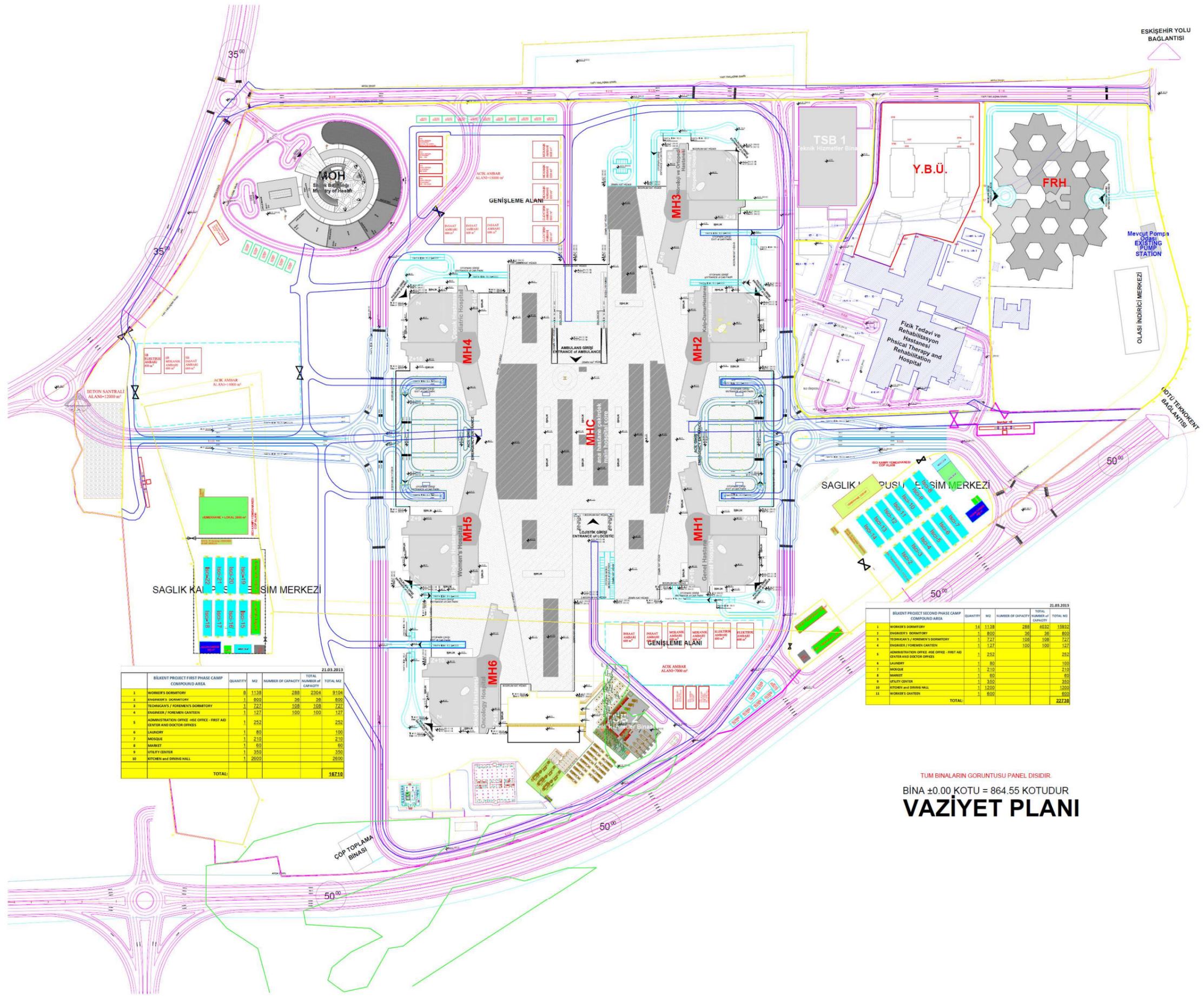


Appendix-A Health Campuses in Ankara



Appendix-B General Layout



21.09.2013

BİLKENT PROJESİ İKİNCİ FAZLA KAMP BİNA ALANI	QUANTITY	M2	NUMBER OF CAPACITY	TOTAL NUMBER OF CAPACITY	TOTAL M2 CAPACITY
1	1	1138	288	288	9104
2	1	800	30	30	800
3	1	727	108	108	727
4	1	127	100	100	127
5	1	252			252
6	1	80			100
7	1	210			210
8	1	60			60
9	1	350			350
10	1	2600			2600
TOTAL:					18710

21.09.2013

BİLKENT PROJESİ İKİNCİ FAZLA KAMP BİNA ALANI	QUANTITY	M2	NUMBER OF CAPACITY	TOTAL NUMBER OF CAPACITY	TOTAL M2 CAPACITY
1	1	1138	288	288	15932
2	1	800	30	30	800
3	1	727	108	108	727
4	1	127	100	100	127
5	1	252			252
6	1	80			100
7	1	210			210
8	1	60			60
9	1	350			350
10	1	2600			2600
11	1	600			600
TOTAL:					22738

TUM BINALARIN GÖRÜNTÜSÜ PANEL DİSİDİR.
 BİNA ±0.00 KOTU = 864.55 KOTUDUR
VAZİYET PLANI

Appendix-C Ecological Survey Report

Introduction

Being situated in an area of a great ecological significance, Turkey hosts two of the world's 25 biological diversity hotspots in its national borders. These two ecoregions, namely the Caucasus and the Mediterranean Basin have both great global importance in terms of species richness and diversity of habitats (Myers et al 2000). The Capital City of the country, where the project site is located however does not show the characteristics of these two ecoregions. On the other hand, Biodiversity of the Ankara shaped by the Central Anatolian Steppe and the Northern Anatolian Forests. Despite the most civilized and industrialized city of the Central Anatolia, Ankara has a remarkable biodiversity which mostly appears in the intact areas located near the city.

Although the project site located in the city center, a comprehensive ecological research has been made during the ESIA study considering the significance of the Biodiversity.

Terrestrial Ecology

General Status

The vegetation structure of area where the project site is located in Central Anatolian Plateau, considered as "Irano-Turanian" in terms of phytogeography. However, the native vegetation of the project area has been significantly disturbed by human activities over years. Consequently, almost all the natural vegetation of the area is highly degenerated or devastated. In this respect, almost all parts of the project area are dominated with degenerated herbaceous plants which belong to the Gramineae family, sparse vegetation or woods which cannot form a natural forest.

Natural Fauna of the Project site has been exposed to high level of disturbance over years. The high disturbance made by human activities is resulted habitat degradation and remaining poor habitats affects negatively also the populations of natural fauna. Under these circumstances, the faunal biodiversity of the area is pretty low. On the other hand, results of the flora and fauna research have been included in this report in detail in following sections. Also the results have been evaluated according to the both International and Turkish Legislations.

Legislation and policy

Turkey has widely distributed protected area network and in total almost 14000 km² area is covered in this context. These areas include National Parks, Nature Parks, Nature Reserves, wildlife reserves and Ramsar areas and all are managed by Ministry of Forestry and Hydraulic Works according to the legislations and human activities completely or partially prohibited within their boundaries. Turkey also follows regulations which are agreed during international and regional conventions given below.

- *Convention on the Conservation of European Wildlife and Natural Habitats (BERN Convention)*: The aims of this Convention are to conserve wild flora and fauna and their natural habitats, especially those species and habitats whose conservation requires the co-operation of several States. Particular emphasis is given to endangered and

vulnerable species, including endangered and vulnerable migratory species. Turkey became a part of this convention in 1984.

- *Convention on International Trade in Endangered Species of Wild Fauna and Flora (CITES)*: The convention is an international agreement between governments. Its aim is to ensure that international trade in specimens of wild animals and plants does not threaten their survival. Turkey became a part of this convention in 1996.
- *Convention on Wetlands (Ramsar, Iran, 1971)*: Ramsar convention is an intergovernmental treaty that embodies the commitments of its member countries to maintain the ecological character of their Wetlands of International Importance and to plan for the "wise use", or sustainable use, of all of the wetlands in their territories. Turkey became a part of this convention in 1994.
- *The Convention for the Protection of the Marine Environment and the Coastal Region of the Mediterranean (Barcelona Convention)*: Main scope of this convention is to involve all the countries to take action on the protection of the Mediterranean Sea against pollution. Turkey has been a party of this convention since 1981.
- *Convention on Biological Diversity (CBD conference)*: The objectives of this Convention, to be pursued in accordance with its relevant provisions, are the conservation of biological diversity, the sustainable use of its components and the fair and equitable sharing of the benefits arising out of the utilization of genetic resources, including by appropriate access to genetic resources and by appropriate transfer of relevant technologies, taking into account all rights over those resources and to technologies, and by appropriate funding. Turkey has been a party of this convention since 1997.

Designations

The immediate area of the project site does not have any legal protection status. Although there are several protected areas including one National Park, namely the Soguksu National Park, and four Wildlife Reserves in Ankara, these protected areas are all stay outside the city center and considerably far away from the facility.

Methodology and the Findings of Terrestrial Ecology Work

During the preparation of this ESIA report, a comprehensive ecology survey was performed fulfilling the IFC PS 6¹ criteria which have been published in early 2012. Main objectives of this document have been summarized in three items;

- to protect and conserve biodiversity,
- to maintain the benefits from ecosystem services ,
- To promote the sustainable management of living natural resources through the adoption of practices those integrate conservation needs and development priorities.

The 25 requirements which has been addressed in the document was used as an instructive material for this study. In addition to this, Habitats Directive which has been manifest EU Biodiversity policy, was also taken into account during the study.

During the study, species data has been collected both site surveys and the extensive literature research. The collected raw data was examined to determine the target species which possibly rare, local endemic and attained as important in national or international lists as stated in the PS6.

Before the site visits, natural inhabitants of the project area have been studied and possible important species has been selected according to the criteria which is predefined. According to the definition, presence of these species has been aimed to be noted during the site visits and this data has been supported with the extensive literature research.

The field work study, which was conducted to collect data on natural fauna, was mostly concentrated on the non-invasive methods which are composed of examination of the tracks and signs of the individuals. Also the direct counts and the line transect methods has been applied for the bird species. Findings which collected during the site surveys have been supported by the literature research.

¹ Biodiversity Conservation and Sustainable Management of Living Natural Resources January 1, 2012:
http://www1.ifc.org/wps/wcm/connect/bff0a28049a790d6b835faa8c6a8312a/PS6_English_2012.pdf?MOD=AJPERES

Terrestrial Ecology Surveys

Habitats and Flora of the Project Area

During the study, current situation of the landscape has been examined. The habitat types has been determined according to the Habitats directive perspective and coded by using the EUNIS habitat type hierarchical view coding system². During this study habitat types which shape the landscape of the site has been aimed to classified as Natural, Modified and Critical habitats which designated in IFC PS6 (See Table 1).

Table 1. Habitat Types Observed During the Fieldwork

EUNIS Habitat Name	EUNIS Code	Current Situation
Residential Buildings of City and Town Centers	J1.1	Modified
Pasture woods (with a tree layer overlying pasture)	X09	Modified
Land sparsely wooded with mixed broadleaved and	X16	Modified
Urban and suburban derelict spaces	J1.51	Modified

Findings of the site surveys during the fieldwork indicate that the study area is covered with above-mentioned habitats in table 2. As is seen in the table, the project area is composed of highly modified habitats surrounded by road networks, residential buildings and abandoned farmlands which has been used for dry land agriculture.

Before and after the fieldwork legally protected or internationally recognised areas have also been determined. In this context, protected area network of the region has been examined and possible effects of the facility to these wildlife sanctuaries have been investigated. However the Project site and the influence zone of the facility do not even close to the protected area network of Ankara.

The floristic structure of the project site and its immediate environment was determined by a detailed literature research and field surveys. According to the results of the surveys it is found that the area covered by ruderal herbaceous plants and ornamental plants. In the table 2 plant species which has been located during the site visits and literature research has been listed according to the Endemism, Suitable Habitat, Threat categories.

The data obtained from the literature research revealed that there is no endemic taxa distributed in the area (Seçmen et al, 1992; Akman, 1995; Karaömerlioğlu, 1999; Güner et al., 2000; Güvenç, 2002; Altınözlü, 2004; Halıcı and Aksoy, 2009). The risk categories of the endemic taxa were determined by using the “Red Data Book of Turkish Plants” (Ekim et al., 2000) which is based on the IUCN (International Union for the Conservation of Nature and Natural Resources) Red List’s Classification System.

² http://eunis.eea.europa.eu/habitats-code-browser.jsp?expand=#level_A

The categories in IUCN Red List Classification System (Red Data Book of Turkish Plants) are as follows:

- EX : Extinct
- EW : Extinct in the wild
- CR : Critically endangered
- EN : Endangered
- VU : Vulnerable
- NT : Near Threatened
- LC : Least Concern
- DD : Data deficient
- NE : Not evaluated

The endemic taxa are assessed with regards to Turkish list of IUCN species and BERN (2002) Conventions. However there is no species which were listed in BERN convention in the area.

Table 2. Plant Species Observed During the Fieldwork and Literature Research

Species	Endemism	Phytogeographic Region	Suitable Habitat	IUCN	BERN	Source
AMARANTHACEAE						
<i>Amaranthus retroflexus</i> L.	-	-	Roadside	-	-	L
APIACEAE/UMBELLIFERAE						
<i>Eryngium campestre</i> L. var. <i>virens</i> LINK	-	-	Roadside	LC	-	L
ASTERACEAE/COMPOSITAE						
<i>Cichorium intybus</i> L.	-	-	Bare Areas	-	-	F
<i>Senecio vernalis</i> WALDST. ET KIT.	-	-	Bare Areas	-	-	L
BORAGINACEAE						
<i>Anchusa azurea</i> MILLER var. <i>azurea</i> MILLER	-	-	Bare Areas	-	-	F
CUPRESSACEAE						

Species	Endemism	Phytogeographic Region	Suitable Habitat	IUCN	BERN	Source
<i>Juniperus chinensis</i>	-	-	Ornamental	-	-	F
FABACEAE/LEGUMINOSAE						
<i>Robinia pseudoacacia</i> L.	-	-	Road Side	-	-	F
<i>Melilotus officinalis</i> (L.) DESR.	-	-	Disturbed areas	-	-	L
<i>Trifolium</i> sp.	-	-		-	-	F
PINACEAE						
<i>Cedrus libani</i> A. RICH	-	Akdeniz	Bare Areas	-	-	F
POACEAE/GRAMINEAE						
<i>Aegilops triuncialis</i> L. subsp. <i>triuncialis</i> L.	-	-	Ruderal	-	-	L
<i>Cynodon dactylon</i> (L.) PERS. var. <i>dactylon</i> (L.) PERS.	-	-	Dry Areas	-	-	L
ROSACEAE						
<i>Rosa</i> spp.	-	-	Ornamental	-	-	F
SALICACEAE						
<i>Populus nigra</i> L. subsp. <i>nigra</i> L.	-	-	Roadside	-	-	F
SCROPHULARIACEAE						
<i>Verbascum</i> sp.	-	-	Bare Areas	-	-	F

Resource: F: Fieldwork L: Literature

The results of the study indicate that the natural vegetation has been destructed by the anthropogenic impact and the replaced bushy vegetation does not in an ideal form. The herbaceous vegetation on the Project Site was also highly degenerated and only those which are found on non-agricultural grounds.

As a result of the field survey conducted at the Project Site and its immediate vicinity as well as a comprehensive floristic literature survey, no endemic taxa were detected. The results indicate that the flora and the vegetation of the project area do not important in terms plant biodiversity.

Fauna

Fauna inventory was prepared based on conducted fieldwork and a wide literature research. In addition to the literature research and site visits, status of fauna of the region was evaluated according to the biological and ecological perspectives. Risk categories of fauna species was given according to the IUCN red list categories which were published in ver. 2011.2. In the

given fauna list, species are written with their family names which they belong to. The scale of IUCN risk categories are given below.

- **EXTINCT (EX):**
- **EXTINCT IN THE WILD (EW):**
- **CRITICALLY ENDANGERED (CR):**
- **ENDANGERED (EN):**
- **VULNERABLE (VU):**
- **NEAR THREATENED (NT):**
- **LEAST CONCERN (LC):**
- **DATA DEFICIENT (DD):**
- **NOT EVALUATED (NE):**

For the fauna species taken under protection by the Appendix – II and Appendix – III of the Bern Convention, the measures stated in the Article 6 and 7 of the Bern Convention have to be taken. Especially the following issues will be considered for the species listed in the Appendix II in accordance with the 6th Article of the Bern Convention

- a all forms of deliberate capture and keeping and deliberate killing;
- b the deliberate damage to or destruction of breeding or resting sites;
- c the deliberate disturbance of wild fauna, particularly during the period of breeding, rearing and hibernation, insofar as disturbance would be significant in relation to the objectives of this Convention;
- d the deliberate destruction or taking of eggs from the wild or keeping these eggs even if empty
- e the possession of internal trade in these animals, alive or dead, including stuffed animals and any readily recognizable part or derivative thereof, where this would contribute to the effectiveness of the provisions of this article.

The above stated situations and events will be prohibited.

According to the article 7 of the convention, each contracting party shall take appropriate and necessary legislative and administrative measures to ensure the protection of the wild fauna species specified in Appendix III. Any exploitation of wild fauna specified in Appendix III shall be regulated in order to keep the populations out of danger, taking into account the requirements of Article 2. For the species listed in the Appendix – III according to the Article 7, the following measures shall be arranged:

- a closed seasons and/or other procedures regulating the exploitation;
- b the temporary or local prohibition of exploitation, as appropriate, in order to restore satisfactory population levels;
- c the regulation as appropriate of sale, keeping for sale, transport for sale or offering for sale of live and dead wild animals.

