION	Update and request for actions on PUO involvement	12456/02.02.2011			
38.	THESSALY REGION	Update and request for actions on PUO involvement	12457/02.02.2011	12865/28.02.2011	1934/17.02.2011	
39.	TOEB of Thessaliotida 6 th zone	Update and request for actions on PUO involvement	12458/02.02.2011	12746/21.02.2011	12862	
40.	TOEB of Thessaliotida	Update and request for actions on PUO involvement	12459/02.02.2011			
41.	PPC of Karditsa	Update and request for actions on PUO involvement	12460/02.02.2011			
42.	OTE S.A.	Update and request for actions on PUO involvement	12461/02.02.2011			
43.	OTE of Lamia	Update and request for actions on PUO involvement	12462/02.02.2011			
44.	PPC of Lamia	Update and request for actions on PUO involvement	12463/02.02.2011			
45.	Municipality of Kalampaka	Complication of Central Greece E65 with constructed stormwater pipeline of the Municipality of Kalampaka in CH. 133+380		12471/03.02.2011	2241/31.01.2011	
46.	THESSALY REGION	Update and request on actions concerning the relocation of lighting	12579/11.02.2011	13014/11.03.2011	18759/329/02.03.2011	



A/A	Service	Subject	Request	Re	Response	
			J/V protocol no.	J/V protocol no.	Service protocol no.	
		network				
47.	ΙΔ' ΕΡΚΑ	Recent data on the exact alignment of E65motorway in and near the new location of archaeological interest in Styrfaka		12608/14.02.2011	619/01.02.2011	
48.	Directorate of Technical Services Καρδίτσας	Extension of road intersection license for the construction of G24 and G25 structures	12698/17.02.2011	12863/28.02.2011	21526/377/22.02.2011	
49.	YPEKA	Submission of 4 th Information Report of Fauna Monitoring Program for the period MAY-JUNE-JULY 2010	12740/21.02.2011			For information
50.	General Police Directorate of Thessaly Region	Traffic Regulations (Positive Opinion)		13159/21.03.2011	2501/3/51- α'/31.01.2011	
51.	YPEKA/EYPE	Environmental licensing on drilling in the framework of the project Planting - Irrigation and landscape rehabilitation for the section in CH.56+000-CH. 90+000	13323/04.04.2011	Pending	Pending	Expected to be approved
52.	DECENTRALIZED ADMINISTRATION OF THESSALY- CENTRAL GREECE	Issue of Finality Certificate on characterization act for the worksite area in 'Samolaka' (IS2N1)	8998/15.07.2010	13356/05.04.2011	1510/29.03.2011	Issue of finality
53.	TESSALY REGION	Modification of vertical signage in Delta I/C of Agii Theodori of E-65 Motorway (replace billboard)		13446/11.04.2011	44952/793/05.04.2011	
54.	Forest Service of Lamia	Request for site characterization for the temporary storage of excavation materials in	13515/15.04.2011	14497/09.09.2011	4401/02.08.2011	Issue of Characterization Act
55.		"Ohiro" (IS2N3)		14779/6.12.2011	73480/8855/29.11.201 1	Finality Decision of characterization



A/A	Service	Subject	Request	Re	sponse	Remarks
			J/V protocol no.	J/V protocol no.	Service protocol no.	-
						act
56.	YPEKA / Mining inspectorate of Southern Greece	Submission of annual activity statement for the exploitation of borrow pit in "Geladaria" (BP4N2) for 2010	13626/28.04.2011			For information
57.	YPEKA / Mining inspectorate of Southern Greece	Submission of annual activity statement for the exploitation of borrow pit in "Kioskia" (BP4N1) for 2010	13628/28.04.2011			For information
58.	THESSALY REGION	Request for extension of licensing on temporary traffic regulations for the construction of U/P G037	13960/02.06.2011			
59.	YPEKA	Submission of 5 th information report of fauna monitoring for the period of AUGUST-SEPTEMEBR-OCTOBER-NOVEMBER -DECEMBER 2010 and JANUARY 2011	14004/07.06.2011			For information
60.	ҮРЕКА/ЕҮПЕ	STIS resubmission of the worksite area near WWTP of Kalampaka	11238/17.11.2010	14005/07.06.2011	199070/09.05.2011	Rejected
61.	Directorate of Technical Services of Karditsa	Request for extension of the licensing on road cut for the construction of the U/P 024 & G025	14134/24.06.2011			
62.	Thessaly Region/ regional section of Karditsa/ Prefectural Administration of Karditsa	Submission of approved STIS and TES for the issue of license of the borrow pit in 'Sikeona', Municipality of Filo, (BP5N4)	14757/28.11.2011			In the framework of the operation license issue
63.	YPEKA/EYPE	Submission for STIS approval B/P 'Fournia', in Makryrachi of Ksiniada (BP3N2)	14639/26.10.2011	Pending	Pending	Expected to be approved



