



# Environmental & Social Management System

## Biodiversity Management Plan

<b>Biodiversity Management Plan</b>		
Effective Date: 01.04.2016	Document Number: OMAS-ESMS-BIO-PLN-0001	Rev: 1

## TABLE OF CONTENTS

<b>1</b>	<b>INTRODUCTION</b> .....	<b>4</b>
1.1	DOCUMENT NUMBER .....	4
1.2	PURPOSE.....	4
1.3	APPLICATION.....	4
1.4	COMMENCEMENT .....	4
1.5	AUTHORITY AND MANAGEMENT .....	4
<b>2</b>	<b>SCOPE</b> .....	<b>5</b>
2.1	SCOPE OF THIS MANAGEMENT PLAN .....	5
2.2	OVERLAPS WITH OTHER MANAGEMENT PLANS .....	5
<b>3</b>	<b>ROLES AND RESPONSIBILITIES</b> .....	<b>6</b>
3.1	KEY ROLES AND RESPONSIBILITIES FOR MANAGEMENT PLAN IMPLEMENTATION .....	6
3.2	KEY INTERFACES.....	7
<b>4</b>	<b>PROJECT STANDARDS</b> .....	<b>7</b>
4.1	APPLICABLE TURKISH NATIONAL STANDARDS .....	7
4.2	TURKISH EIA REQUIREMENTS .....	8
4.3	OTHER COMMITMENTS TO AND REQUIREMENTS OF TURKISH GOVERNMENT AUTHORITIES .....	8
4.4	APPLICABLE INTERNATIONAL STANDARDS AND GUIDELINES .....	8
4.5	APPLICABLE CENTERRA AND OMAS STANDARDS, POLICIES AND PROCEDURES .....	9
4.6	OTHER INDUSTRY GUIDELINES WITH WHICH OMAS HAS COMMITTED TO COMPLY .....	9
4.7	SUMMARY OF APPLICABLE PROJECT STANDARDS .....	9
<b>5</b>	<b>MITIGATION MEASURES AND MANAGEMENT CONTROLS</b> .....	<b>9</b>
5.1	SUMMARY .....	9
<b>6</b>	<b>IMPLEMENTATION SCHEDULE</b> .....	<b>15</b>
6.1	REVIEW AND REVISION OF THIS MANAGEMENT PLAN .....	15
<b>7</b>	<b>MONITORING</b> .....	<b>15</b>
7.1	OVERVIEW OF MONITORING REQUIREMENTS .....	15
7.2	MONITORING REQUIREMENTS WITHIN THE TURKISH EIA .....	15
7.3	KEY MONITORING ACTIVITIES.....	16
7.4	KEY PERFORMANCE INDICATORS .....	21
<b>8</b>	<b>TRAINING</b> .....	<b>21</b>
8.1	OVERVIEW .....	21
8.2	INDUCTION TRAINING .....	22
8.3	JOB-SPECIFIC TRAINING .....	22
8.4	OTHER TRAINING REQUIREMENTS .....	22
<b>9</b>	<b>AUDIT AND REPORTING</b> .....	<b>22</b>
9.1	AUDITING .....	22
9.2	EXTERNAL AUDITING .....	22
9.3	RECORD KEEPING .....	22
<b>10</b>	<b>DOCUMENT CONTROL</b> .....	<b>22</b>

<b>Biodiversity Management Plan</b>		
Effective Date: 01.04.2016	Document Number: OMAS-ESMS-BIO-PLN-0001	Rev: 1

**Tables**

Table 1: Key Roles and Responsibilities .....	6
Table 2: Environmental Laws and Regulations Related to Biodiversity .....	8
Table 3: Key Management Controls– Mine Site.....	10
Table 4: Key Management Controls – Powerline .....	13
Table 5: Biodiversity Monitoring Programme In the Turkish EIA.....	15
Table 6: Key Monitoring Measures – Minesite LSA .....	17
Table 7: Key Monitoring Measures – Powerline.....	19
Table 8: Key Performance Indicators and Monitoring Measures .....	21

## Biodiversity Management Plan

Effective Date:  
01.04.2016

Document Number:  
OMAS-ESMS-BIO-PLN-0001

Rev:  
1

### 1 INTRODUCTION

#### 1.1 Document Number

This document is the Biodiversity Management Plan for the Öksüt Gold Project. The document reference number for this Management Plan is OMAS-ESMS-BIO-PLN-001.

#### 1.2 Purpose

The purpose of this Management Plan is to:

- define the scope of the Management Plan and set out applicable management interfaces;
- define roles and responsibilities;
- outline the applicable Project Standards relevant to this Management Plan;
- define Project commitments, operational procedures and guidance relevant to this Management Plan;
- define monitoring and reporting procedures, including Key Performance Indicators;
- define training requirements;
- set out references for supporting materials and information.

#### 1.3 Application

The requirements set out in this Management Plan apply to all OMAS activities throughout the lifecycle of the Öksüt Gold Project, including those carried out by contractors.

This Management Plan is developed in accordance with the requirements of *EBRD PR 6: Biodiversity Conservation and Sustainable Management of Living Natural Resources*. Based on this, OMAS' biodiversity goal is:

*OMAS seeks to ensure that the biodiversity of the Develi region ultimately benefits from the Project's presence in the region. OMAS' goal is to have a net positive impact on biodiversity of the Develi region. OMAS aims to reach this goal during mine closure but will seek opportunities to achieve net positive impact as early as practicable in the project life.*

This Management Plan is based on the OMAS Environmental & Social Management System Framework (OMAS-ESMS-001), which is owned by the OMAS General Manager. Any subsequent changes to the OMAS Environmental & Social Management System (ESMS) Framework may result in changes to this Management Plan.

