

# **The Northern Road – Mersey Road, Bringelly to Glenmore Parkway, Glenmore Park**

## **Environmental Representative Monthly Report**

**February 2021**

**Doc no. 18008-RP-MR-032-TNR 4,5,6 Monthly Report\_February 2021\_0**

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## Glossary of terms and abbreviations

Term	Definition
CCS	Community Communications Strategy
CEMP	Construction Environmental Management Plan
CoA	Conditions of Approval
Construction	As defined in the definitions section of the Infrastructure Approval
CPB	CPB Contractors
CRM	Community Relations Manager
CSSI	Critical State Significant Infrastructure
DPIE	Department of Planning, Industry and Environment
EIS	Environmental Impact Assessment
ER	Independent Environmental Representative approved by DPIE
ERG	Environmental Review Group
EMS	Environmental Management System
EPA	NSW Environment Protection Authority
EPL	NSW Environment Protection Licence
EP&A Act	<i>Environmental Planning and Assessment Act 1979 (NSW)</i>
EPBC Act	<i>Environment Protection and Biodiversity Conservation Act (Cth)</i>
ESCP	Erosion and Sediment Control Plan
GEJV	Georgiou Ertech Joint Venture
OEH	Office of Environment and Heritage
OACEMP	Overarching Construction Environmental Management Plan
OEMP	Operational Environmental Management Plan
OOHW	Out of hours work
POEO Act	<i>Protection of the Environment Operations Act 1997 (NSW)</i>
(the) Project	The Northern Road Upgrade, Mersey Road, Bringelly to Glenmore Parkway, Glenmore Park
Proponent	Transport for NSW
Roads and Maritime	Roads and Maritime Services
ROL	Road Occupancy Licence
Secretary	Secretary of DPIE
SPIR	Submission and preferred infrastructure report
SSI	State Significant Infrastructure
TfNSW	Transport for NSW
TMC	Transport Management Centre

TNR	The Northern Road
WSIP	Western Sydney Infrastructure Plan

# 1. Introduction

## 1.1 Background

The Northern Road Upgrade – Mersey Road, Bringelly to Glenmore Parkway, Glenmore Park Project (the Project) comprises the upgrade of 16 km of The Northern Road (TNR) as part of the broader Western Sydney Infrastructure Plan (WSIP). The Project will improve traffic flow and connectivity in the western Sydney region and facilitate the construction of the Western Sydney Airport.

The Project is located approximately 45 km west of the Sydney central business district and traverses the local government areas of Penrith in the north and Liverpool in the south.

Transport for NSW is planning and delivering the Project. The Project will be constructed in three separate stages under three separate Construction contracts:

- Stage 4 - Mersey Road, Bringelly, to Eaton Road, Luddenham
- Stage 5 - Littlefields Road, Luddenham, to Glenmore Parkway, Glenmore Park
- Stage 6 - Littlefields Road, Luddenham to Eaton Road, Luddenham

The Project has been assessed under both State and Federal planning approval pathways. The Project was declared by the NSW Minister for Planning to be critical State significant infrastructure (CSSI) development under Schedule 5 of the *State Environmental Planning Policy (State and Regional Development) 2011* on 31 March 2017. The Secretary's Environmental Assessment Requirements (SEARs) for the Project were issued on 28 July 2015 and amended SEARs were issued on 9 March 2016. The Project was assessed under Part 5.1 of the *Environmental Planning and Assessment Act 1979* (NSW) (EP&A Act).

The Project has the potential to significantly impact on Matters of National Environmental Significance (MNES) including *Environment Protection and Biodiversity Conservation Act 1999* (EPBC Act) listed Cumberland Plain Shale Woodlands and Shale-Gravel Transition Forest. The Project will also impact on areas of Commonwealth land associated with the Defence Establishment Orchard Hills (DEOH) and land purchased by the Australian Government for the Western Sydney Airport. Accordingly, the Project was referred to the then Australian Government Department of the Environment (now Department of the Environment and Energy (DoEE)). The Project was declared by the Federal Minister for the Environment and Energy to be a 'controlled action' under the EPBC Act and Commonwealth Environmental Impact Statement Guidelines were issued in August 2016.

