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Jacobs

**Hunter Power Project
Construction Monitoring Program**

| Amended Final2
15 February 2022



Hunter Power Project

Project No: IS354500
 Document Title: Construction Monitoring Program
 Revision: Amended Final2
 Date: 15 February 2022
 Client Name: Snowy Hydro Limited
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 File Name: Construction Monitoring Plan_Amended Final2

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Document history and status

Revision	Date	Description	Author	Checked	Reviewed	Approved
Final	20 December 2021	Final	P Horn	S Sanderson	M Luger	K Ivanusic
Amended Final2	18 January 2022	Final	P Horn	I Smith	M Luger	K Ivanusic
Amended Final2	4 February 2022	Final	P Horn	I Smith	M Luger	K Ivanusic
Amended Final2	15 February 2022	Final	P Horn	I Smith	M Luger	K Ivanusic

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1. Introduction

This Construction Monitoring Program has been developed to meet the requirements of the Hunter Power Project Infrastructure Approval Condition C1(e)(iii). It contains monitoring commitments from the Construction Environment Management Strategy (CEMS) and Management Plans. While the individual Management Plans should be referred to for detail regarding the monitoring requirements for that environmental aspect, this Construction Monitoring Program provides a summary of all monitoring requirements as a central point of reference.

A comprehensive summary of the monitoring results of the development, reported in accordance with the specifications in any conditions of this approval, or any approved plans and programs, will be made publicly available on the Project website as per Condition C20.

1.1 Reporting

If monitoring identifies an incident or non-compliance, these shall be reported in accordance with section 7 of the Construction Environmental Management Strategy (CEMS). Reporting procedures have also been reiterated at the request of the Department of Planning Industry and Environment in the management plans for each environmental aspect (such as air quality, waste, biodiversity etc). These procedures are not repeated again in this monitoring program in order to avoid duplication, and because this monitoring program is to be implemented in conjunction with the details in the management plans for each environmental aspect and CEMS.

The reporting pathways are from the Principal Contractor to Snowy Hydro, and for Snowy Hydro as the holder of the Infrastructure Approval to report to the Department. The details and specific reporting steps are set out in the CEMS and management plans referred to above, and not repeated here to avoid duplication.

Surface water and groundwater monitoring reporting procedures are set out in section 2.5 of this plan. Incident and compliance notification and reporting are reproduced in Appendix 1 as requested by the Department.

In addition, inspections and audits (internal and independent external) will be conducted throughout the life of the project in accordance with section 7 of the Construction Environmental Management Strategy to provide assurance of monitoring undertaken.

2. Monitoring requirements

2.1 Air quality

Air quality monitoring procedure is detailed in the Air Quality Management Plan. No regular monitoring of air quality is proposed. In response to complaints, air quality monitoring will be conducted upon verification of the complaint and if the cause of the complaint could be from project activities, as opposed to activities of other industry / works in the vicinity.

The frequency of monitoring is dependent on the situation where a complaint arises. It is noted that where a complaint arises, the Environmental Representative’s participation is required by the Construction Environmental Management Strategy (CEMS) and conditions of approval, providing oversight that the frequency of monitoring is conducted sufficiently to resolve a complaint. In this circumstance, the complaint and monitoring will also have been reported to the Department by Snowy Hydro.

Trigger	What needs to be monitored	Monitoring activity	Who will complete
Air quality complaint	Dependent of the complaint, deposited dust	2 – 4 dust gauges between the project location and the nearest receivers relevant to the complainant in accordance with AS3580.	Principal Contractor Air Quality Practitioner
Air quality complaint	Dependent of the complaint, suspended dust	Dust will be monitored as PM ₁₀ using a DustTrak Dust Monitor or equivalent device in accordance with AS3580.	Principal Contractor Air Quality Practitioner

2.2 Biodiversity

Biodiversity monitoring activities are detailed in the Biodiversity Management Plan. The effectiveness of the measures will be evaluated and reported based on the inspection and audit process identified in the Biodiversity Management Plan using the observations and monitoring identified in that Plan and below. Monitoring for Biodiversity consists of inspections and activity monitoring as follows:

Task	What needs to be monitored	Monitoring activity	Who will complete
Site Clearing	Pre-clearance biodiversity survey	Locate Fauna (especially Koalas), identify hollow bearing trees Other preclearing requirements as per the Biodiversity Management Plan.	Biodiversity Practitioner Principal Contractor
Response	Pre-clearance biodiversity survey	The pre-clearing inspection will form a HOLD POINT (sign-off from the Principal Contractor’s Environmental Manager and the Biodiversity Practitioner). Habitat trees cleared > 24 hours after non-habitat trees, supervision by Biodiversity Practitioner Install erosion and sediment controls, such as bunding and sediment traps, along the western edge of the Project, to prevent run-off into the creek line and adjacent vegetation and fauna habitat. Further erosion mitigation measures are presented in the Erosion and Sediment Control Management Plan in the CEMS	Biodiversity Practitioner Principal Contractor
Removal of Hollow Bearing Trees	Trees to be felled	A Biodiversity Practitioner is to inspect the tree prior to felling and capture/relocate residing fauna.	Biodiversity Practitioner
Response	Trees to be felled	Equipment is to be used to lower the trees to the ground with minimal impact. Trees are to be left for a period of at least 24 hours before being moved to allow any fauna in the tree to escape.	Principal Contractor Biodiversity Practitioner
Site disturbance	Set Clearing Limits prior to grubbing/Clearing operations	Biodiversity Practitioner to set out and clearly identify the clearing limits at the site to ensure that no habitat areas that will be retained adjacent to the Project are not unnecessarily damaged or removed. Non-habitat trees to be cleared first	Biodiversity Practitioner Principal Contractor

Task	What needs to be monitored	Monitoring activity	Who will complete
Response	Set Clearing Limits prior to construction commencement or Grubbing/Clearing operations	<p>The clearing limit is delineated using high visibility temporary fencing. The limits to be accurately and clearly marked out.</p> <p>A post clearance report will be produced during the clearing phase of the Project to validate the type and area of vegetation cleared and all impacts to fauna.</p> <p>No Entry signage should be erected at all exclusion zones advising the nature of the exclusion zone.</p>	Principal Contractor Biodiversity Practitioner
Site disturbance	Areas of weed infestation	Prior to site disturbance the Project Site shall be inspected by a Biodiversity Practitioner to identify the type and location of weeds, and potential sources of weed propagation.	Biodiversity Practitioner
Response	Areas of weed infestation	<p>Biodiversity Practitioner to advise Principal Contractor on weed control and removal of weed propagation risks. Inspection of areas within 200m to ascertain whether Project as resulted in increased infestations.</p> <p>Weeds will be identified, mapped, and priority weeds removed prior to construction commencing. Locations will be recorded for ongoing weed monitoring and areas identified as high-risk (access roads, stockpiles and bare ground) will be monitored and treated.</p> <p>Monitoring and treatment of weeds will occur for a period of 6 months post-construction</p>	Biodiversity Practitioner Principal Contractor
Response	Unexpected finds of threatened species	Photos and descriptions of threatened species that occur or may occur in the project area will be shown and discussed at site inductions. If threatened flora or fauna are unexpectedly encountered, a Biodiversity Practitioner will advise the Principal Contractor of impacts and consultation requirements.	Principal Contractor Biodiversity Practitioner

2.3 Heritage

Monitoring of heritage issues during construction are detailed in the Cultural Heritage Plan. Refer to section 4.3 of the Cultural Heritage Management Plan for the detailed archaeological monitoring program. Due to the detail and number of contingent steps within that program, it is not reproduced here to avoid the potential for error in the monitoring process.

The cultural heritage monitoring program will be implemented including the long-term management of any Aboriginal objects discovered. Should any unrecorded or unanticipated deposit or object be uncovered, the Principal Contractor will follow the Unexpected finds protocol detailed in Section 4.7 of the Cultural Heritage Management Plan.