#### 1.4 Commencement

This Management Plan applies from 1 April 2016.

#### 1.5 Authority and Management

The OMAS General Manager approved this Management Plan on 1 March 2016.

This Management Plan is owned by the OMAS Health, Safety Environment and Training Manager. This Management Plan will be reviewed on a minimum of a six monthly basis during construction and commissioning. During steady state operations, this Management Plan will be reviewed on an annual

## Biodiversity Management Plan

Effective Date:  
01.04.2016

Document Number:  
OMAS-ESMS-BIO-PLN-0001

Rev:  
1

basis to determine whether any changes or updates are required to the plan; unless a more frequent update is required to reflect changing project design or procedures.

Any requests for changes to this Management Plan must be addressed to the owner of this Management Plan and will be subject to appropriate review and approval processes as outlined in the Management of Change (MOC) Procedure set out in the ESMS Framework.

## 2 SCOPE

### 2.1 Scope of this Management Plan

This Management Plan covers all OMAS activities, including contractor activities. Implementation by contractors is addressed in the Contractor Management Framework (OMAS-ESMS-CM-PLN-001).

This Management Plan relates to the potential for OMAS activities to impact on biodiversity within the vicinity of the Project Area, both directly and indirectly. This includes both the mine LSA and powerline LSA):

- The **mine site LSA** is defined by the ecological and geographical boundaries of the Develi mountain range.
- The **powerline LSA** is defined by a 1.5 km buffer around the powerline route centre line.

Particular focus is put on species and habitats identified in the Project ESIA as Priority Biodiversity Features and Critical Habitat.

The key OMAS activity identified as having the potential to impact on biodiversity comprises vegetation clearing and topsoil disturbance during construction. This will impact on a range of plant species identified as Critical Habitat and for which a long-term biodiversity strategy will be developed and implemented through a Biodiversity Action Plan to ensure that in the long-term there is a net gain for impacted Critical Habitat species.

Further information can be found in the ESIA *Chapter 8: Biodiversity*.

### 2.2 Overlaps with other Management Plans

This Management Plan is part of the overall suite of Management Plans developed for the OMAS Project and as described in the ESMS Framework Document (OMAS-ESMS-001).

This Management Plan has overlaps and cross-linkages to a number of other Management Plans which have biodiversity implications, including:

- Air Emissions Management Plan (OMAS-ESMS-AE-PLN-001), particularly in relation to dust emissions from mining activities;
- Noise and Vibration Management Plan (OMAS-ESMS-NV-PLN-001), particularly in relation to noise emissions from mining activities;
- The Livelihood Restoration Framework (OMAS-ESMS-LR-PLN-001), particularly in relation to pastureland management;
- The Water Resources Management Plan (OMAS-ESMS-WR-PLN-001), particularly in relation to management of water resources for the protection of biodiversity values and ecosystem services;
- The Transport Management Plan (OMAS-ESMS-TMP-PLN-001) in relation to animal strikes and deposition of vehicle induced dust;
- The Mine Closure Plan (OMAS-ESMS-MC-PLN-001);

<b>Biodiversity Management Plan</b>		
Effective Date: 01.04.2016	Document Number: OMAS-ESMS-BIO-PLN-0001	Rev: 1

- Biodiversity Offset Strategy (OMAS-ESMS-OFF-PLN-001): in relation to priority biodiversity (PBF) features and critical habitats (CH) that need to be offset in order to reach no net loss/net gain.

### 3 ROLES AND RESPONSIBILITIES

#### 3.1 Key Roles and Responsibilities for Management Plan Implementation

Principal roles and responsibilities for the implementation of this plan are in outlined Table 1 below.

**Table 1: Key Roles and Responsibilities**

Role	Responsibilities
<b>OMAS General Manager</b>	<ul style="list-style-type: none"> <li>• Approval of this Plan and resources required for implementation.</li> </ul>
<b>OMAS Health, Safety Environment and Training Manager</b>	<ul style="list-style-type: none"> <li>• Ensure Project compliance with the Project Standards and other requirements set out in this Plan.</li> <li>• Overall responsibility for Plan scope and implementation.</li> <li>• Development, monitoring and revision of this Plan.</li> </ul>
<b>Environmental Coordinator</b>	<ul style="list-style-type: none"> <li>• Ensure that Biodiversity Action Plan and Biodiversity Offset Strategy are correctly implemented</li> <li>• Ensure compliance of the management and monitoring actions with the applicable legislation and standards</li> <li>• Ensure that biodiversity monitoring is undertaken as set out in the applicable Management Plans and Procedures.</li> <li>• Work with the Community Relations Manager to address any off-site biodiversity issues and/or grievances.</li> </ul>
<b>Biodiversity Advisor</b>	<ul style="list-style-type: none"> <li>• Develop and supervise the implementation of the Biodiversity Action Plan and Biodiversity Strategy.</li> <li>• Support the Environmental Coordinator in the strategic decisions related to the Biodiversity Action Plan and Biodiversity Offset Strategy</li> </ul>
<b>Environmental Engineer</b>	<ul style="list-style-type: none"> <li>• Coordinate and supervise all site activities pertaining to the implementation of this Plan as well as the Biodiversity Action Plan and Biodiversity Offset Strategy</li> <li>• Keep track of monitoring results and other reporting mechanisms and ensure corrective measures are implemented</li> <li>• Interact with the Contractors and instruct them on the implementation of the measures described in this Plan as the Biodiversity Action Plan and Biodiversity Offset Strategy</li> <li>• Stop the work in case of significant incidents or violations of the measures described in this Plan.</li> </ul>
<b>Environmental Technician</b>	<ul style="list-style-type: none"> <li>• Implement specific management and monitoring measures.</li> <li>• Inspect the sites and report on the implementation of the mitigation and monitoring measures by the Contractors.</li> <li>• Report to the Environmental Engineer cases of incidents or violations of the measures described in this Plan.</li> </ul>
<b>Operational Department</b>	<ul style="list-style-type: none"> <li>• Ensure that relevant activities are undertaken in accordance with this</li> </ul>

