11 July 2017

Director
Resource Assessments
NSW Department of Planning & Environment
GPO Box 39
SYDNEY NSW 2001

Attention: Howard Reed

Dear Howard

Integra to Mount Owen Complex
Water Pipeline Modification EA
Response to Submissions

1 INTRODUCTION

1.1 BACKGROUND

Glencore Coal Pty Limited (Glencore) owns and operates a number of coal mines in NSW, including the Mount Owen Complex and Integra Underground Mine in the Upper Hunter Valley.

The Mount Owen Complex (MOC) is a coal mining operation located at Hebden, approximately 20 km north-west of Singleton. MOC is managed by Mt Owen Pty Limited (Mt Owen), which is a wholly owned subsidiary of Glencore. Operations at MOC are governed by Development Consent SSD-5850, which allows mining operations to be conducted until 31 December 2031.

The Integra Underground Mine (Integra) is located at Glennies Creek, approximately 12 km north-west of Singleton adjacent to MOC. Integra is managed by HV Coking Coal Pty Limited (HV Coking Coal), which is a wholly owned subsidiary of Glencore. Operations at Integra are governed by Project Approval (PA) 08_0101, which allows mining operations to be undertaken until 31 December 2035.

HV Coking Coal proposes to construct a pipeline to facilitate the transfer of water from Integra to the adjacent MOC (the Modification). The Modification will enable any surplus mine water collected at Integra to be managed at MOC and within Glencore's Greater Ravensworth Area Water Sharing Scheme (GRAWSS). The GRAWSS allows water to be transferred to and from other Glencore mines to address water deficits or surpluses.

1.2 DOCUMENT PURPOSE

An Environmental Assessment (EA) was submitted to the NSW Department of Planning and Environment (DP&E) in support of two modification applications made under Section 96 and Section 75W of the *Environmental Planning and Assessment Act 1979* (EP&A Act) to modify SSD-5850 and PA 08_0101, respectively. The modification applications and supporting EA have been made to facilitate the construction and operation of a water pipeline from Integra to MOC, and the subsequent use of the pipeline to transfer mine water (which will be utilised within the GRAWSS) (the Modification).

The modification applications and supporting EA were lodged with DP&E on 5 June 2017. DP&E subsequently sought input from the various Government agencies on 6 June 2017. Letter correspondence from DP&E dated 19 June 2017 provided comments from the NSW Environment Protection Authority (EPA) and the Heritage Division, Office of Environment and Heritage (Heritage Division). DP&E provided further comments from Department of Primary Industries – Water (DPI-Water), DP&E - Division of Resources and Geosciences (DRG) and Office of Environment and Heritage (OEH) via email dated 23 June 2017.

This Response to Submissions (RTS) document has been prepared to respond to the five submissions received in relation to the modification applications and supporting EA.

2 RESPONSE TO SUBMISSIONS

2.1 EPA

Issue

The EPA advised DP&E that the EPA can regulate the activity through the current Environment Protections Licences held for Integra and MOC. The EPA also advised that an EPL variation will be required for both or either one of the EPLs to formalise the management and control of the pipeline on one of the premises. The EPA has requested advice over which EPL the pipeline would have management control over the pipeline.

Response

Integra and MOC are both owned and managed by subsidiaries of Glencore. Mt Owen and HV Coking Coal currently hold EPL 4460 and EPL 3390 for their respective open cut and underground mining operations.

As correctly identified by the EPA, variation(s) to these EPLs will be required in order to facilitate the appropriate management control of the mine water pipeline between Integra and MOC. HV Coking Coal and Mt Owen will apply for EPL variation(s) to accommodate the proposed water pipeline and are likely to comprise the following amendments:

- An amendment will be sought to the premises boundaries for EPL 3390 to incorporate the portions of the pipeline corridor (Assessment Boundary as shown on Figure 4 of the EA) which occurs outside of the EPL 3390 surface facilities premises boundary up to and including the existing gas extraction facilities area covered by EPL 3390; and

- An amendment will be sought to EPL 4460 to facilitate the management control of the mine water pipeline from the north western edge of the existing gas extraction facilities area covered by EPL 3390 to the ECD dam. The amendment to EPL 4460 will require some extensions to the easement over the Mount Owen Rail Spur to accommodate the entire Assessment Boundary.

Mt Owen and HV Coking Coal will be in contact with the EPA shortly to discuss the proposed variations to EPL 4460 and EPL 3390 respectively.

Issue

The EPA commented that there was no information regarding the contingencies in place to mitigate potential breaks in the pipeline. The EPA commented that secondary controls are important to prevent environmental impacts, particularly where the pipeline traverses waterways and sensitive environments.

The EPA has requested further detail on how potential pipeline breaks will be mitigated and/or managed to prevent contravention of the Protection of the Environment Operations Act 1997 (POEO Act).

Response

As explained in Sections 4.1 and 4.8.1 of the EA, the conceptual alignment and pipeline specifications have been designed to achieve pumping efficiencies whilst minimising the potential for adverse impacts to the environment. The conceptual pipeline design has therefore considered the specific pump capacities and pipeline pressure ratings of the pipeline in consideration of the undulating topography encountered by the preferred alignment. This conceptual pipeline design will be further reviewed and refined during the detailed design so that it is appropriately designed to minimise adverse impacts to the environment.

The conceptual design of the mine water pipeline incorporates flow meters to determine discrepancies in flow (i.e. leaks) (as described in Section 4.1 of the EA). Differential flows which are identified by these flow meters will trigger the pump(s) to automatically cease to minimise the environmental impacts of any potential leak. In the event of such a trigger event, an inspection will be undertaken to determine the cause of the trigger and develop an appropriate response.

The detailed design will also incorporate measures to be implemented in order to reasonably contain potential leakages, particularly in locations where the pipeline traverses sensitive environments (such as creek crossings). This may include measures such as the installation of shut off valves to the pipeline at creek crossings, pump out valves to assist maintenance activities and/or the installation of secondary containment of the pipeline across Main Creek and Bettys Creek and also Glennies Creek in the event of the bridge option for this crossing being constructed.

Section 8.1.4 of the EA explains that the water management plans for Integra and MOC will be updated to include strategies to manage the mine water transferred by the pipeline.

The implementation of the measures described above to the design, construction and operation of the proposed water pipeline will reasonably minimise the potential for the pipeline to fail and resulting impacts to the environment.

2.2 HERITAGE DIVISION - OEH

Issue

"The Environmental Assessment (EA) prepared by Owen Bailey Pty Ltd, dated June 2017, is reviewed and as the delegate of the Heritage Council of NSW, I provide the following comments:

- *The proposed development would not impact on any State Heritage Register (SHR) items;*

- *The proposed modification does not alter the consent boundary for this coal mine;*
- *The proposed pipeline and associated infrastructure will be removed when the mine operation ceases;*
- *The Historic Heritage Management Plan (HHMP) for this site was approved by the Heritage Council on 18 January 2017. If the works are executed in accordance with the HHMP, no additional comment is considered necessary."*

Response

It is noted that the EA was prepared by Hansen Bailey. The Modification will not impact upon any SHR items and the Project Boundary is not proposed to be modified.

As explained within Section 4.6 of the EA, the water pipeline (and its associated infrastructure) will be decommissioned and removed along with the other surface infrastructure at Integra during the ultimate closure of the mine.

As explained within Section 8.5.4 of the EA, the MOC Historic Heritage Management Plan and Integra's Non-Aboriginal Heritage Management Plan will require minor updates to reflect the findings from the Heritage Assessment. These plans will be updated in accordance with the requirements of Schedule 3, Condition 33 of PA 08_0101 and Schedule 3, Condition 35 of SSD-5850.

2.3 DPI

Issue

"DPI has reviewed the EA and provides the following recommendations:

- *All works proposed to be undertaken within or surrounding watercourses should be done so in accordance with DPI-Water Guidelines for Controlled Activities (2012);"*

Response

The proposed works associated with the water pipeline and associated facilities within or surrounding watercourses will be undertaken generally in accordance with the *DPI-Water Guidelines for Controlled Activities* (2012). Table 11 of Schedule 3, Condition 30 of PA 08_0101 and Table 8 of Schedule 3, Condition 25 of SSD-5850 requires that the proponents design, install and maintain all new infrastructure within 40 m of watercourses generally in accordance with the *Guidelines for Controlled Activities on Waterfront Land* (DPI 2007), or its latest version. Further, the above sections of PA 08_0101 and SSD-5850 also require all creek crossings to be designed, installed and maintained generally in accordance with the *Policy and Guidelines for Fish Friendly Waterway Crossings* (NSW Fisheries, 2003) and *Why Do Fish Need To Cross The Road? Fish Passage Requirements for Waterway Crossings* (NSW Fisheries 2003), or their latest versions.