The species listed in the Appendix II of the Bern Convention are strictly, the species listed in the Appendix III are periodically under protection. The statues of the species with respect to the Bern Convention and CITES and statues of reptiles, fowls and mammals in respect to the “Central Hunting Commission Decisions” 2010 – 2011 were provided in the lists.

According to 2010/2011 Hunting Season Central Hunting Commission Rules came to force by publishing at Official Gazette dated 18.05.2010 and numbered 27592 by Ministry of Environment and Forestry:

- Species in Appendix-I list are under protection by T.R Ministry of Environment and Forestry
- Species in Appendix II are under protection by Central Hunting Commission.
- In Appendix III list, there are hunting animals of which hunting is allowed in certain periods by Central Hunting Commission.

The fauna species allowed to be hunted in areas not under protection and as pursuant to certain rules, and the hunting seasons are determined by the T.R. Ministry of Forestry and Hydraulic Works, Central Hunting Commission of General Directorate of National Parks. These are determined jointly with the public authorities responsible for natural protection and are rearranged every year. The list of fowls and mammals allowed to be hunted during the determined periods in accordance with the 2011 – 2012 Central Hunting Commission decrees is given in the table

In the lists, status of fauna species according to Bern Convention and for birds and mammals, status according to “Central Hunting Commission” rule were stated. In the column of Central Hunting Commission Rules (MAK) KK=Protected every time, BZ= Free hunting animals in certain periods (especially except the breeding period).

In fauna of Project Area and neighborhood, species and sub species 17 species are known to be exist. Fauna inventory was prepared in a large framework and it also includes many species not observed directly in Project Area in order to do an impact assessment, information such as habitats of species (biotope) and risk status is also included. Endemic species are sensitive in terms of risk status. However, during the site visits it is found that the immediate area of the facility and the close environs do not used by target species which they are listed in national

and international lists or known to be endemic, and the area cannot serve as a good habitat for them.

Due to the landscape characteristics, project area does not have small ponds, water courses or rocky areas which suitable for reptiles and amphibians. This situation makes the area unsuitable habitat for both groups. However, *Bufo viridis* and *Ophisops elegans* has been included in the list due to their high tolerance and wide distribution in Turkey.

Table 3. Amphibians and Reptiles Observed During the Fieldwork and Literature Research

Species	Common Name	HABİTAT	BERN	IUCN 2011.2	M.A.K	Source*
BUFONIDAE						
<i>Bufo viridis</i> (= <i>Pseudepidalea viridis</i>) LAURENTI, 1768	European Green Toad	Ponds, Orchards, near water courses	App-II	LC	-	L
<i>Ophisops elegans</i> MENESTRIES, 1832	Snake-eyed Lizard	Bare, rock areas	App-II	-	App-I	L

Resource: F: Fieldwork L: Literature

Collected field data and the literature research showed that the area occupied by the species which are known to be exists anthropogenic areas. During the site visit 11 bird species has been sighted and none of them are threatened species both national and international lists (See Table 4).

Table 4. Birds Observed During the Fieldwork and Literature Research

FAMİLYA ve TÜR ADI	TÜRKÇE ADI	BERN	IUCN	M.A.K	KAYNAK (*)
FALCONIDAE					
<i>Falco tinnunculus</i> (Linne, 1758)	Common Kestrel	App-II	LC	App-I	L
COLUMBİDAE					
<i>Columba livia</i> (Gmelin, 1789)	Rock Dove	App-III	LC	App-III	F
<i>Streptopelia decaocto</i> (Frisvaldzsky, 1838)	Eurasian Collared Dove	App-III	LC	App-II	F
STRIGIDAE					
<i>Athene noctua</i> (Scopoli, 1769)	Little Owl	App-II	LC	App-I	L
HIRUNDINIDAE					

<i>Delichon urbicum</i> (L., 1758)	Common House Martin	App-II	LC	App-I	L
CORVIDAE					
<i>Pica pica</i> (L., 1758)	Common Magpie	-	LC	App-III	F
<i>Corvus monedula</i> (L., 1758)	Western Jackdaw	-	LC	App-III	L
<i>Corvus corone</i> (L., 1758)	Carrion Crow	-	LC	App-II	F
<i>Corvus corax</i> (L., 1758)	Raven	App-III	LC	App-II	L
STURNIDAE					
<i>Sturnus vulgaris</i> (L., 1758)	Starling	-	LC	App-II	L
PASSERIDAE					
<i>Passer domesticus</i> (L., 1758)	House Sparrow	-	LC	App-III	F

(*)Resource: F: Fieldwork L: Literature

The project area is located near the town center and high antropogenic impact made the area unsuitable for the mammal species especially the large mammals that needs considerably wide areas to inhabit due to their large home ranges. However listed mammal species in table 5 are known as occur in the antropogenic areas even in the town center (See Table 5).

Table 5. Mammals Observed During the Fieldwork and Literature Research

Species	Common Name	Habitat	BERN	IUCN	M.A.K	Source
MURIDAE						
<i>Rattus rattus</i> (Linnaeus, 1758)	Rat	Bushy areas, riversides, near water courses sewages in city centers	-	LC	-	L
<i>Mus domesticus</i> LINNAEUS, 1758	Home mice		-	LC	-	L
CANIDAE						
<i>Vulpes vulpes</i>	Red Fox					
LEPORIDAE						
<i>Lepus europaeus</i>	European Hare	Open Areas, Bushy areas		LC	App-I	L

(*)Resource: F: Fieldwork L: Literature

Marine and Freshwater Ecology Surveys

The Project site and close environs do not have any freshwater or Marine Ecosystem.

Possible Impacts on Terrestrial Ecology

It is expected that, there will only be limited impacts on both flora and fauna of the region during both the construction and operational phase due to the low biodiversity of the project area. On the other hand these impacts can be addressed to four main issues:

- Habitat loss due to the permanent land clearance for the facility site
- Noise disturbance to fauna
- Excavation works and land clearance on proposed construction site of the facility,
- Dust creation in association with excavation and transportation of materials

Mitigation and Management

The predicted impacts on the terrestrial ecology of the region are all taken into account as negligible because of the poor biodiversity of the region resulted by severe habitat degradation over years. In the immediate project site where facility is going to be settled, there is no endemic or threatened plant species. Besides, fauna species are rarely visit the project site due to the current poor habitat quality and this makes noise created by the facility won't be a crucial disturbance factor for the inhabiting faunal community around the region.

The possible negative effects resulted by construction phase is going to be overwhelmed by taking some serious mitigation measures. After the construction phase, natural vegetation of the area will be protected via relocation of covered plant species during land clearing stage if necessary. The dust created by transportation activities on unpaved roads will prevented by irrigating the road regularly. Created dust during the excavation activities going to be measured regularly to control emerged dust level in legal limitations.

The immediate project site has already been highly devastated because of the anthropogenic impacts for years. Therefore, the site visits conducted on the area concluded that no endemic species inhabit around the project site. In this respect, there is no harm expected in terms of flora species during construction of the facility.

The high disturbance level created over years due to the human impact also gives rise to relatively low faunal biodiversity around the region. The immediate project site has already been abandoned by most of the natural fauna species. Besides, there is no threatened or endemic fauna species distributed in the projected area according the IUCN red list of threatened species.

As a consequence, the above measures and assessments which will have been taken into account during the construction stage of the facility, expected to be minimize the predicted impact on biodiversity. Besides, as it is explained in the previous sections, the immediate project site and proposed influence area of facility do not include any threatened species. In this perspective, providing implementation of the mitigation measures explained above, the impact of construction activities won't be crucial in terms of biodiversity.

Appendix-D Sampling Locations



- Noise:** Noise Measurement Locations
- PM:** Particulate Matter Measurement Location
- Soil:** Soil Sampling Location
- GW:** Groundwater Sampling Well

Appendix-E Soil Quality Analysis Report

ARTEK MÜHENDİSLİK
Çevre Ölçüm ve Danışmanlık Hiz.Tic.Ltd.Şti.
ÇEVRE LABORATUVARI

ARTEK
ART.TP.12.04.180
04.12 05.12

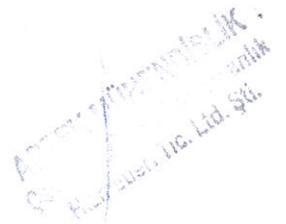
ANALİZ RAPORU

Mehmet Akif Mah. Elalmış Cad. Tarık Buğra Sok. No: 15 - Ümraniye / İSTANBUL
Tel: 0216 499 0 249 (Pbx) Faks: 0216 499 28 68
www.artekcevre.com.tr

Rapor No / Tarihi	ART.TP.12.04.180/08.05.2012		
Talep Eden	BİLKENT ENTEGRE SAĞLIK KAMPÜSÜ		
Talep Edenin Adresi	Bilkent/ANKARA		
Örnek Kayıt No	TP.12.04.180		
Örnek / Durum	Toprak / Katı	Örneğin Alındığı Yer	İşletme Alanı (8 No`lu Numune)
Örneği Alan	ARTEK	Örnek Alınma Tarihi	26.04.2012 - 18:40
Örneğin Alınma Şekli	Anlık	Örneğe Uyg.İşlemler	Soğuk Zincir
Örneğin Getirilişi	Yerinden Alınma	Lab.Kabul Tarihi	27.04.2012 - 09:50
Örnek Sayısı/Ambalajı	1 Adet / Cam şişe	Analiz Tarihi	27.04.2012 - 04.05.2012

Firmamız yetkili numune alma personeli tarafından numune alma planı ve numune alma prosedürüne uygun olarak "İşletme Alanı (8 No`lu Numune)"ndan anlık olarak alınan toprak numunesinin analizi sonucunda elde edilen değerler, analiz yöntemleri ile birlikte aşağıda belirtilmiştir.

Metot No: Tarih	Metot Adı
EPA 3051A:2007 / EPA 200.7:1994	Microwave Assisted Acid Digestion of Sediments, Sludges, Soils, and Oils / Trace Elements in Water, Solids, and Biosolids by Inductively Coupled Plasma Atomic Emission Spectrometry

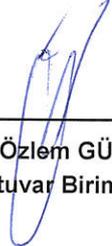

ARTEK MÜHENDİSLİK
DANIŞMANLIK HİZMETLERİ LTD. ŞTİ.

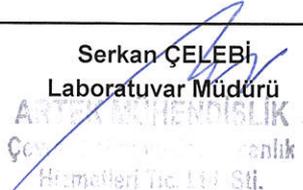
ARTEK MÜHENDİSLİK
Çevre Ölçüm ve Danışmanlık Hiz.Tic.Ltd.Şti.
ÇEVRE LABORATUVARI
ANALİZ RAPORU

ARTEK
ART.TP.12.04.180
04.12 05.12

Firma Adı : BILKENT ENTEGRE SAĞLIK KAMPÜSÜ		
Rapor No/Tarihi : ART.TP.12.04.180/08.05.2012		
Yapılan Analizler	Analiz Sonucu	Analiz Metodu
Kadmiyum (mg/kg)	0,54	EPA 3051A:2007 / EPA 200.7:1994
Çinko (mg/kg)	37,4	EPA 3051A:2007 / EPA 200.7:1994
Nikel (mg/kg)	42,2	EPA 3051A:2007 / EPA 200.7:1994
Kurşun (mg/kg)	12,4	EPA 3051A:2007 / EPA 200.7:1994
Krom (Cr)(mg/kg)	51	EPA 3051A:2007 / EPA 200.7:1994
Bakır (Cu)(mg/kg)	25	EPA 3051A:2007 / EPA 200.7:1994
Arsenik (mg/kg)	14,53	EPA 3051A:2007 / EPA 200.7:1994
Selenyum (mg/kg)	< 1	EPA 3051A:2007 / EPA 200.7:1994
Kalay (mg/kg)	< 0,5	EPA 3051A:2007 / EPA 200.7:1994

EPA: Environmental Protection Agency

Sorumlu İmzalar: 
Özlem GÜLER
Laboratuvar Birim Yöneticisi


Serkan ÇELEBİ
Laboratuvar Müdürü
ARTEK MÜHENDİSLİK
Çevre Ölçüm ve Danışmanlık
Hizmetleri Tic. Ltd. Şti.

İmzasız ve kaşesiz raporlar geçersizdir. Raporunda yer alan sonuçlar sadece incelenen numuneye aittir. Bu rapor laboratuvarımızın yazılı izni olmadan kısmen kopyalanıp çoğaltılamaz. Sayfa 2 / 2

ARTEK MÜHENDİSLİK
Çevre Ölçüm ve Danışmanlık Hiz.Tic.Ltd.Şti.
ÇEVRE LABORATUVARI

ARTEK

ART.TP.12.04.181

04.12
05.12

ANALİZ RAPORU

Mehmet Akif Mah. Elalmış Cad. Tarık Buğra Sok. No: 15 - Ümraniye / İSTANBUL
Tel: 0216 499 0 249 (Pbx) Faks: 0216 499 28 68
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Rapor No / Tarihi	ART.TP.12.04.181/08.05.2012		
Talep Eden	BİLKENT ENTEGRE SAĞLIK KAMPÜSÜ		
Talep Edenin Adresi	Bilkent/ANKARA		
Örnek Kayıt No	TP.12.04.181		
Örnek / Durum	Toprak / Katı	Örneğin Alındığı Yer	İşletme Alanı (1 No'lu Numune)
Örneği Alan	ARTEK	Örnek Alınma Tarihi	26.04.2012 - 15:00
Örneğin Alınma Şekli	Anlık	Örneğe Uyg.İşlemler	Soğuk Zincir
Örneğin Getirilişi	Yerinden Alınma	Lab.Kabul Tarihi	27.04.2012 - 10:04
Örnek Sayısı/Ambalajı	1 Adet / Cam şişe	Analiz Tarihi	27.04.2012 - 04.05.2012

Firmamız yetkili numune alma personeli tarafından numune alma planı ve numune alma prosedürüne uygun olarak "İşletme Alanı (1 No'lu Numune)"ndan anlık olarak alınan toprak numunesinin analizi sonucunda elde edilen değerler, analiz yöntemleri ile birlikte aşağıda belirtilmiştir.

Metot No: Tarih	Metot Adı
EPA 3051A:2007 / EPA 200.7:1994	Microwave Assisted Acid Digestion of Sediments, Sludges, Soils, and Oils / Trace Elements in Water, Solids, and Biosolids by Inductively Coupled Plasma Atomic Emission Spectrometry

ARTEK

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04.12
05.12

ARTEK MÜHENDİSLİK
Çevre Ölçüm ve Danışmanlık Hiz.Tic.Ltd.Şti.
ÇEVRE LABORATUVARI
ANALİZ RAPORU

Firma Adı : BİLKENT ENTEGRE SAĞLIK KAMPÜSÜ
Rapor No/Tarihi: ART.TP.12.04.181/08.05.2012

Yapılan Analizler	Analiz Sonucu	Analiz Metodu
Kadmiyum (mg/kg)	0,37	EPA 3051A:2007 / EPA 200.7:1994
Çinko (mg/kg)	29,8	EPA 3051A:2007 / EPA 200.7:1994
Nikel (mg/kg)	37,4	EPA 3051A:2007 / EPA 200.7:1994
Kurşun (mg/kg)	10,4	EPA 3051A:2007 / EPA 200.7:1994
Krom (Cr)(mg/kg)	44,4	EPA 3051A:2007 / EPA 200.7:1994
Bakır (Cu)(mg/kg)	21,4	EPA 3051A:2007 / EPA 200.7:1994
Arsenik (mg/kg)	13,9	EPA 3051A:2007 / EPA 200.7:1994
Selenyum (mg/kg)	< 1	EPA 3051A:2007 / EPA 200.7:1994
Kalay (mg/kg)	< 0,5	EPA 3051A:2007 / EPA 200.7:1994

EPA: Environmental Protection Agency

Sorumlu İmzalar: 
Özlem GÜLER
Laboratuvar Birim Yöneticisi


Serkan ÇELEBİ
Laboratuvar Müdürü

ARTEK MÜHENDİSLİK
Çevre Ölçüm ve Danışmanlık Hiz.Tic.Ltd.Şti.
Hizmetleri Tic. Ltd. Şti.

İmzasız ve kaşesiz raporlar geçersizdir. Raporunda yer alan sonuçlar sadece incelenen numuneye aittir. Bu rapor laboratuvarımızdan yazılı izni olmadan kısmen kopyalanıp çoğaltılamaz. Sayfa 2 / 2

ARTEK MÜHENDİSLİK
Çevre Ölçüm ve Danışmanlık Hiz.Tic.Ltd.Şti.
ÇEVRE LABORATUVARI

ARTEK
ART.TP.12.04.182
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ANALİZ RAPORU

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Rapor No / Tarihi	ART.TP.12.04.182/08.05.2012		
Talep Eden	BILKENT ENTEGRE SAĞLIK KAMPÜSÜ		
Talep Edenin Adresi	Bilkent/ANKARA		
Örnek Kayıt No	TP.12.04.182		
Örnek / Durum	Toprak / Katı	Örneğin Alındığı Yer	İşletme Alanı (3 No`lu Numune)
Örneği Alan	ARTEK	Örnek Alınma Tarihi	26.04.2012
Örneğin Alınma Şekli	Anlık	Örneğe Uyg.İşlemler	Soğuk Zincir
Örneğin Getirilişi	Yerinden Alınma	Lab.Kabul Tarihi	27.04.2012 - 10:12
Örnek Sayısı/Ambalajı	1 Adet / Cam şişe	Analiz Tarihi	27.04.2012 - 04.05.2012

Firmamız yetkili numune alma personeli tarafından numune alma planı ve numune alma prosedürüne uygun olarak "İşletme Alanı (3 No`lu Numune)"den anlık olarak alınan toprak numunesinin analizi sonucunda elde edilen değerler, analiz yöntemleri ile birlikte aşağıda belirtilmiştir.