A/A	Service	Subject	Request	Response		Remarks
			J/V protocol no.	J/V protocol no.	Service protocol no.	
64.	YPEKA / Directorate of Quarries, Marbles	Submission for approval TIS B/P 'Fournia; In Makryrachi of Ksiniada	14188/05.07.2011			Expected to be approved
65.	and Aggregates	(BP3N2)		14758/28.11.2011	Δ10- B/Φ.46.46/15705/2800/ 15.11.2011	Service Request for submission of evidence on State rights and Funds deposit
66.	Directorate of Technical Services της Ν.Α. Φθιώτιδας,	Positive opinion for the implementation of B/P 'Fournia' in Makryrachi of Ksiniada (BP3N2)		12002/04.01.2011	TY 9173,10676/20.12.201 0	Positive opinion
67.	Forest Service of Lamia	Request for processing and dispatch of finality decision on characterization act for the area of the B/P 'Fournia' in Makryrachi of Ksiniada (BP3N2)	14697/11.11.2011	14778/06.12.2011	73469/8853/29.11.201 1	Decision sent
68.	YPEKA/EYPE	Submission for approval of the STIS on Asphalt production site and 3A material mixer, Anavra, Municipality of Tamassi, Prefecture of Karditsa (IS4N2)	9230/22.07.2010	14397/12.08.2011	201980/01.08.2011	STIS opinion
69.	YPEKA/EYPE	Submission for approval of STIS on Materials storage and 2 asphalt mix units in 'Sykia', Koma, Municipality of Lamia, Prefecture of Fthiotida (IS1N7)	14187/05.07.2011	Pending	Pending	Expected to be approved
70.	YPEKA/EYPE	Submission for approval of STIS on Worksite in the area of 'Ohiro', Moshokaria, Municipality of Lianokladi, Prefecture of Fthiotida (IS2N3)	9442/02.08.2010	14396/12.08.2011	201981/01.08.2011	Approval
71.	Forest Service of Lamia	Submission of approved STIS Worksite in the area of 'Ohiro', Moshokaria, Municipality of Lianokladi, Prefecture	14432/03.08.2011			In the framework of the intervention permit



A/A	Service	Service Subject Request Response		sponse	Remarks	
			J/V protocol no.	J/V protocol no.	Service protocol no.	-
		of Fthiotida (IS2N3)				
72.	YPEKA/EYPE	Submission for approval of STIS of temporary disposal in 'Fteres', Moshokaria, Municipality of Lianokladi, Prefecture of Fthiotida (DS2N1)	9442/02.08.2010	14396/12.08.2011	201981/01.08.2011	Rejected
73.	YPEKA/EYPE	Submission for approval of STIS B/P in the area of Agios Stefanos,	14670/07.11.2011	Pending	Pending	Expected to be approved
74.		Municipality of Ksiniada, Prefecture of Fthiotida (BP3N5)	14756/28.11.2011	Pending	Pending	Additional data sent
75.	YPEKA /	Submission for approval	14283/20.07.2011			
76.	Directorate of Quarries, Marbles and Aggregates	of TIS B/P in the area of Agios Stefanos, Municipality of Ksiniada, Prefecture of Fthiotida (BP3N5)		14795/09.12.2011	Δ10- B/Φ.46.47/17200/3053/ 30.12.2011	Αίτημα της υπηρεσίας για υποβολή αποδείξεων κατάθεσης δικαιωμάτων Δημοσίου και Ταμείων
77.	YPEKA/EYPE	Submission for approval of STIS of Lateral Toll Station in CH. 60+200, Anavra, Municipality of Sofades, Prefecture of Karditsa	14640/26.10.2011	Pending	Pending	Expected to be approved
78.	YPEKA/EYPE	Submission for approval of STIS of the Operation and Maintenance Centre in CH. 69+700, Municipality of Sofades, Prefecture of Karditsa	14641/26.10.2011	Pending	Pending	Expected to be approved
79.	YPEKA/EYPE	Submission for approval of STIS of the Frontal Toll Station and Tolls Administration Building in CH. 65+650, Municipality of Sofades, Prefecture of Karditsa	14642/26.10.2011	Pending	Pending	Expected to be approved



4.1.2 Road Project Environmental Designs

The contractual scope of the Constructional Joint Venture is to prepare the relevant construction and other designs for the implementation of the project. Furthermore, the environmental terms of the project referred to the relevant hydraulic and landscaping designs should be carried out. In addition, environmental studies to grant permits for the modifications that arise from the finalization of the works have been assigned. The designs are prepared by the Construction Joint Venture and are submitted to the Concessionaire in order to promote them to the Owner of the Project (Egnatia Odos SA) and the competent service of YPEKA, i.e. the Special Environment Agency (EYPE) for approval. The environmental studies are presented in the following tables (tables 4.1.2-1 & 4.1.2-2).