Issue

"DPI has reviewed the EA and provides the following recommendations:

- *The proponent should be required to prepare a Water Management Plan in consultation with DPI-Water (water.referrals@dpi-nsw.gov.au) prior to commencement of activities;"*

Response

As described within Section 8.1.4 of the EA, HV Coking Coal and Mt Owen propose to update their water management plans to incorporate the details of the proposed water pipeline. In accordance with Schedule 3, Condition 31 of PA 08_0101 and Schedule 3, Condition 26 of SSD-5850, the water management plan updates will be prepared following consultation with DPI-Water and other relevant regulators and submitted to DP&E for approval.

Glencore has proceeded with the updates to these management plans and will shortly be in contact with DPI-Water in relation to its review and comment on the revised management plans.

Issue

"DPI has reviewed the EA and provides the following recommendations:

- *Should a bridge structure, instead of directional drilling, be required for the Glennies Creek crossing, the proponent should consult with DPI-Water on the design and construction of the crossing;"*

Response

In the event that the bridge options assessed within the EA are selected for the construction of the water pipeline, the water management plan revisions will incorporate the final design and construction methods for the water pipeline. In this regard, HV Coking Coal and Mt Owen will be in consultation with DPI-Water in relation to the revised water management plan and will therefore discuss the design of the pipeline crossings.

Issue

"DPI has reviewed the EA and provides the following recommendations:

- *Should the section of pipeline between Glennies Creek and Main Creek be buried, it should be required to be removed when the site is decommissioned or alternatively should be installed to a minimum of 1200 mm below ground level to ensure future agricultural activities are not impacted."*

Response

As stated in Section 4.6 of the EA, the water pipeline (and its associated infrastructure) will be decommissioned along with the other surface infrastructure at Integra. Whilst the water pipeline is proposed to be decommissioned and removed, HV Coking Coal notes DPI's suggestion to bury the pipeline to a minimum of 1200 mm. This suggestion will be further considered within the detailed design and construction planning phases.

2.4 DP&E -DRG

Issue

"*The Division has reviewed the adequacy of information supplied in relation to the abovementioned Project and advices the Division's requirements have been adequately addressed in the Environmental Assessment (EA) for the Project.*

It should be noted that the Division has deferred comment and assessment of the proposed creek crossing and associated environmental impacts to Department of Primary Industries – Water, who have also been consulted for comment on the EA.

The Division requests a review of the draft development consent conditions prior to finalisation and any granting of development consent."

Response

Noted.

2.5 OEH

2.5.1 Aboriginal Cultural Heritage

Issue

"*OEH reviewed the Aboriginal and Historic Heritage Impact Assessment (Appendix D) prepared for this project. The report recommended that: known Aboriginal sites will be avoided so as not to be impacted; that should unexpected finds occur then the current Aboriginal Cultural Heritage Management Plans for both mine areas served by the pipeline project are to be followed; and that the standard conditions of approval for Aboriginal cultural heritage are appropriate for this project.*

OEH supports the report's recommendations and recommends that the following conditions are included in any approval issued for this project:

Recommended Conditions of Approval for Aboriginal Cultural Heritage:

1. *The proponent must consult with and involve all the registered local Aboriginal parties for the project, in the ongoing management of the Aboriginal cultural heritage values.*

Evidence of this consultation must be collated and provided to the consent authority upon request."

Response

Section 2.1.3 of the Integra Aboriginal Heritage Management Plan (Integra AHMP) and Section 1.4.3.1 of the MOC Aboriginal Cultural Heritage Management Plan (MOC ACHMP) describes the Aboriginal Cultural Heritage Working Group (ACHWG) which was established for MOC to assist with the implementation of measures within the MOC ACHMP and actively contribute to the management of cultural heritage. Section 2.1.3 of the Integra AHMP describes that the ACHWG will be utilised for consultation to be undertaken for Integra's mining operations, which essentially occurs over a large proportion of land which is also covered by the MOC ACHMP. In light of this, the recommended condition of approval is not considered appropriate given that this requirement is in addition to the consultation approach which is described within the approved Integra AHMP and MOC ACHMP.

HV Coking Coal and Mt Owen are proposing to conduct a field visit utilising a roster-based approach with representatives of the Aboriginal community. The purpose of the field visit will be to present the details of the proposed water pipeline and visit the Aboriginal heritage sites known to occur within the Assessment Boundary. The field visit is proposed to take place in August 2017 and will be prior to the next ACHWG meeting which is scheduled for November 2017. A briefing note documenting the outcomes of this field visit will be distributed to all RAPs for MOC and Integra.

Minutes from the ACHWG meetings are distributed to all RAPs. Minutes of these meetings can also be provided to DP&E upon request.

Issue

"***Recommended Conditions of Approval for Aboriginal Cultural Heritage:***

2. *The proponent must update the existing Aboriginal Cultural Heritage Management Plans for the project are in consultation with the registered Aboriginal parties to detail procedures for managing all Aboriginal cultural heritage values associated with the project area. This process must be undertaken prior to commencing any ground disturbance or development works subject to the development."*

Response

In November last year, both the Integra AHMP and MOC ACHMP were updated and distributed for consultation with the relevant regulators (including OEH) and the RAPs. OEH provided no comments to be addressed within the updated management plans.

The Integra AHMP and MOC ACHMP were subsequently approved by DP&E on 6 April 2017 and 23 March 2017, respectively. The activities proposed by this Modification will be undertaken in accordance with the approved Integra AHMP and MOC ACHMP.

In accordance with Schedule 5, Condition 6 of PA 08_0101 and Schedule 5, Condition 6 of SSD-5850, HVCC and MOC has conducted a review of these management plans in anticipation of the Modifications being granted and have determined that no revisions are necessary for this Modification. Given the low risk of potential impact to items of Aboriginal cultural heritage value resulting from the construction and operation of the proposed water pipeline, the content within the two management plans do not warrant updates for this Modification. Accordingly, this recommendation is not considered to be required for this Modification.

Issue

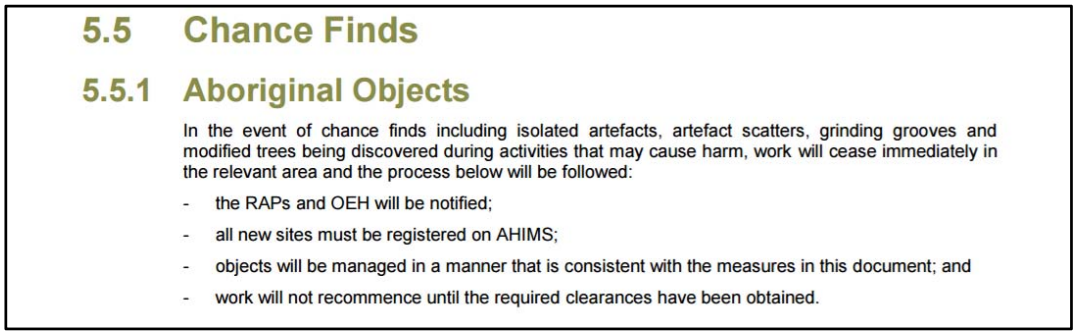
"***Recommended Conditions of Approval for Aboriginal Cultural Heritage:***

3. *If ground disturbance locates previously unidentified Aboriginal object/s within the project area, all works must halt in the immediate area to prevent any further impacts to the object(s). A suitably qualified archaeologist and representatives of the local Aboriginal community must be contacted to determine the nature, extent and significance of the finds. The site is to be registered in the Aboriginal Heritage Information Management System (AHIMS) and the management outcome for the site included in the information provided to AHIMS. The proponent must consult with representatives of the local Aboriginal community, and the archaeologist to develop an appropriate management strategy for all objects/sites which complies with the requirements of the National Parks and Wildlife Act 1974."*

Response

As described within Section 8.4.4 of the EA, the Integra AHMP includes a protocol for dealing with "chance finds".

Section 5.5.1 of the Integra AHMP is reproduced below:



5.5 Chance Finds

5.5.1 Aboriginal Objects

In the event of chance finds including isolated artefacts, artefact scatters, grinding grooves and modified trees being discovered during activities that may cause harm, work will cease immediately in the relevant area and the process below will be followed:

- the RAPs and OEH will be notified;
- all new sites must be registered on AHIMS;
- objects will be managed in a manner that is consistent with the measures in this document; and
- work will not recommence until the required clearances have been obtained.

Similarly, Section 6.2 of the MOC ACHMP also provides a protocol to be implemented for the identification of new sites as reproduced below:

6.2 Discovery of new Aboriginal sites

In the event of discovery of new Aboriginal sites which are more than 50m from previously recorded boundaries of Aboriginal sites, all work close to the discovery will cease and an area of 10m around the site fenced with temporary construction fencing. An archaeologist and members of the RAPs will be contacted to determine the significance of the Aboriginal object(s) present. New sites will be registered in the AHIMS database (see ***Section 8.3.1***).

