

PROPOSED PILLAR MINING PROJECT AT THE ATCOM EAST SECTION OF THE IMPUNZI COMPLEX, WITHIN THE EMALAHLENI LOCAL MUNICIPALITY, MPUMALANGA



BACKGROUND INFORMATION DOCUMENT

February 2014

MDEDET Ref No: 17.2.3N-346

Purpose of this document

This Background Information Document (BID) provides Interested and Affected Parties (I&APs) with information on the Integrated Water Use License Application (IWULA) and Basic Assessment (BA) process which is required by the Department of Water Affairs (DWA) under the provisions of the National Water Act (NWA, Act 36 of 1998) and the Mpumalanga Department of Economic Development, Environment and Tourism (MDEDET) respectively, for mining through wetlands at ATCOM East. The existing iMpunzi Integrated Water and Waste Management Plan (IWWMP) will also be updated in support of the IWULA process.

This BID also provides I&APs with the opportunity to:

- Register as stakeholders in the public participation process; and
- Comment on the proposed project.

The purpose of the abovementioned process is to identify and evaluate potential environmental impacts and to recommend measures to avoid or reduce negative impacts and to enhance positive impacts.

Register by 31 March 2014

You will be included on the stakeholder database and receive further documents for comment. Your comments will ensure that all relevant issues are incorporated. Either complete and submit the enclosed registration/comment sheet, write a letter, call or e-mail J&W, if you wish to raise any concerns regarding the proposed project.

All documents will be available on the internet at www.jaws.co.za.

Public participation enquiries

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INTRODUCTION

Glencore Operations South Africa (Pty) Ltd

Glencore Operations South Africa's iMpunzi Complex is located 23km south east of eMalahleni in the Mpumalanga Province, near the towns of Ogies and Kriel. The Complex consists of four (4) sections, namely: Arthur Taylor Colliery (ATC), Phoenix (decommissioned), Arthur Taylor Colliery Opencast Mine (ATCOM), and ATCOM East. ATCOM East is a proposed new Section of iMpunzi Complex.

Project Description

Glencore intends expanding their mining operations to incorporate new mining reserves at ATCOM East. The proposed new mining venture includes the opencast mining of historical underground bord and pillar operations (see Figure 1), previously owned by BHP Billiton Energy Coal South Africa (BECSA). The new mining venture is situated on portions of the farms Vandyksdrift 19 IS, Steenkoolspruit 18 IS and Kromfontein 30 IS, and requires Glencore taking over mining operations and rights originally owned by Douglas Colliery (BECSA). This venture will culminate in a new Glencore colliery called ATCOM East.



Figure 1: Illustration of bord and pillar mining

A Basic Assessment process is required due to certain activities which are listed under GNR 544 and 546, for mining through wetlands at ATCOM East. These activities are:

- **GNR 544 Activity 11** - The construction of canals and infrastructure or structures covering 50 square meters or more where

such construction occurs within a watercourse or within 32 metres of a watercourse, measured from the edge of a watercourse, excluding where such construction will occur behind the development setback line; and

- **GNR 544 Activity 18** - The infilling or depositing of any material of more than 5 cubic metres into, or the dredging, excavation, removal or moving of soil, sand, shells, shell grit. Pebbles of rock from a watercourse. The proposed opencast mining areas and affected wetlands are depicted in Figure 2.
- **GNR 544 Activity 22** - The construction of a road, outside urban areas with a reserve wider than 13.5m or, where no reserve exists where the road is wider than 8m.
- **GNR 546 Activity 4(a)** - The construction of a road wider than 4m with a reserve less than 13.5m in - Critical biodiversity areas as identified in systematic biodiversity plans adopted by the competent authority or in bioregional plans.
- **GNR 546 Activity 10** - The construction of facilities or infrastructure for the storage, or storage and handling of a dangerous good, where such storage occurs in containers with a combined capacity of 30 but not exceeding 80 cubic metres in Critical biodiversity areas as identified in systematic biodiversity plans adopted by the competent authority or in bioregional plans.
- **GNR 546 Activity 14(a)** - The clearance of an area of 5 hectares or more of vegetation where 75% or more of the vegetative cover constitutes indigenous vegetation.
- **GNR 546 Activity 16(iv)** - The construction of infrastructure covering 10 square metres or more where such construction occurs within a watercourse or within 32metres of a watercourse, measured from the edge of a watercourse – in Critical Biodiversity areas or ecosystem service areas as identified in systematic biodiversity plans adopted by the competent authority or in bioregional plans.

