

3.11 Environmental Monitoring, Inspections and Auditing

- a. NWRL Principal Contractors will develop and implement procedures to ensure the works are compliant with the environmental considerations of the contract documentation, the project approval, and all other permits and licences.
- b. Issue specific environmental monitoring will be undertaken as required by the subsequent sections of this Construction Environmental Management Framework or as additionally required by approval, permit or licence conditions.
- c. The results of any monitoring undertaken as a requirement of the EPL will be published on the Principal Contractor's, or a project specific, website within 14 days of obtaining the results.
- d. Environmental inspections will include:
 - i. Surveillance of environmental mitigation measures by the Site Foreman. This will be documented in the Foreman's Site Diary.
 - ii. Periodic inspections by the Principal Contractor's Environmental Manager (or delegate) to verify the adequacy of all environmental mitigation measures. This will be documented in a formal inspection record.
 - iii. Regular site inspections by the ERs at a frequency to be agreed with the Principal Contractor.
- e. NWRL Principal Contractors will be required to undertake internal environmental audits of their EMS. Internal audits will include:
 - i. Compliance with approval, permit and licence conditions.
 - ii. Compliance with the Contractor's EMS, CEMP, sub-plans and procedures.
 - iii. Community consultation and complaint response.
 - iv. Environmental training records.
 - v. Environmental monitoring and inspection results.
- f. TfNSW (or its representative) will also undertake periodic audits of the Principal Contractors' EMS and compliance with the environmental aspects of contract documentation, including this Construction Environmental Management Framework. As a minimum this will occur annually.
- g. Mandatory audits may also be required by the EPA if the EPA reasonably suspects that an activity has been or is being carried out by the EPL holder in an environmentally unsatisfactory manner.

3.12 Environmental Non-conformances

- a. NWRL Principal Contractors will document and detail any non-conformances arising out of the above monitoring, inspections and audits. TfNSW will be made aware of all non-conformances in a timely manner.
- b. Principal Contractors will develop and implement corrective actions to rectify the non-conformance and preventative actions in order to prevent the re-occurrence of the non-conformance. Contractors will also maintain a register non conformances, corrective actions and preventative actions.

3.13 Environmental Records and Compliance Reporting

- a. NWRL Principal Contractors will maintain appropriate records of the following:
 - i. Site inspections, audits, monitoring, reviews or remedial actions.
 - ii. Documentation as required by performance conditions, approvals, licences and legislation.
 - iii. Modifications to site environmental documentation (eg CEMP, sub-plans and procedures).
 - iv. Other records as required by this Construction Environmental Management Framework.
- b. Records will be retained onsite for the duration of works.
- c. Additionally records will be retained by the Principal Contractor for a period of no less than 7 years in total. Records will be made available in a timely manner to TfNSW (or their representative) upon request.
- d. Compliance reports regarding each internal and external audit (refer to Section 3.113.11) will be undertaken. Compliance reports will be produced by the Principal Contractor's Environmental Manager or delegate and submitted to TfNSW.

3.14 Review and Improvement of the CEMP

- a. NWRL Contractors will ensure the continual review and improvement of the CEMP, sub-plans and procedures. This will generally occur in response to:
 - i. Issues raised during environmental monitoring, inspections and audits.
 - ii. Significant environmental incidents.
 - iii. Environmental non-conformances.
- b. A formal review of the CEMP and sub-plans by the Principal Contractor's management team will also occur on a six monthly basis, as a minimum.

4 Stakeholder and Community Involvement

4.1 Overview

- a. Throughout construction, TfNSW and the Principal Contractors will work closely with stakeholders and the community to ensure they are well informed regarding the construction works.
- b. Stakeholders and the community will be informed of significant events or changes that affect or may affect individual properties, residences and businesses. These will include:
 - i. Significant milestones.
 - ii. Design changes.
 - iii. Changes to traffic conditions and access arrangements for road users and the affected public.
 - iv. Construction operations which will have a direct impact on stakeholders and the community including noisy works, interruptions to utility services or construction work outside of normal work hours.
- c. A Community Information Centre for the NWRL project is located at 299 Old Northern Road, Castle Hill (ph 1800 019 989, website www.northwestrail.com.au) and will be kept informed of key construction information of relevance to stakeholders and the community.