6.2.1 New sites within impact areas

Any new Aboriginal sites identified within approved disturbance areas will be temporarily fenced[3] as quickly as possible. Signage on the fencing is to state that the area is subject to environmental protection, that no ground disturbance is allowed and will include relevant contact details for MOC staff. The minor impact to the ground surface during installation of fence posts is permissible on condition that no soil is to be removed off site. The following procedure will be implemented for any newly identified sites:

a) The site will be assessed by a qualified archaeologist and members of the RAPs;

b) The site will be temporarily fenced (see ***Section 5.2***);

c) The site location will be registered with AHIMS and a site card submitted;

d) The site location should be entered on to the MOC GIS database;

e) Depending on the Aboriginal cultural heritage values at the site, the site will be salvaged according to the methodology in this Plan (***Section 7***);

f) A brief report of the salvage should be produced to record the findings;

g) On the completion of salvage at such sites, an AHIMS *Aboriginal Site Impact Recording Form* (ASIRf) will be completed (see **Section 8.3.3**). Copies of the forms will be archived. Digital copies will be submitted to the OEH AHIMS Registrar soon after completion of salvage fieldwork. The form will be lodged within a reasonable time of fieldwork completion and certainly within six months;

h) All artefacts salvaged will be stored in the artefact storage facility (***Section 5.8***).

[3] A temporary fence will consist of 3-4 star pickets with caution tape strung between the star pickets.

6.2.2 New sites outside of impact areas

Any new Aboriginal site identified outside the approved disturbance areas will be managed in accordance with the following procedure:

a) The site will be assessed by a qualified archaeologist and members of the RAPs;

b) The site will be considered for fencing (see ***Section 5.2.2***);

c) The site location will be registered with AHIMS and a site card submitted;

d) The site location should be entered on to the MOC GIS database;

e) If the site contains Aboriginal objects of interest such as a large number of artefacts or rare features such as a hearth that is located in an area of active and destructive erosion, the site may be subject to limited salvage excavation in accordance with the methodology set out in ***Section 7.2.3***. The aim of any salvage undertaken in this instance would be to prevent the loss of information from ongoing erosion and will only be undertaken in extreme and obvious circumstances with the full consultation and participation of the RAPs; and

f) On the completion of salvage at such sites, an AHIMS ASIRf will be completed (see **Section 8.3.3**). Copies of the forms will be archived. Digital copies will be submitted to the OEH AHIMS Registrar soon after completion of salvage fieldwork. The form will be lodged within six months from the completion of fieldwork.

These protocols presented within the current approved management plans will be implemented if any previously unidentified sites are encountered during the construction phase for the Modification.

The chance finds protocols within the approved Integra AHMP and MOC ACHMP have been reviewed by OEH in November last year and are generally consistent with OEH's recommendations. As such, the proponents do not consider it necessary for OEH's proposed condition to be imposed as a condition of approval.

Issue

"***Recommended Conditions of Approval for Aboriginal Cultural Heritage:***

4. *If any human remains are located, all works must halt in the immediate area to prevent any further impacts to the remains. The NSW Police are to be contacted immediately. No action is to be undertaken until the NSW Police provide written notification to the proponent. If the skeletal remains are identified as Aboriginal, the proponent must contact OEH's Environment Line on 131555 and representatives of the local Aboriginal community. No works are to continue until OEH provides written notification to the proponent."*

Response

Section 5.5.2 of the approved Integra AHMP includes a protocol for implementation in the unlikely event that a burial site or suspected human skeletal material is exposed during works. Section 5.5.2 of the Integra AHMP is reproduced below:

5.5.2 Human Remains

In the unlikely event that a burial site or suspected human skeletal material is exposed during works, all relevant procedures for excavation and removal will be undertaken in accordance with the *Policy Directive –Exhumation of Human Remains* (NSW Department of Health 2008); *Skeletal Remains – Guidelines for the Management of Human Skeletal Remains under the Heritage Act 1977* (NSW Heritage Office 1998) and the *Aboriginal Cultural Heritage Standards and Guidelines Kit* (NPWS 1997).

The following process is to be followed:

- as soon as remains are exposed, work will immediately cease within a 10 m radius around the remains and temporary fencing will be erected to restrict access and allow assessment and management;
- contact local police, OEH and the Heritage Division;
- a physical or forensic anthropologist will inspect the remains in situ, and make a determination of ancestry (Aboriginal or non-Aboriginal) and antiquity (pre-contact, historic or forensic);
- if the remains are identified as forensic the area is deemed as crime scene; or
- if the remains are identified as Aboriginal, the site is to be secured and the OEH and all registered Aboriginal parties are to be notified in writing; or
- if the remains are non-Aboriginal (historical) remains, the site is to be secured and the Heritage Division is to be contacted.

The above process functions only to appropriately identify the remains and secure the site. From this time, the management of the remains is to be determined through liaison with the appropriate stakeholders (NSW Police Force, forensic anthropologist, OEH, Heritage Division, DP&E, registered Aboriginal parties, DP&E endorsed archaeologist, etc.) and in accordance with the NSW *Public Health Act 1991*.

Any human skeletal remains uncovered during the course of works will be removed in a sensitive and dignified manner. Approval from NSW Health, under the NSW *Public Health Act 1991*, will be required prior to removing/exhuming any skeletal remains. Controlled excavation and removal by the site archaeologists and other appropriate specialists (forensic anthropologist, registered Aboriginal parties, NSW Police Force, as appropriate) will be undertaken in accordance with relevant guidelines and any requirements of the OEH, DP&E and NSW Health.

Prior to removal, a site specific management plan for the removal of any potential human skeletal remains uncovered will be developed, in consultation with a physical anthropologist, the Heritage Division, OEH, registered Aboriginal parties and other relevant stakeholder groups, if required. The management plan would need to consider the issues detailed in *Skeletal Remains – Guidelines for the Management of Human Skeletal Remains under the Heritage Act 1977* (NSW Heritage Office 1998). These issues include but are not limited to:

- excavation issues - including personnel who may need to be required, Occupational Health and Safety and recording.
- access issues - including limited access, security and stakeholder participation.

- management issues – including management during excavation and analysis, publicity, interpretation, location of interim resting place (in consultation with relevant stakeholders), ongoing curation of recovered materials and professional access to data.
- re-interment and commemoration – including appropriate consultation with relevant stakeholders.

Locations of interim resting places and final re-internment/repository (as appropriate) for any human skeletal remains will depend on the nature of the remains and outcome of consultation. Interim resting places could comprise the Coroner's Office or Department of Forensic Medicine (if remains forensic), local undertakers or appropriate research facility (if historic) or an appropriate interim keeping place as indicated following consultation (if Aboriginal).

Similarly, Section 6.1 of the MOC ACHMP also provides a protocol to be implemented for the identification of potential Aboriginal ancestral remains, as reproduced below:

6.1 Discovery of Aboriginal ancestral remains

In the event known or suspected Aboriginal skeletal remains are encountered during the course of development the following procedure will be followed:

a) All work close to the find will cease immediately and an area of 10m radius around the find will be cordoned off with temporary construction fencing;

b) The find will be immediately reported to the work supervisor who will immediately advise the Environment and Community Manager or other nominated senior staff member;

c) MOC will promptly notify the police (as required for all human remains discoveries);

d) MOC will contact OEH for advice on identification of the skeletal material as Aboriginal and management of the material; and

e) If the remains are Aboriginal ancestral remains, the RAPs will be contacted within two working days and consultative arrangements will be made to discuss ongoing care of the remains, including advice on recommended forensic anthropologists.

These protocols will be implemented if a burial site or suspected human skeletal material are encountered during the construction phase for the water pipeline. These protocols within the approved Integra AHMP and MOC ACHMP have been reviewed by OEH with the management plan in November last year and are generally consistent with OEH's recommendations. As such, the proponents do not consider it necessary for OEH's proposed condition to be imposed as a condition of approval.

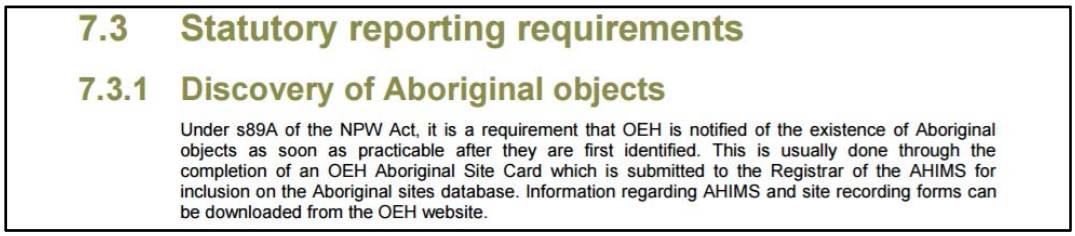
Issue

"***Recommended Conditions of Approval for Aboriginal Cultural Heritage:***

5. *All Aboriginal sites impacted by the project must have an Aboriginal Site Impact Recording form completed and be submitted to OEH's AHIMS Register within three months of being impacted."*

