

## CENTRAL GREECE MOTORWAY (E-65)



### 1. INTRODUCTION

This Environmental Management Report is the third 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.*
- Decontamination 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 2010.

#### 1.1 DESCRIPTION OF THE PROJECT

**State:** Hellenic Republic

**Concessionaire:** CENTRAL GREECE MOTORWAY S.A.

**Constructor:** CENTRAL GREECE MOTORWAY (E65) J.V

**Independent Engineer:** SCOTT WILSON- OMEK



## **CENTRAL GREECE MOTORWAY (E-65)**

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 - Rahes 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 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
- 7** Tunnels

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



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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 <sup>st</sup> Section	0+000	85+800	Joint Ministerial Decision 144504/18.11.2005
2 <sup>nd</sup> Section	85+800	137+550	Joint Ministerial Decision 145521/18.11.2005
3 <sup>rd</sup> 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 - Sperhios section (except for the ERGOSE bridge which is under construction)	8,5
	Bridge under construction by ERGOSE at Thermopiles - Sperhios section	



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14 S/W	Sperhios - Ag. Paraskevi I/C	3,5
15 S/W	Ag. Paraskevi I/C - Ag. Marina Section	8,5
16 S/W	Ag. Paraskevi Marina - Rahes 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.	TO CH.	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 Sperhios river”.	Thermopiles I/C 198+300	Nea Kiti of Sperhios River	JMD 131550/04.05.2003	8,8km.
"Optimization of the National Road to a PATHE motorway, section from	Nea Kiti of Sperhios	Roditsa I/C	JMD 146109/30.09.2005	3,78km. From 130m. Before



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Section	FROM CH.	TO CH.	A.E.T. Decision	Description
Nea Kiti of Sperhios river to Roditsa Interchange".	River			the axis of the New Kiti of Sperhios River up to east Roditsa village
"Optimization of Athens – Thessaloniki National Road in PATHE motorway, Lamia – Rahes 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 RAHES I/C

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## 2. GENERAL ISSUES

### 2.1 BRIEF REPORT

#### 2.1.1 Outstanding Issues

1. The revised delivery deadline of 12NΔ-13NΔ-14NΔ-15NΔ New State Sections has not been achieved (only the area for the toll stations construction on Thermopiles I/C was delivered). Also, section ch. 9+630 – ch. 10+385 has been delivered to the J/V for the construction of Agia Triada and Molos toll Stations and Molos lateral toll stations cannot be completed due to additional pending expropriation.
2. The 2<sup>nd</sup> EPD was not achieved due to serious delays in the delivery of land. The Technical Dispute Resolution Committee decided that this time extension should be of 10-months. In a letter, the J/V informed the Concessionaire that there are still delay events relating to the 2<sup>nd</sup> EPD and therefore the above extension shall not be achieved and a further extension was requested.
3. After request for suspension of JMD with no. 147014/18.11.2005 (CH. 137+550 - 175+000) submitted to the Council of State by 3 local associations and 2 local authorities of the project's 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.
4. Acceptance of the Ministerial Decision on proposed changes to the basic design of the project (prot. No. 2036/29.11.2010).
5. The J/V has not received the approved Certifications 10, 11, 12, 13, 14, 15, 16 & 17 (Works of March, April, May, June, July, August, September & October 2010), creating a serious problem of financing and influencing clearly the pace of construction.
6. There is a significant works disruption along the Motorway due to non-delivery of reserved areas where archaeological findings were identified.
7. With respect to the Public Utility Networks, so far relevant applications have been completed until 31/12/2010 (removing mainly electricity networks). The concerned department –DEH (PPC) - has started works on GE 1N.2, 4N, 5N, 6N, 7N & 9N but the whole process has already been delayed overdue and it should be speeded up since it causes disruption of works.
8. The 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 approximately one year of delay although the ownership of some sections is not clear.



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

- **GU 1N.1 (0+000-6+200)**, some parcels of land have not been delivered yet, along the axis of the motorway (i.e. the area of Sperchios new riverbed ch.~ 4+500, road service left section, etc.). In sectors AB1 & AB2 & Lamia I/C, there are many undeliverable lands (not delivered): 21 individual land sections, not in sequence. Regarding the superstructural material (gravel), located by ERGOSE on the ch. 5+610/5+680 (near AB2 Underpass), relevant actions on behalf of ERGOSE are expected (from February 2010) (e.g. for the required space rental, etc.), in order for the required transportation of the gravel and the continuation of the motorway works and the continuation of the interrupted works in both the motorway and Lamia I/C to be allowed. **In GU 1N.2 (6+200-14+500)**, there are still non-delivered sections on Motorway between 09+150 and 09+330 which prevent the construction of embankments. The total volume of works hampered is of about 27.000 m<sup>3</sup>. In addition, parcels prevent the construction of embankments and construction of service roads. In addition, parcels on the motorway (branch 2 Karpenissi I/C, ch. 14+350-14+550, ch. 14+900 & ch. 15+070 – 15+270) prevent the construction of embankments. In addition, parcels prevent the construction of embankments and of service roads/vertical roads. Parcels are located on the existing Lamia - Karpenissi National Road preventing the construction of the Motorway Design in this section and the linking of E-65 Karpenissi I/C (branch 1) with the existing N.R. **It should be noted that the situation of the expropriations for the critical section 0+000-14+500 remains unchanged from 05/03/2010, which was the date of the last delivery protocol and thus even the finally approved extension of the 2<sup>nd</sup> EPD completion fails.**
- **In GU 2N.1 (14+500-28+500)**, there are still non-delivered sections (63 parcels). Most parcels are located on the main motorway and prevent the construction of embankments and the access to the places of works.
- **In GU 3N.2 & 3N.3 (43+200-48+161)**, up to date there have not been any requisitions on the section from ch.: 43+200 – ch.: 48+000 including OSE 43+200- 47+000 non-delivered sections.
- **In GU 4N, 5N, 6N.1 (48+500-90+500)**, some requisitions have been paid but not all of them. In the City of Menelaida (ch. 47+000- 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.

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- 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 (90+500-97+000)**, the delivery of land has not been completed.
  - **In GU 7N.1 (97+000-109+500)**, EOSA does not go to any further requisitions in section from CH.104+000 to CH.110+000 where the most problems are identified, since works cannot be performed in the section from CH.106+000 to CH.109+500 because the delivered land has been fragmented (the involvement with KO34 is still pending). A very important problem in CH. 99+000 still remains, where the axis is being cut off completely from existing properties and the route needed to be done now is 6km. It has to be noted that there are decisions on behalf of the Greek courts for the JMDs concerning the execution of expropriations on ch. 92+000 to ch. 104+000 and ch. 104+000 to ch. 110+000 and, despite all this, Egnatia Odos S.A. does not proceed with the necessary deposit tables and the payment thereof, having as a result for the sites to remain non-available.
  - **In GU 7N.2 (109+000 500-111)**, there are still undeliverable lands because several owners of non-requisitioned property deny the requisition. Section 109+500 ~ 110+500 is inaccessible and works cannot be carried out.
  - **In GU 8N (111+000-123+000)**, there are still inconsistencies and undeliverable lands in Raxa area (ch. 118+000 ~ 122+000), resulting in failure to perform the works. In this region (Raxa), the non-completion of the delivery of land makes the commencement of the irrigation network relocation works impossible, creating a negative timeframe, given the archaeological involvement in the same region as well.
  - **In GU 9N (123+000-136+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 (136+000-144+000)**. Undeliverable lands remain in section 137+200 ~ 144+000. By 02/07/2010 works in ch. 137+553 ~ 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 with Protocol XL CC.A.CC.4401/3-2-2010). 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





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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 and delays in the environmental licensing in the areas of Mavromantila and Agia Paraskevi toll stations.

### 2.1.2 Report period

At the reporting date of this report (31/12/10) 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. Dispute problems and delays on behalf of the Greek State, they have been relocated.

**GU 1N.2:** The relocation of the PPC facilities in Karpenissi I/C has been completed. 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, 10+300, 11+300, 12+040, 12+500) since EGNATIA has not proceeded with the relevant payment. Finally, the issue of power cut and relocation of drilling (ch. 8+470, 10+300, 11+300) remains, while impeding the embankments construction. The relocation of the electricity grid from the vertical road to Kompotades in ch. 12+831 is still pending because of the non-payment of the relocation design on behalf of the PPC; so the works have been stopped and the 2nd phase of the construction of the required bypass has been delayed. 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. All the above pending problems have created continuous delays resulting to the failure even of the approved extension for completion.



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**GU 3N.2:** Delays in the PPC networks relocation. An inspection by PPC took place on November 2010. PPC determined the cost for the networks relocation, which has to be paid by E.O.S.A.

**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 been completed but the complication in ch. 84+000 remains.

**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. From CH.106+000 to CH.109+500, Trikala PPC has finally proceeded to the relocation; two more positions of relocation are still pending.

**GU 7N.2 & 8N:** The relocation design of PPC network has been drawn up and submitted. The relocation cost of PPC network from EGNATIA ODOS S.A. has been paid. The contractor installation is expected.

**GU 9N:** Completion of dismantling and relocation works of ch. 124+000 to ch. 131+000 network on 15/06/2010. 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.

**GU 11N.1:** All the necessary actions have been realized for the networks relocation in area from CH. 144+000 to CH. 149+500.

**PATHE:** The PPC networks relocation works in Mavromantila have been completed. Applications of permanent provision for Agia Triada Toll Station, Molos I/C and Thermopylae I/C on 7/7/2010 have been submitted. The permanent connections of PPC provisions for Thermopiles Toll Station have been completed.

### **➤ Public Gas Corporation (DEPA):**

**GU 1N.1:** The construction of technical structure protection in a tube of the Gas Transmission System Operator (DESFA) in CH. 3+896 is underway.



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**GU 6N:** On 10/06/10 the works of the technical structure protection of the natural gas pipeline on the CH. 81+715 have been completed.

**GU 7N.1:** DEPA continues its works in order to complete the protection of the pipeline in CH. 99+450 and in CH.TH.104+027 the protection has been completed.

➤ **Hellenic Organization of Telecommunications (OTE):**

**GU 1N.1:** OTE organizes the network's relocation in the area where AB1 and AB2 branches cross the old National Road.

**GU 3N.2:** Letters with attached designs (horizontal alignments) for the section between ch.43+200 to ch. 47+500 were sent on time in order for the localization of networks, which might affect the projects' works, to be realized and more actions, such as relocation, protection etc., to be coordinated.

**GU 5N:** Completion of optical fiber protection system (CH. 79+750)

**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.

➤ **Local Organization For Land Improvement (TOEB)**

**GU 1N.1:** The works for Anthili irrigation channel and for the associated pumping station still continue.

**GU 5N:** Demolition of TOEB drilling shelters in ch.68+250 & 69+180 (road artery) has been realized.

**GU 6N.1:** The works of irrigation networks rehabilitation from CH. 60+500 – CH. 76+700 have been started (stand pipe construction). The relocation works of TOEB borehole have not started up to now.

**GU 9N:** The preparation of networks relocation and boreholes designs (where necessary) with Theopetra TOEB and Vassiliki TOEB. The auctioning of these two subcontractions is expected by Service for Land Improvement (YEB). Contacting YEB of Trikala for the acceleration of the design regarding Raxas irrigation system's relocation.

➤ **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.



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**GU 6N.1:** The relocation & protection works of the water supply network in ch. 80+580 & 81+170 have been completed.

**PATHE:** Completion of permanent water supply connections in Thermopiles toll Station.

➤ **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.

1. The designs preparation and submission is under development.
2. 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 (see 8.3). Moreover, five (5) from these have been approved in their entirety (Kalamaki, Geladaria, Onohonas 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.
3. 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.
4. The implementation of the Environmental Operating System of the Project continues as usual.
5. The implementation of the Quality Management System of the Project is under development.
6. The Security Management System of the PROJECT is revised based on the proposal of the J/V and the agreement with the IE.

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### 2.1.3 Problems and possible risks

- 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 situation of the expropriations, which remains stable from 05/03/2010, and the aforementioned delays in Public Utility Network relocations result in failure to achieve even the approved extension. Furthermore, these delays affected GUs 8N, 9N, 10N, 11N where additionally for the last two sections, the works of J/V have been stopped from 02/07/2010 (CH. 137+553-175+000), due to temporary injunction on behalf of the Council of State (no. 827/2010). Under those circumstances, the 3<sup>rd</sup> Exclusive Partial Deadline cannot be achieved.
- 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 regarding the approved schedule (according to which most of the works should have been completed on June 2009) are presented at the schedule of this report.
- Significant disorganization due to the engagement of the sites with archaeological findings along the motorway alignment.
- Delays due to the delayed relocation of Public Utility Organizations at GU 1N.2, 5N, 6N, 7N, 8N.
- Delays due to the lack / rejection of the appropriate borrow pits/quarries, as up to now a number of such sites 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 Special Technical Implementation Study (STIS) while during the progress of the works, some residents appeared, who claimed that they own the area of the works without having

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proprietary titles which led to the disruption of the works.

