

ÖKSÜT: BIODIVERSITY ACTION PLAN (BAP)

No.	Action	Environmental & Social Risks	Requirements	Resources	Timetable	Completion Indicator	Status
PS6/PR6	Biodiversity Conservation and Sustainable Management of Living Natural Resources						
6.1	Biodiversity Management and related staffing - OMAS will contract a biodiversity advisor who will be tasked with implementation of the project's biodiversity plans under supervision of OMAS.	-	PR 1, PR 6.	Internal OMAS resources.	Prior to construction and for the life of the project.	Relevant staff employed and contracted; Updated organisational chart included in the ESMS.	In progress.
6.2	Additional Flora Studies – Within the Mine Site Local Study Area (LSA) ¹ the areas deemed suitable for hosting the flora species determining Priority Biodiversity Features and Critical Habitat (<i>Astragalus vestitus ssp. nov.</i> , <i>Cirsium aytatchii</i> , <i>Verbascum luridiflorum</i> and <i>Campanula stricta var. aladagensis</i>) will be surveyed. PBF and CH will be mapped and their extension (m ²) and abundance (number of individuals) will be estimated. The surveys will take place in the best season for the observation of the target species (i.e. during the flowering period).	-	PR 6 – 7.	Internal OMAS resources. External specialist contractors.	<ul style="list-style-type: none"> mid-May to mid-June 2016: <i>Astragalus vestitus ssp. nov</i> and <i>Verbascum luridiflorum</i>; second week of July to the third week of August 2016: <i>Cirsium aytatchii</i> and <i>Campanula stricta var. aladagensis</i>. 	Maps of distribution within the LSA.	
6.3	Threatened Flora Species Conservation Plan – Based on the additional flora studies and updated on an annual basis and provided to EBRD as an Annex to the AESR.		PR 6 - 7	Internal OMAS resources. External specialist contractors.	Q4 2016, and annually thereafter.	Threatened Flora Species Conservation Plan.	
6.4	Develop Flora Salvage Plan – Based on existing data and setting out detailed plan for the assessment, identification,		PR 6 – 6, 11, 13, 15, 16, 17, 18.	Internal OMAS resources.	Prior to start of construction.	Flora Salvage Plan.	

¹ the ecological and geographical boundaries of the Develi mountain range

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	salvage and propagation of PBF and CH species. This will include evaluation of the salvaging of young Oak individuals in the area of the Güneytepe mine pit.			External specialist contractors.			
6.5	<p>Implement Flora Salvage Plan - Flora individuals belonging to species determining PBF and CH (<i>Astragalus vestutus ssp. nov.</i>, <i>Cirsium aytatchii</i>, <i>Verbascum luridiflorum</i> and <i>Campanula stricta var. aladagensis</i>) directly impacted by the project will be identified and salvaged prior to construction. The data regarding date, location, source populations and number of individuals collected will be recorded.</p> <p>This will include the potential salvage of young Oak individuals in the area of the Güneytepe mine pit. Locations for potential reforestation will be identified and evaluated. Any areas used for reforestation will be monitored monthly in the first year after translocation. For the next two years areas will be monitored every three months.</p> <p>In case signs of stresses and/or other problems are observed during the monitoring, adaptive management measures will be put in place (e.g. watering, fencing etc.).</p>	-	PR 6 – 6, 11, 13, 15, 16, 17, 18.	Internal OMAS resources. External specialist contractors.	<p>Salvaging operations:</p> <ul style="list-style-type: none"> • mid-May to mid-June 2016: <i>Astragalus vestitus ssp. nov</i> and <i>Verbascum luridiflorum</i>; • second week of July to the third week of August 2016: <i>Cirsium aytatchii</i> and <i>Campanula stricta var. aladagensis</i>; • Oaks - before the Güneytepe mine pit development (August 2016). 	<p>Flora Salvage records.</p> <p>Number of oak salvaged and translocated.</p> <p>Results of the Flora Salvage Plan will be reported in the Threatened Flora Species Conservation Plan.</p>	
6.6	<p>On-site conservation of flora and vegetation - Within the mine fenceline, on-site conservation of PBF and CH flora species (<i>Astragalus vestutus ssp. nov.</i>, <i>Cirsium aytatchii</i>, <i>Verbascum luridiflorum</i> and <i>Campanula stricta var. aladagensis</i>) and vegetation (Irano-Anatolian steppe Quercus woods, G1.7A.2) by identifying and fencing areas where soil and vegetation will be preserved and access will not be permitted.</p> <p>This will be based on existing information and additional flora studies (see 6.2).</p>	-	PR 6 – 6, 11, 13, 15, 16, 17, 18.	Internal OMAS resources. External specialist contractors.	Prior to vegetation cleaning (May 2016).	On-site conservation areas fenced off; photos included in the Threatened Flora Species Conservation Plan.	