## Biodiversity Management Plan

Effective Date: 01.04.2016	Document Number: OMAS-ESMS-BIO-PLN-0001	Rev: 1
-------------------------------	--	-----------

Role	Responsibilities
<b>Managers and Principal Contractors</b>	Management Plan and related Procedures. <ul style="list-style-type: none"> <li>• Ensure that department personnel are fully trained in biodiversity conservation practices and requirements.</li> <li>• Ensure incident<sup>1</sup> investigations are undertaken and reported.</li> </ul>
<b>Workplace Supervisors / Superintendents</b>	<ul style="list-style-type: none"> <li>• Provide oversight and conduct routine work area inspections to ensure relevant activities are in accordance with this Management Plan and related Procedures.</li> <li>• Report all hazards, non-conformances and incidents.</li> </ul>
<b>All employees and contractors</b>	<ul style="list-style-type: none"> <li>• Comply with OMAS biodiversity management requirements.</li> <li>• Report any activities which are causing unnecessary biodiversity issues.</li> </ul>

### 3.2 Key Interfaces

Key interfaces in the implementation of this Management Plan (i.e. roles with responsibility for delivering elements of this Management Plan) include:

- OMAS Project Manager, particularly in relation to the implementation of on-site and off-site activities during construction and associated biodiversity conservation actions.
- OMAS Mine Operations Manager, particularly in relation to the implementation of on-site and off-site activities during operation and associated biodiversity conservation actions.
- OMAS Operational Department Managers, particularly in relation to compliance with biodiversity conservation practices and requirements.
- OMAS Community Relations Manager, in relation to community issues related to biodiversity and stakeholder engagement.

## 4 PROJECT STANDARDS

Applicable Standards must be complied with for all Project activities (the “Project Standards”). Project Standards comprise:

- applicable Turkish Standards;
- Turkish EIA requirements;
- other commitments to and requirements of Turkish Government authorities;
- applicable international standards and guidelines;
- applicable Centerra and OMAS standards, policies and procedures;
- other industry guidelines with which OMAS has committed to comply.

### 4.1 Applicable Turkish National Standards

The Turkish *Environmental Law* No. 2872, which came into force in 1983, deals with a very broad range of environmental issues.

---

<sup>1</sup> Incidents are defined by reference to the Project finance documents and OMAS ESMS Framework.

<b>Biodiversity Management Plan</b>		
Effective Date: 01.04.2016	Document Number: OMAS-ESMS-BIO-PLN-0001	Rev: 1

Key relevant environmental laws and regulations related to biodiversity are outlined in Table 2 below.

**Table 2: Environmental Laws and Regulations Related to Biodiversity**

Regulation	Official Gazette
<b>Nature Conservation and Biodiversity</b>	
<i>Regulation on Wildlife Protection and Wildlife Enhancement Areas</i>	08.11.2004, 25637
<i>Forestry Law</i>	31.08.1956; 6831
<i>Law on Fisheries</i>	04.04.1971; 1380
<i>Law on National Parks</i>	09.08.1983; 2873
<i>Law for the Protection of Cultural and Natural Assets</i>	23.07.1983; 2863
<i>Decree-Law Establishing the Special Environmental Protection Agency</i>	19.10.1989; 383
<i>Regulation on Fisheries</i>	10.03.1995; 22223
<i>Regulation for Implementing the Convention on International Trade in Endangered Species of Wild Fauna and Flora</i>	27.12.2001; 24623
<i>Terrestrial Hunting Law</i>	01.07.2003; 4915
<i>Regulation for the Protection of Wetlands</i>	04.04.2014; 28962
<i>Law for the Protection of Animals</i>	24.06.2004; 5199
<i>Regulation on Wildlife Protection and Wildlife Enhancement Areas</i>	08.11.2004, 25637
<i>Law on Protection of Soil and Land Use (No: 5403)</i>	19.07.2005, 25880
<i>Regulation on the Implementation of the Law on Protection of Soil and Land Use</i>	15.12.2005, 26024
<i>Regulation on the Collection, Production and Exportation of Natural Flower Bulbs</i>	19.07.2012; 28358
<b>Regulations on Certain Activities</b>	
<i>Regulation on the Obtaining, Processing and Control of the Sand, Gravel and Similar Materials</i>	08.12.2007, 26724
<i>Regulation on the Restoration of the Lands Disturbed by Mining Activities</i>	23.01.2010, 27471
<b>Resources Management</b>	
<i>Regulation on the Improvement of the Energy Sources and the Efficiency in the Energy Usage</i>	25.10.2008, 27035

## 4.2 Turkish EIA requirements

The Turkish EIA has been prepared to meet the requirements of the *Environmental Impact Assessment (EIA) Regulation* this includes an assessment of biodiversity issues within the EIA Permitted Area.