Metot No: Tarih	Metot Adı
EPA 3051A:2007 / EPA 200.7:1994	Microwave Assisted Acid Digestion of Sediments, Sludges, Soils, and Oils / Trace Elements in Water, Solids, and Biosolids by Inductively Coupled Plasma Atomic Emission Spectrometry


ARTEK MÜHENDİSLİK
ÇEVRE LABORATUVARI
M. Akif Mah. Elalmış Cad. Tarık Buğra Sok. No: 15 - Ümraniye / İSTANBUL

ARTEK MÜHENDİSLİK
Çevre Ölçüm ve Danışmanlık Hiz.Tic.Ltd.Şti.
ÇEVRE LABORATUVARI
ANALİZ RAPORU

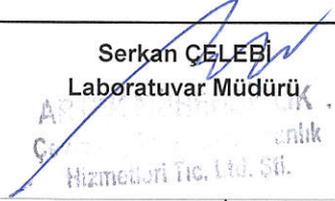
Firma Adı : BİLKENT ENTEGRE SAĞLIK KAMPÜSÜ
Rapor No/Tarihi: ART.TP.12.04.182/08.05.2012

Yapılan Analizler	Analiz Sonucu	Analiz Metodu
Kadmiyum (mg/kg)	0,5	EPA 3051A:2007 / EPA 200.7:1994
Çinko (mg/kg)	36,7	EPA 3051A:2007 / EPA 200.7:1994
Nikel (mg/kg)	51,3	EPA 3051A:2007 / EPA 200.7:1994
Kurşun (mg/kg)	11	EPA 3051A:2007 / EPA 200.7:1994
Krom (Cr)(mg/kg)	55,5	EPA 3051A:2007 / EPA 200.7:1994
Bakır (Cu)(mg/kg)	24,3	EPA 3051A:2007 / EPA 200.7:1994
Arsenik (mg/kg)	19,6	EPA 3051A:2007 / EPA 200.7:1994
Selenyum (mg/kg)	< 1	EPA 3051A:2007 / EPA 200.7:1994
Kalay (mg/kg)	< 0,5	EPA 3051A:2007 / EPA 200.7:1994

EPA: Environmental Protection Agency

Sorumlu İmzalar:


Özlem GÜLER
Laboratuvar Birim Yöneticisi


Serkan ÇELEBİ
Laboratuvar Müdürü

İmzasız ve kaşesiz raporlar geçersizdir. Raporlarda yer alan sonuçlar sadece incelenen numuneye aittir. Bu rapor laboratuvarımızın Sayfa 2 / 2 yazılı izni olmadan kısmen kopyalanıp çoğaltılamaz.

ARTEK MÜHENDİSLİK
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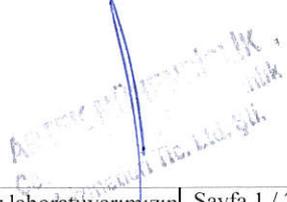
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Rapor No / Tarihi	ART.TP.12.04.183/08.05.2012		
Talep Eden	BİLKENT ENTEGRE SAĞLIK KAMPÜSÜ		
Talep Edenin Adresi	Bilkent/ANKARA		
Örnek Kayıt No	TP.12.04.183		
Örnek / Durum	Toprak / Katı	Örneğin Alındığı Yer	İşletme Alanı (2 No'lu Numune)
Örneği Alan	ARTEK	Örnek Alınma Tarihi	26.04.2012 - 15:30
Örneğin Alınma Şekli	Anlık	Örneğe Uyg.İşlemler	Soğuk Zincir
Örneğin Getirilişi	Yerinden Alınma	Lab.Kabul Tarihi	27.04.2012 - 10:14
Örnek Sayısı/Ambalajı	1 Adet / Cam şişe	Analiz Tarihi	27.04.2012 - 04.05.2012

Firmamız yetkili numune alma personeli tarafından numune alma planı ve numune alma prosedürüne uygun olarak "İşletme Alanı (2 No'lu Numune)"ndan anlık olarak alınan toprak numunesinin analizi sonucunda elde edilen değerler, analiz yöntemleri ile birlikte aşağıda belirtilmiştir.

Metot No: Tarih	Metot Adı
EPA 3051A:2007 / EPA 200.7:1994	Microwave Assisted Acid Digestion of Sediments, Sludges, Soils, and Oils / Trace Elements in Water, Solids, and Biosolids by Inductively Coupled Plasma Atomic Emission Spectrometry

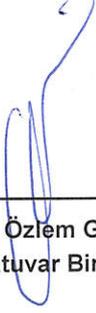

ARTEK MÜHENDİSLİK
ÇEVRE ÖLÇÜM VE DANIŞMANLIK HİZ. TİC. LTD. ŞTİ.

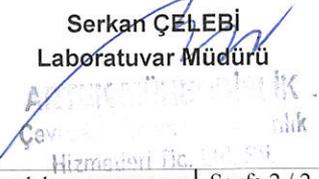
ARTEK MÜHENDİSLİK
Çevre Ölçüm ve Danışmanlık Hiz.Tic.Ltd.Şti.
ÇEVRE LABORATUVARI
ANALİZ RAPORU

Firma Adı : BİLKENT ENTEGRE SAĞLIK KAMPÜSÜ
Rapor No/Tarihi: ART.TP.12.04.183/08.05.2012

Yapılan Analizler	Analiz Sonucu	Analiz Metodu
Kadmiyum (mg/kg)	0,2	EPA 3051A:2007 / EPA 200.7:1994
Çinko (mg/kg)	33,5	EPA 3051A:2007 / EPA 200.7:1994
Nikel (mg/kg)	42,3	EPA 3051A:2007 / EPA 200.7:1994
Kurşun (mg/kg)	9	EPA 3051A:2007 / EPA 200.7:1994
Krom (Cr)(mg/kg)	47,9	EPA 3051A:2007 / EPA 200.7:1994
Bakır (Cu)(mg/kg)	20	EPA 3051A:2007 / EPA 200.7:1994
Arsenik (mg/kg)	15,1	EPA 3051A:2007 / EPA 200.7:1994
Selenyum (mg/kg)	< 1	EPA 3051A:2007 / EPA 200.7:1994
Kalay (mg/kg)	< 0,5	EPA 3051A:2007 / EPA 200.7:1994

EPA: Environmental Protection Agency

Sorumlu İmzalar: 
Özlem GÜLER
Laboratuvar Birim Yöneticisi


Serkan ÇELEBİ
Laboratuvar Müdürü

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ÇEVRE LABORATUVARI

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ART.TP.12.04.184
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Rapor No / Tarihi	ART.TP.12.04.184/08.05.2012		
Talep Eden	BİLKENT ENTEGRE SAĞLIK KAMPÜSÜ		
Talep Edenin Adresi	Bilkent/ANKARA		
Örnek Kayıt No	TP.12.04.184		
Örnek / Durum	Toprak / Katı	Örneğin Alındığı Yer	İşletme Alanı (4 No`lu Numune)
Örneği Alan	ARTEK	Örnek Alınma Tarihi	26.04.2012 - 16:45
Örneğin Alınma Şekli	Anlık	Örneğe Uyg.İşlemler	Soğuk Zincir
Örneğin Getirilişi	Yerinden Alınma	Lab.Kabul Tarihi	27.04.2012 - 10:15
Örnek Sayısı/Ambalajı	1 Adet / Cam şişe	Analiz Tarihi	27.04.2012 - 04.05.2012

Firmamız yetkili numune alma personeli tarafından numune alma planı ve numune alma prosedürüne uygun olarak "İşletme Alanı (4 No`lu Numune)"ndan anlık olarak alınan toprak numunesinin analizi sonucunda elde edilen değerler, analiz yöntemleri ile birlikte aşağıda belirtilmiştir.

Metot No: Tarih	Metot Adı
EPA 3051A:2007 / EPA 200.7:1994	Microwave Assisted Acid Digestion of Sediments, Sludges, Soils, and Oils / Trace Elements in Water, Solids, and Biosolids by Inductively Coupled Plasma Atomic Emission Spectrometry

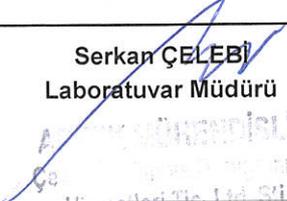
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ÇEVRE LABORATUVARI
ANALİZ RAPORU

Firma Adı : BİLKENT ENTEGRE SAĞLIK KAMPÜSÜ
Rapor No/Tarihi: ART.TP.12.04.184/08.05.2012

Yapılan Analizler	Analiz Sonucu	Analiz Metodu
Kadmiyum (mg/kg)	< 0,1	EPA 3051A:2007 / EPA 200.7:1994
Çinko (mg/kg)	27,8	EPA 3051A:2007 / EPA 200.7:1994
Nikel (mg/kg)	34,7	EPA 3051A:2007 / EPA 200.7:1994
Kurşun (mg/kg)	9,6	EPA 3051A:2007 / EPA 200.7:1994
Krom (Cr)(mg/kg)	40,8	EPA 3051A:2007 / EPA 200.7:1994
Bakır (Cu)(mg/kg)	16,5	EPA 3051A:2007 / EPA 200.7:1994
Arsenik (mg/kg)	13,4	EPA 3051A:2007 / EPA 200.7:1994
Selenyum (mg/kg)	< 1	EPA 3051A:2007 / EPA 200.7:1994
Kalay (mg/kg)	< 0,5	EPA 3051A:2007 / EPA 200.7:1994

EPA: Environmental Protection Agency

Sorumlu İmzalar: 
Özlem GÜLER
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Laboratuvar Müdürü

İmzasız ve kaşesiz raporlar geçersizdir. Raporunda yer alan sonuçlar sadece incelenen numuneye aittir. Bu rapor laboratuvarımızın yazılı izni olmadan kısmen kopyalanıp çoğaltılamaz. Sayfa 2 / 2

ARTEK MÜHENDİSLİK
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ARTEK
ART.TP.12.04.185
04.12 05.12

ANALİZ RAPORU

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Rapor No / Tarihi	ART.TP.12.04.185/08.05.2012		
Talep Eden	BİLKENT ENTEGRE SAĞLIK KAMPÜSÜ		
Talep Edenin Adresi	Bilkent/ANKARA		
Örnek Kayıt No	TP.12.04.185		
Örnek / Durum	Toprak / Katı	Örneğin Alındığı Yer	İşletme Alanı (5 No'lu Numune)
Örneği Alan	ARTEK	Örnek Alınma Tarihi	26.04.2012 - 17:30
Örneğin Alınma Şekli	Anlık	Örneğe Uyg.İşlemler	Soğuk Zincir
Örneğin Getirilişi	Yerinden Alınma	Lab.Kabul Tarihi	27.04.2012 - 10:16
Örnek Sayısı/Ambalajı	1 Adet / Cam şişe	Analiz Tarihi	27.04.2012 - 04.05.2012

Firmamız yetkili numune alma personeli tarafından numune alma planı ve numune alma prosedürüne uygun olarak "İşletme Alanı (5 No'lu Numune)"ndan anlık olarak alınan toprak numunesinin analizi sonucunda elde edilen değerler, analiz yöntemleri ile birlikte aşağıda belirtilmiştir.

Metot No: Tarih	Metot Adı
EPA 3051A:2007 / EPA 200.7:1994	Microwave Assisted Acid Digestion of Sediments, Sludges, Soils, and Oils / Trace Elements in Water, Solids, and Biosolids by Inductively Coupled Plasma Atomic Emission Spectrometry

ARTEK MÜHENDİSLİK
Çevre Ölçüm ve Danışmanlık Hiz.Tic.Ltd.Şti.

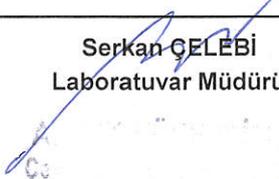
ARTEK MÜHENDİSLİK
Çevre Ölçüm ve Danışmanlık Hiz.Tic.Ltd.Şti.
ÇEVRE LABORATUVARI
ANALİZ RAPORU

Firma Adı : BİLKENT ENTEGRE SAĞLIK KAMPÜSÜ
Rapor No/Tarihi: ART.TP.12.04.185/08.05.2012

Yapılan Analizler	Analiz Sonucu	Analiz Metodu
Kadmiyum (mg/kg)	0,2	EPA 3051A:2007 / EPA 200.7:1994
Çinko (mg/kg)	35,7	EPA 3051A:2007 / EPA 200.7:1994
Nikel (mg/kg)	34,4	EPA 3051A:2007 / EPA 200.7:1994
Kurşun (mg/kg)	9,5	EPA 3051A:2007 / EPA 200.7:1994
Krom (Cr)(mg/kg)	39,7	EPA 3051A:2007 / EPA 200.7:1994
Bakır (Cu)(mg/kg)	16,9	EPA 3051A:2007 / EPA 200.7:1994
Arsenik (mg/kg)	13,5	EPA 3051A:2007 / EPA 200.7:1994
Selenyum (mg/kg)	< 1	EPA 3051A:2007 / EPA 200.7:1994
Kalay (mg/kg)	< 0,5	EPA 3051A:2007 / EPA 200.7:1994

EPA: Environmental Protection Agency

Sorumlu İmzalar: 
Özlem GÜLER
Laboratuvar Birim Yöneticisi


Serkan ÇELEBİ
Laboratuvar Müdürü

ARTEK MÜHENDİSLİK
Çevre Ölçüm ve Danışmanlık Hiz.Tic.Ltd.Şti.
ÇEVRE LABORATUVARI

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ART.TP.12.04.186

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05.12

ANALİZ RAPORU

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Rapor No / Tarihi	ART.TP.12.04.186/08.05.2012		
Talep Eden	BİLKENT ENTEGRE SAĞLIK KAMPÜSÜ		
Talep Edenin Adresi	Bilkent/ANKARA		
Örnek Kayıt No	TP.12.04.186		
Örnek / Durum	Toprak / Katı	Örneğin Alındığı Yer	İşletme Alanı (6 No'lu Numune)
Örneği Alan	ARTEK	Örnek Alınma Tarihi	26.04.2012 - 17:55
Örneğin Alınma Şekli	Anlık	Örneğe Uyg.İşlemler	Soğuk Zincir
Örneğin Getirilişi	Yerinden Alınma	Lab.Kabul Tarihi	27.04.2012 - 10:19
Örnek Sayısı/Ambalajı	1 Adet / Cam şişe	Analiz Tarihi	27.04.2012 - 04.05.2012

Firmamız yetkili numune alma personeli tarafından numune alma planı ve numune alma prosedürüne uygun olarak "İşletme Alanı (6 No'lu Numune)"ndan anlık olarak alınan toprak numunesinin analizi sonucunda elde edilen değerler, analiz yöntemleri ile birlikte aşağıda belirtilmiştir.

Metot No: Tarih	Metot Adı
EPA 3051A:2007 / EPA 200.7:1994	Microwave Assisted Acid Digestion of Sediments, Sludges, Soils, and Oils / Trace Elements in Water, Solids, and Biosolids by Inductively Coupled Plasma Atomic Emission Spectrometry

ARTEK MÜHENDİSLİK
Çevre Ölçüm ve Danışmanlık Hiz.Tic.Ltd.Şti.
ÇEVRE LABORATUVARI
ANALİZ RAPORU

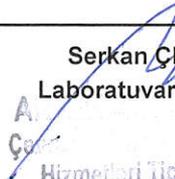
ARTEK
ART.TP.12.04.186
04.12 05.12

Firma Adı : BİLKENT ENTEGRE SAĞLIK KAMPÜSÜ
Rapor No/Tarihi: ART.TP.12.04.186/08.05.2012

Yapılan Analizler	Analiz Sonucu	Analiz Metodu
Kadmiyum (mg/kg)	0,28	EPA 3051A:2007 / EPA 200.7:1994
Çinko (mg/kg)	25,5	EPA 3051A:2007 / EPA 200.7:1994
Nikel (mg/kg)	33,6	EPA 3051A:2007 / EPA 200.7:1994
Kurşun (mg/kg)	10,7	EPA 3051A:2007 / EPA 200.7:1994
Krom (Cr)(mg/kg)	38,4	EPA 3051A:2007 / EPA 200.7:1994
Bakır (Cu)(mg/kg)	18	EPA 3051A:2007 / EPA 200.7:1994
Arsenik (mg/kg)	12,7	EPA 3051A:2007 / EPA 200.7:1994
Selenyum (mg/kg)	< 1	EPA 3051A:2007 / EPA 200.7:1994
Kalay (mg/kg)	< 0,5	EPA 3051A:2007 / EPA 200.7:1994

EPA: Environmental Protection Agency

Sorumlu İmzalar: 
Özlem GÜLER
Laboratuvar Birim Yöneticisi


Serkan ÇELEBİ
Laboratuvar Müdürü
ARTEK MÜHENDİSLİK
Çevre Ölçüm ve Danışmanlık Hiz.Tic.Ltd.Şti.