Task	What needs to be monitored	Monitoring activity	Who will complete
Monitor for potential heritage artefacts	Whenever earthworks that could disturb previous undisturbed alluvium are required, including Grading and Site levelling Staged archaeological excavation will be conducted when: <ul style="list-style-type: none"> ▪ undisturbed soil horizon is reached at each turbine location; and ▪ at the switchyard and provisional stormwater basin areas. 	Refer to Cultural Heritage Plan section 4.3 for monitoring details and specifics of the monitoring procedures. Inspection of earthworks for intrusion into undisturbed alluvium Protocol for testing of undisturbed alluvium for heritage artefacts	Heritage Practitioner RAPs
Response	If monitoring identifies heritage artefacts	Follow the procedure identified in the Cultural Heritage Management Plan	Heritage Practitioner RAPs
Unexpected finds	If suspected artefacts or skeletal remains are identified during works	All ground-disturbing works in the immediate vicinity of the Aboriginal object(s) will cease The Aboriginal object will not be removed from the area or disturbed in any way Heritage practitioner to make a qualified opinion to identify the find Notification and recording obligations follow as set out in the Cultural Heritage Management Plan	Principal Contractor Heritage Practitioner

Task	What needs to be monitored	Monitoring activity	Who will complete
		In the instance of skeletal remains, work is not to commence in the area unless authorised in writing by Heritage NSW and/or the NSW Police.	

2.4 Noise and vibration

Noise monitoring would be undertaken in accordance with the Construction Noise and Vibration Management Plan. The results of monitoring would be compared against the predicted noise impacts.

Monitoring trigger	Monitoring	Monitoring activity	Who will complete
<p>Activities where verification monitoring is required e.g. confirming that noise levels are consistent with predictions and noise criteria, or to confirm the effectiveness of mitigation</p>	<p>Attended and unattended monitoring</p>	<p>Determined on a case-by-case basis</p> <p>Noise measurements will be undertaken to the following parameters:</p> <ul style="list-style-type: none"> ▪ Sample Period: 15 minutes ▪ Frequency Weighting: A-Weighting ▪ Time Constant: Fast (125 milliseconds) <p>Attended noise monitoring will be carried out at each noise monitoring location using direct measurement in accordance with the techniques detailed in Section 7.1.1 of the Noise Policy for Industry (NPfi). Where direct measurement of activities at the site are not possible due to extraneous noise or where access to the monitoring location is unavailable, an alternative method such as measurements at intermediate or alternative locations will be investigated. Compliance will be determined through comparison with construction noise management levels (NMLs) detailed in Section 4.3 of the CNVMP.</p> <p>Unattended continuous noise monitoring (including recorded noise and post processing and analysis) may be used to supplement attended monitoring where appropriate.</p> <p>As a minimum, L_{Aeq}, L_{AMax}, and L_{A90} A-weighted noise levels should be recorded.</p> <p>Compliance will be determined through comparison with noise impacts noted in Section 5 of the Construction Noise and Vibration Management Plan.</p>	<p>Noise and Vibration Practitioner</p>

Monitoring trigger	Monitoring	Monitoring activity	Who will complete
<p>In response to a noise complaint</p>	<p>Attended and unattended monitoring</p>	<p>Determined on a case-by-case basis. Monitoring would take place at the complaint location and as required and would include consideration of time of day of complaint and nature of site works.</p> <p>Noise measurements will be undertaken to the following parameters:</p> <ul style="list-style-type: none"> ▪ Sample Period: 15 minutes ▪ Frequency Weighting: A-Weighting ▪ Time Constant: Fast (125 milliseconds) <p>Attended noise monitoring will be carried out at each noise monitoring location using direct measurement in accordance with the techniques detailed in Section 7.1.1 of the Noise Policy for Industry (NPfI). Where direct measurement of activities at the site are not possible due to extraneous noise or where access to the monitoring location is unavailable, an alternative method such as measurements at intermediate or alternative locations will be investigated. Compliance will be determined through comparison with construction noise management levels (NMLs) detailed in Section 4.3 of the CNVMP.</p> <p>Unattended continuous noise monitoring (including recorded noise and post processing and analysis) may be used to supplement attended monitoring where appropriate.</p> <p>As a minimum, L_{Aeq}, L_{AMax}, and L_{A90} A-weighted noise levels should be recorded.</p> <p>Compliance will be determined through comparison with noise impacts noted in Section 5 of the Construction Noise and Vibration Management Plan.</p>	<p>Noise and Vibration Practitioner</p>