- There are also problems due to the excessive requirements of the municipalities regarding material withdrawal and worksites installation. In some cases, such as the installation of a worksite in the area of Raxa - Haidemeni, the municipalities contradicted the decision (general confrontation of the E65 project). Furthermore, the Hellenic Public Real Estate Corporation has rejected the application of the Joint Venture to proceed to gravel extraction in the area of Gerakaris, Municipality of Ipati, Prefecture of Lamia by presenting unclear grounds based on the remarks of the approved STIS by EYPE/YPEXODE (competent service), following the suggestions of the local government and the residents.
- 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.
- Specific regulations regarding the design of KO34 area (ch.108+450) are still pending on behalf of EGNATIA S.A., 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 Raxa (ch. 118+000  $\approx$  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 139+000  $\sim$  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 (12NΔ-13NΔ-14NΔ-15NΔ) on 25/6/2009, 10/9/2009, 11/9/2009 & 28/6/2010 respectively. 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.
- 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. The continued delay in relation to the approved schedule is illustrated in the schedule of this report. Furthermore, there is a delay in the construction of

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the ITS network at Roditsa I/C (14NΔ) due to the incomplete works at PATHE.

## 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 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 Semi-annual Environmental Management Report, 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.

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### **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 is currently at the submission phase to EYPE/YPEXODE.

#### **3.2 ENVIRONMENTAL MANAGEMENT SYSTEM – ENVIRONMENTAL TERMS COMPLIANCE CHECKLISTS**





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The "Environmental Terms Compliance Checklists" are drawn up based on the Environmental Monitoring & Control Program and the Environmental Management System. These checklists include the way and methodology of required actions in order to ensure the implementation of the Environmental Terms with respect to the time schedule as well as their association with the project time schedule. The respective tables are prepared in order to control the compliance program.

The responsible department for the environment in cooperation with the project engineers carry out regular inspections and complete the checklists by applying the "Environmental Monitoring & Control Program" and by observing the time schedule referred to it. 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 manual, the procedures and the guidelines for environmental management is applied uniformly throughout the project and are 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 monitor the Program and inform the Environmental Department of the Independent Engineer on a monthly basis, the person responsible draws up monthly and annual progress reports for the implementation of the environmental terms in the form of a table. These monthly reports include:

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- 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.

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### **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 and 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 based on the applicable legislation, Special Technical Implementation Studies (STIS) of the ancillary works are being prepared and submitted for approval and permit. The competent authority for this approval is EYPE/YPEXODE.

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

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**Table 4.1.1-1**  
**Environmental permit for ancillary works**

No.	Ancillary work	Area	Submission to EYPE (ref. no. EYPE)	EYPE's Decision	Comments (approval, re-submission-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)	"Kalamaki Br." Municipality of Agia Paraskevi, Prefecture of Lamia, Prefecture of Fthiotida	136998/05.03.2009	136998/28.07.2009	STIS approval
3.	WORKSITE AT LAMIA (MSS CH. 12+000) (IS1N1)	"Agios Trifonas, 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)	Pyrgaki, Stavros, Municipality of Lamia, Prefecture of Fthiotida.	136998/05.03.2009	136998/28.07.2009	STIS approval
5.	BORROW PIT "Platana - Rema" (BP1N2)	Platana - Rema, Lygaria, Municipality of Lamia, Prefecture of Fthiotida.	136998/05.03.2009	136998/28.07.2009	STIS approval
6.	BORROW PIT AT SPERHIOS RIVER (BP1N4)	Magoula, among Municipality of Ypati and Lianokladi,	136998/05.03.2009	136998/28.07.2009	The position has been rejected by STIS

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No.	Ancillary work	Area	Submission to EYPE (ref. no. EYPE)	EYPE's Decision	Comments (approval, re-submission-rejection, etc.)
		Prefecture of Fthiotida			
7.	BORROW PIT AT GERAkaris STREAM(BP1N5)	Asprokambos, Kombotades, Municipality of Ypati, Prefecture of Fthiotida.	136998/05.03.2009	136998/28.07.2009	STIS approval
8.	BORROW PIT AT "AERODROMIO" AREA (BP6N1)	Kefalovryso, Municipality of Faloria, Prefecture of Trikala	140546/04.06.2009	140546/29.07.2009	STIS approval
9.	ETME Review Borrow Pit "AERODROMIO" (BP6N1)	Kefalovryso, Municipality of Faloria, Prefecture of Trikala	148761/18.12.2009	121188/29.01.2010	STIS approval
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"	Municipality of Kampos, Agios Theodoros, Prefecture of	143394/10-08-2009	143394/02-09-2009	STIS approval

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No.	Ancillary work	Area	Submission to EYPE (ref. no. EYPE)	EYPE's Decision	Comments (approval, re-submission-rejection, etc.)
	position	Karditsa			
14	"GKOLNA" Worksite (BP5N4)	Municipality of Goriani, Prefecture of Grevena	121768/10-2-2010	----	Expected to be approved
15	Borrow Pit in "Mavrogies" position (BP5N4)	Sikeona, Municipality of Filo, Prefecture of Karditsa	121768/10-2-2010	----	Expected to be approved
16	Borrow Pit in "Vrontaria" Position (BP6N2)	Fiki, Municipality of Pitalia, Prefecture of Trikala	7489/21.04.2010	127798/08.07.2010	STIS approval
17	Stone processing installation in the quarry materials – borrow pit in "Pyrgaki" Position (IS1N2)	"Pyrgaki", Stavros, Municipality of Lamia, Prefecture of Fthiotida	144259/11.09.2009	144259/17.11.2009	STIS approval
18	Stone processing installation in the quarry materials – borrow pit in "Kalamaki Vr." Position (IS1N3)	"Kalamaki Vr.", Agia Paraskevi, Municipality of Lamia, Prefecture of Fthiotida	144259/11.09.2009	144259/17.11.2009	STIS approval
19	Stone processing installation in the worksite facilities of Lamia (IS1N4)	"Agios Trifonas", Stavros, Municipality of Lamia, Prefecture of Fthiotida	144259/11.09.2009	144259/17.11.2009	STIS approval
20	Washing of aggregates with a sieve in the sand borrow pit in Gerakaris r. (IS1N5)	"Asprokampos", 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



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No.	Ancillary work	Area	Submission to EYPE (ref. no. EYPE)	EYPE's Decision	Comments (approval, re-submission-rejection, etc.)
					Prefecture of Fthiotida
21	Worksite in Kalampaka MSS position (CH. 132+000) (IS9N1)	Municipality of Kalampaka, Prefecture of Trikala	125561/17.05.2010	----	Expected to be approved
22	Worksite in "Lampes" position (IS6N1)	Proastio, Municipality of Selana, Prefecture of Karditsa	126671/11.06.2010	----	Expected to be approved
23	Worksite in "Samolaka" position (IS2N1)	Stirfaka, Municipality of Lianokladi, Prefecture of Fthiotida	126332/04.06.2010	----	Expected to be approved
24	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
25	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
26	Worksite in "Samolaka" position (IS2N1)	Styrfaka, Municipality of Lianokladi, Prefecture of Fthiotida	126332/04.06.2010	127799/08.07.2010	STIS approval
27	Worksite of Perivoli (IS3N1)	Perivoli, Municipality of Ksiniada	9575/06.08.2010 (J/V prot. no.)		Expected to be approved



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No.	Ancillary work	Area	Submission to EYPE (ref. no. EYPE)	EYPE's Decision	Comments (approval, re-submission-rejection, etc.)
28	Worksite (IS2N3) in "Ohio" position (T2 tunnel exit area)	Moshokaria, Municipality of Lianokladi	9442/02.09.2010 (J/V prot. no.)		Expected to be approved
29	Temporary deposit in "Fteres" position (DS2N1)	Moshokaria, Municipality of Lianokladi	9442/02.09.2010 (J/V prot. no.)		Expected to be approved

Within 2011, additional relevant designs of more ancillary works such as disposal sites, worksites, borrow pits, etc. shall be submitted in order to receive environmental permit.

Moreover, in line with the environmental terms of the project, the respective permits and opinions should be obtained by the competent authorities, such as Forest Services, Archaeological Services, Prefectural 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 Kalambaka
- Forest Directorate of Grevena
- ΙΔ Service of Prehistorical and Classical Antiquities
- ΛΔ Service of Prehistorical and Classical Antiquities
- Α Service of Prehistorical and Classical Antiquities
- 19th Service of Byzantine Antiquities
- 24th Service of Byzantine Antiquities
- 17th Service of Byzantine Antiquities
- Prefectural Administration of Fthiotida
- Prefectural Administration of Karditsa
- Prefectural Administration of Trikala





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- Prefectural Administration 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)**

No	Service	Subject	Request	Response		Comments
			J/V Ref. No	J/V Ref. No	Service Ref. No	
1.	Ministry of Development Directorate of Quarries, Marbles & Aggregates	Submission of TIS of the borrow pit in "KIOSKIA" location Anavra, Municipality of Tamassio	3324/05.08.2009	6031/16.12.2010	Δ10.Β/Φ.25.9/25274/4531ΠΕ/05.02.2010	TIS Approval
2.	Prefectural Administration of Karditsa Directorate of Development	Submission of additional documents for the issuance of a license for the exploitation of the quarry area – borrow pit in "KIOSKIA" location Anavra, Municipality of Tamassio	7826/17.5.2010	8798/5.07.2010	Φ26/516/17.06.2010	Permit of exploitation
3.	Ministry of Development Directorate of Quarries, Marbles & Aggregates	Submission of TIS of the borrow pit in "GELADARIA" location Anavra, Municipality of Tamassio	4147/14.10.2009	6031/16.02.2010	Δ10.Β/Φ.25.10/26163/4615ΠΕ/05.02.2010	TIS Approval
4.	Forest Directorate Prefectural Administration of Karditsa	Submission of approved STIS & TIS of the borrow pit in "GELADARIA" Anavra, Municipality of Tamassio for the issuance of lease permit & intervention permit	5973/09.02.2010		1226/33810/15.03.2010	Lease Approval

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No	Service	Subject	Request	Response		Comments
			J/V Ref. No	J/V Ref. No	Service Ref. No	
5.	Forest Directorate Prefectural Administration of Karditsa	Submission of approved STIS & TIS of the borrow pit in "GELADARIA" Anavra, Municipality of Tamassio for the issuance of lease permit & intervention permit	5973/09.02.2010	6365/04.03.2010	620/32290/02.03.2010	intervention permit
6.	Forest Service of Karditsa	Submission of access road design for "GELADARIA" borrow pit  Anavra, Municipality of Tamassio	6647/18.03.2010	9416/16.06.2010	2651/89237/11.06.2010	Design approval
7.	Forest Service of Karditsa	Installation Protocol for the borrow pit in "GELADARIA" location Anavra, Municipality of Tamassio	8095/01.06.2010	8144/02.06.2010	01.06.2010	Approval of Installation protocol
8.	Prefectural Administration of Karditsa Directorate of Technical Services	Design submission for approval of Onochono boundary river	4329/29.10.2009	5679/26.01.2010	Δ155/20.01.2010	Design control by the Directorate of Technical Services of Prefectural Administration of Karditsa for the determination of boundary lines

S/N	Service	Subject	Request	Response		Comments
			J/V Ref. No.	J/V Ref. No.	Service Ref. No.	
9.	Region of Thessalia, General Directorate for Public Works, Irrigation Works	Submission for approval of a study for the delimitation of Onohonos river	3055/17.07.2010	6032/16.02.2010	376/15215/Tu/01.02.2010	Validation of the study from the Region of Thessalia
10.	Cadastral Service,	Direct lease of the site for gravel extraction at	6099/18.02.2010	8448/17.06.2010	1335/14.06.2010	1. 1. Decision of the Committee for

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S/N	Service	Subject	Request	Response		Comments
			J/V Ref. No.	J/V Ref. No.	Service Ref. No.	
	Municipality of Karditsa	the Onohonos location, Municipality of Sofades				Gravel Extraction at Onohonos river  2. 2. Decision of the General Secretariat, Region of Thessalia to grant, free of charge, the right to proceed to gravel extraction works
11.	Cadastral Service, Municipality of Karditsa	Commencement of the project "Withdrawal of materials and restoration of the Onohonos riverbed" f	8096/01.06.2010	8192/07.06.2010	1183/03.06.2010	Positive reply
12.	Directorate for Development, Prefectural Administration of Karditsa	Issuing a permit for the operation of loose materials quarry (no use of explosives) at Sykeona, Municipality of Filo	2063/27.04.2009		2069πρ/22.03.2010 (19th Byzantine Antiquities Service)	Positive reply to issue the special permit by the 19th Byzantine Antiquities Service
13.	Directorate for Development, Prefectural Administration of Karditsa	Issuing of a permit for the operation of loose materials quarry (no use of explosives) at Sykeona, Municipality of Filo	2063/27.04.2009	8297/10.06.2010	Τ/ΓΔΑΠΚ/ΑΡΧ/Α 1/Φ34/46449/2011/31.05.2010	Negative opinion from the Prehistoric and Classical Antiquities Directorate of the Ministry of Culture regarding the granting of the permit
14.	Directorate for Development, Prefectural Administration of Karditsa	Issuing of a permit for the operation of loose materials quarry (no use of explosives) at Sykeona, Municipality of Filo	2063/27.04.2009	6455/09.03.2010	ΕΜΝΕ/Φ23.16/416πρ/01.03.2010	Positive reply to issue the special permit by the Southern Greece Mining Inspectorate
15.	Ministry of Environment, Energy and Climate Change - Special Service for the	Submission of Special Technical Implementation Study for approval for the borrow pit at Mavrogies location, Community of	5935/09.02.2009			Approval is expected