A single Environmental Impact Statement (EIS)/Draft EIS was prepared for the Project to satisfy the environmental assessment requirements of both Part 5.1 of the EP&A Act and Part 8 of the EPBC Act. The EIS was placed on public exhibition between 21 June 2017 and 2 August 2017.

A Submissions and Preferred Infrastructure Report (SPIR) was prepared to provide responses to issues raised during exhibition of the initial EIS, to propose Project design refinements and to provide revised environmental management measures (REMMs) for the Project. The SPIR was submitted to the NSW Minister for Planning. A Final EIS satisfying the requirements of the EPBC Act was submitted to the Federal Minister for the Environment and Energy in December 2017.

Approval for the Project under the EP&A Act was granted by the Minister for Planning on 30 May 2018. Approval for the Project under the EPBC Act was granted by the Federal Minister for the Environment and Energy on 15 June 2018. Construction approval was granted on the 25 October 2018, with the approval of the final Overarching CEMP Sub-plan.

A modification to the approval was granted by the Minister for Planning on 11 June 2019. The modification related to the replacement of the Adams Road Bridge for a four-way signalised intersection.

Transport for NSW have appointed two contractors to complete the project. The Georgiou Ertech Joint Venture (GEJV) are constructing the Mersey Road, Bringelly to Eaton Road, Luddenham Stage (Stage 4 of The Northern Road Upgrade). CPB Contractors are constructing the Eaton Road, Luddenham to Glenmore Parkway, Glenmore Park Stage (Stage 5 and 6 of The Northern Road upgrade) of the project.

## **1.2 Environmental Representative**

The Northern Road Upgrade Project – Mersey Road, Bringelly to Glenmore Parkway, Glenmore Park (the Project) has engaged an independent Environmental Representative (ER) in accordance with Condition of Approval (CoA) A20 of the Infrastructure Approval – SSI 7127.

Cameron Weller was nominated as the Principal Environmental Representative for the Project and approved by the delegate to the Secretary on the 26 June 2018 in accordance with CoA A21.

Toby Hobbs was nominated as the Alternate Environmental Representative for the Project and approved by the delegate to the Secretary on the 11 March 2019.

## **1.3 Scope of monthly report**

As required by CoA A24(j), the Environmental Representative is to prepare and submit a monthly report, providing information on the project, the Environmental Representatives activities throughout each month of the project, and a summary of any community complaints, compliance issues and results of site inspections, and any other relevant information. The report also needs to fulfil the requirements outlined in the *Environmental Representative Protocol* (DPIE, 2017).

One monthly ER report will be prepared for all three stages of the Project, unless otherwise advised. Discussion throughout the report will be split by the contractor's responsibilities (i.e. Stage 4 being constructed by GEJV and Stage 5 and 6 being constructed by CPB), as CPB Contractors are building both Stages 5 and 6 as one project with one project team.

Stage 4 has been opened to traffic and the GEJV commenced demobilisation from the site during October. Practical completion of the that stage of the Project was achieved in early November 2020. Maintenance will be ongoing on that stage of the project until full operation commences at the completion of the remaining stages of the Project. As no construction work is currently underway, the focus of this report will be on Stages 5 and 6 for the remainder of the Project.

## **2. Summary of construction activities and project update**

### **2.1 General**

#### **2.1.1 Covid-19**

Covid-19 was identified in March 2020 as being a major public health risk by the NSW State Government and the Federal Government, which subsequently impacted the way the Project was being constructed for much of the year. The easing of restrictions in June and July meant the Project was able to get back to some sort of normality in the construction process and the ER site inspections have essentially been able to be carried out in the normal way since then.

State and Federal Government advice will continue to be adhered to, and therefore the site inspection regime will be dependent on this advice, as well as any Project/Contractor specific restrictions that are implemented on either site.