Table 4.1.2-1
Initial Joint Ministerial Decisions – Environmental Terms Approval / Road
Work Designs

No.	Service Protocol No.	Decision Title / Project Section	Expiration
1.	Joint Ministerial Decision 144504/18.11.2005	"Central Greece (E65) Road Axis / Makrihori - Lamia"	18/11/2015
2.	Joint Ministerial Decision 145521/18.11.2005	"Central Greece (E65) Road Axis / Makrihori - Kalampaka"	18/11/2015
3.	Joint Ministerial Decision 147014/18.11.2005	"Central Greece (E65) Road Axis / Kalampaka - Egnatia Odos & Agia Paraskevi I/C" for its connection with Egnatia Odos".	18/11/2015
4.	Joint Ministerial Decision	"Connecting road of the Smokovo I/C with the	05/05/2016



No.	Service Protocol No.	Decision Title / Project Section	Expiration
	103681/05.05.2006	existing road network".	
5.	Joint Ministerial Decision 146113/12.07.2005	Skarfia - Thermopiles at the section of Skarfia - Lamia of the PATHE Motorway	12/07/2015
6.	Joint Ministerial Decision 126696/06.06.2007	Amendment of the Joint Ministerial Decision 146113/12.07.2005	06/06/2017
7.	Joint Ministerial Decision 131550/04.05.2003	"Optimization of the National Road to a PATHE motorway, Skarfia - Lamia section, subsection from the beginning of the Thermopiles Interchange to Nea Kiti of Sperchios river".	04/05/2013
8.	Joint Ministerial Decision 146109/30.09.2005	"Optimization of the National Road to a PATHE motorway, section from Nea Kiti of Sperchios river to Roditsa Interchange".	30/09/2015
9.	Joint Ministerial Decision 130665/02.05.2003	"Optimization of the National Road Athens - Thessaloniki to a motorway that will serve Patra - Athens - Thessaloniki - Evzoni (PATHE), Lamia - Raches section, subsection at CH.3+500 to CH.12+000"	02/05/2013
10.	Joint Ministerial Decision 100198/30.05.2006	"Overall Bypass at Stylida - Karavomilos"	30/05/2016



Table 4.1.2-2

Joint Ministerial Decision – Environmental Terms Approval / Road Work Designs submitted by the Construction J/V

No	Design Title	Submission J/V Ref. No	Decision of Approval	Observations	Expiration Date
1.	Report for the determination of environmental permit procedures of the modification project of Central Greece Road Axis (E-65) in Lamia – Makrihori section (CH. 0+000 – CH. 14+500) (Supporting documentation of art.13 of JMD with no 11014/703/Ф104/2003)	6484/10.03.2010			
2.		14111/22.06.2011		Resubmission	
3.	Report to determine the environmental licensing	12005/04.01.2011		Submission	
	procedures concerning the modification of Central Greece Motorway (E-65) Road Axis in Makrihori - Kalampaka section (CH. 14+500 – CH. 85+800) (Supporting documentation of art. 13 of the JMD with no. 11014/703/F104/2003)	14129/23.06.2011		Resubmission	
4.	Supplementary EIS on the optimization of CH. 47+000 – CH. 56+000 (Including Smokovo).	12015/05.01.2011		Submission	



No	Design Title	Submission J/V Ref. No	Decision of Approval	Observations	Expiration Date
5.	Report to determine the environmental licensing procedures concerning the modification of Central Greece Road Axis (E-65) in Makrihori – Kalampaka section (CH. 85+800 – CH. 137+550) (Supporting documentation of art.13 of JMD with no 11014/703/Φ104/2003)	3113/23.07.2009 3786/21.09.2009 4796/27.11.2009 5097/14.12.2009 6005/11.02.2010		The design was submitted by EOAE (Egnatia Odos SA) the with protocol no A248145/04.03.2010 The design was returned by EYPE (Special Service of Environment) with protocol no 122785/26.04.2010	
6.		12006/04.10.2011		Resubmission	
7.		14130/23.06.2011		Resubmission	
8.	EIS for the relocation of Kalampaka MSS (CH. 132+000) in an new position near Trikala (CH. 117+000)	11990/04.01.2011		Return of study by EOAE for resubmission (A282383/26.01.2011)	
	-	13178/22.03.2011		Resubmission	
9.	EIS for Cut & Cover construction in CH. 137+000 with recoverable materials	12854/28.02.2011		Submission Return of study by EOAE for resubmission (A287258/17.03.2011)	
		13726/09.05.2011		Resubmission	
10.	EIS for the Cut & Cover construction in CH. 138+400 with recoverable materials	12854/28.02.2011		Submission EOAE Negative answer (A287258/17.03.2011) because the said project belongs to	