Monitoring trigger	Monitoring	Monitoring activity	Who will complete
<p>A change in construction methodology with potential increase in noise levels</p>	<p>Attended and unattended monitoring</p>	<p>Determined on a case-by-case basis</p> <p>Noise measurements will be undertaken to the following parameters:</p> <ul style="list-style-type: none"> ▪ Sample Period: 15 minutes ▪ Frequency Weighting: A-Weighting ▪ Time Constant: Fast (125 milliseconds) <p>Attended noise monitoring will be carried out at each noise monitoring location using direct measurement in accordance with the techniques detailed in Section 7.1.1 of the Noise Policy for Industry (NPfI). Where direct measurement of activities at the site are not possible due to extraneous noise or where access to the monitoring location is unavailable, an alternative method such as measurements at intermediate or alternative locations will be investigated. Compliance will be determined through comparison with construction noise management levels (NMLs) detailed in Section 4.3 of the CNVMP.</p> <p>Unattended continuous noise monitoring (including recorded noise and post processing and analysis) may be used to supplement attended monitoring where appropriate.</p> <p>As a minimum, L_{Aeq}, L_{AMax}, and L_{A90} A-weighted noise levels should be recorded.</p> <p>Compliance will be determined through comparison with noise impacts noted in Section 5 of the Construction Noise and Vibration Management Plan.</p>	<p>Noise and Vibration Practitioner</p>

Monitoring trigger	Monitoring	Monitoring activity	Who will complete
Direction from the NSW EPA	Attended and unattended monitoring	<p>Determined on a case-by-case basis. Locations to be determined based on location and nature of complaint.</p> <p>Noise measurements will be undertaken to the following parameters:</p> <ul style="list-style-type: none"> ▪ Sample Period: 15 minutes ▪ Frequency Weighting: A-Weighting ▪ Time Constant: Fast (125 milliseconds) <p>Attended noise monitoring will be carried out at each noise monitoring location using direct measurement in accordance with the techniques detailed in Section 7.1.1 of the Noise Policy for Industry (NPfI). Where direct measurement of activities at the site are not possible due to extraneous noise or where access to the monitoring location is unavailable, an alternative method such as measurements at intermediate or alternative locations will be investigated. Compliance will be determined through comparison with construction noise management levels (NMLs) detailed in Section 4.3 of the CNVMP.</p> <p>Unattended continuous noise monitoring (including recorded noise and post processing and analysis) may be used to supplement attended monitoring where appropriate.</p> <p>As a minimum, L_{Aeq}, L_{AMax}, and L_{A90} A-weighted noise levels should be recorded.</p> <p>Compliance will be determined through comparison with noise impacts noted in Section 5 of the Construction Noise and Vibration Management Plan.</p>	Noise and Vibration Practitioner

Monitoring trigger	Monitoring	Monitoring activity	Who will complete
<p>Out of Hours Work Protocol or associated Construction Noise and Vibration Impact Statement NSW EPA permit requirement</p>	<p>Attended and unattended monitoring</p>	<p>Determined as per the Environment Protection Licence provided by the NSW EPA, Condition B31 of the Infrastructure Approval, and with reference to Section 6.5 of the Construction Noise and Vibration Management Plan for more detailed methodology.</p> <p>Noise measurements will be undertaken to the following parameters:</p> <ul style="list-style-type: none"> ▪ Sample Period: 15 minutes ▪ Frequency Weighting: A-Weighting ▪ Time Constant: Fast (125 milliseconds) <p>Attended noise monitoring will be carried out at each noise monitoring location using direct measurement in accordance with the techniques detailed in Section 7.1.1 of the Noise Policy for Industry (NPfI). Where direct measurement of activities at the site are not possible due to extraneous noise or where access to the monitoring location is unavailable, an alternative method such as measurements at intermediate or alternative locations will be investigated. Compliance will be determined through comparison with construction noise management levels (NMLs) detailed in Section 4.3 of the CNVMP.</p> <p>Unattended continuous noise monitoring (including recorded noise and post processing and analysis) may be used to supplement attended monitoring where appropriate.</p> <p>As a minimum, L_{Aeq}, L_{AMax}, and L_{A90} A-weighted noise levels should be recorded.</p> <p>Compliance will be determined through comparison with noise impacts noted in Section 5 of the Construction Noise and Vibration Management Plan.</p>	<p>Noise and Vibration Practitioner</p>

