

**Scoping Report For Social Impact Assessment
Dundee Precious Metals Krumovgrad
Ada Tepe Gold Mine Project, Bulgaria**



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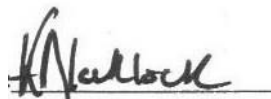


Dundee Precious Metals Krumovgrad EAD

Submitted By

AMEC Earth & Environmental UK Ltd.

SCOPING REPORT FOR SOCIAL IMPACT ASSESSMENT
DUNDEE PRECIOUS METALS ADA TEPE DEPOSIT
KRUMOVGRAD PROJECT - BULGARIA
JULY 2014

REPORT ISSUE FORM

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Reviewer	Fergus Anckorn		
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EXECUTIVE SUMMARY

Dundee Precious Metals (DPM) has negotiated an amended financial package with a consortium of banks for which the European Bank for Reconstruction and Development (EBRD) acts as environmental agent. As part of the process, EBRD has requested DPM to provide some additional information on the Krumovgrad project to the Bank to document compliance with the EBRD Performance Requirements and the International Finance Corporation Performance Standards. DPM has requested AMEC to assist with preparation of the Supplementary Lender's information Package (SLIP).

Part of the SLIP will comprise information generated by a Social Impact Assessment (SIA) on the Project.

The terms of reference for the SIA need to be determined via a *scoping study* that has the following objectives:

- Establish the project context and administrative framework
- Define a preliminary project area of influence
- Establish the known baseline conditions
- Summarise anticipated impacts
- Define studies that are required to further understand the baseline conditions and the impacts
- Conduct stakeholder engagement to inform the scoping study; and thus, contributing to the scope of the impact assessment
- Prepare the Terms of Reference for the SIA.

This report summarises the findings of the SIA scoping.

A significant amount of social/community information has already been collected, collated and reported upon and this is described. The standards and benchmarks for the SIA are set out and a Project description is provided to set the scoping study in context. The project layout provides the focus for establishing potential zones of influence that relate principally to such direct physical impacts as noise and dust, but the zoning also provides a starting point for identifying an area of influence for the broader SIA. Full definition of the area of influence will be achieved as part of the baseline study when data are collated and assessed.

The scoping report provides a summary of the socio-economic setting as known to date and provides summarised information drawn from stakeholder consultation that gives an insight into issues and concerns over the Project. From this, the scoping report sets out the anticipated impacts that should be addressed in the SIA.

The proposed Terms of Reference for the SIA are defined in regard to the following:

- Preliminary proposed project study area
- Review of existing surveys and reports that must be subsumed into the SIA
- Social baseline studies comprising household surveys
- Ecosystems services study
- Impact assessment, methodology and reporting
- Social Management Plan
- Ongoing Stakeholder Engagement and Public consultation.

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Glossary of Acronyms

EBRD	The European Bank for Reconstruction and Development
ESIA	Environmental and Social Impact Assessment
DPM	Dundee Precious Metals
HIV	Human Immunodeficiency Virus
IFC	International Finance Committee
NSI	National Statistics Institute
SEP	Stakeholder Engagement Plan
SIA	Social Impact Assessment
SMP	Social Management Plan
WAI	Wardell Armstrong International

1.0 SCOPING STUDY FOR THE SOCIAL IMPACT ASSESSMENT INTRODUCTION

In respect of its Krumovgrad Gold Mine Project (“the Project”), Dundee Precious Metals (DPM) has negotiated an amended financial package with a consortium of banks for which the European Bank for Reconstruction and Development (EBRD) acts as environmental agent. As part of the process, EBRD has requested DPM to provide some additional information on the Project to the Bank to document compliance with the EBRD Performance Requirements (EBRD PR) and the International Finance Corporation (IFC) Performance Standards (PS), with the intent of developing an environmental and social action plan satisfactory to EBRD. Some of this additional information may need to be publicly disclosed following EBRD disclosure procedures. DPM has requested AMEC to assist with preparation of a Supplementary Lender's Information Package (SLIP) that will include the additional information referred to.

Part of the SLIP will comprise information generated by a Social Impact Assessment (SIA) on the Project.

1.1 SIA Scoping Report

This SIA Scoping Report is prepared by AMEC Earth and Environmental (henceforth referred to as ‘the Consultant’) for its Client, Dundee Precious Metals Krumovgrad (henceforth referred to as ‘the Client’ or ‘DPM’).

Study Objective

The scoping study is an evaluative procedure and its objective is to define the scope of the Social Impact Assessment (SIA) for the Project as follows:

- Establish the project context and administrative framework
- Define a preliminary project area of influence
- Establish the known baseline conditions
- Summarise anticipated impacts
- Define studies that are required to further understand the baseline conditions and the impacts. These need to be constructed as part of the impacts assessment
- Conduct stakeholder engagement to inform the scoping study; and thus, contributing to the scope of the impact assessment
- Prepare the Terms of Reference for the SIA.

1.2 Social Impact Assessment Work to date

DPM has completed a number of studies relating to Socio-Economic Assessment. Table 1 lists these studies. However, no formal SIA has been carried out to date.

Table 1-1: Studies Relating to Socio-Economic Assessment Completed by DPM to May 2014

Documents	Issue date	Prepared by
Project Environmental Impact Assessment		
ENVIRONMENTAL IMPACT STATEMENT for Investment Project for Mining and Processing of Auriferous Ores from the Ada Tepe Prospect of Khan Krum Gold Deposit, Krumovgrad	Dec-10	
Statement of BMM EAD, Part 3, 07/18/11 Ovchari Village Public Hearing	Jul-11	
Statement of BMM EAD, Part 1, 07/11/11 Dazhdovnik Village Public Hearing	Jul-11	
Statement of BMM EAD, Part 4, 07/22/11 Krumovgrad Public Hearing	Jul-11	
Statement of BMM EAD, Part 2, 07/14/11 Zvunarka Village Public Hearing	Jul-11	
Statement of BMM EAD, Part 5 07/14/11 on received Statements from stakeholders.	Jul-11	
Addendum #1,2,3 to Additionally received Stakeholder Statement	Jul-11	
Project Socio-economic assessment related documents		
Image of Dundee Precious Metals in Bulgaria	Nov-11	Alpha Research
Social Justification for Granting of a Mining Concession for Gold Ores from Khan Krum Deposit, Krumovgrad Municipality, District of Kardzhali	Sep-10	
Assessment of Potential Environment Related Effects onto Human Health	2012	Dr Spasov
Krumovgrad Gold Project Environmental and Social Action Plan	Jan-14	Denkstatt Bulgaria
The Socio-economic and Fiscal Significance of the Project to Bulgaria and for the Region	Apr-11	KC2, Knowledge Management Solutions
Stakeholder Engagement and Information Disclosure Plan	Jan-14	
Social Assessment of the Project Gold Mining and Processing in the Krumovgrad Exploration Area Implemented by Dundee Precious Metals Inc.	Dec-07	Vitosha Research
Socio Economic Segments of BMM's EIA	Apr-10	KC2, Knowledge Management Solutions
Baseline Socio-Economic Survey For Krumovgrad Project Impact Area. Analytical Report	Oct 2004	Vitosha Research
Other relevant socio-economic studies		
Krumovgrad Socio-Economic Conditions: SWOT Analysis	May 2014	EU funded project
Report on 2014-2020 Krumovgrad Municipality Development Population Survey	April 2014	EU funded project

1.3 Methodology

The study encompassed a review of the documents provided by DPM and other pertinent documents to define the socio-economic profile of the project zone of influence and to identify potentially project-affected communities and key stakeholders. Further to this, engagement took place with identified stakeholders. The scoping fieldwork took place between 2nd – 5th June 2014. The team consisted of two scoping consultants, a translator and a DPM community liaison officer.

Mapping of the project area using the satellite imagery provided by the DPM Geological Department was performed. Zones of 500 m; 1 km and 1.5 km from the mine site were drawn to identify hamlets and villages which are potentially directly and indirectly affected. Using this, the scoping team visited a number of these and undertook consultations with stakeholders residing in these villages and hamlets.

Added to this, other stakeholders were identified in the general locality who have an interest in the project; and who would potentially be impacted (directly or indirectly).

The purpose of all of these interviews was to understand the potential project area of influence and the potentially impacted stakeholders, to gather rich local level insights and a clear picture of the perceptions of the potential impacts of the project as perceived by stakeholders. The actual area of influence of the Project will be identified as part of the baseline data gathering and collation/interpretation work.

Interview notes were taken as near verbatim as possible and salient points were extracted and analysed in relation to other consultations and studies. The format of the interviews was informal. The interview started with an introduction of the scoping team and the objective of the interview. Then the questions were asked by the team to cover the livelihoods, use of bio-resources (NTFP) in the region, the quality of the environment that interviewees lived in, physical infrastructure, access to hospitals, educational facilities, the knowledge about the project and its potential impacts.

In addition, observations were made of the environmental and social-economic conditions in which communities were located, for example topography, infrastructure, and livelihood activities. Collectively, findings formed a basis for the scoping study and identification of potential mitigation measures. GPS information was taken where possible.

1.4 Limitations

Concepts and discussion points could have been distorted through the process of translation, thereby influencing the validity of responses from the stakeholders to the SIA consultant's questions. To counter this, checks were incorporated to ensure the reliability in the translation and the consultation process.

Furthermore, some of the identified key stakeholders (Municipality) were not available to meet the scoping team due to the limited time they were available in the field. Nevertheless, other sources of information from previous consultations with these identified stakeholders were used to inform the scoping process.

2.0 LEGAL AND ADMINISTRATIVE FRAMEWORK

2.1 Policy Context

It is understood that the ESIA work undertaken to date was completed in accordance with the Bulgarian Environmental legislation that is harmonised with the European Union (EU) legislation.

Given that DPM is negotiating a financial package with a consortium of banks led by the European Bank for Reconstruction and Development (EBRD), the supplementary social impact assessment needs to be in compliance with the EBRD Performance Requirements (EBRD PR) and the International Finance Corporation (IFC) Performance Standards (2012) (PS).

2.2 Bulgarian Legislation

The Environmental Impact Statement (EIS) for the Investment Project Proposal for Mining and Processing of Auriferous Ores from the Ada Tepe Prospect of the Khan Krum Gold Deposit near Krumovgrad ("the Krumovgrad Gold Project") is required under the Environment Protection Act ("EPA") and the Regulation on the Terms and Procedures for Conducting Environment Impact Assessments ("the EIA Regulation").

2.3 EBRD Performance Requirements

EBRD Performance Requirements

EBRD has developed an Environmental and Social Policy 2008 which sets out the environmental and social issues and aspects of sustainable development and outlines how the Bank will put into practice its commitment to promote environmental and social sustainability. Key areas of focus include the following:

- 'Mainstreaming of environmental and social considerations into all its activities
- Establishing for clients the environmental and social performance requirements that they will be expected to meet in a time frame acceptable to the Bank
- Defining the respective roles and responsibilities of both the EBRD and its clients in achieving sustainable outcomes in line with the Policy and the performance requirements
- Setting a strategic goal to promote projects with high environmental and social benefits
- The EBRD seeks to ensure through its environmental and social appraisal and monitoring processes that projects satisfy and fulfil the following conditions:
 - A project/or operational activities are socially and environmentally sustainable;
 - A project/or operational activities are respectful to the rights of affected workers and communities; and

- A project/or operational activities is designed and operated in compliance with applicable regulatory requirements and good international practice¹.

Projects financed by EBRD are required to meet good international practice in relation to sustainable development. To achieve this, a set of Performance Requirements for key environmental and social issues and impacts has been developed.

Performance Requirement 1: Environmental and Social Appraisal and Management

Performance Requirement 2: Labour and Working Conditions

Performance Requirement 3: Pollution Prevention and abatement

Performance Requirement 4: Community Health, Safety and Security

Performance Requirement 5: Land Acquisition, Involuntary Resettlement and economic displacement

Performance Requirement 6: Biodiversity Conservation and Sustainable Management of Living Natural Resources

Performance Requirement 7: Indigenous Peoples

Performance Requirement 8: Cultural Heritage

Performance Requirement 9: Financial Intermediaries

Performance Requirement 10: Information Disclosure and Stakeholder Engagement.

Krumovgrad Gold Project is considered as a 'Category A' Project, as it is currently a Greenfield Project located in a NATURA 2000 site with settlements in close proximity to the proposed mine complex.

IFC, World Bank Group Performance Standards

The IFC Sustainability Framework articulates the IFC's strategic commitment to sustainable development and is an integral part of IFC's approach to risk management. The Framework incorporates the IFC's Policy, Performance Standards and Access to Information Policy. Alongside the Performance Standards is a companion set of Guidance Notes, providing guidance to clients in meeting the Performance Standards. The Framework was originally adopted in 2006 and updated in 2012 following an 18-month consultation process with stakeholders around the world.

¹ WAI, 2014, Krumovgrad Gold project – Environmental and Social Gap Analysis

“The Performance Standards are directed towards clients, providing guidance on how to identify risks and impacts, and are designed to help avoid, mitigate, and manage risks and impacts as a way of doing business in a sustainable way, including stakeholder engagement and disclosure obligations of the client in relation to project-level activities” IFC Performance Standards 2012”

In order to translate this objective into successful practical outcomes, the IFC has adopted a comprehensive set of performance standards as follows:

- Performance Standard 1: Assessment & Management of Environmental and Social Risks and Impacts
- Performance Standard 2: Labour and Working Conditions
- Performance Standard 3: Resource Efficiency and Pollution Prevention
- Performance Standard 4: Community Health, Safety and Security
- Performance Standard 5: Land Acquisition and Involuntary Resettlement
- Performance Standard 6: Biodiversity Conservation and Sustainable Management of Living Natural Resources
- Performance Standard 7: Indigenous Peoples
- Performance Standard 8: Cultural Heritage

2.4 Corporate Values, Policies and Standards

“As a publicly traded international mining company, DPM recognize the value of good corporate governance and the need to adopt best practices. The Board of Directors has dedicated committees that are responsible for specific aspects of DPM corporate governance. These are as follows: Health, Safety and Environment Committee; Audit Committee; Compensation Committee; and Corporate Governance and Nominating Committee. Full disclosure of the corporate governance practices is contained in the latest Management Information Circular that is available on the corporate website and on the SEDAR website at www.sedar.com.

Values, Policies and Standards

DPM are committed to sustainable business practices through ensuring that:

- The business is economically sustainable and able to provide long term benefits to all stakeholders;
- Both immediate and long term sustainable community benefits are provided for through targeted projects that anticipate an economic and sustainable future for communities after the cessation of mining or processing operations;
- A safe and healthy environment is provided for all employees, their families, and adjacent communities;

- Operations interact with the natural physical and biotic environment in a way that allows for the long term capacity of the environment to support and sustain life unchanged after operations cease and to ensure that while the Company is in operation, environmental effects are minimized.

Values, policies and standards have been developed in a way that attempts to ensure everyone across the organization is made aware of their responsibilities, the appropriate resources are allocated and the management and accountability for those resources is appropriately assigned, monitored and reviewed at every level.

Vision to be precious metals focused mining company that grows through responsibly developing great assets and people:

- Risks to people and the environment associated with operations are properly identified and mitigated;
- Vision and values are applied where products are used or processed downstream (product stewardship); and
- Critical and non-renewable resources are used effectively.

All operations are continuing to work toward meeting the Company commitment of achieving and maintaining recognized international best practice mining, processing, environmental and health and safety standards. The protection of employees, communities and the environment, from exploration and mining through to rehabilitation and closure, remains key to successful project development and sustainable operation. With regard to policies, DPM have both corporate-level and site-level policy procedures. Corporate-level policies are applied enterprise-wide and are as follows:

- Code of Business Conduct and Ethics;
- Environment and Sustainable Development Policy (A copy is provided in Appendix C)
- Health and Safety Policy Statement;
- Anti-Bribery and Anti-Corruption Policy;
- Whistleblower Policy.

In addition to the above corporate-level policies, DPM also has numerous site level policies and standards that address specific national and regional legislative and ethical guidelines in their respective jurisdictions of operation. The Code of Business Conduct and Ethics (Code) covers topics such as conflicts of interest, competitive practices, anti-fraudulent practices, dealing with suppliers, dealing with public officials, political activities and contributions, equal opportunity, health, safety and environmental protection, work environment, integrity of records and financial reports, use of agents and nonemployees, officers and directors, internal operations, standards of compliance and violations of standards. All employees (including contract employees), officers and directors must sign a statement of intent to comply with the Code.

In 2013, DPM developed a stand-alone Anti-Bribery and Anti-Corruption Policy that addresses updated legislation in Canada and relevant international best practices. This policy was formally adopted on July 31, 2013 and training workshops were attended by site and corporate senior management through the remainder of 2013. In 2014, DPM will be rolling out an online training course in this policy and related topics to all senior management as well as those employees and external service providers who may have direct involvement with political offices and government employees on DPM's behalf. In 2013, the Company also performed an internal risk assessment on all operations and reviewed governance processes and delegation of authority procedures. DPM also completed an internal audit of potential risk areas. The Company did not find any evidence of bribery or corruption activities. The corporate-wide Whistleblower Policy has been in place since 2005. The primary purpose of this policy was to establish procedures for the receipt, retention, and complaints submitted by employees on a confidential and anonymous basis, of concerns regarding questionable accounting, internal control and auditing matters. In addition, the system also allows for reports of potential violation of all aspects of the Code to be filed by both employee and external service providers. Complaints can be submitted either in writing and addressed to the Audit Committee or verbally via an independently monitored "hotline". In 2014, DPM will be launching a "visual sight" program to promote greater awareness among all employees of these procedures and grievance mechanisms.

Extractive Industries Transparency Initiative the Company confirmed its support for the Extractive Industries Transparency Initiative (EITI) by becoming the 51st EITI Supporting Company, at the international level, in March of 2011. As such, DPM endorse the principles and criteria as a way to improve the transparency around payments and revenues in the extractives sector in developing countries. Supporting the EITI is consistent with the governance principles and the manner in which DPM seek to develop relationships with communities and governments. The EITI is a coalition of governments, companies, civil society groups, investors and international organizations that supports improved governance in resource-rich countries through a globally developed standard that promotes revenue transparency at the local level. None of the countries in which the Company operates are considered EITI Compliant or Candidate countries and, as such, DPM are not obliged to report payments to governments to the EITI. However, DPM have voluntarily provided a breakdown of payments to governments by operating site in the Performance Data Supplement.

Addressing the United Nations (UN) "Precautionary Principle" The UN's Precautionary Principle states that "In order to protect the environment, the precautionary approach shall be widely applied by States according to their capabilities. Where there are threats of serious or irreversible damage, lack of full scientific certainty shall not be used as a reason for postponing cost-effective measures to prevent environmental degradation." DPM do not make specific or direct reference to the Precautionary principle, and don't have any direct influence over public policy in the countries where operates."²

² Dundee Precious Metals Inc. Sustainability Report 2013

3.0 PROJECT DESCRIPTION (TEXT AMENDED FROM DESCRIPTION PROVIDED BY THE DPM TEAM)

3.1 Project Description and Location

The Krumovgrad Project is a planned 850,000 tonnes per year (“tpa”) open pit gold mine located in Bulgaria which is consistent with existing permitting and environmental submissions and is financially viable. The mill facilities and mine will be developed, constructed, and operated by DPMKr, a wholly owned subsidiary of DPM. The size of the project footprint has been minimised as much as possible and the footprint will be 85 ha; and including its anticipated buffer - approximately 134 ha.