The DPIE will be informed of any changes that are made to the ER inspection schedule.

### **2.2 Construction activities**

#### *Mersey Road, Bringelly to Eaton Road, Luddenham (Stage 4)*

Weed management and landscaping maintenance were ongoing during February.

#### *Eaton Road, Luddenham to Glenmore Parkway, Glenmore Park (Stages 5 and 6)*

Construction on the northbound carriageway from Elizabeth Drive to Littlefields Road (remainder of Stages 6) is progressing well. Lean-mix concrete pavement has been laid throughout the majority of this section of road, and base-course asphalt laid over about 80% of this section by the end of February. Earthworks in this section are expected to be completed in early March along with the majority of the paving.

Remaining work in the medians of the Elizabeth Drive and The Northern Road intersections continued throughout February and are expected to be completed in early March.

Local road works on Chain-of-Ponds Road continued throughout February. Chain-of-Ponds Road has been closed to local traffic and will remain closed for the duration of the work. Work should be completed in March.

The demolition and reconstruction of the old Northern Road, which will essentially become the new northbound carriageway is underway in the majority of locations. Property access points are currently being managed very well under difficult conditions due to the large number of property access points throughout this section.

Major box culvert extensions around the northern extent of the Project continued to be constructed throughout February and will continue through March.

Landscaping is ongoing throughout Stages 5 and 6 and will continue until the completion of the Project.

### **3. Status of Environmental Document Review**

#### **3.1 Environmental Representative Endorsements and Minor Change Approvals**

No major revisions of the CEMP or Sub-plans were reviewed or endorsed by the ER during February, prior to being submitted to the DPIE for approval.

No minor changes to management plans were approved by the ER during February 2021.

#### **3.2 Other document reviews**

No other documents were formally required to be reviewed by the ER during February 2021.

## **4. Environmental Representative Approvals**

### **4.1 Minor Ancillary Sites**

No minor ancillary site were approved by the ER during February 2021.

### **4.2 Out of Hours Works**

No out of hours works were approved by the ER during February 2021.

Other Out-of-hours works that are permitted by the EPL may have occurred, however, there is no requirement in the ER is involved in providing approval for these works that are already permitted as part of the EPL.

## 5. Monthly evaluation

### 5.1 Site inspections

Formal site inspections of TNR4 have ceased, as this stage of the Project is open to traffic and essentially completed. Ongoing minor defect rectification and landscaping maintenance is expected to continue for several months, however, the environmental risk associated with that stage of the Project is negligible.

One site inspection was carried out on by the ER on TNR5&6 during February 2021 on the following days:

- 09 February 2021

A second site inspection was planned, however, due to illness the ER could not attend. The site inspection was completed without the ER and a site inspection report was prepared by the Transport for NSW appointed Soil Conservationist. This report has been attached instead of the ER site inspection report.

Site inspection reports are included in Appendix A of this report.

### 5.2 Community complaints and response

Ten (10) community complaints were reported to the ER in February 2021. Details of the complaints are as follows:

- Two complaints related to a heavy vehicle turning around on Gates Head Road.
- One complaint related to property access provisions. The CPB team met with the complainant to review and revise the property access provisions to their property.
- Two complaints related to noise. One of these complaints related to the use of a cattle grid that was installed at a gate exit as part of the erosion and sediment control plan for the area of the site. The other complaint related to noise occurring as a result of out of hours works.
- Three complaints related to vibration. Two were made by the same receiver and further details of these complaints is included in Section 5.3. One complaint was made by a receiver adjacent to the Chain of Ponds Road work. A vibration monitor was deployed and confirmed that the vibration levels did not risk property damage or exceed the human comfort criteria.
- One complaint related to their rubbish bin not being collected by the Council rubbish collection service. The Project team collected the bin and disposed of the rubbish in the Project's skip bins.
- One complaint related to dust being generated from the site.