ARTEK MÜHENDİSLİK
Çevre Ölçüm ve Danışmanlık Hiz.Tic.Ltd.Şti.
ÇEVRE LABORATUVARI

ARTEK
ART.TP.12.04.187
04.12 05.12

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www.artekcevre.com.tr

Rapor No / Tarihi	ART.TP.12.04.187/08.05.2012		
Talep Eden	BİLKENT ENTEGRE SAĞLIK KAMPÜSÜ		
Talep Edenin Adresi	Bilkent/ANKARA		
Örnek Kayıt No	TP.12.04.187		
Örnek / Durum	Toprak / Katı	Örneğin Alındığı Yer	İşletme Alanı (7 No'lu Numune)
Örneği Alan	ARTEK	Örnek Alınma Tarihi	26.04.2012 - 18:20
Örneğin Alınma Şekli	Anlık	Örneğe Uyg.İşlemler	Soğuk Zincir
Örneğin Getirilişi	Yerinden Alınma	Lab.Kabul Tarihi	27.04.2012 - 10:21
Örnek Sayısı/Ambalajı	1 Adet / Cam şişe	Analiz Tarihi	27.04.2012 - 04.05.2012

Firmamız yetkili numune alma personeli tarafından numune alma planı ve numune alma prosedürüne uygun olarak "İşletme Alanı (7 No'lu Numune)"ndan anlık olarak alınan toprak numunesinin analizi sonucunda elde edilen değerler, analiz yöntemleri ile birlikte aşağıda belirtilmiştir.

Metot No: Tarih	Metot Adı
EPA 3051A:2007 / EPA 200.7:1994	Microwave Assisted Acid Digestion of Sediments, Sludges, Soils, and Oils / Trace Elements in Water, Solids, and Biosolids by Inductively Coupled Plasma Atomic Emission Spectrometry

ARTEK MÜHENDİSLİK
Çevre Ölçüm ve Danışmanlık Hiz.Tic.Ltd.Şti.
ÇEVRE LABORATUVARI
ANALİZ RAPORU

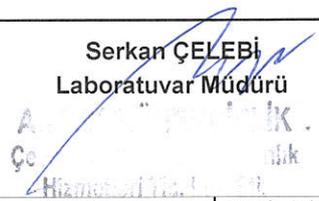
ARTEK
ART.TP.12.04.187
04.12 05.12

Firma Adı : BİLKENT ENTEGRE SAĞLIK KAMPÜSÜ
Rapor No/Tarihi: ART.TP.12.04.187/08.05.2012

Yapılan Analizler	Analiz Sonucu	Analiz Metodu
Kadmiyum (mg/kg)	0.26	EPA 3051A:2007 / EPA 200.7:1994
Çinko (mg/kg)	32	EPA 3051A:2007 / EPA 200.7:1994
Nikel (mg/kg)	38.6	EPA 3051A:2007 / EPA 200.7:1994
Kurşun (mg/kg)	10.8	EPA 3051A:2007 / EPA 200.7:1994
Krom (Cr)(mg/kg)	48	EPA 3051A:2007 / EPA 200.7:1994
Bakır (Cu)(mg/kg)	19.5	EPA 3051A:2007 / EPA 200.7:1994
Arsenik (mg/kg)	14.9	EPA 3051A:2007 / EPA 200.7:1994
Selenyum (mg/kg)	< 1	EPA 3051A:2007 / EPA 200.7:1994
Kalay (mg/kg)	< 0.5	EPA 3051A:2007 / EPA 200.7:1994

EPA: Environmental Protection Agency

Sorumlu İmzalar: 
Özlem GÜLER
Laboratuvar Birim Yöneticisi


Serkan ÇELEBİ
Laboratuvar Müdürü

ANALİZ RAPORU

Mehmet Akif Mah. Elalmış Cad. Tarık Buğra Sok. No: 15 - Ümraniye / İSTANBUL
Tel: 0216 499 0 249 (Pbx) Faks: 0216 499 28 68
www.artekcevre.com.tr

Rapor No / Tarihi	ART.TP.12.07.213/19.07.2012		
Talep Eden	BİLKENT SAĞLIK KAMPÜSÜ HAZIR BETON SANTRALI		
Talep Edenin Adresi	Bilkent/ANKARA		
Örnek Kayıt No	TP.12.07.213		
Örnek / Durum	Toprak / Katı	Örneğin Alındığı Yer	Hazır Beton Santral Alanı
Örneği Alan	ARTEK	Örnek Alınma Tarihi	07.07.2012
Örneğin Alınma Şekli	Anlık	Örneğe Uyg.İşlemler	Soğuk Zincir
Örneğin Getirilişi	Yerinden Alınma	Lab.Kabul Tarihi	11.07.2012 - 12:48
Örnek Sayısı/Ambalajı	1 Adet / Mühürlü / Plastik Kap	Analiz Tarihi	11.07.2012 - 13.07.2012

Firmamız yetkili numune alma personeli tarafından numune alma planı ve numune alma prosedürüne uygun olarak "Hazır Beton Santral Alanı"ndan anlık olarak alınan toprak numunesinin analizi sonucunda elde edilen değerler, analiz yöntemleri ile birlikte aşağıda belirtilmiştir.

Metot No: Tarih	Metot Adı
EPA 3051A:2007 / EPA 200.7:1994	Microwave Assisted Acid Digestion of Sediments, Sludges, Soils, and Oils / Trace Elements in Water, Solids, and Biosolids by Inductively Coupled Plasma Atomic Emission Spectrometry

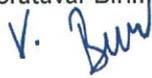
ARTEK MÜHENDİSLİK
Çevre Ölçüm ve Danışmanlık Hiz.Tic.Ltd.Şti.
ÇEVRE LABORATUVARI
ANALİZ RAPORU

Firma Adı : BİLKENT SAĞLIK KAMPÜSÜ HAZIR BETON SANTRALI
Rapor No/Tarihi: ART.TP.12.07.213/19.07.2012

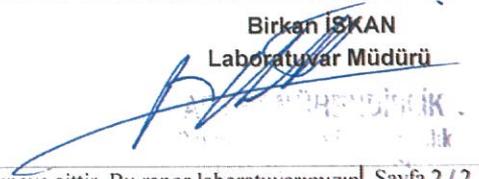
Yapılan Analizler	Analiz Sonucu	Analiz Metodu
Kadmiyum (mg/kg)	< 0,1	EPA 3051A:2007 / EPA 200.7:1994
Arsenik (mg/kg)	17,6	EPA 3051A:2007 / EPA 200.7:1994
Çinko (mg/kg)	33	EPA 3051A:2007 / EPA 200.7:1994
Nikel (mg/kg)	46	EPA 3051A:2007 / EPA 200.7:1994
Kurşun (mg/kg)	8	EPA 3051A:2007 / EPA 200.7:1994
Krom (Cr)(mg/kg)	66	EPA 3051A:2007 / EPA 200.7:1994
Bakır (Cu)(mg/kg)	17	EPA 3051A:2007 / EPA 200.7:1994
Selenyum (mg/kg)	< 1	EPA 3051A:2007 / EPA 200.7:1994
Kalay (mg/kg)	< 0,5	EPA 3051A:2007 / EPA 200.7:1994

EPA: Environmental Protection Agency

Sorumlu İmzalar: Özlem GÜNER
Laboratuvar Birim Yöneticisi



Birkan İSKAN
Laboratuvar Müdürü



Appendix-F Air Quality Analysis Report

 <p>T.C. ÇEVRE VE ŞEHİRCİLİK BAKANLIĞI</p> <p>Y-06/203/2012</p>	 <p>SEGAL</p> <p>SEGAL ÇEVRE ÖLÇÜM ve ANALİZ LABORATUVARI Aşağı Öveçler Mah. 1322.Cad (eski 6.cad) ÇANKAYA-ANKARA Tel: 0 312 481 83 00 Fax: 0 312 481 83 99 mail: segal@segalanaliz.com web: www.segalanaliz.com www.segal.com.tr</p>	 <p>TÜRKAK Test TS EN ISO/IEC 17025 AR-0425-T</p>
		<p>Rapor Tarihi 07.05.2012</p>
		<p>İlk Basım: 03.05.2010 RP.03 / Rev.01 Rev. Tarihi: 20.01.2011 Sayfa 1 / 5</p>

Müşterinin adı/ adresi: Customer Name / Address	MGS PROJE MÜŞAVİRLİK MÜH. TİC. LTD. ŞTİ. Şehit Cevdet Özdemir Mah. Öveçler 4. Cad.1351. (Eski 203.) Sok. No:1/7 Çankaya / ANKARA
Numunenin Adı ve Örneklem Tarihi: Name and Sampling Date of the Sample	PM 10 Ölçümü / 25.04.2012-26.04.2012
Proje Adı ve No: Name and Number of the Project	Ortamda Toz Ölçümü — 1651/12
Numunenin Kabul Tarihi: Date of Sample Acceptance	26.04.2012
Açıklamalar: Remarks	ANKARA BİLKENT ENTEGRE SAĞLIK KAMPÜSÜ ÇED projesi kapsamında mevcut durum toz ölçümleri gerçekleştirilmiştir
Deneyin yapıldığı Tarih: Date of the Test	25.04.2012 - 28.04.2012
Raporun Sayfa Sayısı: Number of the Pages of the Report	5 sayfa

Deney ve/veya ölçüm sonuçları, genişletilmiş ölçüm belirsizlikleri ve deney/ölçüm metotları takip eden sayfalarda verilmiştir. The test and /or measurements results, the uncertainties with confidence probability and test methods are given on the following pages which are part of this report.

Raporu Hazırlayan
Prepared by

Furkan S. ÇELİK
Lab. Müdür Yrd.

Raporu Onaylayan
Confirm by

Fezvi KARAKAYA
Laboratuar Müdürü



 <p>T.C. ÇEVRE VE ŞEHİRCİLİK BAKANLIĞI</p> <p>Y-06/203/2012</p>		 <p>TürkAK Test TS EN ISO IEC 17025 AB-0425-T</p>
<p>İlk Basım: 03.05.2010</p>	<p>SEGAL ÇEVRE ÖLÇÜM ve ANALİZ LABORATUARI Aşağı Öveçler Mah. 1322.Cad (eski 6.cad) ÇANKAYA-ANKARA Tel: 0 312 481 83 00 Fax: 0 312 481 83 99 mail: segal@segalanaliz.com web: www.segalanaliz.com www.segal.com.tr</p>	<p>Rapor No 2749/12</p>
<p>RP.03 / Rev.01</p>		<p>Rapor Tarihi 07.05.2012</p>
<p>Rev. Tarihi: 20.01.2011</p>		
<p>Sayfa 2 / 5</p>		

A.GİRİŞ

ÇED projesi kapsamında ortamda PM 10 örneklemeleri gerçekleştirilmiştir. Tesis kurulum aşamasında olup, henüz faaliyet başlamamıştır. 5 noktada PM 10 ölçümleri yapılmıştır.

Alınan deney sonucu, sadece ölçüm sırasındaki proses koşullarıyla ilgili olup yapılmış olan ölçümler neticesinde elde edilen sonuçlar 2872 sayılı Çevre Kanunu'nun ilgili hükümleri gereğince 03.07.2009 tarih ve 27277 sayılı Resmi Gazete'de yayımlanarak yürürlüğe giren Sanayi Kaynaklı Hava Kirliliğinin Kontrolü Yönetmeliği (S.K.H.K.K.Y.) ve 30.03.2010 tarih ve 27537 sayılı Resmi Gazete'de yayımlanarak yürürlüğe giren Sanayi Kaynaklı Hava Kirliliğinin Kontrolü Yönetmeliğinde Değişiklik Yapılmasına Dair Yönetmelik çerçevesinde değerlendirilerek sadece sınır değerlerle karşılaştırma yapılmış olup bu hazırlanmıştır.

B.TESİSE AİT BİLGİLER

Tesisin Adı : ANKARA BİLKENT ENTEGRE SAĞLIK KAMPÜSÜ
Tesisin Adresi : Atatürk Eğitim ve Araştırma Hastanesi yanı, Bilkent/ANKARA





Y-06/203/2012

İlk Basım: 03.05.2010

RP.03 / Rev.01

Rev. Tarihi: 20.01.2011

Sayfa 3 / 5



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Rapor No
2749/12

Rapor Tarihi
07.05.2012

C.ÖLÇÜM YAPILAN BÖLÜM, ÖLÇÜM PARAMETRELERİ, ÖLÇÜM YÖNTEMİ VE ÖLÇÜM CİHAZI

Tesiste ölçüm yapılan bölümler ve ölçüm parametreleri tablo-1 de verilmiştir.

Tablo – 1: Ölçüm yapılan bölüm, koordinat ve ölçüm parametresi

No	Ölçüm Yapılan Bölüm	GPS Koordinatı	Ölçüm Tarihi	Ölçüm Yapılan Parametre
1	1 nolu Nokta (Beton Santral Alanı)	E:479396 N:4417186	25.04.2012	Toz
2	2 nolu nokta (Danıştay – Diyanet İşleri Arkası)	E:479036 N:4417283	25.04.2012	Toz
3	3 nolu nokta (Gıda Tarım Hayvancılık Bak. Loj. Yanı)	E:478452 N:4416970	25.04.2012	Toz
4	4 nolu nokta (Askeriye Lojmanları Yakını)	E:479779 N:4416684	26.04.2012	Toz
5	5 nolu nokta (Atatürk Hastanesi Yanı)	E:479611 N:4417140	26.04.2012	Toz

Tesiste ölçüm parametresine göre kullanılan ölçüm yöntemi ve ölçüm cihazı tablo-2 de verilmiştir.

Tablo – 2: Ölçüm parametresine göre ölçüm yöntemleri ve ölçüm cihazı

Ölçüm Parametresi	Ölçüm Yöntemi	Ölçüm Cihazı
Toz	Gravimetrik metotla partikül madde tayini (TS EN 12341:2002)	MCZ Marka LVS 1 PM 10 Ortam Havası Örneklem Cihazı





Y-06/203/2012

İlk Basım: 03.05.2010

RP.03 / Rev.01

Rev. Tarihi: 20.01.2011

Sayfa 4 / 5



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Rapor No

2749/12

Rapor Tarihi

07.05.2012

D.ÖLÇÜM SONUÇLARI

Tablo – 3: ÖLÇÜM SONUÇLARININ DEĞERLENDİRİLMESİ

No	Ölçüm Yapılan Bölüm	PM 10 Ölçüm sonucu (µg/m ³)	Sanayi Kaynaklı Hava Kirliliğinin Kontrolü Yönetmeliği EK-2.tb.2.2 (µg/m ³)
			KVS (2012)
1	1 nolu Nokta (Beton Santral Alanı)	79,4	*140
2	2 nolu nokta (Danıştay – Diyanet İşleri Arkası)	52,6	*140
3	3 nolu nokta (Gıda Tarım Hayvancılık Bak. Loj. Yanı)	77,9	*140
4	4 nolu nokta (Askeriye Lojmanları Yakını)	79,1	*140
5	5 nolu nokta (Atatürk Hastanesi Yanı)	52,6	*140

* SKHKKY Ek 2.tb 2.2 sınır değerleri

Sanayi Kaynaklı Hava Kirliliğinin Kontrolü Yönetmeliği EK-1.b.2.Toz Emisyonları: Ölçüm yapılan 5 noktada mevcut durum çalışması kapsamında yönetmelikte belirtilen sınır değerleri sağlamaktadır



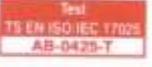
 <p>T.C. ÇEVRE VE ŞEHİRCİLİK BAKANLIĞI</p> <p>Y-06/203/2012</p>	 <p>SEGAL</p>	 <p>TÜRKAK</p> <p>Tel: TS EN ISO 9001:2005 AB-0425-T</p>
İlk Basım: 03.05.2010	<p>SEGAL ÇEVRE ÖLÇÜM ve ANALİZ LABORATUARI</p> <p>Aşağı Öveçler Mah. 1322.Cad (eski 6.cad) ÇANKAYA-ANKARA</p> <p>Tel: 0 312 481 83 00 Fax: 0 312 481 83 99</p> <p>mail: segal@segalanaliz.com</p> <p>web: www.segalanaliz.com</p> <p>www.segal.com.tr</p>	<p>Rapor No</p> <p>2749/12</p>
RP.03 / Rev.01		<p>Rapor Tarihi</p> <p>07.05.2012</p>
Rev. Tarihi: 20.01.2011		
Sayfa 5 / 5		

E.EKLER

- Ek 1. MCZ MARKA LVS 1 PM 10 Ortam Havası Örnekleme Cihazı Kalibrasyon Belgesi
- Ek 2. Ölçüm Hesabında Kullanılan Formüller
- Ek 3. Yetki Belgeleri (TÜRKAK, Çevre ve Şehircilik Bakanlığı)



Appendix-G Noise Measurement Report

 <p>T.C. ÇEVRE VE ŞEHİRCİLİK BAKANLIĞI</p>	 <p>SEGAL</p>	 <p>TÜRKAK</p>  <p>Test TS EN ISO/IEC 17025 AB-0429-T</p>
Y-06/203/2012	SEGAL ÇEVRE ÖLÇÜM ve ANALİZ LABORATUARI Aşağı Öveçler Mah. 1322.Cad (eski 6.cad) ÇANKAYA-ANKARA Tel: 0 312 481 83 00 Fax: 0 312 481 83 99 mail: segal@segalanaliz.com web: www.segalanaliz.com www.segal.com.tr	Rapor No 2743/12
İlk Basım: 03.05.2010		Rapor Tarihi 04.05.2012
RP.02 / Rev.02		
Rev. Tarihi: 23.07.2011		
Sayfa 1 / 5		

Müşterinin adı/ Adresi: Customer Name / Address	MGS PROJE MÜŞAVİRLİK MÜH. TİC. LTD. ŞTİ. Şehit Cevdet Özdemir Mah. Öveçler 4. Cad.1351. (Eski 203.) Sok. No:1/7 Çankaya/ANKARA
Ölçüm Tarihi: Measurement Date	25.04.2012 – 26.04.2012
Proje Adı ve No: Name and Number of the Project	Çevresel Gürültü Ölçümü – 1651/12
Açıklamalar: Remarks	ANKARA BİLKENT ENTEGRE SAĞLIK KAMPÜSÜ PROJESİ kapsamında arka plan gürültü ölçümleri gerçekleştirilmiştir.
Raporun Sayfa Sayısı: Number of the Pages of the Report	5 sayfa

Deney ve/veya ölçüm sonuçları, genişletilmiş ölçüm belirsizlikleri ve deney/ölçüm metotları takip eden sayfalarda verilmiştir. The test and /or measurements results, the uncertainties with confidence probability and test methods are given on the following pages which are part of this report.

