

# Project Approval

## Section 75J of the *Environmental Planning & Assessment Act 1979*

As delegate of the Minister for Planning and Infrastructure, under delegation from the Minister enforced from 1 October 2011, I approve the project application referred to in schedule 1, subject to the conditions in schedules B to F.

These conditions are required to:

- prevent, minimise, and/or offset adverse environmental impacts;
- set standards and performance measures for acceptable environmental performance;
- require regular monitoring and reporting; and
- provide for the ongoing environmental management of the project.



Deputy Director-General  
Development Assessment & Systems Performance  
Department of Planning & Infrastructure

Sydney

6 August

2012

### SCHEDULE A

<b>Application No.:</b>	10_0211
<b>Proponent:</b>	Sydney Water Corporation
<b>Approval Authority:</b>	Minister for Planning and Infrastructure
<b>Land:</b>	Drinking water and wastewater infrastructure to service the North West Growth Centre second release precincts (Box Hill, Box Hill Industrial and Schofields).
<b>Project:</b>	Water related services for the North West Growth Centre – second release precincts, including: <ul style="list-style-type: none"><li>• drinking trunk and distribution water pipelines;</li><li>• wastewater gravity pipelines;</li><li>• two water pumping stations for drinking water;</li><li>• a surface reservoir and elevated reservoir for drinking water.</li></ul>

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## DEFINITIONS

<b>Act, the</b>	<i>Environmental Planning and Assessment Act, 1979</i>
<b>Ancillary Facility</b>	Temporary facility for construction, including for example an office and amenities compound, construction compound, batch plant (concrete or bitumen), materials storage compound, maintenance workshop, testing laboratory or bulk material stockpile area.
<b>CEMP</b>	Construction Environmental Management Plan
<b>Conditions of Approval</b>	The Minister's conditions of approval for the project
<b>Construction</b>	All pre-operation activities associated with the project other than survey, acquisitions, fencing, investigative drilling or excavation, building/road dilapidation surveys or other activities determined by the Environmental Representative to have minimal environmental impact such as minor access roads, minor adjustments to services/utilities, establishing temporary construction sites (in accordance with the requirements of this project approval), or minor clearing (except where threatened species, populations or ecological communities would be affected).
<b>DPI</b>	Department of Primary Industries, formerly Industry and Investment NSW
<b>Department, the</b>	Department of Planning and Infrastructure, formerly the Department of Planning
<b>Director-General, the</b>	Director-General of the Department of Planning and Infrastructure (or nominee).
<b>Director-General's Approval</b>	A written approval from the Director-General (or nominee) where the Director-General's Approval is required under a condition. The Director-General may ask for additional information if the approval request is considered incomplete.
<b>Director-General's Report</b>	The report provided to the Minister by the Director-General of the Department under section 75I of the EP&A Act.
<b>Dust</b>	Any solid material that may become suspended in air or deposited.
<b>EA</b>	Environmental Assessment - <i>Water related services for the North West Growth Centre – second release precincts Environmental Assessment</i> prepared by Sydney Water Corporation October 2011.
<b>EEC</b>	Endangered Ecological Community
<b>ENV</b>	Existing Native Vegetation, as defined under the NSW Biodiversity Certification Order (December 2007).
<b>EPA</b>	NSW Environment Protection Authority
<b>EPL</b>	Environment Protection Licence, issued under the <i>Protection of the Environment Operations Act 1997</i>
<b>Indirect Losses of ENV</b>	Areas of native vegetation less than 0.5 ha which no longer meet the definition of ENV as a result of fragmentation by the proposed project, as indicated on page 39 of the Submissions Report.
<b>Minister, the</b>	Minister for Planning and Infrastructure
<b>Most Affected Locations</b>	As defined under the Interim Construction Noise Guideline (DECC, 2009) and those receiver locations (residences and other sensitive land uses) likely to experience greatest vibration and traffic noise impacts.
<b>Native Vegetation</b>	Native Vegetation that does not constitute as ENV, and is located on non-certified land within the Growth Centre and land outside of the Growth Centre, as listed under Table 8.1 of Chapter 8, Appendix B, Volume 2, of the EA.
<b>NOW</b>	NSW Office of Water
<b>OEH</b>	Office of Environment and Heritage, formerly the Department of Environment, Climate Change and Water. The OEH includes the heritage branch which provides advice on historical heritage, under delegation from the NSW Heritage Council.
<b>OEMP</b>	Operation Environmental Management Plan
<b>Pipeline(s)</b>	The water or wastewater pipeline proposed in the EA and the Submissions Report.
<b>Submissions Report</b>	<i>Water related services for the North West Growth Centre – second release precincts Submissions Report</i> prepared by Sydney Water Corporation February 2012.
<b>Proponent</b>	Sydney Water Corporation
<b>Project</b>	Development to which Major Projects Application 10_0211 applies.
<b>Public Authority</b>	As defined in Part 1, Section 4 of the <i>Environmental Planning and Assessment Act 1979</i> .
<b>Publicly Available</b>	Available for inspection by a member of the general public (for example available on an internet site or at a display centre).

<b>Reasonable and feasible</b>	Consideration of best practice taking into account the benefit of proposed measures and their technological and associated operational application in the New South Wales and Australian context. Feasible relates to engineering considerations and what is practical to build. Reasonable relates to the application of judgement in arriving at a decision, taking into account mitigation benefits and cost of mitigation versus benefits provided, community views and nature and extent of potential improvements.
<b>Relevant Roads Authority</b>	Hawkesbury City Council, Blacktown City Council, The Hills Shire Council, or the NSW Roads and Maritime Services, as relevant.
<b>Site</b>	The land to which this approval applies, shown in the three figures in Appendix 1.

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## **SCHEDULE B ADMINISTRATIVE CONDITIONS**

### **TERMS OF APPROVAL**

- B1 The Proponent shall carry out the project generally in accordance with the:
- (a) Project Application MP 10\_0211;
  - (b) Environmental Assessment;
  - (c) Submissions Report; and
  - (d) conditions of this approval.
- B2 In the event of an inconsistency between:
- (a) the conditions of this approval and any document listed from condition B1(a) to B1(c) inclusive, the conditions of this approval shall prevail to the extent of the inconsistency; and
  - (b) any document listed from condition B1(a) to B1(c) inclusive, and any other document listed from condition B1(a) to B1(c) inclusive, the most recent document shall prevail to the extent of the inconsistency.
- B3 The Proponent shall comply with the reasonable requirements(s) of the Director-General arising from the Department's assessment of:
- (a) any reports, plans or correspondence that are submitted in accordance with this approval; and
  - (b) the implementation of any actions or measures contained within these reports, plans or correspondence.
- B4 Subject to confidentiality, the Proponent shall make all documents required under this approval available for public inspection on request.