The water uses listed under Section 21 of the National Water Act (NWA) which are being applied for in the IWULA include the following:

- 21 (c) - "Impeding or diverting the flow of water in a watercourse"
- 21 (i) - "Altering the bed, banks, course or characteristics of a watercourse".

Glencore has an existing WUL for the additional infrastructure associated with the pillar project which was issued by the Department of Water Affairs (DWA) during November 2013.

Mining at ATCOM East will be a combination of truck and shovel and dragline. The ATCOM East mining operations will be mined in five (5) opencast operations, namely:

- **Steenkoolspruit pit:** Mining by Glencore commenced at the Steenkoolspruit pit in January 2009 and with the current life of mine plan will be decommissioned by 2031. This pit is being mined by means of dragline (this pit has an existing IWULA and therefore does not form part of this application).
- **River South Pit:** It is proposed to commence mining at River South Pit in 2021 and mining will continue until approximately 2031. Due to the restricted area of this pit it will most likely be mined using the truck and shovel method.
- **Vandyksdrift (VDD) South Pit:** This is the largest pit. Mining will commence in 2017 and should continue until 2036. The pit will be mined by means of dragline and possibly a truck and shovel fleet.
- **River West Pit:** Mining of this pit will commence in 2014 and continue until 2026. Although not finalised yet mining will probably also be done by means of a truck and shovel fleet.
- **VDD West Pit:** This pit will be mined using the truck and shovel method from 2014 until 2036.

Furthermore, an Environmental Management Program Report (EMPR) amendment process is also required by the Department of Mineral Resources (DMR) in terms of the provisions of the Mineral and Petroleum Resources Development Act (MPRDA, Act 28 of 2002). The Scoping component of the EMPR amendment authorisation process will be undertaken by Jones and Wagener (J&W).

BACKGROUND INFORMATION

Glencore Tavistock Collieries Limited is located south of eMalahleni in the Mpumalanga Province and for management purposes is divided into two complexes, namely iMpunzi and Tweefontein South.

Jones & Wagener (J&W) was appointed by Glencore to undertake the Integrated Water Use Licence Application (IWULA) process in terms of the National Water Act (NWA, Act 36 of 1998), the Scoping phase of the EMPR amendment process in terms of the Mineral and Petroleum Resources Development Act (MPRDA, Act 28 of 2002), as well as the BA process for the proposed mining through wetlands in terms of the National Environmental Management Act (NEMA, Act 107 of 1998). The existing iMpunzi Integrated Water and Waste Management Plan (IWWMP) will also be updated by J&W in support of the Integrated Water Use Licence Application process.

Glencore will be required to undertake an Environmental Management Program Report (EMPR) amendment for the new ATCOM East mining operations.

The original EMPR for Tavistock Collieries Limited was approved by the ex-Department of Minerals and Energy (DME) in 2001. Since then, several Environmental Impact Assessments (EIAs)

have been conducted and EMPRs compiled in order to address the potential environmental impacts associated with mine-, infrastructure- and discard dump expansions at the various collieries (Digby Wells Environmental, 2010).

Digby Wells is responsible for the EMPR phase of the EMPR amendment process as Glencore requires one EMPR for the entire iMpunzi Complex as per the directive issued by the Department of Mineral Resources (DMR).

An IWUL process for all water uses associated with ATCOM East (with the exception of mining through wetlands) under the provisions of the National Water Act (NWA, Act 36 of 1998) was undertaken and the documents have been submitted to the Department of Water Affairs (DWA). This WUL was issued during November 2013.

The IWUL being undertaken as part of this process, for mining through wetlands Section 21 (c) and (i), has been delayed due to Glencore undertaking a lengthy Wetland Reserve Determination study which will supplement information to the process.