Response

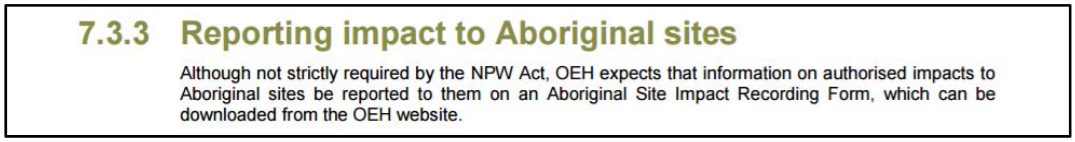
Sections 7.3.1 and 7.3.3 of the approved Integra AHMP details the reporting to be undertaken in the event of discovering new Aboriginal objects and in the event of any authorised impacts to Aboriginal sites. These sections are reproduced as follows:



7.3 Statutory reporting requirements

7.3.1 Discovery of Aboriginal objects

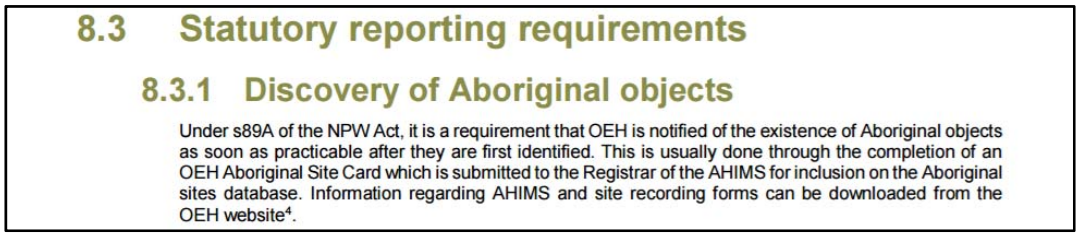
Under s89A of the NPW Act, it is a requirement that OEH is notified of the existence of Aboriginal objects as soon as practicable after they are first identified. This is usually done through the completion of an OEH Aboriginal Site Card which is submitted to the Registrar of the AHIMS for inclusion on the Aboriginal sites database. Information regarding AHIMS and site recording forms can be downloaded from the OEH website.



7.3.3 Reporting impact to Aboriginal sites

Although not strictly required by the NPW Act, OEH expects that information on authorised impacts to Aboriginal sites be reported to them on an Aboriginal Site Impact Recording Form, which can be downloaded from the OEH website.

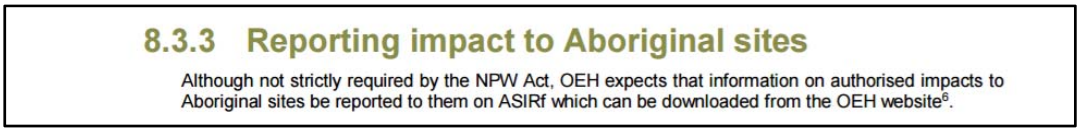
Similarly, sections 8.3.1 and 8.3.3 of the approved MOC ACHMP details the reporting to be undertaken in the event of discovering new Aboriginal objects and in the event of any authorised impacts to Aboriginal sites. These sections are reproduced below:



8.3 Statutory reporting requirements

8.3.1 Discovery of Aboriginal objects

Under s89A of the NPW Act, it is a requirement that OEH is notified of the existence of Aboriginal objects as soon as practicable after they are first identified. This is usually done through the completion of an OEH Aboriginal Site Card which is submitted to the Registrar of the AHIMS for inclusion on the Aboriginal sites database. Information regarding AHIMS and site recording forms can be downloaded from the OEH website[4].



8.3.3 Reporting impact to Aboriginal sites

Although not strictly required by the NPW Act, OEH expects that information on authorised impacts to Aboriginal sites be reported to them on ASIRf which can be downloaded from the OEH website[6].

The measures outlined within the approved Integra AHMP and the MOC ACHMP will be implemented for the Modification in the event that impacts to Aboriginal sites are required. As such, the proponents do not consider it necessary for OEH's proposed condition to be imposed as a condition of approval.

Issue

"***Recommended Conditions of Approval for Aboriginal Cultural Heritage:***

6. *An Aboriginal Cultural Education Induction Program must be developed for the induction of all personnel and contractors involved in the construction activities on site. Records are to be kept of which staff/contractors were inducted and when for the duration of the project. The program should be developed and implemented in collaboration with the registered Aboriginal parties."*

Response

Section 5.6 of the approved Integra AHMP and Section 4.1 of the approved MOC ACHMP describes the various measures to be implemented in relation to training and communication with the workforce in relation to Aboriginal Cultural heritage. These sections are reproduced below.

5.6 Training and Communication

5.6.1 Obligation to Protect Aboriginal Heritage

All employees, contractors, sub-contractors and visitors to IUG have an obligation to avoid harming Aboriginal heritage unless engaged in an Aboriginal heritage management activity described in this AHMP.

The NPW Act defines "harm" to an object or place as any act or omission that:

(a) destroys, defaces or damages the object or place, or

(b) in relation to an object-moves the object from the land on which it had been situated, or

(c) is specified by the regulations, or

(d) causes or permits the object or place to be harmed in a manner referred to in paragraph (a), (b) or (c),

but does not include any act or omission that:

(e) desecrates the object or place, or

(f) is trivial or negligible, or

(g) is excluded from this definition by the regulations.

IUG personnel, contractors and subcontractors who have responsibility for land management and/or minor surface disturbance activities have an obligation to protect Aboriginal heritage within their area of work responsibility.

Protection means active recognition of known Aboriginal heritage and active measures to avoid Aboriginal heritage. This may include fencing and/or, modification of work plans to avoid heritage.

5.6.2 Generic Induction Training

Generic induction training is provided to all employees and contractors through the GCAA *Generic Surface Induction* and the *Site Familiarisation*. During this training, all employees, contractors, sub-contractors and visitors to IUG will be made aware of the obligation to avoid harm to Aboriginal heritage. As part of this training, it will be acknowledged that Aboriginal sites and objects:

- are protected by law;
- occur extensively across the site;
- are of great significance to the Aboriginal community, are important to the wider community and should be treated with respect;
- include stone tool sites and culturally significant vegetation; and
- can be hard to recognise, therefore reference will be made to this AHMP in order to clearly identify them.

From time to time, workforce communication days and toolbox talks allow for discussion of the objectives and requirements of this and any other relevant management plans.

4 Operational and Training Protocols

MOC recognises that training and awareness is an important aspect of the Environmental Management System. All MOC personnel and contractors are required to complete an induction prior to commencing works on the site. Personnel working in the Thiess nominated area will be required to undertake a Thiess induction whilst personnel undertaking works on Glendell or other Glencore managed landholdings will be required to complete the Glencore induction. Personnel undertaking works in the Yorks Creek VCA and the Biodiversity Offset Areas are required to complete a specific Cultural Heritage induction for those areas.

All relevant mining personnel associated with surface activities (e.g. Surveyors, Environmental Officers) have knowledge in the recognition of Aboriginal materials. The Environment and Community Manager has an understanding of Aboriginal heritage legislation (NPW Act) and the legislative process.

4.1 Obligation to protect Aboriginal cultural heritage

4.1.1 Obligation to avoid harm

All employees, contractors, sub-contractors and visitors to the ACHMP Area have an obligation to avoid harming Aboriginal heritage unless engaged in approved development activity in an area where Aboriginal salvage obligations have been met as described in this plan.

The definition of harm used in this plan stems from the definition in Section 5 of the *National Parks and Wildlife Act 1974* (NPW Act). The examples used below are for illustrative purposes and are not exhaustive.

Harm to an Aboriginal object or Aboriginal site means:

a) Moving or collecting stone artefacts (although picking up artefacts and inspecting them is acceptable as long as they are immediately returned to their original location;

b) Disturbing the earth where stone artefacts are located, e.g. by earthworks for drains, roads, etc;

c) Breaking stone artefacts, e.g. by running over them in a vehicle;

d) Causing damage to a grinding groove sandstone platform by creating or exacerbating cracks;

e) Cutting down, disturbing or otherwise marking scarred trees; and

Trivial or negligible impacts to Aboriginal objects are not regarded as harm.

4.1.2 Obligation to protect

Mine personnel, contractors and subcontractors having responsibility for land management or construction have an obligation to protect Aboriginal heritage within their area of work responsibility.

Protection means active recognition of known Aboriginal heritage and active measures to avoid Aboriginal heritage. This may include fencing, mitigation of erosion effects and modification of work plans to avoid Aboriginal heritage such as changing vehicular access routes.

4.1.3 Obligation to implement management measures for Aboriginal heritage impacts

Mining personnel, contractors and subcontractors have a responsibility to ensure that the appropriate Aboriginal heritage salvage has been conducted prior to or in association with their activities which impact Aboriginal objects.

4.1.3.1 Aboriginal heritage induction and permitting process

All employees, contractors, sub-contractors and visitors to the ACHMP Area will be made aware of the obligation to avoid harm to Aboriginal heritage through an Aboriginal heritage component of a general site induction and the GDP process.