No	Design Title	Submission J/V Ref.	Decision of Approval	Observations	Expiration Date
				JMD 147014/18.11.2005 which is suspended under a temporary order of the State Council.	
		13726/09.05.2011		Resubmission	
11.	Supplementary EIS for the connecting road from Anavra to Thavmakos (Section A') of 13, 5 km in length in order to replace the connecting road of Smokovo - Monastiri, of approximately 9 km in length.	12016/05.01.2011		Submission	
12.	Design for the Environmental Permit of Toll Stations Construction and Operation in Athens – Thessaloniki National Road, in subsection Skarfia – Thermopiles of Skarfia – Lamia Section, in Agia Triada and Molos I/C. (File under Article 13 of	3907/28.09.2009	122881/ 08.03.2010 EYPE/YPEKA	Approved	12/07/2015
	JMD 11014/703/Φ104/2003)				
13.	Design for the Environmental Permit of Toll Stations Construction and Operation in Athens – Thessaloniki National	4049/08.10.2009	121668/ 08.02.2010 EYPE/YPEKA	Approved	04/05/2013



No	Design Title	Submission J/V Ref.	Decision of Approval	Observations	Expiration Date
	Road, in subsection Archi Thermopiles I/C – Nea Kiti Sperchios of Skarfia – Lamia Section, in Thermopiles I/C location. (File under Article 13 of JMD 11014/703/Φ104/2003)				
14.	Design for the Environmental Permit of Toll Stations Construction and Operation in Athens – Thessaloniki National Road, in subsection Roditsa I/C end of Lamia – Raches Section, in Agia Paraskevi and Mavromantila locations. (File under Article 13 of JMD 11014/703/Φ104/2003)	4049/08.10.2009	JMD 195214/11.01.2011	Approved	02.05.2013
15.	Design for the Environmental Permit of Toll Stations Construction and Operation in Athens – Thessaloniki National Road, in subsection Agia Marina I/C beginning of Stilida – Raches I/C of Skarfia - Raches Section, in Agia Marina I/C of Stilida and Karavomilos locations. (File under Article 13 of	4049/08.10.2009	121667/ 08.02.2010 EYPE/YPEKA	Approved	30/05/2016



No	Design Title	Submission J/V Ref. No	Decision of Approval	Observations	Expiration Date
	JMD 11014/703/Ф104/2003)				

4.1.3 Special Designs

In the context of the implementation of the environmental terms and rational management of the environment, the following special designs have been prepared during 2011.

- Final Design of Landscaping configuration, Irrigation and Environment Rehabilitation for the section of the Motorway from CH. 43+200 to CH. 57+550
- Final Landscape Configuration and Irrigation Design of the surrounding area of Sofades MSS buildings
- Final Landscape Configuration and Irrigation Design of the surrounding area of Sofades frontal toll stations
- Risk Assessment Study of Smokovo reservoir.

4.2 ANTIQUITIES

The Constructional Joint Venture is in direct communication with the competent archaeological services. Based on the Concession Agreement and the Design/Construction Agreement, the J/V is responsible for performing trial archaeological cuts following the competent authority's instructions.

The following table (table 4.2-1) presents in detail the up to 2011 situation performed in the areas blocked.

*(table) - pg. 42



4.3 ENVIRONMENTAL MONITORING

4.3.1 Waste Management

All types of waste are being managed based on the requirements of the Greek legislation for the environment and the environmental terms of the project. For the construction of the project, worksites manage waste in accordance with the directives for environmental management, which will be monitored by the Department for the Environment of the Joint Venture, until the completion of the Design - Construction Period.

The following table (table 4.3.1-1) presents the method of waste management which derives from the construction works and other activities.

Table 4.3.1-1:
Waste Disposal Table

Waste / Material Type	Origin	Collection & Storage Method	Managing Agency	Actions
Waste Lubricating Oils - Mineral Oils (ALE)	Project machinery & motor-powered equipment	In barrels within the worksites	Licensed Operator for Alternative Waste Lubricating Oils Management (ELTEPE)	Agreement with ELTEPE
Batteries - Accumulators	Project machinery & equipment	In wooden pallets located at special areas	Licensed Operator for Alternative Management	Agreement with SYDESYS S.A.