## 4.3 Other Commitments to and Requirements of Turkish Government Authorities

None applicable.

## 4.4 Applicable International Standards and Guidelines

The international standards which OMAS will implement are those set by the European Bank for Reconstruction and Development (EBRD). EBRD *Performance Requirement 6: Biodiversity Conservation and Sustainable Management of Natural Living Resources* (2014) sets out biodiversity management requirements.

A summary of EBRD requirements is set out in the ESIA in *Chapter 8: Biodiversity*.

## Biodiversity Management Plan

Effective Date:  
01.04.2016

Document Number:  
OMAS-ESMS-BIO-PLN-0001

Rev:  
1

### 4.5 Applicable Centerra and OMAS Standards, Policies and Procedures

None applicable.

### 4.6 Other industry guidelines with which OMAS has committed to comply

None applicable.

### 4.7 Summary of Applicable Project Standards

OMAS will comply with the more stringent of national standards, applicable EBRD requirements and applicable Centerra Standards, with these more stringent standards representing the Project Standards.

The ESIA, and this Management Plan, is based on the Turkish EIA prepared to comply with Turkish regulatory requirements. The ESIA and this Management Plan goes beyond the approach adopted for the Turkish EIA in order to meet EBRD requirements. Where additional impacts have been identified, or mitigations proposed, these are in addition to those set out in the Turkish EIA and form additional voluntary commitments by OMAS and do not replace the core regulatory requirements as set out in the Turkish EIA.

## 5 MITIGATION MEASURES AND MANAGEMENT CONTROLS

### 5.1 Summary

This Management Plan is supported by the following procedures and guidelines, which present more details on specific aspects of the day-to-day biodiversity management activities at OMAS:

- Biodiversity Offset Strategy for the Project to ensure a net positive impact on Critical Habitat over the full life of the Project and into the Closure phase;
- Biodiversity Action Plan for the Project to set out the specific actions required in order to implement the Biodiversity Offset Strategy.

Other procedures may be developed, as required, to support this Biodiversity Management Plan in addition to those mentioned above. Tables 3 and 4 below present the key management controls that OMAS will implement during the different phases of the Project.

## Biodiversity Management Plan

Effective Date:  
01.04.2016

Document Number:  
OMAS-ESMS-BIO-PLN-001

Rev:  
1

**Table 3: Key Management Controls– Mine Site**

Project Phase	ID	Topic/Aspect	Control Description	Responsible parties	Means of verification
Construction	BIO 01	Setting aside areas	On-site conservation of flora species determining Priority Biodiversity Features and Critical Habitat will be provided by setting aside specific fenced areas where soil and vegetation will be preserved and access will not be permitted;	Environmental Coordinator (OMAS)	Audit and inspection
Construction	BIO 02	Salvaging vulnerable flora	<p>Individuals of flora species determining Priority Biodiversity Features and Critical Habitat directly impacted by the project within the EIA Permitted Area will be identified and salvaged.</p> <p>The salvaged individuals will be grown in a greenhouse and used for propagation in order to create a pool of individuals to be used for future restoration and offset measures.</p> <p>During construction a greenhouse will be set up off-site.</p> <p>During operations, the greenhouse may be moved within the Project fence line, using a previous disturbed area, based on the results of the success of propagation and on the species acclimation</p>	Environmental Coordinator (OMAS)	Audit and inspection
Construction	BIO 03	Vegetation clearing and topsoil removal	<p>Vegetation clearing and removal/disturbance of topsoil removal at the Güneytepe open pit site will be scheduled (to start in mid-August 2016) to allow for the salvaging of the vulnerable flora species directly impacted. Species (and flowering periods) of key species include:</p> <ul style="list-style-type: none"> <li>• <i>Verbascum luridiflorum</i> (mid-May to mid-June)</li> <li>• <i>Campanula stricta</i> var. <i>aladagensis</i> (mid-July to mid-August)</li> </ul>	Environmental Coordinator (OMAS)	Audit and inspection
Construction	BIO 04	Vegetation clearing and topsoil removal	<p>Vegetation clearing and removal/disturbance of topsoil removal at the Heap Leach Facility (and associated ponds) site will be scheduled (to start in mid-August 2016) to allow for the salvaging of the endangered and critically endangered flora species directly impacted. Species (and flowering periods) of key species include:</p> <ul style="list-style-type: none"> <li>• <i>Astragalus vestitus</i> ssp. nov. (mid-May to mid-June)</li> <li>• <i>Cirsium aytatchii</i> (mid-July to the third week of August)</li> </ul>	Environmental Coordinator (OMAS)	Audit and inspection
Construction	BIO 05	Topsoil removal	Topsoil to be stripped from the growing sites of the two flora species determining Critical Habitat ( <i>Astragalus vestitus</i> ssp. nov. and <i>Cirsium</i>	Environmental Coordinator (OMAS)	Audit and inspection