The decision-making authorities for this project include the Department of Water Affairs (DWA) in terms of the NWA, as well as the Mpumalanga Department of Economic Development Environment and Tourism.

POTENTIAL IMPACTS OF MINING

Opencast mining through wetlands may have potential impacts on the environment itself, both from a social and a biophysical perspective. Some of the possible impacts to the environment include the following:

- **Air Quality** – Fugitive dust may result from the removal of vegetation and therefore the exposure of soil to the elements. Additionally heavy vehicle traffic may increase fugitive dust in the vicinity of the mining operations. In addition, smouldering coal may also cause air quality impacts.
- **Aquatic Ecology** – Exposed soil may result in soil erosion, which may result in sedimentation of nearby water bodies and therefore have an impact on the aquatic environment. Chemical or hydrocarbon spills may also gravitate to water bodies and result in water contamination. Wetlands provide habitat for a wide variety of aquatic organisms. The destruction of wetlands which are located within the footprint of the opencast pits will have a negative impact on these organisms which are important for the functioning of the wetlands.
- **Blasting and Vibrations** – Blasting during mining activities may cause a disturbance due to vibrations.
- **Fires** – The exposure of coal to the elements may result in spontaneous combustion of coal which has the potential to cause run-away fires.
- **Geology and Soils** – During mining, soil and rock will be exposed during the removal of the coal seam/pillars. Although soil can be stockpiled, if not managed correctly the soil could become sterilised or be eroded.
- **Heritage resources** - Archaeological and historical remains and old buildings may be located within the proposed development footprint.
- **Land use** – The area where the proposed opencast mining will occur will result in a reduction in land capability and sterilisation of land use. Mining through wetlands will lead

to a loss of recreational land use associated with the wetlands (i.e bird watching, aesthetics) due to the destruction of these wetland areas.

- **Surface and Groundwater** – Mining has a potential for both surface and groundwater contamination and acid mine drainage (AMD). Mining through wetland areas have the potential to impact on the ability of sustaining the baseflows as well as the water quality of the nearby water courses.
- **Social** – There is a potential for both positive and negative social impacts. Positive impacts include job creation and increase in services in the area, whilst negative impacts

include loss of sense of place and negative perceptions, especially regarding increased theft.

- **Terrestrial Ecology** - The construction and placement of mine infrastructure and the opencast mine area may have a negative influence on the vegetation, which must be surveyed for threatened and endangered plant and animal species, especially those species encountered in wetland areas.
- **Traffic** – There may be an increase in traffic as a result of haul trucks and other heavy duty machinery.
- **Visual impact** – Opencast mining has a visual impact to most surrounding land uses.

WHAT IS AN INTEGRATED WATER USE LICENCE APPLICATION (IWULA)?

In terms of the NWA, all water uses as listed in Section 21 of the NWA require a Water Use Licence process to be followed and approved by the DWA. The ATCOM East Section contains wetlands which will be affected by the proposed opencast mining operations. The DWA requires that any operations located closer than 500 metres from a watercourse, such as a pan or a wetland, be licensed in terms of Section 21 of the NWA. In terms of Section 21 of the NWA, the following water uses are being applied for:

- Section 21 (c): Impeding or diverting the flow of water in a watercourse; and
- Section 21 (i): Altering the bed, banks, course or characteristics of a watercourse.

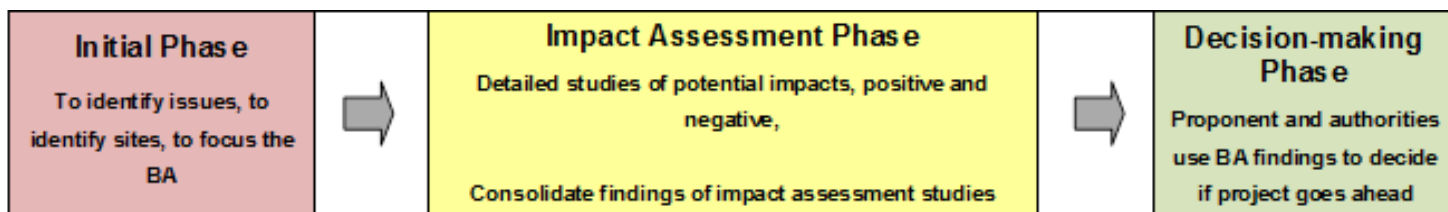
A technical report is compiled in the IWULA process, which serves as a summary document for the proposed water uses that are required as part of the proposed ATCOM East mining operations. Application and registration forms for the licencing of the new water uses have to be completed and submitted together with the technical report to the DWA for authorisation/licensing.