4.2 Communication and Consultation Strategy

- a. This communication and consultation strategy will form the basis of a Stakeholder and Community Involvement Plan which will be developed by the NWRL Contractors.
- b. Key elements of the communication and consultation strategy which will be implemented at appropriate times in the construction process will include:
 - i. Notification (including targeted letterbox drops, email and SMS) of any works that may disturb local residents and businesses (such as noisy activities and night works) at least seven days prior to those works commencing.
 - ii. Notification (including targeted letterbox drops) of works that may affect transport (such as road closures, changes to pedestrian routes and changes to bus stops).
 - iii. Traffic alerts (via email) to all key traffic and transport stakeholders advising of any changes to access and local traffic arrangements (at least seven days prior to significant events).
 - iv. Print and radio advertisements regarding major traffic changes.
 - v. 24-hour toll-free community project information phone line.
 - vi. Complaints management process.
 - vii. Regular community information sessions.
 - viii. Regular updates to the NWRL website (www.northwestrail.com.au), including uploading of all relevant documents, and contact details for the stakeholder and community involvement team.
 - ix. Public displays, local events and open days.
 - x. Assistance to the NWRL Community Information Centre in provision of regular community newsletters, information brochures and fact sheets and ongoing use of interactive web-based activities.
 - xi. Clear signage at the construction sites and construction updates on the hoardings at construction sites.
 - xii. Media releases and regular newspaper advertisements in local and metropolitan papers.

- xiii. Regular inter-agency group meetings.
- xiv. Community, business and stakeholder satisfaction surveys and feedback forms.
- xv. Translator and interpreter services.
- xvi. The Principal Contractor's Community Relations Team will liaise with the TfNSW Place Managers as the point of contact for the community.

4.3 Complaint Handling

- a. Community liaison and complaints handling will be undertaken in accordance with the Construction Stakeholder and Community Involvement Plan and will include:
 - i. NWRL Principal Contractors will deal with complaints in a responsive manner so that stakeholders' concerns are managed effectively and promptly.
 - ii. A verbal response will be provided to the complainant as soon as possible and within a maximum of two hours from the time of the complaint (unless the complainant requests otherwise). A detailed written response will then be provided, if required, to the complainant within one week.

4.4 Urban Design of Temporary Works

- a. NWRL Principal Contractors will develop and implement a Landscape and Temporary Works Management Plan for their scope of works. The Landscape and Temporary Works Management Plan will ensure as a minimum:
 - i. Temporary construction works including site hoardings and acoustic sheds consider urban design and visual impacts, including:
 - ii. Artwork, graphics and images to enhance the visual appearance of temporary works in high visibility locations.
 - iii. Project information to raise awareness of the NWRL and its benefits, explain the proposed works at each site and provide updates on construction progress.
 - iv. Community information, including contact numbers for enquiries / complaints.
 - v. Signage and information to mitigate impacts on local businesses which may be obscured by the construction site.
 - vi. NWRL advertising / public awareness campaigns.
 - vii. Logos / branding, including NWRL, NSW Government, and Contractor branding.
- b. The design of all temporary works will require TfNSW approval in relation to urban design and visual impacts.
- c. Construction hoardings, scaffolding and acoustic sheds will be regularly inspected and kept clean and free of dust build up. Graffiti on construction hoardings, scaffolding or acoustic sheds will be removed or painted over promptly.
- d. The principles of *Crime Prevention Through Environmental Design* will be applied to all works, including temporary works, that have a public interface.