### **LIMITS OF APPROVAL**

- B5 This approval shall lapse five (5) years after the date on which it is granted, unless works subject of this approval are physically commenced on or before that date.
- B6 The project shall be located within the Field Assessment Area described in the document referred to under condition B1 (b) of this approval. A change from the Field Assessment Area shall only occur for the purpose of:
- (a) reducing impacts to biodiversity, cultural heritage or human amenity;
  - (b) avoiding geological or topographical constraints, providing the deviations do not increase impacts to those areas referred to under (a); and
  - (c) after consultation with potentially affected landholders and relevant agencies.

Should any change occur, information demonstrating that the criteria listed under this condition, B6 (a) to (c) inclusive, will be achieved must be submitted to the Director-General for information no later than one (1) month prior to the commencement of construction, or as otherwise agreed by the Director-General.

### **STATUTORY REQUIREMENTS**

- B7 No condition of this approval removes the obligation for the Proponent to obtain, renew or comply with any licences, permits or approvals required by any other legislation.

### **STAGING**

- B8 The Proponent may elect to construct and/ or operate the project in stages. Where staging is proposed, the Proponent shall submit a Staging Report to the Director-General prior to the commencement of the first proposed stage. The Staging Report shall provide details of:
- (a) how the project would be staged, including general details of works associated with each stage and the general timing of when each stage would commence; and
  - (b) details of the relevant conditions of approval, which would apply to each stage and how these shall be complied with across and between the stages of the project.

Where staging of the project is proposed, these conditions of approval are only required to be complied with at the relevant time and to the extent that they are relevant to the specific stage(s).

The Proponent shall ensure that an updated Staging Report (or advice that no changes to staging are proposed) is submitted to the Director-General prior to the commencement of each stage, identifying any changes to the proposed staging or applicable conditions.

- B9 The Proponent shall ensure that all plans, sub-plans and other management documents required by the conditions of this approval and relevant to each stage (as identified in the Staging Report) are submitted to the Director-General no later than one month prior to the commencement of the relevant stages, unless otherwise agreed by the Director-General.

#### **COMPLIANCE**

- B10 The Proponent shall ensure that employees, contractors and sub-contractors are aware of, and comply with, the conditions of this approval relevant to their respective activities.
- B11 The Proponent shall be responsible for environmental impacts resulting from the actions of all persons that it invites onto the site, including contractors, sub-contractors and visitors.
- B12 In the event of a dispute between the Proponent and a Public Authority, in relation to an applicable requirement in this approval or relevant matter relating to the project, either party may refer the matter to the Director-General for resolution. The Director-General's determination of any such dispute shall be final and binding on the parties.

## SCHEDULE C

### ENVIRONMENTAL PERFORMANCE

#### BIODIVERSITY

##### Biodiversity Offset Package

- C1 The Proponent shall develop a **Biodiversity Offset Package** in consultation with the OEH and Department (Strategies and Land Release). The Package shall:
- (a) identify the extent and types of habitat that would be lost or degraded (i.e. direct and indirect impacts) as a result of the final design of the project;
  - (b) define the objectives and outcomes necessary to address impacts on all native flora and fauna species and vegetation communities, located in the North West Growth Centre but not certified under the Biodiversity Certification Order or located on land outside of the North West Growth Centre;
  - (c) describe the methodology, including the decision-making framework, for selecting the priority ranking of biodiversity offset measures;
  - (d) detail the biodiversity offset measures available to achieve the objectives and outcomes identified in C1(b); and
  - (e) describe and detail the preferred biodiversity offset measures. In cases where the Biodiversity Banking and Offsets Scheme is not used, the following shall be included in the description:
    - i. specific offset sites to be protected and/or restored;
    - ii. responsibilities and timing for delivery and implementation;
    - iii. arrangements for the management and monitoring of offset sites; and
    - iv. annual reporting arrangements.

Land offsets, where relevant, shall be consistent with the *Principles for the use of Biodiversity Offsets in NSW* (OEH, 17 June 2011). Notwithstanding, in relation to areas of non-certified ENV within the North West Growth Centre, offset measures must be consistent with the Growth Centres Biodiversity Certification Order (December 2007). Any land offset shall be enduring and be secured by a conservation mechanism which protects and manages the land in perpetuity. Where land offsets cannot solely achieve compensation for the loss of habitat, additional measures shall be provided to collectively deliver an improved or maintained biodiversity outcome for the region.

The Package shall be submitted to the Director-General for approval, and approval obtained and biodiversity offsets secured, as identified in the approved Biodiversity Offset Package, prior to the clearing of any vegetation that is required to be offset.

Where monitoring referred to in condition C1(e)iii indicates biodiversity outcomes are not being achieved, remedial actions, (such as improved land management measures or changes to the size and/or location of the offset area), shall be developed in consultation with OEH and the Department (Strategies and Land Release). Such remedial actions shall be documented under an addendum to the Biodiversity Offset Package and the addendum be submitted for the approval of the Director-General, prior to the implementation of that addendum.

- C2 The indirect impacts of the proposal referred to under condition C1(a) include Indirect Losses of ENV, including the fragmentation of ENV, where a patch of ENV is reduced in size to below the 0.5 ha threshold. Any unavoidable Indirect Losses of ENV shall be offset in accordance with the Growth Centres Biodiversity Certification Order (December 2007).

##### Riparian Corridors

- C3 Pipelines shall be located, designed, constructed and maintained:
- a) in the Schofields Precinct, to achieve the outcomes identified in the Schofields Precinct Biodiversity Assessment (Eco Logical, 2011) for riparian corridors; and
  - b) in the Box Hill and Box Hill Industrial Precincts, consistent with any riparian corridor outcomes identified in the precinct planning process and/or gazetted prior to commencement of construction in these precincts.

In determining the above design, construction and maintenance methods, the Proponent shall consider:

- i. each riparian corridor on its merits; and
- ii. appropriate burial depths for the pipelines.

Where riparian outcomes identified in C3(a) and C3(b) above cannot be achieved, the Department (Strategies and Land Release) and the NOW must be consulted during the design and prior to any clearing or earthworks related those sections.

## **SOIL, WATER QUALITY AND HYDROLOGY**

C4 The Proponent shall:

- a) design maintenance structures to minimise the potential for floodwater to enter wastewater pipes; and
- b) include measures in the Operational Environmental Management Plan required by Condition F1 of this approval or Environmental Management System where one exists, to monitor the wastewater system performance during flood events and manage risk to human health to the greatest extent practicable.