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S/N	Service	Subject	Request	Response		Comments
			J/V Ref. No.	J/V Ref. No.	Service Ref. No.	
	Environment (EYPE)	Sykeona, Municipality of Filo				
16.	Ministry of Environment, Energy and Climate Change - Directorate for Marble & Inert Material Quarries	Submission of Special Technical Implementation Study for approval for the borrow pit at Mavrogies location, Community of Sykeona, Municipality of Filo	5934/09.02.2009			Approval is expected
17.	Ministry of Environment, Energy and Climate Change - Special Service for the Environment (EYPE)	Submission of the STIS for approval for the worksite at Golna location, Municipality of Goriani, Prefecture of Grevena	7434/27.04.2010			Approval is expected
18.	Forest Service of Kalambaka	Approval to install a borrow pit at the location of "Trypa Gavodimou", Community of Ahladea, Municipality of Hassia, Prefecture of Trikala.	5530/15.01.2010	9475/04.08.2010	390/9208/28.07.10	Positive reply (Forest service of Kalampaka replied as a responsible)
19.	ΛΔ' Service of Prehistorical and Classical Antiquities	Approval to install a borrow pit at the location of "Trypa Gavodimou", Community of Ahladea, Municipality of Hassia, Prefecture of Trikala.	5530/15.01.2010	9347/28.07.2010	3173/16.07.2010	Positive reply
20.	19th Service of Byzantine Antiquities	Approval to install a borrow pit at the location of "Trypa Gavodimou", Community of Ahladea, Municipality of Hassia, Prefecture of Trikala.	5530/15.01.2010	8497/18.06.2010	243/09.06.2010	Positive opinion
21.	Forest Service of Kalampaka	Request for characterization of quarry in Tripa	9906/01.09.2010	11012/03.11.2010	7025/161613/13.10.2010	Non-forest land

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S/N	Service	Subject	Request	Response		Comments
			J/V Ref. No.	J/V Ref. No.	Service Ref. No.	
		Gavodikou, Municipality of Ahlada, Prefecture of Hasies				
22.	Ministry for the Environment, Energy & Climate Change, Department of Environment EYPE	Submission of Special Technical Implementation Study for approval for the borrow pit at "Amoudes" position, Filia, Municipality of Sofades, Prefecture of Karditsa	9285/26.07.2010	11595/07.12.2010	132626 / 22.11.2010	STIS Approval
23.	Ministry for the Environment, Energy & Climate Change, Department of Environment EYPE	Submission of Special Technical Implementation Study for approval for the borrow pit at "Haliades" (BP5N6), Filia, Municipality of Sofades, Prefecture of Karditsa	9467/03.08.2010	11595/07.12.2010	132626 / 22.11.2010	STIS Approval
24.	Ministry of Culture and Tourism, Department of Prehistoric and Classical Antiquities	Hierarchical appeal request for the borrow pit in "Mavrogies" – "Issada" position, Municipality of Sykeona, Prefecture of Fullo	10786/21.10.2010	11341/23.11.2010	ΥΠΠΟ.Τ/ΓΔΑΠΚ/ ΑΡΧ/Α1/Φ40/100 81/4803/ 12.11.2010	
25.	Forest Service of Karditsa	Approval to install asphalt mix production units and a 3A mixer truck at the location of 'Livadia;. Community of Anavra, Municipality of Tamassio	7887/19.05.2010	8091/01.06.2010	2331/76835/25.0 5.2010	Positive opinion
26.	ΛΔ' Service of Prehistorical and Classical Antiquities	Approval to install asphalt mix production units and a 3A mixer truck at the location of 'Livadia' Community of Anavra, Municipality of Tamassio	7887/19.05.2010	8674/29.06.2010	2102/15.06.2010	Positive opinion



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S/N	Service	Subject	Request	Response		Comments
			J/V Ref. No.	J/V Ref. No.	Service Ref. No.	
27.	19th Service of Byzantine Antiquities	Approval to install asphalt mix production units and a 3A mixer truck at the location of 'Livadia' Community of Anavra, Municipality of Tamassio	7887/19.05.2010	8216/08.06.2010	2328/01.06.2010	Positive opinion
28.	Directorate of Town Planning, Environment & Town Planning applications, Prefectural Administration of Karditsa	Power supply to the asphalt mix production unit and the 3A mixer at the location of 'Livadia', Community of Anavra, Municipality of Tamassio	7860/18.05.2010		2200/15.06.2010	Positive opinion
29.	Municipality of Hassia	Approval to install a borrow pit at the Location "Voulgara", Community of Oxinia, Municipality of Hassia, Prefecture of Trikala.	6074/17.02.2010			Pending opinion
30.	Forest Service of Karditsa	Approval to install a borrow pit at the location "Amoudes", Community of Filia, Municipality of Sofades, Prefecture of Karditsa.	8049/28.05.2010	8215/08.06.2010	2468/81958/01.06.2010	Positive opinion
31.	ΛΔ' Service of Prehistorical and Classical Antiquities	Approval to install a borrow pit at the location "Amoudes", Community of Filia, Municipality of Sofades, Prefecture of Karditsa.	8049/28.05.2010	8677/29.06.2010	2325/15.06.2010	Positive opinion
32.	19th Service of Byzantine Antiquities	Approval to install a borrow pit at the location "Amoudes", Community of Filia, Municipality of Sofades, Prefecture of Karditsa.	8049/28.05.2010	8374/14.06.2010	2422/04.06.2010	Positive opinion

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S/N	Service	Subject	Request	Response		Comments
			J/V Ref. No.	J/V Ref. No.	Service Ref. No.	
33.	Prefectural Administration of Karditsa, Directorate of Development	Application for issuing a permit for the borrow pit at the location "Amoudes", Community of Filia, Municipality of Sofades, Prefecture of Karditsa.	8495/18.06.2010	8797/05.07.2010	Φ26/667/22.06.2010	The Directorate for Development has sent a request to 13 Services for their opinion in order to issue the permit.
34.	Forest Service of Karditsa	Approval to install a borrow pit at the location "Haliades", Community of Melissohori, Municipality of Sofades, Prefecture of Karditsa.	8442/16.06.2010	8631/25.06.2010	2758/93518/21.06.2010	Positive opinion
35.	ΛΔ' Service of Prehistorical and Classical Antiquities	Approval to install a borrow pit at the location "Haliades", Community of Melissohori, Municipality of Sofades, Prefecture of Karditsa.	8442/16.06.2010	8675/25.6.2010	2609/21.06.2010	Positive opinion
36.	19th Service of Byzantine Antiquities	Approval to install a borrow pit at the location "Haliades", Community of Melissohori, Municipality of Sofades, Prefecture of Karditsa.	8442/16.06.2010	8874/07.07.2010	2738/30.06.2010	Positive reply
37.	KYD Karditsa	Request for opinion of borrow pit installation at the location of "Haliades (BP5N6)", Filia, Municipality of Sofades, Prefecture of Karditsa	9266/23.07.2010	10431/01.10.2010	2275/27.09.2010	The service claims the responsibility for permit issuance
38.	Prefectural Administration of Karditsa, Directorate of	Application for issuing a permit for the operation of the quarry of loose aggregates at	9445/02.08.2010			Pending



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S/N	Service	Subject	Request	Response		Comments
			J/V Ref. No.	J/V Ref. No.	Service Ref. No.	
	Development	the location of "Haliades (BP5N6), Filia, Municipality of Sofades, Prefecture of Karditsa				
39.	Technical Services Directorate, Prefectural Administration of Karditsa	Local traffic regulation at the local roads 21 (Sofades - Filia Kedros) and 22 (Kedros - Anavra) Prefecture of Karditsa	7914/01.12.2009	5524/14.01.2010	4084/12.01.2010	Positive reply
40.	Water Supply - Drainage Municipal Enterprise	Worksite sewage at Anavra and Agios Theodoros			1408/6.5.2010	Positive reply
41.	Police Station at Sofades	Traffic regulation at the local roads 21 (Sofades - Filia Kedros) and 22 (Kedros - Anavra) Prefecture of Karditsa	6155/23.02.2010			
42.	Police Station at Sofades	Placement of signage at the local roads at Sofades - Ambelos, Sofades - Anogio, Sofades - Karpohori, Sofades - Anavra and Interchange Filia - Anavra	5795/01.02.2010	6987/01.04.2010	2501/3/51.στ/24.03.2010	Positive reply for the placement of signage on the local road Sofades - Ambelos
43.	Police Station at Sofades	Placement of signage at the local roads at Sofades - Ambelos, Sofades - Anogio, Sofades - Karpohori, Sofades - Anavra and Interchange Filia - Anavra	5795/01.02.2010	6990/01.04.2010	2501/3/51.ε/24.03.2010	Positive reply for the placement of signage on the local road Sofades - Anogio
44.	Police Station at Sofades	Placement of signage at the local roads at Sofades - Ambelos, Sofades - Anogio, Sofades - Karpohori,	5795/01.02.2010	6986/01.04.2010	2501/3/51.ζ/24.03.2010	Positive reply for the placement of signage on the local road Sofades - Karpohori





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S/N	Service	Subject	Request	Response		Comments
			J/V Ref. No.	J/V Ref. No.	Service Ref. No.	
		Sofades - Anavra and Interchange Filia - Anavra				
45.	Police Station at Sofades	Placement of signage at the local roads at Sofades - Ambelos, Sofades - Anogio, Sofades - Karpohori, Sofades - Anavra and Interchange Filia - Anavra	5795/01.02.2010	6985/01.04.2010	2501/3/51.η/24.03.2010	Positive reply for the placement of signage on the local road Sofades - Anavra and Interchange Filia - Anavra
46.	Thermopiles Traffic Police	Commencement of construction works for the toll stations at PATHE (Thermopiles I/C)	5535/15.01.2010			
47.	Ministry of Infrastructure, Transport and Networks - Special Service for Public Works - PATHE	Implementation of weak currents network at PATHE	6027/16.02.2010	6326/03.03.2010	ΛΜ/ΦΚΛΜ10.00/ΑΛ/159/22.02.2010	Positive reply
48.	Region of Thessalia, Directorate for Water Supply	Granting of permit to implement works for water resources utilization (excavation at Agios Theodoros worksite)	09.09.2009		419/20891/18.02.2010	Granting of permit to implement works
49.	Directorate of Town Planning, Environment & Town Planning applications, Prefectural Administration of Karditsa	Approval of environmental terms for excavation works at Agios Theodoros worksite)			76/08.02.2010	Approval of environmental terms
50.	Region of Thessalia, Association for Water Supply Network,	Relocation and protection of water supply network at the section from CH. 60+500 to CH. 90+500	4112/12.10.2009	5579/19.01.2010	17/15.01.2010	Positive reply

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S/N	Service	Subject	Request	Response		Comments
			J/V Ref. No.	J/V Ref. No.	Service Ref. No.	
	Municipality of Karditsa & other municipalites					
51.	IA Service of Prehistorical and Classical Antiquities	Approval of access road excavation at T2 area	2497/02.06.2009	3153/24.07.2009	3824/21.07.2009	Positive opinion
52.	24th Service of Byzantine Antiquities	Approval of access road excavation at T2 area	2497/02.06.2009	28513/02.07.2009	2299/29.06.2009	Positive opinion
53.	Forest Service of Lamia	Approval of access road excavation at T2 area	2497/02.06.2009	5395/07.01.2010	10521/14.12.2009	Approval to intervene
54.	IA Service of Prehistorical and Classical Antiquities	Approval of "Samolaka" worksite installation, Styrfakas, Municipality of Lianokladi	2497/02.06.2009	3153/24.07.2009	3824/21.07.2009	There is no objection to the layout planning of the worksite installation
55.	24th Service of Byzantine Antiquities	Approval of "Samolaka" worksite installation, Styrfakas, Municipality of Lianokladi	2497/02.06.2009	28513/02.07.2009	2299/29.06.2009	There is no objection to the layout planning of the worksite installation
56.	ΛΔ' Service of Prehistorical and Classical Antiquities	Opinion for the worksite at the community of Kalambaka, Municipality of Kalambaka (M.S.S.)	5059/11.12.2009	5508/14.01.2010	5125/21.12.09	Positive proposition
57.	19th Service of Byzantine Antiquities	Opinion for the worksite at the community of Kalambaka, Municipality of Kalambaka (M.S.S.)	5059/11.12.2009	5580/19.01.2010	5646/12.01.2010	Positive proposition
58.	Forest Service of	Commencement of works at the section	4863/02.12.2009			