## Biodiversity Management Plan

Effective Date:  
01.04.2016

Document Number:  
OMAS-ESMS-BIO-PLN-001

Rev:  
1

Project Phase	ID	Topic/Aspect	Control Description	Responsible parties	Means of verification
			<i>aytatchii</i> ) should be segregated from other topsoil salvage and kept for revegetation of these species.		
Construction	BIO 06	Seed collection	Seed collection targeting flora species determining Priority Biodiversity Features and Critical Habitat will be undertaken to create a seed bank to be used for future restoration and offset actions	Environmental Coordinator (OMAS)	Audit and inspection
Construction	BIO 07	Encroachment	The identified growing sites of flora species determining Priority Biodiversity Features and Critical Habitat identified within the EIA Permitted Area and will be fenced to prevent encroachment into identified areas.	Environmental Coordinator (OMAS)	Audit and inspection
Construction	BIO 08	Driving off-road	All vehicles will drive on designated routes unless otherwise authorised.	Health & Safety and Training Manager (OMAS)	Audit and inspection
Construction	BIO 09	Nesting birds	Prior to the start of the bird nesting season (mid-late April), OMAS will install "bird repellent tape" to deter birds from nesting in construction areas.	Environmental Coordinator (OMAS)	Audit and inspection
Construction	BIO 10	Pre-construction surveys	OMAS will use a qualified and experienced ecologist to undertake pre-construction surveys in areas prior to vegetation clearance activities. The survey will focus on the identification of fauna species with limited movement that cannot move out of construction areas (e.g. Common Tortoise).  If tortoise nests are observed, the eggs will be collected and kept in a controlled environment (incubator) until hatched and then released back into the local area.  If birds' nests are observed, OMAS will use its best efforts to preserve the identified nests <i>in situ</i> .	Environmental Coordinator (OMAS)	Walkover survey
Construction	BIO 11	Hunting and collecting	Hunting and collection of wild animals, and in particular of <i>Testudo graeca</i> (Common Tortoise) by OMAS staff and contractors will be strictly prohibited	Environmental Coordinator (OMAS)	Audit and inspection
Construction	BIO 12	Underpasses	Culverts with specific design conducive to use by reptiles, and in particular tortoise, will be installed under the access road in a sufficient number to minimize the effects of habitat fragmentation.	Environmental Coordinator (OMAS)	Audit and inspection
Construction	BIO 13	Blasting times	Rock blasting activities will be performed during the day time and at regular times to facilitate local fauna habituation to noise and avoid disturbance during critical hours for many species (dusk and dawn).	Environmental Coordinator (OMAS)	Audit and inspection
Construction	BIO 14	Traffic management	Install speed limit and animal crossing signs on the access road and enforce the speed limit (40 km/hr) along the access road.	Health & Safety and Training Manager (OMAS)	Audit and inspection

## Biodiversity Management Plan

Effective Date:  
01.04.2016

Document Number:  
OMAS-ESMS-BIO-PLN-001

Rev:  
1

Project Phase	ID	Topic/Aspect	Control Description	Responsible parties	Means of verification
			If persistent violation of speed limits is recorded, install speed bumps and noise stripes on straight sections of the access road.		
Construction	BIO 15	Invasive species	If invasive species are observed, an appropriate eradication program will be developed and implemented.	Environmental Coordinator (OMAS)	Audit and inspection
Construction	BIO 16	Topsoil Management	Topsoil will be stored in designated stockpiles within the EIA Permitted Area and will be used for progressive restoration and rehabilitation after the closure of the mine.  Topsoil will be stored in accordance with the provisions of the Regulation on the Control of Excavation Soil and Construction and Demolition Waste (2004) and the conditions in the Forest Rehabilitation Plan.	Environmental Coordinator (OMAS)	Audit and inspection
Construction	BIO 17	Progressive restoration	Progressive restoration of areas cleared during construction but not subject to the placement of permanent facilities (e.g. laydown areas, pipeline route) will occur, with the goal of producing a stable vegetative cover to minimize erosion, dust and spreading of invasive alien species.	Environmental Coordinator (OMAS)	Audit and inspection
Operation	BIO 18	PLS ponds	The pregnant leach solution (PLS) ponds will be covered with floating balls in order to cover the surface and prevent birds and other wildlife from using the ponds.	Environmental Coordinator (OMAS)	Audit and inspection
Operation	BIO 19	Progressive restoration	Progressive restoration and rehabilitation of areas disturbed during construction and during exploration phases will continue during operation and it will focus on the reforestation of suitable areas not subjected to the placement of permanent facilities using tree species typical of "Irano-Anatolian steppe <i>Quercus</i> woods" (G1.7A.2).	Environmental Coordinator (OMAS)	Audit and inspection
Closure	BIO 20	Closure Planning	Suitable local species, in harmony with the natural habitat, will be identified and used in the closure plan. Studies on reclamation activities conducted during operation phase on temporary facilities, road sides, pipeline route and others will be used to determine the optimum reclamation techniques and plant species.	Environmental Coordinator (OMAS)	Audit and inspection