4.5 Business and Property Impacts

- a. NWRL Principal Contractors will proactively work with potentially affected stakeholders to identify the likely impacts and put in place measures to minimise impacts.
- b. Construction works will be undertaken to meet the following objectives:
 - i. Minimise the potential impact of the project to the operation of businesses affected by NWRL works.
 - ii. Ensure businesses are kept informed of the project and consulted in advance of major works or factors that are likely to have a direct impact.
 - iii. Consult with all business directly affected by changes to access arrangements regarding specific requirements at least two weeks prior to those changes coming into affect.
 - iv. Ensure that business stakeholder enquiries and complaints regarding the project are managed and resolved effectively.
- c. NWRL Principal Contractors will develop and implement a Business Management Plan (BMP). The Business Management Plan will document key issues by locality with a particular focus on proactive consultation with affected businesses. The Business Management Plan will include:
 - i. Identification of specific businesses which are sensitive to construction activity disturbances.
 - ii. Summary of the commercial character of the locality, its general trading profile (daily and annually) and information gained from the business profiling such as:
 - Operating hours.
 - Main delivery times.
 - Reliance on foot traffic.
 - Any signage or advertising that may be impacted.
 - Customer origin.
 - Other information specific to the business that will need to be considered in construction planning.
 - iii. Define the roles and responsibilities in relation to the control and monitoring of business disturbances.
 - iv. Identification of locality specific standard business mitigation measures which would be implemented.
 - v. Maps and diagrams to illustrate the information for easy identification of measures which would be implemented.
 - vi. Description of the monitoring, auditing and reporting procedures.
 - vii. Procedure for reviewing performance and implementing corrective actions.
 - viii. Description of the complaints handling process.
 - ix. Procedure of community consultation and liaison.

5 General Site Operations

5.1 Working Hours

- a. The majority of the station and above ground construction activities will be undertaken between 7am – 6pm on weekdays and 8am – 1pm on Saturdays.
- b. Some activities will need to be undertaken outside these hours (as identified in **Table 1.5**).
- c. As the TBMs operate continuously, the tunnelling works and associated support activities will be undertaken up to 24 hours per day and seven days per week.

Table 1.5 Proposed Construction Hours

Activity	Construction Hours	Comments or Exceptions
Underground Construction Activities		
Tunnelling works by TBM, roadheader or excavator with rock hammer.	24 hours per day, seven days per week	Some activities that support tunnelling works may need to occur 24 hours per day, up to seven days per week. Rock hammering in the tunnel between 10pm and 7am would be precluded where it may impact on sensitive noise receivers.
Above ground Construction Activities		
Construction Sites	7am–6pm on weekdays	The following activities would be expected to be undertaken 24 hours per day, up to seven days per week where noise impact management measures have been established: <ul style="list-style-type: none">❖ Surface works supporting underground construction (eg concrete pumping, truck loading).❖ Excavation and spoil removal from station entry shafts over two shifts.❖ Norwest Station excavation in order to minimise traffic impacts to Norwest Boulevard. Non-disruptive preparatory work, repairs or maintenance may be carried out on Saturday afternoons between 1pm and 5pm or Sundays between 8am and 5pm. Activities requiring the temporary possession of roads may need to be undertaken outside the assumed hours during periods of low demand to minimise safety impacts and inconvenience to commuters. Activities requiring rail possessions may need to be undertaken outside the standard construction hours up to 24 hours per day, seven days per week.
	8am–1pm on Saturdays	
	No works on Sundays or Public Holidays	

Activity	Construction Hours	Comments or Exceptions
Construction Traffic	24 hours per day, seven days per week	Restrictions would be in place during peak hours and during special events. At locations where sensitive noise receivers are close to construction sites, significant construction vehicle movements are likely to be restricted during evening and night-time periods.