## CENTRAL GREECE MOTORWAY (E-65)

S/N	Service	Subject	Request	Response		Comments
			J/V Ref. No.	J/V Ref. No.	Service Ref. No.	
	Kalambaka	from CH. 137+000 to CH. 142+000				
59.	Municipality of Kalambaka	Commencement of works at the section from CH. 137+000 to CH. 142+000	4864/02.12.2009			
60.	Forest Service of Kalambaka	Updating on the alignment of E65	5096/14.12.2009			
61.	Directorate for Quarries, Marbles & Inert Materials - Department B'	Approval of Technical Implementation Study - Pyrgaki	2139/11.05.2009	5322/23.12.2009	Δ10.Β/Φ.46.42/2 3108/4251/14.12.2009	Approval of the Technical Implementation Study
62.	Directorate for Quarries, Marbles & Inert Materials - Department B'	Approval of Technical Implementation Study - Platana, Rema	2425/27.05.2009	5323/23.12.2009	Δ10.Β/Φ.46.43/2 3110/4253/14.12.2009	Approval of the Technical Implementation Study
63.	Directorate for Quarries, Marbles & Inert Materials - Department B'	Approval of Technical Implementation Study - Kalamaki	2239/11.05.2009	5324/23.12.2009	Δ10.Β/Φ.46.41/2 3109/4252/14.12.2009	Approval of the Technical Implementation Study
64.	Local Organization of Land Improvements (TOEB) - Theopetra	Adaptation of the TOEB network to E65 works		5390/07.01.2010	7/28.12.2009	Announcement of budget
65.	Local Organization of Land Improvements (TOEB) - Vassiliki	Adaptation of the TOEB network to E65 works		5391/07.01.2010	101/28.12.2009	Announcement of budget
66.	Prefectural Administration of Trikala - Land Improvement Directorate	Construction of required structures (TOEB at Vassiliki)		6004/02.02.2010	204/29.01.2010	
67.	Prefectural Administration of Trikala - Land Improvement	Construction of required structures (TOEB at Theopetra)		6003/02.02.2010	205/29.01.2010	

## CENTRAL GREECE MOTORWAY (E-65)



S/N	Service	Subject	Request	Response		Comments
			J/V Ref. No.	J/V Ref. No.	Service Ref. No.	
	Directorate					
68.	Region of Central Greece, General Directorate for Transportation	Gravel extraction at Gerakaris river		5513/14.01.2010	117123/5567/Φ. AM5/07.01.2010	Negative decision
69.	Forest Service of Kalambaka	Protocol of works installation	4863/02.12.2009	5576/18.01.2010	222/5222/18.01.2010	Rejection of request
70.	Prefectural Administration of Fthiotida, General Directorate for Transportation, Directorate for Development	Approved Technical Implementation Study / Granting of permit		5622/21.01.2010	Δ.Α./Φ.24/3466/3 489/11.01.2010	Informative
71.	Prefectural Administration of Fthiotida, General Directorate for Transportation, Directorate for Development	Approved Technical Implementation Study / Granting of permit		5626/21.01.2010	Δ.Α./Φ.24/3465/3 488/11.01.2010	Informative
72.	Prefectural Administration of Fthiotida, General Directorate for Transportation, Directorate for Development	Approved Technical Implementation Study / Granting of permit		5669/25.01.2010	Δ.Α./Φ.24/3464/3 490/11.01.2010	Informative
73.	Ministry for the Environment, Energy & Climate Change/EYPE	Revision of the STIS "Borrow pit at the area of Aerodromio to cover the needs of E65"	5218/17.12.2009	5847/03.02.2010	121188/29.01.2010	Approval of the revision of the STIS
74.	Hellenic Air force General Staff	Cross-over of fuel duct with E65	5892/05.02.2010 & 8637/25.06.2010	6456/09.03.2010	Φ.550/673242/23 .02.2010	
75.	Concessionaire	Termination (of contract)	6006/12.02.2010			Updating on the interruptions of felling works following banning

## CENTRAL GREECE MOTORWAY (E-65)



S/N	Service	Subject	Request	Response		Comments
			J/V Ref. No.	J/V Ref. No.	Service Ref. No.	
						of the Hellenic Army
76.	Hellenic Telecommunications Corporation	OTE network complication with E65	6205/25.02.2010			
77.	Public Power Corporation of Lamia	Budget	2887/06.07.2009	6390/05.03.2010	50473/05.03.2010	
78.	Municipality of Paralitheon	Land disposal - Requests		7015/07.04.2010	850/30.03.2010	
79.	Public Power Corporation of Trikala	Network relocation	2661/17.04.2009	7026/07.04.2010	50394/30.03.2010	
80.	IA Service of Prehistorical and Classical Antiquities	Identification of a new archaeological site		7028/07.04.2010	1818/16.03.2010	
81.	Public Power Corporation	High-voltage pylons network complication with E65	5730/28.01.2010	7127/13.04.2010	20972/08.04.2010	
82.	Forest Service of Lamia	Felling works commencement	7208/16.04.2010			Notification to the Forest Service
83.	Public Power Corporation of Trikala	Network relocation	2661/17.04.2009	7393/26.04.2010	50415/07.04.2010	
84.	Land Improvement Service of Trikala	TOEB network at Vassiliki and Theopetra	6004/02.02.2010 & 6003/02.02.2010			
85.	Land Improvement Service of Trikala	TOEB network at Vassiliki and Theopetra	7435/27.04.2010	7573/04.05.2010	967/30.04.2010	Positive opinion
86.	Water Supply & Sewerage Public Corporation of Kalambaka	Drainage network complication with E65	7488/03.05.2010			



## CENTRAL GREECE MOTORWAY (E-65)

S/N	Service	Subject	Request	Response		Comments
			J/V Ref. No.	J/V Ref. No.	Service Ref. No.	
87.	Public Power Corporation of Trikala	Network relocation	2661/17.04.2009	07634/06.05.2010	50541/29.04.2010	
88.	Public Power Corporation of Lamia	Network relocation	2887/06.07.2009	7667/10.05.2010	51027/03.05.2010	
89.	Public Power Corporation of Lamia	Network relocation	2887/06.07.2009	7668/10.05.2010	51028/03.05.2010	
90.	Directorate of Technical Service Prefectural Administration of Trikala	Assembly of the drainage network in the Municipality of Kalambaka with E65	74637/27.04.2010	07741/12.05.2010	E2405/12.05.2010	
91.	Public Power Corporation of Lamia	Network relocation	2887/06.07.2009	8031/27.05.2010	51171/21.05.2010	
92.	Public Power Corporation of Lamia	Drilling works relocation	8168/04.06.2010			
93.	Directorate for Public Works Maintenance Control of Larissa	Permit to commence work	8606/24.06.2010	8191/07.06.2010 & 8676/29.06.2010	3761/72904/26.05.2010 & 4891/97848/25.06.2010	
94.	19th Service of Byzantine Antiquities	Commitment of the site from CH. 116+660 to CH. 117+260		8299/10.06.2010	2628/10.06.2010	
95.	Public Power Corporation of Trikala	Network relocation	2661/17.04.2009	8373/14.06.2010	50728/08.06.2010	
96.	Forest Service of Lamia	Issuance of permit to intervene in the borrow pit at "Kalamaki Vr.", Community of Agia Paraskevi, Municipality of Lamia, Prefecture of		7030/07.04.2010	1159/31.03.2010	Issuance of permit for intervention

## CENTRAL GREECE MOTORWAY (E-65)



S/N	Service	Subject	Request	Response		Comments
			J/V Ref. No.	J/V Ref. No.	Service Ref. No.	
		Fthiotida.				
97.	Forest Service of Lamia	Protocol for installation in the borrow pit at "Kalamaki Vr.", Community of Agia Paraskevi, Municipality of Lamia, Prefecture of Fthiotida.		7325/21.04.2010		Protocol of installation
98.	Forest Service of Lamia	Worksite at "Samolaka", Community of Styrfakas, Municipality of Lianokladi, Prefecture of Fthiotida	2497/02.06.2009	5961/09.02.2010	388/02.02.2010	Positive opinion
99.	Region of Thessalia	Decision to validate the delimitation of Onohnos river	3055/17.07.2009	6114/19.02.2010	469/20664/09.02.2010	Approval
100.	KYD of Karditsa	Transmission of positive decision of the committee for gravel extraction from Onohonos river		7644/07.05.2010	922/29.04.2010	Positive decision
101.	19th Service of Byzantine Antiquities	Opinion for the borrow pit at Vrontaria, Community of Fiki, Municipality of Pialia, Prefecture of Trikala		5855/03.02.2010	3234/26.01.2010	Positive opinion
102.	Forest Service of Trikala	Characterization of the borrow pit area at Vrontaria, Community of Fiki, Municipality of Pialia, Prefecture of Trikala			189/4864/14.01.2010	Characterization certificate
103.	Ministry for the Environment, Energy & Climate Change	Submission of the Technical Implementation Study for the borrow pit at Vrontaria, Community of Fiki, Municipality of Pialia, Prefecture of Trikala	7251/19.04.2010			Approval is expected



## CENTRAL GREECE MOTORWAY (E-65)

S/N	Service	Subject	Request	Response		Comments
			J/V Ref. No.	J/V Ref. No.	Service Ref. No.	
104.	IA Service of Prehistorical & Classical Antiquities	Worksite at Magoula, Community of Lygaria, Municipality of Lamia, Prefecture of Fthiotida.	3436/13.08.2010 & 4946/07.02.2010	6693/19.03.2010	1480/03.03.2010	Positive opinion
105.	Forest Service of Lamia	Borrow pits at Markyrahi, Municipality of Xyniada, Prefecture of Fthiotida and Agios Stefanos, Municipality of Xyniada, Prefecture of Fthiotida	4210/21.10.2009	5690/26.01.2010	11287/09/20.01.2010	Positive opinion
106.	IA Service of Prehistorical & Classical Antiquities	Worksite installations at Perivoli, Community of Perivoli, Municipality of Xyniada, Prefecture of Fthiotida.	5699/27.01.2010	5876/04.02.2010	669/01.02.2010	Positive opinion
107.	24th Service of Byzantine Antiquities	Worksite installations at Perivoli, Community of Perivoli, Municipality of Xyniada, Prefecture of Fthiotida.	5699/27.01.2010	6889/29.03.2010	518/11.03.2010	Positive opinion
108.	Forest Service of Lamia	Worksite installations at Perivoli, Community of Perivoli, Municipality of Xyniada, Prefecture of Fthiotida.	5699/27.01.2010			Positive opinion is expected
109.	EYDE/OSYE	Request to withdraw materials from the tunnel at Aheloos river	6381/05.03.2010	6208/25.02.2010	93/22.02.2010	Positive decision
110.	Prefectural Administration of Trikala	Submission of a study for the delimitation of Ionas river	7188/18.04.2010			The decision of the General Secretariat of Thessalia is expected.
111.	IA Service of Prehistorical & Classical Antiquities	Worksite at Sykia, Community of Koma, Municipality of Lamia, Prefecture of Fthiotida.	8393/14.06.2010	8616/05.07.2010	4080/22.06.2010	Positive opinion
112.	IA Service of Prehistorical & Classical	Warehouse at Sykia, Community of Koma, Municipality of Lamia,	8393/14.06.2010	8616/05.07.2010	4080/22.06.2010	Positive opinion





## CENTRAL GREECE MOTORWAY (E-65)

S/N	Service	Subject	Request	Response		Comments
			J/V Ref. No.	J/V Ref. No.	Service Ref. No.	
	Antiquities	Prefecture of Fthiotida.				
113.	24th Service of Byzantine Antiquities	Worksite at Sykia, Community of Koma, Municipality of Lamia, Prefecture of Fthiotida.	8393/14.06.2010	8672/27.03.2010	3278/21.06.2010	Positive opinion
114.	24th Service of Byzantine Antiquities	Warehouse at Sykia, Community of Koma, Municipality of Lamia, Prefecture of Fthiotida.	8393/14.06.2010	8672/27.03.2010	3278/21.06.2010	Positive opinion
115.	Forest Service of Kalambaka	Protocol of installation	5132/15.12.2009	5458/12.01.2010	10530/83750/2009/08.01.2010	Section CH. 144+000 – CH. 149+000
116.	Hellenic Railway Corporation S.A. works	Request to remove the materials and demolish the structures at the construction area of E65	5536/15.01.2010	5761/29.01.2010	178902/25.01.2010	Negative reply from the Hellenic Railway Corporation
117.	Gas Transmission System Operator SA	High-pressure gas ducts - Central duct		5616/21.01.2010	Π029140/ΙΓ/κβ/20.01.2010	Updating on works at CH. 3+895
118.	Gas Transmission System Operator SA	High-pressure gas ducts - Central duct	5651/22.01.2010			Reply to doc. 5616/21.01.2010
119.	Public Power Corporation of Trikala	Relocation - Modification of distribution networks at the National Road Loggos-Megalohori, Trikala	3426/12.08.2009	5732/28.01.2010	50061/25.01.2010	Informative
120.	ΛΔ' Service of Prehistorical and Classical Antiquities	Engagement of the area to perform archaeological works at a section of E655, area of Loggos, Municipality of Estiaiotida		5856/03.02.2010	262/26.01.2010	
121.	Hellenic Railway Corporation S.A.	Request to remove the materials and demolish	5990/10.02.2010			Request reintroduction



## CENTRAL GREECE MOTORWAY (E-65)

S/N	Service	Subject	Request	Response		Comments
			J/V Ref. No.	J/V Ref. No.	Service Ref. No.	
	works	the structures are the construction area of E65				5536/15.01.2010
122.	Gas Transmission System Operator SA	High pressure gas ducts - Karditsa - Trikala		6060/17.02.2010	Π029825/ΙΓ/κβ/1 1.02.2010	CH. 81+75, CH. 99+450, CH. 104+925,
123.	Municipality of Hassia	Request to withdraw materials from Ionas river	6065/17.02.2010			
124.	Hellenic Telecommunications Corporation (OTE)	Existing network of OTE	6210/26.02.2010			Re-submission of details for the section CH. 0+000 to CH. 6+200
125.	Public Power Corporation of Lamia	Relocation and protection of Public Power Corporation networks	6304/02.03.2010			Section from CH. 30+000 to CH. 43+000
126.	Ministry of Infrastructure, Transport & Networks	Request to use the excavation material that will derive from the tunnel at Aheloos river	6381/05.03.2010	7072/09.04.2010	165/29.03.2010	
127.	Public Power Corporation	Request to spatially relocate the PPC network at section A2	6496/11.03.2010			
128.	Public Power Corporation of Lamia	Network modification for safety reasons at Athnili, Lamia	2887/06.07.2009	6587/16.03.2010	50512/12.03.2010	
129.	Municipality of Estiaiotida	Request for waste collection at CH. 108+500	7415/26.04.2010			
130.	PADYTH SA	Request for waste collection at CH 108+500	7415/26.04.2010	7640/07.05.2010	1477/04.05.2010	Negative reply
	Ministry of Environment, Energy and Climate change	Re-submission of STIS "Worksite in MSS position of Kalampaka for the needs of E65	11229/16.11.2010			Awaiting Approval