Raporu Hazırlayan
Prepared by

Furkan S. ÇELİK
Lab. Müdür Yrd.

Raporu Onaylayan
Confirm by

Fevzi KARAKAYA
Laboratuar Müdürü



Bu rapor, laboratuvarın yazılı izni olmadan kısmen kopyalanıp çoğaltılamaz. İmzasız ve mühürsüz raporlar geçersizdir. **Sonuçlar sadece deneyi yapılan numunelere aittir.** (This report shall not be reproduced other than in full except with the permission of the laboratory. Testing reports without signature and seal are not valid. **The results belong to the tested sample.**)



T.C.
ÇEVRE VE ŞEHİRCİLİK
BAKANLIĞI

Y-06/203/2012

İlk Basım: 03.05.2010

RP.02 / Rev.02

Rev. Tarihi: 23.07.2011

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Rapor No
2743/12

Rapor Tarihi
04.05.2012

GENEL BİLGİLER

1- TESİS/ İŞLETMENİN ADRESİ

Atatürk Eğitim ve Araştırma Hastanesi yanı, Bilkent/ANKARA

2- TESİS/ İŞLETMENİN HİZMET KONUSU - FAALİYET TÜRÜ

İşletme, Entegre Sağlık Kampüsü olarak faaliyet verecektir.

3 – METEROLOJİK BİLGİLER

	GÜNDÜZ	AKŞAM	GECE
SICAKLIK (°C)	24,3	20,1	16,8
NEM (%)	56	54	50



Bu rapor, laboratuvarın yazılı izni olmadan kısmen kopyalanıp çoğaltılamaz. İmzasız ve mühürsüz raporlar geçersizdir. **Sonuçlar sadece deneyi yapılan numunelere aittir.** (This report shall not be reproduced other than in full except with the permission of the laboratory. Testing reports without signature and seal are not valid. **The results belong to the tested sample.**)



T.C.
ÇEVRE VE ŞEHİRCİLİK
BAKANLIĞI

Y-06/203/2012

İlk Basım: 03.05.2010

RP.02 / Rev.02

Rev. Tarihi: 23.07.2011

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Rapor No
2743/12

Rapor Tarihi
04.05.2012

4- TESİS/ İŞLETME İLE İLGİLİ GÜRÜLTÜ ÖLÇÜM BİLGİLERİ VE SONUÇLARI

Tablo 1: Ölçüm Sonuçları-Gündüz Zaman Dilimi

Ölçüm Nokta	Ölçüm Yapılan Yer	Koordinatları		Gürültü Düzeyi (dBA)	Gürültü Düzeyi (dBC)	Ölçüm Başlangıç	Ölçüm Bitiş
		Y	X				
1	Beton Santrali Alanı	479396	4417186	49,4	59,6	18.06	18.14
2	Danıştay-Diyanet İşleri Arkası	479036	4417283	49,1	65,9	16.35	16.43
3	Gıda, Tarım ve Hayvancılık Bakanlığı Lojmanları Yakını	478452	4416970	41,5	58,3	17.49	17.57
4	Askeriye Lojmanları Yakını	479779	4416684	50,7	63,3	18.27	18.35
5	Atatürk Hastanesi Yanı	479611	4417140	49,5	63,4	17.18	17.26

Tablo 2: Ölçüm Sonuçları-Akşam Zaman Dilimi

Ölçüm Nokta	Ölçüm Yapılan Yer	Koordinatları		Gürültü Düzeyi (dBA)	Gürültü Düzeyi (dBC)	Ölçüm Başlangıç	Ölçüm Bitiş
		Y	X				
1	Beton Santrali Alanı	479396	4417186	47,6	60,0	19.20	19.28
2	Danıştay-Diyanet İşleri Arkası	479036	4417283	47,8	61,3	20.06	20.14
3	Gıda, Tarım ve Hayvancılık Bakanlığı Lojmanları Yakını	478452	4416970	41,6	58,8	20.58	21.06
4	Askeriye Lojmanları Yakını	479779	4416684	53,5	61,1	20.37	20.45
5	Atatürk Hastanesi Yanı	479611	4417140	46,3	63,1	19.44	19.52



Bu rapor, laboratuvarın yazılı izni olmadan kısmen kopyalanıp çoğaltılamaz. İmzasız ve mühürsüz raporlar geçersizdir. **Sonuçlar sadece deneysel yapılmış numunelere aittir.** (This report shall not be reproduced other than in full except with the permission of the laboratory. Testing reports without signature and seal are not valid. **The results belong to the tested sample.**)



T.C.
ÇEVRE VE ŞEHİRCİLİK
BAKANLIĞI

Y-06/203/2012

İlk Basım: 03.05.2010

RP.02 / Rev.02

Rev. Tarihi: 23.07.2011

Sayfa 4 / 5



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TS EN ISO IEC 17025
AB-0425-T

Rapor No
2743/12

Rapor Tarihi
04.05.2012

Tablo 3: Ölçüm Sonuçları-Gece Zaman Dilimi

Ölçüm Nokta	Ölçüm Yapılan Yer	Koordinatları		Gürültü Düzeyi (dBA)	Gürültü Düzeyi (dBC)	Ölçüm Başlangıç	Ölçüm Bitiş
		Y	X				
1	Beton Santrali Alanı	479396	4417186	39,0	56,0	23.53	00.01
2	Danıştay-Diyanet İşleri Arkası	479036	4417283	38,4	52,1	00.08	00.16
3	Gıda, Tarım ve Hayvancılık Bakanlığı Lojmanları Yakını	478452	4416970	38,2	54,8	00.26	00.34
4	Askeriye Lojmanları Yakını	479779	4416684	44,9	60,6	23.24	23.32
5	Atatürk Hastanesi Yanı	479611	4417140	38,8	55,5	23.03	23.11

6- TESİS/ İŞLETME İLE İLGİLİ UYDU GÖRÜNTÜSÜ



Bu rapor, laboratuvarın yazılı izni olmadan kısmen kopyalanıp çoğaltılamaz. İmzasız ve mühürsüz raporlar geçersizdir. **Sonuçlar sadece denevi yapılan numunelere aittir.** (This report shall not be reproduced other than in full except with the permission of the laboratory. Testing reports without signature and seal are not valid. **The results belong to the tested sample.**)



 <p>T.C. ÇEVRE VE ŞEHİRCİLİK BAKANLIĞI</p>	 <p>SEGAL</p>	 <p>TÜRKAK TİM TS EN/ISO IEC 17025 AB-0429-T</p>
Y-06/203/2012	SEGAL ÇEVRE ÖLÇÜM ve ANALİZ LABORATUARI Aşağı Öveçler Mah. 1322.Cad (eski 6.cad) ÇANKAYA-ANKARA Tel: 0 312 481 83 00 Fax: 0 312 481 83 99 mail: segal@segalanaliz.com web: www.segalanaliz.com www.segal.com.tr	Rapor No 2743/12
İlk Basım: 03.05.2010		Rapor Tarihi 04.05.2012
RP.02 / Rev.02		
Rev. Tarihi: 23.07.2011		
Sayfa 5 / 5		

EKLER

- Ek – 1 Sıcaklık Ve Nem Cihazı Kalibrasyon Belgesi
- Ek – 2 Ölçüm Cihazı Kalibrasyon Belgeleri
- Ek – 3 Ölçüm Cihazı Kalibratörü Kalibrasyon Belgeleri
- Ek – 4 T.C. Çevre ve Şehircilik Bakanlığı, Çevre Ölçüm ve Analizleri Yetki Belgesi
- Ek – 5 Ölçüm Yapan ve Raporu Hazırlayan Kişinin Yetki Belgesi
- Ek – 6 Raporu Onaylayan Kişinin Yetki Belgesi



Bu rapor, laboratuvarın yazılı izni olmadan kısmen kopyalanıp çoğaltılamaz. İmzasız ve mühürsüz raporlar geçersizdir. **Sonuçlar sadece deneyi yapılan numunelere aittir.** (This report shall not be reproduced other than in full except with the permission of the laboratory. Testing reports without signature and seal are not valid. **The results belong to the tested sample.**)

Appendix-H Groundwater Analysis Report

 <p>T.C. ÇEVRE VE ŞEHİRCİLİK BAKANLIĞI</p>	 	 <p>TÜRKAK</p> <p>Test TS EN ISO/IEC 17025 AB-0425-T</p>
<p>İlk Basım: 03.05.2010</p>	<p>SEGAL ÇEVRE ÖLÇÜM ve ANALİZ LABORATUVARI Aşağı Öveçler Mah. 1322.Cad (eski 6.cad) ÇANKAYA-ANKARA Tel: 0 312 481 83 00 Fax: 0 312 481 83 99 mail: segal@segalanaliz.com web: www.segalanaliz.com www.segal.com.tr</p>	<p>Rapor No 2748/12</p>
<p>RP.01 / Rev.01</p>		<p>Rapor Tarihi 07.05.2012</p>
<p>Rev. Tarihi: 20.01.2011</p>		
<p>Sayfa 1 / 5</p>		

Müşterinin adı/ adresi: Customer Name / Address	MGS MÜH. MÜŞ. ve PROJE HİZM. LTD.ŞTİ. Şehit Cevdet Özdemir Mah. Öveçler 4. Cad. 1351. Sok. No:1/7 Çankaya / ANKARA
Numuneyi Alan Kurum / Kuruluş Sampler Institution / Company	SEGAL Çevre Ölçüm ve Analiz Laboratuvarı (Kamil Erhan CAN)
Numunenin Adı ve Örnekleme Tarihi: Name and Sampling Date of the Sample	Kuyu suyu (2560/12) – 25.04.2012
Numunenin Alınış Şekli: Receipt of the Sample Shape	Anlık
Numuneyi Teslim Eden: Deliverer of the Sample	Kamil Erhan CAN (SEGAL Çevre Ölçüm ve Analiz Laboratuvarı personeli)
Proje Adı ve No: Name and Number of the Project	1651/12
Numunenin Kabul Tarihi: Date of Sample Acceptance	25.04.2012
Numunenin Teslim Koşulları: Delivery Conditions of the Sample	TS EN ISO 5667-3:2007 standardına uygun olarak plastik ve cam kapta, soğuk ortamda, kimyasal korumalı ve mühürlü olarak teslim edilmiştir.
Açıklamalar: Remarks	Ankara Bilkent Entegre Sağlık Kompleksi Projesine ait kuyu suyu numunesinin SKKY tb 1 e göre analizi (koordinatları son sayfada verilmiştir.)
Deneyin yapıldığı Tarih: Date of the Test	25.04.2012 – 07.05.2012
Raporun Sayfa Sayısı: Number of the Pages of the Report	9 sayfa (2 sayfa EKOSİSTEM Çevre Laboratuvarı raporu, 2 sayfa ARTEK Mühendislik raporu)

Deney ve/veya ölçüm sonuçları, genişletilmiş ölçüm belirsizlikleri ve deney/ölçüm metotları takip eden sayfalarda verilmiştir. The test and /or measurements results, the uncertainties with confidence probability and test methods are given on the following pages which are part of this report.

Raporu Hazırlayan
Prepared by
Emine Aslı AYAN
Kimya Y. Mühendisi

Raporu Onaylayan
Confirm by
Fevzi KARAKAYA
Laboratuvar Müdürü



Bu rapor, laboratuvarın yazılı izni olmadan kısmen kopyalanıp çoğaltılamaz. İmzasız ve mübürsüz raporlar geçersizdir. **Sonuçlar sadece deneyi yapılan numunelere aittir.** (This report shall not be reproduced other than in full except with the permission of the laboratory. Testing reports without signature and seal are not valid. **The results belong to the tested sample.**)



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BAKANLIĞI

Y-06/203/2012

İlk Basım: 03.05.2010

RP.01 / Rev.01

Rev. Tarihi: 20.01.2011

Sayfa 2 / 5



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web: www.segalanaliz.com

www.segal.com.tr



Rapor No
2748/12

Rapor Tarihi
07.05.2012

NUMUNE ADI ve NO: Kuyu suyu – 2560/12

Sample Name and Number

Parametre-Birim Parameter-Unit	Analiz Sonucu Test Result	SKKY Tablo-1 Su Kalite Sınıfları			
		I	II	III	IV
pH	7,35	6,5-8,5	6,5-8,5	6,0-9,0	6,0-9,0
***Sıcaklık (°C)	17,3	25	25	30	>30
Çözünmüş Oksijen (mg/L)	6,05	8	6	3	<3
Oksijen Doygunluğu (%)	75,2	90	70	40	<40
Toplam Çözünmüş Katı (mg/L)	2710	500	1500	5000	>5000
* ¹ Fekal Koliform (EMS/100 mL)	4	10	200	2000	>2000
* ¹ Toplam Koliform (EMS/100 mL)	11	100	20000	100000	>100000
Kimyasal Oksijen İhtiyacı (KOİ) (mg/L)	19	25	50	70	>70
Biyokimyasal Oksijen İhtiyacı (BOİ) (mg/L)	6	4	8	20	>20
Krom +6 (Cr ⁺⁶) (µg/L)	<20	Ölçülemeyecek kadar az	20	50	>50
Renk (Pt-Co)	10	5	50	300	>300
Yağ-Gres (mg/L)	<10	0,02	0,3	0,5	>0,5
Fenol (mg/L)	<0,001	0,002	0,01	0,1	>0,1
Florür (µg/L)	<100	1000	1500	2000	>2000
Klorür (mg/L)	300	25	200	400	>400
Sülfat (mg/L)	410	200	200	400	>400
Sülfür (µg/L)	<100	2	2	10	>10
Toplam Kjeldahl Azotu (mg/L)	1,6	0,5	1,5	5	>5
Amonyum Azotu (mg/L)	<0,1	0,2	1	2	>2
Nitrat Azotu (mg/L)	1,9	5	10	20	>20
Nitrit Azotu (mg/L)	0,005	0,002	0,01	0,05	>0,05
Toplam Fosfor (mg/L)	0,16	0,02	0,16	0,65	>0,65
Serbest Klor (µg/L)	<20	10	10	50	>50
Bor (µg/L)	<300	1000	1000	1000	>1000
Cıva (µg/L)	<1	0,1	0,5	2	>2
Kadmiyum (µg/L)	<3	3	5	10	>10
Bakır (µg/L)	<10	20	50	200	>200
Krom (toplam) (µg/L)	25	20	50	200	>200
Çinko (µg/L)	<10	200	500	2000	>2000
Nikel (µg/L)	<20	20	50	200	>200
Mangan (µg/L)	<10	100	500	3000	>3000
Sodyum (mg/L)	1390	125	125	250	>250
Kobalt (µg/L)	<10	10	20	200	>200
Kurşun (µg/L)	<50	10	20	50	>50
Demir (µg/L)	43	300	1000	5000	>5000

Bu rapor, laboratuvarın yazılı izni olmadan kısmen kopyalanıp çoğaltılamaz. İmzasız ve mühürsüz raporlar geçersizdir. **Sonuçlar sadece deneyi yapılan numunelere aittir.** (This report shall not be reproduced other than in full except with the permission of the laboratory. Testing reports without signature and seal are not valid. **The results belong to the tested sample.**)



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Rapor No
2748/12

Rapor Tarihi
07.05.2012

Parametre-Birim Parameter-Unit	Analiz Sonucu Test Result	SKKY Tablo-1 Su Kalite Sınıfları			
		I	II	III	IV
Selenyum (µg/L)	10	10	10	20	>20
Arsenik (µg/L)	18	20	50	100	>100
Alüminyum (mg/L)	0,46	0,3	0,3	1	>1
Baryum (µg/L)	<500	1000	2000	2000	>2000
* ² Toplam Organik Karbon (mg/L)	45	5	8	12	>12
* ¹ Deterjanlar (MBAS) (mg/L)	<0,025	0,05	0,2	1	>1,5
* ² Mineral Yağ ve Türevleri (mg/L)	0,016	0,02	0,1	0,5	>0,5
* ² Toplam Pestisit (mg/L)	0,014	0,001	0,01	0,1	>0,1
* ¹ Siyanür (µg/L)	<10	10	50	100	>100

*¹ İşaretli parametreler çevre analizleri yetki belgesi kapsamında "EKOSİSTEM Çevre Laboratuvarı"na yaptırılmıştır.

*² İşaretli parametreler çevre analizleri yetki belgesi kapsamında "ARTEK Mühendislik"e yaptırılmıştır.