## **Watercourse crossings**

C5 Watercourse crossings shall be designed in consultation with NOW and DPI (Fishing and Aquaculture section), except where:

- a) underboring or microtunnelling is proposed; and
- b) the design is consistent with the *Guidelines for Controlled Activities – Watercourse Crossings* (NSW Office of Water, August 2010) and *Policy and Guidelines for Design and Construction of Bridges, Roads, Causeways, Culverts and Similar Structures* (NSW Fisheries 1999); and
- c) the design is consistent with outcomes for riparian corridors referred to in Condition C3.

## **HAZARDS AND RISK**

C6 Dangerous goods, as defined by the Australian Dangerous Goods Code, shall be stored and handled strictly in accordance with:

- (a) all relevant Australian standards;
- (b) for liquids, a minimum bund volume requirement of 110% of the volume of the largest single stored volume within the bund; and
- (c) the *Environment Protection Manual for Authorised Officers: Bunding and Spill Management*, technical bulletin (Environment Protection Authority, 1997).

In the event of an inconsistency between the requirements listed from (a) to (c) above, the most stringent requirements shall prevail to the extent of the inconsistency.

## **WASTE MANAGEMENT**

C7 All waste material removed from the site shall only be directed to a waste management facility or premises lawfully permitted to accept the materials.

C8 Waste generated outside the site shall not be received at the site for storage, treatment, processing, reprocessing, or disposal on the site, except as expressly permitted by an Environment Protection Licence under the *Protection of the Environment Operations Act 1997*, if such a licence is required in relation to that waste.

C9 All liquid and/or non-liquid waste generated on the site shall be assessed and classified in accordance with *Waste Classification Guidelines* (Department of Environment, Climate Change and Water, 2009), or any superseding document.

## **UTILITIES AND SERVICES**

C10 Utilities, services and other infrastructure potentially affected by construction shall be identified prior to construction to determine requirements for access to, diversion, protection, and/or support. Consultation with the relevant owner and/or provider of services that are likely to be affected by the project shall be undertaken to make suitable arrangements for access to, diversion, protection, and/or support of the affected infrastructure as required. The cost of any such arrangements shall be borne by the Proponent.

## **HERITAGE**

C11 The Proponent shall ensure that a suitably qualified archaeologist monitors all construction trenching works in the vicinity of the Old Pitt Town Road and Old Hawkesbury Road alignments (Items nos 59, 95, 98, 119, 120 and 121), as identified in the EA. In the event that any remains of either road alignment are revealed during monitoring, archival recording shall be undertaken in consultation with the OEH.



**SCHEDULE D**  
**COMMUNITY INFORMATION, REPORTING AND AUDITING**

**COMMUNITY INFORMATION, CONSULTATION AND INVOLVEMENT**

- D1 Prior to the commencement of construction, a **Community Communication Strategy** shall be prepared and implemented to provide mechanisms to facilitate communication between the Proponent (and its contractor(s)), the Environmental Representative (see condition E24), the relevant council and community stakeholders (particularly adjoining landowners) on the construction environmental management of the project. The Strategy shall be prepared to the satisfaction of the Director-General, and include, but not be limited to:
- (a) Identification of stakeholders to be consulted as part of the Strategy, including affected and adjoining landowners;
  - (b) procedures and mechanisms for the regular distribution of information to community stakeholders on construction progress and matters associated with environmental management;
  - (c) procedures and mechanisms through which the community stakeholders can discuss or provide feedback to the Proponent and/or Environmental Representative in relation to the environmental management and delivery of the project;
  - (d) procedures and mechanisms through which the Proponent can respond to enquiries or feedback from the community stakeholders in relation to the environmental management and delivery of the project; and
  - (e) procedures and mechanisms that would be implemented to resolve issues/disputes that may arise between parties on the matters relating to environmental management and the delivery of the project. This may include the use of an appropriately qualified and experienced independent mediator.

Issues that shall be addressed through the Community Communication Strategy include (but are not necessarily limited to) finalisation of pipeline alignment and associated infrastructure and the finalisation of measures to mitigate and/or minimise human amenity and environmental impacts, consistent with the management measures proposed under the documents referred to under the condition B1 b) and c) and the requirements of this approval.

**Complaints and Enquiries Procedure**

- D2 Prior to the commencement of construction, or as otherwise agreed by the Director-General, the Proponent shall ensure that the following are available for community enquiries and complaints for the duration of construction:
- (a) a 24-hour telephone number(s) on which complaints and enquires about construction may be registered;
  - (b) a postal address to which written complaints and enquires may be sent;
  - (c) an email address to which electronic complaints and enquires may be transmitted; and
  - (d) a mediation system for complaints unable to be resolved.

The telephone number, postal address and email address shall be published in newspaper(s) circulating in the area of the project on at least one occasion prior to the commencement of construction; at six-monthly intervals during construction; and prior to the commencement of operation. This information shall also be provided on the website (or dedicated pages) required by this approval. At a minimum, the telephone number shall also be displayed on a sign near the entrance to each construction site, in a position that is clearly visible to the public.

- D3 The Proponent shall record details of all complaints received through the means listed under condition D2 of this approval, and/or through any other means, in an up-to-date Complaints Register. The Register shall record, but not necessarily be limited to:
- a) the date and time of the complaint;
  - b) the means by which the complaint was made (telephone, mail or email);
  - c) any personal details of the complainant that were provided, or if no details were provided, a note to that effect;
  - d) the nature of the complaint;
  - e) any action(s) taken by the Proponent in relation to the complaint, including any follow-up contact with the complainant; and
  - f) if no action was taken by the Proponent in relation to the complaint, the reason(s) why no action was taken.

The Complaints Register shall be made available for inspection by the Director-General upon request.

- D4 The Proponent shall provide an initial response to any complaints in relation to the project during construction or operation within 48 hours of the complaint being made. The response and any subsequent action taken shall be recorded in accordance with condition D3. Any subsequent detailed response or action is to be provided within two weeks of the original complaint, or as otherwise agreed by the complainant/Director-General.