Monitoring trigger	Monitoring	Monitoring activity	Who will complete
<p>Infrastructure Approval condition B26 Meteorological monitoring</p>	<p>Installed continuous meteorological monitoring A procedure will be developed to account for instances of equipment failure, such as failure of logging and sensors</p>	<p>Weather monitoring as set out in, and using the Approved Methods identified in the site Environment Protection Licence. Temperature at 2 metres, 1 hour average Wind Direction at 10 metres, 15 minutes average Wind Speed at 10 metres, 15 minutes average Sigma Theta, 15 minutes average Rainfall, 15 minutes average Relative humidity, 1 hour average</p>	<p>Principal Contractor</p>

Vibration monitoring

Vibration monitoring would be undertaken in accordance with the Construction Noise and Vibration Management Plan. The results of monitoring would be compared against the predicted vibration impacts and relevant standards. Note – EIS predictions on vibration indicate that the likelihood of any environmental vibration that would require monitoring occurring during construction or operation is negligible.

Monitoring trigger	Monitoring	Monitoring activity	Who will complete
In response to a vibration complaint	Unattended Monitoring	Determined on a case-by-case basis Compliance will be determined through comparison with vibration impacts noted in Section 5 of the Construction Noise and Vibration Management Plan.	Noise and Vibration Practitioner
Direction from the EPA	Unattended Monitoring	Determined on a case-by-case basis Compliance will be determined through comparison with vibration impacts noted in Section 5 of the Construction Noise and Vibration Management Plan.	Noise and Vibration Practitioner
If required by an Out of Hours Work Protocol or associated Construction Noise and Vibration Impact Statement	Unattended Monitoring	Determined on a case-by-case basis Compliance will be determined through comparison with vibration impacts noted in Section 5 of the Construction Noise and Vibration Management Plan.	Noise and Vibration Practitioner

2.5 Water quality

Surface water

Surface water quality monitoring would be undertaken in accordance with the Construction Water Management Plan. The water quality parameters to be monitored are set out in the table below while specific Water Quality Parameters are listed later in this section.

Task	What needs to be monitored	Monitoring activity	Monitoring activity
Basin discharges	Surface water quality	Runoff collected in the sediment basin, which is the stormwater from the site, will be tested to determine if treatment is necessary before discharge	Principal Contractor Environment Representative
Basin discharges	Water volumes	Recording of the water volumes collected in the sediment basin after rainfall events. Runoff collected in the sediment basin will be tested (and treated if necessary) before controlled discharge via the basin outlet	Principal Contractor
Rainfall response	Water volumes	Rainfall forecasts will be actively monitored and used to trigger sediment basin discharges and inspections. Rainfall exceeding 20 mm in 24 hours triggers inspection and maintenance of erosion/sedimentation control, and also prior to next forecast rainfall event.	Principal Contractor
Erosion and sediment control	Controls	Conduct visual inspection of erosion and sediment controls at least weekly, before a site closure of two days or more, and after rainfall exceeding 20 mm in 24 hours. Should significant rainfall be forecast, and a site closure anticipated/ planned, the sediment basin will be emptied.	Principal Contractor
Erosion monitoring	Downstream environment	Visual monitoring of the downstream environment, specifically the unnamed tributary of Black Waterhole Creek, will be carried out to identify if any erosion or scour is occurring. Additional inspections are to occur after flood events. A monthly photographic record will be taken and maintained of downstream locations with the potential for erosion to occur.	Principal Contractor

Groundwater

Groundwater monitoring would be undertaken in accordance with the Construction Water Management Plan.