The Aboriginal heritage induction will include the following points expressed in plain language:

a) Aboriginal sites occur extensively across the ACHMP Area;

b) Aboriginal sites are of great significance to the Aboriginal community, are important to the wider community and will be treated with respect;

c) Aboriginal sites are protected by law. The development consent for the mine includes conditions allowing impact to certain specified Aboriginal sites described in the EIS and this Plan;

d) Aboriginal sites include stone tool sites and a stone arrangement site;

e) Aboriginal sites can be hard to recognise, so refer to the MOC GIS to determine site locations; and

f) Many Aboriginal artefacts are hidden within the topsoil and are not readily visible. The apparent absence of a site does not mean it is no longer in existence.

The MOC will revise its onsite induction program during 2017 to include material to raise awareness of Aboriginal cultural values of the ACHMP Area and local area more generally. The induction material will positively message the Aboriginal cultural heritage values of the area (***Table 1-2***: R06).

The induction materials and content will be developed in consultation with the relevant RAPs through the ACHWG.

As part of the training measures, the generic and site familiarisation inductions informs the workforce (including contractors and sub-contractors) of their legal obligation to avoid harm to Aboriginal heritage. Additionally, workforce communication days and toolbox talks allow for discussion of the objectives and requirements of the Integra AHMP and MOC ACHMP and any other relevant management plans. Records of these training programs are maintained by each site.

Section 4.1.3.1 of the MOC ACHMP also proposes a revision to "*its onsite induction program during 2017 to include material to raise awareness of Aboriginal cultural values of the ACHMP Area and local area more generally. The induction material will positively message the Aboriginal cultural heritage values of the area (Table 1-2: R06). The induction materials and content will be developed in consultation with the relevant RAPs through the ACHWG*". This revision will be similarly reflected within the Integra induction program.

As described within Section 8.4.4 of the EA, all construction personnel for the Modification will be provided adequate training regarding the locations and significance of Aboriginal heritage items within the vicinity of the proposed water pipeline. This will involve the generic and site familiarisation inductions and tool box talks, particularly upon the commencement of construction activities.

In light of the above, the proponents do not consider it necessary for OEH's proposed condition to be imposed as a condition of approval.

2.5.2 Flooding and Floodplain Management

Issue

"The flood impact assessment used a calibrated Tuflow model based on the one used to assess flood impacts for the Integra longwall mine in 2009. OEH considers that this model is fit for purpose. The current model assumed that the 400 mm diameter pipe will be elevated on concrete sleepers to give 200 mm nominal ground clearance, and that the bridge crossings at each creek will be above the 1% Annual Exceedance Probability (AEP) flood. The flood impact assessment predicted small increases in flood levels upstream of the pipe alignment together with an increase in flow velocities close to the pipe alignment. Most impact occurs on mine owned land, but three privately owned properties appear to be affected."

Response

The flood impact assessment as described in Section 8.7 of the EA and included as Appendix F concluded that the impacts of the Modification on flood levels and velocities are not predicted to be significant.

As illustrated in **Figure 1**, some minor changes in flood levels (around 1 cm) are predicted to occur under a 1% AEP flood scenario to a very small area on one non-mine owned landholding immediately to the downstream of the proposed water pipeline crossing of Main Creek.

This non-mine owned landholding will also experience some changes in peak flood velocities under a 1% AEP scenario, including some areas with flow reductions (between 0.01 m/s and 1 m/s) and other areas with flow increases (between 0.1 m/s and 0.10 m/s) (see **Figure 2**). These small changes in flood levels and velocities would have a negligible material impacts to this landholding.

Further to this, **Figure 1** illustrates three landholdings owned by Bloomfield located on the southern side of Glennies Creek and upstream of the proposed pipeline crossing which also predicted to experience negligible increases in flood levels (1 to 2 cm) under the 1% AEP flood scenario. Very minor changes in flood velocity are predicted to small areas of these properties under the 1% AEP flood scenario (see **Figure 2**). These impacts are predicted to occur on the alluvial flats and will not impact upon any infrastructure (i.e. residential dwellings/buildings) on this land.

WRM has compared the water level hydrographs between the existing and post-pipeline conditions for the 1% AEP flood scenario at two locations as shown on **Figure 3**:

- Upstream of the Glennies Creek crossing in relation to the three Bloomfield owned properties (**Figure 4**); and
- Downstream of the Main Creek crossing in the vicinity of the non-mine owned landholding (**Figure 5**).

The hydrographs illustrate that the proposed pipeline will not increase the duration of flooding at the above two locations. This further suggests that the proposed pipeline would have negligible impact on the neighbouring non-mine owned land.

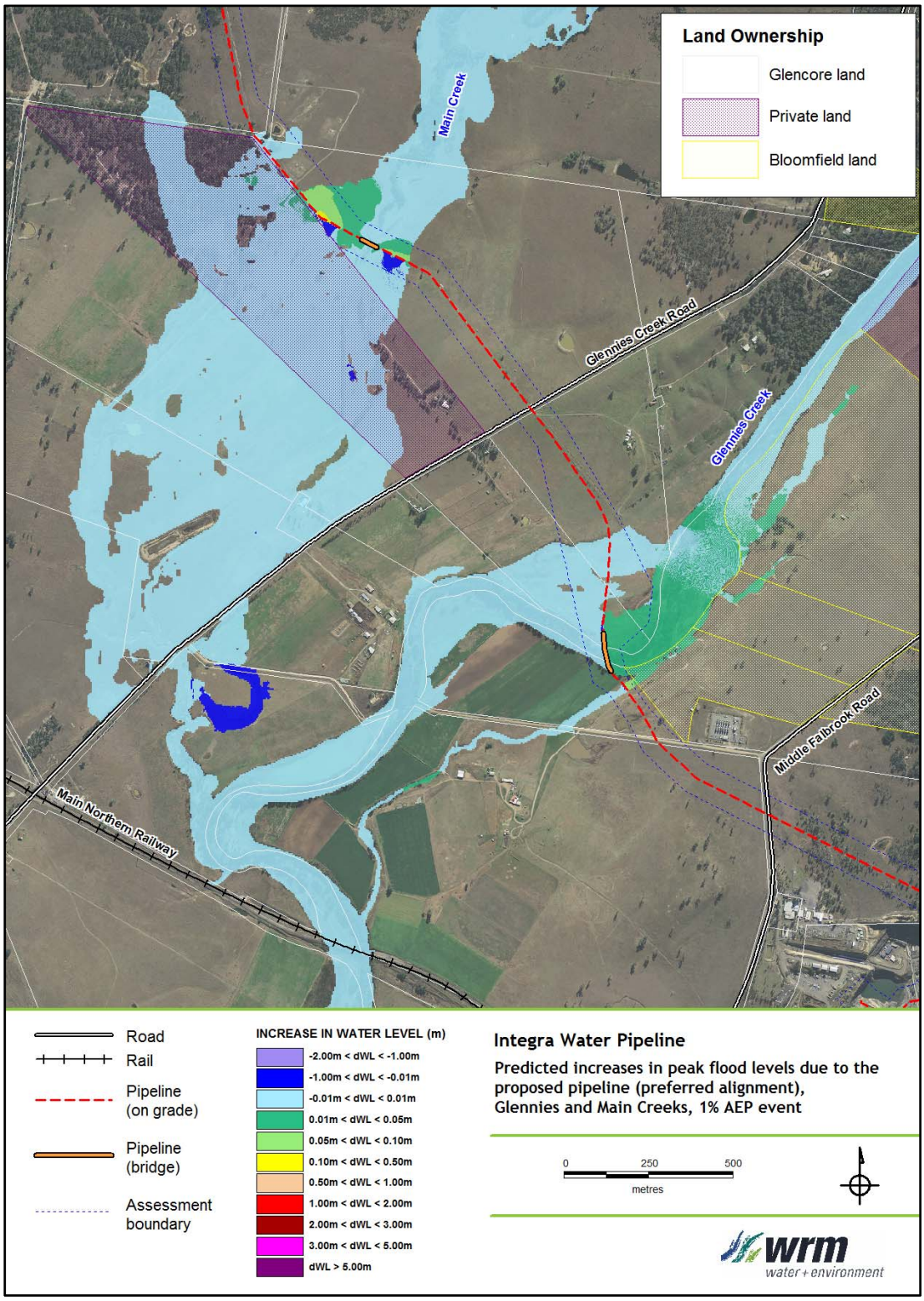


Figure 1
Predicted Increases in Peak Flood Levels Due to the Proposed Pipeline (Preferred Alignment) Glennies Creek and Main Creeks, 1% AEP Event