### **Provision of Electronic Information**

- D5 Prior to the commencement of construction, or as otherwise agreed by the Director-General, the Proponent shall establish and maintain a new website, or dedicated pages within an existing website, for the provision of electronic information associated with the project, for the duration of construction and for 12 months following completion of the project. The Proponent shall, subject to confidentiality, publish and maintain up-to-date information on the website or dedicated pages including, but not necessarily limited to:
- (a) information on the current implementation status of the project;
  - (b) a copy of, or a link to the Department website for, the documents referred to under condition B1 of this approval, and any documentation supporting modifications to this approval that may be granted from time to time;
  - (c) a copy of, or a link to the Department website for, this approval and any future modification to this approval;
  - (d) a description of the current environmental approval, licence or permit required and obtained in relation to the project;
  - (e) a list of each current strategy, plan, program or other document required under this approval;
  - (f) a description of the outcomes of compliance tracking in accordance with condition D6 of this approval, including a list of the documents prepared under that condition; and
  - (g) details of contact point(s) to which community complaints and enquiries may be directed, including a telephone number, a postal address and an email address.

## **COMPLIANCE MONITORING AND TRACKING**

### **Compliance Tracking Program**

- D6 Prior to the commencement of construction, the Proponent shall develop and implement a **Compliance Tracking Program** to track compliance with the requirements of this approval during the construction and operation of the project and shall include, but not necessarily be limited to:
- (a) provisions for the periodic reporting of compliance status to the Director-General including at least prior to the commencement of construction of the project (Pre-Construction Compliance Report), prior to the commencement of operation of the project (Pre-Operation Compliance Report), including prior to each stage, where works are being staged, and within two years of operation commencement;
  - (b) provisions for periodic review of the compliance status of the project against the requirements of this approval;
  - (c) a programme for independent environmental auditing in accordance with *AS/NZ ISO 19011:2003 - Guidelines for Quality and/or Environmental Management Systems Auditing*, for construction and operation;
  - (d) mechanisms for recording environmental incidents during construction and actions taken in response to those incidents;
  - (e) provisions for reporting environmental incidents to the Director-General and relevant public authorities;
  - (f) procedures for rectifying any non-compliance identified during environmental auditing, review of compliance or incident management; and
  - (g) provisions for ensuring all employees, contractors and sub-contractors are aware of, and comply with, the conditions of this approval relevant to their respective activities.

### **Incident Reporting**

- D7 The Proponent shall notify the Director-General of any incident with actual or potential significant offsite impacts on people or the biophysical environment within 24 hours of becoming aware of the incident. The Proponent shall provide full written details of the incident to the Director-General within seven days of the date on which the incident occurred.
- D8 The Proponent shall meet the requirements of the Director-General to address the cause or impact of any incident, as it relates to this approval, reported in accordance with condition D7 of this approval, within such period as the Director-General may require.

## SCHEDULE E

### CONSTRUCTION ENVIRONMENTAL MANAGEMENT

#### GENERAL

- E1 Prior to construction commencing, the Proponent shall submit to the Director General, route alignment sheets for the project identifying the final 10 metre-wide construction corridor for each of the water and wastewater pipelines. The route alignment sheets are required to demonstrate, to the greatest extent practicable, the avoidance of known heritage items (both Aboriginal and Historic as identified under Section 7, Table 4 of Appendix E and Section 5, Table 10 of Appendix C of the EA) and native vegetation (in particular endangered ecological communities and threatened species).

#### AIR QUALITY

- E2 The project shall be constructed in a manner that minimises dust emissions from the site, including wind-blown and traffic-generated dust and tracking of material onto public roads. All activities on the site shall be undertaken with the objective of preventing visible emissions of dust from the site. Should such visible dust emissions occur at any time, the Proponent shall identify and implement all feasible and reasonable dust mitigation measures, including cessation of relevant works, as appropriate, such that emissions of visible dust cease.

#### BIODIVERSITY

- E3 The clearing of native vegetation, including but not limited to threatened species or Endangered, or Critically Endangered Ecological Communities shall be minimised to the greatest extent practicable but shall not exceed 9.68 hectares, unless otherwise agreed by the Director-General.

#### Pre clearing surveys

- E4 Prior to construction, pre clearing surveys and inspections for fauna will be undertaken in vegetation to be cleared for construction. The surveys, inspections and any subsequent relocation of species, shall be undertaken under the guidance of a qualified ecologist and the results recorded in the Construction Flora and Fauna Management Plan required by condition E26(c).

#### HERITAGE

- E5 In undertaking the project, impacts to heritage (both Aboriginal and Historic), shall be avoided or minimised to the greatest extent practicable. Where impacts are unavoidable, works shall be undertaken in accordance with the strategy outlined in the Construction Heritage Management Plan required by condition E26(b).

#### SOIL, WATER QUALITY AND HYDROLOGY

##### Construction Soil and Water Management

- E6 Soil and water management measures consistent with *Managing Urban Stormwater – Soils and Construction Vols 1 and 2, 4<sup>th</sup> Edition* (Landcom, 2004), or any future guideline and/or policy that may supersede that document, shall be employed during the construction of the project to minimise soil erosion and the discharge of sediment and other pollutants to land and/or waters.
- E7 Where available, and of appropriate chemical and biological quality, stormwater, recycled water or other water sources shall be used in preference to potable water for construction activities, including concrete mixing and dust control.

#### NOISE AND VIBRATION

##### Construction Hours

- E8 Construction activities associated with the project shall be undertaken during the following standard construction hours:
- (a) 7:00 am to 6:00 pm, Mondays to Fridays, inclusive; and
  - (b) 8:00 am to 1:00 pm on Saturdays; and
  - (c) at no time on Sundays or public holidays.

- E9 Construction works outside of the standard construction hours identified in condition E8 may be undertaken in the following circumstances:
- (a) construction works that generate noise that is:
    - (i) no more than 5 dB(A) above rating background level at any residence in accordance with the *Interim Construction Noise Guideline* (Department of Environment and Climate Change, 2009);
    - (ii) no more than the noise management levels specified in Table 3 of the *Interim Construction Noise Guideline* (Department of Environment and Climate Change, 2009) at other sensitive receivers; or
  - (b) for the delivery of materials required outside these hours by the NSW Police Force or other authorities for safety reasons; or
  - (c) where it is required in an emergency to avoid the loss of lives, property and/or to prevent environmental harm;
  - (d) works approved through an EPL; or
  - (e) works as approved through the out-of-hours work protocol outlined in the Construction Noise and Vibration Management Plan required under condition E26(e).
- E10 Except as expressly permitted by an EPL, activities resulting in impulsive or tonal noise emission (such as rock breaking, rock hammering, pile driving) shall only be undertaken:
- (a) between the hours of 8:00 am to 5:00 pm Monday to Friday;
  - (b) between the hours of 8:00 am to 1: 00 pm Saturday; and
  - (c) in continuous blocks not exceeding three hours each with a minimum respite from those activities and works of not less than one hour each between each block.