*** Akreditasyon kapsam dışı parametre



Bu rapor, laboratuvarın yazılı izni olmadan kısmen kopyalanıp çoğaltılamaz. İmzasız ve mühürsüz raporlar geçersizdir. **Sonuçlar sadece deneyi yapılan numunelere aittir.** (This report shall not be reproduced other than in full except with the permission of the laboratory. Testing reports without signature and seal are not valid. **The results belong to the tested sample.**)



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Parametre-Birim Parameter-Unit	Ölçüm Belirsizliği Uncertainties	Analiz Metodu Test Method
pH	% ± 1,10	TS 3263 ISO 10523:1999
***Sıcaklık (°C)	± 0,3	SM 2550 B:2005
Çözünmüş Oksijen (mg/L)	% ± 0,56	TS 5677 EN 25814:1996
Oksijen Doygunluğu (%)	% ± 0,56	TS 5677 EN 25814:1996
Toplam Çözünmüş Katı (mg/L)	% ± 2,68	TS 9748 EN 27888:1996
*1 Fekal Koliform (EMS/100 mL)	-	SM 9222 D:2005
*1 Toplam Koliform (EMS/100 mL)	-	SM 9222 B:2005
Kimyasal Oksijen İhtiyacı (KOİ) (mg/L)	% ± 3,10	SM 5220 B:2005
Biyokimyasal Oksijen İhtiyacı (BOİ) (mg/L)	% ± 3,30	SM 5210 B:2005
Krom +6 (Cr ⁺⁶) (µg/L)	% ± 6,20	SM 3500 Cr B:2005
Renk (Pt-Co)	% ± 8,34	SM 2120B:2005
Yağ-Gres (mg/L)	% ± 6,02	TS 8312:1990
Fenol (mg/L)	% ± 5,04	SM 5530B-C:2005
Florür (µg/L)	% ± 2,70	SM 4500 F ⁻ D:2005
Klorür (mg/L)	% ± 4,10	SM 4500 Cl ⁻ B:2005
Sülfat (mg/L)	% ± 4,40	SM 4500 SO ₄ ⁻² E:2005
Sülfür (µg/L)	% ± 2,78	SM 4500 S ⁻² F:2005
Toplam Kjeldahl Azotu (mg/L)	% ± 3,42	SM 4500 N _{org} B:2005
Amonyum Azotu (mg/L)	% ± 5,52	SM 4500 NH ₃ B-C:2005
Nitrat Azotu (mg/L)	% ± 6,20	EPA METHOD 352-1
Nitrit Azotu (mg/L)	% ± 6,06	SM 4500 NO ₂ B:2005
Toplam Fosfor (mg/L)	% ± 6,66	SM 4500 P B E:2005
Serbest Klor (µg/L)	% ± 5,56	SM 4500 Cl G:2005
Bor (µg/L)	% ± 6,80	SM 4500 B-C:2005
Cıva (µg/L)	% ± 6,90	SM 3112 B:2005
Kadmiyum (µg/L)	% ± 6,20	SM 3111 B:2005
Bakır (µg/L)	% ± 7,04	SM 3111 B:2005
Krom (µg/L)	% ± 6,60	SM 3111 B:2005
Çinko (µg/L)	% ± 8,56	SM 3111 B:2005
Nikel (µg/L)	% ± 6,94	SM 3111 B:2005
Mangan (µg/L)	% ± 8,18	SM 3111 B:2005
Sodyum (mg/L)	% ± 7,68	SM 3111 B:2005
Kobalt (µg/L)	% ± 7,80	SM 3111 B:2005
Kurşun (µg/L)	% ± 4,80	SM 3111 B:2005
Demir (µg/L)	% ± 7,90	SM 3111 B:2005
Selenyum (mg/L)	% ± 6,40	SM 3114 B-C:2005
Arsenik (mg/L)	% ± 5,74	SM 3114 B-C:2005

Bu rapor, laboratuvarın yazılı izni olmadan kısmen kopyalanıp çoğaltılamaz. İmzasız ve mühürsüz raporlar geçersizdir. **Sonuçlar sadece deneyi yapılan numunelere aittir.** (This report shall not be reproduced other than in full except with the permission of the laboratory. Testing reports without signature and seal are not valid. **The results belong to the tested sample.**)



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Rapor No
2748/12

Rapor Tarihi
07.05.2012

Parametre-Birim Parameter-Unit	Ölçüm Belirsizliği Uncertainties	Analiz Metodu Test Method
Alüminyum (mg/L)	% ± 8,66	SM 3111 D:2005
Baryum (mg/L)	% ± 6,36	SM 3111 D:2005
*2 Toplam Organik Karbon (mg/L)	-	SM 5310 B:2005
*1 Deterjanlar (MBAS) (mg/L)	-	SM 5540 C:2005
*2 Mineral Yağ ve Türevleri (mg/L)	-	TS EN ISO 9377-2:2002
*2 Toplam Pestisit (mg/L)	-	EPA 8081B, EPA 3510C, EPA 3630C, EPA 8141B
*1 Siyanür (µg/L)	-	SM 4500 CN C E:2005

"Numuneler **TS EN ISO 5667-3:2007** – Su Kalitesi – Numune Alma – Bölüm 3: Numunelerin Muhafaza ve Taşıma Kuralları çerçevesinde saklanır. Bu süre içerisinde kimyasal, mikrobiyolojik ve fiziksel açıdan bozulan veya tehlike arz eden numuneler, numune saklama süresinin bitimi beklemeden imha edilir."

Çevre Koşulları:

Hava Durumu	Açık	Yağış	Var	Hava Sıcaklığı °C	Koordinatlar	E	478946
	Kapalı		Yok			N	

Görüş ve Yorumlar:



Bu rapor, laboratuvarın yazılı izni olmadan kısmen kopyalanıp çoğaltılamaz. İmzasız ve mühürsüz raporlar geçersizdir. **Sonuçlar sadece deneyi yapılan numunelere aittir.** (This report shall not be reproduced other than in full except with the permission of the laboratory. Testing reports without signature and seal are not valid. **The results belong to the tested sample.**)

Appendix-I Inventory of Affected People

HOUSEHOLD NO 1	
INTERVIEWER INFORMATION	
Respondent	Allahverdi Türkmen
Ownership Status	Occupant
GENERAL INFORMATION	
Ethnicity	Immigrants from Afghanistan
Household Population	5
Worker Status	Household held is working
Awarage Age of Household	40
Education	2 illiterate, 2 student, one primary school graduate
Main Income Generating Activities	Worker at dairy farm
Amount of Annual Income of Household (TL)	15.600TL
Vulnerability	Elderliness, immigration
HOUSING CONDITIONS	
Area of house	70 m ²
Water supply	Mains Water
Toilet	Sewage
Heating	Coal
Waste Disposal	Bury
PROJECT AWERANESS	
Information about the Project	Yes
Point of Wiev to yhe Project	Positive
Expectations, Concerns	Household held wants to be hired from the Project and they want to use the house till summer.
HOUSEHOLD NO 2	
INTERVIEWER INFORMATION	
Respondent	Bekir Bey
Ownership Status	Occupant
GENERAL INFORMATION	
Ethnicity	Immigrants from Bingöl
Household Population	5
Worker Status	Household held is worker at Ministry of Agriculture .
Awarage Age of Household	19
Education	3 student, 2 primary school graduate
Main Income Generating Activities	Worker

Amount of Annual Income of Household (TL)	10. 080TL
Vulnerability	Household held is physically handicapped (51%)
HOUSING CONDITIONS	
Area of house	70 m ²
Water supply	Mains Water
Toilet	Sewage
Heating	Coal
Waste Disposal	Bury
PROJECT AWERANESS	
Information about the Project	Yes
Point of View to the Project	Positive
Expectations, Concerns	Household held wants to be hired from the Project and they want to use the house till summer.
BUSINESS 1	
INTERVIEWER INFORMATION	
Respondent	Aslan Saraçoğlu
Ownership Status	Occupant
GENERAL INFORMATION	
Age of Owner	70
Education	Master's degree
Number of Employees	1
Business at this address	7 Years
Legal status of the dairy farm	Individual business
The reason for choosing this place	Infrastructure of the facility
PROJECT AWERANESS	
Information about the Project	Yes
Point of View to the Project	Neutral
Expectations, Concerns	Owner of the farm mentioned that he will be available to move from this farm in a few years due to economic lack. He currently does not have economic power for transportation of 245 goats. He is looking for alternative lands.

Appendix-J Environmental and Social Management and Monitoring Plan

Bilkent Ankara Entegre Saęlık Hizmetleri
Yatırım ve İşletme A.Ş.
İlkbahar Mahallesi Turan Güneş Bulvarı
Selanik Cad. No: 82/1
Kızılay – ANKARA / TÜRKİYE
☎: +90 (312) 418-1020
☎: +90 (312) 418-1020

**ANKARA BILKENT
INTEGRATED HEALTH CAMPUS PROJECT**

ENVIRONMENTAL AND SOCIAL MANAGEMENT AND MONITORING PLAN
(DRAFT)

FEBRUARY 2013



Mühendislik ve
Danışmanlık A.Ş.

Beştepe Mahallesi Dumlupınar Bulvarı
Armada İş Merkezi No: 6-A/18 Kat: 12
Bağımsız Bölüm: 1211
Yenimahalle - ANKARA / TÜRKİYE
☎: +90 (312) 295-6248
☎: +90 (312) 295-6200

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2.1	Organizational Set-up.....	4
2.2	Contractor Management Plan	4
2.3	Annual ESMMP Performance Monitoring and Reporting.....	6
2.4	Communication and Grievance Procedure	7
3	Specific Mitigation Actions.....	8

ENVIRONMENTAL AND SOCIAL MANAGEMENT AND MONITORING PLAN

1 General ESMMP Background

This section comprises the Environmental and Social Management and Monitoring Plan (ESMMP) for the ESIA for this Project. It summarizes the organizational requirements, actions and monitoring plans to ensure that the necessary measures are taken by the Project Company to avoid potentially adverse effects - and maximize potential benefits - of the Project with respect to environmental, health and safety (H&S) and social aspects, and to operate in conformance with applicable laws and regulations of Turkey, as well as the policies of international financial organizations.

The specific ESMMP items are based on the Baseline Conditions and the Impact Assessment described in the main text of the ESIA report, plus the results of discussions with Stakeholders and the Project Company.

The ESMMP summarizes the organizational requirements, actions and monitoring plans to ensure that the necessary measures are taken by the Project Company to avoid potentially adverse impacts of the Project where possible, or otherwise to minimize the residual impacts to an acceptable level with respect to environmental, health and safety (EHS) and social aspects, and to operate in conformance with national legislation as well as the policies of IFC. Likewise, appropriate measures are suggested to maximize the potential for any benefits arising from the Project implementation.

The ESMMP takes a long-term view of the entire life-cycle of the Project and will continue to evolve in scope and depth within the two key stages of the project implementation:

- Construction; and
- Operation.

Key Performance Indicators for Organizational Capacity:

- Publication of management commitment and delegation of roles and responsibilities on the Project Company's web-site for the project
- Written confirmation of in-house trainings of Project employees regarding social and environmental awareness and ESMMP implementation.

2 Measures of the Project Company

2.1 Organizational Set-up

During construction phase, the Project Company will have the overall responsibility for environmental and social compliance, and will act as the coordinating body among its sub-contractors. In this regard, an **Environmental and Social Management System (ESMS)** will be established by the Project Company for the construction phase. ESMS will include a Health, Safety and Environment (HSE) plan comprising the following aspects:

- HSE Scope
- HSE Policy
- HSE organization chart with HSE Executive, HSE Chief, HSE Engineer
- Safety Regulations
- Security Responsibilities (Site Entry Procedure, Restrictions, Exit Procedures)
- Accident and Incident Response and reporting
- Site Layout Plan with muster points
- Material Handling and Storage
- Storage of Hazardous Waste
- Plan for Training and toolbox talks
- PPE
- Fire Preventions
- Fall Protection
- Emergency response
- Vehicle use and maintenance plan
- Archaeological chance-find procedure

The Project Company will also prepare, implement and update where necessary, a **Contractor Management Plan** to ensure that the contractors are fully aware of the relevant ESMMP issues and similarly committed to the successful implementation of the ESMMP as is the Project Company.

2.2 Contractor Management Plan

The Project Company has overall responsibility for the Project and implementation of the ESMMP, yet much of the work will be done by various contractors engaged by the Project Company. These include especially the main Construction Contractor during the Construction Stage and later Commissioning Stage. Thus it is important for the Project Company to implement procedures in a Contractor Management Plan to ensure that the Contractors are fully aware of the relevant ESMMP issues and similarly committed as is the Project Company to the successful implementation of

the ESMMP.

The main components of the Contractor Management Plan will include:

- Designation of senior managers of the Project Company responsible for the Contractor Management Plan (or portions thereof, as relevant for the Project Stages);
- Training and awareness sessions for the responsible persons in the Project Company's Contracting/Procurement Department regarding the ESMMP requirements for Contractors;
- The specific relevant ESMMP provisions (including requirements regarding occupational health and safety) will be included into tender documents as appropriate for the tendered services;
- The bidding contractors' capacity to meet the ESMMP requirements (i.e. sufficient skills and experience) will be screened and included in the award decision criteria;
- Each contract will include requirements regarding the relevant environmental and social risks and ESMMP requirements associated with the contract activities and will include appropriate non-compliance remedies. Plus contracts will include requirements that in the case of sub-contracting, the subcontractors will be subject to similar obligations as the main contractor;
- The contractor will be obliged to provide all necessary skilled and trained EHS staff to ensure that all activities are carried out in accordance with the Turkish EHS legislation and international best practice (such as IFC Performance Standard 2 on Labour and Working Conditions).
- The contractor will have to demonstrate the appropriate skills, qualification and/or working experience of his staff and subcontractors to the Supervisor (of the Project Company). Construction workforce and sub-contractors will receive comprehensive H&S training at the beginning of an appointment, thereafter on a regular basis throughout the entire construction period. Special safety instructions will be provided for temporary workforce and for young workforce;
- In the event that foreign firms are contracted and significant numbers of foreign workers will be involved in the Project, special attention will be given to ensure that all Turkish and international labour laws and regulations (e.g. ILO core labour standards such as respect to child labour, working hours, overtime compensation, etc) are complied with;
- Project Company will routinely monitor the performance of the contractors with respect to ESMMP requirements.

Key Performance Indicators for Contractor Management:

- Publication of delegation of roles and responsibilities on the Project Company project web-site regarding Contractor Management (can be integrated with actions regarding Organizational Capacity)
- Written confirmation of in-house trainings of Contracts-Procurement specialists regarding ESMMP implementation
- Written examples of tender specs and contracts with specific reference to and requirements for ESMMP topics.
- Inclusion of contractor ESMMP performance in the ESMMP Audits

In the operational phase, there will be a dual management system in the health campus, in which the MoH will be responsible for assigning and management of doctors and nurses, while the Facility Management Company (FMC), a subsidiary of the Project Company, will be responsible for support services. The health campus manager will be assigned by the MoH.

The FMC will establish an **ESMS** for operational activities. In the ESMS, a director will be assigned by the FMC. In addition, each sub-contractor for support services, such as catering, cleaning, security etc., will have their own ES Manager. The ES Director of the FMC will prepare general guidelines for implementation of the ESMS in compliance with this ESMMP. The ES manager of each sub-contractor will then prepare their own plans which are specific to their activities, and submit them to the ES Directorate for approval. The ES Directorate will act as a coordinating body among all ES managers in the health campus. Having a dual role with the FMC, the MoH will have the responsibility for management of certain social aspects of the Project such as doctors' and nurses' labor rights and patients' rights.

2.3 Annual ESMMP Performance Monitoring and Reporting

The Project is considered as a "Category A" Project, and thus Project Company will be obliged to retain qualified specialists to undertake periodic monitoring/audits throughout the period of OPIC involvement with the Project. Based upon previous project experience an initial ESMMP Audit should take place within six months of the start of each new Project Stage (Planning, Construction, Operation & Maintenance, Decommissioning), and based on the results, the subsequent audit schedule can be agreed, but must be conducted at least annually.

The ESMMP Audit results must be documented and forwarded for review to the senior responsible persons at the Project Company and the OPIC; also, in accordance

with IFC policy on Information Disclosure the Audit results must be disclosed to the relevant parties/stakeholders affected by the ESMMP.

The ESMMP Audit Reports shall cover the status of EHS-related aspects like permits, status of compliance with obligations arising from such licenses or permits, non-compliance with regulatory environmental standards with root cause analysis, corrective measures, as well as conformance with the ESMMP. The Audits must address the performance of both the Project Company and any Contractors or Subcontractors. Depending on the findings, it may be necessary to revise the original ESMMP to better reflect the changing situation with the Project implementation, and/or the social, environmental or regulatory framework conditions.

Key Performance Indicators for ESMMP Monitoring:

- Engagement of a qualified external expert to undertake the initial and periodic ESMMP Audits
- Submission to OPIC of initial ESMMP Audit Report after about six months from ESIA Report finalization; thereafter (at least) annual ESMMP Audit Reports, and distribution to affected stakeholders, e.g. by publication on the Project Company project web-site

2.4 Communication and Grievance Procedure

The Project Company will develop and implement a Public Communication Program to provide ongoing information to the affected Stakeholders and general public about the key relevant environmental and social aspects throughout the future Project execution (including construction and operation). This Program will build upon the Stakeholder engagement process and Stakeholder Engagement Plan (SEP) already established as part of this ESIA Report. The basis for this Program will be outlined on the Project Company project website, supplemented with use of mass media, bulletins, brochures, emails, direct mailings and other communication forms to reach the affected Stakeholders. The main actions of the Public Communication Program are described in the following:

Of particular relevance will be the timely and appropriate provision of information to the local villages and land users prior to and during the local construction activities (whether directly by the Project Company and/or through the Construction Contractors).

At a minimum, the Project Company will provide information on an annual basis to the local neighborhoods to keep them abreast of the Project schedule and when/where which activities are planned.

This provision of information will be coupled with the availability to the Stakeholders of the Grievance Procedure, as already begun to be implemented as part of the ESIA process (as described in the SEP).

The Grievance Procedure provides Stakeholders with a way to formally register any complaints/ grievances to the Project Company about any part of the process of the Project's implementation (incl. construction and operation).