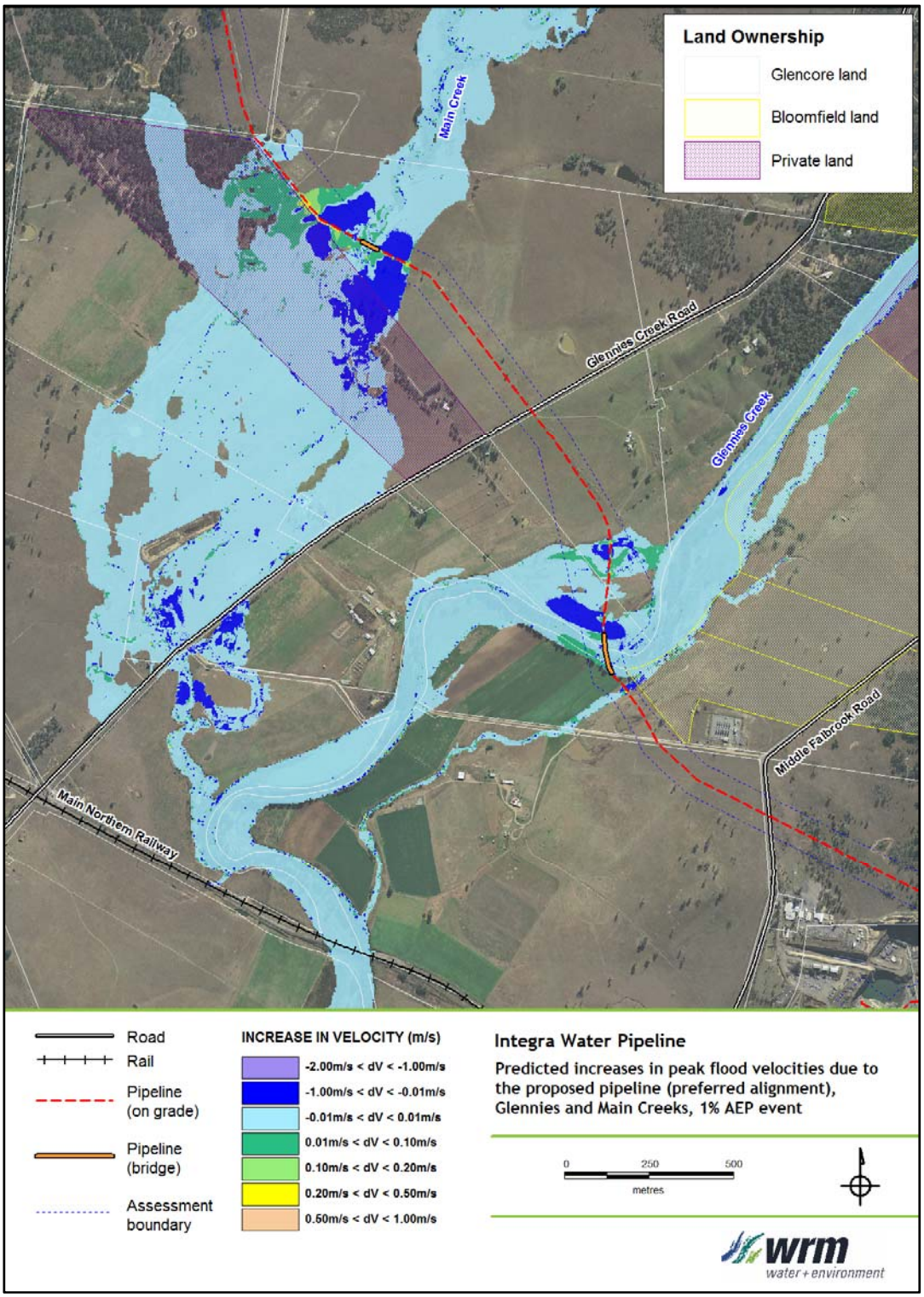


Figure 2
Predicted Increases in Peak Flood Velocities Due to the Proposed Pipeline (Preferred Alignment) Glennies Creek and Main Creeks, 1% AEP Event