## CENTRAL GREECE MOTORWAY (E-65)



S/N	Service	Subject	Request	Response		Comments
			J/V Ref. No.	J/V Ref. No.	Service Ref. No.	
	/EYPE	construction"				
	Prefectural Administration of Trikala, Directorate of Development	Permit of exploitation of loose aggregates borrow pit of at the location of "Airport", municipality of Faloria			ΔΑ/Φ29.71/1038/16.07.2010	Positive decision
	19 <sup>th</sup> Service of Byzantine Antiquities	Engagement of the area to perform archaeological works at a section of E655 CH. 116+870-116+980			9843/26.08.2010	
	19 <sup>th</sup> Service of Byzantine Antiquities	Engagement of the area to perform archaeological works at a section of E655 CH. 136+580-136+630			9316/28.07.2010	
	Forest Service of Lamia	Opinion on the location of the worksite and temporary deposit of aggregates in Lamia I/C	9198/22.07.2010	10717/18.10.2010	7453/06.10.2010	
	24 <sup>th</sup> Service of Byzantine Antiquities	Opinion on the location of the borrow pit in the area of "Fournia", Municipality of Makrirahi, Prefecture of Ksiniada	Request for operation permit issuance (10252/21.09.2010 J/V) in Central Greece/ Directorate of Government and Decentralization. The requests for opinions to the competent authorities (Antiquities Committees, Forest Services, etc) are made through the Region.	11112/08.11.2010	5403/04.11.2010	Positive
	24 <sup>th</sup> Service of Byzantine Antiquities	Opinion on the location of NEW borrow pit in the area of the Municipality Agios Stefanos, Prefecture of	Request for operation permit issuance (10252/21.09.2010 J/V) in Central	11113/08.11.2010	5402/04.11.2010	Positive



## CENTRAL GREECE MOTORWAY (E-65)

S/N	Service	Subject	Request	Response		Comments
			J/V Ref. No.	J/V Ref. No.	Service Ref. No.	
		Ksiniada resulted from the unification of the two original sites (BP3N3 and BP3N4) in a broades BP3N5).	Greece/ Directorate of Government and Decentralization. The requests for opinions to the competent authorities (Antiquities Committees, Forest Services, etc) are made through the Region.			
	24 <sup>th</sup> Service of Byzantine Antiquities	Opinion on the location of the worksite in the Municipality of Perivoli, Prefecture of Ksiniada	5699/27.01.2010	6889/29.03.2010	518/11.03.2010	Positive
	Forest Service of Lamia	Opinion on the location of the worksite in the Municipality of Perivoli, Prefecture of Ksiniada	5699/27.01.2010	9348/28.07.2010	4928/20.07.2010	Positive (non-forest land)
	IA Service of Prehistorical & Classical Antiquities	Opinion on the location of the worksite in the position of "Ohiro" (area of T2 exit tunnel), Municipality of Moshokaria, Prefecture of Lianokladi	8800/05.07.2010	9351/28.07.2010	4854/22.07.2010	Positive
	24 <sup>th</sup> Service of Byzantine Antiquities	Opinion on the location of the worksite in the position of "Ohiro" (area of T2 exit tunnel), Municipality of Moshokaria, Prefecture of Lianokladi	8800/05.07.2010	9561/06.08.2010	3639/03.08.2010	Positive
	Forest Service of Lamia	Opinion on the location of the worksite in the position of "Ohiro" (area of T2 exit tunnel), Municipality of Moshokaria, Prefecture of Lianokladi	8801/05.07.2010			Awaiting reply
	IA Service of	Opinion on the location	8800/05.07.2010	9351/28.07.2010	4854/22.07.2010	Positive



## CENTRAL GREECE MOTORWAY (E-65)

S/N	Service	Subject	Request	Response		Comments
			J/V Ref. No.	J/V Ref. No.	Service Ref. No.	
	Prehistorical & Classical Antiquities	of temporary deposit in the position of "Fteres" Municipality of Moshokaria, Prefecture of Lianokladi				
	24 <sup>th</sup> Service of Byzantine Antiquities	Opinion on the location of temporary deposit in the position of "Fteres" Municipality of Moshokaria, Prefecture of Lianokladi	8800/05.07.2010	9561/06.08.2010	3639/03.08.2010	Positive
	Forest Service of Lamia	Opinion of temporary deposit in the position of "Fteres" Municipality of Moshokaria, Prefecture of Lianokladi	8801/05.07.2010			Awaiting reply
	Prefectural Administration of Trikala, Directorate of Development	Permit of exploitation for the borrow pit in the position of "Aeroport", Municipality of Kefalovrisso, Prefecture of Fthia	9036/14.07.2010	9124/19.07.2010	ΔΑ/Φ29.71/1038/16.07.2010	
	ΛΔ Service of Prehistorical & Classical Antiquities	Opinion on the location of worksite in the position of "Lampes" Municipality of Proastio, Prefecture of Sellana	8802/05.07.2010	9023/09.07.2010	2953/09.07.2010	Positive
	19 <sup>th</sup> Service of Byzantine Antiquities	Opinion on the location of worksite in the position of "Fteres" Municipality of Moshokaria, Prefecture of Sellana	8802/05.07.2010	9346/28.07.2010	3213/19.07.2010	Positive
	Forest Service of Lamia	Opinion on the location of worksite in the position of "Lampes" Municipality of Proastio, Prefecture of Sellana	9197/22.07.2010	9366/29.07.2010	3477/115877/27.07.2010	Positive (non-forest land)
	Municipality of Hassies	Opinion on the location of borrow pit in the position of "Dragassia" Municipality of Oksinia,	8803/05.07.2010			

## CENTRAL GREECE MOTORWAY (E-65)



S/N	Service	Subject	Request	Response		Comments
			J/V Ref. No.	J/V Ref. No.	Service Ref. No.	
		Prefecture of Sellana				

### 4.1.2 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 for approval to the Owner of the Project (Egnatia Odos SA) and the department of YPEKA, i.e. the Special Environment Agency (EYPE). The environmental studies are presented in the following table (table 4.1.2-1).

**Table 4.1.2-1**  
**Joint Ministerial Decision / 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 - Kalambaka"	18/11/2015
3.	Joint Ministerial Decision 147014/18.11.2005	"Central Greece (E65) Road Axis / Kalambaka - Egnatia Odos & Agia Paraskevi I/C" for its connection with Egnatia Odos".	18/11/2015

## CENTRAL GREECE MOTORWAY (E-65)



No.	Service Protocol No.	Decision Title / Project Section	Expiration
4.	Joint Ministerial Decision 103681/05.05.2006	"Connecting road of the Smokovo I/C with the existing road network".	05/05/2016
5.	Joint Ministerial Decision 146113/12.07.2005	Skarfeia - 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 Sperhios 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 Sperhios 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 - Rahes 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 - Karavomylos"	30/05/2016

**Table 4.1.2-2**

**Joint Ministerial Decision / Road Work Designs submitted by the  
Construction J/V**



## CENTRAL GREECE MOTORWAY (E-65)

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/Φ104/2003 KYA)	6484/10.03.20110	----	----	----
2.	Report for the determination of environmental permit procedures of the modification project 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 KYA)	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	----
3.	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 JMD 11014/703/Φ104/2003)	3907/28.09.2009	122881/ 08.03.2010	The design was submitted by EOAE the with protocol no A238274/27.12.2009	12/07/2015
4.	Design for the Environmental Permit of Toll Stations Construction and Operation in Athens – Thessaloniki National Road, in subsection Arxi Thermopiles I/C – Nea Kiti Spexrhios of Skarfia – Lamia Section, in Thermopiles I/C	4049/08.10.2009	121668/ 08.02.2010	The design was submitted by EOAE the with protocol no A240617/17.12.2009	04/05/2013





## CENTRAL GREECE MOTORWAY (E-65)

No	Design Title	Submission J/V Ref. No	Decision of Approval	Observations	Expiration Date
	location.  (File under Article 13 of JMD 11014/703/Φ104/2003)				
5.	Design for the Environmental Permit of Toll Stations Construction and Operation in Athens – Thessaloniki National Road, in subsection Roditsa I/C end of Lamia – Rahes Section, in Agia Paraskevi and Mavromandila locations.  (File under Article 13 of JMD 11014/703/Φ104/2003)	4049/08.10.2009	The approval is expected	The design was submitted by EOAE the with protocol no A240618/17.12.2009	----
6.	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 – Rahes I/C of Skarfia - Rahes Section, in Agia Marina I/C of Stilida and Karavomilos locations.  (File under Article 13 of JMD 11014/703/Φ104/2003)	4049/08.10.2009	121667/  08.02.2010	The design was submitted by EOAE the with protocol no A240619/17.12.2009	30/05/2016

### 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.



## **CENTRAL GREECE MOTORWAY (E-65)**

- Delimitation Design of Iona r., Prefecture of Trikala, in accordance with Article 5 of Law 3010/2002.
- Final Design of Landscaping configuration, Irrigation and Environment Rehabilitation for the section of the Motorway from CH. 0+000 to CH. 6+200
- Final Design of Landscaping configuration, Irrigation and Environment Rehabilitation for the section of the Motorway from CH. 56+000 to CH. 90+500
- Final Design of Landscaping configuration, Irrigation and Environment Rehabilitation for the section of the Motorway from CH. 90+500 to CH.109+500
- Technical Operations Designs of Borrow Pit in "Sykeona location, Sykeona Municipality of Filo, Prefecture of Karditsa
- Technical Operations Designs of Borrow Pit in "Vrontaria" location, Fiki Municipality of Pitalia, Prefecture of Trikala
- Technical Operations Designs of Borrow Pit in "Ammoudes" location, Municipality of Sofades, Prefecture of Karditsa
- Technical Operations Designs of Borrow Pit in "Haliades" location, Melissochori Municipality of Sofades, Prefecture of Karditsa
- Final Landscape Design of the Surrounding area of the Administration Buildings of Agia Triada frontal Toll Stations, Pathe
- Report for update of technical proposals on limitation of the geographical isolation of terrestrial vertebrates populations, with emphasis on the population of wolves and large mammals, from the operation of the Central Greece Motorway E65 (section south from CH. 29+000 to CH. 43+000) and HSNRL (section of parallel routing to E65) in the update of the study "Program of Systematic Monitoring of the wolves' behaviour in the area of Lianokladi – Domokos New railway" in the neighbouring area of High Speed Rail Line with the part of E65 from CH. 28+550 to CH. 43+200.

## CENTRAL GREECE MOTORWAY (E-65)



### 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-date (31/12/2010) situation performed in the reserved areas.

**\*(table) – pg. 42**

The following table (table 4.2 -1) presents indicatively areas with archaeological findings.

**Table 4.2-1**

**Coordinates Table of Archaeological Findings**

A/Σ	X	Y	H
E1	332442,124	4353576,665	113,51
E2	332436,225	4353581,654	113,63
E3	332440,564	4353586,029	113,582
E4	332423,464	4353606,313	113,413
E5	332351,062	4353736,366	113,007
E6	332328,876	4353729,172	113,261
E7	332320,512	4353740,082	113,417
E8	332319,57	4353745,98	113,302

### 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



## CENTRAL GREECE MOTORWAY (E-65)

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**

<b>Waste / Material Type</b>	<b>Origin</b>	<b>Collection &amp; Storage Method</b>	<b>Managing Agency</b>	<b>Actions</b>
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 (SYDESSIS S.A.)	Agreement with SYDESSIS 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



## CENTRAL GREECE MOTORWAY (E-65)

Waste / Material Type	Origin	Collection & Storage Method	Managing Agency	Actions
Wooden pallets	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.
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)



## CENTRAL GREECE MOTORWAY (E-65)

Waste / Material Type	Origin	Collection & Storage Method	Managing Agency	Actions
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 2010 on behalf of the J/V, shall be presented in the following table. 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.

### Waste Disposal Table

Waste / Material Type	EKA Code	Method of management (quantities in kilos, c.m. pieces, etc.)				Observations
		Recycling /regeneration	Temporary storing	Temporary deposit	Permanent Disposal/A vailability	
Vehicle tires	16 01 03		Storing on wooden pallets in a specially designed area within worksites			Temporary storing of 20 pieces
Batteries - Accumulators	16 06 01		Storing on wooden pallets in a specially designed area within worksites		Availability of 472 k in Alternative Management System Batteries	Temporary storing of 20 pieces

## CENTRAL GREECE MOTORWAY (E-65)

					(2010)	
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 storing in barrels in specially designed areas within the worksites	---	Availability of 12.290 l. in ELTEPE S.A. (2010)	---



Waste recycling using special bins



Storage of electronic equipment in the worksite at Anavra



Storage of scrap in the worksite at Anavra.



