

wardell-armstrong.com

ENERGY AND CLIMATE CHANGE
ENVIRONMENT AND SUSTAINABILITY
INFRASTRUCTURE AND UTILITIES
LAND AND PROPERTY
MINING AND MINERAL PROCESSING
MINERAL ESTATES
WASTE RESOURCE MANAGEMENT



**KRUMOVGRAD GOLD MINE PROJECT, BULGARIA
DUNDEE PRECIOUS METALS**

FINAL ENVIRONMENTAL AND SOCIAL ACTION PLAN (ESAP)

April 2015

your earth our world



DATE ISSUED: April 2015
JOB NUMBER: ZL521077
VERSION: V3.0
REPORT NUMBER: R001
STATUS: Final

**KRUMOVGRAD GOLD MINE PROJECT, BULGARIA
DUNDEE PRECIOUS METALS**

FINAL ENVIRONMENTAL AND SOCIAL ACTION PLAN (ESAP)

April 2015

PREPARED BY:

Dr Liz Adey Principal



With inputs from EBRD and
DPM.

APPROVED BY:

James McNally Technical Director





Wardell Armstrong is the trading name of Wardell Armstrong International Ltd,
Registered in England No. 3813172.

Registered office: Sir Henry Doulton House, Forge Lane, Etruria, Stoke-on-Trent, ST1 5BD, United Kingdom

UK Offices: Stoke-on-Trent, Cardiff, Carlisle, Edinburgh, Greater Manchester, London, Newcastle upon Tyne,
Sheffield, Taunton, Truro, West Bromwich. International Offices: Almaty, Moscow

ENERGY AND CLIMATE CHANGE
ENVIRONMENT AND SUSTAINABILITY
INFRASTRUCTURE AND UTILITIES
LAND AND PROPERTY
MINING AND MINERAL PROCESSING
MINERAL ESTATES
WASTE RESOURCE MANAGEMENT

CONTENTS

1	ENVIRONMENTAL AND SOCIAL ACTION PLAN, KRUMOVGRAD GOLD MINE PROJECT.....	1
1.1	Introduction	1
1.2	Purpose of Report.....	1
1.3	Environmental and Social Action Plan	3

1 ENVIRONMENTAL AND SOCIAL ACTION PLAN, KRUMOVGRAD GOLD MINE PROJECT

1.1 Introduction

The proposed Krumovgrad gold mine project (the 'Project') is located in southern Bulgaria near the town of Krumovgrad. The Project is being developed by Dundee Precious Metals (DPM). The European Bank for Reconstruction and Development (EBRD) is considering providing finance for the Project and is acting as Environmental Agent for DPM's lending consortium.

The Project has been categorised as 'A' in terms of the EBRD's Environmental and Social Policy (ESP, 2008) as it could result in potentially significant adverse and diverse environmental and social impacts and is listed in "Appendix 1: Category A projects" of the ESP. Category A projects require an Environmental and Social Impact Assessment in line with the EBRD Performance Requirements (PRs).

DPM received national level environmental permits for the Project in 2011 (EIA Resolution No 18-8, 11/2011) based on a local Environmental Impact Assessment produced and submitted to the Bulgarian environmental authorities in 2010. The environmental authorities deemed the EIA compliant with Bulgarian law and relevant European Union Directives and issued the relevant approvals. The EIA also included a compatibility assessment in line with the EU Habitats Directive.

Wardell Armstrong International (WAI) was appointed by the EBRD to act as lenders advisor and provide independent review of the environmental and social documentation developed for the Project, together the Project ESIA and which includes the local Bulgarian EIA and supplementary environmental and social documentation, to confirm that the Project meets the EBRD PRs and is fit for purpose and disclosure. WAI undertook a gap analysis of the local Bulgarian EIA in April 2014 to identify areas where supplementary information and studies were required to meet the PRs. Since undertaking the gap analysis, WAI has been involved in reviewing these supplementary documents, which form part of the Project ESIA.

1.2 Purpose of Report

This Environmental and Social Action Plan (ESAP) includes key actions to ensure that the EBRD PR's are met during all phases of the Project, including construction, operation, closure and post closure. These actions will need to be implemented before specific phases of the Project, i.e. prior to construction work commencing, before the mine becomes operational or before the mine closes.

This ESAP builds on the April 2014 gap analysis, in addition to findings from the development of the supplementary documents and it will support DPM in managing the environmental and social issues and risks identified therein. The ESAP is also aimed at promoting the benefits associated with the Project.