BASIC ASSESSMENT PROCESS

An environmental authorisation is required to construct and operate the pillar mining project at ATCOM East. In terms of Government Notice (GN) R. 544 of 2010, a Basic Assessment (BA) process must be conducted and submitted to the MDEDET for authorisation in terms of Section 24(5) of the NEMA for *mining through wetlands* at ATCOM East.

The BA findings are used by Glencore and authorities to obtain an objective view of the potential environmental, social and cultural impacts that could arise during the construction, operation and closure of the proposed pillar mining project at ATCOM East specific to the listed activities. Any significant negative impacts will be mitigated or avoided, where and if possible, while positive ones will be enhanced. The outcome of the first phase of a BA is the Draft Basic Assessment Report (BAR), which provides the basis for undertaking the Impact Assessment phase of the project.

J&W has been appointed as the independent environmental consultant to conduct the BA process. The project has been registered with the MDEDET at the beginning of February 2014, as the delegated authority mandated to issue environmental authorisations. It is anticipated that the BAR will be available for public comment during 2014. A letter announcing the availability of the BAR will be sent to registered Interested and Affected Parties (I&APs) closer to the time. After the public review period the BAR will be updated to include all comments received and will be submitted to the MDEDET for a decision on whether or not to issue authorisation. Registered I&APs will be informed of the next steps in the BA process once a decision is received. The process is summarised in the illustration below:



HOW TO BECOME INVOLVED IN THIS PROJECT

Stakeholders are invited to contact J&W's Environmental Department to register as an I&AP on the project by:

- Responding (by phone, fax or e-mail) to the invitation to participate in the process, as advertised in the printed media;
- Completing and forwarding (SA postal mail, fax or e-mail) the attached Registration and Comment Sheet to J&W's Environmental Department;
- Attending the Public Meeting to be held (details to be circulated closer to the time); and/or
- Contacting J&W's Environmental Department telephonically regarding a query, comment or request for further project information.