Storage of used batteries and mineral oils in the worksite of Anavra



## CENTRAL GREECE MOTORWAY (E-65)



### 4.3.2 Air Pollution

A parameter control plan is under development 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.

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



Installed semi-permanent sprinkler for the worksite at T2 in order to reduce dust emission



## CENTRAL GREECE MOTORWAY (E-65)



Systematic springing of the worksites in order to reduce dust

### 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, and 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.

Blasting methods, which is included in Annex IV of the excavation methodology and temporary support of the T3 tunnel, have been submitted to the Concessionaire and the IE: Reg.No: 11665/10.12.2010. There is no settlement, or even ancient monuments in the broader region, so there is no risk of adverse effects.

### 4.3.4 Noise

## CENTRAL GREECE MOTORWAY (E-65)



The Construction Joint Venture monitors during the entire construction process the noise emitted 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).

To record noise during the construction stage, measures were taken during the period from 12/2009 to 12/2010. For this specific period, the sites to which measurements were performed are the following:

- Cut construction works
- Anavra I/C construction works
- Onohoros bridge construction works
- Under-pass – OSE interchange construction works
- Karditsa I/C construction works
- Embankment construction works at section CH. 90+500 – CH. 109+500
- T2 tunnel exit construction works Opening exit tunnel T3 excavations works at CH. 46+510
- Construction works at O/P CH. 66+615
- Construction works at O/P CH. 71+900
- Construction works at U/P CH. 76+707
- Construction works at U/P CH. 81+130

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.

Furthermore, for the estimation of the existing situation, a series of sound measurements were performed at some crucial locations (e.g., Sperhios river, 'Proastio' worksite), at a period to which no construction or operation works were performed. The aim of the specific measurements is the comparison of the results taken to those recorded during the full scale of works.

## CENTRAL GREECE MOTORWAY (E-65)



### 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 5969:1981 Type 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



## CENTRAL GREECE MOTORWAY (E-65)

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 35 °C
- Exposure to sunlight
- Lull - Weak winds

The results of the measurements are presented in the following tables per section and structure face.

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

#### ■ CH 0+000 – CH. 6+200

Sperhios river - CH. 2+150									
LOCATION N	COORDINATES		DATE	TIME	DURATION (min)	Leq	L95	L10	L50
	D	Y							
A1	367408,0 3	4299321,47	09.02 .2010	13:3 0	3	44.8	<40.0	41.0	41.0

- The location related to point A1 is within the intervention area, at a distance of approximately 5m from the limit of Sperhios river. The noise measure stands for the existing noise environment situation at Sperhios river area, given that during the measurement no operation whatsoever was performed.

#### ■ CH. 28+550 – CH. 43+200

#### T2 exit - CH. 30+000



## CENTRAL GREECE MOTORWAY (E-65)

LOCATION	COORDINATES		DATE	TIME	DURATION (min)	Leq (dB)	L95 (dB)	L10 (dB)	L50 (dB)
	D	Y							
A1	350843,83	4319210.20	29.04.2010	15:44	7:00	65.4	57.5	67.5	60.5
A1	350843,83	4319210.20	21.06.2010	10:38	9:30	81.0	-	-	-
A1	350788,64	4319154.98	15.09.2010	11:56	10:00	66.7	63.0	69.5	65.0
A1	350703,02	4319094.55	15.09.2010	12:21	10:00	60.9	58.0	63.0	59.5

\* the spaces of the measurements correspond to very low values and the sound meter was not set to record them (<40.0db).

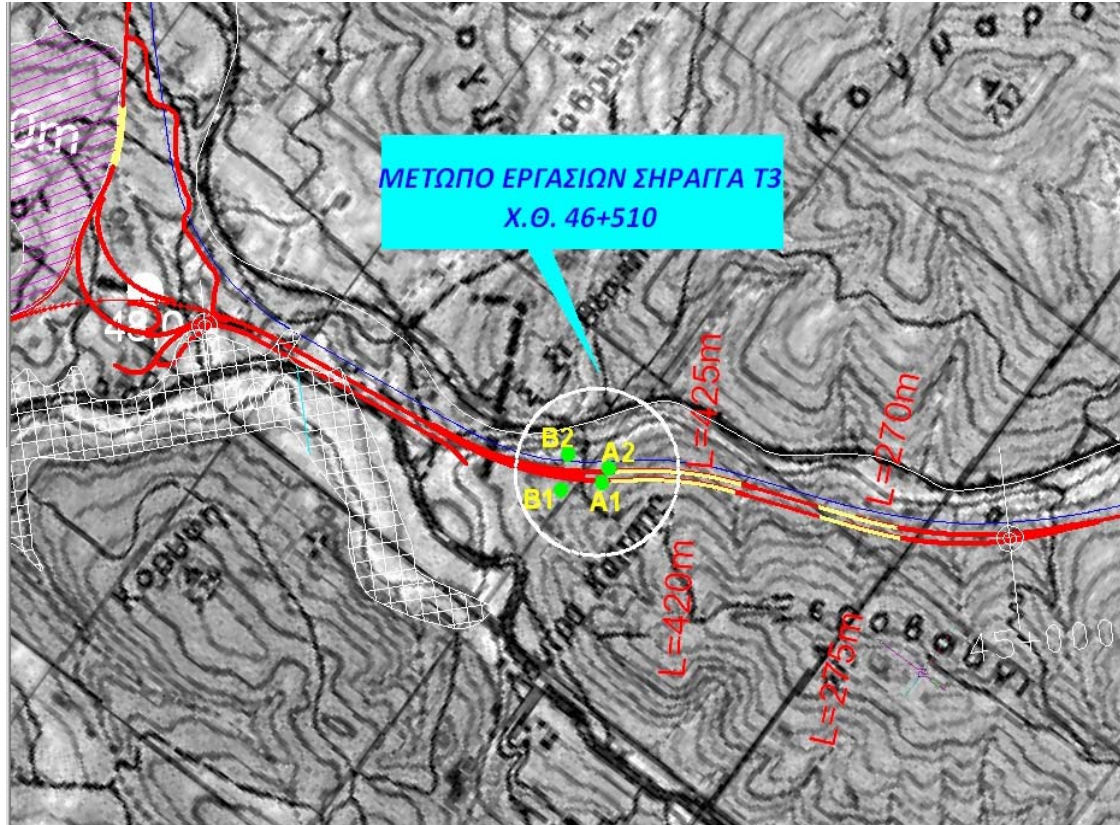
- The location related to point A1 is located at the north extremity of Agnatero village of Karditsa Prefecture and was performed during the compaction works of the backfill under development. During the measurement that took place on 21.06.2010, an explosion was carried out in terms of the tunnel construction works.

### ■ CH. 43+200 – CH. 60+500

TUNNEL T3 - CH. 46+510			
MAP POINT	COORDINATES		RESULT (dB)
	X	Y	
A1	341087	4331431	65,9
A2	341120	4331438	67,3
B1	340976	4331532	63,7
B2	341085	4331579	61,5

(MAP)

## CENTRAL GREECE MOTORWAY (E-65)



\*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

<b>CUT - CH. 58+500</b>			
<b>MAP POINT</b>	<b>COORDINATES</b>		<b>RESULT (dB)</b>
	<b>D</b>	<b>Y</b>	
A1	334067,88	4339777,12	61,8
A2	334143,43	4340048,93	63,7
A3	333872,74	4340125,57	64,9
A4	333795,66	4339853,91	64,5

## CENTRAL GREECE MOTORWAY (E-65)



<b>CUT - CH. 58+500</b>			
<b>MAP POINT</b>	<b>COORDINATES</b>		<b>RESULT (dB)</b>
	<b>D</b>	<b>Y</b>	
B1	334365,32	4339889,61	57,5
B2	334090,88	4340332,97	58,5
B3	333575,53	4340016,99	57,8
B4	333849,44	4339570,27	56,3

- The location that corresponds to point B1 is approximately 400 m away from the worksite and 450 m away from the nearest village of Anavra. Therefore, Anavra village, is approximately 1km far from the source of noise.

<b>ANAVRA I/C - CH. 59+888</b>			
<b>MAP POINT</b>	<b>COORDINATES</b>		<b>RESULT (dB)</b>
	<b>D</b>	<b>Y</b>	
A1	333568,34	4341059,33	63,5
A2	333760,59	4341266,46	64,3
A3	333553,33	4341458,79	63,8
A4	333361,09	4341251,56	62,5

<b>ANAVRA I/C - CH. 59+888</b>			
<b>MAP POINT</b>	<b>COORDINATES</b>		<b>RESULT (dB)</b>
	<b>D</b>	<b>Y</b>	





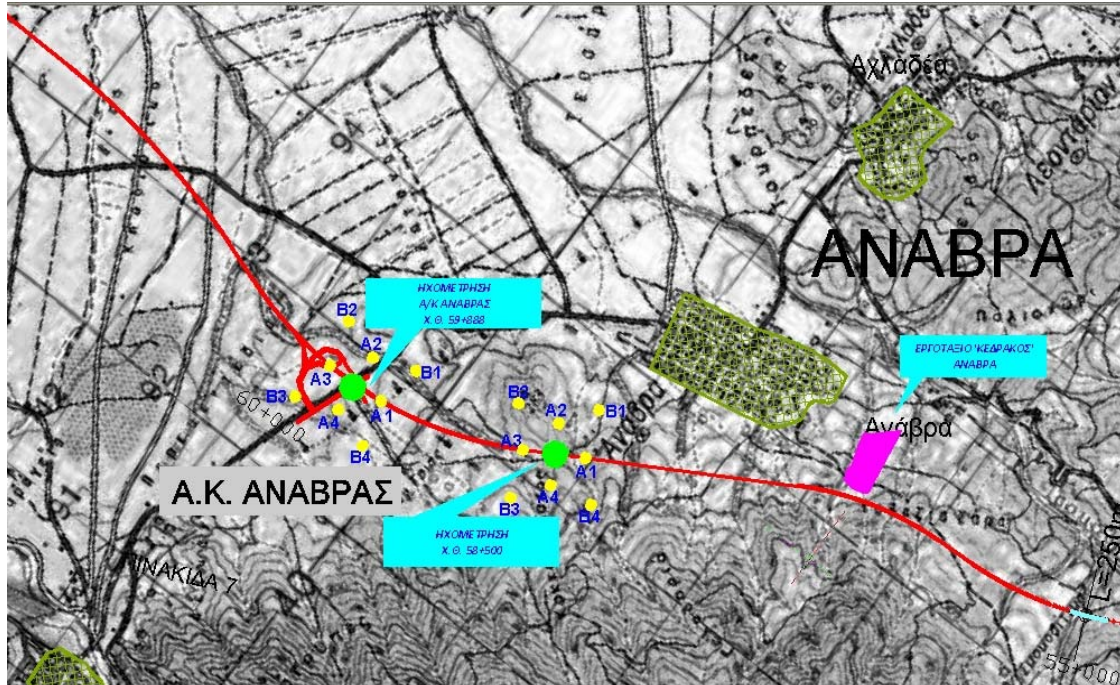
## CENTRAL GREECE MOTORWAY (E-65)

B1	333859,4998	4340994,395	61,8
B2	333852,3847	4341532,335	60,5
B3	333259,9327	4341524,036	61,1
B4	333269,345	4340984,553	60,3

- In this particular structure face of the underpass there are not possible disturbance sites. The nearest village of Anavra is approximately 2km far from the worksite.



## CENTRAL GREECE MOTORWAY (E-65)



CH. 60+500 – 90+500

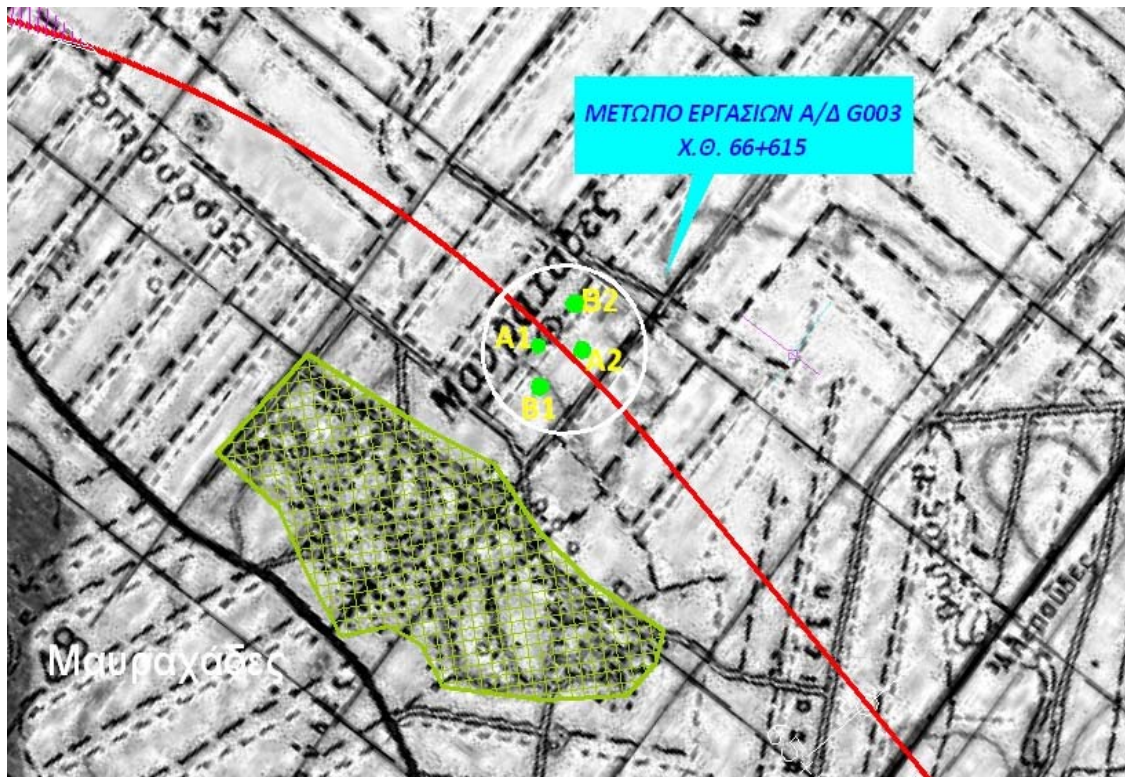
OVERPASS G003 - CH. 66+615			
MAP POINT	COORDINATES		RESULT (dB)
	X	Y	
A1	334645	4348022	66,8
A2	334735	4347871	65,5
B1	334529	4347914	64,2
B2	334863	4348004	64,8

\*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.