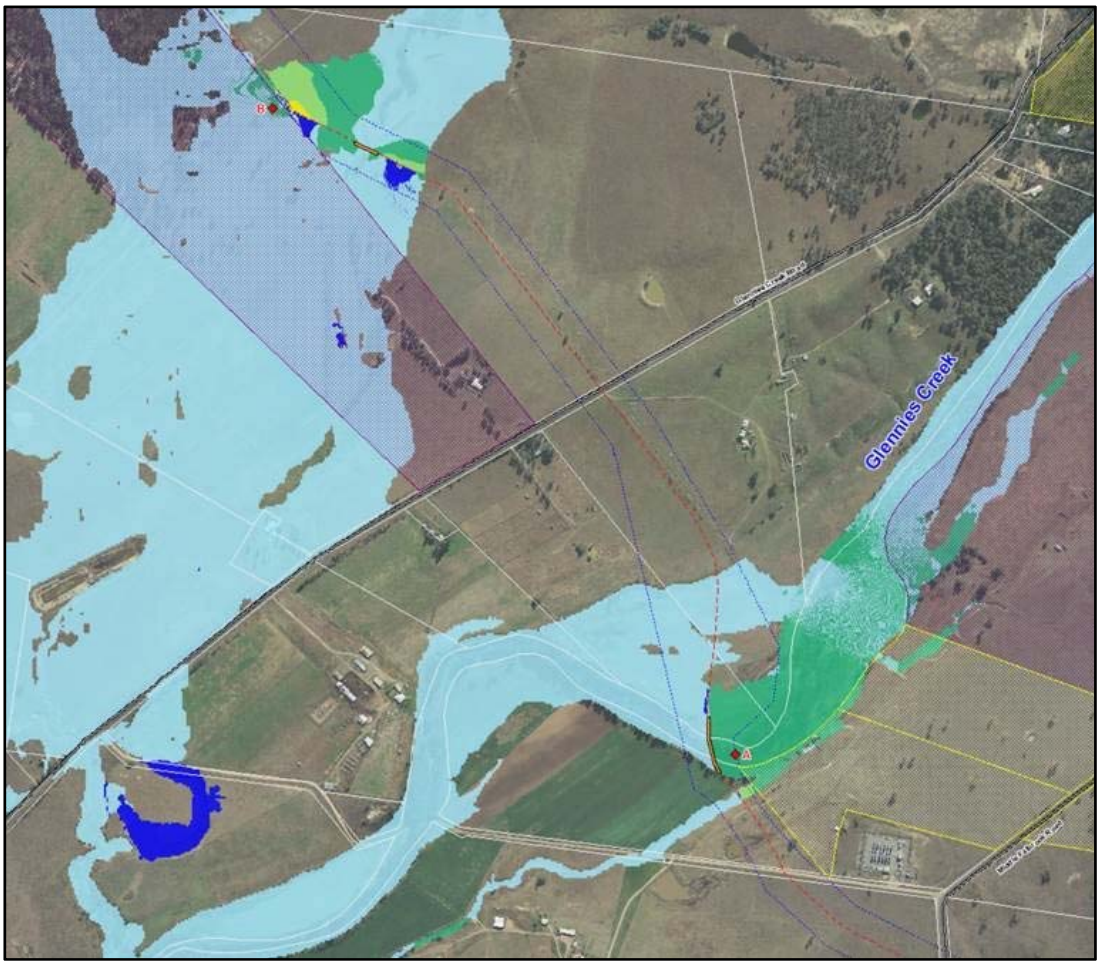


Figure 3
Water Level Reporting Locations

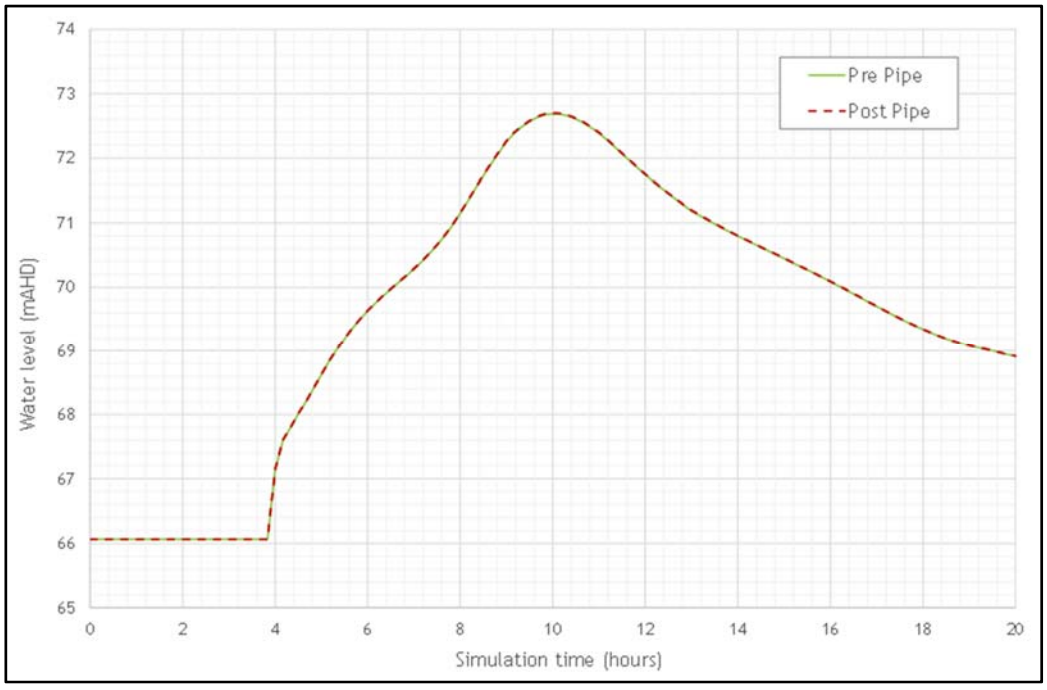


Figure 4
1% AEP Water Level Hydrographs at Location A

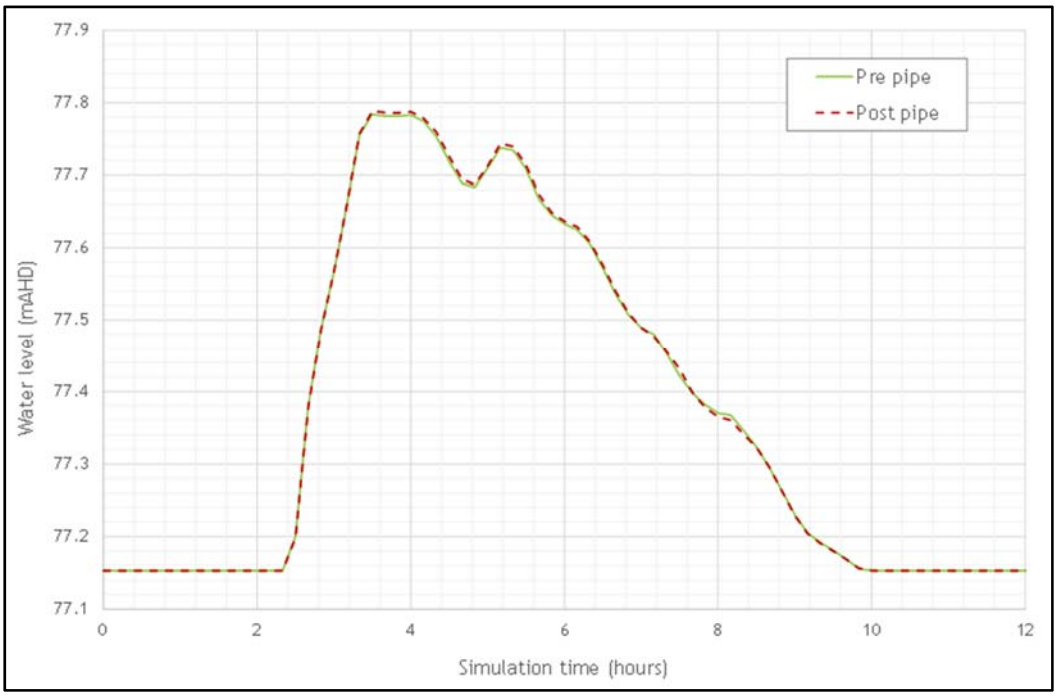


Figure 5
1% AEP Water Level Hydrographs at Location B

Issue

"OEH identified deficiencies in the flood model used for this project; namely: there was no sensitivity analysis of afflux caused by flood water blockage by debris below the pipe (which is considered likely to occur given the low ground clearance proposed); and flood events greater that the 1% AEP, such as the Probable Maximum Flood (PMF), were not modelled. This is problematic as larger afflux is expected for larger floods which could affect adjacent private properties. Under the 1% AEP flood conditions modelled, privately owned properties adjacent to the pipeline near Glennie Creek Road will experience increases in flood velocity of up to 0.3 m/s due to changes in the hydraulics of Main Creek. The report states that these will be insignificant and non-erosive. However, while erosion will not be expected until velocities exceed 2 m/s, there is still the potential for scour. This is because overland flow will be forced to flow around concrete sleepers. Any debris trapped under the pipe, will therefore flow faster and will become turbulent downstream of the obstruction. This results in areas around blockages becoming susceptible to localised scour. While the flood velocities in this area pre-pipeline installation are low (between 0.1 to 1 m/s), and the increase in velocity is not large, localised scour may occur were the velocity approaches 1 m/s."

Response

The flood impact assessment has conservatively modelled a blockage of 20% beneath the pipeline. This assumed 20% blockage was to account for the blockage resulting from the concrete sleepers on the floodplain along with the potential blockage from debris. Based on a span of 10 m between sleepers, the blockage from the sleepers is likely to be less than 5% without debris.

Whilst the suggested sensitivity assessment would provide some additional results for consideration, the conclusions of the assessment itself would not materially change. Considering a greater percentage blockage within the flood impacts assessment would result in worsening of impact upstream of Main Creek, but these areas are largely owned by Glencore. The impacts along Glennies Creek would not worsen significantly due to the existing depths of flooding for the 1% AEP event (> 5 m).

In relation to the potential for scouring below and immediately adjacent to the pipeline, this potential is acknowledged. In the event that the bridge options assessed within the EA are selected for the construction of the water pipeline, the detailed design will incorporate localised scour protection or other design features to minimise scour potential.

Issue

"The usual criteria with regards to flood impacts is that for any proposed works, the proponent must ensure that all adverse impacts are confined to their land, up to and including the PMF. This includes peak water levels and velocities, and impacts on roads and other evacuation routes. There must be no adverse flood impacts on properties owned by others because of the proposed works. The proponent may therefore need to: relocate the pipeline route away from the property boundaries; bury additional sections of pipe; or provide localised scour protection to reduce the likely flood impact by the pipeline on private properties."

Response

In light of the conclusions of the flood modelling undertaken on the 1% AEP as described in response to OEHs comments above, the modelling of the extreme events suggested by OEH (such as 0.5% AEP and PMF) would not materially change the conclusions of the current assessment. That is, that the damage caused by flooding would not be affected significantly by the presence of the pipeline. Further the proposed pipeline will only be in place for the life of the mine. Therefore, there will be no impact on the flood regime following mine closure due to the pipeline, which will be removed.

Whilst the suggested modelling would not result in changes to the conclusions of the current assessments, there is expected to be some changes to the flood levels and velocities under the extreme events.

In the event that the bridge options assessed within the EA are selected for the construction of the water pipeline, the extreme event modelling requested by OEH will be undertaken. This extreme event modelling will be undertaken utilising the detailed design of the pipeline and associated bridge structures. Under this scenario, the detailed design of the water pipeline, bridges and associated support structures would be designed to manage the risk of scouring. The predicted impacts to flood levels and velocities are small and there would be no additional impacts to the public roads within the area.

Issue

"Recommended Conditions of Approval for Flooding and Floodplain Management:

1. *The proponent must conduct detailed design of the pipeline that includes updated flood modelling that includes 0.5% AEP and PMF flood events. Sensitivity analysis must be provided to assess the impacts of blockages, by debris, between the proposed sleeper supports for the pipeline."*

Response

As responded above, the modelling of these extreme flood events would not result in material changes to the conclusions of the flood impact assessment. However, in the event that the bridge options are selected for the water pipeline crossings, revised flood modelling utilising the detailed design will be undertaken. Beyond the conservative assumptions already applied within the flood impact assessment, further sensitivity analysis would be undertaken within the revised flood modelling.

It is anticipated that these extreme flood modelling scenarios would result in the worsening of impacts in areas upstream of the pipeline. These areas of land are predominantly owned by Glencore and/or Bloomfield. In the event of the bridges being constructed, HV Coking Coal will consult with neighbouring landholders in relation to the potential flood impacts resulting from the proposed water pipeline as identified within the detailed design modelling.

Issue

"Recommended Conditions of Approval for Flooding and Floodplain Management:

2. *The proposed development must have no significant adverse flood impacts on privately owned properties."*

Response

The results of the flood impact assessment (Appendix E) show that the proposed pipeline will have no significant impact on 1% AEP peak flood levels (about 1 cm) on the non-mine owned land immediately downstream of the Main Creek pipeline crossing. The impact does not extend to the existing dwelling / building. The proposed pipeline will not increase the duration of flooding on this property.

Accordingly, the proposed water pipeline will not have a significant adverse flood impact on non-mine owned land. Notwithstanding this, HV Coking Coal will continue consultation with the neighbouring private landholder located to the downstream of the Main Creek crossing in relation to potential impacts of the proposed pipeline along with other aspects of Integra's operations.

Issue

"Recommended Conditions of Approval for Flooding and Floodplain Management:

3. The proponent must inform affected landholders of the expected flood impacts."

Response

As described within Section 8.7 of the EA and in the responses above, the proposed water pipeline crossings are not anticipated to result in any significant impacts to flood events. In the event that the bridge options assessed within the EA are selected for the construction of the water pipeline, the extreme event modelling requested by OEH will be undertaken and based on the detailed design of the pipeline and associated bridge structures. It is anticipated that this extreme event modelling would not materially change the conclusions of the current assessment. That is, that the damage caused by flooding would not be affected significantly by the presence of the pipeline.

Despite the above, HV Coking Coal will continue consultation with the neighbouring private landholder located to the downstream of the Main Creek crossing in relation to potential impacts of the proposed pipeline along with other aspects of Integra's operations.

As described within Section 8.7.4 of the EA, in the event of the bridge options are selected for construction, the pipeline and its associated infrastructure will be inspected following any flood event that results in inundation of the pipeline. The inspection will identify any damage resulting from the flood and determine the requirement for any flood remediation works.