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6.7	<p>Flora seed collection – Seeds of PBF and CH species will be collected during the appropriate season. Locations will be identified from the additional flora studies (see 6.2).</p> <p>The seed collection and conservation will follow the best practice indicated by the Millennium Seed Bank (http://www.kew.org/kew-science/people-and-data/resources-and-databases/millennium-seed-bank-resources).</p> <p>The number of seeds collected, their viability and growing conditions will be tested after collection. Part of the seeds collected will be used as propagation materials during trial cultivations. The need of additional seed collection campaigns in order to obtain a sufficient number of individual for the offset measures will be assessed based on the results of the collection and cultivation trials.</p>	-	PR 6 – 6, 11, 13, 15, 16, 17, 18.	Internal OMAS resources. External specialist contractors.	<p>Seed collection:</p> <ul style="list-style-type: none"> in mid-July targeting <i>Astragalus vestitus ssp. nov.</i> and <i>Verbascum luridiflorum</i>; in mid/late August targeting <i>Campanula stricta var. aladagensis</i>; in mid-September targeting <i>Cirsium aytatchii</i>. 	<p>Seed collected and separately stored for each sub population.</p> <p>Success of this programme will be reported in the Threatened Flora Species Conservation Plan.</p>	
6.8	<p>Flora cultivation - The salvaged flora individuals of PBF and CH species will be temporary grown in a controlled environment (greenhouse established close to Develi office) during construction. During operation, the decision of moving the greenhouse within the project fenceline, using some of the space occupied by temporary facilities, will be made based on the results of the cultivation and on the species acclimation.</p> <p>Multiplication trial programs will be elaborated based on the species characteristics and on the number of individual and viable seeds collected.</p> <p>Cultivated individuals will be monitored at least weekly in order to check their status, soil moisture, pests, invasive species etc.</p>	-	PR 6 – 6, 11, 13, 15, 16, 17, 18.	Internal OMAS resources.	Starting from May 2016.	<p>Establishment of a greenhouse.</p> <p>Results of the programme will be reported in the Threatened Flora Species Conservation Plan.</p>	
6.9	<p>Threatened habitat additional studies – The distribution of the threatened habitat “Irano-Anatolian steppe Quercus woods” (G1.7A.2) will be further investigated, including the area to be occupied by the Güneytepe mine pit.</p> <p>A representative survey plot of 20x20 m will be established and surveyed within the Mine Site LSA. Data on GPS plot</p>	-	PR 6 – 7, 13, 16, 18.	Internal OMAS resources. External specialist contractors.	During the vegetative season: mid-May to June to mid-August 2016.	Results of the programme will be reported in the Threatened Flora Species	

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	location, vegetation strata, estimated tree density, dominant and characteristic species, morphology, soil, conservation status and potential threats will be collected together with photographic documentation. These data will help to identify potential offset measures and sites within the Mine Site LSA.					Conservation Plan.	
6.10	Threatened habitats restoration - Progressive restoration and rehabilitation of areas disturbed during construction and exploration will focus on reforestation of suitable areas not subjected to the placement of permanent facilities using tree species typical of “Irano-Anatolian steppe Quercus woods” (G1.7A.2). Additional areas suitable for the restoration, enhancement or protection of the oak forest will be identified in the Biodiversity Offset Management Plan to achieve a no net loss or preferably a net gain of this PBF.	-	PR 6 – 6, 11, 13, 15, 18	Internal OMAS resources. External specialist contractors.	Starting from September 2016.	Areas restored; reported annually in AESR.	
6.11	Common tortoise survey – Prior to vegetation removal an ecologist appointed by the Construction Contractor will perform a survey to identify the presence and location of individuals and nests of <i>Testudo graeca</i> . If individuals are observed they will be collected by the ecologist and translocated to undisturbed suitable sites identified in advance within the LSA. Considering the altitude of the project location, the presence of tortoise nests is unlikely, however, if nests are observed, the eggs will be collected and kept in a controlled environment (incubator) until hatched and then released back into the LSA.	-	PR 6 – 7, 11, 13, 15, 18	Internal OMAS resources. External specialist contractors.	Prior to vegetation removal (June 2016).	Survey records included in 2017 AESR.	
6.12	Tortoise friendly culverts - A total of 28 culverts will be installed along the access road. To facilitate the use of the crossing points, fencing or alternatively planting of dense shrubs should be considered. Culverts will be monitored regularly (once every three months)	-	PR 6 – 11, 13, 15, 18.	Internal OMAS resources. External specialist contractors.	During access road design and implementation (from January 2016).	Culvert construction. Monitoring records included in AESR.	In progress.