## CENTRAL GREECE MOTORWAY (E-65)



TECHNICAL - CH. 68+900			
MAP POINT	COORDINATES		RESULT (dB)
	D	Y	
A1	334351.59	4349999.95	59.4
A2	334598,85	4349807,78	60.0
A3	334748,85	4349999,95	61.2
A4	334496,28	4350194,11	59.8

## CENTRAL GREECE MOTORWAY (E-65)



<b>TECHNICAL - CH. 68+900</b>			
<b>MAP POINT</b>	<b>COORDINATES</b>		<b>RESULT (dB)</b>
	<b>D</b>	<b>Y</b>	
B1	334260,32	4349759,16	58,6
B2	334871,57	4349821,15	59,2
B3	334818,02	4350332,71	60,3
B4	334208,87	4350269,29	60,5

■ In this particular worksite, there are no disturbance sources.

<b>ONOHONOS BRIDGE - CH. 70+420</b>			
<b>MAP POINT</b>	<b>COORDINATES</b>		<b>RESULT (dB)</b>
	<b>D</b>	<b>Y</b>	
A1	<b>333859.58</b>	<b>4351201.41</b>	59.4
A2	334150,6	4351057,94	60.0
A3	334259,58	4351231,4	61.2
A4	333962,43	4351401,51	59.8

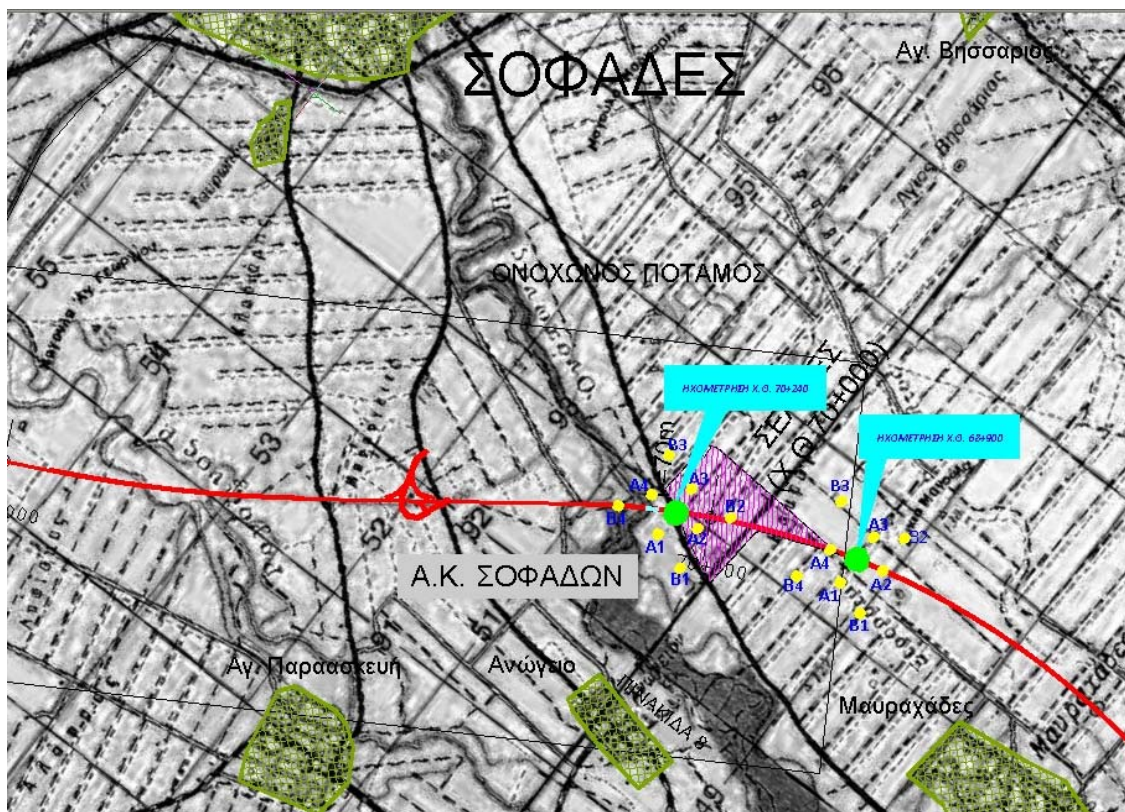
<b>ONOHONOS BRIDGE - CH. 70+420</b>			
<b>MAP POINT</b>	<b>COORDINATES</b>		<b>RESULT (dB)</b>
	<b>D</b>	<b>Y</b>	
B1	333763,37	4350962,59	56,8



## CENTRAL GREECE MOTORWAY (E-65)

B2	334262,72	4350887,07	60,0
B3	334355,54	4351500,48	57,6
B4	333857,12	4351571,41	60,5

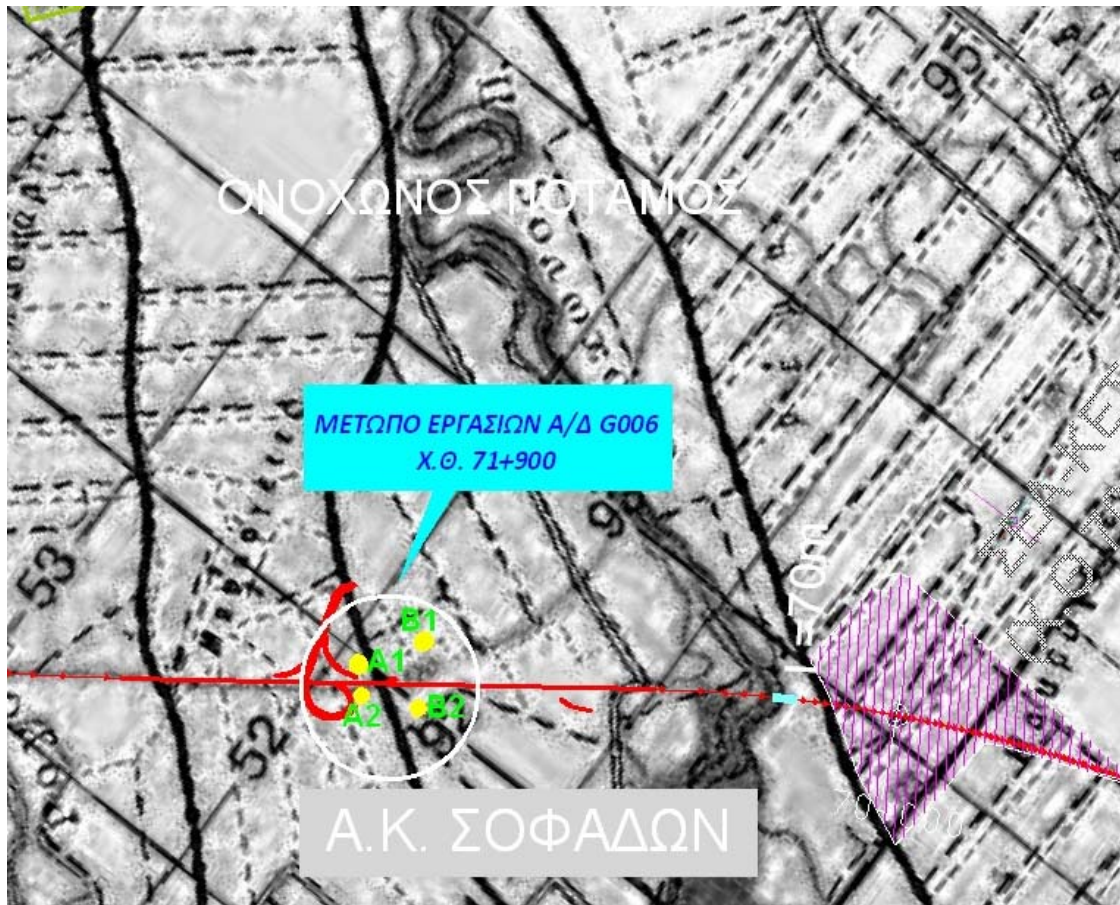
■ In this particular bridge site, there are no disturbance sources.



OVERPASS G006 - Χ.Θ. 71+900			
MAP POINT	COORDINATES		RESULT (dB)
	X	Y	
A1	333144	4352708	65,1
A2	333062	4352627	65,3

## CENTRAL GREECE MOTORWAY (E-65)

B1	333348	4352552	59,1
B2	333154	4352435	60,3



\*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.

## CENTRAL GREECE MOTORWAY (E-65)



<b>UNDERPASS - CH. 76+700</b>			
<b>MAP POINT</b>	<b>COORDINATES</b>		<b>RESULT (dB)</b>
	<b>D</b>	<b>Y</b>	
A1	330898,3	4356594,46	61,8
A2	330987,66	4356868,66	60.0
A3	330717,45	4356950,38	61.2
A4	330634,43	4356680,99	61,3

<b>UNDERPASS - CH. 76+700</b>			
<b>MAP POINT</b>	<b>COORDINATES</b>		<b>RESULT (dB)</b>
	<b>D</b>	<b>Y</b>	
B1	331157,44	4356586,94	58,6
B2	331007,38	4357127,88	59,2
B3	330459,11	4356977,24	57,5
B4	330606,47	4356435,59	58,4

■ In this particular underpass construction site, there are no disturbance sources.

<b>UNDERPASS - X.Θ. 76+700</b>			
<b>MAP POINT</b>	<b>COORDINATES</b>		<b>RESULT (dB)</b>
	<b>X</b>	<b>Y</b>	



## CENTRAL GREECE MOTORWAY (E-65)



A1	330898,3	4356594,46	61,8
A2	330987,66	4356868,66	60.0
A3	330717,45	4356950,38	61.2
A4	330634,43	4356680,99	61,3



\*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 underpass construction site, there are no disturbance sources

# CENTRAL GREECE MOTORWAY (E-65)



<b>KARDITSA I/C - CH. 80+000</b>			
<b>MAP POINT</b>	<b>COORDINATES</b>		<b>RESULT (dB)</b>
	<b>D</b>	<b>Y</b>	
A1	329288,49	4359458,72	64,9
A2	329405,36	4359716,29	64,1
A3	329147,79	4359833,16	64,4
A4	329030,92	4359575,6	63,5

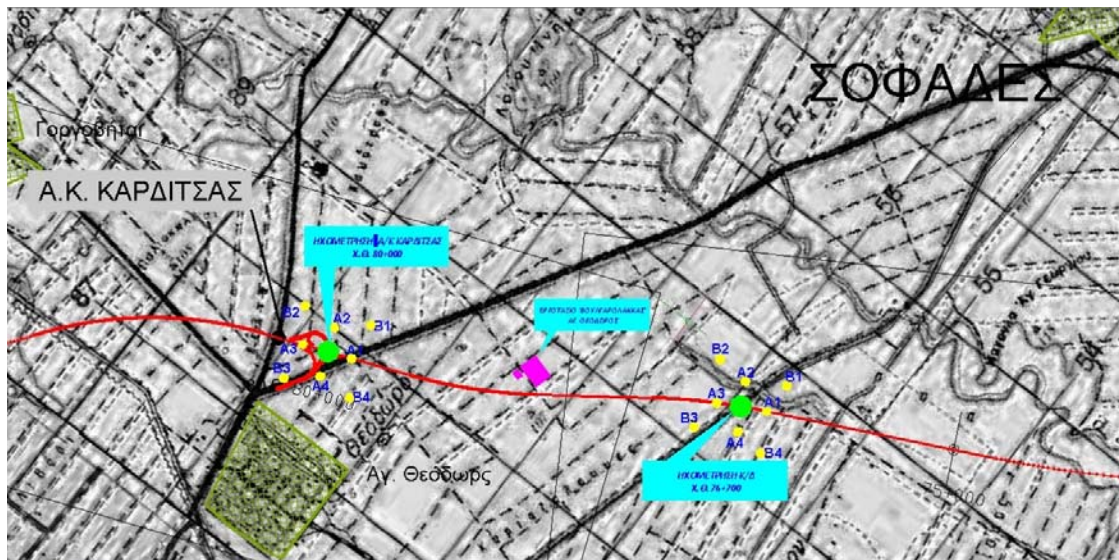
<b>KARDITSA I/C - CH. 80+000</b>			
<b>MAP POINT</b>	<b>COORDINATES</b>		<b>RESULT (dB)</b>
	<b>D</b>	<b>Y</b>	
B1	329588,78	4359495,52	60,2
B2	329402,26	4360000,85	61,3
B3	328847,5	4359796,35	58,0
B4	329033,81	4359290,94	59,4