This ESAP has been developed in close liaison with the EBRD and it will form part of the financing agreement between the EBRD and DPM. DPM will be required to report on the implementation of

the actions in this ESAP to the EBRD, and the other lenders if required. This reporting will initially take place quarterly during construction and annually thereafter for the life of the loan.

This is the final version of the ESAP. A draft ESAP was disclosed for a period of 60 days (EBRD disclosure period for Category A projects). No changes to the content of the ESAP have been made since the draft version.

1.3 Environmental and Social Action Plan

No.	Action	Bulgarian Regulation/ EBRD PR (2008)	Timetable for Action to be Completed	Target and Evaluation Criteria for Successful Implementation	Status Update
Performance Requirement 1: Environmental and Social Appraisal and Management					
1.1	<p>Develop and implement an integrated environmental, social and health and safety management system (ESHS MS) for the Project including appropriate policies, procedures and documentation. This work will integrate changes made to management plans within the overall management system. Where required, appoint appropriately qualified staff to implement the ESHS MS and manage the environmental and social impacts and risks associated with the project throughout its life cycle.</p> <p>The ESHS MS is required to be developed and implemented consistent with ISO 14001 and OHSAS 18001 international standards. Formal certification is not required but is optional.</p>	EBRD PR 1	Prior to construction work commencing and maintain during the life of the Project.	<p>Integrated environmental, social and health and safety management system (ESHS MS) in place and consistent with ISO 14001 and OHSAS 18001 standards.</p> <p>Appropriate resources in place and effective ESHS management.</p> <p>Appointment of suitably qualified and experienced ESHS manager(s) who receive regular training.</p>	

No.	Action	Bulgarian Regulation/ EBRD PR (2008)	Timetable for Action to be Completed	Target and Evaluation Criteria for Successful Implementation	Status Update
1.2	Submit an environmental and social (includes worker health and safety and community issues) report to the EBRD, including other lenders if required, on the environmental and social performance of the Project and the status of this ESAP.	EBRD PR 1	<p>During construction and commissioning: quarterly environmental and social reports and ESAP progress update to the EBRD together with an annual consolidated report (i.e. three quarterly reports and one consolidated report per year).</p> <p>During operation: annual environmental and social report and ESAP progress update to the EBRD within 60 days of year-end.</p>	<p>Environmental and social reports (template to be provided by the EBRD) and ESAP progress updates received.</p> <p>Reports and progress against this ESAP satisfactory to the EBRD.</p>	
1.3	Maintain the existing suite of Environmental and Social Management Plans through a process of continual monitoring, review, updates and improvements such that they are fit for purpose and effective, meet the needs of the Project and address the associated potential environmental and social risks, are in line with good international practise and the PRs and are applicable to the relevant stage of Project development (preparation, construction, operation and closure). These plans include the	EBRD PR1-6, 8 and 10	<p>Management plans finalised prior to construction work commencing and maintained during life of the Project including during closure where applicable.</p> <p>Finalised plans provided to the EBRD prior to construction.</p> <p>Updates and documentation, where relevant, provided to EBRD as part of quarterly (during</p>	<p>Environmental and social management plans in place that are fit for purpose and effective, meet the needs of the Project and address the associated potential environmental and social risks, are in line with good international practise and the PRs and are applicable to the relevant stage of project development.</p> <p>Management plans implemented and subject to regular review and</p>	

No.	Action	Bulgarian Regulation/ EBRD PR (2008)	Timetable for Action to be Completed	Target and Evaluation Criteria for Successful Implementation	Status Update
	<p>following:</p> <ul style="list-style-type: none"> • Mine Closure and Rehabilitation Plan (MCRP) including the provision of financial guarantees. • Air Quality Management Plan. • Biodiversity Action Plan. • Hazardous Materials Management Plan. • Community Health and Safety Plan. • Emergency Response Plan. • Traffic Management Plan. • Social Management Plan (see action 1.5). <p>Some plans are currently framework plans developed as part of the Project ESIA and will need to be further developed into full management plans. This list is not exhaustive. The Project will need to be responsive and, through a process of adaptive management, may need to develop additional plans as may be required to address specific issues or risks.</p>		<p>construction and commissioning) and annual reporting (during operation).</p>	<p>revision where necessary.</p> <p>Update provided to EBRD on finalisation of management plans, their implementation and effectiveness, revisions and issues, if any.</p> <p>Electronic copies of finalised and revised plans to be provided to EBRD together with a summary of the changes and additions made to such plans. EBRD reserves the right to provide feedback on such plans if deemed necessary. Finalised plans to be provided prior to construction commencing.</p>	
1.4	<p>Drawing on, and to complement where relevant, the environmental and social</p>	<p>EBRD PR1-6, 8 and 10</p>	<p>Prior to construction work commencing and maintained</p>	<p>Environmental and social monitoring plans and procedures</p>	