- d. Other works which can be undertaken outside of standard construction hours without any further approval include:
 - i. Works which are determined to comply with the relevant Noise Management Level at the nearest sensitive receiver.
 - ii. Works required to be undertaken during rail possessions.
 - iii. The delivery of materials outside of approved hours as required by the Police or other authorities (including RMS) for safety reasons.
 - iv. Where it is required to avoid the loss of lives, property and / or to prevent environmental harm in an emergency.
 - v. Where written agreement is reached with all affected receivers.
- e. With the exception of emergency and tunnelling works, activities will not take place outside standard hours without prior discussion with and / or notification of local residents, businesses and the OEH / EPA.

5.2 Site Layout

- a. NWRL Principal Contractors will consider the following in the layout of construction sites:
 - i. The location of noise intensive works and 24 hour activities in relation to noise sensitive receivers.
 - ii. The location of site access and egress points in relation to noise and light sensitive receivers, especially for sites proposed to be utilised 24 hours per day.
 - iii. The use of site buildings to shield noisy activities from receivers.
 - iv. The use of noise barriers and / or acoustic sheds where feasible and reasonable for sites proposed to be regularly used outside of daytime hours.
 - v. Aim to minimise the requirement for reversing, especially of heavy vehicles.

5.3 Reinstatement

- a. Mitigation measures for reinstatement will be produced in consultation with TfNSW, the community and stakeholders.
- b. Mitigation measures required for reinstatement will be incorporated into the CEMP and will include as a minimum:
 - i. NWRL Contractors will clear and clean all working areas and accesses at project completion.
 - ii. At the completion of construction all plant, temporary buildings or vehicles not required for the subsequent stage of construction will be removed from the site.
 - iii. All land, including roadways, footpaths, loading facilities or other land having been occupied temporarily will be made good.
 - iv. Reinstatement of community spaces, infrastructure and services will occur as soon as possible after completion of construction.

6 Spoil



Photo courtesy of Roads and Maritime Services.

6.1 Spoil Management Objectives

- a. The following spoil management objectives will apply to the construction of the project:
 - i. The beneficial reuse of spoil from the project will target 100 per cent reuse or recycling (on or off-site) of usable spoil.
 - ii. Spoil will be managed with high consideration to minimising adverse traffic and transport related issues.
 - iii. Potential contamination of land or water from contaminated spoil will be avoided.
 - iv. Spoil will be managed with consideration of the impacts on residents and other sensitive receivers.
 - v. Site contamination will be effectively managed to limit the potential risk to human health and the environment.

6.2 Spoil Management Implementation

- a. NWRL Principal Contractors will develop and implement a Spoil Management Plan for their scope of works. The Spoil Management Plan will include as a minimum:
 - i. The spoil mitigation measures as detailed in the environmental approval documentation.
 - ii. The responsibilities of key project personnel with respect to the implementation of the plan.
 - iii. Spoil management monitoring requirements.
 - iv. Compliance record generation and management.

- b. Spoil management measures will be included in regular inspections undertaken by the Contractor, and compliance records will be retained. These will include:
 - i. Records of inspections in relation to spoil management.
 - ii. Records detailing the beneficial re-use of spoil either within the project or at off site locations.
 - iii. Waste dockets for any spoil disposed of to landfill sites (refer to Section 17.2 for more detail).

6.3 Spoil Mitigation

Examples of spoil mitigation measures include:

- ❖ Implementing the spoil re-use hierarchy.
- ❖ Handling spoil to minimise potential for air or water pollution.
- ❖ Minimise traffic impacts associated with spoil removal.

7 Groundwater

7.1 Groundwater Management Objectives

- a. The following groundwater management objectives will apply to the construction of the project:
 - i. Reduce the potential for drawdown of surrounding groundwater resources.
 - ii. Prevent the pollution of groundwater through appropriate controls.
 - iii. Reduce the potential impacts of groundwater dependant ecosystems.