## CENTRAL GREECE MOTORWAY (E-65)

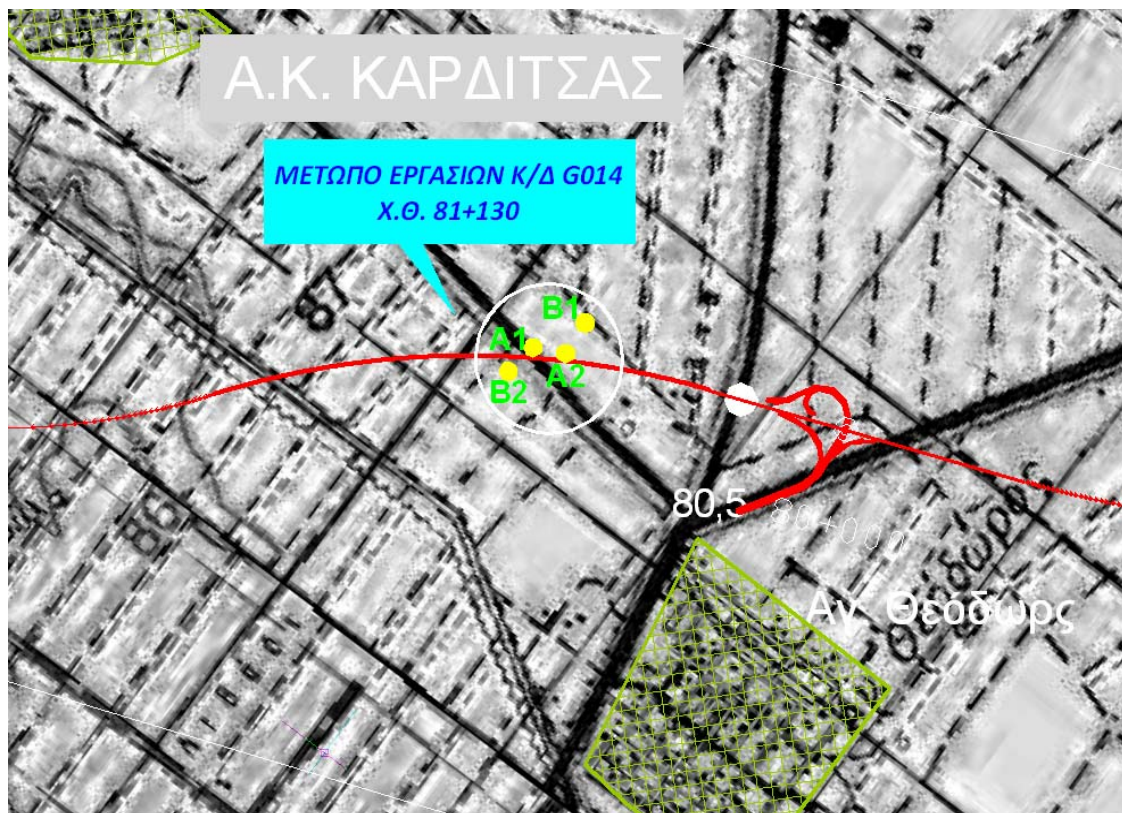


- In this particular worksite, the results of the measurements are affected to a large extent by the traffic noise due to the fact that it is adjacent to the National Road Karditsa - Athens.



Κ/Δ G014 - Χ.Θ. 81+130			
ΣΗΜΕΙΟ ΣΤΟ ΧΑΡΤΗ	ΣΥΝΤΕΤΑΓΜΕΝΕΣ		ΑΠΟΤΕΛΕΣΜΑ (dB)
	X	Y	
A1	328776	4360746	64,9
A2	328824	4360626	65,8
B1	328956	4360642	57,6
B2	328646	4360762	60,5

## CENTRAL GREECE MOTORWAY (E-65)



\*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 underpass construction site, there are no disturbance sources

📍 CH. 90+500 – CH. 109+500

T2 exit - CH. 102+000									
MAP POINT	COORDINATES		DATE	TIME	DURATION (min)	Leq	L95	L10	L50
	D	Y							
A1	315329,99	4373274,21	10.02.2010	11:00	5	46.8	55.0	60.5	58.5

## CENTRAL GREECE MOTORWAY (E-65)



A2	320402,43	4372511,14	21.06.2010	13:16	7	46.8	-	48.0	41.5
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\* the spaces of the measurements correspond to very low values and the sound meter was not set to record them (<40.0db).

- The location related to point A1 is at the north extremity of Agnatero village of Karditsa Prefecture and was performed during the compaction works of the backfill under development. The Position related to point A2 is located at the limit of the 'Proastio' worksite (IS6N1) under approval is at a distance of 210m. approximately from the eastern limit of Proastio village of Karditsa Prefecture. During the measurement procedure at A2 point transportation and storage works for the material and equipment of the worksite were performed.

### 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 Sperhios 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.



## CENTRAL GREECE MOTORWAY (E-65)

- The acceleration of the completion of the works.



Superposition of movable noise barriers at the worksite of Sperhios river bridge (nea kiti - CH. 4+560 approximately)



Absorption material for the development of the movable noise barriers at Sperhios river bridge area.

## CENTRAL GREECE MOTORWAY (E-65)



### 4.3.5 Water resources

All measures related to the prevention of pollution - burden to the water are taken. For the specific purpose, holding tanks connected to oil removers have been developed at various worksites. A monitoring of the perimeter plan is been compiled at the source of pollution (runoff tanks). At present, no relevant measurements are available.

At the protection of the water resources framework, specialized risk assessment studies for the treatment of accidental pollution and the avoidance of pollution of ecologically sensitive wetlands of:

- Sperhios river
- Kalentzi river
- Pinios river

with oils or hazardous substances.

In the protection of the water resources framework 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.



Double settlement tank at the exit of tunnel T2, for the retention of suspended particles and the dealing with opacity of water for the natural recipients. PH measurements at the

## CENTRAL GREECE MOTORWAY (E-65)

exit of the tank and its confluence to the natural recipient indicated that the PH of the waters of the natural recipient remains stable.



Use of chemical toilets at the worksite.

Installation of a compact biological cleaning station for the process of urban sewage.

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.

## CENTRAL GREECE MOTORWAY (E-65)



Use of non-alkaline solidification accelerators for shotcrete.



Operation of a closed and sealed concrete mixer.



## CENTRAL GREECE MOTORWAY (E-65)



Installation of an oil remover at Ayioi Theodoroi of Karditsa Prefecture worksite.

In the area of the T2 exit tunnel, regular PH measurements (17-06-10 to 13-09-10 and 14-10-10 to 03-12-10) are conducted a) in the settling tank, and b) upstream and downstream of the adjacent work stream. Increased PH was observed only in the tank, where the waters are coming down (10 - 11.5). The measurements made to the recipient of the downstream operations region showed PH 8. This price is acceptable (6.5 to 9.5 limits PH).

Also, a supply of anti-pollutant equipment (absorbent cloth) has been realised in order to face any oil leaks.

### 4.3.6 Natural Environment

A special monitoring program for wildlife is applied. The results of the monitoring program are submitted quarterly to the Division of Environmental Planning of





## **CENTRAL GREECE MOTORWAY (E-65)**

YPEKA. To date the following reports of the program's results have been submitted and they were referring to the periods of:

- August-September-October 2009
- November-December 2009 and January 2010
- February - March - April 2010

The quarterly report for May – June – July 2010 and other periods of the year are under preparation and for submission.

It is noted that the monitoring program is based on similar wildlife monitoring programs which have been developed in the wider region and concern E65 Motorway. More specifically, because of the location, closeness of the projects E65 Motorway and New rail line between Lanokladi RS - Domokos RS and the synergistic effects of the two projects both in the construction phase and during their operational phase, the first phase of the program implemented by "ERGA OSE SA" (Hellenic Railways Organisations Projects) took into account the E65 Motorway too. The above are applied for the motorway section up to CH. 48+000 approximately. Also, in the project area and particularly in the north part, a relevant wildlife monitoring program has been developed (first phase) under Egnatia Odos SA responsibility. As part of its obligations, the Construction JV continues the above programs. 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.

### **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 EXPENSES**

# CENTRAL GREECE MOTORWAY (E-65)



α/α	EXPENSE	AMOUNT (€)
	<b>Works – Materials – Services</b>	
1.	Construction of special watertight compartments for temporary waste storage.	1.500,00
2.	Management of worksites' municipal solid waste	1.000,00
3.	Signs supply	43.632,15
4.	Supply of oil spillage management material	157,00
5.	Regular soaking piles, construction sites and roads, access roads and all non-paved surfaces	90.000,00
6.	Temporary storage of topsoil	55.000,00
	<b><u>Designs Elaboration</u></b>	
7.	Special Technical Implementation Study (STIS) of ancillary works	54.810,00
8.	Additional Environmental Impact Studies	60.000,00
9.	Designs of Planting - Irrigate	74.184,50
10.	Program of fauna monitoring (2010)	170.732,66
	<b><u>Personnel Expenses and other expenses</u></b>	
11.	Personnel costs for the environmental issues management and compliance with the Environmental Management System	319.000,00
	<b><u>Total</u></b>	<b>870.016,31</b>



## CENTRAL GREECE MOTORWAY (E-65)

Also, the cost for the construction of 27 culverts (fauna crossing) is 1,626,443.00 and discussed below:

A/A	CULVERT	CULVERT LENGTH (m)	CULVERT COST * (EUROS)	Dimensions
1.	B.C. 60-2 CH. 60+571,98	35,92	80.137,00	4,00x2,50
2.	B.C. H001 CH. 61+056,37	32,30	72.061,00	4,00x2,50
3.	B.C. H005 CH. 64+280,00	31,50	70.276,00	4,00x2,50
4.	B.C. H008 CH. 65+890,00	28,80	64.252,00	4,00x2,50
5.	B.C. SRA9 CH. 0+837,93	9,10	20.302,00	4,00x2,50
6.	B.C. SRA11 CH. 1+349,68	8,30	18.517,00	4,00x2,50
7.	B.C. H011 CH. 69+010,00	29,50	65.814,00	4,00x2,50
8.	K.O. SRD3 X.Θ. 0+165,13	8,90	19.855,00	4,00x2,50
9.	B.C. H018 CH. 75+400,00	28,40	63.360,00	4,00x2,50



# **CENTRAL GREECE MOTORWAY (E-65)**

A/A	CULVERT	CULVERT LENGTH (m)	CULVERT COST * (EUROS)	Dimensions
10.	B.C. SRA12 CH. 0+221,04	9,00	20.079,00	4,00x2,50
11.	B.C. H021 CH. 76+160,00	28,90	64.475,00	4,00x2,50
12.	B.C. H023 CH. 77+336,00	29,10	64.922,00	4,00x2,50
13.	B.C. H23A CH. 77+685,00	28,40	63.360,00	4,00x2,50
14.	B.C. H024 CH. 78+370,00	29,20	65.145,00	4,00x2,50
15.	B.C. H025 CH. 78+965,00	29,20	65.145,00	4,00x2,50
16.	B.C. H25A CH. 79+460,00	28,40	63.360,00	4,00x2,50
17.	B.C. H026 CH. 79+935,00	36,10	80.539,00	4,00x2,50
18.	B.C. H036 CH. 85+478,00	28,40	63.360,00	4,00x2,50



## CENTRAL GREECE MOTORWAY (E-65)

A/A	CULVERT	CULVERT LENGTH (m)	CULVERT COST * (EUROS)	Dimensions
19.	B.C. H041 CH. 87+876,00	33,30	74.292,00	4,00x2,50
20.	B.C. H043 CH. 88+459,00	39,40	87.901,00	4,00x2,50
21.	B.C. H046 CH. 90+440,00	29,40	65.591,00	4,00x2,50
22.	H116	36,83	78.263.75	12,00X5,00
23.	B.C.132+600	33,95	72.143,75	4,00X2,00
24.	B.C. 134+700	30,85	65.556,25	4,00X2,00
25.	B.C. 20 A (FP)	31,00	65.875,00	4,00x2,50
26.	B.C. 20 B (FP)	33,00	70.125,00	4,00x2,50
27.	K.O. 34.3 (34+806.10)		100.000,00	4,00x2,50

\* The culvert cost (with dimensions 4X2, 5m.) per length metre is about 2.231 Euros / metre.

Finally, it has to be noted that most 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.

## CENTRAL GREECE MOTORWAY (E-65)



### 4.6 NEXT YEAR ANTI-POLLUTION PROJECTS AND ENVIRONMENTAL PROTECTION

Anti-pollution projects and environmental protection to be conducted in 2011 include:

- The installation of bag filters in the silo asphalt plant, which will be constructed in order to meet the needs of the project.
- Construction of crossing wildlife structures.
- Construction of site anti-pollution control projects, such as settling tanks of waste, special storage areas, etc.
- 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 files No. 13 (JMD 11014/03) for the environmental licensing of changes - improvements to the basic design.
- Supply of equipment for measuring environmental parameters (e.g. water quality).
- 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 technical-agriculture studies.
- Elaboration of network studies on primary and secondary green irrigation network.