For the purposes of this condition 'continuous' includes any period during which there is less than a one hour respite between ceasing and recommencing any of the work that is the subject of this condition.

### **Construction Noise and Vibration**

- E11 Nothing in this approval permits blasting during construction or operation.
- E12 The project shall be constructed with the aim of achieving the construction noise management levels detailed in the *Interim Construction Noise Guideline* (Department of Environment and Climate Change, 2009). All feasible and reasonable noise mitigation measures shall be implemented and any activities that could exceed the construction noise management levels shall be identified and managed in accordance with the Construction Noise and Vibration Management Plan required under condition E26.e).

*Note: The Interim Construction Noise Guideline identifies 'particularly annoying' activities that require the additional of 5 dB(A) to the predicted level before comparing to the construction Noise Management Level.*

- E13 The project shall be constructed with the aim of achieving the following construction vibration goals:
- (a) for damage to heritage structures , the vibration limits set out in the German Standard DIN 4150-3:1999 Structural Vibration Part 3 – *Effects of vibration on structures*;
  - (b) for damage to other buildings and/or structures, the vibration limits set out in the British Standard BS 7385-1:1990 – *Evaluation and measurement for vibration in buildings. Guide for measurement of vibration and evaluation of their effects on buildings*; and
  - (c) for human comfort, the acceptable vibration values set out in the *Environmental Noise Management Assessing Vibration: A Technical Guideline* (Department of Environment and Conservation, 2006).
- E14 Wherever practical, piling activities shall be undertaken using alternative quieter methods to impact or percussion piling, such as bored piles or vibrated piles.
- E15 Where feasible and reasonable, operation noise mitigation measures shall be implemented at the start of construction (or at other times during construction) to minimise construction noise impacts.
- E16 During construction, affected education institutions shall be consulted and reasonable steps taken to ensure that noise generating construction works in the vicinity of affected buildings are not timetabled during examination periods where practicable, unless other reasonable arrangements to the affected institutions are made at no cost to the affected institution.

## **PROPERTY IMPACTS**

- E17 During the detailed design stage of the project, the Proponent shall consult with all landowners of those properties which are to be traversed by the project, for the purposes of ensuring landowner concerns are considered in determining the final project alignment.
- E18 Access to private property shall be maintained during construction unless otherwise agreed with the property owner in advance. A landowner's access that is physically affected by the project shall be reinstated to at least an equivalent standard, in consultation with the property owner.
- E19 Any damage caused to property as a result of the project shall be rectified or the property owner compensated, within a reasonable timeframe, with the costs borne by the Proponent. This condition is not intended to limit any claims that the property owner may have against the Proponent.

## **TRAFFIC, TRANSPORT AND ACCESS**

- E20 Upon determining the haulage route(s) for construction vehicles (including employee, equipment and materials delivery) and prior to construction, an independent and qualified person(s) shall prepare a Road Dilapidation Review. The review shall include an assessment of the nominated haulage road conditions and be submitted to the relevant road authority(ies) for review prior to construction commencing.

Following construction, a subsequent review shall be undertaken to assess any damage that has resulted from and is attributable to construction. A report shall be prepared which describes measures to restore any damage that has resulted. Implementation of identified measures shall be undertaken in a timely manner, in accordance with the reasonable requirements of the relevant road authority(ies) and at the expense of the Proponent.

- E21 Construction vehicles (including staff vehicles) associated with the project shall be managed to:
- (a) minimise parking or queuing on public roads;
  - (b) minimise idling and queuing in local residential streets where practicable; and
  - (c) minimise the use of local roads (through residential streets and town centres) to gain access to construction sites and compounds.

## **ANCILLARY FACILITIES**

- E22 Unless otherwise approved by the Director-General, the location of Ancillary Facilities shall:
- (a) be located more than 50 metres from a waterway;
  - (b) be located within or adjacent to the project;
  - (c) have ready access to the road network;
  - (d) be located to minimise the need for heavy vehicles to travel through residential areas;
  - (e) be sited on relatively level land;
  - (f) be separated from nearest residences by at least 200 metres (or at least 300 metres for a temporary batching plant);
  - (g) not require vegetation clearing beyond that already required by the project;
  - (h) not impact on heritage sites (including areas of archaeological sensitivity) beyond those already impacted by the project;
  - (i) not unreasonably affect the land use of adjacent properties;
  - (j) be above the 20 year ARI flood level unless a contingency plan to manage flooding is prepared and implemented; and
  - (k) provide sufficient area for the storage of raw materials to minimise, to the greatest extent practical, the number of deliveries required outside standard construction hours.

Where any of the above criteria cannot be met for any proposed ancillary facility, the Proponent shall demonstrate to the satisfaction of the Director-General that there will be no significant adverse impact from the facility's(ies) construction or operation. The location of and proposed measures to manage the ancillary facilities shall be identified in the Construction Environmental Management Plan required under condition E26(a).

- E23 All Ancillary Facilities sites shall be rehabilitated to at least their pre-construction condition, unless otherwise agreed by the landowner, where relevant.

## ENVIRONMENTAL REPRESENTATIVE

- E24 Prior to the commencement of construction of the project, or as otherwise agreed by the Director-General, the Proponent shall nominate for the approval of the Director-General a suitably qualified and experienced Environmental Representative(s) that is independent of the design and construction personnel. The Proponent shall employ the Environmental Representative(s) for the duration of construction, or as otherwise agreed by the Director-General. The Environmental Representative(s) shall:
- (a) be the principal point of advice in relation to the environmental performance of the project;
  - (b) monitor the implementation of environmental management plans and monitoring programs required under this approval and advise the Proponent upon the achievement of these plans/programs;
  - (c) have responsibility for considering and advising the Proponent on matters specified in the conditions of this approval, and other licences and consents related to the environmental performance and impacts of the project;
  - (d) ensure that environmental auditing is undertaken in accordance with the project's Environmental Management System(s);
  - (e) be given the authority to approve/ reject minor amendments to the Construction Environmental Management Plan. What constitutes a "minor" amendment shall be clearly explained in the Construction Environmental Management Plan required under condition E25;
  - (f) be given the authority and independence to require reasonable steps be taken to avoid or minimise unintended or adverse environmental impacts, and failing the effectiveness of such steps, to direct that relevant actions cease immediately should an adverse impact on the environment be likely to occur; and
  - (g) be consulted in responding to the community concerning the environmental performance of the project where the resolution of points of conflict between the Proponent and the community is required.