7.2 Groundwater Management Implementation

- a. NWRL Principal Contractors will develop and implement a Groundwater Management Plan for their scope of works. The Groundwater Management Plan will include as a minimum:
 - i. The groundwater mitigation measures as detailed in the environmental approval documentation.
 - ii. The requirements of any applicable licence conditions. The NSW Office of Water will be consulted during the development of the Groundwater Management Plan in relation to dewatering and licensing arrangements.
 - iii. The responsibilities of key project personnel with respect to the implementation of the plan.
 - iv. Procedures for the treatment, testing and discharge of groundwater from the site.
 - v. A groundwater monitoring plan.
 - vi. Compliance record generation and management.
- b. The Groundwater Monitoring Plan will:
 - i. Outline the parameters to be monitored (field parameters and laboratory parameters) and the sample frequency.
 - ii. Include details of a groundwater monitoring network to monitor groundwater levels and groundwater quality throughout the constriction phase. The groundwater monitoring network will contain monitoring wells along the whole NWRL route intersecting groundwater in both the Ashfield Shale and Hawkesbury Sandstone.
- c. NWRL Contractors will retain compliance records of all groundwater monitoring undertaken.

7.3 Groundwater Mitigation

Examples of groundwater mitigation measures include:

- ❖ Implementing all feasible and reasonable measures to limit groundwater inflows to stations and crossovers.
- ❖ Undertaking groundwater monitoring during construction (levels and quality) in areas identified as ‘likely’ and ‘potential’ groundwater dependant ecosystems.

8 Construction Traffic



Photo courtesy of Roads and Maritime Services.

8.1 Construction Traffic Management Objectives

- a. The following traffic management objectives will apply to the construction of the project:
 - i. Minimise disruptions to pedestrians, cyclists, buses and motorists.
 - ii. Minimise heavy vehicle movements during peak traffic periods.
 - iii. Minimise access disruptions to adjoining properties.
 - iv. Encourage sustainable transport options by site workers.

8.2 Construction Traffic Management Implementation

- a. NWRL Principal Contractors will develop and implement a hierarchy of traffic management documentation including:
 - i. A Construction Traffic Management Plan setting out the overall traffic management resources, processes and procedures for the management of traffic and transport during construction of the Project Works and Temporary Works; and
 - ii. Construction Traffic Control Plans setting out the specific traffic and transport management arrangements to be implemented at specific locations during the construction of the Project Works and Temporary Works
- b. TfNSW and its Contractors will undertake liaison with agencies and the community regarding traffic management. This will involve:
 - i. Establishment of a Traffic and Transport Liaison Group likely to consist of representatives from NWRL Contractors, TfNSW, RMS, NSW Police and bus operators. The group would review Road Occupancy Licence Application to monitor potential cumulative impacts from multiple Road Occupancy Licences operating concurrently in one area.

- ii. Establishment of a Central Project Coordination Committee which will seek to coordinate NWRL works with other major developments. The committee will also take a strategic approach to longer term traffic and transport management and review permanent arrangements including network integration with NWRL facilities.

8.3 Construction Traffic Mitigation

Examples of traffic mitigation measures include:

- ❖ Minimising heavy vehicle movements during peak traffic times.
- ❖ Avoidance of local road for heavy vehicle routes, where feasible.
- ❖ Providing safe pedestrian and cyclist movements around the worksites.

9 Construction Noise and Vibration

9.1 Construction Noise and Vibration Management Objectives

- a. The following noise and vibration management objectives will apply to the construction of the project:
 - i. Minimise unreasonable noise and vibration impacts on residents and businesses.
 - ii. Avoid structural damage to buildings or heritage items as a result of construction vibration.
 - iii. Undertake active community consultation.
 - iv. Maintain positive, cooperative relationships with schools, childcare centres, local residents and building owners.