Groundwater level will be monitored at the notional groundwater monitoring locations during dewatering activities. The final monitoring locations will be confirmed in the Dewatering Management Subplan to be developed by the Principal Contractor. It is recommended that data loggers should be installed at wells to monitor water levels hourly.

It is noted for clarity that the project design requires any surface water management basin to be located at least 1m above the water table.

Task	What needs to be monitored	Monitoring activity	Monitoring activity
Downgradient of dewatering operations	<ul style="list-style-type: none"> Potential impact site, assessment of drawdown propagation. Located within 50m downgradient of deepest excavation locations 	<p>Groundwater monitoring wells and water level monitoring will be installed, and groundwater levels to be monitored during dewatering activities throughout construction and until water levels start rising</p> <ul style="list-style-type: none"> Water level – hourly via water level data logger. Minimum two-weekly manual measurement for calibration and verification of logger data. Salinity and pH measurements shall be undertaken during dewatering events to characterise the water quality against the quality identified in the Water Management Plan. Any significant change in characteristics will be reviewed with the Environmental Representative for the Project. 	Principal Contractor
East of dewatering operations	<ul style="list-style-type: none"> Potential impact site, assessment of drawdown propagation. Located along northern end of eastern project boundary (MW20) 	<p>Groundwater monitoring wells and water level monitoring will be installed, and groundwater levels to be monitored during dewatering activities throughout construction and until water levels start rising</p> <ul style="list-style-type: none"> Water level – hourly via water level data logger during active dewatering. Minimum two-weekly manual measurement for calibration and verification of logger data. Salinity and pH measurements shall be undertaken during dewatering events to characterise the water quality against the quality identified in the Water Management Plan. Any significant 	Principal Contractor

Task	What needs to be monitored	Monitoring activity	Monitoring activity
		change in characteristics will be reviewed with the Environmental Representative for the Project.	

Water Quality Parameters

All water to be discharged from site (whether ground or surface water) must meet the following criteria:

Parameter	Measurement and assessment			Discharge criteria
	Percentile concentration limit	Sample method and frequency	Units	
pH	100 (up to and including 31mm of rain in any 5-day period)	Probe/grab sample Prior to discharge	pH	6.5 – 8.5
Total Suspended Solids	100 (up to and including 31mm of rain in any 5-day period)	Probe/grab sample Prior to discharge	mg/L	<50
Turbidity	100 (up to and including 31mm of rain in any 5-day period)	Probe/grab sample Prior to discharge	NTU	At a value calibrated to achieve <50 mg/L TSS
Oil and Grease	100 (up to and including 31mm of rain in any 5-day period)	Visual Prior to discharge	None visible	None visible

Note - Laboratory testing will be undertaken in conjunction with field testing initially prior to the first controlled discharge to establish a correlation between TSS and turbidity (NTU). Once the statistical correlation is established NTU measurement will be undertaken to demonstrate TSS is below the site discharge criteria.

In the case of groundwater dewatering, the salinity of the water will be tested prior to any discharge. If the electrical conductivity is over 2,250 µS/cm then there is a risk that the upper salinity limit of surface discharge may be exceeded and other management options such as offsite disposal may need to be considered.

Reporting Procedures for Surface Water and Groundwater Monitoring

The following parameters shall be reported for surface water and groundwater to be discharged from site based on the monitoring set out in this Monitoring Plan. The parameters, water quality criteria, and responsibility for monitoring are identified in the table above.

The frequency of the monitoring is set out in the tables above for surface water and groundwater. That is, the frequency is determined by rainfall events, or where groundwater drawdown is required.

The frequency of reporting of the monitoring results is as follows, and a comprehensive summary of the monitoring results shall be made publicly available on the Project Internet site;

- within 10 business days of the completion of monitoring, if measurements are taken in the field; or
- within 10 days of the receipt of laboratory analyses, if laboratory analysis is required
- If there are no rainfall events or groundwater drawdown events that trigger monitoring, a statement will be reported on the Internet site each month saying this is the case.