No.	Action	Bulgarian Regulation/ EBRD PR (2008)	Timetable for Action to be Completed	Target and Evaluation Criteria for Successful Implementation	Status Update
	<p>management plans and the Project ESIA's Environmental Monitoring Plan, DPM will maintain and implement a comprehensive suite of monitoring plans and procedures focusing on the following:</p> <ul style="list-style-type: none"> • Progressive mine closure and rehabilitation. • Air quality, emissions and GHG emissions. • Noise and vibration. • Biodiversity. • Surface and groundwater quality. • Groundwater usage. • Waste. • Hazardous materials management • Community health, safety and security. • Traffic impacts. • Social performance and key performance indicators. <p>Monitoring plans and procedures may be included in the environmental and social management plans, in the existing Environmental Monitoring Plan or exist as</p>		<p>during life of the Project including during closure where applicable.</p> <p>Finalised plans and procedures provided to the EBRD prior to construction. This may be in combination with Action 1.3.</p> <p>Updates and documentation, where relevant, provided to EBRD as part of quarterly (during construction and operation) and annual reporting (during operation).</p>	<p>in place and implemented.</p> <p>Update provided to EBRD on finalisation of monitoring plans and procedures, their implementation and effectiveness, revisions and issues, if any.</p> <p>Electronic copies of finalised and revised plans and procedures to be provided to EBRD together with a summary of the changes and additions made to such procedures and plans. EBRD reserve the right to provide feedback on such plans if deemed necessary.</p> <p>EBRD to be provided with any monitoring reports produced by DPM, or its consultants, that document Project monitoring activities and outcomes, for example tortoise monitoring reports.</p>	

No.	Action	Bulgarian Regulation/ EBRD PR (2008)	Timetable for Action to be Completed	Target and Evaluation Criteria for Successful Implementation	Status Update
	standalone documents.				
1.5	Develop a full Social Management Plan or series of plans, based upon the outcomes of the Social Impact Assessment to effectively manage social impacts and enhance social benefits. The Social Management Plan should include a monitoring component or plan to monitor social performance and assess changes to Key Performance Indicators (KPIs) developed from the SIA. The Social Management Plan must be maintained throughout the life of the Project as per Actions 1.4 and 1.5. The SMP or series of plans will complement existing social management documents including the Community Health and Safety Plan.	EBRD PR 1	<p>Prior to construction work commencing and maintain during life of the Project.</p> <p>Finalised plan(s) provided to the EBRD prior to construction.</p> <p>Updates and documentation, where relevant, provided to EBRD as part of quarterly (during construction and operation) and annual reporting (during operation).</p>	<p>Social Management Plan or series of plans in place, implemented and subject to regular review and revision where necessary.</p> <p>Effective management of social issues to satisfaction of EBRD.</p> <p>Update provided to EBRD on finalisation of the management plan(s), their implementation and effectiveness, revisions and issues, if any.</p> <p>Electronic copies of finalised and revised plan(s) to be provided to EBRD together with a summary of the changes and additions made to such plan(s). EBRD reserves the right to provide feedback on the plan(s) if deemed necessary. Finalised plans to be provided prior to construction commencing.</p>	
1.6	DPM will develop a social benefits package for the Project and play an active role in its	EBRD PR 1	Before the Project becomes operational and maintain during	Inclusive social benefits package in place and implemented over the	

No.	Action	Bulgarian Regulation/ EBRD PR (2008)	Timetable for Action to be Completed	Target and Evaluation Criteria for Successful Implementation	Status Update
	implementation. Where possible, the development and implementation of this package should be inclusive, be based upon the outcomes of the social impact assessment (SIA), acknowledge input from various stakeholders and should be sustainable.		life of the Project.	life of the Project. Description/summary of social benefits package provided to EBRD. Updates provided to the EBRD on implementation and success of the social benefits package, including revisions thereof, as part of annual reporting to the EBRD.	
1.7	Develop and maintain a process or procedure to ensure compliance by contractors and suppliers (where relevant) with the environmental and social requirements relevant to the Project. Where necessary, and based on size of contract, some contractors will be required to develop and submit to DPM for approval a CESMP (construction environment and social management plan), or equivalent series of plans and procedures, consistent with these environmental and social requirements. The CESMP will describe all the measures planned by the contractor to avoid or	EBRD PRs 1-6, 8 and 10	Prior to construction and maintained during life of the Project.	Contractor compliance with environmental and social requirements. CESMPs in place where relevant and implementation monitored by DPM. Contractor E&S, including H&S, performance monitored by DPM. Capacity building and training provided to contractors by DPM, where necessary.	