All complaints have been handled by the Transport for NSW Project team in conjunction with the contractors and were closed out within a reasonable timeframe. No complaints have been escalated to the ER during February 2021.

### 5.3 Incidents, Non-conformances, corrective or preventative actions

Three incidents were reported to the ER during February 2021.

One (Category 2) incident related to a minor diesel spill on the Chain Of Ponds Road construction area. The spill was fully contained within the site and was cleaned up immediately.

One (Category 2) incident related to water from a water cart was found to be pooling on a dirt driveway and adjacent grass verge after the water cart sprayed an adjacent stockpile. The pooling water resulted in a complaint from a resident and subsequently investigated. Water gradually infiltrated into the driveway and through the grass and no harm was caused.

One (Reportable) incident related to the perceived vibration impacts on an adjacent property. The complaint was also made to the EPA, who subsequently contacted the project. The contractor has monitored the vibration levels in the past and is not exceeding the levels described in the Contractors Noise and Vibration Management Plan. However, an alternative method for vibratory work was investigated and discussed during a daily CPB construction meeting held 24th February 2021. The outcome would involve trialling vibratory work in intervals of approximately 1 hour on followed by approximately 1 hour of respite in front of this resident's property. This proposal was explained to the resident and the resident expressed general acceptance about the proposal in a follow-up phone call made by the CPB Senior Environmental Advisor.

No incidents reported to the ER in February triggered the definition of a "incident" in the Conditions of Approval and therefore none of these incidents were required to be reported to the Department in accordance with Condition of Approval A39.

## **5.4 Meetings**

### **5.4.1 Environmental Review Group Meetings**

No ERG meeting was held during February 2021.

The next ERG meeting is expected to be held in early 2021. Due to Covid-19 restrictions, the method of holding this meeting is currently being worked out. The invitation will likely be sent to all relevant stakeholders with the option of attending or attending via a tele-conference facility.

### **5.4.2 Other meetings**

Regular informal weekly meetings are currently being held between the ER and Transport for NSW to discuss document review comments, project documentation status and general project status.

## **5.5 Alternate Environmental Representative Activities**

The Alternate ER was not required to carry out any activities during February 2021.

## **5.6 Other Environmental Representative Tasks**

No other environmental representative tasks were required to be carried out during February 2021.

## 6. Closing comments

Stage 4 of the Project (Mersey Road to Eaton Road) achieved practical completion in November 2020. Ongoing maintenance and defect rectification will occur until the completion of Stages 5 and 6 and the operation of the whole Project commences. Environmental risk is now considered to be negligible and for this reason, regular formal site inspections have ceased. The ER will continue to monitor the performance of the Project over the next 12 months until operation commences.

Stage 5&6 of the Project is progressing well and continues to hold up relatively well to regular rain events that have occurred over the first couple of months of 2021. Significant progress had been observed by the ER and the Transport for NSW Soil Conservation expert, to the general approach to erosion and sediment controls and planning for these controls. The contractor has been responsive and positively engaged with the ER and the general performance of the contractor is overall of a much higher standard than during the early stages of the Project. The remaining sections of the northbound carriage to be constructed will continue to be challenging both the management of erosion and sedimentation control and with the management of property access. The project team continue to manage the challenging property access issue very well and the ER will encourage CPB to continue the hard work that has gone into managing the property accesses.