2.5.3 Threatened Biodiversity Assessment

Issue

"If the water pipeline and communication cables run on the western side of the Mount Owen Rail loop, there is a chance that it could impact on the Bettys Creek Habitat Management Area (an offset for the Glendell Mine). The EA is not clear on this detail, but if so, then any impacts by this modification to the Glendell Mine biodiversity offset may also need to be offset."

Response

The Assessment Boundary for the water pipeline extends over to the western side of the Mount Owen Rail Spur and covers a small area of the Bettys Creek Habitat Management Area. The Assessment Boundary was developed in relation to the preferred conceptual alignment of the water pipeline, which is aligned on the eastern side of the Mount Owen Rail Spur. Whilst the Assessment Boundary marginally extends into this area, HV Coking Coal is committed to avoid disturbance activities associated with the Modification from occurring within the Bettys Creek Habitat Management Area.

Issue

"The EA (Section 8.6.1) states that the NSW Biodiversity Offsets Policy for Major Projects and the Framework for Biodiversity Assessment (OEH, 2014b) do not apply to this project. This may be the case, but this is a matter for the Department of Planning and Environment to determine. Recent infrastructure projects nearby, with similarly small impacts on threatened biodiversity have all had offset obligations (e.g. Ravensworth East Mine Modification 6, tailings pipeline and Glendell Mine, powerline relocation).

…

Recommended Conditions of Approval for Threatened Biodiversity:

1. *That the proponent provides a biodiversity offset package that meets the requirements of the NSW Biodiversity Offsets Policy for Major Projects."*

Response

Section 8.6.1 of the EA (and Section A.5 of Appendix E of the EA) notes that the proposed application is a modification application (being made under sections 75W and 96 of the EP&A Act), for which an Environmental Impact Statement is not required, and no Secretary's Environmental Assessment Requirements have been issued. In this regard, there is no requirement to apply the *NSW Biodiversity Offsets Policy for Major Projects* (Offsets Policy) and associated Framework for Biodiversity Assessment (FBA) to the Modification. It is therefore unclear why OEH has recommended that an offset package be provided in accordance with the Offsets Policy.

Further, the Offsets Policy and FBA do not apply to the Modification for the following additional reasons:

- The project represents a modification to an existing Part 3A Project Approval (and an existing State Significant Development (SSD) approval) and is therefore not a new SSD application;

- The Director General's Requirements for the Integra Underground Complex Project Approval (PA 08_0101) were issued in 2008, prior to the implementation of the offsets policy;

- The Secretary's Environmental Assessment Requirements for the Mount Owen Continuation of Operations Project (SSD-5850) were issued in March 2013, prior to the implementation of the Offsets Policy;

- The Modification is seeking approval via Section 75W and Section 96 modification applications and therefore Secretary's Environmental Assessment Requirements were not issued; and

- There are no other legislative provisions which would result in the application of the Offsets Policy to projects that had assessment requirements issued prior to the implementation of the policy.

In its submission, OEH refers to two recent modifications (with minor impacts on biodiversity) have had "*offset obligations*". The statement does not accurately describe the conditions that were imposed in respect of those modifications. Ravensworth East MOD 6 had the consent conditions modified to include planting of River Oak trees, with no offsetting proposed under the Offsets Policy. Glendell Mine MOD 3 had the consent conditions modified to include an addition of 4 ha to an existing habitat management area for 2.83 ha of disturbance (temporary direct/indirect and permanent impacts) (not under the Offsets Policy), pre-clearance surveys, planting of River Oak trees, nest box installation, replanting of temporarily cleared vegetation conforming to two vegetation types. The conditions of consent for the pre-clearance survey also noted the requirement to provide offsets in accordance with the Offset Policy if the pre-clearance surveys identified any threatened species which may be adversely affected by the realigned transmission line. In circumstances where the Offsets Policy and FBA do not apply, the proponents do not consider that these examples constitute any basis on which to require an offset package in relation to the Modification.

In addition, Section A.4.1 of Appendix E of the EA notes that the area of impact is considered to be a conservative estimate of the likely total area of impact. The assessment assumed that up to 10% of the Critically Endangered Ecological Community/Endangered Ecological Community (C/EEC) vegetation within the Assessment Boundary, and up to 40% of non-listed native vegetation within the Assessment Boundary, which total an area of approximately 1.47 ha of native vegetation (excluding planted vegetation) under the preferred option. The 0.48 ha of C/EEC *Central Hunter Ironbark – Spotted Gum – Grey Box Forest* assumed to be impacted comprises small regenerating patches of open woodland and edges of larger more intact patches. This C/EEC, and potentially occurring threatened species, were assessed as not being significantly impacted by the proposed application.

The proposed water pipeline will be predominantly above-ground and therefore minimal vegetation will be removed across the majority of the alignment. There is the opportunity to pass through clumps of trees, and to avoid tree removal to a large extent, particularly mature and hollow-bearing trees. As such, the total extent of impact is considered to be less than what has been assessed.

Given the relatively minor extent of clearing of native woody vegetation, which is based on a conservative estimate, and the proposed implementation of a suite of mitigation measures (such as avoiding removal of trees with a trunk diameter of 10 cm or greater), as well as the fact that the Offsets Policy and FBA do not apply, it is considered that offsets are not required for this minor Modification.

3 SUMMARY OF KEY MANAGEMENT AND MITIGATION MEASURES

Table 1 summarises the key management and mitigation measures proposed in this RTS which are additional to the existing management and mitigation measures within Table 17 of the EA.

The objective of this summary is to ensure that the environmental and social impacts resulting from the Modification are minimised by implementing the appropriate management, monitoring and mitigation strategies.

Table 1
Additional Management and Mitigation Measures

Ref.	Commitment	Section
1.	Mt Owen and HV Coking Coal to apply for the relevant variation applications to EPL 4460 and EPL 3390 to facilitate the management control of the proposed water pipeline	**2.1**
2.	The detailed design of the water pipeline will incorporate measures to reasonably contain potential leakages, particularly in locations where the pipeline traverses sensitive environments (such as creek crossings)	**2.1**
3.	In the event that the bridge options assessed within the EA are selected for the construction of the water pipeline, the revised Water Management Plan will incorporate the final design and construction methods for the water pipeline, which will be subject to review by DPI-Water	**2.3**
4.	Hold a field visit utilising a roster-based approach with representatives of the Aboriginal community and provide a briefing note documenting the outcomes of the field visit to all RAPs for MOC and Integra	**2.5.1**
5.	The protocols for the dealing with and reporting of the unanticipated discovery of new Aboriginal heritage sites and suspected human skeletal remains within the currently approved Integra AHMP and MOC ACHMP will be utilised during the construction and operation of the Modification	**2.5.1**
6.	In the event that the bridge options assessed within the EA are selected for the construction of the water pipeline, the extreme event modelling requested by OEH will be undertaken utilising the detailed design of the pipeline and associated bridge structures	**2.5.2**
7.	In the event that the bridge options assessed within the EA are selected for the construction of the water pipeline, the detailed design will incorporate localised scour protection other design features to minimise scour potential	**2.5.2**
8.	HV Coking Coal will continue consultation with the neighbouring private landholder located to the downstream of the Main Creek crossing in relation to potential impacts of the proposed pipeline along with other aspects of Integra's operations	**2.5.2**
9.	In the event that the bridge options assessed within the EA are selected for the construction of the water pipeline, HV Coking Coal will consult with neighbouring landholders in relation to the potential flood impacts resulting from the proposed water pipeline as identified within the detailed design modelling	**2.5.2**

4 CONCLUSION

This RTS has been prepared as a consolidated response to the five submissions received by DP&E from regulators in relation to the Integra to Mount Owen Water Pipeline Modification.

The response to EPA's submission has confirmed that variations will be required to EPL 4460 and EPL 3390 for MOC and Integra, respectively to accommodate the proposed water pipeline alignment. Further detail on the various management controls in place with the water pipeline design and the proposed management measures to be implemented during operations have also been provided.

This response has also confirmed that the currently approved Integra AHMP and MOC ACHMP will continue to be appropriate for the construction activities associated with the Modification. However, it is noted that these management plans are subject to regular review and are updated as necessary.

This response also reaffirms that in the event of the bridge options being selected for the construction of the water pipeline, the impacts to flooding to neighbouring landholders will not be significant. In the event that this option is selected, Glencore has committed to completing further flood modelling of extreme events and to consult with the neighbouring landholders.

This report has confirmed that the environmental impacts of the Modification have been identified with certainty and will be acceptably managed by the proposed construction and operational controls and management plans that will be updated as relevant to the Modification.

Glencore seeks an expedient assessment of the minor modifications to PA 08_0101 and SSD-5850 to facilitate the immediate construction of this water management infrastructure.

Should you have any queries in relation to this letter, please contact either Chloe Piggford on 02 6577 4241 or myself on 02 6575 2000.

Yours faithfully
HANSEN BAILEY

Nathan Cooper
Principal

Cc: Chloe Piggford – HV Coking Coal Pty Ltd