9.2 Construction Noise and Vibration Management Implementation

- a. NWRL Principal Contractors will develop and implement a Construction Noise and Vibration Management Plan for their scope of works. The Construction Noise and Vibration Management Plan will include as a minimum:
 - i. The noise and vibration mitigation measures as detailed in the environmental approval documentation and the NWRL Construction Noise and Vibration Strategy (CNVS).
 - ii. The requirements of any applicable EPL conditions.
 - iii. Site plans or maps indicating locations of sensitive receivers, and key noise and vibration controls.
 - iv. Pre-construction compliance requirements and hold points.
 - v. The responsibilities of key project personnel with respect to the implementation of the plan.
 - vi. Noise monitoring requirements.
 - vii. Compliance record generation and management.
 - viii. Community consultation requirements.
 - ix. An Out of Hours Works Protocol applicable to all construction methods and sites (refer to the CNVS).
- b. Detailed Construction Noise and Vibration Impact Statements will be prepared for major noise-intensive construction sites and or activities, to ensure the adequacy of the noise and vibration mitigation measures for the actual design and construction methods. Specifically Construction Noise and Vibration Impact Statements will be prepared for:
 - i. The construction activities to be undertaken at each of the major worksites.
 - ii. Tunnelling works.
 - iii. Works proposed to be undertaken outside of standard construction hours.
- a. Noise and vibration monitoring would be undertaken for construction as specified in the CNVS and the EPL.
- b. The following compliance records would be kept by the NWRL Contractor:
 - i. Records of noise and vibration monitoring results against appropriate NMLs and vibration criteria.
 - ii. Records of community enquiries and complaints, and the Contractor's response.

9.3 Construction Noise and Vibration Mitigation

All feasible and reasonable mitigation measures would be implemented in accordance with the CNVS. Examples of noise and vibration mitigation measures include:

- ❖ Construction hours will be in accordance with the working hours specified in section 5.1.
- ❖ Hoarding and enclosures will be implemented where required to minimise airborne noise impacts.
- ❖ The layout of construction sites will aim to minimise airborne noise impacts to surrounding receivers.

10 Heritage



Photo courtesy of Roads and Maritime Services.

10.1 Heritage Management Objectives

- a. The following heritage management objectives will apply to the construction of the project:
 - i. Minimise impacts on items or places of heritage value.
 - ii. Avoid accidental impacts on heritage items.
 - iii. Maximise worker's awareness of indigenous and non-indigenous heritage.

10.2 Heritage Management Implementation

- a. NWRL Principal Contractors will develop and implement a Heritage Management Plan which will include as a minimum:
 - i. The heritage mitigation measures as detailed in the environmental approval documentation.
 - ii. The responsibilities of key project personnel with respect to the implementation of the plan.
 - iii. Procedures for undertaking any recordings of heritage items prior to works commencing.
 - iv. Procedures for unexpected heritage finds.
 - v. Heritage monitoring requirements.
 - vi. Compliance record generation and management.

- b. The Contractor's regular inspection will include checking of heritage mitigation measures.
- c. Compliance records will be retained by the Contractor. These will include:
 - i. Inspections undertaken in relation to heritage management measures.
 - ii. Archival recordings undertaken of any heritage item.
 - iii. Unexpected finds and stop work orders.
 - iv. Records of any impacts avoided or minimised through design or construction methods.

10.3 Heritage Mitigation

Examples of heritage mitigation measures include:

- ❖ Any heritage item not affected by the works will be retained and protected throughout construction.
- ❖ Prior to the commencement of construction undertake professional archaeological excavation, investigation and reporting of any historical Indigenous heritage sites of state significance which will be affected.
- ❖ Undertake archival recordings of all non-Indigenous heritage items affected by the works prior to commencement of works.
- ❖ Implement unexpected heritage find procedures for Indigenous and non-Indigenous heritage items.

11 Flora and Fauna



Photo courtesy of Roads and Maritime Services.

11.1 Flora and Fauna Management Objectives

- a. The following flora and fauna management objectives will apply to the construction of the project:
 - i. Minimise impacts on flora and fauna.
 - ii. Design waterway modifications and crossings to incorporate best practice principles.
 - iii. Retain and enhance existing flora and fauna habitat wherever possible.
 - iv. Appropriately manage the spread of weeds and plant pathogens.