## CONSTRUCTION ENVIRONMENTAL MANAGEMENT PLAN

- E25 Prior to the commencement of construction, or as otherwise agreed by the Director-General, the Proponent shall prepare, and implement (following approval), a **Construction Environmental Management Plan (CEMP)** for the project. The CEMP shall outline the environmental management practices and procedures that are to be followed during construction, and shall be prepared in consultation with the relevant government agencies and in accordance with the *Guideline for the Preparation of Environmental Management Plans* (Department of Infrastructure, Planning and Natural Resources, 2004). The Plan shall be consistent with the consultation principles identified in the documents referred to under conditions B1(b) and B1(c) of this approval and shall include, but not necessarily be limited to:
- (a) a description of activities to be undertaken during construction of the project including staging and scheduling;
  - (b) a matrix of other plans required by this approval, how these relate to the CEMP and a description of how these will operate to manage all impacts of construction.
  - (c) statutory and other obligations that the Proponent is required to fulfil during construction, including approvals, consultations and agreements required from authorities and other stakeholders under key legislation and policies;
  - (d) a management structure which identifies key positions with responsibilities for environmental management;
  - (e) a description of the roles and responsibilities for relevant employees involved in the environmental management of the project, including relevant training and induction provisions for ensuring that employees, including contractors and sub-contractors are aware of their environment and compliance obligations under these conditions of approval;
  - (f) an environmental risk analysis to identify the key environmental performance issues associated with the construction phase; and
  - (g) details of how environmental performance will be managed and monitored, including processes to identify and rectify potential adverse environmental impacts (including any impacts arising from the staging of the construction of the project). In particular, the following environmental performance issues shall be addressed in the Plan where separate sub plans are not prepared:
    - i. air quality and dust management;
    - ii. soil contamination, hazardous material and waste management; and
    - iii. hazard and risk management.

The Plan shall be submitted for the approval of the Director-General no later than one month prior to the commencement of construction, or as otherwise agreed by the Director-General. The Plan may be

prepared in stages, however, construction works shall not commence until written approval has been received from the Director-General.

The approval of a Construction Environmental Management Plan does not relieve the Proponent of any requirement associated with this approval. If there is an inconsistency with an approved Construction Environmental Management Plan and the conditions of this approval, the requirements of this approval prevail.

E26 As part of the Construction Environmental Management Plan for the project required under condition E25, the Proponent shall prepare and implement:

- (a) an **Ancillary Facilities Management Plan** to detail the management of site compounds associated with the project. The Plan shall include but not necessarily be limited to:
  - (i) a description of each facility, its components and the surrounding environment;
  - (ii) details of the activities to be carried out at each facility, including the hours of use and the storage of dangerous and hazardous goods;
  - (iii) details of the mitigation and management procedures specific to each facility that would be implemented to minimise environmental and amenity impacts;
  - (iv) indication of the timeframe for which each facility will be required and how the site will be decommissioned (including any necessary rehabilitation); and
  - (v) monitoring, review and amendment mechanisms where these differ from those identified in the CEMP.
- (b) a **Heritage Management Plan** to detail how impacts on Aboriginal and Historic heritage will be minimised and managed during construction. The plan shall be developed in consultation with the OEH (for Historic Heritage) and include, but not necessarily be limited to:
  - (i) identification of heritage items directly and indirectly impacted by construction;
  - (ii) management measures and strategies for protection, monitoring, salvage, and/or conservation of sites and items that will be directly or indirectly impacted during construction;
  - (iii) procedures for monitoring and reporting on effectiveness of management measures;
  - (iv) procedures for dealing with previously unidentified heritage objects (excluding human remains) including cessation of works, assessment of significance and determination of appropriate management measures, including involvement of a suitable qualified archaeologist and consultation with the Department and registered Aboriginal stakeholders, actions required to enable construction to recommence and registering any new site(s) in the OEH's Aboriginal Heritage Information Management System (AHIMS) register;
  - (v) procedures for dealing with human remains, including cessation of works in the vicinity of the remains and notification of relevant stakeholders, including NSW Police and where relevant, OEH;
  - (vi) training and induction processes for construction personnel on site identification, protection and conservation of Aboriginal cultural heritage where this differs from CEMP processes; and
  - (vii) procedures for ongoing stakeholder consultation and involvement for the duration of the project;
  - (viii) procedures for monitoring and reporting effectiveness of management measures, including reporting of non-compliance and rectification; and
  - (ix) mechanisms for the monitoring, review and amendment of this plan.
- (c) a **Flora and Fauna Management Plan** to detail measures to manage construction impacts on ecology. The Plan shall include, but not necessarily be limited to:
  - (i) plans for impacted and adjoining areas showing vegetation communities, including riparian vegetation; important flora and fauna habitat areas; locations where threatened species populations or ecological communities have been recorded;
  - (ii) identification of areas to be cleared (consistent with route alignment sheets required in condition E1;
  - (iii) management measures to avoid residual habitat damage or loss;
  - (iv) weed management measures focusing on early identification of invasive weeds and effective management controls;
  - (v) rehabilitation details, including measures to minimise or eliminate time lags between the removal and subsequent replacement of habitat, including identification of species and sources, and measures for the management and maintenance of rehabilitated areas;
  - (vi) procedures for dealing with unexpected EEC/threatened species identified during construction, including cessation of work and notification of the OEH, assessment of