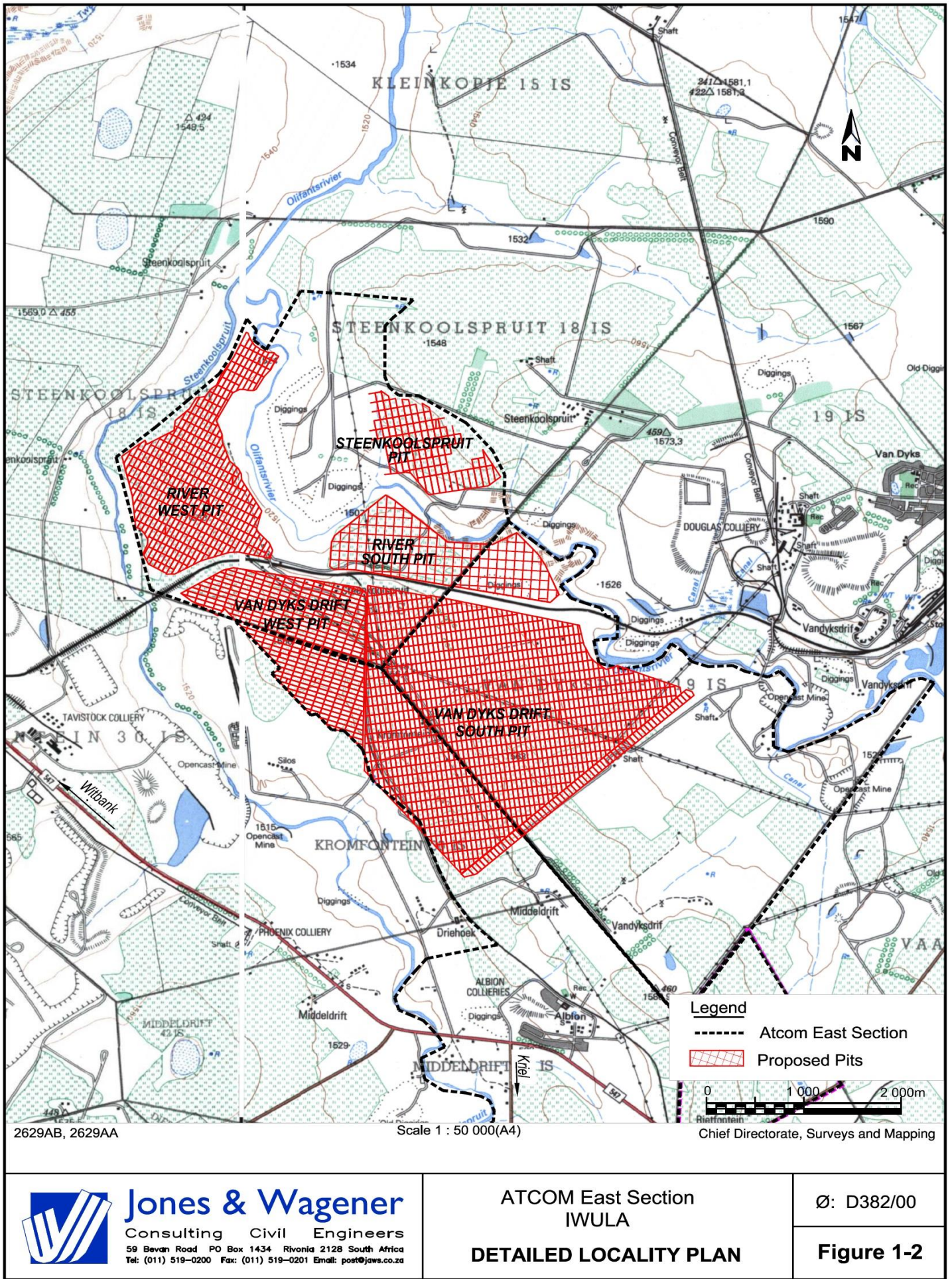


Figure 2: ATCOM East Locality Map



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ATCOM East Section
 IWULA
DETAILED LOCALITY PLAN

Ø: D382/00

Figure 1-2

REGISTRATION AND COMMENT SHEET

**NOTICE OF AN INTEGRATED WATER USE LICENCE APPLICATION
AND BASIC ASSESSMENT PROCESS IN TERMS OF THE NATIONAL
WATER ACT (36 OF 1998) AND NATIONAL ENVIRONMENTAL
MANAGEMENT ACT (107 OF 1998)**



**Proposed Pillar Mining Project at the ATCOM East Section of the
iMpunzi Complex, within the eMalahleni Local Municipality,
Mpumalanga**

Inserted in the Background Information Document
February 2014

Environmental Department

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Please complete by 31 March 2014 and return to the Environmental Department (as above)

TITLE		FIRST NAME	
INITIALS		SURNAME	
ORGANISATION		EMAIL	
POSTAL ADDRESS			
		POSTAL CODE	
TEL NO		FAX NO	

Please formally register me as an interested and affected party (I&AP) so that I may receive further information and notifications during the Integrated Water Use Licence Application (IWULA) and Basic Assessment (BA) processes.	YES	NO
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I would like my notifications by	Email
	Fax
	Telephone

I would like to receive documents for comment as follows	By email
	On CD

I disclose below any direct business, financial, personal or other interest that I may have in the approval or refusal of the application:

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COMMENTS (please use separate sheets if you wish)

I suggest that the following issues of concern be investigated during the IWULA and BA processes:

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Any other comments:

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Please ask the following of my colleagues/friends to register as I&APs for this project:

.....

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THANK YOU FOR YOUR CONTRIBUTION