11.2 Flora and Fauna Management Implementation

- a. NWRL Principal Contractors will develop and implement a Flora and Fauna Management Plan which will include as a minimum:
 - i. The ecological mitigation measures as detailed in the environmental approval documentation.
 - ii. The responsibilities of key project personnel with respect to the implementation of the plan.
 - iii. Procedures for the clearing of vegetation.
 - iv. Ecological monitoring requirements.
 - v. Compliance record generation and management.

- b. Vegetation Management Plan(s) will be prepared for sites where vegetation is proposed to be retained and for reaches of riparian zones that intersect with the construction footprint.
- c. NWRL Contractors would undertake the following ecological monitoring as a minimum:
 - i. A pre-clearing inspection will be undertaken prior to any vegetation clearing by a suitable qualified ecologist and the Contractor's Environmental Manager (or delegate). The pre-clearing inspection will include, as a minimum:
 - Identification of hollow bearing trees or other habitat features.
 - Identification of any threatened flora and fauna.
 - A check on the physical demarcation of the limit of clearing.
 - An approved erosion and sediment control plan for the worksite.
 - The completion of any other pre-clearing requirements required by any project approvals, permits or licences.
 - The completion of the pre-clearing inspection will form a HOLD POINT requiring sign-off from the Contractor's Environmental Manager (or delegate) and a qualified ecologist.
 - ii. The Principal Contractor's regular inspections will include a check on the ecological mitigation measures and project boundary fencing.
- d. The following compliance records would be kept by the NWRL Principal Contractor:
 - i. Records of pre-clearing inspections undertaken.
 - ii. Records of the release of the pre-clearing hold point.
 - iii. Records of ecological inspections undertaken.

11.3 Flora and Fauna Mitigation

Examples of flora and fauna mitigation measures include:

- ❖ Areas to be retained and adjacent habitat areas will be fenced off prior to works to prevent damage or accidental over clearing.
- ❖ Clearing will follow a two-stage process as follows:
 - Non-habitat trees will be cleared first after sign-off of the pre-clearing inspection.
 - Habitat trees will be cleared no sooner than 48 hours after non-habitat trees have been cleared. A suitably qualified ecologist will be present on site during the clearing of habitat trees. Felled habitat trees will be left on the ground for 24 hours or inspected by the ecologist prior to further processing.
- ❖ Weed management is to be undertaken in areas affected by construction prior to any clearing works in accordance with the *Noxious Weeds Act 1993*.

12 Visual Amenity



12.1 Visual Amenity Management Objectives

- a. The following visual and landscape management objectives will apply to the construction of the project:
 - i. Minimise impacts on existing landscape features as far as feasible and reasonable.
 - ii. Ensure the successful implementation of the Landscape Design.
 - iii. Reduce visual impact of construction to surrounding community.

12.2 Visual Amenity Management Implementation

- a. NWRL Principal Contractors will implement visual and landscape management as part of the CEMP and sub-plans. As a minimum, the following would be covered:
 - i. The visual mitigation measures as detailed in the environmental approval documentation.
 - ii. The responsibilities of key project personnel with respect visual management.
 - iii. Monitoring requirements.
 - iv. Compliance record generation and management.
- b. Visual and landscape measures will be incorporated into the Principal Contractor’s regular inspections including checking the health of retained vegetation around site boundaries, checking the condition of any site hoarding and acoustic sheds, and checking the position and direction of any sight lighting.
- c. The Contractor will retain compliance records of any inspections undertaken in relation to visual and landscape measures.

12.3 Visual Amenity Mitigation

Examples of visual amenity mitigation measures include:

- ❖ Wherever feasible and reasonable, vegetation around the perimeter of the construction sites will be maintained.
- ❖ Temporary construction works will be designed with consideration of urban design and visual amenity as per Section 4.4.
- ❖ Temporary site lighting, for security purposes or night works will be installed and operated in accordance with AS4282:1997 Control of the Obtrusive Effect of Outdoor Lighting.