No.	Action	Bulgarian Regulation/ EBRD PR (2008)	Timetable for Action to be Completed	Target and Evaluation Criteria for Successful Implementation	Status Update
	<p>minimise its ESHS impacts and risks. DPM will be required to provide assistance, through capacity building and training where necessary, to contractors in the development of such management plans and improving and maintaining their E&S, including H&S, performance.</p> <p>DPM is required to include project environmental and social requirements, where relevant and based on the size of the contract and contractor scope of work, in contractor tender and contract documents. Environmental and social requirements include DPM policies and standards, permits, environmental and social management plans (ESMP), the EBRD Performance Requirements (2008) and this ESAP.</p>				
Performance Requirement 2: Labour and Working Conditions					
2.1	Develop a human resources (HR) policy and occupational health and safety (OHS) policy. The HR policy should be gender inclusive and non-discriminatory and	EBRD PR 2	Before large scale employee recruitment and construction work starts on site and maintain during life of the Project.	Human resources policy and OHS policy in place. Adheres to ILO.	

No.	Action	Bulgarian Regulation/ EBRD PR (2008)	Timetable for Action to be Completed	Target and Evaluation Criteria for Successful Implementation	Status Update
	aligned with EBRD PR 2 and the International Labour Organisation (ILO) Standards.				
2.2	Develop a recruitment plan including local recruitment targets. This may be included in the human resources management plan.	EBR PR 2	Prior to construction activities and large-scale recruitment.	Recruitment plan in place and implemented.	
2.3	Develop a human resources management plan, including associated procedures, relevant documentation and an employee grievance mechanism, in line with ILO standards and EBRD PR 2.	EBRD PR 2	Before large scale employee recruitment and construction work starts on site and maintain during life of the Project.	Human resources management plan in place and DPM adheres to ILO.	
2.4	Prepare and implement a specific procedure for incident and accident investigation and the need for corrective actions. This will also extend to contractors.	EBRD PR 2	Prior to site clearance and construction works.	Incident and accident investigation procedure in place and implemented. H&S statistics reported to EBRD as part of quarterly and annual reporting.	
2.5	DPM will endeavour to source supplies, raw materials and other equipment locally. Where local companies are not able to meet standards required by the Project, DPM will provide capacity building	EBRD PR 1 and 2	Prior to supplier selection.	Evidence of local procurement and support to local suppliers where necessary.	

No.	Action	Bulgarian Regulation/ EBRD PR (2008)	Timetable for Action to be Completed	Target and Evaluation Criteria for Successful Implementation	Status Update
	and training to these companies so that they can develop their organisations and compete successfully for contracts.				
2.6	<p>DPM will review the potential environmental, social, health and safety risks, as well as reputational risks, associated with potential suppliers to the Project and buyers of concentrate. This will also extend to the identification and selection of concentrate processing facilities. The outcomes of the review and particularly if there are any significant environmental and social risks, should be considered in the decision making process. Social risks extend to workers and working conditions.</p> <p>The review should take into consideration the EBRD Performance Requirements (2008).</p> <p>Where possible, DPM will provide capacity building and training to suppliers to help avoid or minimise these risks, if any.</p>	EBRD PR 2	Prior to supplier and buyer selection.	<p>Supply chain and buyer assessment/review procedure/protocol that focusses on environmental, social and health and safety risks in place and implemented.</p> <p>Outcomes of review taken into consideration in the decision making process.</p>	