The licence area is located in the East Rhodope Mountains, approximately 320 km (by road) southeast of Sofia, in the Kardzali District immediately south of the regional township of Krumovgrad (25° 39' 15"E and 41° 26' 15"N). Krumovgrad is located approximately 320 km by paved road southeast of Sofia and some 12.5 km (measured by air) north of the border with Greece.

The Ada Tepe deposit is located 3 km south of the Krumovgrad town site and trends in a north south direction. The deposit area comprises of hilly topography abutting a major regional river system.



Figure 3.1: Location Plan of the Krumovgrad Gold Project Area

3.2 Accessibility, Climate, Local Resources, Infrastructure and Physiography

The town of Krumovgrad is approximately 320 km southeast by paved road from the capital of Bulgaria, Sofia, which is serviced by a modern International airport. A second International Airport is located in the city of Plovdiv located approximately 106 km northwest of Krumovgrad. The Ada Tepe deposit is located some 3 km south of Krumovgrad. Access to the general area is available at all times of the year, by sealed roads to Krumovgrad. Access within the licence area is good, with all-weather surface roads transecting the project area. Secondary roads are unsurfaced but generally accessible year round with four-wheel drive vehicles.

The average annual precipitation is 703.5 mm. The bulk of this falls in autumn and winter, occasionally as snow in the coldest months. The highest rainfall occurs in December (96.9 mm average) and the lowest in August (24.1 mm). Small villages are dispersed widely throughout the licence area involved in subsistence farming, particularly livestock and the growing of tobacco and different vegetables on the poorly developed soils characteristic of the region. The other main land use within the licence area is state controlled by National Forestry Agency. The population of Bulgaria is largely non-practicing Eastern Orthodox Christian (85%) with a Turkish Muslim minority predominantly residing in the southeast of the country, including the licence area.

Infrastructure in the area is good, with paved roads, power and water resources available within close proximity to the Project.

The Town of Krumovgrad is around 230 m above mean sea level and is characterised by a rugged landscape. The Ada Tepe deposit is located in an area of moderate, hilly topography abutting a major regional river system. The project area is readily accessible at all times of the year.

3.3 Development and Operations

The timeframe for implementing the Project, once all necessary permitting is in place; from start through to practical completion of the process plant in readiness for ore commissioning is estimated to take 125 weeks (approximately 2,5 years).

Over the life of mine, the project will produce 686,000 ozs of gold in concentrate (impure) form. This production is based on the Mineral Reserve over a mine life of 8 years. The plant is planned to treat 0.85 Million tonnes per year (Mtpa) of ore over the 8 year mine life, including the processing of stockpiled low grade ore at the end of the Project.

Development of the Project will require the acquisition of land and buildings from a variety of impacted stakeholders. The size of the Project footprint has been minimised as much as possible and the footprint will be 85 ha, and including its anticipated buffer - approximately 134 ha. The overall site plan is presented in Figure 3.2.

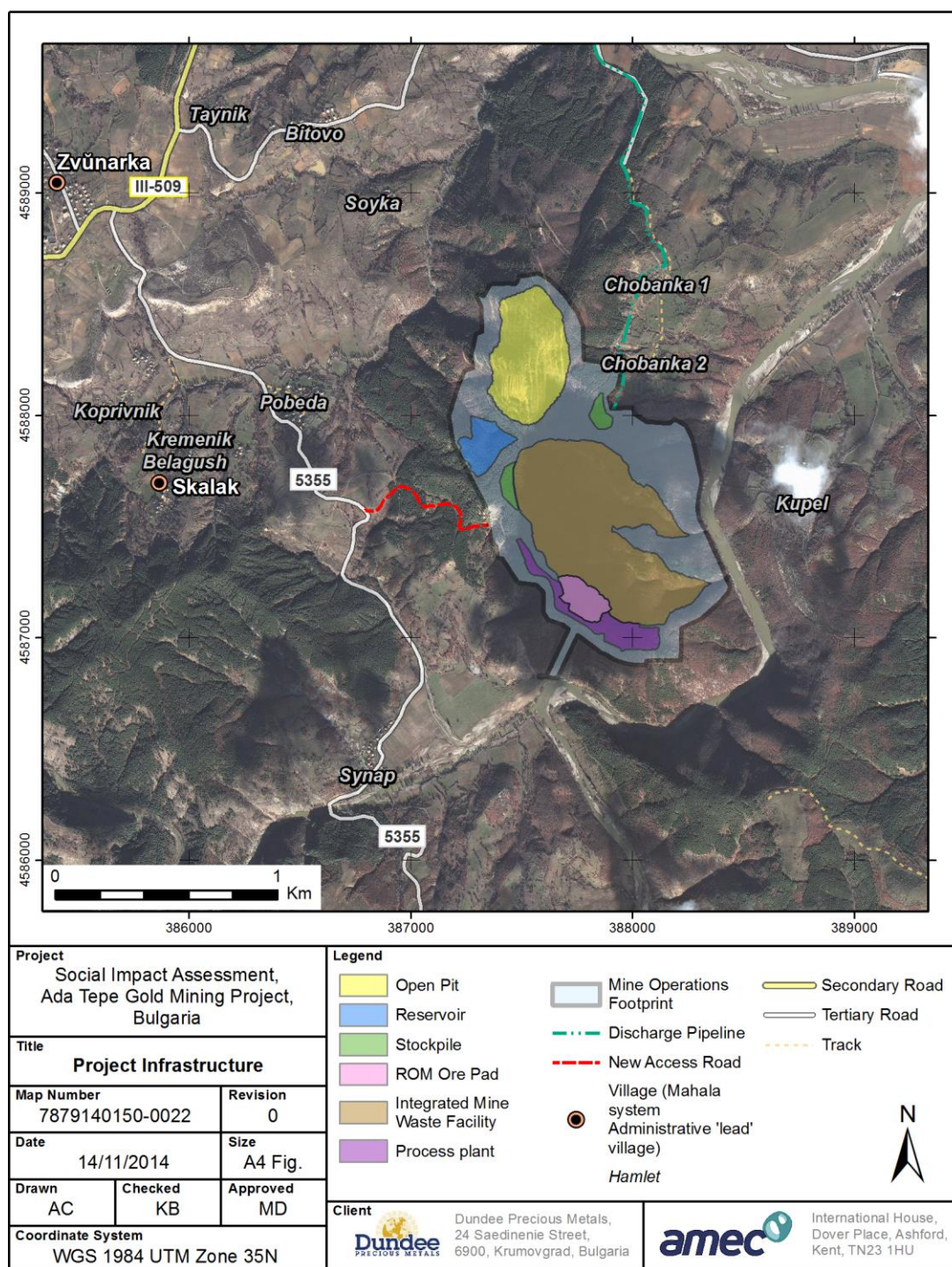


Figure 3.2: Overall Site Plan

The operation is planned to use conventional mining methods to mine ore, low grade and waste. The mining equipment proposed for the mining operation includes a 23.7 m³ back hoe excavator and off-highway haul trucks with a payload capacity of 40 tonnes. Provision has been made for drilling and blasting from the initial benches. The open pit will operate for 2 shifts per day to minimise the noise impacts on the local communities.

The process selected as a result of the testwork program does not entail the use of aggressive or highly toxic chemicals. It comprises simply crushing and milling of the ROM ore followed by froth flotation to produce a gold and silver bearing concentrate that will be shipped off-site for refinement into pure gold. The process plant will operate 24 hours per day, 7 days per week, except for ore crushing which will operate only for 12 hours per day. The plant is designed to process approximately 100 tonnes/hour at an operating availability of 91.3%.

Metallurgical recoveries of 85% and 70% for gold and silver, respectively, were used for the feasibility assessments.

The project will employ directly approximately 300 people during the construction period, reducing to 230 people on site engaged in the administration, mining, and processing operations, and 50 people in the closure and rehabilitation period.

The process plant will be located on the side of the Ada Tepe hill, adjacent to the Integrated Mine Waste Facility ("IMWF") and approximately 1 km south of the open pit. The milling and flotation areas will be in a building which also incorporates maintenance facilities for the plant, as well as warehouse, plant offices and change rooms. The mining fleet and other company vehicle maintenance will be done in a separate building about 600 m north of the process plant.

Process plant tailings (non gold-bearing minerals) will be thickened to a paste of maximum solids content ranging between 56%wt and 68%wt and will be disposed of in the Integrated Mine Waste Facility (IMWF), along with waste rock from the mine.

3.3.1 Project Implementation and Costs

The timeframe for implementing the project through to practical completion of the process plant in readiness for ore commissioning extends from the present through to Q4 2016/Q1 2017. This schedule allows for land acquisition, the completion of the permitting and approvals, engineering design, procurement of materials and equipment, and construction of all facilities on site, including pre- production activity at the open pit mine.

The development capital cost of the project has been estimated at USD 164.1 Million and is based on a hybrid EPCM (engineering, procurement, construction and management) implementation strategy. A renowned international consultant has been involved since July 2012 in the delivery of the "EP" component of the project, and DPM Krumovgrad's experience and "know how" in Bulgaria will be used to optimise the detail engineering, permitting and execution of the "CM" component of the project. An Owner's team commensurate with the stage of development will gradually be built up and award a number of consulting agreements to various consultants to supplement the Owner's team based on a defined scope of deliverables and implementation schedule. The estimate includes Owner's costs, working capital, and a contingency of approximately USD 30.8 Million.

A work force of approximately 300 people at its peak will be engaged on site during the construction period.

3.4 Mining Equipment

A relatively small scale mining fleet was selected to suit the proposed production rate and the selective mining requirements. Rigid and articulated 40 t trucks were selected together with 3.7 m³ hydraulic backhoes. It is planned to use the rigid trucks for ore transport, and the articulated trucks for the waste haul, where more manoeuvrability is required. Both ore and waste will be drilled using a Tamrock DP1100. Additionally, four types of support equipment were defined, which will contribute to the performance of the production equipment.

The mining fleet was selected for a capacity of 8,000 tpd ore and waste in year one and a ramp up to 9,500 tpd from year four. It was determined that the equipment will be owner operated, with the maintenance done through contract.

3.5 Integrated Mine Waste Facility (IMWF)

3.5.1 Background and Site Selection

The concept of a conventional slurry disposal facility as proposed in the 2005 mining study has been replaced with an IMWF which will receive both the thickened tailings and the mine waste rock from the Ada Tepe pit. The tailings storage location was revised to minimise land use and the environmental footprint. Two sites were initially identified for a potential IMWF, located north and south of the open pit respectively. Preliminary capacity assessments as well as optimisation of the mine and road layout resulted in selection of the south site.

3.5.2 General Description

The concept of the IMWF is to place thickened tailings into cells constructed from mine rock. The mine rock provides strength required for overall stability and also internal drainage. Water reporting to the underdrain will be pumped to the Raw and Process Water Reservoir ("RPWR") located southwest of the open pit. The IMWF will be constructed within two small valleys, being operated as two separate facilities early in the life of the project and later merging into a single facility as operations progress. Rehabilitation of the lower slopes of the IMWF will begin during the early stages of mine operation. DPMKr have an approved Mine waste management plan from the Ministry of Economy and Energy.

The IMWF structures required for commencement of mining operations will be constructed from the soil and rock excavated to create the platform for the process plant and the roads on the mine site. Once the mining operation begins, the mine rock will be trucked from the open-pit to the IMWF, dumped and spread to construct containment cells for the tailings. Tailings will be thickened in the tailings thickening plant to the maximum practical amount, and then conveyed by pump and pipeline to the containment

cells. The IMWF will be a fully drained facility and will not contain a water pond at any time during its operation. A system of under-drains will be constructed along the axis of each small surface water channel in the footprint of the IMWF and these drains will discharge to one of two sumps located at the toe of the facility.

The IMWF will be constructed from the bottom up, with mine wastes placed on starting platforms at the bottom of the valley at approximately 300 m elevation and then progressively built up in benches during the mine life to elevation 450 m. This will allow the lower, completed sections of the facility to be reclaimed and closed during the life of the mining operation.

Given the economic parameters used for this study, (i.e. 0.6 g/t COG), 15.1 million tonnes of mine rock and 6.2 millions tonnes of tailings will be stored within the IMWF over 8 years during the life of the mine.

A dual reservoir system has been developed which has resulted in the mine being able to adopt a zero discharge water management strategy. These two reservoirs are adjacent to each other and have differing functions with regard to water management, these being management of process water and storage of storm water and pit inflows.

3.6 Closure and Rehabilitation

DPMKr have an approved Mine Closure Plan for mine decommissioning and rehabilitation of disturbed lands for the Ada Tepe prospect from the Ministry of Economy and Energy. The plan provides for removal of constructed facilities and roads (except where an agreement is reached for post-closure use by the Community) and revegetation of operational areas in order to attain an end-use for the site as agreed with Project stakeholders.

3.7 Water Management

The project water management plan is central to maintaining an appropriate environmental and operational performance for the project. The principle adopted for site water management is to intercept and divert away water flowing towards operational areas and intercept water in contact with operational areas. This contact water may then be used in the Project or discharged in line with discharge consents. In operation, the process plant will source its water from recycle and harvesting rainfall on the site. In a dry year, make-up water will be taken from a borehole well located approximately 0.3 km southwest of the process plant near the Krumovitsa River (see below). The project water management plan has been developed to ensure minimum impact on the surrounding community users.

3.8 Communications

The mine site will be linked to the public network in town of Krumovgrad using fibre optic cable which will support both data and voice communications. A repeater system will

provide the infrastructure to enable hand-held and mobile radio sets to communicate around the site.

3.9 Access Road and In-plant Construction

The proposed access road to the plant site is an existing secondary paved road approximately 2 km in length which runs before village Zvanarka through hamlet Pobeda of village Ovchari, two small hamlets of village Ovchariare located near by the site. This secondary road connects with the main road leading to the town of Krumovgrad, and further Kardzhali. In anticipation of increased traffic on the section of the secondary road between Zvanarka and Pobeda, 7 pull-out areas will be incorporated into the existing road to facilitate vehicle passing. The road will be upgraded to accommodate heavy vehicles. The second portion of the access road from the paved road to the plant will follow an existing dirt road for approximately 950 m. This road will be widened and paved to minimize dust emission.

On site a 950 m long road will connect to an exit of the mine open-pit and provide access to the crusher area. The main section of this road will be comprised of a 20 m wide running surface with 2 m high by 3 m wide berms located on the down slope side of the road. It will be surfaced with gravel maintained by frequent grading and water sprinkling.

The IMWF embankment access roads will provide access from the open pit to two embankment dams. One road will be 1.9 km length and will connect the open pit with the north embankment construction site. A second road 760 m long will connect to the south embankment construction. It will be surfaced with gravel maintained by frequent grading and sprinkled as necessary.

3.10 Effluent

Sewage from the various plant site buildings will be dealt with by means of a packaged Tertiary Wastewater Treatment System. Waste such as hydrocarbons from equipment maintenance will be collected and stored for collection by contractors who will remove from site and dispose of in accordance with the applicable regulations. Office waste and waste from the meals areas will be collected by a cleaning contractor.

3.11 Fuel Storage and Distribution

Diesel fuel storage will be provided to supply fuel to process equipment, light vehicles, the mining fleet and mobile plant and equipment. All fuel required at the plant site will be delivered in tanker trucks by commercial suppliers. The fuel storage area will be bunded to prevent spillage of fuel contaminating the site area or watercourses. Minor quantities of petrol that may be required can be obtained from local fuel distributors.

3.12 Vehicle Washdown Facilities

A vehicle washdown facility will be provided adjacent to the diesel fuel refuelling area. It will comprise a bunded concrete slab sloping to a settling sump. Captured rainfall and diesel spillage from the adjacent diesel refuelling facility will also be directed to this sump. A sump pump will transfer dirty water to an oil/water separator.

3.13 Power Supply and Reticulation

The plant electrical power will be supplied by the local power authority via a proposed underground high voltage cable supplied from the Krumovgrad 110 kV / 20 kV Substation. A 20 kV main substation will be established at the plant site to facilitate power distribution to various areas within the plant. Within the main substation, a tariff metering system will be established to allow for reading of whole of plant power consumption.

3.14 Buildings

Infrastructure buildings are classified as either architectural, control rooms or industrial. Architectural buildings include administration offices and ablution facilities. Control rooms include the crusher control room and the main process plant control room. Industrial buildings include workshops, warehouses and buildings that house process equipment. The assessment of building requirements has been based on the number of personnel required in each area and the functions required in each particular area. These buildings will be constructed of reinforced block-work or brick. Roofing will be corrugated steel and floors of elevated timber or on ground concrete. Local construction materials will be used to the maximum extent possible.

3.15 Fire Protection

Fire protection will consist of the provision of fire hydrants, fire hose reel cabinets and fire extinguishers placed strategically around the facilities in accordance with the requirements of the relevant regulations. Firefighting water will be supplied from a dedicated volume in the fresh water reservoir. Water is gravity fed to firewater pumps at the process plant. Jockey, duty and diesel-powered standby pumps will be provided.

Various types of fire extinguishers will be provided in areas where water as a means of fire control is undesirable. These include MCCs and control rooms.

3.16 Security

All persons entering the Process Plant and mine facilities areas will be required to pass through the continuously manned boom gate adjacent to the administration building on the access road. Security guards located within the administration building will control all entry and exit of vehicles and personnel. Search and inspection of personnel, bags and items leaving the plant will be carried out at this facility.

A stock fence will be constructed around the all project facilities including the process plant, Integrated Mine Waste Facility, mine, and raw and process water reservoir. Security fencing with lockable access gates will be installed locally around the remote pumping facilities.

Additional security fencing will be provided around the warehouse yard. All security fencing around the key areas will be 2.4 m high wire chain mesh cyclone type fencing with 4 strand barbed wire.

4.0 PROJECT CONTEXT

4.1 Project Area of Influence

The proposed Krumovgrad Gold Project is located in the East Rhodope Mountains, Southern Bulgaria, approximately 320 km (by road) southeast of Sophia in the Kardzali District immediately south of Krumovgrad. The Ada Tepe deposit is located 3 km south of Krumovgrad town, extending over 0.7 km² of the Ada Tepe hill area as shown in Figure 4.1. the SIA process will further define the project area of influence.