Waste / Material Type	Origin	Collection & Storage Method	Managing Agency	Actions
			(SYDESIS S.A.)	
Vehicle tires	Project vehicles	In safe open areas within the worksite	Licensed Operator for Alternative Management (EKOELASTIKA S.A.)	Agreement with EKOELASTIKA S.A.
Metallic scrap	Project Construction	In safe open areas within the worksite	Any licensed metal collector	Transportation where scrap is produced
Wooden palettes	Procurement of materials for the construction of the project	In open areas within the worksite	Any palette trader / manufacturer	Transportation
Solid hazardous waste	Equipment maintenance, project construction	In safe special areas within the worksites	Any licensed collector of solid hazardous waste	Agreement with the body for alternative hazardous waste management
Liquid hazardous waste	Equipment maintenance, project construction, material excess	In barrels within the worksites	Any licensed collector of liquid hazardous waste	Agreement with the body for alternative hazardous waste management
Electrical & Electronic Equipment (AHHE)	Worksites, Lighting maintenance	In predefined areas within the worksites	Licensed Operator for Alternative Management (APPLIANCES RECYCLING S.A.)	Agreement with APPLIANCES RECYCLING S.A.



Waste / Material Type	Origin	Collection & Storage Method	Managing Agency	Actions
Municipal solid waste	Worksites, offices	In municipal litter bins	The Municipal Authorities	Agreement or cooperation
Other solid waste (paper)	Worksites, trial laboratories	In litter bins within the worksites	Any licensed collector of solid non-hazardous waste	Application to Municipalities Working with P.A.DY.TH. SA (Environmental Development of Western Thessaly SA)
Liquid waste	Site Offices	Waterproof cesspits	Any licensed subcontractor	Waterproof cesspits
Liquid waste	Asphalt mix & concrete manufacturing unit	Oil-Dirt collector - settlement tank	Any licensed collector of liquid non-hazardous waste	Agreement with subcontractor

The quantities of waste, which are being ecologically managed within 2011 in the framework of the project's construction, shall be presented in the following table (Table 4.3.1-2). It is noted that a part of the produced waste is processed via permanent and legitimate facilities that take part in the construction of the project and that comply with the applicable legislation on waste disposal. Finally, it is noted that due to the reduction of the construction pace and their suspension of 02/2011, the quantities of waste produced have also been reduced, while in many cases the facilities and places of collection and temporary storage of waste (bins, settling tanks, sewage treatment plants release compact, etc.) have been removed.



Table 4.3.1-2:
Waste Disposal Table (2011)

Waste / Material Type	EKA Code	Method of m	pieces, etc.)	Observations		
material Type	Code	Recycling /regeneration	Temporary storage	Temporary deposit	Permanent Disposal/A vailability	
Vehicle tires	16 01 03		Storage on wooden pallets in a specially designed area within worksites	162 pieces		Temporary storage of 162 pieces
Batteries - Accumulators	16 06 01		Storage on special bins in a specially designed area within worksites	520 kg	221 kg	Temporary storage of almost 520 kg and recycling through the Alternative Manageme nt System Batteries 221 kg
Waste engine oils, turbine and hydraulic systems	13 01 10, 13 01 11, 13 01 13, 13 01 13, 13 03 07, 13 03 08, 13 03 09, 13 03 10		Temporary storage in barrels in specially designed areas within the worksites	500 kg	3.470 kg	Temporary storage of approximat ely 500 kg and disposal through ELTEPE 3.470 kg





Procedure concerning used oils receipt by the managing body
(Worksite of Karditsa/Agii Theodori).

4.3.2 Air Pollution

A parameter control plan is applied in order to reduce impact on the community, on the natural environment, etc.

According to the Environmental Impact Assessment (EIA) of the road works, no excess of dust emission limit is expected greater than 20m from the works at all the length of the motorway under construction and worksite areas. However, all necessary measures to reduce dust emission are taken, such as water springing, filter bags etc.

Finally, it is noted that, due to the reduction of the construction pace and the suspension of the works (02/2011), the production of air pollution is reduced.

4.3.3 Vibrations

A parameter monitoring plan is under development in order to reduce impact on the community, on traffic, on public utility networks, etc.



So far, taking into account that the construction works have not progressed, there are no relevant measurements. Up to date, there are no complaints - reminders from the vibrations resulted by the construction of the project.

Where the blasting method is required, all the necessary methodology studies are elaborated for approval and all necessary licenses are obtained. It should be noted that all materials extraction sites proposed by the Construction J/V for the needs of the construction of the road project, do not require the use of explosives for their exploitation.

4.3.4 Noise

The Construction Joint Venture monitors the noise levels produced during the entire construction process, in order to ensure compliance with the applicable noise levels provided by the law and in the event of exceeding the limits all required measures are taken.

By applying our noise emitting monitoring program to a distance of 200m from the point of each construction work, it is possible to compare it with the daily limit of energy noise level (**Leq**), which should not exceed 65 dB(A).