Performance Requirement 4: Community Health, Safety and Security					
4.1	Undertake discussions with key local communities to disseminate information included in the Community Health and Safety Plan.	EBRD PR 4	Prior to construction work commencing and maintain during life of the Project.	Implemented and effective community health and safety management to satisfaction of EBRD.	
Performance Requirement 5: Land Acquisition, Involuntary Resettlement and Economic Displacement					
5.1	Finalise a compensation plan for derelict chalets and outdoor recreation building.	EBRD PR 5	Prior to construction work commencing.	Compensation programme agreed for loss of public amenities. Compensation plan provided to the EBRD.	
Performance Requirement 6: Biodiversity Conservation and Natural Resources Management					
6.1	DPM to update EBRD on the implementation of the Biodiversity Action Plan as described in Actions 1.3 and 1.4. This includes the provision of monitoring reports and reporting on the effectiveness of the BAP in achieving its outcomes (i.e. no net loss consistent with PR6).	EBRD PR 6	As part of quarterly and annual reporting.	Updates provided to the EBRD as part of quarterly and annual reporting. This includes the provision of monitoring reports and reporting on the effectiveness of the BAP in achieving its outcomes.	
6.2	DPM to update the EBRD on the implementation of the Mine Closure and Rehabilitation Plan (MCRP). This includes progressive closure and rehabilitation, where relevant, and final closure of the mine. This action includes the provision of monitoring reports and reporting on the	EBRD PR 6	As part of annual reporting.	Updates provided to the EBRD as part of annual reporting. This includes the provision of monitoring reports and reporting on the effectiveness of the MCRP in achieving its outcomes.	

	effectiveness of the MCRP in achieving its outcomes.				
Performance Requirement 8: Cultural Heritage					
8.1	Collate cultural heritage mitigation measures into a cultural heritage management plan. This will include an outline of the 'chance finds procedure' and how it is being implemented on site.	EBRD PR 8	Prior to construction work commencing and maintain during life of the Project.	Cultural heritage management plan or 'chance find procedure' implemented and in compliance with EBRD PR8.	
Performance Requirement 10: Information Disclosure and Stakeholder Engagement					
10.1	Implement the Stakeholder Engagement Plan (SEP) and an accessible grievance mechanism. Ensure SEP is available to stakeholders in an easily readable format and suitable language (English and local language). Update and revise the SEP, if required, during life of the project to ensure that it is relevant and effective in ensuring meaningful consultation and appropriate disclosure of information.	EBRD PR 1	Implemented prior to construction works and maintained during the life of the Project together with the grievance mechanism.	<p>Implementation of SEP and a grievance mechanism.</p> <p>SEP maintained up to date and relevant. Community relations maintained or improved. Stakeholder support maintained (social licence to operate).</p> <p>Feedback on SEP implementation provided to EBRD through quarterly and annual reporting.</p>	

wardell-armstrong.com

STOKE-ON-TRENT
Sir Henry Doulton House
Forge Lane
Etruria
Stoke-on-Trent
ST1 5BD
Tel: +44 (0)845 111 7777

CARDIFF
22 Windsor Place
Cardiff
CF10 3BY
Tel: +44 (0)292 072 9191

EDINBURGH
Suite 2/3
Great Michael House
14 Links Place
Edinburgh
EH6 7EZ
Tel: +44 (0)131 555 3311

GREATER MANCHESTER
2 The Avenue
Leigh
Greater Manchester
WN7 1ES
Tel: +44 (0)194 226 0101

LONDON
Third Floor
46 Chancery Lane
London
WC2A 1JE
Tel: +44 (0)207 242 3243

NEWCASTLE UPON TYNE
City Quadrant
11 Waterloo Square
Newcastle upon Tyne
NE1 4DP
Tel: +44 (0)191 232 0943

SHEFFIELD
Unit 5
Newton Business Centre
Newton Chambers Road
Thorncliffe Park
Chapelton
Sheffield
S35 2PH
Tel: +44 (0)114 245 6244

TAUNTON
Suite E1
Victoria House
Victoria Street
Taunton
Somerset
TA1 3JA
Tel: +44 (0)182 370 3100

TRURO
Baldhu House
Wheal Jane Earth Science Park
Baldhu
Truro
TR3 6EH
Tel: +44 (0)187 256 0738

WEST BROMWICH
Thynne Court
Thynne Street
West Bromwich
West Midlands
B70 6PH
Tel: +44 (0)121 580 0909

International offices:

ALMATY
29/6 Satpaev Avenue
Hyatt Regency Hotel
Office Tower, 7th Floor
Almaty
Kazakhstan
050040
Tel: +7(727) 334 1310

MOSCOW
Office 4014
Entrance 2
21/5 Kuznetskiy Most St.
Moscow
Russia
Tel: (495)626-07-67

**Wardell Armstrong
Archaeology:**

CUMBRIA
Cocklakes Yard
Carlisle
Cumbria
CA4 0BQ
Tel: +44 (0)122 856 4820

your earth our world