The Principal Contractor shall undertake the monitoring and provide results to Snowy Hydro within 5 business days, Snowy Hydro will then make the results available. Should there be any uncertainty over the veracity of a result, for example sampling error or laboratory analysis error, the time to publish the results will commence after the validity of the sample or result has been confirmed. The Environmental Representative shall be engaged in an instance where there is uncertainty regarding sample result validity or changes to the monitoring program.

Additional reporting requirements may include incident notification or compliance reporting. These are set out in Appendix 1.

Acid sulphate soils

Management of acid sulphate soils is to be undertaken in accordance with the Construction Environmental Management Strategy section 8.3. Monitoring within each step of ASS management identified in that section is reproduced here. Section 8.3 of the CEMS should be referred to for details of ASS management.

Task	What needs to be monitored	Monitoring activity	Monitoring activity
Earthworks	Presence of ASS	Visual monitoring is to be undertaken during all ground disturbing works to identify suspected ASS. Preliminary visual checking will be based on material type, colour and consistency. Dark grey and black clays, silts and sands or butter-coloured jarosite present in surface spoil or any excavated material will be classified as suspected acid sulphate soils.	Principal Contractor
Excavation of ASS material	pH	Daily pH monitoring of excavation faces is to occur in any known areas of ASS, especially any below the natural water table if dewatering is occurring.	Principal Contractor
Stockpiles management (if utilised)	pH in soil and leachate	If treatment of potential acid sulphate soils is not proposed, daily pH monitoring is to occur on these stockpiles. If pH levels in the soil or leachate water declines, then the material will require treatment prior to reuse or disposal.	Principal Contractor
Treatment pad (if required)	ASS potential and actual	Each delivery of potential or actual ASS to the treatment pad area must be accompanied by or awaiting the results of laboratory confirmation testing and the recommended liming rate	Principal Contractor
Post-treatment verification	ASS potential and actual	Post-treatment field screening will be carried out at a rate of 1 sample per 200m ³ of treated acid sulphate material.	Principal Contractor

2.6 Traffic and transport

Traffic and transport monitoring would be undertaken in accordance with the Construction Traffic Management Plan. Refer to the Construction Traffic Management Plan for details of monitoring activities.

Trigger	What needs to be monitored	Monitoring activity	Who will complete
Prior to commencement of construction or transport of materials to the Project site	Road condition	A pre-construction dilapidation report will be prepared in accordance with Austroads guidelines to document the existing condition of Hart Road between the Hunter Expressway and the Project Site. Copy of the report will be sent to Cessnock City Council and TfNSW.	Snowy Hydro
Post construction	Road condition	A post construction dilapidation report will be prepared in accordance with the Traffic Management Plan requirements	Snowy Hydro
Throughout the construction period	Light and heavy vehicle numbers	Daily records of the number of light and heavy vehicles entering or leaving the site for the duration of the construction works will be maintained Peak traffic on Hart Road will be reviewed and if required, measures to address any traffic congestion will be implemented	Principal Contractor
Loads	Load covering and tracking of dirt	Site inspection checklists will include observation of all vehicles transporting loose materials, load covering, and are excess dust or dirt particles deposited onto the roadway during travel to and from the Project Site.	Principal Contractor
Pre- construction and throughout construction	Weight monitoring	A weight monitoring process for heavy vehicles will be developed and implemented to prevent the overloading of vehicles and the subsequent damage and / or accelerated deterioration of road pavement	Principal Contractor
Throughout the construction period	Daily workplace inspection	Visual inspection of the site, site entrances and signage	Principal Contractor

Trigger	What needs to be monitored	Monitoring activity	Who will complete
Environmental site inspection	Weekly inspection of roads, entrances, signage	Inspection of internal roads and the surrounding public road network for signs of deterioration Inspection of traffic signage Inspection of site entrances to ensure they are clear, free of overgrowth and a clear line of sight is provided for vehicles exiting the Project Site	Principal Contractor
Adverse weather event inspection	Inspections following weather events	Inspection of internal roads and the surrounding public road network following periods of heavy rain or an adverse weather event	Principal Contractor

2.7 Waste

Waste monitoring would be undertaken in accordance with the Construction Waste Management Plan.