## Appendix A. Site Inspection Reports

ER ENVIRONMENTAL SITE INSPECTION REPORT

<b>PROJECT:</b> TNR 5&6		<b>Construction Activities:</b> <ul style="list-style-type: none"> <li>• Earthworks continuing in the TNR6 section on the northbound carriageway between Elizabeth Drive and Littlefields Road. Lean mix concrete paving also underway in this section.</li> <li>• Topsoil spreading and landscaping commenced in the remainder of TNR6 (north of Elizabeth Drive)</li> <li>• Earthworks continuing in TNR5 along the northbound carriageway in various areas.</li> <li>• Drainage installation</li> <li>• Chain-of-Ponds Road reconstruction continuing.</li> </ul>	<b>Weather Conditions:</b> sunny approx. 28deg  <b>Rainfall previous 24hrs:</b> 0 mm to 9am  <b>Rainfall forecast next 24hrs:</b> Nil. Next forecast rainfall is on Saturday with 10-20mm forecast.	<b>Project Risk Status:</b>
<b>Date:</b> 09/02/21	<b>Time (start/finish):</b> 8:30am		<b>Immediate or High Priority action required (if so, provide details)?</b>	Green
<b>Inspection No:</b> 77				✓ Amber
<b>Attendees:</b> Cameron Weller (ER), Anthony Ryan (CPB), John Wright (T.R.E.E.S.), Jim Steen, (TfNSW); Vince Chaplin (CPB), Simon Lendrum (CPB); Simon Williams (CPB)				Red

**General Comments**

- Site inspection focused on the higher risk areas of the site, which included the area around Littlefields Road, the area around Chain-of-Ponds Road, the area around Bradley Street and the area around the old Gate P12.
- Generally the site is in a good position to continue progressing with the program rapidly. A few areas observed during the inspection required some maintenance of or additional controls to be installed prior to the forecast rainfall over the weekend.

**Next Inspection: 23 February 2020**

**Items from previous audit(s) and inspection.**

No	LOCATION (Chainage/ Description)	ISSUE/COMMENT	PRIORITY/ RISK (I, H, M, L)	ACTION	Agreed Close out date	Response
1	Nil	Nil	Nil	Nil	Nil	Nil

**New items**

1	Littlefields Road	<p>Controls were observed to have been installed in the past along the north side of Littlefields Road, however, controls need to be maintained and renewed particularly now that there is more activity and earthworks in the vicinity.</p> 	M	Maintain and reinstate controls down the north side of Littlefield Road. Clean out rock checks and install additional rock checks or similar earth bunds as required.	12/02/21	 <p>This series of rock checks have been cleaned out to enable greater capacity in the event of rain.</p>
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ER ENVIRONMENTAL SITE INSPECTION REPORT

						
2	Chain-of-Ponds Road	<p>Works in progress - Transverse culvert has been removed to allow for the removal of unsuitable material, protection of water main and the installation of a new transverse culvert. Depending on how much is achieved prior to the weekend, a temporary clean water path may need to be installed.</p> 	M	<p>If new transverse culvert cannot be installed prior to the weekends forecast rain, a clean water path must be established. A temporary pipe could be installed, or a clean water path lined with geofabric. If a lined clean water path is chosen, ensure it banded either side so that dirty water cannot enter the drain without going through sediment controls. Also, install sumps or similar on either side of clean water path to capture dirty water.</p>	12/02/21	 <p>A clean water flow path has been established using a temporary black max pipe. The inlet and outlet have been geotextiled at the end of the day 12/2/2021. The excavator prepared sumps to the side of the inlet. Bunding was also installed both sides of the road alignment to prevent water flowing into the clean water system.</p>

ER ENVIRONMENTAL SITE INSPECTION REPORT

<p>3</p>	<p>Bradley Street</p>	<p>Work in progress – geofabric lining removed to allow for the removal of the old watermain pipes. Installation of new pipe culverts is proposed to commence in near future.</p> 	<p>M</p>	<p>Ensure controls are reinstalled prior to the next forecast rain to create a clean water path through the work area.</p> <p>Clean water catch drains should also be constructed to ensure clean water is captured and transferred through the transverse clean water path.</p>	<p>12/02/21</p>	 <p>the clean water flow path that connects into the triple cell culvert system was reinstated following the removal of the redundant water main. Controls that lead into the triple cell culvert were further enhanced at the end of today (12/2/2021) and included covering the area with geotextile and strategically positioned sandbags.</p>
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ER ENVIRONMENTAL SITE INSPECTION REPORT