## Biodiversity Management Plan

Effective Date:  
01.04.2016

Document Number:  
OMAS-ESMS-BIO-PLN-001

Rev:  
1

**Table 4: Key Management Controls – Powerline**

Project Phase	ID	Applicability/ Activity	Control Description	Responsible parties	Means of verification
Construction	BIO 21	Contractor Management	OMAS will ensure that all relevant commitments set out in the ESMPs are set out in the Construction Contractor contract and are appropriately monitored and enforced by OMAS.	OMAS Construction Project Manager	Audit and inspection
Construction	BIO 22	Vegetation disturbance	Inadvertent disturbance to the adjacent vegetated areas during construction will be avoided through clear demarcation of the construction areas	Construction Contractor	Audit and inspection
Construction	BIO 23	Traffic management	All vehicles will drive on designated routes unless otherwise authorised	Construction Contractor	Audit and inspection
Construction	BIO 24	Bird nesting	Prior to the start of the bird nesting season (mid-late April), OMAS will install “bird repellent tape” to deter birds from nesting in construction areas.	Construction Contractor	Audit and inspection
Construction	BIO 25	Bird nesting	If, during pre-construction surveys, nests are observed, OMAS will use its best efforts to preserve the identified nests <i>in situ</i> .	Construction Contractor	Audit and inspection
Construction	BIO 26	Pre-construction surveys	<p>The Construction Contractor will use a qualified and experienced ecologist to undertake pre-construction surveys in areas prior to vegetation clearance activities. The survey will focus on the identification of protected and vulnerable flora species and fauna species with limited movement that cannot move out of construction areas (e.g. Common Tortoise). If individuals are identified, they will be collected by the ecologist and moved to a similar undisturbed site as close as possible to where it was found.</p> <p>The pre-construction survey will also search for tortoise nests. If tortoise nests are observed, the eggs will be collected and kept in a controlled environment (incubator) until hatched and then released back into the local area.</p>	Construction Contractor	Audit and inspection
Construction	BIO 27	Restoration	Restoration areas cleared during construction but not subjected to the placement of permanent facilities (e.g. laydown areas) will occur, with the goal of producing a stable vegetative cover to minimize erosion, dust and spreading of invasive alien species. The restoration of these areas is also expected to produce positive direct effects on local flora, fauna and habitats.	Construction Contractor	Audit and inspection
Construction	BIO 28	Bird mitigation measures	OMAS is committed to minimizing its impacts to the Sultan Sazlığı Ramsar site and National Park. Accordingly, OMAS will negotiate the implementation of the bird diverters and other mitigation measures to the maximum extent practicable with TEIAS and the powerline construction	General Manager (OMAS)	Audit and inspection



## Biodiversity Management Plan

Effective Date:  
01.04.2016

Document Number:  
OMAS-ESMS-BIO-PLN-001

Rev:  
1

Project Phase	ID	Applicability/ Activity	Control Description	Responsible parties	Means of verification
			contractors. If these measures are not technically feasible, then OMAS will seek to identify, assess and implement additional conservation actions (adopting a BATNEEC <sup>2</sup> approach) that may include offsets as required in PR6		

<sup>2</sup> BATNEEC = Best available techniques not entailing excessive costs

<b>Biodiversity Management Plan</b>		
Effective Date: 01.01.2016	Document Number: OMAS-ESMS-BIO-PLN-001	Rev: 1

## 6 IMPLEMENTATION SCHEDULE

### 6.1 Review and Revision of this Management Plan

This Management Plan will be reviewed on a minimum of a six monthly basis during construction and commissioning. During steady state operations, this Management Plan will be reviewed on an annual basis and any necessary revisions made to reflect the changing circumstances or operational needs of OMAS. Revision of this Management Plan will be the responsibility of the OMAS HSE & Training Manager, who is custodian of this Plan.

If material changes to operating procedures are required (as identified through the MOC Procedure contained within the OMAS ESMS Framework) this Management Plan may be updated on an “as required” basis.

Any revisions to this Management Plan will be uploaded to the OMAS Document Control Centre to ensure that all OMAS staff have access to the latest version of this Management Plan.

## 7 MONITORING

### 7.1 Overview of Monitoring Requirements

The Monitoring measures that are to be implemented during the operations phase to assess compliance with Project Standards (see *Section 4: Project Standards*) are described in the section.

In the event that monitoring identifies non-conformance with Project Standards, these will be investigated and appropriate corrective actions identified (see Component 12 Non-conformance incident and action management, OMAS ESMS Framework).

### 7.2 Monitoring Requirements within the Turkish EIA

The Turkish EIA sets out the following requirements related to biodiversity monitoring:

- *Monitoring of the wild life will be carried out concurrently with the monitoring of the flora [see table below]. Observations made will be recorded and periodic checks will be made to determine whether any change in the number and/or distribution of the species has occurred over the time or not.*

**Table 5: Biodiversity Monitoring Programme In the Turkish EIA**

Component	Monitoring Location	Monitoring Method	Frequency	Parameters	Purpose
Plantation	Project site, vegetable soil storage areas	Site observations	Yearly	Plant species, soil thickness	Cultivate such identified appropriate species on rehabilitated areas
Wildlife	Project site	Site observations	Yearly	Wild life species	Record and prevent potential harms of the project to the wild life

<b>Biodiversity Management Plan</b>		
Effective Date: 01.01.2016	Document Number: OMAS-ESMS-BIO-PLN-001	Rev: 1

### **7.3 Key Monitoring Activities**

In addition to the monitoring requirements set out in the Turkish EIA, further monitoring requirements are set out in the ESIA.

The combined monitoring requirements from the Turkish EIA and the ESIA are set out below.

Additional monitoring measures may be added based on the goals identified in the preparation of the Biodiversity Action Plan, Biodiversity Offset Plan and Closure Plan. This will be based on quantitative data and will be focused on measuring progress towards achievement of closure goals.