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6.13	Egyptian vulture nest survey - An additional Egyptian vulture (<i>Neophron percnopterus</i>) nest survey will be performed in the rocky cliff areas prior to development of open pits.	-	PR 6 – 7, 11, 19, 20.	Internal OMAS resources. External specialist contractors.	May 2016.	Survey records included in 2017 AESR.	
6.14	Additional bird studies in the Sultan Sazlığı National Park - OMAS will assist the National Park and the Ramsar site to monitor species of concern bird populations within the wetland area as an “additional conservation measure”. These surveys will record numbers and distribution of breeding, wintering and migrant birds using a selection of habitats representative of the Sultan Sazlığı National Park. This monitoring, together with the monitoring performed along the powerline route during construction and operation, will help to better assess the conservation status of the area and bird species and the potential impacts deriving from the project. These data will help inform the Company’s adaptive management strategy and allow the evaluation of additional mitigation measures.	-	PR 6 – 7, 11, 19, 20.	Internal OMAS resources. External specialist contractors.	Spring survey: April 2016. Summer survey: July 2016. Autumn survey: October 2016. Winter survey: January 2017.	Survey records included in 2017 AESR.	
6.15	Additional bird studies along the planned powerline route Monitoring for species of concern birds and nests will be performed along the planned powerline route prior to construction. This monitoring, together with the monitoring performed within the National Park, will help to better assess the conservation status of the area and the potential impacts deriving from the project. These data will help inform the Company’s adaptive management strategy and allow the evaluation of additional mitigation measures.	-	PR 6 – 7, 11, 19, 20.	Internal OMAS resources. External specialist contractors.	April 2016.	Survey records included in 2017 AESRs.	
6.17	Mitigation measures for birds - OMAS is committed to minimizing its impacts on 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 TEİAŞ and	-	PR6 – 5, 11, 13, 15, 16, 17, 18.	Internal OMAS resources. External specialist contractors.	Prior to / during construction (Q2 2016 – Q2 2017).	Installation of bird flight diverters and other mitigation measures	

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	the powerline construction contractors. If these measures are not technically feasible, then OMAS will seek to identify, assess and implement additional conservation actions (adopting a BATNEEC ² approach) that may include offsets as required in PR6.					identified in the ESIA. Report success of this programme in AESR.	
6.18	Biodiversity Offset Strategy (BOS) – develop a Biodiversity Offset Strategy to meet the no net loss/net gain requirements of PR6.	-	PR6 – 5, 11, 13, 15, 16, 17, 18.	Internal OMAS resources. External specialist contractors.	March 2016	Biodiversity Offset Strategy document provided to EBRD for review and approval.	Completed
6.19	Biodiversity Offset Management Plan (BOP) – develop and implement a Biodiversity Offset Management Plan based on the results of the monitoring and cultivation trials to demonstrate that the project meets the no net loss/net gain requirements of PR6.	-	PR6 – 5, 11, 13, 15, 16, 17, 18.	Internal OMAS resources. External specialist contractors.	After the first two years of additional studies and monitoring (Q4 2018).	Biodiversity Offset Management Plan document provided to EBRD for review and approval.	
6.20	Biodiversity Management Plan (BMP) – Update Biodiversity Management Plan based on the results of ongoing monitoring.	-	PR1 - 17, 18, 19 20. PR6 – 6, 11, 13, 15, 16, 17, 18.	Internal OMAS resources.	Prior to Operations, and throughout the project, as and when required.	Updated Biodiversity Management Plan provided to EBRD for review and approval.	In progress

² BATNEEC = Best available techniques not entailing excessive costs