4	P12/Surveyors Creek culvert	<p>Works in progress – culvert excavation complete. Concrete blinding is programmed to be installed tomorrow or Thursday. Once blinding is installed, batters could be lined and area could be treated as “clean water” if all sources of dirty water are protected.</p> 	M	Continue with work as programmed. Line batters after blinding to make a clean water area.	12/02/21	 <p>CPB poured a concrete blinding layer within the 45-degree culvert excavation on 10th February 2021. Batters within the excavation were lined with geotextile with the inclusion of a stabilised spillway on the Western side. This addition reduces the potential for water to enter in contact with bare earth within the excavation.</p>
5	P12 Flood overflow culvert	Works in progress – Steel fixing currently underway. Formwork should be completed tomorrow and concrete slab poured on Thursday.	M	Complete work as planned prior to the forecast weekend rain.	12/02/21	

ER ENVIRONMENTAL SITE INSPECTION REPORT

						<p>The concrete blinding layer was completed by 11/2/2021. The majority of formwork was completed by 12/2/2021.</p>
6	<p>Area to north of DEOH gate</p>	<p>Works in progress – wingwalls for culvert were stripped yesterday. Work on dissipater and surrounding areas now needs to be completed as quickly as possible.</p> 	M	<p>Install rock dissipater (if possible by the weekend) and commence completing remainder of work in the vicinity in preparation for the traffic switch in mid-March.</p>	<p>12/02/21 – please provide update on progress.</p>	 <p>A covering of geotextile and rip-rap rock plus bunding was placed below the large culvert at S3. The road alignment above the culvert was further progressed this week with the inclusion of no-fines drains and spray seal both North and South of the DEOH access thus increasing stabilised ground surfaces in the overall project catchment.</p>

# ER ENVIRONMENTAL SITE INSPECTION REPORT

<b>Issued by: Cameron Weller</b>  <b>Ph No: 0428271496</b>	<b>Issued to: Vince Chaplin</b>  <b>Date: 09/02/21</b>	<b>Copy to: Kimberly Holiday, Jim Steen, Gary Treloar, Martin Younan, Daniel Farrugia, Nick Fryday, John Wright, Mehendran Kandiah, Dave King, Anthony Ryan.</b>	<b>Actions Checked:</b>
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**Key**

<u>Recommended Priority for Completion of Actions</u>	
Immediate	To be addressed immediately and closed out on the day of inspection
High	Within 24hrs*
Medium	Within 3 Working Days*
Low	Within 5 Working Days*

\*To be completed sooner if adverse weather conditions predicted

<u>Status</u>	
Red	<ul style="list-style-type: none"> <li>actions required to address urgent risk issues.</li> <li>satisfactory actions not taken for high risk issues identified on the previous inspection.</li> <li>a Category 1 incident has been identified during the inspection.</li> </ul>
Amber	<ul style="list-style-type: none"> <li>actions required to address high and/or medium risk issues.</li> <li>satisfactory actions not taken for previous medium or low risk issues on the previous inspection.</li> </ul>
Green	<ul style="list-style-type: none"> <li>actions required to address low risk issues that will not directly cause environmental harm.</li> <li>site demonstrates good environmental management with no action required to avoid environmental harm.</li> </ul>

## EROSION AND SEDIMENT CONTROL REPORT

<b>REPORT DATE</b>	25 February 2021
<b>CLIENT</b>	Transport for New South Wales (TfNSW)
<b>PROJECT</b>	The Northern Road Stages 5 & 6
<b>DATE OF INSPECTION</b>	23 February 2021
<b>WEATHER CONDITIONS</b>	Fine but overcast with rain forecast later in the week
<b>ATTENDEES</b>	John Wright (T.R.E.E.S. P/L, J. Steen, K. Holliday & S. Lepre (all TfNSW), S. Lendrum, A. Ryan & D. King (all CPB).
<b>REPORT TO</b>	Jim Steen (TfNSW)
<b>REPORT BY</b>	John Wright – Senior Soil Conservationist, T.R.E.E.S. P/L    M: 0418 434 516    E: <a href="mailto:john@treespl.com">john@treespl.com</a>

No.	LOCATION	CONTROL	RECOMMENDATION / COMMENT	PRIORITY	PHOTOGRAPH
1	North side of Littlefields Road	Rock bund sediment traps	<ul style="list-style-type: none"> <li>• Provide maintenance/improvements to the existing traps upslope of the private access (ie refer to the top photo).</li> <li>• Install 2 traps downslope of the private access (refer to the lower photo).</li> </ul>	High - without delay.	