The period of this report (January-December 2011) all construction works were suspended and were limited to completion works and settlement of outstanding issues: for the safety of ERGOSE adjacent work (CH. 43+000 – CH. 48+000) for the restoration of river beds, the restoration of the local traffic. The noise monitoring was carried out in a few positions because the structure faces were limited and the construction works were of low intensity.

To record noise during the construction stage, measures were taken during the period from 01/2011 to 4-2011. For this specific period, the sites to which measurements were performed are the following:

- T2 tunnel exit Construction works
- Restoration works of the existing roads in Karditsa I/C
- T3 tunnel Phase A' Excavation works
- Construction works at O/P CH. 71+900



The specific measurements feature sampling of noise emissions during the construction works

The above mentioned measurements record the noise emitted during the operation of the machines at the worksites.

Measurement instruments

For the execution of the noise emission measurements the following instruments were used:

- CASTLE type 2 Integrating precision Echo meter, model GA 216 I, in compliance to IEC61672-1-2002 specifications. Echo meter calibrator CASTLE GA 601.
- Type I Integrating precision Echo meter, in compliance to IEC (1979) and 804 (1985) Type 1, ANSI S1.4-1983 & Draft S 1.43, 6.9.92, Type 1S, and BS 5969:1981Type 1. Bruel & Kjaer Precision Integrating Sound Level Meter Type 2236. Measurements: MaxL, MinL, Peak, SPL, L eq, L N (e.g.L1, L10, L90), SEL, IEL, L EPd. Echometer Calibrator. Lutron SC -64

Noise indices

The aim of noise measurement is to record noise emissions from the construction works in conjunction with the possible points of increased noise, in order to take all noise protection measures required. For the specific aim, at every measurement the Leq noise indices were recorded: Equivalent constant sound level (in compliance to IEC 651) in dB(A).

General characteristics of sound measurements

The time period of the sampling noise measurements was 7-10 min; that is the time required to fully record the noise incident.

The sampling measurements were taken in the perimeter of each work spot and at a distance of 200m (location A1-A4) and 400m (location B1-B4) approximately, or at selected points to which the closest sensitive receiver is located at, during the operation of various types of machines. In some cases, the range of the



sample measurements is of some tens of metres. The purpose of these measurements was to record the acoustic environment that includes noise caused by the construction and noise caused by other sources, which may affect adversely the adjacent to the worksite areas and the structure faces there.

Results of the sampling worksites noise emission measurements

During the noise emission measurements smooth atmosphere conditions were observed, whereas no other source of noise was detected with the exception of the usual ambient noise and the worksite sources, except for the worksite of the Karditsa I/C, close to the National Road from Karditsa to Athens.

The average atmosphere conditions during the noise measurements were the following:

- Temperature from 10 to 28 °C
- Exposure to sunlight
- Lull Weak winds

The results of the measurements are presented in the following tables per section and structure face. The control of the acoustic environment and the noise produced by the construction works was limited (few positions) because the works are under suspension by February 2011.

Section S1: Lamia – Makrihori (CH. 0+000 – CH. 85+800)

■ CH. 28+550 – CH. 43+200

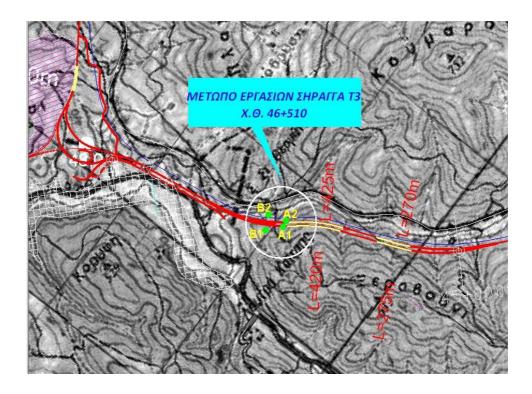
	T2 exit - CH. 30+000								
LOCATI	LOCATI		DATE	TINAT	DURATIO	Leq	L95	L10	L50
ON	D	Y	DATE	TIME	N (min)	(dB)	(dB)	(dB)	(dB)
A1	350778,88	4319168,24	19.01.2011	12:29	10:00	66.4	60.5	68.0	64.5



■ The location related to point A1 is located at the north extremity of Agnatero village of Karditsa Prefecture and was performed during the compaction works of the backfill under development.