SCOPING REPORT FOR SOCIAL IMPACT ASSESSMENT
DUNDEE PRECIOUS METALS ADA TEPE DEPOSIT
KRUMOVGRAD PROJECT - BULGARIA
JULY 2014

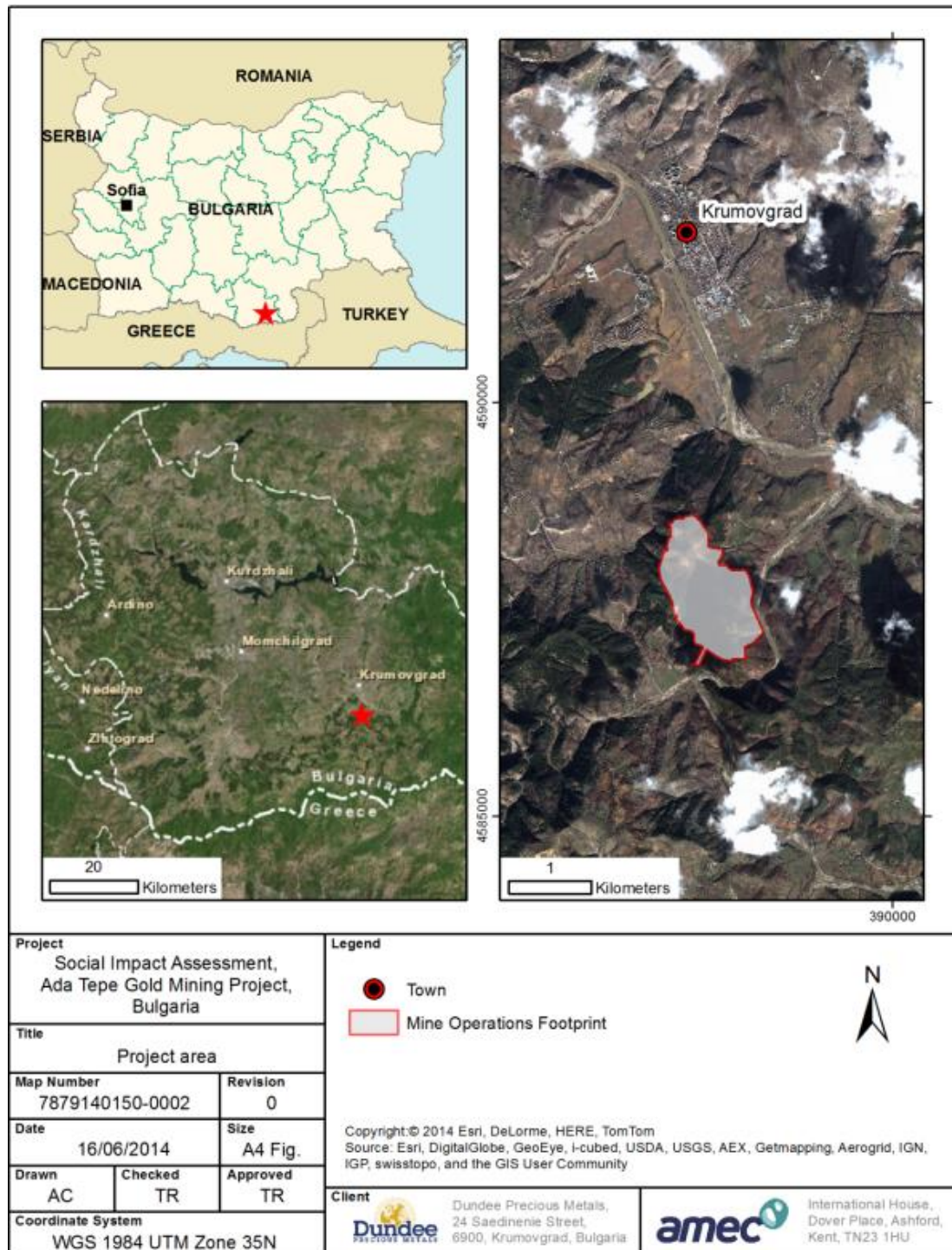


Figure 4.1: Location of the Ada Tepe Deposit

To assist initial identification of affected communities and the area of influence the following was taken into consideration: transport routes; infrastructure use (such as utilities and health clinics); potential economic, social and cultural impacts; potential extent of indirect and cumulative impacts; human populations potentially affected in non-physical ways; cultural change; change in social networks; and economic effects. Also

to assist in the identification of potentially affected communities, the following map was used and hypothetical zones were applied at 500 m, 1 km and 2 km. This process of zoning around the mine site will facilitate the analysis of the significance of the potential impacts such as noise emissions and visual, (referring to the EIA studies performed in 2010 of noise, vibration and emissions) on the communities in addition to other socio-economic impacts. This will enable the research to identify or rule out potentially directly affected communities. It should be noted that the impacts that will be considered by the impact assessment comprise of positive and negative impacts.

Figure 4.2 A map of the mine site setting, indicating hypothetical zones to facilitate the analysis of the significance of the direct physical potential impacts such as noise emissions and visual on the communities

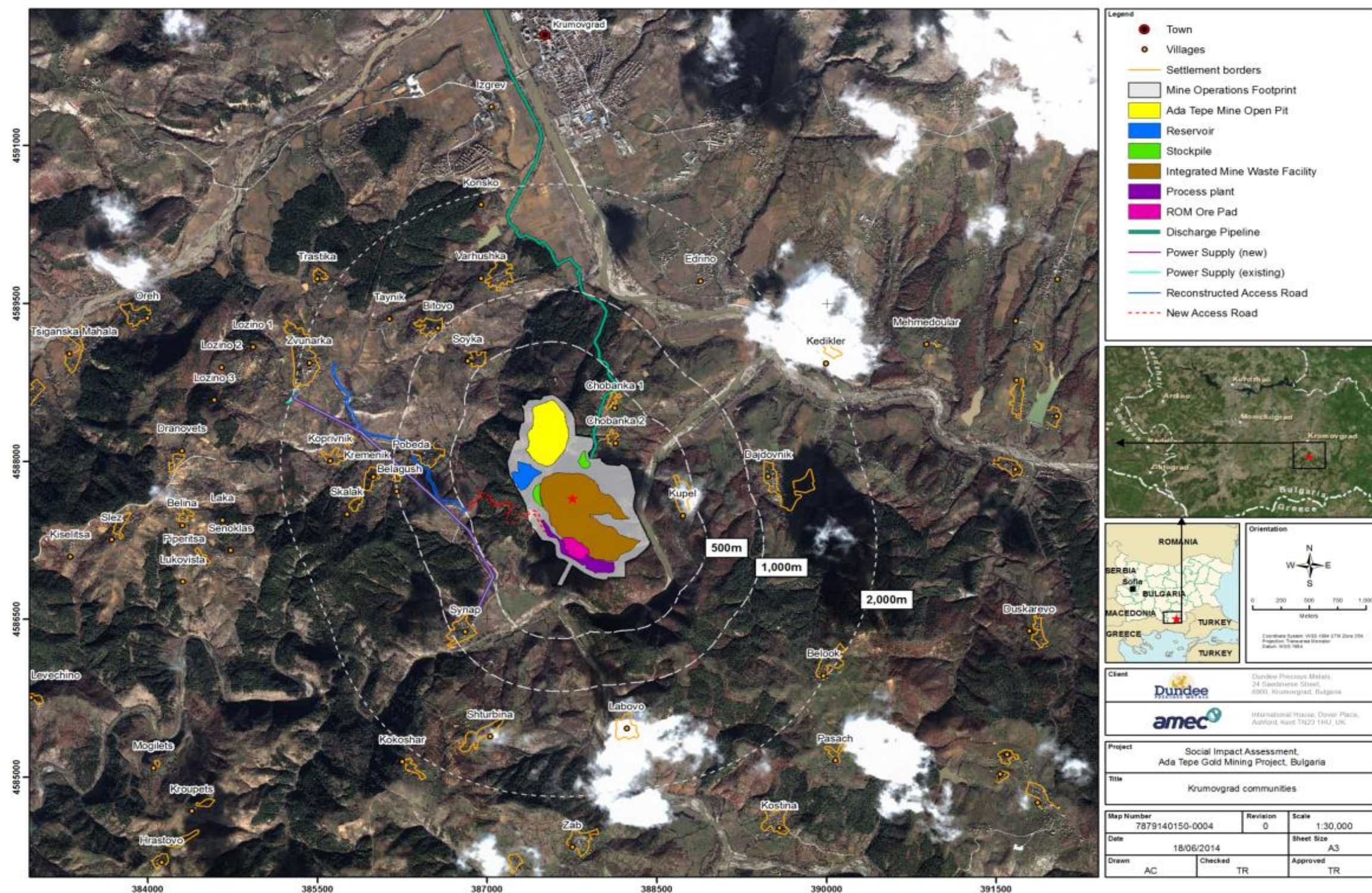


Figure 4.2: A Map of the Mine Setting

The communities that are likely to be affected by the mining activities are rural; and their livelihoods are based on agricultural activities including farming and stockbreeding. Cash crops and subsistence crops are grown. The main cash crop is tobacco. Pepper is also farmed as a cash crop. Subsistence gardening is for a wide range of crops including potatoes, onions, peppers, tomatoes, cucumbers, corn etc. The surplus of subsistence

gardening is sold. The stock breeding is predominantly sheep. It is understood that mainly dairy cows are bred for subsistence, and the surplus of dairy products is sold.



Figure 4.3: View of the potentially affected communities from Krumovgrad to ZvanarkRoad



Figure 4.4: A Typical house with an adjacent subsistence village garden.



Figure 4.5: A tobacco field



Figure 4.6: Cattle drinking point at Pobeda Village

The town of Krumovgrad is urban with a range of economic activities in addition to farming and subsistence. Activities appear to include medium and small scale enterprises.



Figure 4.7: View of Krumovgrad from the 2nd floor of a residential house with Ada Tepe hill in the background



Figure 4.8: Krumovgrad central square

4.2 Area Key Socio-Economic Characteristics

4.2.1 Governance

Bulgaria became a democratic constitution in 1991. It is a unitary parliamentary republic with a highly centralised political, administrative, and economic framework. There is a National Assembly, which consists of 240 deputies elected for four year terms by direct popular vote. The republic is subdivided into 6 planning regions, 28 districts and 264 municipalities³. The national Council of Ministers directly appoints regional governors and all provinces and municipalities are heavily dependent on it for funding. The mayor is the executive head of the municipality and is elected by the population or by the Municipal Council for a four-year term of office. Municipalities have the power and oversight for regional development, demographic issues, social integration, healthcare, development of small and medium-sized enterprises, culture, tourism, protection of the environment, child protection, and education.

The project is located in Krumovgrad Municipality in Kardzhali Province, which has borders with Smolyan, Plovdiv and Haskovo Provinces and Greece.

4.2.2 Demographics

The total population of Bulgaria in the 2011 census was recorded as 7,364,570. The population of Kardzhali Province during the same census was 152,808, which makes up 2% of the total population, illustrating a comparatively low population density in the province. The population of Krumovgrad Municipality was recorded to be 17,823⁴, 12% of the total population of the province.

The table below illustrates the total populations of some of the villages that surround the project site and of Krumovgrad town itself. Disaggregated data of the smaller relevant hamlets is not available. Zvanarka and its surrounding hamlets are the second largest community to Krumovgrad, followed by Edrino. The smallest community recorded is Skalak.

Table 4-1: Population of Krumovgrad and nearby villages 2011

Village		Total
Krumovgrad	Крумовград	5070
Ovchari	ОВЧАРИ	142

³ https://www.cia.gov/library/publications/the-world-factbook/geos/print/country/countrypdf_bu.pdf and http://www.ispeed.eu/public/docs/I-NAMRB_-SPEED_Workshop_Bracciano.pdf Accessed 13 June 2014

⁴ Source: http://www.nsi.bg/sites/default/files/files/data/timeseries/Census2011_1.pop_by_age.xls Accessed 12 June 2014

Zvanarka	ЗВЪНАРКА	589
Sarnak	СЪРНАК	131
Dajdovnik	ДЪЖДОВНИК	61
Edrino	ЕДРИНО	278
Malko Kamenyane	МАЛКО КАМЕНЯНЕ	48
Kaklitsa	КЪКЛИЦА	90
Skalak	СКАЛАК	41

Source: NSI 2011

http://www.nsi.bg/sites/default/files/files/data/timeseries/Census2011_1.pop_by_age.xls

Population Distribution

Bulgaria has had a long history of population flows through and within the country. More recently during the late 1980s there was a Government change in Bulgaria, which caused a large percentage of the ethnic Turks in Bulgaria, and notably in the Krumovgrad area to move to Turkey. Scoping studies found that the people who left during this time still have properties in the area, and of relevance in communities and hamlets around the project site and in Krumovgrad. Many have not returned at all but some return to their properties for the summer months. As such a lot of the mine site communities were typically characterised by semi derelict dwellings and few people were in residence during the scoping visit.

Previous studies commissioned by DPM indicate (and scoping studies confirmed) that there is a significant ageing population in Krumovgrad and in the communities surrounding the project site, with the younger generations leaving to study or to seek work elsewhere in Bulgaria or overseas. NSI census data illustrate that between 2001 and 2011, 4% of the total population of Kadzhali District migrated within the same region or to another area in Bulgaria and 2.2% of the population moved abroad. This compares with 5% of the total Bulgarian population moving within the same region or beyond and 2% of the national population moving abroad⁵.

Gender Balance

Bulgaria has a larger population of women than men with 3,777,999 women and 3,586,571⁶ men and this gender distribution is reflected at district level with a higher population of women (76,779) to men (76,029). However Krumovgrad has a marginally higher proportion of men to women with 8,997 men and 8,826 women and this trend is

⁵ Source: NSI 2011 <http://censusresults.nsi.bg/Census/Reports/2/2/R12.aspx?OBL=KRZ>

⁶ Source: NSI 2011 <http://censusresults.nsi.bg/Census/Reports/2/2/R15.aspx>

also represented in the villages within Krumovgrad Municipality with a higher proportion of men (6,529) to women (6224)⁷. This could be attributed to the tradition of women moving to where their husband's families live.

Ethnicity

The social fabric of the Bulgarian population is made up of a diverse range of different ethnic groups, which is representative of the country's rich history and its location in Eastern Europe and a migration route over the centuries. The table below illustrates that the ethnic Turkish population is the second largest population in Bulgaria followed by the Roma population. This trend is not reflected at Kadzhali district level, as the ethnic Turkish population is larger than the ethnic Bulgarian population. This was confirmed during scoping consultations, where a large number of consultees surrounding the project site were ethnic Turkish people. At district level, the Roma population is 1% of the total population of Khardzhali, whereas it makes up 5% of the total national population. In fact Khardzhali province has the second lowest population of Roma in Bulgaria, the lowest being Smolyan province, which Khardzhali province neighbours⁸. Furthermore, the scoping study did not record any Roma population in potentially mine affected villages.

Table 4-2: Ethnic Composition of Bulgaria 2011

Ethnic community	Bulgaria	Khardzhali
Total	6680980	130781
Bulgarian	5664624	39519
Turkish	588318	86527
Roma	325343	1296
Armenian	6552	0
Jewish	1162	0
Vlach	3684	0
Karacha	2556	0
Russian	9978	0
Greek	1379	0
Macedonian	1654	0
Russian	891	0
Ukrainian	1789	0
Other	19659	753

Source NSI, 2011 <http://censusresults.nsi.bg/Census/Reports/2/2/R7.aspx>

Religion

The religions practiced in Bulgaria reflect the diverse ethnic make up. With reference to the table below the main religion practiced in Bulgaria is Eastern Orthodox and the second

⁷ Source: http://www.nsi.bg/sites/default/files/files/data/timeseries/Census2011_1.pop_by_age.xls

⁸ (http://en.wikipedia.org/wiki/Romani_people_in_Bulgaria Accessed 15 July 2014)

Protestantism. At District level in Kardzhali the main religion practiced is Islam (sunni) and second to that Eastern Orthodox. These figures support ethnic make up of the district and illustrate that Bulgarian Turks represent a majority in the area.

Table 4-3: Religions Practiced in Bulgaria 2011

	Total	Eastern orthodox	Catholic	Protestant	Muslim Sunni	Muslim Shiite	Muslim	Armenian Apostolic Orthodox	Jewish	Other	Agnostic	Not defined ⁹
Bulgaria	5758301	4374135	48945	64476	546004	27407	3728	1715	706	9023	272264	409898
Kardzhali	117232	23916	263	223	78721	2920	586	8	-	69	1726	8800

Source: NSI 2011 <http://censusresults.nsi.bg/Census/Reports/2/2/R10.aspx>

Indigenous People

Studies performed to date do not confirm that any indigenous communities populate the area around the mine site or Krumovgrad.

Vulnerable Groups¹⁰

Scoping studies found that vulnerability was generally perceived as a disability. Scoping studies also identified that many elderly people of Turkish ethnicity and of pensionable age who were living in the hamlets surrounding the mine site, were not eligible for a state pension. Furthermore they were not receiving any remittances from family members living abroad and were living a life of subsistence rendering them potentially vulnerable to any changes in their every day life.

Poverty Levels

According to the World Bank data the percentage of the population considered at poverty level had reduced by 2.2% between 2001 and 2007¹¹. However Bulgaria is considered one of the poorest countries in Europe.

According to a report commissioned by DPM in 2007¹² Krumovgrad is reported to be one of the poorest municipalities in the country with a poverty index of 26.3% compared to the country average of 17.4%.

⁹ As defined by NSI

¹⁰ A Vulnerable individual or group is defined as being 'disadvantaged or vulnerable due to the individual or group's race, colour, sex, language, religion, political or other opinion, national social, origin, property, birth or other status. Included in this factors such as age, gender, ethnicity, culture, literacy, sickness, physical or mental disability, poverty or economic disadvantage and dependence on unique natural resources may also render an individual or a group vulnerable.' (IFC, 2012).

¹¹ <http://data.worldbank.org/country/bulgaria> Accessed 15 June 2014

¹² Vitosha Research, 2007, social assessment of the Project gold mining and processing in the Krumovgrad exploration area implemented by Dundee Precious Metals Inc

Average Family Size

The average family size in Bulgaria is reported to be 2.8 with a decrease of 0.1% since 2005¹³.

4.2.3 Natural Resources and Land Use

Bulgaria forms part of the eastern Balkan peninsula and has borders with five countries; Greece, Turkey, Macedonia, Serbia and Romania to the north. The land borders have a total length of 1,808 kilometres, and the coastline has a length of 354 kilometres¹⁴. The Balkan Mountains run through the middle of the country and to the southwest there are a further two ranges Rila and Pirin, which border Rhodope Mountains to the east. One third of the country is covered by plains and plateaus, a further third is covered by hills and added to this there is a dense network of rivers. The country is predominantly urbanised with populations choosing to live in the capital of the municipal urban centres.

The Project site is located in Southern Bulgaria, within the Eastern Rhodope Mountains.

According to studies performed by WAI¹⁵, Kardzhali Province comprises of 48.8% forested areas, 47.8% agricultural lands, 2.2% settlements and 1.2% surface water bodies. Observations during the scoping trip of the proposed project site's surrounding area confirmed that the land use comprises of woodland, and grazing areas. The areas are largely used for farming (tobacco, peppers), raising livestock (sheep, cows) and bee keeping. Woodland areas are also used for activities such as collecting wild plants and mushrooms, which are used for personal consumption as well as being sold to buyers in Krumovgrad. The area is also used for recreational activities such as hunting and walking.

4.2.4 Infrastructure

Road networks

The national road network has a total length of 40,231 kilometres of which 39,587 kilometres are paved. Bulgaria's highways are classified as motorways, expressways, or primary and secondary roads. With accession to the EU and access to funding, Bulgaria has been able to improve its expressways, however a large percentage of the road network remain in a poor state of repair. Census data indicate that there has been no secondary road improvement at all between 2007 and 2012 in Kradzhali province and there has only been a 1% improvement in the primary road system in the province¹⁶.

¹³ http://appsso.eurostat.ec.europa.eu/nui/show.do?dataset=ilc_lvph01&lang=en accessed 15 June 2014

¹⁴ Bulgaria, World Fact Book. Accessed 15 June 2014

¹⁵ WAI, April 2014, The European Bank for reconstruction and development, Krumovgrad gold project – environmental and social gap analysis

¹⁶ Source: NSI

<http://www.nsi.bg/bg/content/11413/%D0%BE%D0%B1%D0%BB%D0%B0%D1%81%D1%82-%D0%BA%D1%8A%D1%80%D0%B4%D0%B6%D0%B0%D0%BB%D0%B8>

Communities around the project site are rural and linked by paved road in which, some of which are in very poor condition. Access roads to some of the more isolated hamlets such as Chobanka 1 and 2 are not paved at all. To access the project site from Krumovgrad the road crosses a bridge over the Krumovitsa River. The bridge visually appears to be in a good state of repair.