Trigger	What needs to be monitored	Monitoring activity	Who will complete
Commencement of construction	Waste movements prior to leaving site	Waste management contractors to maintain and document the types and volumes of wastes collected, recycled and disposed of. Copies of licences or licence numbers for transporters of industrial/hazardous waste	Waste Contractors Principal Contractor
Commencement of construction	Waste movements prior to leaving site where the waste is not of a known classification	Waste sampling is to occur when waste is being transported offsite to determine if it can be reused on another project site or whether disposal to a licensed landfill is required, and the waste classification shall be in accordance with NSW EPA "Waste Classification Guidelines" or the relevant Resource Recovery Exemption. NSW EPA waste tracking and licencing requirements will be complied with.	Principal Contractor

Appendix 1

Incident notification

The Principal Contractor will notify Snowy Hydro upon becoming aware of an incident, and Snowy Hydro will then notify the Secretary in writing via the Major Projects website immediately.

The key aspects the notification will address are:

- (a) the development and application number (12590060);
- (b) details of the incident (date, time, location, a brief description of what occurred and why it is classified as an incident);
- (c) how the incident was detected;
- (d) when the Proponent became aware of the incident;
- (e) any actual or potential non-compliance with conditions of approval;
- (f) what immediate steps were taken in relation to the incident;
- (g) further action(s) that will be taken in relation to the incident; and
- (h) a development contact for further communication regarding the incident. Unless otherwise stated in the incident notification, this is the Snowy Hydro Approvals Manager on 0409 840 165.

Non-compliance notification

In the instance of a non-compliance, the Secretary will be notified in writing via the Major Projects website within seven days after the Proponent becomes aware of any non-compliance. Snowy Hydro will lodge the notification.

The Principal Contractor must notify Snowy Hydro whenever it is aware of a non-compliance.

The key aspects a non-compliance notification will address are:

- (a) the development and application number (12590060);

- (b) the condition of approval that the development is non-compliant with;
- (c) the way in which the development does not comply;
- (d) the reasons for the non-compliance (if known); and
- (e) the corrective and preventative actions undertaken to address the non-compliance.

For clarity, a non-compliance which has been already been notified as an incident does not need to also be notified as a noncompliance to the Major Projects website.

Complaints and enquiry management

An enquiry is defined as a question or request for information.

A complaint is defined as a statement that describes Project related activities as unsatisfactory or unacceptable. Complaints may also be accompanied by threats to contact the media, local MP, or some other authority.

Complaints and enquiries may be received by any method. The CRM will acknowledge and respond to enquiries and complaints about the Project, as per the process and timeframes shown in the table below. Where the complaint rises to the level of a dispute it shall be managed in accordance with the steps outlined in section 6.3 in the Construction Environmental Management Strategy.

Table 1 Complaints and enquiries management

Complaints and enquiries management	
Responding to complaints received during standard work hours	<ul style="list-style-type: none"> ▪ Investigate and determine source of complaint immediately ▪ Provide an oral response acknowledging receipt of complaint to complainant as soon as possible. Every effort will be made to respond within 24 hours for emails, or one week for letters ▪ Investigate the potential environmental impacts and consequences of the complaint ▪ Record details of complaint received, how it was managed and the actions required to close out the complaint ▪ Provide an update of the complaints register to the ER for any complaints received on the day they are received.
Responding to enquiries received during standard work hours	<ul style="list-style-type: none"> ▪ Record details of enquiry received ▪ Provide a response to enquirer on the next business day.
Responding to enquiries and complaints out of hours	<ul style="list-style-type: none"> ▪ Stakeholders will be provided with the Project phone number for specific complaints and enquiries related to works out of hours. This number will be monitored by the CRM on a 24-hour basis ▪ The CRM will triage complaints and enquiries and liaise directly with the Principal Contractor to respond. Non-urgent enquiries and complaints will be dealt with on the next business day ▪ All details of the enquiry or complaint will be recorded in the Project consultation complaint register by the CRM. ▪ Provide an update of the complaints register to the ER for any complaints received on the day they are received.