■ CH. 43+200 – CH. 60+500

	TUNNEL T3 - CH. 46+510							
MAP	MAP COORDINATES		RESULT					
POINT	X	Y	(dB)					
A1	341087	4331431	65,2					
A2	341120	4331438	69,7					
B1	340976	4331532	64,3					
B2	341085	4331579	62,5					





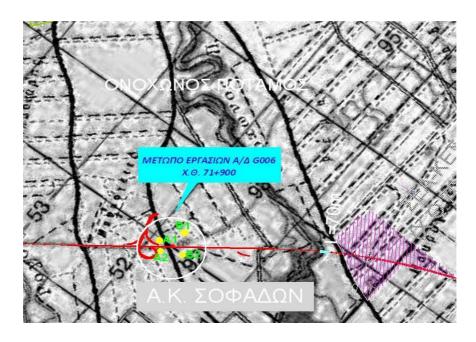
*A1 and A2 points refer to the tunnel construction front and they are very close to the works front (2m approx)

*B1 and B2 points are about 100m. far from the works front

In this particular structure face there are not possible disturbance sites

d CH. 60+500 − 90+500

O/P G006 - CH. 71+900							
MAP	MAP COORDINATES		RESULT				
POINT	Х	Y	(dB)				
A1	333144	4352708	64,9				
A2	333062	4352627	65,7				
B1	333348	4352552	60,3				
B2	333154	4352435	60,9				



*A1 and A2 points refer to the tunnel construction front and they are very close to the works front (2m approx)

*B1 and B2 points are about 100m. far from the works front



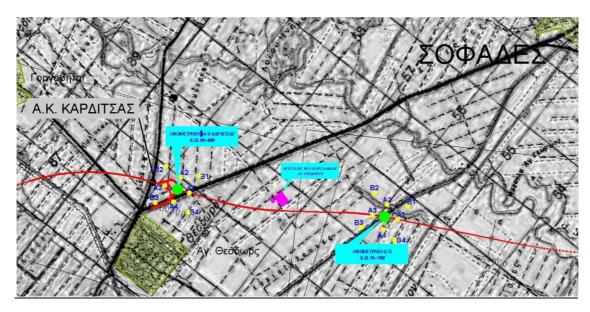
■ In this particular structure face there are not possible disturbance sites.

KARDITSA I/C - CH. 80+000					
MAP	COORDINATES		RESULT		
POINT	D	Y	(dB)		
A1	329288,49	4359458,72	65,2		
A2	329405,36	4359716,29	64,5		
A3	329147,79	4359833,16	64,2		
A4	329030,92	4359575,6	64,2		

KARDITSA I/C - CH. 80+000						
MAP POINT	COORDINATES		RESULT			
	D	Y	(dB)			
B1	329588,78	4359495,52	61,3			
B2	329402,26	4360000,85	61,9			
B3	328847,5	4359796,35	58,6			
B4	329033,81	4359290,94	60,4			

■ In this particular worksite, the results of the measurements are affected to a large extent by the traffic noise due to the fact that it is adjacent to the National Road Karditsa - Athens.





Conclusions

According to the results of the above mentioned measurements, the noise emitted due to various construction works doesn't affect any area close to the works, given that all measurements performed fall within the applicable limits provided by the standing legislative framework, as well as from the Environmental Terms of the project.

The noise measurements will continue throughout the entire construction phase, in order for all required noise protection measures to be taken.

Up to date, there are no complaints - nuisances from the air pollutants resulted by the construction of the project.

Noise Protection Measures

In compliance with the Environmental Terms of the project, the Construction Joint Venture will take additional measures against the noise produced. The specific measures relate to the limitation of nuisance caused to the fauna of Sperchios river area. Namely, the additional measures are:



- The superposition of movable noise barriers at the perimeter of the points of noise-emitting works, (e.g. positioning of pegs)
- The limiting of use of percussion drills, peg positioning equipment, as well as the permit to use explosive materials.
- The determination of movement-specific paths of the vehicles required at the worksite.
- The acceleration of the completion of the works.

4.3.5 Water resources

All measures related to the prevention of pollution - burden to the water are taken with the implementation of methods of worksite good practice and their monitoring, in the framework of the Environmental Monitoring and Control Program.

In the framework mentioned above, during the development of the project phase, a series of measures are taken, featuring the operation of oil removers, settling tanks, biological cleaning, chemical toilets, etc.

Furthermore, the use of hazardous substances is limited to the minimum required, as is the case with other substances that may alter the qualitative characteristics of the water sources.

PH measurements at the exit of the tanks and their confluence to the natural recipients showed that the PH of the water of natural recipients is not altered.

Finally, under the protection of the water resources relevant special risk assessment studies (risk assessment study) have been prepared to combat accidental pollution and to prevent pollution of the environmentally sensitive wetland ecosystems of:

- Sperchios River
- Kalentzi River
- Pinios River
- Smokovo reservoir



with oil or hazardous substances during the operation of the project. In the year 2011 a relevant study has been prepared for the basin of Smokovo reservoir.