Figure 4.9: Roads to / in potentially affected communities



Figure 4.10: Krumovitsa River Bridge (Source: DPM)



Figure 4.11: Krumovitsa River Bridge (Source: DPM)

Water and sewerage

The table below illustrates the water infrastructure services. Bulgaria's households as a whole have good access to piped water. However scoping consultations found (and the figures for 2012 below in Table 4-4 support) that few people have access to piped water, especially in the rural communities surrounding the mine site. Instead they use water from a well. Likewise households in the district of Kardzhali, including in Krumovgrad Town, have poor or no access to sewerage systems instead using alternative means such as septic tanks or soak aways. The communities surrounding Krumovgrad have no sewerage system. The smaller communities have septic tanks/soak aways.

Table 4-4: Service provision of water infrastructure services 2012

	Population connected to public water supply (%)	Population Connected to public sewerage without treatment (septic tank) (%)	Population connected to public sewerage, total (%)
Bulgaria	99.26	18.269	74.327
Kardzhali	89.595	39.982	43.941

Source: NSI http://www.nsi.bg/sites/default/files/files/data/timeseries/Ecology_9.8.xls



Figure 4.12: Drinking water well in one of the house of Pobeda Village



Figure 4.13: Drinking water feature in Synap

Electricity

Bulgaria has a well developed energy sector, with a large percentage of its electricity generated from nuclear energy.

Scoping consultations found that electricity was supplied to all communities, even the rural hamlets. The supply was reported to be reliable with few power cuts. Few consultees had access to the internet.

Telephone services and Internet

Telephone services in Bulgaria are good and mobile network coverage is widely available even in rural areas. Internet usage across the country is increasing rapidly and between 2000 and 2010 there has been an increase of 48%¹⁷. Scoping studies found that only a few households in the communities surrounding the project area accessed the internet.

4.2.5 Economic Context

Bulgaria's main economic sectors are heavy industry, power engineering, and agriculture. The latter has been in gradual decline but Bulgaria remains a net exporter of agricultural products. The tourist sector is also strong and continually growing. The informal sector contributes significantly to Bulgaria's economy as well.

According to the NSI the mean income of individuals is one of the lowest in Europe and the average monthly income is approximately 768 Lev. In 2010 Euro stat reported that 22% of the working population earned 1Euro an hour¹⁸.

2011 census data¹⁹ set out in the table below indicate that 44% of the total population are employed and 7% of the population are unemployed. In comparison, at provincial level in Kardzhali District, of the total population only 38% are employed and 9% of the population are unemployed.

This trend is reflected in the Municipality of Krumovgrad with 39% of the population of Krumovgrad Municipality employed and 9% unemployed (refer table below). However according to studies commissioned by DPM it is suggested that actual unemployment figures are a lot higher in the Municipality, however people are unwilling to register themselves officially unemployed. WAI's report sets out that the main enterprises in Krumovgrad are tailoring and the shoe industry and the scoping team understood that another main employer is the Municipality itself. Other than this there are few other employment opportunities in the area. Scoping consultations found that only a few households, which were consulted with had members who were formally employed. The local population is predominantly engaged in tobacco growing and to a lesser extent other agricultural activities such as livestock rearing and honey production. Tobacco production takes place in nearly all the communities surrounding the project site. The scoping team understood that at the beginning of the season farmers draw up agreements with the

¹⁷ <http://www.internetworldstats.com/eu/bg.htm> Accessed 15 June 2014

¹⁸ Euro stat

http://www.google.co.uk/url?sa=t&rct=j&q=&esrc=s&source=web&cd=1&ved=0CCIQFjAA&url=http%3A%2F%2Feuropa.eu%2Frapid%2Fpress-release_STAT-12-189_en.pdf&ei=E7aeU5iyNIqL7AbgtoGQAg&usq=AFQjCNFVTNr53T1r3SZtRI5bNKWN-nA9pg&bvm=bv.68911936,d.ZGU Accessed 15 June 2014

¹⁹ Source: NSI <http://censusresults.nsi.bg/Census/Reports/2/2/R14.aspx?OBS=KRZ15>

tobacco dealers ultimately selling tobacco to Philip Morris the global cigarette manufacturer, whereby they provide the tobacco plant seeds and then they buy the end product at a set price agreed at the beginning of the season. The scoping team were told that farmers were paid 5-7 Lev for one kilo of dried tobacco.

In general, observations would suggest that there are high levels of poverty in the rural areas of Krumovgrad with people living a subsistence existence.

Table 4-5: Economic Activity of the population aged 15 years and over

	Total	Employed	Unemployed	Inactive (student, retired or other)
Bulgaria	6389298	44%	7%	47%
Kardzhali	131582	38%	9%	53%
Krumovgrad	15085	39%	9%	52%

Source: NSI 2011 <http://censusresults.nsi.bg/Census/Reports/2/2/R14.aspx?OBS=KRZ15> (Report Author: the data date is not stated).

4.2.6 Education

Although the standard of the education system in Bulgaria is considered to be high, UNICEF states that ‘much progress to make if it is to achieve the five EU-level benchmarks in education and the EFA goals²⁰.’ WHO records the literacy rate in Bulgaria in 2011 for over 15 year olds as being 98.4%²¹. Education reforms have been carried out with the overarching aim to improve the quality as set out below.

- ‘The government is implementing a demonstration project on preventing school dropouts at the municipal level
- The government raised teachers’ salaries by 22.5% in 2008 and has introduced a three pillar system for differentiated payments of teachers based on teachers’ performance and school rating
- As of January 2008 a system of “delegated budgets”, where schools are funded on the basis of the number of students, has been implemented nationwide
- The government is implementing a number of measures for improving access of children to education (provision of free textbooks for children from grades 1-7, school meals, and trans- portation to schools, etc²²)’

The total number of schools (primary and secondary) in Bulgaria according to NSI data collated for 2013/2014 is 2097 of which, 65 are in Kardzhali province and 11 in

²⁰ <http://www.unicef.org/ceecis/Bulgaria.pdf> Accessed 15 June 2014

²¹ <http://apps.who.int/gho/data/node.country.country-BGR> Accessed 15 June

²² (UNICEF, <http://www.unicef.org/ceecis/Bulgaria.pdf> Accessed 15 June 2014.

Krumovgrad Municipality²³. Scoping consultations found that responders felt that schools in the smaller communities were not as good as those in Krumovgrad. There is a system of school buses which pick up the children in some of the rural areas and take them to the nearest school. It was found that children would move away to the larger cities in Bulgaria to study at University, often not returning once graduated. Generally it was felt that people did not have high skills levels.'

4.2.7 Health

Bulgaria has a universal healthcare system financed by taxes and contributions. There are 339 hospitals of which 6 are in Kardzhali Province²⁴. According to WHO statistics (2012) the national average life expectancy at birth for men 71 and for women it is 78²⁵.

The medical infrastructure facilities of Kardzhali province have slightly changed since the 2007 Census as recorded in 2012, with the number of hospital beds dropping by 43 (4%) with a reduction of one hospital from 7 to 6. In 2012 the ratio of patients to one doctor was recorded to be 384, which is not as good as the district level ratio of 254 patients to one doctor.²⁶

Krumovgrad is serviced by a large hospital, which is located on the outskirts of the town. Disaggregated data at Municipality level is not available, however WAI consultations and research found that the hospital treats approximately 200 patients a month but scoping studies found that many people seek treatment elsewhere in Bulgaria as it is perceived that they will receive better treatment. WAI studies found that Krumovgrad hospital struggles to recruit and retain staff with many medical professionals seeking work overseas where they can earn better salaries. This renders the hospital vulnerable. Scoping consultations found main reported illnesses to be high blood pressure, increasing cases of cancer, diabetes and flu, but in general respondees felt that the quality of their environment in terms of air, water were good.

4.3 Cultural Heritage

Bulgaria has a rich cultural heritage and it is recorded that prehistoric cultures began developing on Bulgarian lands during the Neolithic period. It's ancient history has seen the presence of the Thracians and later the Greeks and Romans.

Krumovgrad Municipality is also rich in culture with its diverse ethnic population and cultural practices. Furthermore, Ada Tepe is of archaeological significance and was

²³ Source: http://www.nsi.bg/sites/default/files/files/data/timeseries/Edu_2.9.1.xls

²⁴ Source: http://www.nsi.bg/sites/default/files/files/data/timeseries/Zdr_2.1.2_Mr.xls

²⁵ Source: <http://www.who.int/countries/bgr/en/> accessed 15 June 2014)

²⁶ Source http://www.nsi.bg/sites/default/files/files/data/timeseries/Zdr_2.2.3_Osig.xls

habited as early as the late Bronze Age and Early Iron Age²⁷, due to the presence of the gold ore which, was being extracted at this early time in history. Indeed it is believed to be the oldest gold mine in Europe. DPM has performed extensive archaeological studies identifying a range of archaeological features and artefacts on site.



Figure 4.14: The archaeological feature at Ada Tepe



Figure 4.15: The archaeological Feature at Ada Tepe

Furthermore, scoping studies found that a gravesite (still used) is located near Podeba, which is close to the proposed access road and a number of other gravesites close to roads in the project site communities.

²⁷ Report of the completed fieldwork. Rescue archeological survey and excavation, Ada Tepe 2012.



Figure 4.16: A View of the Cemetery from the Road

4.4 Main findings

Based on findings of the stakeholder engagement (Appendix 1 Consultation Notes) during the scoping phase, a summary of the social topics introduced by stakeholders are presented below.

Table 4-6: Issues and Questions Raised by Stakeholders during the Scoping Study

Issue	Sub issue as perceived by potentially affected population	Questions/comments from stakeholders
Employment	Lack of job opportunities in the area	People in the area are in desperate need of employment opportunities. There is rural – urban migration away from the Krumovgrad area as well as migration out of Bulgaria for job opportunities.
Environment	The environmental quality is described as “good” at present.	There is a good understanding of potential environmental impacts of proposed mining operations as itemized below.
Water quality (wells and surface water including Krumovitsa River)	Pollution of water sources used for drinking and farming	Water quality will potentially be effected by by the project.
Air quality	Dust and gaseous emissions	The air quality is excellent if the project goes ahead this may be affected.
Project Information Dissemination	Ethnic Turks, in particular, women, are not receiving sufficient information about the project. Some potentially	When asked what residents in the potentially affected communities near the mine site knew about the project they responded that they knew very little and were relying

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Issue	Sub issue as perceived by potentially affected population	Questions/comments from stakeholders
	affected communities have not had any contact from DPM	on second hand information or from observing activities to date at the mine site
Pollution	<p>The project will use toxic substances</p> <p>Exploratory drilling effected the bee population</p>	<p>People have fears that toxic substances will be used that will effect environmental quality</p> <p>Farmers fear that their buyers will not buy the communities surrounding the mine site's crops tobacco, peppers, livestock and honey because of pollutants</p> <p>Perception that the solution used for drilling and remained as a residue in the holes left had effected bees</p>
Road safety	<p>Cattle crossing the Zvanarka - Pobeda road to grazing areas</p> <p>Synap – Zvanarka road is a school bus route</p>	<p>What safety measures will be put in place?</p> <p>The road is used by a school bus at certain times of the day</p>
Blasting	Impacting structure of dwellings	Adequacy of the construction of the houses to withstand the vibrations from blasting
Land take and loss of access to Ada Tepe for recreational and additional income generating activities	Ada Tepe used for area for picking of herbs and mushrooms as well as recreational walking/hiking and hunting	<p>The area has always been used by people for foraging of wild plants and mushrooms for personal consumption and to be sold to buyers in Krumovgrad. Income to supplement subsistence farming activities.</p> <p>Individuals mentioned that they used the area to walk for pleasure.</p> <p>Hunting Association area for hunting allocated by the Forestry Department</p>

5.0 ANTICIPATED IMPACTS TO BE ADDRESSED BY THE SOCIAL IMPACT ASSESSMENT

At this early stage in the SIA, a preliminary set of potential impacts (negative and positive) has been identified. During the SIA some of the negative and positive impacts may be disregarded and others may be identified. The purpose of identifying potential impacts at this stage is to ensure that the appropriate range of stakeholders is engaged and that no affected group or individual is excluded from the engagement.

Preliminary negative and positive impacts have been structured according to themes and are presented below.

Table 5-1: Identified potential positive and negative impacts

Theme	Potential Negative impact	Potential Positive impact (With reference to the DPM Proposal for Coopartion with Krumovgrad Municipality)
Land Take	<ul style="list-style-type: none"> Development of the mine site will require a land take from state forest area for the mine site. Road widening at sections will require a permanent land take of municipal and private lands Construction of a discharge pipeline will require temporary land take of municipal and private lands Access to forest areas for foraging of mushrooms and wild herbs 	<ul style="list-style-type: none"> Access to timber generated by the Company through forest clearance Improved access to and within the communities as well as to the facilities like schools and hospitals through usage of rehabilitated and widened roads
Culture heritage and identity	<ul style="list-style-type: none"> Disturbance/destruction of cultural heritage Undermining of cultural values and sense of place 	<ul style="list-style-type: none"> Investment to support archaeological investigations and conservation of artefact that otherwise would have remained unknown ; Further planned investment to organise museum where artefacts will be kept.
Livelihoods	<ul style="list-style-type: none"> Impact on agriculture derived livelihoods (grazing areas, bee keeping) Foraging activities in forest area mushrooms, herbs, firewood 	<ul style="list-style-type: none"> Potential for skills enhancement and direct and indirect employment.
Economy, Employment and Procurement	<ul style="list-style-type: none"> Local inflation (goods and land) Increased risk of corruption Boom bust economic scenario Pressure on local banking institutions 	<ul style="list-style-type: none"> Local employment opportunities (considering skills levels available)

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	<ul style="list-style-type: none"> Reducing opportunities for local tourism and related employment 	<ul style="list-style-type: none"> Local business opportunities including recreational activities Local content and entrepreneurial opportunities Income for the national and municipal economy through revenues and taxes
Environmental / Biophysical with social implications	<ul style="list-style-type: none"> Air quality reduction Increased traffic Increased noise Light disturbance Vibration Waste management Eco systems services 	<ul style="list-style-type: none"> As part of mine closure planting native species on the disturbed forestry land. Currently non indigenous pine trees grow, planted 50-60 years ago)
Governance, service delivery and social infrastructure	<ul style="list-style-type: none"> Pressure on health, transport, sewerage and sanitation infrastructure Increased crime Pressure on police and justice infrastructure Pressure on roads 	<ul style="list-style-type: none"> Improved healthcare infrastructure; improved transport infrastructure
Health and safety (community and workforce)	<ul style="list-style-type: none"> Workforce health and safety Impacts on community health e.g. linked to air quality decline, traffic increase, work force influx and trans boundary implications Accidents and Emergency preparedness 	<ul style="list-style-type: none"> Improved workforce health awareness.
Expectations and reactions to the project	<ul style="list-style-type: none"> Feedback on potential impacts (negative) and their management Expectation of local benefits Unfulfilled expectations and resulting frustration and anger 	<ul style="list-style-type: none"> Feedback on potential positive impacts and their management Fulfilment of commitments and promises Improved standards of living of direct and indirect employees due to better income in the employees' households; Visitors to the mine could promote the tourism of the region
Vulnerable groups	<ul style="list-style-type: none"> Negative impacts relating to gender inequalities Risks to particular groups (Women, elderly (without state pensions), youth, disabled, religious,) 	<ul style="list-style-type: none"> Job opportunities - direct and indirect - for women and the youth, etc Improved standards of living of vulnerable groups and their households,

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		including support to elderly with the respective households
Local and international reputation	<ul style="list-style-type: none"> • Reputational impacts (negative) upon DPM shareholders and products • Risks to lender agreements 	<ul style="list-style-type: none"> • Reputational impacts upon DPM shareholders and products • Positive reputation because of following international best practices in all company activities and auditing of such.

6.0 TERMS OF REFERENCE FOR THE SOCIAL IMPACT ASSESSMENT

This phase develops the framework and proposed methodology for the assessment of social impacts.

Project Study Area

A preliminary social mine project study area has been established by the scoping team to assist define the scope of the areas that will be studied for the purposes of the SIA. The preliminary area of influence considered in scoping will be properly defined as part of the baseline work.

The potential area of influence has been considered to date based on the proposed project footprint (access roads, mine facilities etc.) and stakeholder consultations. Similarly the determination of the social area(s) or communities to be studied is based on inputs from DPM's community liaison and environmental teams engagement and environmental activities and understanding of the project footprint and potential impacts on the communities. As discussed earlier in the document hypothetical zones have been placed around the mine site to assist the SIA scoping and further the SIA in the identification and analysis of the significance of the potential impacts such as noise and vibrations, emissions and visual on the communities in addition to other socio-economic impacts. This is a valuable exercise as it can identify accurately the communities directly or indirectly²⁸ impacted – positively and negatively - and enable the study to understand the source of how they are impacted e.g. access road or mine site activities, thus allowing for appropriate mitigation measures to be detailed. The baseline studies and the social impact assessment will alter this area of influence as the studies reveal the context and an understanding of the impacts and the communities which could be potentially affected (positively and negatively).

Proposed Studies

DPM has undertaken a significant amount of previous socio economic studies namely:

- Alpha Research, 2011 Image of Dundee Precious Metals in Bulgaria
- DPM (2010) Social Justification for Granting of mining concession for gold ores from Khan Krum Deposit, Krumovgrad Municipality
- DPM 2011 Health and environmental assessment of DDP-PP for Investment Project Proposal for Mining and Processing of Auriferous Ores from the Ada Tepe Prospect of the Khan Krum Gold Deposit, (2010)
- Krassen Stanchev, 2010, socio economic segments of BMMs EIA, 2010

²⁸ Direct impacts can be defined as project affected people being directly affected through employment (positive) land take, noise etc (negative). Indirect impacts are secondary affects for example an influx of job seekers arriving in Krumovgrad may reduce the livelihood opportunities of local job seekers (negative) but they they will be staying in a hotel and buying food so economically the community will indirectly benefit.

- KC2, 2011, Mining and Processing of Gold Ores from Ada Tepe Prospect and the Khan Krum Gold Deposit as a project and site of national importance. The socio-economic and fiscal significance of the project for Bulgaria and for the region
- KC2, 2010, Socio Economic Segments of BMM's EIA
- Vitosha research, 2004, baseline socio-economic survey for the Krumovgrad Project impact area (2004);
- Vitosha Research, 2005, Local population's attitude to the ada Tepe Mine project in Krumovgrad Municipality
- Vitosha Research, 2007, Social assessment of the project gold mining and processing in Krumovgrad exploration area implemented by DPM inc
- WAI EBRD, Krumovgrad gold project – environmental and social gap analysis (April, 2014).

The following section details the proposed studies and methodologies recommended to be undertaken, to determine baseline conditions and potential impacts of the project to supplement those studies already undertaken.

The primary purpose of these studies is to capture the baseline conditions of the potentially affected communities. Furthermore the baseline data serves as a snap shot of the socio economic context of the area, which can be used to gain an empirical measurement of the potential positive and negative socioeconomic impacts. This is performed by projecting the existing baseline into the future both with and without the project. The before-and-after analysis of these two project scenarios will reveal the possible impacts, information gaps which needed supplementary data and potential stakeholders to be affected. Furthermore, the baseline studies will allow DPM to accurately monitor any changes that may take place over the lifecycle of the mine, to develop mitigation measures, and enable effective and targeted monitoring and evaluation of management measures established. In addition DPM has developed a proposal for cooperation between the company and Krumovgrad Municipality²⁹ and a social benefits package, a robust and up-to-date socio economic baseline will enable DPM to further enhance this proposal by developing appropriate and targeted community development projects based on an informed and recorded understanding of the socio economic context.