- significance and determination of appropriate management measures, consultation with the OEH and updating of ecological monitoring and/or biodiversity offset requirements;
- (vii) procedures for monitoring and reporting effectiveness of management measures, including reporting of non-compliance and rectification; and
  - (viii) mechanisms for the monitoring, review and amendment of this plan.
- (d) a **Soil and Water Quality Management Plan** to manage surface and groundwater impacts during construction of the project. The plan shall be implemented in consultation with NOW and include, but not necessarily be limited to:
- (i) details of construction activities and their locations, which have the potential to impact watercourses, storage facilities, stormwater flows, and groundwater;
  - (ii) surface water and groundwater impact assessment criteria consistent with Australian and New Zealand Environment Conservation Council (ANZECC) guidelines;
  - (iii) management measures to minimise surface and groundwater impacts, including sources of, handling, stockpile, reuse and management of spoil and fill; erosion and sediment control measures; salinity control measures and the consideration of flood events;
  - (iv) a contingency plan, consistent with the Acid Sulfate Soils Manual, to deal with the unexpected discovery of actual or potential acid sulfate soils, including procedures for the investigation, handling, treatment and management of such soils and water seepage;
  - (v) management measures for contaminated material and a contingency plan to be implemented in the case of unanticipated discovery of contaminated material during construction;
  - (vi) procedures for monitoring and reporting effectiveness of management measures, including reporting of non-compliance and rectification; and
  - (vii) mechanisms for the monitoring, review and amendment of this plan.
- (e) a **Noise and Vibration Management Plan** to detail how construction noise and vibration impacts will be minimised and managed. The Plan shall be consistent with the guidelines contained in the *Interim Construction Noise Guidelines* (DECC, 2009) and shall include, but not be limited to:
- (i) identification of sensitive receivers and relevant construction noise and vibration goals applicable to the project;
  - (ii) identification of key noise and/or vibration generating construction activities (based on representative construction scenarios, including at ancillary facilities) that have the potential to generate noise and/or vibration impacts on surrounding sensitive receivers, particularly residential areas;
  - (iii) identification of feasible and reasonable measures to be implemented to minimise and manage construction noise (including construction traffic noise impacts);
  - (iv) procedures and mitigation measures to ensure relevant vibration criteria are achieved, including applicable buffer distances for vibration intensive works, use of low-vibration generating equipment/vibration dampeners or alternative construction methodology, and pre- and post- construction dilapidation surveys of sensitive structures if vibration is likely to result in damage to buildings and structures (including surveys being undertaken immediately following a monitored exceedance of the criteria); and
  - (v) procedures for monitoring and reporting effectiveness of management measures, including reporting of non-compliance and rectification;
  - (vi) an out-of-hours work (OOHW) protocol, for management and approval of works outside standard construction hours, including a risk assessment process under which an Environmental Representative may approve out-of-hour construction activities deemed to be of low environmental risk and refer high risk works for the Director-General's approval. The OOHW protocol shall detail standard assessment, mitigation and notification requirements for high and low risk out-of-hour works, and detail a standard protocol for referring applications to the Director-General; and
  - (vii) mechanism for the monitoring, review and amendment of this plan.
- (f) a **Traffic and Access Management Plan** to manage construction traffic and access. The plan shall include, but not necessarily be limited:
- (i) identification of construction traffic routes and construction traffic volumes (including heavy vehicle/ spoil haulage) on these routes;
  - (ii) details of vehicle movements for construction sites and site compounds including parking, dedicated vehicle turning areas, and ingress and egress points;
  - (iii) identification of construction activities that could disrupt traffic, public transport, pedestrian, cycle and property access;
  - (iv) management measures to minimise traffic impacts, including temporary road work traffic control measures, onsite vehicle queuing and parking areas and management measures to minimise peak time congestion and measures to ensure safe pedestrian and cycle access;



- (v) a response plan which sets out a proposed response to any traffic, construction or other incident; and
- (vi) mechanisms for the monitoring, review and amendment of this plan.

## SCHEDULE F OPERATION ENVIRONMENTAL MANAGEMENT

F1 The Proponent shall prepare and implement (following approval) an **Operation Environmental Management Plan** (OEMP). The Plan shall outline the environmental management practices and procedures that are to be followed during operation, and shall be prepared in consultation with relevant agencies and in accordance with the *Guideline for the Preparation of Environmental Management Plans* (Department of Infrastructure, Planning and Natural Resources, 2004). The Plan shall include, but not necessarily be limited to:

- (a) a description of activities to be undertaken during operation (including staging and scheduling);
- (b) statutory and other obligations that the Proponent is required to fulfil during operation, including approvals, consultations and agreements required from authorities and other stakeholders under key legislation and policies;
- (c) overall environmental policies, guidelines and principles to be applied to the operation of the project;
- (d) a description of the roles and responsibilities for relevant employees involved in the operation of the project, including relevant training and induction provisions for ensuring that employees are aware of their environmental and compliance obligations under these conditions of approval;
- (e) an environmental risk analysis to identify the key environmental performance issues associated with the operation phase;
- (f) details of management and monitoring of environmental performance, including the actions to be taken to address identified potential adverse environmental impacts, including those safeguards and mitigation measures detailed in section 6 of the EA (and any impacts arising from staging of the project construction). In particular, the following environmental performance issues shall be addressed in the Plan:
  - (i) noise emissions including measures for regular performance monitoring of noise generated by the project and measures to proactively respond to and deal with noise complaints;
  - (ii) a description of the proposed and/or implemented measures to minimise visual impact of the above-ground project components, including the reservoir site and water pumping stations, such as landscaping and design considerations;
  - (iii) procedures for the monitoring and maintenance of the watercourse crossings to achieve stable creek bed and banks;
  - (iv) procedures for monitoring the effects of flood events on the wastewater system; and
  - (v) a description of the proposed and/or implemented measures to avoid air quality impacts as a result of the wastewater system of the project.

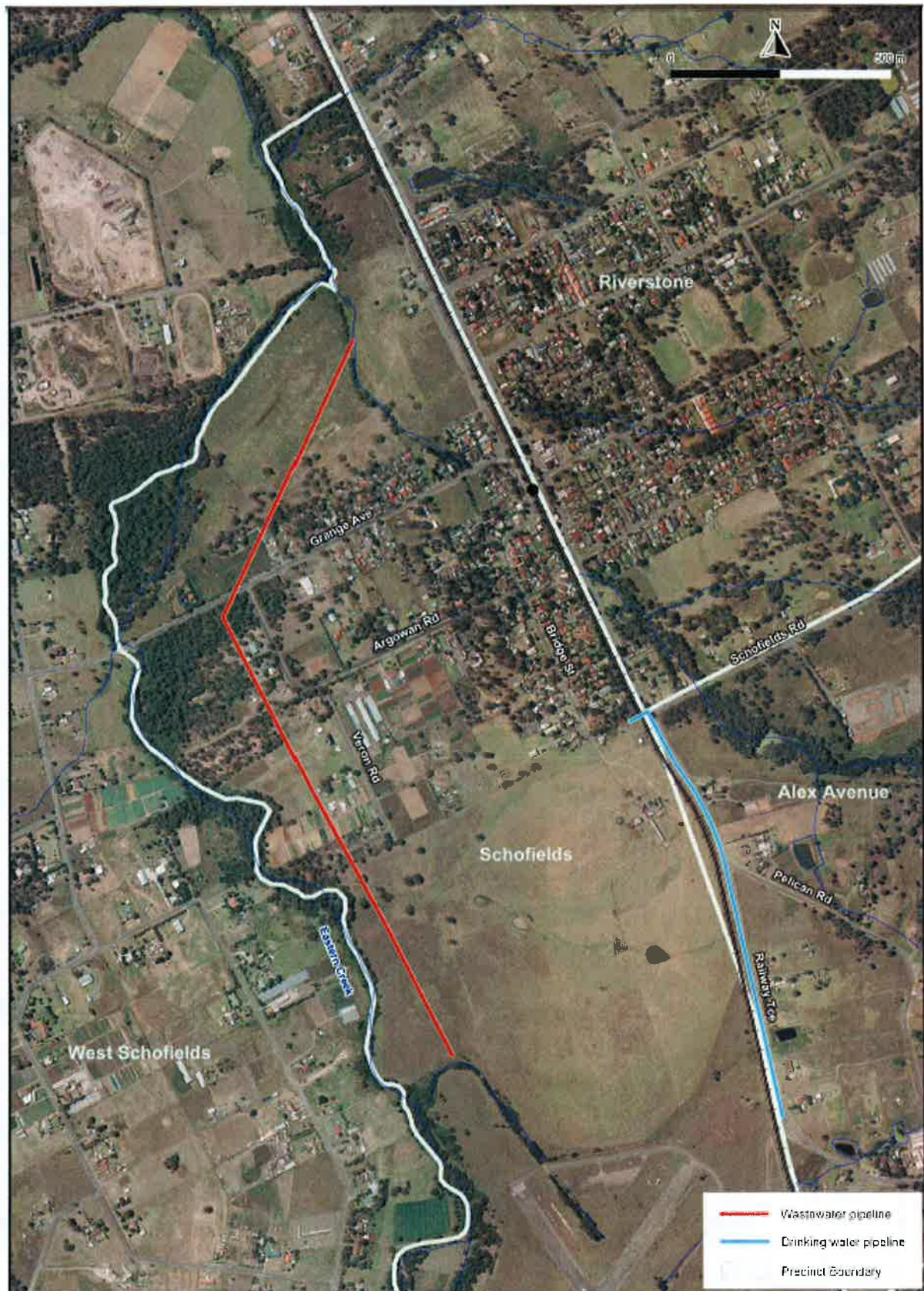
The Plan shall be submitted for the approval of the Director-General no later than one month prior to the commencement of operation, or as otherwise agreed by the Director-General. Operation shall not commence until written approval has been received from the Director-General.