The Grievance Procedure will be updated as appropriate during the course of the Project and subsequent operational stage. The Construction Contractor will also be required to implement a "Quick Response" procedure to react as efficiently and directly as possible to urgent Stakeholder concerns in the field; without necessarily having to first go through the formal Grievance process with the Project Company.

Should the need arise, the Project Company will consider the establishment of a conflict resolution "committee" (comprising representatives of the Project Company and other persons as appropriate) for the management of complex grievance issues. The intent of the Grievance Procedures and the conflict resolution committee will be to quickly and effectively respond to Stakeholder and public concerns on a direct basis, thus avoiding the need for escalation of the issue to the administrative-judicial bodies.

Project Company will maintain a log of grievances received and the manner in which the issues have been handled.

3 Specific Mitigation Actions

The specific recommended mitigation measures for each Stage of the Project are given in the environmental management and monitoring matrix presented in Section 3.1 below. For each item the following information is provided:

- Key activities/aspects (which result in a potential impact);
- Potential significant impacts of the activities (negative impact, unless stated otherwise);
- Recommended avoidance/mitigation measures, including a qualitative indication of implementation timing, where applicable;
- Key Performance Indicators (to show/confirm the mitigation measures are implemented); and
- The extent of any residual impacts (even if the avoidance/mitigation measures are implemented as planned).

Each of the described measures is based on the information gathered in the Baseline

Assessment and the evaluation of impacts described in previous chapters.

In addition to the environmental management and monitoring matrix, a social management and monitoring matrix presents the key performance indicators, means of verification, mitigation and management measures and responsible parties for social issues faced throughout the Project lifetime. Social management and monitoring matrix is given in Section 3.2 of the ESMMP.

3.1 Environmental Management and Monitoring Matrix

Activity/Aspect	Potential Impact	Mitigation / Management	Responsibility / Implementation	Monitoring Performance Indicators	Key Residual Impacts
Construction Stage					
Site preparation and excavation Concrete batching Motor vehicles Construction machinery	Dust and gaseous pollutants	Work sites shall be watered under warm, dry and windy weather conditions. Material shall be loaded and unloaded without slueing; 30 km/hour speed limit shall be set on non-paved roads. Top of the trucks will be covered while carrying the excavation materials. Dust suppression system will be installed in the crushers. Exhaust emissions of the heavy machinery shall regularly be measured, controlled and recorded by authorized institutions.	CONTRACTOR	Site observation and measurements with a PM ₁₀ device: Monthly measurements after the initiation of construction facilities and during the activities that increase dust formation (measurements should be performed more frequently if complaints are made by the public)	In spite of the mitigation measures, low level dust and gaseous pollutants are expected, especially around service roads
Handling and discharge of wastewater resulting from personnel and concrete batching and other construction activities (wash	Soil and groundwater contamination	Discharge of waste water will be into the city sewer system. Connection to the sewer system will be made in coordination with ASKI (Ankara Water and Sewerage Authority) Proper temporary storage of hazardous waste in plastic containers placed on sealed	CONTRACTOR	Visual observations of spills and stains on ground surface	

Activity/Aspect	Potential Impact	Mitigation / Management	Responsibility / Implementation	Monitoring Performance Indicators	Key Residual Impacts
water) Storage and handling of fuels and chemicals Handling of solid waste and hazardous waste		concrete paved ground with secondary containment against leaks and spills from hazardous waste (in compliance with Regulation on Control of Hazardous Wastes, Regulation on Waste Oil, Regulation on Control of Used Batteries and Accumulators). Safety conditions maintained for storage of chemicals			
Earthworks	Vegetable top soil and excavation soil to be handled	Vegetable top soil will be stripped prior to excavation works and will be stored in the construction site away from the other excavations to be used in landscaping. A portion of the excavated materials will be stored in the construction site to be used in construction activities. The remaining part will be transported and stored in storage sites determined by the Project Company after getting necessary permits. They will be carried by trucks with the necessary license	CONTRACTOR	Site observation and document review whether or not disposal area and the method are approved by the PROJECT COMPANY on daily basis.	

Activity/Aspect	Potential Impact	Mitigation / Management	Responsibility / Implementation	Monitoring Performance Indicators	Key Residual Impacts
Earthworks (excavation and drilling) and construction activities On-site and off-site traffic	Nuisance of noise and vibration on nearby settlements, hospitals and workplaces	Possible receptors that may be subject to a temporary disturbance will be informed; Heavy machinery will be maintained regularly. Construction works will be carried out during the day time period (07:00-19:00) stated in the Regulation on Assessment and Management of Environmental Noise.	CONTRACTOR	Noise to be monitored monthly - measurement with a calibrated sound level meter and especially during activities that increase noise levels (measurements should be performed more frequently if complaints are made by the public)	
Transportation of construction materials into site and excavated material out of site.	Nuisance of increased traffic	Drivers of the vehicles carrying materials to the construction site will obey speed limit of 30 km/hour. There will be notice boards on the roads to warn inhabitants of the trucks. Excavated areas will be covered for public health or surrounded by warning signs if coverage is not possible. Pipe ends should be closed to prevent animals from entering pipes. Wheels of trucks will be washed at exits from construction site to prevent roads from being polluted with mud.	CONTRACTOR	Continuous visual monitoring	

Activity/Aspect	Potential Impact	Mitigation / Management	Responsibility / Implementation	Monitoring Performance Indicators	Key Residual Impacts
Operation Stage					
Tri-generation plant	NOx and emissions	Low-NOx burners will be used for minimization of NOx.	PROJECT COMPANY	Two monitoring stations under the Ministry of Environment and Urbanization are operational for hourly monitoring of NOx.	Not applicable.
Wastewater generation	Increased wastewater load on existing city sewerage network	Wastewater will be of a domestic type. Rehabilitation of the sewer lines beneath the Site will be maintained.	PROJECT COMPANY	Not applicable.	Not applicable.
Solid waste handling and storage	Nuisance of insects and bad odor	Proper handling of solid waste in compliance with waste legislation and best practices (household waste stored in plastic containers, covered on the top, collected by the Municipality on daily basis)	PROJECT COMPANY	Visual inspections and audits will be performed at temporary storage areas and final disposal sites.	Not applicable.
Hazardous waste handling	Soil and groundwater contamination	Hazardous wastes will be handled in compliance with the Regulation on Control of Hazardous Wastes, Regulation on Waste Oil, Regulation on Control of Used Batteries and Accumulators (i.e., disposal of these wastes to a proper landfill or collected by a company certified by the MoEU for collection and disposal).	PROJECT COMPANY	Visual inspections and audits will be performed at temporary storage areas and final disposal sites.	Not applicable.

Activity/Aspect	Potential Impact	Mitigation / Management	Responsibility / Implementation	Monitoring Performance Indicators	Key Residual Impacts
Tri-generation Plant	Noise and vibration	Indoor isolation will be maintained to minimize noise and vibration.	PROJECT COMPANY	Not applicable.	Not applicable.
Transportation of staff, patients, visitors, contractors	Traffic congestion in nearby roads	Planning of access/egress routes for emergency vehicles. Signals at junctions to be maintained in relation to level of traffic congestion, by UKOME.	UKOME (Transportation Coordination Center of Ankara Metropolitan Municipality)	Grievances from visitors and staff.	Traffic management plans will be implemented and updated regularly as site demands change.

3.2 Social Management and Monitoring Matrix

Impact	Key Performance Indicator	Means of verification	Mitigation and Management Measures	Responsible Party	Phase (C/O)
Population/Demography					
1) Out-migration of PAPs due to abandonment of Atatürk Training and Research Hospital after construction - may reduce economic opportunity	Grievances about abandonment process. Consultation with PAPs.	Grievances database	Policy should be produced in consultation with PAPs by socio-cultural expert	BIHCP HR Manager	O
2) BIHCP workers may be perceived as a threat to neighbourhood security and/or culture/privacy.	Grievances about workers' conduct	Grievance database	BIHCP Employee Induction and Training Plan with socio-cultural training and code of conduct for workers. Effective Public Consultation: Good Neighbour Policy should be produced in consultation with PAPs by socio-cultural expert	BIHCP HR & Communication Managers Social Scientist	C+O
3) In-migration of workers may be perceived as an economic opportunity.	Increased sales of local goods. Buy Local' initiative communicated through BIHCP employee induction programme.	Employee Induction & Training Plan Induction records	Inclusion of 'Buy Local' initiative in BIHCP Business Ethics Policy/Good Neighbour' Policy. Marketing support training for PAPs (Regional Education & Training institutions). Effective Public Consultation to manage expectations	BIHCP HR Manager with Regional Education & Training institutions and Communications Manager	C+O
4) BIHCP workers who are experts may be perceived by some PAPs as helping the community to learn new	Increase of skills amongst local workers. Target numbers for on-the-job mentoring and apprenticeships for	Employee Induction & Training Plan.	Apprentice schemes and on-the-job mentoring systems as part of Employee Induction & Training Plan BIHCP to consider cultural exchange scheme	BIHCP HR Manager, Communications Manager with Regional Educators	C+O

Impact	Key Performance Indicator	Means of verification	Mitigation and Management Measures	Responsible Party	Phase (C/O)
skills and enable cultural exchange.	BIHCP & Contractors.	Training Records.			
5) Workers Camp may be perceived as an opportunity or threat by different neighbourhoods.	Workers camp will be located so as to minimise disruption to PAPs and maximise knock-on economic benefits (whilst being effective for Campus Construction). Consultation with neighbourhoods about location.	Consultation records. Grievance Register.	Effective Public Consultation: Consultations with Lodumlu Village and Universiteler neighbourhood regarding expectations of camp location nearby with associated expected benefits.	BIHCP Construction & Communication Managers	C
Social Services and Infrastructure					
6) Roads: Concern about traffic, with busier, faster roads.	Project and Contractor drivers should be familiar with transport rules. Road warning signs. All drivers should be familiar with transport rules and safety risks.	Education records Health Records Spot checks Grievance Record	Traffic Management Plan Effective PCD: Road signs in key areas warning drivers, and driver training (Regional Highways & Education Authorities).	BIHCP Communication and, HSS&E Construction Managers Regional Highways & Education	C+O
7) Health - Accident Risk: Construction and vehicles may be viewed as a potential danger.		Education Authority Grievance database CLO records Emergency preparedness plan	BIHCP Health, Safety and Security Plan: ➤ Safeguards/security around construction; ➤ Safety training for PAPs.	BIHCP Communication and HSS&E Construction Managers with Education Authority	C+O

Impact	Key Performance Indicator	Means of verification	Mitigation and Management Measures	Responsible Party	Phase (C/O)
8) Health: PAPs will be beneficiaries of BIHC.	Improving health service for PAPs	BIHCP Health records Corporate Social Responsibility Strategy Public Consultation	Effective Public Consultation to manage expectation of improved access to health services	BIHC	O
Wealth, Economy, Livelihoods and Employment					
9) Wealth & Regional economy: Influential stakeholders in Çankaya may expect economic regeneration with a positive cycle of employment, investment, infrastructure development with longer-term improvements	Improving Regional economy Increasing training by Regional providers	Regional Government	BIHCP development to be included in a broader economic regeneration programme for the Wider Project Area (Regional Govt.) To include BIHCP employment & other stakeholder initiatives.	BIHCP with Regional Govt.	C+O
10) Wealth & Regional economy: Stakeholders have concerns of negative downward spiral: increases in unemployment, outmigration.	As above	As above	Regional Government to consider an economic regeneration programme for the Wider Project Area.	BIHCP with Regional Govt.	C+O
11) Regional economy: Health tourism may increase in Region.	Increasing tourism	MoH's plan.	Regional health programme.	BIHCP Communication Manager with MoH.	C+O

Impact	Key Performance Indicator	Means of verification	Mitigation and Management Measures	Responsible Party	Phase (C/O)
12) Regional economy: expectations of community investment by BIHCP.	BIHCP plans for infrastructure might upgrade in the area.	PCD Performance monitoring surveys	BIHCP to understand/ compliment Regional Govt. economic regeneration programme (Corporate Social Responsibility Strategy); Effective Public Consultation: at Regional Government level	BIHCP Communication Manager with Regional Govt	C+O
13) House and Land prices: may increase due to improved micro-economy and/or due to less land from inundation and/or due to in-migration			Regional Government to consider cumulative impacts of all regions	Regional Govt	C+O
14) Employment: Campus construction provides 3.5 year employment opportunity, but then it might leave higher unemployment.	Sustainable employment levels Local employees on campus construction find employment at end of contracts.	Regional Govt unemployment records. Skills Audit Baseline	Longer-term economic sustainability strategy (Regional Govt). Employment advice to workers to maximise training opportunities and preparation for onward employment applications.	BIHCP with Regional Education & Trg institutions HR Manager	C+O
Quality of Life/Environment					
15) Noise and dust from construction perceived as likely to cause a nuisance and disturbance.	Number of grievances about noise and dust Timely disclosure of particular disturbances e.g. Blasting schedules	Grievance database PCD Consultation Records	Construction Related Management plan; Effective Public Consultation: to gather early warning of potential difficulties & for disclosure. BIHCP to consider partnerships with neighbourhoods most impacted by construction nuisance so 'gain' is realised to	BIHCP Communication and Construction Managers Public Consultation	C

Impact	Key Performance Indicator	Means of verification	Mitigation and Management Measures	Responsible Party	Phase (C/O)
			compensate for disturbance. "Good neighbour" construction policies regarding noise abatement and dust minimisation.		
16) Construction sites regarded as potential hazards, e.g. noise blasts, child safety.	Number of grievances about accidents, hazards or adverse impact of blasting.	Grievance database. PCD Consultation Record Safety Signs & Safety Materials	Construction Related Management plan; BIHCP to publicise explosion schedules so PAPs can be prepared; Safety & security around construction sites. Education and awareness materials for teachers in the schools in neighbourhoods (BIHCP + Regional Educational Authorities); Train teachers in materials Preparedness and Contingency Plan to include this risk.	BIHCP Communication and HSS&E Construction Managers SMP Specialist with Education Authority	C
17) Social harmony disrupted due to differences in culture/behaviours between outside workers and neighbourhoods.	Number of grievances about workers' conduct Number of workers trained Socio-cultural training programme/induction.	Grievance database Training records	BIHCP to include socio-cultural training and code of conduct in Employee Induction and Training Plan for new staff.	BIHCP Communication and HR Managers will be guided by SMP Specialists	C+O
18) Cultural Heritage and Sites might be at risk from construction works, changes to roads/surrounding environment.	Any sites of social importance/ cultural heritage lost due to inundation are relocated. Clear communications and consultation regarding relocation.	Public Consultation Grievance Register	BIHCP to appoint expert to assess the significance and mitigations for sites. Effective Public Consultation:: of BIHCP's policy to protect sites of importance inclusive of opposition groups/NGOs with interest	BIHCP Communication Manager	C+O

Impact	Key Performance Indicator	Means of verification	Mitigation and Management Measures	Responsible Party	Phase (C/O)
Community Involvement and Representation					
19) Lack of Access to Decision Making, may increase social exclusion of marginalised/vulnerable groups.	Public Hearing to feedback Social Impact Assessment/Mitigation report. Face-to-face consultation with each community Leaders.	Consultation meeting attendance sheets Consultation Records	Effective Public Consultation: to include stakeholder engagement strategy.	BIHCP Community Relations and Communication Manager Public Consultation	C+O

Appendix-K Waste Management Plan

WASTE MANAGEMENT PLAN

1 Objectives and Scope

Bilkent Ankara Entegre Sağlık Hizmetleri Yatırım ve İşletme Anonim Şirketi (Project Company), established by a consortium consisting of Dia Holding FZCO and İC İçtaş İnşaat Sanayi A.Ş. (the Consortium), has been awarded the contract for construction and operation of Ankara Bilkent Integrated Health Campus Project (Project).

Waste Management Plan for the Project is aiming to:

- ensure that all wastes from project activities is controlled, handled and disposed of in an environmentally acceptable manner to reduce the risk of current and future liabilities and to comply with national environmental legislation; and
- minimize waste to be produced in the course of the project.

This plan covers all waste management process associated with the works being conducted by the Project Company and their sub-contractors of the Project, for both construction and operation stages.

Implementation of Waste Management Plan is supervised and inspected by the EHS Manager who is also responsible for preparation of reports related with waste management activities.

EHS Team informs and monitors all parties with regard to matters in this plan.

2 General Principles

The preliminary principle is to safeguard the waste reduction potential by all parties. The following waste reduction and prevention methods are applied as appropriate in order to minimize waste:

- Manufacturer or material supplier which could provides environmentally friendly and recyclable products are chosen or preferred,
- Re-use of materials as appropriate,
- Purchase materials that have the least amount of packaging, to minimize packaging thrown out,
- Arrange for just in time deliveries to reduce storage and material losses,
- Examine the work method for each activity and identify alternative ways that eliminate or reduce wastes,
- Substitute materials that will help reduce waste produced,

- Hazardous waste and non-hazardous waste should always be segregated. (When non-hazardous waste is mixed with hazardous waste, it creates a mixture that is considered hazardous waste)
- Handle with care when transferring chemicals to minimize spills,
- Improve transport procedures to reduce damage to materials.

Appropriate waste storage areas will be provided with suitable waste containers for different types of waste. Segregated wastes of different categories need to be collected in identifiable containers. Hazardous and non-hazardous wastes will be segregated in designated storage areas.

Recyclable wastes will require separate bins or storage areas. These areas are to be indicated on the facility site plan.

The waste containers are clearly labeled to describe the waste it contains - using the appropriate waste labels which should be completed in full - old labels should also have been removed to avoid confusion as to the contents of the container. Any unidentified wastes will be treated as hazardous.

Waste containers will be labeled with the following information.