## Biodiversity Management Plan

Effective Date:  
01.04.2016

Document Number:  
OMAS-ESMS-BIO-PLN-001

Rev:  
1

**Table 6: Key Monitoring Measures – Mine Site**

Phase	ID	Topic	Methods	Periodicity	Location	Comments
Construction	BIOm 01	Footprint creep	Inspection	Weekly	Construction sites	The development of the construction sites should be monitored weekly in order to avoid footprint creep within and outside the fenceline.
Construction	BIOm 02	Fauna species	Walk-over survey	Every two weeks during the nesting period	Footprints	The construction sites will be checked periodically to confirm the permanence of the tape to scare birds and the effectiveness of the technique.
Construction	BIOm 03	Fauna species	Walk-over survey	Once prior to construction	Footprints	Pre-construction wildlife and nest survey will be performed, timed in accordance with the nesting season. The survey methodology of the survey is set out in the Biodiversity Action Plan
Construction	BIOm 04	Culverts	Inspection	Every three months	Access Road	Culverts will be monitored on a quarterly basis to avoid blockage or erosion that would made them unsuitable for use by wildlife
Construction	BIOm 05	Erosion	Inspection	Monthly	Construction sites	The presence of erosion will be monitored monthly with particular regards for steep slopes, river crossing and areas cleared of vegetation. Signs of erosions in areas characterized by vulnerable flora species or threatened habitats on-site and within 100 m from the facilities will be monitored monthly.
Construction	BIOm 06	Fauna species	Reporting	Yearly	Construction sites	All incidents by OMAS vehicles and Contractor vehicles involving wildlife, or where live or dead animals are observed, will be recorded. Additional mitigation measure to avoid animal mortality will be taken if needed to minimize wildlife incidents
Construction	BIOm 07	Invasive flora species	Inspection	Monthly	Construction sites	The presence and spread of invasive flora species will be monitor monthly during the vegetative season, with particular attention to disturbed areas.
Construction	BIOm 08	Top soil savaging	Inspection	During topsoil	Construction sites	Topsoil salvaging operations and storage condition will be inspected in order to guarantee accordance with the provisions of the Regulation on the Control of Excavation Soil and Construction and Demolition Waste

## Biodiversity Management Plan

Effective Date: 01.04.2016	Document Number: OMAS-ESMS-BIO-PLN-001	Rev: 1
-------------------------------	---	-----------

Phase	ID	Topic	Methods	Periodicity	Location	Comments
				savaging		(2004) and the conditions in the Forest Rehabilitation Plan
Construction	BIOm 09	Restored areas	Inspection	Monthly	Restored areas	Areas subject to progressive restoration will be inspected monthly for the first year during the plant growing season in order to allow for prompt corrective actions if restoration is identified not to be effective. The monitoring will aim to assess the development of the planted/seeded species, the vegetation cover and the presence of stress or erosion signs.
Construction	BIOm 10	Footprint creep	Inspection	Daily	Vulnerable flora species area and threatened habitat	Inadvertent disturbance to on-site conservation areas for flora species determining Priority Biodiversity Features and Critical Habitat and threatened habitats adjacent to construction sites should be monitored daily.
Construction	BIOm 11	Salvaged individuals	Inspection	Twice a week	Greenhouse	Salvaged individuals of flora species determining Priority Biodiversity Features and Critical Habitat will be kept in a controlled environment for the ex-situ cultivation and propagation and monitored twice a week
Construction	BIOm 12	Seed collection	Laboratory tests	Once after seed collection	Laboratory	The number of seeds collected, their viability and growing conditions will be monitored after collection in order to assess the need of additional collection campaigns
Construction	BIOm 13	Dust	Inspection	Monthly	Vulnerable flora species and threatened habitat areas within 100 m from the facilities	Dust accumulation in areas characterize by flora species determining Priority Biodiversity Features and Critical Habitat or threatened habitats on-site and within 100 m from the facilities will be monitored monthly during construction. If excessive dust accumulation or stress sign are noticed, additional location specific mitigation measures will be applied (e.g. additional dust management measures, temporary dust screens, water spray to clean plants)
Construction	BIOm 14	Fauna species	Walk-over survey	Once prior to construction	Entire Mine Site LSA	An additional Egyptian vulture ( <i>Neophron percnopterus</i> ) nest survey will be performed in the rocky cliff areas will be performed prior to pit development in order to exclude the presence of critical habitats for this species.

## Biodiversity Management Plan

Effective Date: 01.04.2016	Document Number: OMAS-ESMS-BIO-PLN-001	Rev: 1
-------------------------------	---	-----------

Phase	ID	Topic	Methods	Periodicity	Location	Comments
Operation	BIOm 15	Footprint creep	Inspection	Monthly	Operation sites	During operation the development of the sites should be monitored monthly in order to avoid footprint creep outside of designated areas
Operation	BIOm 16	Erosion	Inspection	Every three months	Vulnerable flora species and threatened habitat areas within 100 m from the facilities	Signs of erosions or water stress in areas characterize by flora species determining Priority Biodiversity Features and Critical Habitat or threatened habitats on-site and within 100 m from the facilities will be monitored every three month in the vegetative season during operation. If erosion or stress signs are noticed, additional site-specific mitigation measures will be applied (e.g. erosion control mat, additional engineering measures, additional culverts or channels for storm water).

**Table 7: Key Monitoring Measures – Powerline**

Phase	ID	Topic	Methods	Periodicity	Location	Comments
Construction	BIOm 17	Fauna species	Walk-over survey	Every two weeks during the nesting period	Construction footprint	The construction sites will be checked periodically to confirm the presence of “bird scaring” tape and to assess the effectiveness of the technique.
Construction	BIOm 18	Fauna species	Walk-over survey	Once prior to construction	Construction footprint	Pre-construction wildlife and nest survey will be performed, timed in accordance with the nesting season. The methodology of the survey is set out in the Biodiversity Action Plan.
Construction	BIOm 19	Erosion	Inspection	Monthly	Construction sites	The presence of erosion phenomena should be monitored monthly with particular regards for steep slopes, river crossing and areas cleared of vegetation.
Construction	BIOm 20	Fauna species	Reporting	Ongoing	Construction sites	Accidents involving wildlife or the observation of live animal or carcasses along the powerline access tracks will be monitored. Additional mitigation measure to avoid road kill will be taken if needed.
Construction	BIOm 21	Birds survey	Walk-over survey	Once prior to construction	Construction sites	Pre-construction monitoring of bird and nest present will be performed along the planned powerline route prior to construction. Bird presence will be monitored using two different techniques: Distribution and Abundance Surveys and Vantage Point Surveys.