Social Baseline Studies

Household Survey

The key study area will include the following villages/hamlets:

- Chobanka 1 & Chobanka 2
- Soyka
- Podeba
- Belagush

²⁹ Presentation (2013) Proposal for cooperation between DPM and Krumovgrad Municipality

- Kremenik
- Koprivnik
- Skalak
- Synap
- Kupel
- Bitovo
- Dajdovnik
- Taynik
- Varhushka
- Zvanarka
- Lozino 1
- Lozino 2
- Lozino 3
- Shtarbina
- Kokoshar
- Labovo
- Belook
- Pazach
- Edrino
- Krumovgrad

The figure below shows the transport corridor/access road routes that were considered by the EIA. The preferred access road option is Route A. The mine affected communities will also be potentially affected by the preferred route widening works and the operational phase of the access road due to movement of trucks and vehicles from the mine site to its onward destination. Once a detailed design of the road widening is confirmed, and the impacts on the land ownership along the road can be established, additional communities may need to be included in the baseline studies.

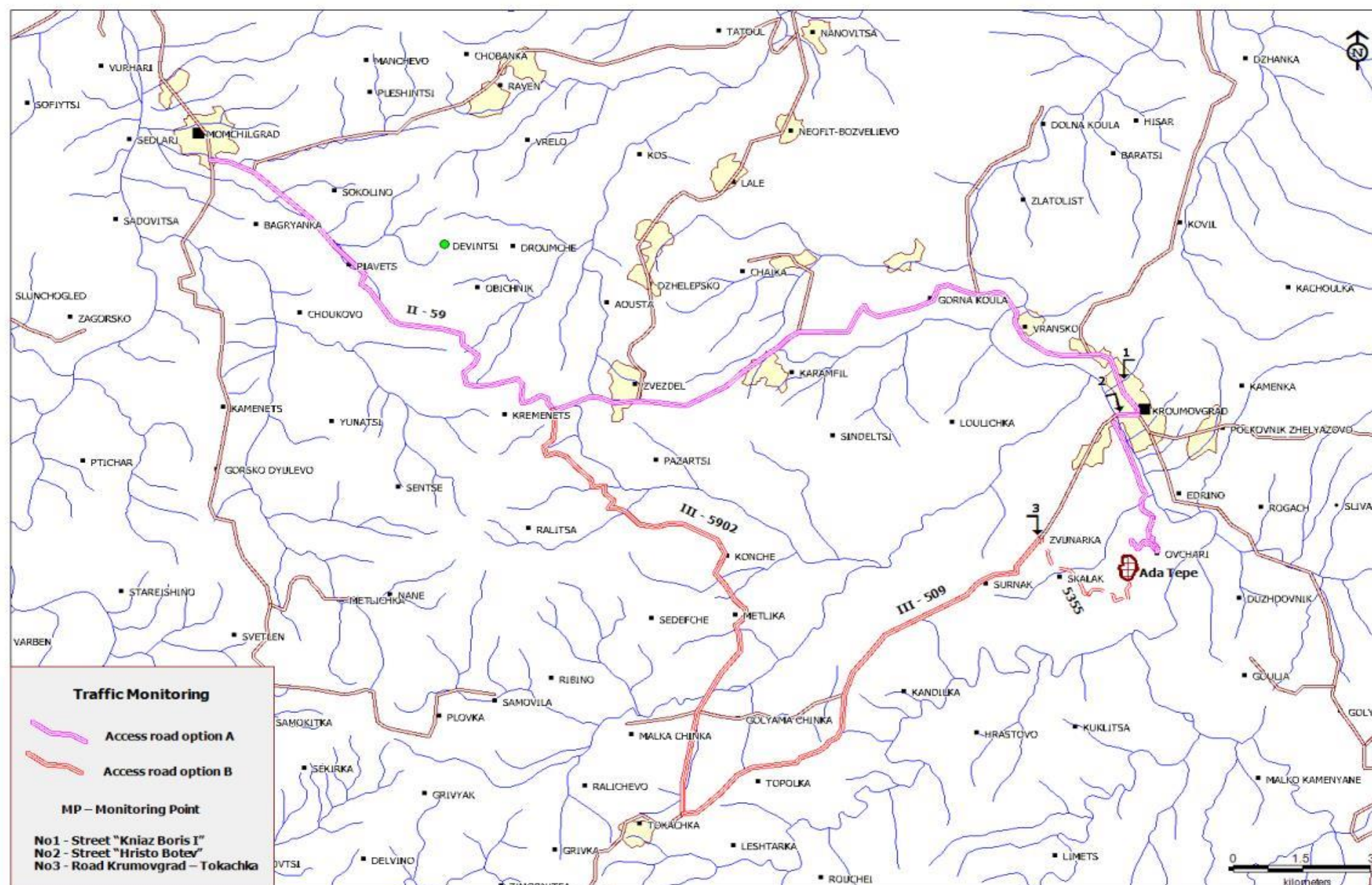


Figure 6.1: Road Access Options and the Preferred Route (Source: DPM)

An initial household survey was developed in 2004 to form part of the Vitosha research socio economic analysis of the project impact area. It is suggested that this household survey proforma should be built on using the baseline indicators listed below to develop questions. The 2004 survey produced some valuable data on health and education, which could be incorporated into an updated project baseline. In addition, the 2004 data can be compared to the new findings and the trends can be identified.

A representative sample of each community will be taken based on the total number of population residing in the communities and a minimum sample size needed in order to achieve the conventionally used confidence level of 90% with a corresponding 10% margin of error calculated.

Owing to the large population size of Krumovgrad and Izgrev, in comparison to the small populations of the mine site villages and hamlets, and the possibility that the results achieved from the surveys performed in Krumovgrad and Izgrev could distort the collective results, it is proposed to display these data sets separate to those of the mine site communities and a methodology applied whereby a representative sample of each stratum of Krumovgrad³⁰ will be taken based on the total population residing in the stratum and a minimum sample size needed in order to achieve the conventionally used confidence level of 90% with a corresponding 10% margin of error calculated.

Refer to Annex E for a detailed methodology.

Qualitative surveys

In addition to the household survey that will produce quantitative results, a qualitative data gathering should be undertaken. Qualitative methods will include one-to-one interviews and focus groups in local communities, with the local decision makers/community leaders, potentially marginalized groups, local NGOs, government authorities, using the DPM SEP as a starting point in the stakeholder identification.

It is suggested that data collection uses the following series of techniques:

- Desk studies of secondary data including incorporating recent census data (2011) from National Statistics Institute (NSI) of Bulgaria indicating national and district statistical data
- Household survey
- One to one interviews and focus group discussions
- Infrastructure and land use mapping
- Provisional Ecosystems Services Mapping (i.e. mapping of forage areas)
- Observations and GPS referencing.

³⁰ It is proposed to divide Krumovgrad in to strata.

It is proposed that the socio-economic baseline will cover the following indicative content as set out in the table below, understanding that some aspects have been captured in previous studies comprehensively e.g. archaeological study of which findings should be incorporated into a single and final baseline document.

Table 6-1: Indicative list of study areas to be incorporated in to the baseline study

<ul style="list-style-type: none"> • Governance national, regional level (as an overview), municipality and local level -formal and informal structures, organisation, etc, including social organisation (such as community decision making processes). To include location of the deposit in relation to nearby communities (drawings to locate key settlements); other sites of economic interest around the deposit e.g farms; and general describing of key settlements and why they exist³¹. <p>Data sources; existing DPM studies, NSI and consultations</p>
<ul style="list-style-type: none"> • Demography national, regional level (as an overview and a comparison). Municipality and local level - update existing demographic data with up to date information (available statistics taken from NSI) and consultations (e.g. population sizes of key settlements including distribution, inward/outward migration, age structure, gender balance, household structure, religion, race and ethnicity, vulnerable individuals/groups, poverty levels (including social welfare system), housing conditions and distribution of settlements etc). <p>Data sources; existing DPM studies, NSI, household surveys and consultations</p>
<ul style="list-style-type: none"> • Infrastructure municipality and local level (availability, quality and levels of access including sanitation, potable water, electricity, transport networks, housing, leisure facilities, information and communication technology, sources and use of energy etc) <p>Data sources; NSI, household surveys and consultations</p>
<ul style="list-style-type: none"> • Environmental context with social implications e.g. water quality, air, traffic, noise, light, vibration, waste management (status of environmental assets, current or pending issues) <p>Data sources; existing DPM studies (EIA), household surveys and consultations</p>
<ul style="list-style-type: none"> • Natural resources and land use (both legal and customary) local level source of drinking water (quality/quantity), source of irrigation water (quality/quantity), other natural resource use locally including land for farming and forest for wood to investigate any resource – based livelihoods such as picking of mushrooms, collecting herbs for subsistence and income generation as well as collecting wood for firewood. Community usage of the area for recreation, hunting and access corridors. Sensitive receptors e.g. grave sites. As well as how land is used surrounding mine site e.g. commercial farming, bee keeping, subsistence farming etc. <p>Data sources; GPS referencing, mapping, household surveys and consultations</p>
<ul style="list-style-type: none"> • Ecosystems services e.g. provisioning services, regulating services, ecosystems processes, cultural services and supporting services • Education national level – overview of the education system. Regional, municipality and local level - number of schools, teachers, perceived quality etc also level of skills. <p>Data sources; existing DPM studies (baseline), secondary data, household surveys, land use mapping (sensitive locations) and consultations</p>

³¹ WAI 2014 Gap analysis

- **Local economic context** national, regional, district and local level - key industries and business statistics , formal/(informal) employment levels,... . Regional, district and local level agricultural production. Local level - levels of income, remittances, pensions/benefits, (including a gender breakdown) household expenditure and cost of goods, house rentals, and services as well as inflation rates. Livelihoods (both formal and informal) livelihood strategies etc

Data sources; existing DPM studies (baseline), household surveys and consultations

- **Health data** national level overview of public health provisions and general national statistics. Regional, municipality and local level - mortality rates, life expectancy, access to healthcare, prevalent communicable diseases including TB, STIs and HIV and levels of teenage pregnancy. Description of local health infrastructure, including numbers of Doctors,

Data sources; existing DPM health baseline, NDI, secondary data, household surveys and consultations.

- **Cultural heritage** national, regional, (as a brief over view). municipality and local level - rituals and customs of the varied ethnic and religious groups. Include details and findings of archaeological studies already performed. In particular at municipality and local level develop a profile of rituals and customs of the varied ethnic and religious groups (historic and modern day) including languages spoken and religions practiced. Added to which a detailed chapter which includes what studies have been undertaken and what investigations found

Data sources; existing DPM studies, secondary data, household surveys and consultations

- Stakeholder views

Detailed studies

It is recommended that the baseline incorporates the following three studies:

Ecosystems services

IFC defines Ecosystem Services (ES) as benefits that people, including businesses, derive from ecosystems. Ecosystem Services include

- Provisioning services, which are the products people obtain from ecosystems
- Regulating services, which are the benefits people obtain from the regulation of
- Ecosystem processes
- Cultural services, which are the non-material benefits people obtain from ecosystems
- Supporting services, which are the natural processes that maintain the other services”.

IFC PS now place considerable importance on this new area and integrate it across the Performance Standards (IFC PS 1, 3, 6, 7 and 8).

The ES assessment will be based on the results of the socio-economic household questionnaires and focus group sessions during the social impact assessment stage. In order to achieve this, an **integrated approach** is required bringing together the social and biophysical expertise in order to focus data collection and the study. Questionnaire approaches will ensure that the focus and orientation of baseline information on the different.

Hunting (and Fishing)

It is understood that the land take for the mine will take up a significant part (approximately 1/3) of Lulichka hunting field. Scoping studies confirmed this in consultation with the Director of Forestry Department and a hunter in the community. It is recommended that the baseline studies incorporate research to establish a better understanding of all aspects of hunting and fishing in the area. The map of the hunting field is provided in Appendix D.

Wild Herbal Plants and Mushrooms

Scoping studies found that there is wide usage of wild herbs, mushrooms, and to a lesser degree berries which are collected from the forests and pastures on and around Ada Tepe for personal consumption as well as being sold to known and established 'buyers' in Krumovgrad. It is recommended that the baseline studies incorporate research to understand better the extent of usage and what part it plays in the lives of those who are harvesting them.

Social Impact Assessment Methodology

Information on potential impacts, including potential cumulative effects generated from the activities required to construct and operate the Krumovgrad Gold Project will be obtained from various sources, including consultation with stakeholders at all levels of society and incorporating and building on those stakeholders identified in the DPM SEP; SIAs for similar projects worldwide; and a literature review.

To identify and assess potential impacts associated with or resulting from project activities, the project team will use: the baseline document to establish a desk top before and after project analysis; professional judgment and stakeholder consultations /fieldwork. The significance of potential impacts that may result from the project will be then determined to assist in preparing recommendations for evaluation of the project. The methodology that will be used to identify and assess the potential impacts of the project is set out below.

Steps of Impact Assessment

Impact Assessment takes place as follows:

1. Project area of influence defined.
2. Characterize the baseline – the existing conditions before the Project is undertaken and any effects are generated

3. Identify sources of impacts and the impacts themselves that are generated by any aspect of the Project
4. Rate impacts before any mitigation (for negative impacts) or enhancement (for positive impacts) is implemented
5. Suggest mitigation and enhancement measures to address the impact
6. Rate impacts after mitigation to produce a “residual” impact rating.

Impact Rating System

It is standard practice in the entire ESIA processes to ‘rate’ potential impacts:

- To provide a basis for prioritization of impacts to be dealt with
- To provide a method of assessing the effectiveness of proposed mitigation measures
- To provide a scale which shows the level of impact both before and after a proposed mitigation measure has been applied.

In order to apply analytical rigor to the assessment, a consistent rating process will be applied to the SIA. Of note, however, any outcome with regard to reducing major negative impacts or enhancing positive impacts is dependent on the selection, applicability, implementation and effectiveness of mitigation measures for the Project.

Criteria for Rating Impacts

An impact rating is the product of two elements: (1) the severity of the potential impact, (2) the likelihood of the potential event occurring (3) the risk and significance of the impact.

Severity and Enhancement Criteria

The severity or enhancement of each impact will be rated using the criteria identified in Table below . Colours are used to assist the reader in reviewing the impacts and their relative magnitude.

Table 6-2: Severity Criteria

Grade	Type	Severity Definition
5	Social /health	Incident with massive impact, causing extensive harm, multiple fatalities, extensive damage, and international damage to the corporate reputation.
4	Social	Activity or event causing long-term interference to other users of resources, change to demographics, employment, social service provision or lifestyle that is out of line with international guidelines or national policy affecting a large number of people and lasting considerably beyond programme lifetime. Accidents, which consultations with national government and stakeholders indicated would give rise to strong complaints.
	Health	Planned activity resulting in increased mortality, long term chronic illnesses permanent disablement and/or large reduction in wellbeing in a large number of people. Accidents causing 1-3 fatalities.
3	Social	Planned activity causes change to demographics, employment, social service provision or lifestyle that may affect groups of local stakeholders during the project. Accident causing medium-term interference to other users of resources. Accidents, which local stakeholder consultations indicated would give rise to claims for compensation.
	Health	Planned activity resulting in long term increase in incidence of acute/chronic illnesses in the local community. Or short term increase in incidence of acute/chronic illnesses in vulnerable groups e.g. women, children, elderly). Planned activity resulting in complaints, litigation or fines. Accident causing permanent disability.
2	Social	Activity or accident that causes temporary interference with other users of resources, and accidents giving rise to some public concern, but not to formal complaints or claims for compensation.
	Health	Planned activity resulting in a short term increase in incidence of acute/chronic illnesses in the local community. Accident causing treatable and non-disabling injury but with some time off work (Lost Time Injury).
1	Social	Temporary interference may be noticed by other users of resources. Changes to demographics, employment, social service provision or lifestyle to which the authorities and local stakeholders are neutral. Accident that has negligible effect on demographics, employment, social service provision or the lifestyle of stakeholders.

Grade	Type	Severity Definition
	Health	Incidence of chronic and acute illness and reduction of wellbeing stays within normal variation in baseline levels. Accident causing treatable and non-disabling injury but with no time off work.
0	Social and health	No impact or beneficial changes

Likelihood and Confidence Codes

The SIA will record a code representing their confidence that a measurable change to baseline socio-economic/health conditions will happen. Where a planned activity has a direct impact, the code for likelihood will usually be D. When considering unplanned or accidental event scenarios, the code will vary to represent the likelihood of the accident occurring.

Table 6-3: Likelihood and confidence criteria

Code	Confidence that Baseline Conditions will Change	Likelihood of Activity or Unplanned Event Occurring
A	There is negligible evidence that similar projects have caused this type of change in baseline conditions. An unusual combination of factors would be needed to cause such a change.	Type of activity or unplanned event that is almost unknown in petrochemical plants.
B	There is relatively little likelihood that the proposed activity will result in measurable changes to baseline conditions.	Type of activity or unplanned event that happens occasionally during the construction and operation of a petrochemical plant.
C	There is relatively little likelihood that the sensitive receptors in question will be affected by the proposed activity.	Type of activity that could happen during the construction and operation of a petrochemical plant or the type of unplanned event associated with things that often go wrong during similar projects.
D	The planned activity is linked to this type of change to baseline conditions (e.g. the activity has a direct impact);	Planned activity or type of unplanned event that occurs during the construction and operation of petrochemical plants.
E	or there is a very high probability that an indirect impact will result from the planned activity.	Planned activity or type of unplanned event that occurs repeatedly during the construction and operation of petrochemical plants.

Significance

The grades from the assessment of the severity of each impact are combined with the code selected to represent the confidence that an impact will happen or the likelihood of impact occurrence using the matrix shown in Figure 4-11. For example, column D presented in the matrix represents the different grades for direct impacts linked to proposed activities. Column B in the matrix represents the discounted grades if the SIA considers that the same possible impact is unlikely to occur.

	Likelihood of Occurrence of Confidence that Impact will Occur				
	A	B	C	D	E
Impact Severity	5	M	M	H	H
	4	L	M	H	H
	3	L	L	M	H
	2	L	L	M	M
	1	L	L	L	L
	0	L/B	L/B	L/B	L/B

Figure 6.2: Risk and Significance Assessment Matrix.

In making the assessment, the SIA will agree their judgement as to the quality and sensitivity of the receptor or resource affected by the impact, taking into account such matters as its local, regional, national or international designation, its importance to the local or wider community and its economic value. The assessment will grade the significance of impacts in the following terms:

- High Significance – Intolerable Risk: The possible negative impact is too significant to be acceptable. Controls must be implemented to reduce either the likelihood or the impact severity
- Medium Significance – Tolerable Risk: Mitigation measures and permit conditions should be developed to control the potential negative impact so that changes to baseline conditions are kept 'as low as reasonably practicable'.
- Low Significance – Negligible Risk: The potential negative impact is acceptable to decision makers without additional mitigation measures or permit conditions. Monitoring should check that the baseline conditions are not affected.
- Beneficial – The positive impact should be welcomed by decision makers and measures taken to maximise the benefit.

Social Management Plan Framework

The key output of an SIA is the social management plan (SMP). The SMP is an adaptive management system that should be designed to assure that the mitigation measures proposed in the SIA are effectively implemented during the life of the project and continually refined and modified as necessary on the basis of actual field conditions and circumstances which may not have been anticipated at the time of SIA preparation. Understanding that there is a mine closure plan in existence, the SMP will include a Mine Closure and Rehabilitation Plan in relation to socio economic aspects.