Type of Waste:	
Code of Waste	
Source of Waste:	
Date of Storage:	
Producer of Waste:	
Name of Responsible Person:	

Access to hazardous waste containers should be limited to personnel who are properly trained in project's emergency plan and chemical hygiene.

All hazardous wastes must be stored in suitable containers in good condition that are compatible with the chemical contents of the waste. The waste container must be sealed at all times unless waste is being added or removed. A secondary container should be used to contain the material in case the primary container is overfilled or fails. Leave ample head space in all liquid waste containers to allow for expansion.

Monitoring

Regular monitoring, mainly in the form of visual inspections, will be needed for demolition, construction and operation stages.

3 Waste Legislation

National waste legislation complies with the EU waste directives to a significant level:

General waste control:

Regulation on General Principles of Waste Management (OG Dated 05.07.2008 ; No: 26927)

Regulation on Hazardous Waste Control (OG Dated 14.03.2005 ; No: 25755)

Regulation on Solid Waste Control (OG Dated 14.03.1991; No: 20814)

Specific Waste Streams:

Disposal of Waste Oils (OG Dated 30.07.2008 ; No: 26952)

Disposal of PCBs and PCTs (OG Dated 27.12.2007 ; No: 26739)

Waste electrical and electronic equipment (OG Dated 22.05.2012; No: 28300)

Packaging waste (OG Dated 24.08.2011; No: 28035)

Medical Waste (OG Dated 22.07.2005 ; No: 25883)

Vegetative Oils (OG Dated 19.04.2005 ; No: 25791)

Batteries and Accumulators (OG Dated 31.08.2004 ; No: 25569)

Construction and Demolishing Waste (OG Dated 18.03.2004 ; No: 25406)

Treatment and Disposal Facilities:

Incineration of Waste (OG Dated 06.10.2010 ; No: 27721)

Landfilling of Waste (OG Dated 26.03.2010 ; No: 27533)

3.1 Destination of Wastes

A range of possible destinations/uses to which waste may go once they have been collected on-site include one or more of the following: on site or off site re-use, recycling or and disposal.

A contract will be signed with the Ankara Metropolitan Municipality for the disposal of hazardous waste to be disposed at the municipal facility for safe disposal in compliance with the Regulation on Hazardous Waste Control.

3.1.1 Types of Waste

Waste is defined as any substance or objects that discard, intend to discard, or are required to discard. Wastes generated from construction activities fall into two main categories, hazardous and non-hazardous.

3.1.1.1 *Non-hazardous Waste*

Construction operations generate non-hazardous waste, i.e. wastes which have no hazardous features: domestic waste, certain plastic materials, textile waste, etc.

Construction camps will be provided with toilet / shower facilities connected to the city sewerage network.

The civil works will produce significant quantities of wastewater from the concrete plant. Wastewater from the concrete plant will be collected, processed through a sedimentation tank and neutralized before disposal.

Existence of metal waste (including scrap and wires) is expected as well. Metal waste shall be disposed separately for reuse and recycling.

Domestic Solid Wastes

Domestic Solid wastes will be stored in impermeable and sealed garbage containers, and will be collected by Çankaya Municipality.

Non-Hazardous Packaging Wastes

Non-hazardous packaging wastes are recyclable wastes which will require separate bins or storage areas. Project Company will contract a company certified by the Ministry of Environment and Urbanization for collecting non-hazardous packaging wastes. Non-hazardous packaging wastes will then be transferred to a licensed recovery facility.

Medical Wastes

Medical wastes will comprise the major fraction of general waste generation during the operation stage. Medical wastes will be generated from all hospitals, polyclinics, etc. and will be handled in line with the Regulation on Control of Medical Waste. Medical waste will be collected by the licensed vehicles of the metropolitan municipality and taken to the incineration plant.

Waste Vegetative Oils

Waste vegetable oils will be generated at both construction and operation stages from cooking oil. Waste vegetative oils will be collected separately and collected by companies certified by the Ministry of Environment and Urbanization.

Waste Oils

Waste oil is expected to be produced as a result of maintenance and repair of construction machinery. Waste oils will be stored in sealed containers, labeled with technical names of oils used. Waste oils must be analysed by authorized laboratory for categorization. According to results of analysis, waste oils will be disposed or recovered by companies certified by Ministry of Environment and Urbanization.

Waste Batteries

Waste batteries will be stored in portable waste batteries boxes. Batteries will be collected by a certified company when the boxes are full.

Waste Electrical and Electronic Equipment (WEEE)

Waste electrical and electronic equipment which that may be generated will be collected separately. WEEEs will be stored in a separate storage area.

3.1.1.2 Hazardous Waste

Waste batteries will be generated when used batteries of electronic devices, e.g. walkie-talkie, are replaced. Waste accumulators may also be produced when used accumulators of the vehicles are replaced.

Wastes are considered to be hazardous if they are: explosive, oxidizing, flammable, irritable or toxic, carcinogenic corrosive, infectious, teratogenic, mutagenic; when incinerating or in contact with air, water and acids generate toxic substances. Such wastes shall be temporarily stored on a separated area and labeled with special signs. Hazardous wastes can mainly be generated during maintenance of vehicles. Hazardous wastes include lubricants, liquid fuel, hydraulic oils, chemical substances, antifreeze, vehicle/engine filters, oiled textile, old filters, polluted soil, etc.

Hazardous wastes will be stored in a covered and sealed area separate from other types of waste generated on the Site. This area will be surrounded by fence, labelled "Hazardous Waste Storage Site" on the fence. All types of hazardous wastes will be separately stored. Hazardous waste storage area will be contained at the bottom with

a closed reservoir for collecting possible spillage of hazardous wastes. Spill containment materials and equipment will be available at all locations where chemicals, paints, oils and other liquid contaminants are being used. "License for Temporary Storage of Hazardous Waste" will be granted from Ankara Governorate. Project Company will establish contract agreements with certified transportation companies and safe disposal companies.

3.2 Waste Management Plan

3.2.1 Demolition Phase

The project will comprise of demolition of hospitals, polyclinics, administrative buildings, towers and housings. Demolition waste will be sorted on the basis of recyclable materials and reusable and recyclable parts and will be delivered to MKEK (Machinery and Chemical Industry Institution).

Hazardous wastes sorted among demolition waste will be handled and disposed safely in compliance with the Regulation on Hazardous Waste Control.

Non-recyclable demolition waste will be disposed at a disposal site to be designated by the Ankara Metropolitan Municipality.

As of the Article 16 of the Regulation on Excavation Waste and Construction and Demolition Debris; Project Company will apply for a permit for demolition for the demolition works that generate demolition waste over 2 tons. Project Company is also required to place yellow containers marked with types of waste to be contained before demolition starts. Containers will be placed on a temporary storage area. After removal of temporary collectors the territory shall be restored to the pre-construction state.

3.2.2 Construction Phase

Waste generation during construction phase will comprise of domestic waste from the camp site, excavation waste and special waste from construction materials (i.e. packaging waste, end-of-life tyres, waste oils, hazardous materials. Containers will be labeled in accordance to the type of waste in containers.

Wastes will be collected and divided into categories: Non-hazardous and hazardous. Each category will be handled in sub-categories in line with respective Regulations under the Turkish environmental legislation.

For each category of wastes a special place will be allocated and marked accordingly.

Medical wastes will be stored in impermeable and sealed containers in a separate area to be designated, and will be collected by a certified company. The temperature of the medical waste storage area will be kept below 4°C which is adequate to store medical waste upto a duration of 1 week. Medical waste will be transported to the sterilization unit of the Sincan-Çadırtepe Sanitary Landfill of Ankara Metropolitan Municipality to be finally disposed at the landfill in compliance with the Regulation on Control of Medical Waste.

All wastes will be removed and disposed in a controlled and timely manner on the basis of type of waste.

3.2.3 Operation Phase

Waste generated during operation stage are:

- Medical waste from hospitals and polyclinics will be collected and disposed separately.
- Waste oils from lubricants, etc. (will be collected and reused unless it contains PCBs)
- Metals will be separately collected for reuse.
- Domestic waste will be separately collected for disposal.
- Hazardous wastes will be collected and transported to the place of final disposal by transportation vehicles certified by the Ministry of Environment and Urbanization. Project Company will be responsible to establish contract agreement with the final destination of safe disposal of hazardous waste.

During operation all stationary construction machinery operating on diesel and petrol will be equipped with a secondary container to collect leaking fuel for disposal.

Main site equipment and vehicles will be fuelled on special insulating bedding wherever possible.

Special attention will be paid to prevention of fuel spills. Special collectors will be installed at the points of potential leakage. Absorbents will be maintained ready for use at all times. Fuel will be transported by specially designed fuel trucks.

Wastes shall be collected on a daily basis. Waste bins labeled with special signs will be placed on labeled storage areas.

Before removal of wastes from the site, the quantity (volume) and size of wastes, the name of waste collector/disposal agent and the name of the place of their final disposal/measure will be recorded. This issue will be controlled by the EHS Manager.

4 Transfer of Waste

A "National Waste Transfer Form" is a document that details the transfer of waste from one location to another. Waste transfer form will accompany hazardous waste consignments originating from construction site and will be duly completed with details required and the appropriate signatories.

Domestic solid wastes will be collected on daily basis by Çankaya Municipality.

Construction and Demolition Debris Transport Vehicles should be labeled as appropriate on the transport vehicles, with wagons to be painted yellow.

Medical wastes will be collected in separate red medical waste bags. These bags will be put into red medical waste truck carefully by authorized personnel. Medical waste trucks will be labeled with "Medical Waste Logo".

Transfer sheet will be signed by the EHS Manager and the person collecting the waste for transport. A copy of the transfer sheet will be taken by EHS Manager and filed before providing the original to the person collecting the waste for transport. The transfer note will accompany the waste during transport.

It is the responsibility of the waste transport company to obtain a signature from the waste disposer and then return the consignment form to the EHS Manager. The completed transfer forms will be retained at the Site. It is the responsibility of the transporter company to provide a copy of each transfer form to both the EHS Manager and the relevant environmental advisors.

EHS Manager will not release the waste, nor sign the transfer note, if there are any concerns about the standard of transportation facilities or final destination of the waste. Appropriate information from all transfer sheets is to be copied onto the waste register.

Only certified vehicles will be used to transport wastes from the site. Waste transporters and disposal sites nominated by the EHS Department will be used. Changes in waste streams and approval of further transporters / disposal sites are the responsibility of the EHS Manager. Under no circumstances unapproved subcontractors will be used for such activities.

EHS Manager is responsible for maintaining a Waste Register. For this purpose Waste Disposal Register form will be used, which includes minimum the following information:

- Waste type, identification
- Quantity and Units
- Source of waste, activity
- Transporter/ Waste Disposer
- Date and time of transfer
- Destination/Disposal Site
- Consignment reference number

The EHS Manager will collate the information received from the Site and incorporate into a master waste inventory database, report on a monthly basis to Project Company Management. Waste Management shall be reported as part of monthly environmental performance reports.

5 Training of Waste Management Plan

All Site Managers and Supervisors will ensure that all personnel in their team including subcontractors are trained in waste minimization, storage, reuse, recycling and disposal, namely all aspects of Waste Management Plan, in relevance to their work activities. Where assistance is necessary, EHS Manager will make itself available at the request of the Site Managers.

Waste Management Plan will be distributed to Site Manager, EHS Manager and other managers concerned.

6 Records

Any records pertaining to waste management will be retained in a system for ease of access. Site records will include, but not be limited to: copies of consignment sheets.

Originals of consignment sheets will be returned to the Site following disposal.

All records shall be legible, dated and readily identifiable and retained for audits till the end of the project before archiving.

7 Monitoring

EHS Manager shall provide records in weekly/monthly reports and carry out periodic control of waste storage areas on the Site.

Project Company will establish contract agreements with transportation and disposal companies certified by the Ministry of Environment and Urbanization for all different types of waste generated at the Site. Project Company will perform semi-annual audits at the final disposal sites for ensuring environmental standards committed as of the pertinent regulations on control of different types of waste.

Appendix-L Traffic Management Plan

TRAFFIC MANAGEMENT PLAN

Bilkent Ankara Entegre Sağlık Hizmetleri Yatırım ve İşletme Anonim Şirketi (Project Company), established by a consortium consisting of Dia Holding FZCO and İC İçtaş İnşaat Sanayi A.Ş. (the Consortium), has been awarded the contract for construction and operation of Ankara Bilkent Integrated Health Campus Project (Project).

1 Objectives and Scope

Traffic Management Plan for the Project is aiming to establish the responsibilities and requirements for regular traffic rules during construction and operation stages of the project.

The objectives of the Bilkent Integrated Health Complex Project (IHCP) Traffic Safety Management Plan are:

- to prevent and control traffic related injuries and fatalities as related with project construction
- to minimize traffic congestion and maintain safe, fast and easy access/egress by emergency vehicles
- and to minimize fuel consumption at all stages including construction and operation.

2 General Principles

The Project Company will give particular concern on minimizing:

- traffic routes through communities
- distance travelled by employees during construction
- distance over which equipment and goods are transported

This will require Project Company to inform and cooperate with UKOME, the Transportation Coordination Center of Ankara Metropolitan Municipality, to prepare a traffic plan incorporating adequate signaling, selection of alternate routes, etc.

3 Responsibilities

Site Manager is responsible for coordinating all transport and traffic activities at all stages of operations of the Project. Site Manager supports construction staff in the planning and coordination of traffic management activities in timely and efficient manner.

Operations Traffic Manager (OTM) is responsible for managing the planning, development, implementation, revisions, and approvals with the relevant authorities (where required) of the Traffic Management Plan. OTM plays the key role in traffic safety with responsibilities to:

- Support the construction staff in the planning and coordination of traffic management activities in timely and efficient manner.
- Manage the day-to-day operations and work load of the traffic control team.
- Ensure the OH&S needs of all staff, especially traffic control team members are met.
- Manage the delivery of materials and entry of vehicles to site on a day-to-day basis, this includes providing traffic control as required.
- Liaise with construction staff and traffic control teams, in the planning, coordination, and monitoring of traffic operations, and to facilitate the implementation of corrective actions.
- Prepare necessary reports, and maintain incident records and inspections logs.

Public Communication Officer (PCO) represents the Project for all community and stakeholders issues; conducts consultation with stakeholders for traffic planning, and provide an ongoing liaison role and prepares and distributes changed traffic condition information to road users, transport operators and local communities.

Project Manager is the top level person who has ultimate responsibility for the system.

All **environmental and operations staff** on the ground are trained to receive grievance and are responsible to convey to PCO.

In day-to-day traffic, **Operations Traffic Manager** will:

- ensure that access is via only specified access routes defined,
- makes necessary planning as related with timing of traffic flows such that heavy traffic loads on main public roads is avoided,
- makes sure that compliance with local traffic regulations is attained.

3.1 On-site Traffic Management

Particular OHS measures will be different for pedestrian workers, drivers and operators, as indicated below:

- Some construction machines have blind points for operators such as loaders, dozers, cylinders, graders. Especially in cases of kneeling and bending, workers are at risk due to the blind spot. Thereby, operators shall use signaler or watchmen when using such equipment.
- Pedestrian workers shall be kept away from places that heavy-duty machines works fast.
- Pedestrian workers shall be reserved special places divided with barricades where the heavy duty machines works fast. A signaler must be ready to organize the movement for pedestrian workers.
- Signs will be placed on the equipment to warn operators and workers in the field.
- Civil entrance shall be blocked except for operators of construction machines.
- Drivers and operators of equipment will be trained to communicate with pedestrian workers, use of standard signs and labels, recognize dangerous situations on time and respective measures, and on the maneuvering limitations of vehicles and equipment as well as awareness of blind points.

3.2 Off-site Traffic Management

Off-site Traffic Management measures during construction stage will comprise of following measures:

- Trucks and vehicles will be equipped with silencers in order to prevent noise.
- Drivers will be trained to avoid making unnecessary noise.
- Vehicles will be covered on the top in order to prevent dust generation.
- Trucks and wheels will be washed regularly in order to prevent mud on state roads.
- Overloading of the trucks will be avoided.
- Drivers will be required to comply with the Turkish Traffic Legislation.
- Warning signs will be placed at roads and crossings as necessary.
- All vehicles will use snow tires during the winter months.

Off-site Traffic Management measures during operation stage will be planned in coordination with the UKOME (Transportation Coordination Center under the Ankara Metropolitan Municipality).

The two heliports on the Site will be used based on permits to be granted by General Directorate of Civil Aviation.

4 Regular Trainings

OTM ensures that all drivers are trained in accordance with driver training requirements. OTM approves project driving certificates for each driver and for each type of vehicle based on drivers' skills and knowledge of driving rules and other contents of driving training.

Regular trainings include topics related with:

- Project EHS Requirements
- Driver training
- Project EMP Requirements

5 Road and Vehicle Maintenance

Project Company is responsible for monitoring the condition of the roads used by project traffic.

OTM is responsible for monitoring condition of roads used by project traffic and for ensuring that they are maintained in a condition that is at least as good as the condition they were before the start of construction to the satisfaction of authorities and landowners.

OTM makes sure that all vehicles are maintained in accordance with the manufacturers' specifications. This includes compliance of vehicles with all safety related specifications and maintenance of vehicles to manufacturer specifications.

6 Community Relations and Community Safety

Site Manager ensures that all traffic management measures are planned, implemented and maintained in accordance with day-to-day users of the traffic routes. OTM is responsible for informing public at all stages where adverse impacts of traffic may occur.

7 Monitoring During Operation

Traffic management plans will be implemented and updated regularly as site demands change. Monitoring will be based on daily observation of traffic congestions and complaints of staff and visitors.