4.3.6 Natural Environment

During the construction phase, the construction J/V applies a special monitoring program for wildlife under the environmental conditions of the Project. The results of the monitoring program are submitted quarterly to the Division of Environmental Planning of YPEKA. During the current year, the following reports of the program's results are submitted and they were referring to the periods of:

- May-June-July 2010
- August-September-October-November-December 2010 and January 2011.

It is noted that the monitoring program contains:

- A) The preparation of a new program by the J/V E-65 (Contractor: 'Kallisto' Non-Governmental Organisation) during the period 2009-2010, for E-65 section from CH. 43+000 CH. 60+000 and
- B) Update of the proposals that were formulated for E-65 section from CH. 20+000 to CH. 47+000 or so, under the "Program Monitoring construction impact on wolf and large mammals", which was carried out from 2005 to 2006 by ERGOSE for the project of the New rail line between Lianokladi R.S. Domokos R.S. (Contractor: D. Argyropoulos, ΣΣΕ ΕΠΕ, ΓΑΜΜΑ4 ΕΠΕ and G. Giannatos with special partners 'Callisto' NGO, due to the proximity of the two projects and their synergistic effects. The update of the proposals for section CH. 20+000 to CH. 43+000 was based on ERGOSE program (2005 2006) data and on new data (field operations and methods, results analysis, literature reviews) that were resulted by the elaboration of similar programs in the broader region. More specifically, in the north part of the region, a relevant wildlife monitoring program has been developed (first phase) under Egnatia Odos SA responsibility. It is noted that the works in the north part of the project area the works have not started yet, because the section is under suspension



following the State Council temporary order. The ultimate goal of the above is the most comprehensive handling of the effects caused by the large infrastructure projects in the ecosystem (fauna) of the project area. Two most recognized non-governmental organizations, 'Arcturus' and 'Callisto' are also involved in the overall effort. As part of the suspension of the works, the construction J/V has suspended the above programs.

4.4 ENVIRONMENTAL ACCIDENT

There is a provision for managing and handling disasters such as fire or accidents such as leakage of substances, etc.

4.5 ENVIRONMENTAL COST

Please find a table summarizing the financial data for the environmental protection projects that took place in 2011.

α/α	EXPENSES for the protection of the environment	AMOUNT (€)
	<u>Works – Materials – Services</u>	
1.	Management of worksites' municipal solid waste	1.000,00
2.	Regular soaking piles, construction sites and roads, access roads and all non-paved surfaces	5.000,00
	<u>Designs Elaboration</u>	
3.	Special Technical Implementation Study (STIS) of ancillary works	36.600,00
4.	Special Risk Assessment Studies for potential accidental pollution to be addressed	8.000,00
5.	Road Project Environmental Studies	91.481,32
6.	Designs of Planting - Irrigate	109.407,75



α/α	EXPENSES for the protection of the environment	AMOUNT (€)
7.	Program of fauna monitoring	11.901,32
	Landscaping Works	
8.	Planting and maintenance of borrow pit plantings	10.388,14
	Maintenance works due to suspension of works	
9.	Maintenance of drainage network of lateral roads, maintenance of settling tanks, restoration of streams, drainage channels, etc.	35.000,00
	Personnel Expenses and other expenses	
11.	Personnel costs for the environmental issues management and compliance with the Environmental Management System	145.500,00
	<u>Total</u>	454.278,53

It has to be noted that part of the environmental costs are included in the remuneration of the contractors taking part in the work's construction and therefore they cannot be assessed. Also, it has to be noted that the remuneration from environmental commitments, such as deviations due to archaeological sites, configurations and structures dimensional increases to facilitate fauna, etc., which are currently not valued, are not included in the above table.

Compared with the previous year, a significant reduction is to be seen in the expenditure on the environmental protection from the construction of the project, which is due to the suspension of the works by 02/2011.

4.6 NEXT YEAR ANTI-POLLUTION PROJECTS AND ENVIRONMENTAL PROTECTION

Anti-pollution projects and environmental protection to be conducted in 2012 include:



- Construction of crossing wildlife structures.
- Construction of new site anti-pollution control projects, such as settling tanks of waste, special storage areas, etc.
- Elaboration of landscaping studies.
- Elaboration of network studies on primary and secondary green irrigation network.
- Work management/maintenance of green planting works.
- Continuation and expansion of the wildlife monitoring program.
- Elaboration of designs for environmental licensing of any new required ancillary works.
- Elaboration of specific environmental studies resulting from the Environmental Terms (e.g. risk assessment studies).
- Elaboration and submission of environmental studies for the environmental licensing of changes improvements to the basic design.
- Costs for the monitoring of the E.T. implementation, in the framework of implementing the Environmental Management Plan of the project in the construction phase.
- Elaboration of studies and construction of air pollution stations.
- Elaboration of network studies on primary and secondary green irrigation network
- Restoration of borrow pits/quarries