As a management system (e.g., ISO 14001), the SMP framework should have the following components:

- An organizational hierarchy which assures day to day oversight and implementation of the SMP with the identification of a senior corporate official who has ultimate responsibility for the implementation of the system
- A clear statement of goals and a schedule of actions to be implemented including the specific impact mitigation measures identified in the SIA
- Clear responsibilities for implementation of each mitigation measure with a clear chain of command for oversight
- A budget for implementation including a budget for likely contingencies and a mechanism for budget replenishment in the event of unexpected events or circumstances (e.g., force majeure events)
- A contracting management system to assure that all contractors and subcontractors are informed and aware of the SMP and a contracting mechanism which will incentivise contractors and their subcontractors to comply with the SMP or alternatively penalise them for failure to comply with the SMP
- An on-going monitoring and reporting program, with specified reporting intervals, for the life of the project including real time management oversight and auditing (ideally by a third party) to ascertain that the impacts are occurring as predicted and the mitigation measures are effective. The SMP should also include a mechanism to continually revise and implement necessary corrective actions to assure that impacts are avoided where possible and when not avoidable are mitigated effectively.
- A Community Health, Safety and Security Plan Framework will form part of the SMPF.

Stakeholder Engagement and Public Consultation

Consultation with stakeholders is integral to the SIA process. The consultation process gives stakeholders an opportunity to comment on the proposed project as well as on the reports that are produced during each phase of the SIA. This enables the affected communities to actually be a part of the mitigation measures of potential impacts or implementing management measures.

Using the DPM Stakeholder Engagement Plan³², stakeholders will be identified at all levels of society including Municipality employees, potentially impacted communities around the mine site and along the access roads, NGOs, potential vulnerable groups such as women, elderly and youth and a consultation plan will be detailed to plan for stakeholder engagement to gather information to understand stakeholder's specific issues and concerns. This will enable meaningful participation of the affected communities in the studies. The findings and recommendations will be discussed and disclosed in an open

³² The scoping consultants were provided with the DPM SEP and a list of visitors to the Information Centre in Krumovgrad (now closed down) detailing their names, and their concerns and questions raised over the years. However an up to date stakeholder engagement register logging any engagement with all stakeholders (high, medium and low influence/interest to the project) which has taken place was not available. A stakeholder database (indicating names, contact details and analysis of level of impact and importance to the project) and log (name, date of consultation) issue raised is a valuable tool and should form part of a SEP as a 'live' document, which is updated regularly so as to track consultations, their outcomes and follow up needed, commitments etc.

and transparent manner with the affected people in order to solicit their comments and suggestions in the studies.

The basic principles of stakeholder engagement set out in the IFC Performance Standard guidelines ensure that the SIA and engagement process is inclusive, culturally sensitive and transparent. It is planned that these consultation activities and later in the process, disclosure activities will be designed along the general principles as set out in IFC Stakeholder Engagement: Good Practice Handbook.

- Consultation events and opportunities must be widely and proactively publicised, especially among project affected parties, at least one week prior to any meeting
- The non-technical summary must be accessible prior to any event to ensure that people are informed of the assessment content and conclusions in advance of the meeting
- The location and timing of any meeting will be designed to maximise accessibility to project affected stakeholders
- Information presented will be clear, non-technical and in Bulgarian or in the languages or dialects that the potentially affected population can understand.
- Facilitation will be provided to ensure that stakeholders are able to raise their concerns
- Issues raised are answered at the meeting or actively followed up.

Objective of Stakeholder Engagement and Public Consultation

The purpose of public consultation during the SIA process is to ensure that the views, interests, and concerns of stakeholders are taken into account in the assessment of the potential impacts of the project as well as in project decisions, particularly in the design of mitigation measures. In addition the public consultation aims to improve communication between the project and impacted or interested groups. The main focus is therefore:

- Stakeholder identification and analysis
- Type of consultation activities to be undertaken with each category of stakeholders
- Information disclosure, specifically the provision of timely and meaningful information that is accessible to all stakeholders
- The approach to and mechanisms for obtaining stakeholder feedback on the information disclosed
- The program for consultation to ensure timely notification of consultation activities and to tie in with key stages in the ESIA process.

Disclosure

This phase of engagement focuses on disclosing and consulting on the draft results of the SIA process (to include results of other findings of additional studies such as visual impact assessment). The specific objectives for this phase are to:

- Provide feedback to stakeholders on the draft impact assessment and associated management/mitigation measures
- Gather stakeholder input on the initial impact assessment and identified mitigation and enhancement measures.

Based on the comments received from stakeholders, a final SIA that addresses these comments.

7.0 FURTHER STEPS TO ACHIEVE SOCIAL IMPACT ASSESSMENT

The table below summarizes the next stages of the SIA process and an estimated time frame based on the understanding that an in-country consulting firm perform the household surveys, data entry, data presentation and write up. Working simultaneously, the social impact specialist will perform all aspects of the social impact assessment as well as reviewing the baseline study.

Table 7-1: Schedule of the SIA Process

Timeline	SIA Process/Activity
Week of 23 June	The SIA ToR review by DPM and the EBRD
Weeks of 7 July and 14 July	Baseline Studies: household surveys
Weeks of 21 July, 28 July	Baseline Studies: analysis and write up
Weeks of 7 July and 14 July	Impact Assessment Studies & Consultations with the Stakeholders
Weeks of 21 July, 28 July	Impact Assessment Studies: analysis and write up
Week of 4 August	Receive baseline from DENKSTATT, update SIA, review baseline and provide comments to DENKSTATT
Week of 11 August	Draft SIA delivered to DPM for comment
Week of 18 August	Update SIA based on DPM comments. Distribute Draft SIA. Draft SIA meetings in communities to disclose SIA findings

8.0 LIST OF DOCUMENTS REVIEWED FOR THE SCOPING PHASE:

Ada Tepe Mine Closure Plan for the Krumovgrad gold project, 2013
Archaeological Report, 2012
Bulgarian EIA for Mining and Processing of Auriferous Ores from the Ada Tepe
Corporate policies for anti-bribery, business ethics, disclosure policy, health and safety policy, environment and sustainable development.
DPM Environmental and Sustainability Policy, 2006
DPM Health & Safety Policy, 2010
Draft version of the social benefits package and powerpoint presentation
Local Populations Attitude Report, 2007
Meeting notes from public hearings carried out prior to scoping.
Mine Waste Management Plan, Krumovgrad Project, DPM, 2013
Minutes from 2010 EIA Public Hearings, 2011
Non-Technical Summary (NTS) for Bulgarian EIA, 2010
Prospect of Khan Krum Gold Deposit, Krumovgrad, 2010; 13 Appendices to EIA report
Proposed Mine Water balance Report, 2013 prepared by Golder's Associates
Proposal for Cooperation between DPM Krumovgrad and the Municipality of Krumovgrad
Socio-economic segments of EIA, by KC2 Management & Solutions, 2010
Stakeholder Engagement and Information Disclosure Plan, DPM, 2014
Stakeholder Engagement Plan
Social Assessment Report – social justification for the concession, 2008
Traffic Management Plan, DPM Krumovgrad Project, 2010
Updated ESAP for Krumovgrad Project, prepared by denkstatt Bulgaria Ltd, 2014
Vitosha Research – Baseline socioeconomic survey for the Krumovgrad impact area, 2004
Vitosha Research study, 2007
Wardell Armstrong (WAI), 2014, EBRD, Krumovgrad Gold project- Environmental and Social Gap Analysis

9.0 APPENDICES

9.1 Appendix A: Consultations Register

Date	Persons Consulted	Positions	Key Issues
02 June 2014	I Ivanov Erhan Eub	DPM-K Environmental Manager; PM-K PR Manager	Krumovgrad municipality socio-economic situation – demographics, affected communities, project information dissemination, Info Centre.
02 June 2014	I Ivanov Lubomir Marchev	DPM-K Environmental Manager; Environmental Specialist	Rapid reconnaissance of the project sites and affected communities. Broad characteristics.
03 June 2014	Irena Tsakova	DPM-K Operations Director	Project description, permitting, stakeholder engagement
04 June 2014	Female resident of Edrino	n/a	Please see Meeting Notes No 01
04 June 2014	Female resident of Lozino-2, Zvanarka	n/a	Please see Meeting Notes No 02
04 June 2014	Group of men, chance interview	n/a	Please see Meeting Notes No 03
04 June 2014	Mr Lambo Lambo	Director, Forestry Department	Please see Meeting Notes No 04
04 June 2014	Male resident of Pobeda	n/a	Please see Meeting Notes No 05
04 June 2014	Male resident of Synap	n/a	Please see Meeting Notes No 06
04 June 2014	Group of residents of Bitovo	n/a	Please see Meeting Notes No 07
04 June 2014	Group of residents of Soyka	n/a	Please see Meeting Notes No 08
05 June 2014	Female resident Chobanka	n/a	Please see Meeting Notes No 09
05 June 2014	M M	Chair, Euro Generation NGO	NGO background and membership. NGO view on the project. No 10
05 June 2014	Varhushka	Mayor and Ex-Mayor	Please see Meeting Notes No 11
05 June 2014	Group of male residents of Shtarbina	n/a	Please see Meeting Notes No 12

9.2 Appendix B: Consultation Notes

Number 1

Stakeholder: Edrino resident, her household runs a grocery shop / coffee shop

Date: 4 June 2014

Location: Edrino, "Aperitive" Café

Observations:

According to the National Census the village population is 278 persons. The village overlooks the River of Krumovitsa and Ada Tepe. The road to the village in a good state of repair. The houses and the vegetable gardens adjacent to the houses are well maintained. The village looks wealthy. There are tobacco plots and tobacco drying sheds within the village. The team spoke to a resident of the village, whose household runs a grocery shop and a coffee shop.

Consultation Findings:

The household consists of the three families representing three generations: the consultee and her husband; the consultee's mother who is 80 years old; and the consultee's son with his family. The consultee moved to Edrino in 1994 from a neighbouring village of Malak Deviasil which is approximately 30 km away from Edrino. The reason for the move was the better economic opportunities and facilities – a hospital, school and bank.

In addition to the grocery shop and a coffee shop which the household runs and belongs to her son they farm tobacco. The land plot that they cultivate is 6,000 m². Tobacco is sold to a dealer company. The ultimate buyer of tobacco is Philip Morris. The tobacco prices are fixed at 5-7 Leva per kilo that is "the price of one pack of cigarette". The household harvests 1,5 – 2 tones of tobacco from their plot of 6,000m². The tobacco growing period includes soil preparation in February – March, planting in April and May and harvesting in June – September, September onwards drying and preparing for selling. Fertilizers (ammonia) are applies, a 20-kg pack of fertilizers is 40-50 leve. The main irrigation source for the household is a water well. However, the well dries out in July and August, and then they need to use piped water, as proper irrigation is crucial for their tobacco growing business. In fact, tobacco growers prefer areas close to rivers to ensure access to irrigation water. The household pays 600 leve a year for the additional piped water they apply to the crops in addition to the well water. "Nature is the worst enemy" for farmers, as there are diseases that affect their crops. E.g. black spots affect tobacco and potatoes.

Farming is the main activity in the village. There is very limited number of livestock as it is expensive to keep livestock.

Farmers can get access to agricultural subsidies if their land plots are more than 10,000 m²; thus, her household would not qualify. In addition to tobacco, the main crops are corn and peppers. The village does not have any problems with the water supply and electricity.

The nearest hospital is in Kardzhali. Patients can also be referred to hospitals in Sofia for specialized treatments and treatments of more serious conditions. If a patient holding a national insurance is referred for treatment by a GP, the medical services are free of charge.

As perceived by the consultee, there is an increasing number of cancer cases in the region that the population relates to Chernobyl accident. Other conditions that are common are high blood pressure and diabetes. The patients suffering from diabetes get free-of-charge treatment. Patient with high blood pressure may get discounts on medication.

Vulnerability is perceived as a disability.

The consultee looked of pensionable age; however, she stated said that she didn't get the pension. It was explained by the consultee that a woman in Bulgaria needs 34 qualifying years of National Insurance contributions to get the full basic State Pension. However she had had a medical condition that hadn't allowed her to work; and she used to get a disability allowance that became void in 2007 as her condition improved. Herbal medicines are not used any more.

The villagers collect tea herbs from the mountains. There used to be a herbalist in the village but not any longer.

There are about 70 households in Edrino, and about 100 houses are permanently occupied. The two ethnic groups are Bulgaria and Turkish. Those who are devout Muslims and practice Ramadan are usually the elderly and not the youth. There is a Mosque in the village (the Mufti covers a couple of Mosques in the various surrounding hamlets.)

The environmental condition (air and water quality) of the region is good. However, it was stated that the pesticides and herbicides are used extensively. When asked if Ada Tepe had any value to

the consultee she responded that she has a “nice view” and she liked it a lot. She also said that in years past they used to use the lodge on Ada Tepe (now derelict).

Knowledge and concerns about project:

The consultee was aware of the project, and thinks that the project may have impacts on environment and people. People have fears that the project will cause pollution from using toxic substances and also air pollution from mining and process plant. It may affect the human health and the quality of Krumovitsa River water. If there is pollution the consultee said that people will ‘run away from here’ ‘without water there is no life here.’

The company representatives did not come to the village to inform her (TR: villagers) of the project plans. The company is not trusted.

People believe that the project will provide job opportunities – direct and indirect (service providers); and therefore, are positive about the project going ahead.

Number 2

Stakeholder: Lozino-2 (Zvanarka Village) resident

Date: 4 June 2014

Location: Zvanarka, café in the Main Road

Observations:

Zvanarka Village is located approximately 5 km south-west of Krumovgrad. The terrain of the village area is mountainous. The consultation took place in a café situated along the main road, RHS at the entry to the village.

Consultation Findings:

Lozino-2 is a hamlet of Zvanarka Village. There are 4 households with approximately 20 residents in Lozino-2. The residents are of different age groups. There are vulnerable groups in the community. "Vulnerable" was explained by the consultee as "elderly", "disabled", "families, in particular, women who look after elderly and disabled". Women do not have equal status to men; and there are instances of domestic violence in the communities. Employment is an issue. Men can find work abroad, and women remain in the community to look after the households.

A female consultee was born and has lived all her life in Lozino-2, Zvanarka village. The consultee went to a school at Zvanarka. She is an employee of the Village Mayor's Office.

The consultee's household has 5 members including herself. The consultee's father works as a driver; her mother works in a shoe shop. She was married but is divorced because her ex husband was violent.

The household has a vegetable garden, and the produce is for the household consumption only. The water supply is from the boreholes (or water well?). Ground water level drops in summer months, and they have to go to a neighbouring community that has a water spring to get water. There is no formal waste collection system in her hamlet, and the families collect and take their waste to disposal sites themselves.

Residents of the area collect forest products – herbs for tea, mushrooms, berries.

People from the consultee's community go to the hills for leisure. They didn't go to Ada Tepe in particular, because it is too far, but went to other hills.

The consultee was aware about archaeological investigation on Ada Tepe.

The consultee's household uses the hospital in Krumovgrad.

The environmental condition of the area used to be better: "we used to have more and better agricultural produce. Soil used to be more fertile. The Climate was wetter."

Knowledge and concerns about project:

The consultee knew about the project, and believed that the project was a positive development opportunity for the area, as it would provide employment opportunities for people. She got information about the project from the newspapers and Internet (she goes to Krumovgrad for Internet). She personally had not been to the Information Centre, but some of her acquaintances had done. Nobody had come to her hamlet to inform them about the project; but she was aware that the representatives of the company had been to Zvanarka for the meetings. Perceived environmental impacts of the operations are air pollution, noise, dust, pollution of Krumovitsa River. The consultee does not think there are ways to mitigate these impacts. Those, who live in the vicinity of the mine, will be affected by the mine operations, including the hamlets of Zvanarka, Skalak, Ovchari, Syrnak. People are reluctant to discuss the project, it may be because they are stressed about the potential impacts.

Number 3

Stakeholder: A hunter from Krumovgrad area, two employees of the Department of Forestry (rangers) plus 2 other men from Krumvgrad area

Date: 04 June 2014

Location: Café in Zvanarka, a chance interview

Observations:

Not Applicable

Consultation Findings:

A group of men met at a café in Zvanarka happened to be a hunter from Krumovgrad area, two employees of the Department for Forestry and a local farmer. A chance consultation discussed the hunting issues.

A hunter was from Syrnak village and a member of the Lulichka hunting group, which is a member of the National Union of Hunters and Anglers. The Union is understood to comprise regional associations comprising of hunting groups. The Lulichka hunting group uses 3 hunting fields near Krumovgrad, one of which is at Ada Tepe (PIs see Appendix D for a map of the hunting grounds). There are 13 hunting groups in the Krumovgrad Region united in the regional hunting association. Each group has approximately 50 – 60 members. Every hunter must register for a hunting license, which can be taken away if they do not meet their commitments to maintain the hunting fields they use or do not observe the laws governing hunting e.g. if they don't observe hunting seasons that are strictly laid out as follows:

- For large mammals from 01 October to 31 December
- For birds from 15 August to 31 December.

The hunting season can be extended to 15 January as an exception.

The activities of the Association include monitoring of the conditions of the species of mammals and birds; monitoring of the conditions of populations; management of natural resources; and biodiversity restoration and management. With regard to biodiversity and protected species within wider environs of Krumovgrad Region the following biodiversity aspects were mentioned:

- Protected oak trees
- Turkish Hazel (*Corylus columna*), Bulgarian: Turska Leska (TR: Distribution: SE. Europe to N. Iran)
- Caves with bats located about 15 kms away from Ada Tepe towards Rybino
- Encounter of Imperial Eagle – one couple, which nests in a remote area, about ~40 km east of Krumovgrad
- Introduction and increase of population of Dutch rewilded horses (Koniks) to the Rhodope mountains near Strandgevo village, which is at about 35-40 km east of Krumovgrad
- Programme to introduce European bison (*Bison bonasus*)

To control the population of predators the association pays the hunters for shooting the following species:

- 1 Wolf – 100 Leve;
- 1 Jackal – 25 Leve;
- 1 Fox – 10 Leve

The users of forest include hunters, and those who collect mushrooms and herbs.

Knowledge about project:

The farmer and the rangers said they were familiar with the project proposal. They had visited the Info Centre in town on a couple of occasions and took part in the public hearings of the Environmental Impact Statement a few years ago. The hunter said he knew a little about the project, mostly from talks with other people.

Questions Raised:

The farmer said his herd crossed the Zvanarka-Pobeda road (the main road access to the project site) to the grazing fields there and wanted to know if and what measures would be implemented to ensure safe crossing of the road by animals.

Number 4

Stakeholder: Mr. Lambo Lambo, Director of Forestry Department, Ministry of Agriculture & Forestry

Date: Wednesday 4 June 2014

Location: Forestry Department Offices, Krumovgrad

Consultation Findings:

49,356 hectares of forestry land are under the jurisdiction of the Krumovgrad Forestry Department. This comprises of forest lands and grazing areas. This area is subdivided into 4 smaller areas each with a supervisor for management purposes. These 4 smaller areas are further subdivided into forest plots, and rangers are assigned to look after smaller forest areas. The mine site is entirely in the Zvarnarka area where there is one ranger assigned who also works in the Tokasha area. The Forestry Department's mandate is to carry out: on-going forest management, monitoring for diseases of tree species; erosion controls; maintenance of forest roads and access routes; fire safety; sapling nursery; managing hunting and grazing; tree cutting (controlled and scheduled felling of trees).