The approval of an Operation Environmental Management Plan does not relieve the Proponent of any requirement associated with this project approval. If there is an inconsistency with an approved Operation Environmental Management Plan and the conditions of this project approval, the requirements of this project approval prevail.

F2 Notwithstanding condition F1, if an existing environmental management system that is administered by the Proponent and prepared in accordance with the AS/NZS ISO 14000 Environmental Management System (EMS) series, and is applicable to this project, then that EMS may be proposed as the OEMP. Details of the existing EMS must be provided to the Director-General demonstrating its application to this project.

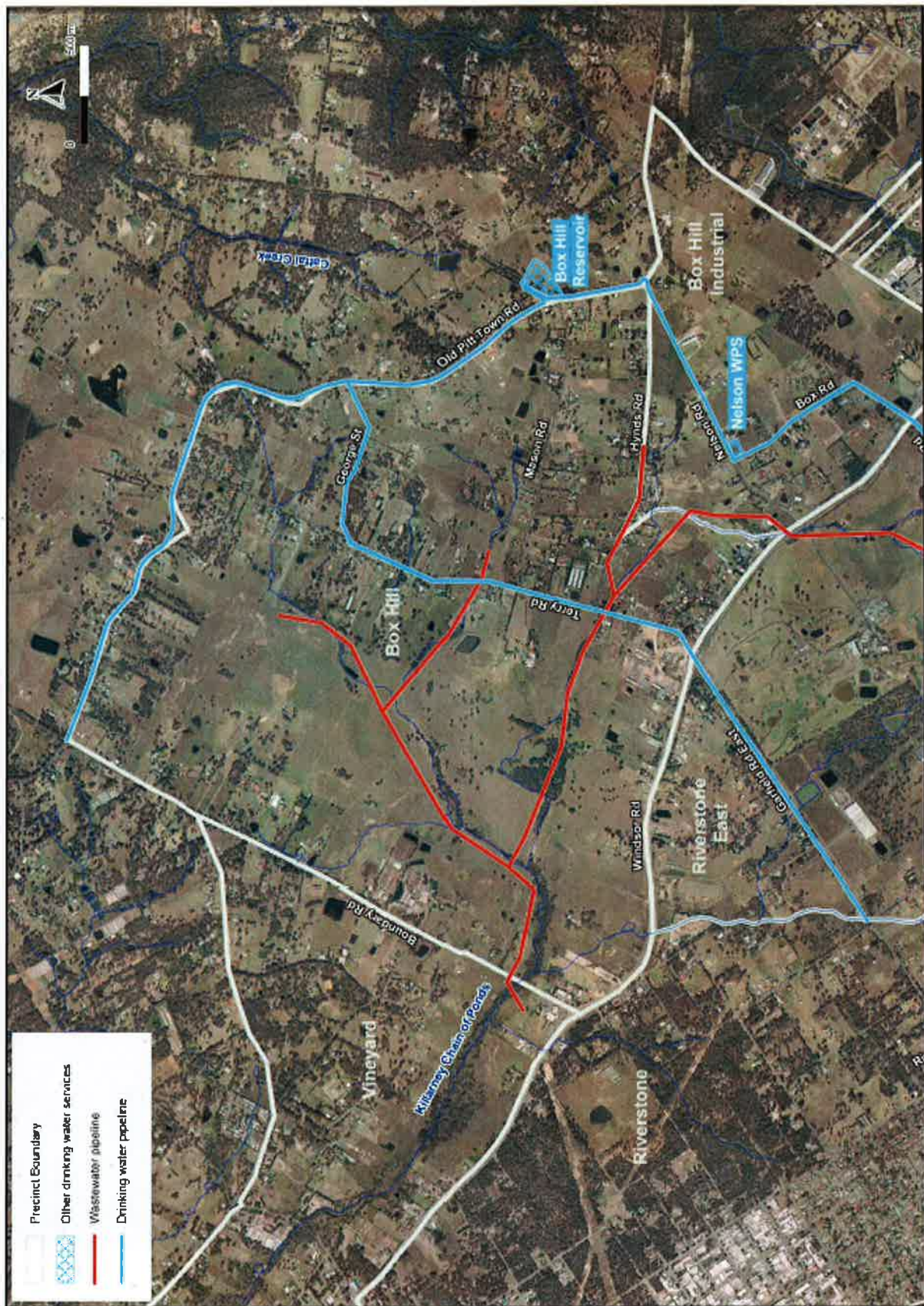
## APPENDIX 1

### PROJECT LAYOUT PLANS (3)



**Indicative Services for Schofields**





**Indicative Services for Box Hill**