No.	LOCATION	CONTROL	RECOMMENDATION / COMMENT	PRIORITY	PHOTOGRAPH
					
2	Kingshill Road	Sediment fences	Inspect the sediment fences to check if fully secured into the ground.	High - without delay	Nil

No.	LOCATION	CONTROL	RECOMMENDATION / COMMENT	PRIORITY	PHOTOGRAPH
3	Chain-O-Ponds Road	Sand bag sediment traps	Install sand bags to treat road runoff prior to flowing into 'clean' water areas (eg inlet of the temporary pipe culvert).	High - prior to the forecast rainfall	

No.	LOCATION	CONTROL	RECOMMENDATION / COMMENT	PRIORITY	PHOTOGRAPH
4	Pipe culvert works on the south side of Bradley Street	'Clean' water flow path	Pipe laying in progress with a geofabric lined flow path to be established prior to forecast rainfall (ie good practice).	Observation - to note only	

No.	LOCATION	CONTROL	RECOMMENDATION / COMMENT	PRIORITY	PHOTOGRAPH
5	South side of the Bradley Street pipe culvert works at above point 4	'Clean' runoff	Construct the permanent 'clean' water diversion drain to discharge into the culvert.	High - immediately culvert & inlet protection works are completed	
6	P12 - Surveyors Creek box culvert works.	'Clean' water flow path	Works proceeding well with 'clean' creek flows soon able to be diverted through the works area via the lower fish passage channel.	Observation - to note only	

No.	LOCATION	CONTROL	RECOMMENDATION / COMMENT	PRIORITY	PHOTOGRAPH
7	P12 - Surveyors Creek flood overflow box culvert	'Clean' water flow path	<ul style="list-style-type: none"> <li>• Works proceeding well with the units scheduled to be installed.</li> <li>• Install a temporary pipeline to drain the culvert excavation as much as practical &amp; convey 'clean' flows to the adjacent vegetation (ie culvert cannot be completed/'day lighted' due to conflict with proposed services works).</li> </ul>	<p>Observation - to note only</p> <p>High - without delay</p>	

No.	LOCATION	CONTROL	RECOMMENDATION / COMMENT	PRIORITY	PHOTOGRAPH
8	Box culvert outlet channel & adjacent channel north of the DEOH gate	'Clean' water flow paths & adjacent sediment control	<ul style="list-style-type: none"> <li>• Good response from last inspection with the outlet channel lined with rock rip rap.</li> <li>• Line &amp; stabilise the adjacent channel with rock rip rap (ie along the left side of the photo).</li> <li>• Treat 'dirty' runoff prior to entering the 'clean' water channels via installation of sediment fences, application of soil binder or similar.</li> </ul>	<p>Observation - to note only</p> <p>High - without delay</p> <p>High - immediately following the completion of earthworks which includes channel lining, backfilling behind the culvert head &amp; wing walls, fill batter shaping, stockpile works</p>	
9	Concrete batch plant	Contamination ponds	General agreement that the contamination ponds were functioning satisfactorily with adequate maintenance.	Observation - to note only	

No.	LOCATION	CONTROL	RECOMMENDATION / COMMENT	PRIORITY	PHOTOGRAPH
					
10	<p data-bbox="161 762 405 799"><u>General Comment</u></p> <p data-bbox="210 836 1267 873">Erosion &amp; sediment control was being well managed at the sites inspected.</p>				



B J Wright

Senior Soil Conservationist (PSB of NSW – No 5387)