Hunting takes place in the area and it is governed by hunting seasons (for big game it is 1st October – 31st December). There are a number of hunting groups who are assigned to different areas. The hunting group on Ada Tepe covers this hill as well as a large area beyond this. Approximately one third of this area will be given up to the mine footprint. Compensating this loss with another area would not be possible as it would mean taking land from the other hunting groups assigned areas. It is believed that the area of this hunting group is sufficient to cope with the loss assigned to the mine footprint. The hunting groups are responsible for the forest and animal management as well as on-going maintenance of their assigned area (e.g. putting salt licks for animals, growing saplings and different grass species). Forests rely on natural renewal of forest areas – planting does not take place unless there is particular species. Hunters pay an annual hunting membership fee which is 40 Lev (15 Lev goes to the Forestry Department and 25 - to the Hunting Association) and they also pay for each hunt, which is 60 Lev per a group of hunters. Hunters are paid by each association to hunt predators. The Association of Hunters is a non-governmental organization managed by its Board.

Other forest users are local communities who pick herbs and mushrooms (permits are required if not for personal consumption).

Knowledge about project and perceived impacts:

The area of the footprint is relatively small. The environmental impact statement made the finding that they do not expect any significant impacts provided that the company meets all its commitments. Added to which when the project closes there will be measures to rehabilitate and compensate for the losses (a mine closure plan).

There are no directly affected people in the area as it is all Forestry Department owned land – there are no private landowners.

Feels well informed through accessing information from the information centre in Kumovgrad as well as his own research out of curiosity.

Number 5

Stakeholder: Pobeda resident

Date: 4 June 2014

Location: Pobeda

Observations:

The village is located along an access road to the mine site from Krumovrad. The road to the village is paved and in a good state of repair. The houses and the vegetable gardens adjacent to the houses are well maintained. There are tobacco plots around the village. The houses have water wells. The team spoke to one resident of the village, an 81-year-old man who was born in the area and had lived his life in the village.

Consultation Findings:

The consultee was born and had lived all his life in Pobeda. He is an ethnic Turk, and his sons live in Turkey at present. He is retired, and he gets a pension of 300 Lev a month. He lives on his own; his wife died 3 years ago, and is buried on the village cemetery that is a short walk from the village. His house has electricity (a reliable supply); and there is a water well in the garden.

There are no shops in the village or nearby; therefore he orders the delivery of the groceries by telephone. The delivery is every week, and the service is reliable. The pension that he gets is sufficient for him to get anything he needs.

There are 10 to 15 residents in the village.

The area is very nice – the air is fresh, the drinking water is good. Thus, the consultee is in good health. He has no health problems, and does not need to go to the hospital.

Knowledge and concerns about project:

The consultee knew about the project, and believed that the project was an excellent development opportunity for the whole area and his village, as it would provide employment opportunities for people. He had no concerns or fears about the project “unlike other people in the region”. He mentioned that there was one household in the village who were opposed to the project.

Number 6

Stakeholder: Synap resident

Date: 4 June 2014

Location: Synap

Observations:

Village consists of approximately 10 houses. The majority of the houses in the hamlet seem abandoned but not dilapidated. The hamlet is in a valley within which the agricultural land is not used. We spoke to two people in the village both of whom lived in Turkey during the winter months; but returned to Bulgaria for the spring/summer months. There is a water spring made in to a feature in front of the houses. The road to the village was narrow and in a relatively good state of repair.

Consultation Findings:

The consultee was born and had lived all his life in Synap and he worked as a primary school teacher in Zvarnaka (now he is retired). He now only returns to the area during the summer months because his family live in Turkey mid way between Ankara and Istanbul (he is an ethnic Turk). He mentioned that there used to be a very good primary school system in Bulgaria.

He said that he had always picked herbs and mushrooms; and walked (and still does) for pleasure all over the hills around Ada Tepe. He said that this area has a long history including a Roman fortress.

His house in Synap has electricity; there is no piped water or a sewage system. There had been plans to run a pipe from a borehole years ago and preparations were made but then the Government changed and the project was not pursued. Instead they use a borehole in the garden.

Knowledge and concerns about project:

He mentioned that there had been a lot of debate over the years whether the project would ahead or not. There have been questionnaires, surveys and he understands that the project has been signed off. When he used to walk in the hills he would meet the Geologists and Archeologists working on the project and he chatted with them about the project, therefore understands about the project indirectly. He said the company has always treated the local population in a proper way, and respects them. Personally he feels that he loves his birthplace and "the wealth of treasures should remain where they are".

Number 7

Stakeholder: Bitovo Residents

Date: 6 June 2014

Location: Bitovo

Observations:

The team talked to 3 ladies (ethnic Turkish) and then a man came along and joined the conversation. The hamlet, which is on the side of a hill with rolling pastures in to a valley, overlooks Soyka and beyond that Ada Tepe. The women did not speak Bulgarian and the scoping team used a Turkish translator. The villagers were farming livestock (sheep and cattle). The hamlet seemed more habited than other villages that had been visited. It was reported that there was electricity but no sewerage system or running water. Some people with children in the village used internet. The road to the village was in a relatively poor state of disrepair.

Consultation Findings:

There are 16 houses in the village of which 8 or 9 are currently inhabited and are lived in all year round. The residents of the other houses live in Turkey most of the year. Only farming of livestock takes place, they do not grow crops.

Knowledge and concerns about project:

When asked about the project's intentions the 4 people said they did not know anything but the man had done some work for the company so had a small amount of knowledge. The ladies asserted that they were not aware of any information related to the company but they were aware that there was gold on the hill side which could be mined.

The residents did not pick mushrooms in the woods.

When asked how they may be impacted by the project the ladies stated that the air quality may be affected and raised concerns about dust and gas emissions as well as deterioration in surface water quality. They source their water from the river Krumovitza in the valley using a pump up to the village.

Number 8

Stakeholder: Soyka residents (a group of 8 male and female residents)

Date: 4 June 2014

Location: Soyka

Observations:

The village was remote and relatively difficult to access by road. The road was in a bad state of disrepair. It is on top of a hill overlooking and directly in front of Ada Tepe hill. The houses in the village were inhabited but looked quite dilapidated. The residents were ethnic Turks and the women spoke no Bulgarian so a Turkish translator was used.

Consultation Findings:

Five families live in the village. The residents said that they had all been born and raised in this village and lived all their lives there, however they did travel to Turkey to see relatives who moved there in the 80s. Relatives do not send money to them in Bulgaria but they do maintain connections.

The main income generating activities are livestock, tobacco and bees. Subsistence vegetable farming surplus is sold. Buyers come directly to the hamlet to buy meat. However there is no organized system for selling milk e.g. a regular buyer.

The residents take their animals to the edge of Ada Tepe forest to graze. The bees fly up to the Ada Tepe area. They collect herbs and mushrooms in the concession area. Each herb has its season, there is not one particular season. Ada Tepe does not have any special value to the residents it is only good for grazing the animals.

Some of the residents looked of pensionable age but did not receive a state pension.

Health Issues

If they needed a hospital they would use the hospital in Krumovgrad and they would walk to it taking 25/30 minutes or they would take a car. Common illnesses are flu, high blood pressure and diabetes.

Knowledge and concerns about project:

It was perceived by the residents that the drilling that had taken place affected the bees. It was understood that the solution used in the drill process and the residue which had been left in the drill holes affected the bee population.

The women knew very little about the project. The knowledge had been gained when the drilling on Ada Tepe took place. However some of the men did know about the project. One of the residents was very well informed and said that he knew that the project would take 3 years to construct, 9 years of operation and then 5 years of closure. He added that there would be 2 blasts a week using 7 tonnes of explosives and it would be a 24 hour operation. He said that he had gained his information from the Mayors office 2 or 3 years ago. There had been a small pamphlet which had information on it. Other than that no one from the company had visited the village.

One man feared that the impact would cause fly rock to be 'shot in the air' and the ground would vibrate. He stated that every blast will shake the ground and he was afraid of the psychological impact caused by this. He also feared that the blasting operations would cause dust pollution the immediate area and the big machines used would make a lot of noise. Other residents also raised concern about the effect of the project on the water quality potentially causing sickness. They were concerned that if the operation discharges waste water in to the river it will have a negative impact on Krumovgrad and the town has no alternative water source.

They stated that Ada Tepe has sentimental value to them - every day they looked at it and it was beautiful. They fear that when mining starts their buyers of meat and tobacco will no longer buy anything because they will think that it is polluted or affected in some way by the mining.

Number 09

Stakeholder: A lady cattle herder and resident of Chobanka 2

Date: 5 June 2014

Location: Chobanka

Observations:

The two hamlets consist of approximately 7 houses. Nearly all of them were dilapidated and in a bad and unlivable state of repair. All households had left the village and gone to live in Turkey in the 1989/1990 and did not return to Bulgaria at all (the residents were ethnic Turks). At present one family lives in the village who borrowed the house off their friends. The hamlets are under Ada Tepe and probably the closest dwellings to the mine site. The team spoke to a lady who lived in the village with her husband and were the sole residents of the two villages. The one habited dwelling had a vegetable garden and used the surrounding pastures for grazing cattle. The road directly to the hamlets was a dirt road and in a relatively bad state of repair.

Consultation Findings:

The lady and her husband moved to Chobanka in 1993. They had a flat in Krumovgrad, which they no longer lived in and they borrowed this house off friends of theirs whom had moved to Turkey. They do not pay rent but when the couple returns for holidays they support their stay. Their daughter lives and works in Greece. They had moved to Krumovgrad, where her husband had a job in a marble shop, in 1982 from another small village nearby on the border with Greece. In the late 80s (started in 1987 and mostly in 1989) their friends from Chobanka and other families left for Turkey. She said although her and her husband are of pensionable age they do not receive a state pension.

They collect mushrooms, herbs, hay and whatever else they can from the surrounding area including Ada Tepe and they sell it in Krumovgrad. The mushrooms are sold to a buyer. They take their dairy products to Krumovgrad to be sold also.

The value of the surrounding countryside is very high to the consultee, she said she likes it very much and you cannot find an environment like this in many other places.

She said the dwelling they are living in has electricity (they are the only house in the village with electricity) there is no sewerage and no piped water (just a well).

Knowledge about project:

She said that she had heard about the mining project from other people. She said that she did not know much about it and elaborated that she could not put it in to words what she feels about it. She said that the amount of money invested for the exploration process and the drilling will mean that they will not give up and the project will go ahead. She is unsure which hill the mining will take place on but she has witnessed that there has been a lot of drilling on the ridge (just above the hamlet) so she assumes that the mine will be there.

She believed that the impacts would be related to air and water but she said that she could not really tell.

Number 10

Stakeholder: President of Euro Generation NGO, Krumovgrad

Date: 5 June 2014

Location: Krumovgrad

Consultation Findings:

Euro Generation is a NGO which was set up in 2008. It was set up with the youth of Krumovgrad in mind and that they should be part of and included in the decision making processes that take place in the town. It was primarily focused on Bulgaria's membership with the EU. There are approximately 30 members. Membership is non fee paying and based on volunteer work. There is an equal amount of male and female members and they are all over 30 years old. There is only 1 'proper' NGO in town. Other non-governmental institutions are various associations and unions.

The Krumovgrad problem is that people are fleeing the town. The number of residents has dropped radically. The hope is that the Company, DPM, would provide jobs and would stop the people leaving. The president said that she would like to see people coming back to Krumovgrad once they have got their education.

The community is predominantly Muslim therefore there is a lesser understanding of Bulgarian. Women have a lesser role in society and remain in the background and their education levels are generally low. There are no vulnerable groups particularly – some people with different ethnicity.

Knowledge about project:

The President was well informed about the project and had the realization that eventually the project would go ahead. She said that the community and the company had achieved a lot over the years; in particular, as the DPM had changed the project design due to the public pressure. The new design answers people's fears. The fact that the company would buy a water treatment facility for the town would be a 'dream come true' for the town.

It was believed that there would not be one hundred percent positive or negative impacts. She said their role as an NGO is to exert enough influence to make things happen from the beginning and to have a positive influence on the project which will appease the members.

She said that people are adequately informed. However the wider population still feel that the project will use cyanide and have old fashioned ideas of gold mining. She stated that an open and frank

conversation is needed so that everyone understands what the project consists of. The affected communities need to be reached out to using media such as postcards, and signs.

The company is now part of our lives so we have an expectation that there is good communication.

Number 11

Stakeholder: Varnhushka Ex mayor and the current Mayor

Date: 5 June 2014

Location: Varhushka

Observations:

The town was relatively modern (built in 1984/5) and there were approximately 18 houses with well maintained gardens. The village looked comparatively wealthy. The town is on a hill overlooking Krumovgrad to one side and Ada tepe in the distance on another side. There were a lot of tobacco drying sheds and surrounding lands were sowed with tobacco. The ex mayor was well informed about the project and had been the beneficiary of a trip to Spain organized by the Company. The team also spoke with the Mayor who had been in office for the previous 3 years, she lived in Soyka and was well informed about the project and held a copy of the EIA.

Consultation Findings:

The villagers pick mushrooms in the forest and pick herbs on Ada Tepe and graze their animals up to the edge of the forest. Ada Tepe was used for recreational activities in the past. It was said that most households in the village have a cow, and farm tobacco and vegetables. Some families sell the vegetables surplus, others just grow for their own consumption. The tobacco crops are bought by Philip Morris, a contract is drawn up at the beginning of the season, a set price is given per kilo and seedlings are provided.

No one in the village has formal employment and it was said that people are in desperate need of employment.

An average household size is 5-6 members with 2 children in families on average.

The Mayor elaborated that the status of education in smaller villages schools is poor but the schools in larger towns, e.g. Krumovgrad were better. She takes her son to a school in Krumovgrad.. There are school buses but in the more rural cut off areas there are not.

Men normally get married when they are 26 – 27 years old, and women, when they are 24-25. Very rarely women have children without being married. Teenage pregnancy is a rare phenomenon as it is not accepted morally within their culture and therefore it is not considered an issue.

There is electricity in the village. Quite a few people have the internet access.

The types of problems the Mayor has to deal with on a day to day basis are varied and multiple. People come to her for information e.g. about the mine operation.

Knowledge about project:

The ex mayor was very well informed and he said the information centre was essential in providing information. And during the 8 years whilst he was Mayor he met with all the reps. His impression of the Spanish operation was acceptable but he said he was not sure how it would work out here. He explained that the company's General Manager had made a commitment that the mine operation would comply with European Union standards.

The Ex mayor said that he could not say how the village may be impacted by the operations despite seeing the operation in Spain.

The Mayor did not know what impacts there would be on the surrounding socio environment. She said that there had been adequate information provided and that the Mayor's office had been provided with a copy of the EIA.

Questions/concerns Raised:

The residents look forward to the project start-up, as it is believed to provide the job opportunities. A concern was raised about the adequacy of the structure of the houses in the village to withstand the vibration from the blasting. Reference was made to the 'seismic' effect of the blasting.

Number 12

Stakeholder: 4 residents of Shtarbina

Date: 5 June 2014

Location: Shtarbina

Observations:

The hamlet consisted of about 7 houses on either side of the road. Some houses were inhabited and some were empty but in a moderate state of repair. The road to the hamlet was in a good state of repair. The house we stopped at had approximately 10 active bee hives, and the men were sorting out a large amount of mushrooms (girolles) recently collected from the surrounding area.

Consultation Findings:

The households collect mushrooms from a near by forest. They do not go to Ada Tepe because a lot of people go up there looking for mushrooms – they know a better place. They take them to Krumovgrad to sell them to a buyer and are paid 1.5Lev for 1 kilo. This is not their primary income –rather for pleasure.

All 4 men farm; tobacco; keep livestock (one man kept sheep; another man had cows and surplus was sold) They also farmed tobacco. They sold honey (10/15L for a kilo of honey).

There are 3 houses with 3 families who permanently reside in the village but there are additional 4 families who come back in the summer from Turkey (they are all ethnic Turks). There are 3 children in the village who go to school in Krumovgrad and travel to school by a school bus which picks them up from the village.



Knowledge about project:

They were aware about the project but did not have exact information. One of the men had visited the information centre in Krumovgrad and seemed to know Samir, an employee of DPM. Another man had worked as a contractor for DPM during their drilling programme. They stated that they were approx 2.5 km from Ada tepe as the crow flies. They believed that they would be affected by the project through pollution, which would cause them not to be able to continue with their agricultural activities (crops, livestock and bees).

Questions Raised:


They asked if the team had heard anything about pesticides being sprayed as they were concerned as bees are sensitive to pesticides. Currently there are no issues with bees.

9.3 Appendix C: Dundee Precious Metals Inc Environment and Sustainable Development Policy

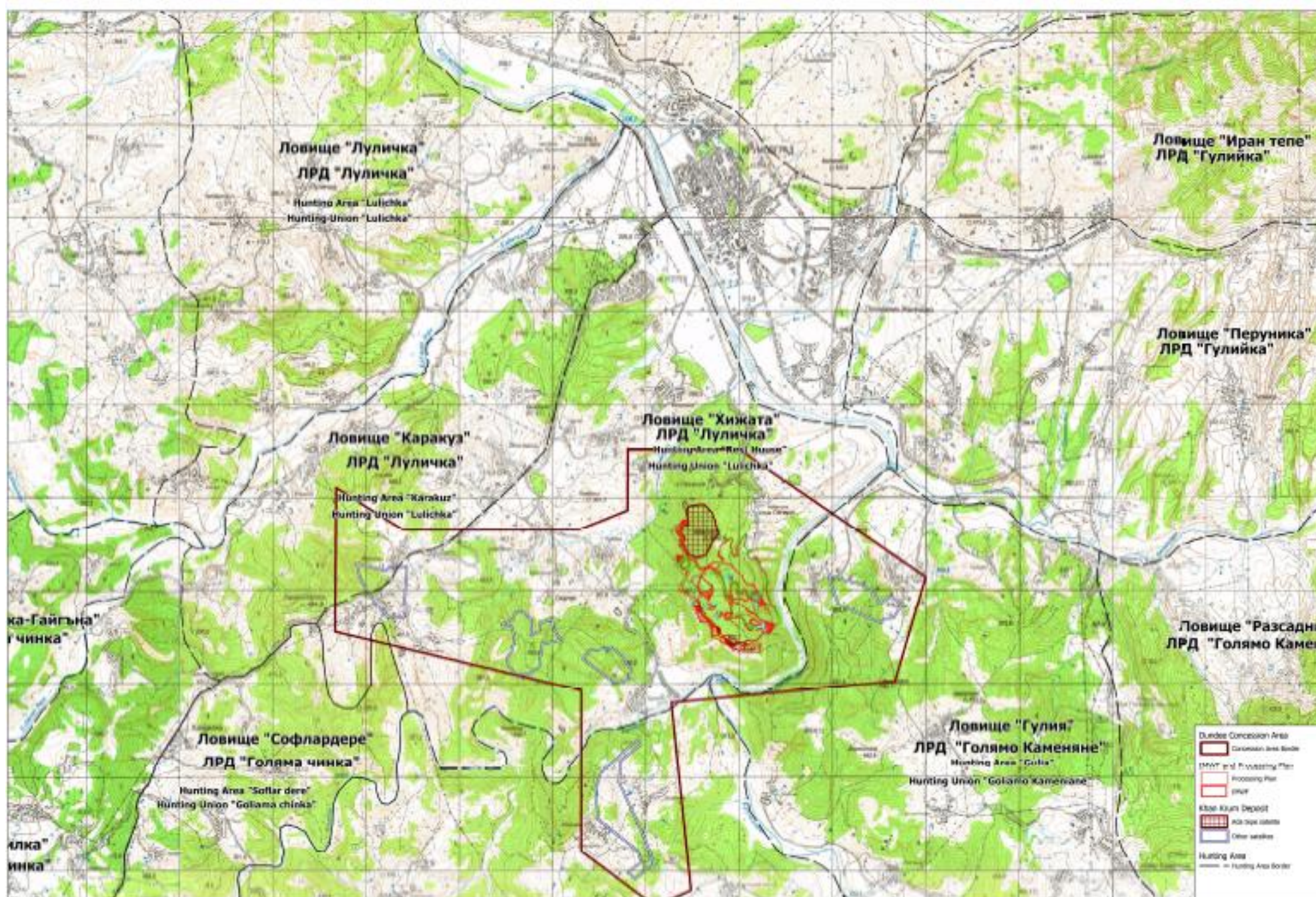
 <p>Одобрил : Approved by: Adrian Goldstone- V.P., Environment & Sustainable Development</p>  <p>DUNDEE PRECIOUS METALS INC.</p>	
В сила от : 3 ноември 2006 г	Effective: November 3, 2006
ПОЛИТИКА ЗА ОПАЗВАНЕ НА ОКОЛНАТА СРЕДА И УСТОЙЧИВО РАЗВИТИЕ	ENVIRONMENT AND SUSTAINABLE DEVELOPMENT POLICY