## Biodiversity Management Plan

Effective Date: 01.04.2016	Document Number: OMAS-ESMS-BIO-PLN-001	Rev: 1
-------------------------------	---	-----------

Phase	ID	Topic	Methods	Periodicity	Location	Comments
Construction	BIOm 22	Birds survey	Walk-over survey	During the first year	National Park and the Ramsar site	<p>OMAS will help the National Park and the Ramsar site to perform monitoring of bird populations within the wetland area as an “additional conservation measure”. The data collected will be shared with the competent authorities responsible for managing the National Park.</p> <p>If mitigation measures proposed for the powerline during operation (BIO 28) are found not to be technically feasible the monitoring will be performed annually for the entire operation phase.</p>
Operation	BIOm 23	Birds monitoring	Walk-over survey	Weekly during peak migration periods and monthly outside migration periods throughout the life of the project	Along the powerline route that overlaps with the National Park buffer area.	<p>Monitoring of bird presence and bird mortality as per the powerline inspection procedure, will be performed along the portion of the powerline route that overlaps with the National Park buffer area.</p> <p>Bird mortality will be assessed weekly during pick migration periods and monthly outside migration periods by an environmental technician.</p> <p>Bird presence monitoring will be performed every three months by an expert ornithologist. Bird presence will be monitored using two different techniques: distribution and Abundance Surveys and vantage Point Surveys. The data collected will be shared with the competent authorities responsible for managing the National Park.</p>

<b>Biodiversity Management Plan</b>		
Effective Date: 01.04.2016	Document Number: OMAS-ESMS-BIO-PLN-001	Rev: 1

## 7.4 Key Performance Indicators

The table below summarises the key performance indicators and associated key monitoring actions that can be used to assess the progress and effectiveness of proposed mitigation strategies.

**Table 8: Key Performance Indicators and Monitoring Measures**

ID	KPI	Target	Monitoring measure
B-KPI-01	Area of land disturbed which has not been subject to biodiversity assessment and approval by OMAS Environmental Coordinator	100% compliance with assessment and approval requirements	Annual review of Project disturbance areas against latest habitat mapping records and assessment of compliance with permit requirements.
B-KPI-02	Biodiversity Incidents	Minimise and continued improvement in number of reported biodiversity related incidents.	Number of reported biodiversity related incidents per year
B-KPI-03	Community Complaints	Minimise and continued improvement in number of biodiversity related community complaints.	Number of reported biodiversity related community complaints per year
B-KPI-04	Staff Training	100% of employee trained according to their position including environmental management practice	Annual review of training procedures and requirements
B-KPI-05	Pre-construction survey	Minimize direct impacts of mine site and powerline construction on wildlife	Number of translocated individuals/nests
B-KPI-06	Access road wildlife mortality	Minimise and continued improvement in number of incidents related to traffic and access road	Number of reported wildlife mortality incidents due to traffic per year
B-KPI-07	Powerline bird mortality	Minimise the in number of incident related to the powerline	Number of reported bird mortality events related to the powerline per year

## 8 TRAINING

### 8.1 Overview

All necessary training is provided as part of induction training (to provide general awareness) and job-specific training as necessary.

<b>Biodiversity Management Plan</b>		
Effective Date: 01.04.2016	Document Number: OMAS-ESMS-BIO-PLN-001	Rev: 1

## 8.2 Induction Training

All employees of OMAS and Contractors working at the Öksüt Gold Project site will be provided with general induction, site specific induction and a broad range of health, safety and environmental awareness training.

Appropriate Personal Protective Equipment (PPE) will be made available to personnel if required. All relevant personnel will be trained in the use and maintenance of protective equipment.

## 8.3 Job-Specific Training

Specialist training shall be provided to plant operators and key personnel involved in activities which involve land clearance, materials handling and transport activities which may impact plants and wildlife.

## 8.4 Other Training Requirements

General aspects of environmental management will be included in induction training to be provided to all employees.

## 9 AUDIT AND REPORTING

### 9.1 Auditing

Daily inspections will be carried out by operational area superintendents / supervisors covering a broad range of operational aspects.

Any incidents identified during these inspections will be reported to the incident management system (Component 10 of the ESMS).

Conformance will be monitored in accordance with Component 11 of the ESMS (Monitoring and Evaluation).

All incidents and non-conformances will be reported as per the requirements of the OMAS ESMS as described in the OMAS ESMS Framework Document (OMAS-ESMS-001).

### 9.2 External Auditing

Conformance with this plan will be subject to periodic assessment as part of the Centerra audit programme and separately by Project Lenders.

### 9.3 Record Keeping

Records of audits, inspections and incidents will be managed in accordance with OMAS procedures.

## 10 DOCUMENT CONTROL

File Name	Biodiversity Management Plan
Document Number	OMAS-ESMS-BIO-PLN-001
Approval Date	14 <sup>th</sup> March 2016
Version Number	01