<p>„Дънди Прешъс Металс“ Инк. (ДПМ) ще продължи да оправдава доверието на своите акционери и развива дейности в съответствие с най-високите стандарти за етичност в работата и обществено поведение. С такава цел компанията е разработила и въвела набор от политики и процедури, които очертават начините за постигане на приетите стандарти. Настоящият документ обобщава основните елементи на политиката на ДПМ по опазването на околната среда и обезпечаване на устойчиво развитие. Политиката е комплекс от конкретни разработки и отчети, като целта на настоящия сбит вариант е осигуряване подкрепата на всички участници в нашите дейности към ангажиментите на компанията за устойчиво развитие и опазване на околната среда, по начин, по който изпълняват останалите свои ангажименти.</p>	<p>Dundee Precious Metals Inc. will carry out its business and create sustainable shareholder value following the highest standards of business ethics and social behaviour. To this end the Company has implemented a number of policies and procedures which outline how we expect these standards to be achieved. The following statements outline the environmental and sustainability components of Dundee policy. These policies will be supported by more detailed documents and reports but we expect that every stakeholder in the business will support and abide by these policies in the way that they go about business.</p>
<p>Опазване на околната среда:</p> <ul style="list-style-type: none"> ДПМ с всичките си дружества се ангажира да развива дейностите си по начин, който в максимална степен използва възможностите за опазване на околната среда и свежда до абсолютен минимум екологичния риск и въздействия; ДПМ се ангажира да извършва дейностите си в пълно съответствие с приложимите закони, подзаконовите актове, норми и стандарти; ДПМ осъзнава, че в някои случаи поставя ново начало и трябва да приеме ролята на водач и ментор при прилагането на модерни методи и системи за добив и преработка на природни ресурси, управление и законност, в съответствие с най-високите стандарти. Компанията поема свързаните с това отговорности за обезпечаване на оптимални ползи за местното население и се ангажира с изпълнението на настоящата политика. 	<p>Environment:</p> <ul style="list-style-type: none"> DPM and its subsidiary businesses will operate in such a way as to maximise the environmental management opportunity existing in mineral development projects and operations and minimise the environmental risks and effects DPM will ensure compliance with applicable laws and regulatory controls. DPM understands that we may be operating in areas and countries where we take a leadership and stewardship role with respect to modern mining technology, management, and law and where there will be significant benefit from our presence and will apply this policy accordingly.

<ul style="list-style-type: none"> • Някои нормативни изисквания и стандарти са специфично обусловени от конкретния вид производство и в този смисъл те ще се отразяват в плановете за цялостна експлоатация на находищата. Въпреки това, ДПМ ще приеме основни принципи на най-добрите практики при управлението на техническите и екологични аспекти на своите проекти. Тези принципи ще са валидни и ще се прилагат навсякъде, където ДПМ развива дейности, независимо от специфичните нормативни, социални, физически и природни реалности на дадена страна. • Дейностите на ДПМ ще са предмет на постоянен контрол и оценка и ще следват принципа за постоянно усъвършенстване чрез открито и коректно отношение към всички участници. За целта, към настоящата политика ще се разработят конкретни мерки и стъпки, въз основа на които ще отчитаме своите резултати. • ДПМ приема управлението на околната среда за своя основна дейност и приоритет, наред с управлението на добива и преработката. • Политиката по опазване на околната среда ще се прилага и изпълнява във всичките етапи на проекта, по време на строителството, експлоатацията, закриването и рекултивацията и ще бъде неразделна част от процеса на оценяване на нови бизнес възможности. • Политиката по опазване на околната среда ще бъде обезпечена с необходимите финансови и човешки ресурси и системи на управление. • ДПМ се ангажира да запознае всички свои служители и подизпълнители с политиката по опазването на околната среда и да осигури нейното приемане, разбиране и изпълнение, както и осъзнаването на свързаните с това отговорности. 	<ul style="list-style-type: none"> • Certain standards and requirements will be specific to each operation and outlined in comprehensive "Life-of-Mine" plans, however we will also adopt bottom line best practice approaches to environmental management, engineering, and protection which will be applied evenly across the business independent of the regulatory, social, physical, and/or natural environment. • We will audit and evaluate our performance, follow the principle of continuous improvement, and openly and honestly engage with stakeholders and outline the detail of this policy and report our results. • Outstanding environmental management will be regarded as a core business activity alongside outstanding minerals development and production operations. • Environmental policy will be applied at all stages of project development, operation and closure and be incorporated into the process of evaluating new business opportunities. • Environmental policy will be adequately supported with funding and appropriate financial instruments, management systems, and internal resources. • DPM will ensure that all employees and contractors are aware of and accept environmental policy and understand the obligations they have to ensuring compliance with the policy.
<p>Устойчиво развитие:</p> <ul style="list-style-type: none"> • ДПМ с всичките си дружества признава и приема целите на компанията да развива дейности, които са финансово устойчиви в дългосрочен план, съвместими са с целите на местните общества за постигане на устойчиво развитие в икономически и социален план, във всички региони и държави, където 	<p>Sustainability:</p> <ul style="list-style-type: none"> • DPM and its subsidiary businesses recognise our own goal of creating a business that is financially sustainable in the long term, is consistent with the goals of the communities and countries in which we are hosted and operate for creating self sustaining economies and societies.

<p>човешките ресурси, които носят трайно удовлетворение и благополучие на служителите на компанията и техните семейства..</p> <ul style="list-style-type: none"> ДПМ се ангажира да прилага всички свои бизнес практики в съответствие с най-високите стандарти и принципи на етичност и прозрачност. 	<p><i>long term well being of our employees and their families.</i></p> <ul style="list-style-type: none"> <i>All of DPM's business practices will be conducted with the highest standards of ethics and transparency.</i>
<p>Обръщам се към вас с молба, независимо дали сте наш служител или подизпълнител, да приемете настоящата политика и направите всичко за насърчаване на нейното изпълнение и успешно осъществяване.</p>	<p>I ask that whether you are an employee, contractor or other stakeholder in our business that you take ownership of this policy and ensure that you and others continue to foster its successful implementation.</p>
 Jonathan Goodman President & Chief Executive Officer	<p><u>April 12, 2007</u> Дата / Date</p>

9.4 Appendix D: Map of Hunting Fields



9.5 Appendix E: Household Survey Methodology

Krumovgrad Gold Project Socio Economic Baseline Data Collection Methodology

Rationale

The purpose of a baseline data study is to provide an understanding of the socio economic context of the project-affected area prior to the project activities. This will enable empirical measurement to be carried out of the possible positive and negative impacts for studies such as the SIA. This is performed by projecting the existing baseline into the future both with and without the project. The before-and-after analysis of these two project scenarios reveals the possible impacts. The baseline document will also assist DPM in monitoring impacts and mitigation measures once the project is under way.

Background

An initial household survey was developed in 2004 to form part of the Vitosha research socio economic analysis of the project impact area. It is suggested that this household survey proforma should be built on as the 2004 survey produced some valuable data on health and education, which could be incorporated into an updated project baseline. In addition, the 2004 data can be compared to the new findings and the trends can be identified.

It is proposed to apply both qualitative and quantitative research methodologies to the baseline data collection methodology. The rationale is to produce robust findings and to gain an in-depth understanding of the context through triangulation of research methodologies. The study will consist of performing a household survey covering a range of socio economic topics, the results of which will be quantified and analysed and any trends or anomalies will be highlighted, commented upon and where relevant, compared to National level data. Qualitative data will be collected through one-to-one key informant interviews, semi structured interviews and resource mapping. Also, focus groups will be performed using participatory approaches.

The sample

The scoping report (June 2014) has been used to identify the main potential positive and negative socio-economic impacts on the mine site communities as well as Krumovgrad (refer to scoping report for initial impact identification.) Hypothetical zones have been placed around the mine site to assist the SIA scoping and further the SIA in the identification and analysis of the significance of the potential impacts such as noise and vibration emissions and loss of visual amenity on the communities in addition to other socio-economic impacts. Based on these potential impacts, it was decided that the communities set out below will be the target populations (households) of the baseline study. However the study may reveal other relevant communities, which may also need to be included.

The key study area will include the following villages/hamlets:

- Chobanka 1 &
Chobanka 2
- Soyka
- Podeba
- Belagush
- Kremenik
- Koprivnik
- Skalak
- Synap
- Kupel
- Bitovo
- Dajdovnik
- Taynik
- Varhushka
- Zvanarka
- Lozino 1
- Lozino 2
- Lozino 3
- Shtarbina
- Kokoshar
- Labovo
- Belook
- Pazach
- Edrino
- Izgrev
- Krumovgrad

Household survey sampling methodology

Mine site communities

It is proposed that a representative sample of each community around the mine site will be taken based on the total number of people residing in the communities and a minimum sample size needed in order to achieve the conventionally used confidence level of 90% with a corresponding 10% margin of error calculated. Understanding that these communities consist of clusters of small hamlets and villages, the total 'actual' population³³ of clusters of villages and hamlets collectively has been used to calculate the sample size.

Proportionate ratios have been calculated from the final sample size to work out how many household surveys to perform in each hamlet.

As such the following numbers are proposed:

³³ Actual population differs greatly to the registered population as scoping studies and other studies performed for DPM found that a lot of residents also reside in Turkey and according to the seasons move between the two countries or have abandoned their houses and only return on an ad hoc basis

Table 9-1: Sample sizes of communities and Krumovgrad

Брой жители/Number of residents				Sample size	Ratio of surveys to be performed in each hamlet
Град/село Town/village	махала/hamlet	бр.жители/ Number of residents	бр.жители/Number of residents		
		регистрирани/registered	действително живеещи/ actual living		
КРУМОВГРАД/Krumovgrad		6183	4 662	67	67
КВАРТАЛ ИЗГРЕВ / quarter "Izgrev"		1 174	1 174	65	65
ОВЧАРИ / OVCHARI				49	
	Тайник/Taynik	31	27		8
	Битово/Bitovo	120	44		13
	Сойка/Soyka	30	18		5
	Въхрушка/Varhushka	150	62		18
	Чобанка 1/Chobanka 1	50	0		
	Чобанка 2/Chobanka 2				
	Синап/Synap	40	18		5

ЗВЪНАРКА/ZVANARKA	Звънарка цент./Zvanarka center	211	75	47	23
	Лозино 1/Lozino 1	20	10		3
	Лозино 2/Lozino 2	110	50		16
	Лозино 3/Lozino 3	30	15		5
ДЪЖДОВНИК/DAJDOVNIK	Дъждовник/Dajdovnik	89	45	29	28
	Къпел/Kupel	10	1		1
ЕДРИНО/EDRINO		342	380	58	58
МАЛКО КАМЕНЯНЕ/MALKO KAMENYANE	Ладово/Ladovo	50	25	19	19
КЪКЛИЦА/KAKLITSA	Щърбина/Shtarbina	50	20	16	16
СКАЛАК/SKALAK	Кременик/Kremenik		12	24	8
	Победа/Pobeda		15		10
	Белагуш/Belagush		0		
	Скалак/Skalak		9		6
	Копривник/Koprivnik		0		
Kuklitsa	Kokoshar		18	15	15
Gulia	Belook		30	29	18
	Pazach		18		11

	Total	418

Information Source:

- Municipality Krumovgrad - Registered people number for Krumovgrad and Izgrev, and villages - Zvanarka, Sarnak, Ovchari, Edrino, Dazdovnik;
- Mayors of Hamlets - information for actual number of citizens

Provided to AMEC June 2014 to the Scoping team

Krumovgrad and Izgrev sample

Owing to the large population size of Krumovgrad and Izgrev, in comparison to the small populations of the mine site villages and hamlets, and the possibility that the results achieved from the surveys performed in Krumovgrad and Izgrev could distort the collective results, it is proposed to display these data sets separate to those of the mine site communities. A methodology will be applied based upon the minimum sample size needed in order to achieve the conventionally used confidence level of 90% with a corresponding 10% margin of error calculated based on the actual population size. Krumovgrad will be divided into strata (see figure 1) and the sample number will be divided across the six strata (refer Table 2 and 3).

Table 9-2: Sample sizes for Krumovgrad (Refer table 1)

Strata	Sample size
1	11
2	11
3	11
4	12
5	11
6	11
Total	67

Table 9-3: Sample size of Izgrev (Refer table 1)

Izgrev	65
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SCOPING REPORT FOR SOCIAL IMPACT ASSESSMENT
DUNDEE PRECIOUS METALS ADA TEPE DEPOSIT
KRUMOVGRAD PROJECT - BULGARIA
JULY 2014

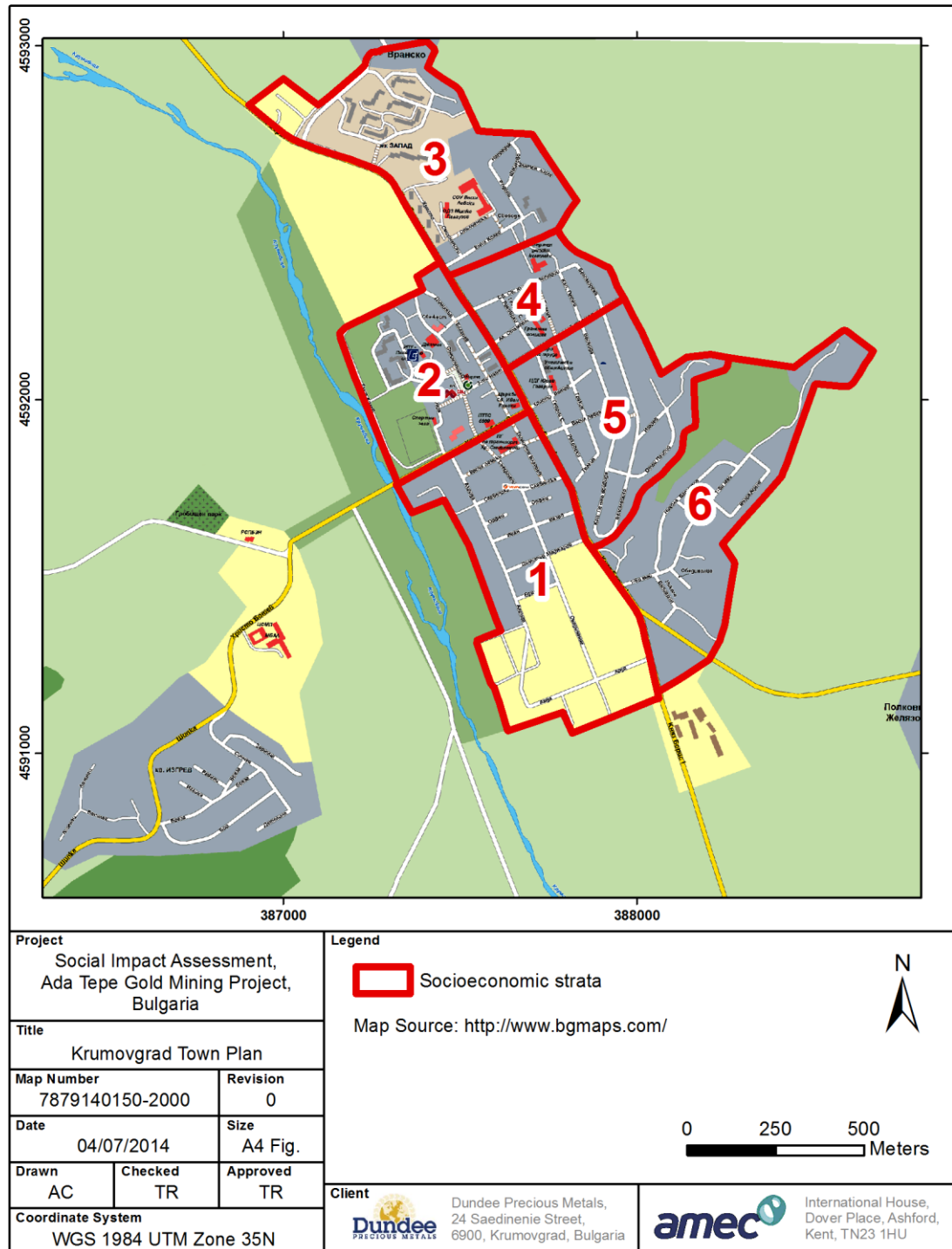


Figure 9.1: A town plan of Krumovgrad to display the stratum

Selection of households

A random selection of households will be applied across the communities.

Potential limitations

It is recognized that the mine site villages and hamlets have a number of registered residents living in households however it is well known (and as experienced by the scoping team) that many of the houses are not in permanent occupation. Therefore it is anticipated that although the calculated number of houses to be sampled has been set out in tables 1, 2 and 3, the survey team may find that they do not have enough occupied houses to perform the survey. It is also recognized that households may refuse to perform the survey.

The surveys will be carried out in the summer months of July and August therefore it is expected, based on findings from the scoping study, that people will have returned to spend the summer months in Bulgaria from Turkey and therefore this may not be an issue. Nevertheless to counter this potential limitation, initially, the survey team should find out from a resident in each hamlet which homes are currently occupied. If it becomes evident that some hamlets have too few resident households, it is suggested that there is an option that the questionnaire can be filled in by the household themselves and posted to DPM within a set time. This may protract the household survey process and relying on households to fill out the questionnaire themselves may not be dependable. However it is also proposed that if a different hamlet within the cluster of a village has more households occupied, then an alternative survey should be performed in this hamlet as a substitute and the results recorded as such.

The survey teams must show flexibility in the times that they perform the surveys as households may be in the fields working or have formal employment and working set hours. It is thus suggested that they return at a different time of day if their first visit has not been successful.

Performing the survey

It is suggested that survey teams should comprise of an interviewer as well as a translator who is able to speak Turkish, as scoping studies found that all the mine site communities comprised of ethnic Turks and a large proportion did not speak or understand the Bulgarian language.

The proposed household questionnaire should be piloted prior to the launch of the field work. Therefore it is suggested that each of the interviewers perform the survey on one household each, recording the results. Data entry of results should take place and any anomalies found in the recording of the data by the interviewer or misunderstandings of the questions should be recorded. A workshop with the interviewers should then take place, and the interviewers provide a forum where they share their experiences with asking the questions, discussing what worked/what did not work/ what could be re-worded etc. Also at this workshop, the data entry analyst should share any anomalies found. Based on this, the questionnaire should be adapted accordingly. At this point it is suggested that the questionnaires should be printed.

Quality Control

Whilst the household surveys are being carried out, it is suggested that the survey coordinator performs intermittent 'checks' on the interviews and sits with the interviewer and interviewee to oversee the household survey being completed so as to ensure that questions are being asked correctly and interviewees are being given a fair chance to speak. Furthermore data entry checks should take place daily for example rechecking the data entry of a number of household surveys and as appropriate following up on any anomalies. A section on the household questionnaire has been added at the end to in order that quality control mechanisms are recorded.