# Contents

## Abbreviations

<table>
<thead>
<tr>
<th>Page number</th>
</tr>
</thead>
<tbody>
<tr>
<td>iii</td>
</tr>
</tbody>
</table>

## 1. Introduction

<table>
<thead>
<tr>
<th>Subsection</th>
<th>Page number</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.1 Statement of purpose</td>
<td>1</td>
</tr>
<tr>
<td>1.2 Background</td>
<td>1</td>
</tr>
<tr>
<td>1.3 Statement of position</td>
<td>4</td>
</tr>
<tr>
<td>1.4 Scope of the proposal</td>
<td>4</td>
</tr>
</tbody>
</table>

## 2. Description of the proposed community infrastructure and the site within its context

<table>
<thead>
<tr>
<th>Subsection</th>
<th>Page number</th>
</tr>
</thead>
<tbody>
<tr>
<td>2.1 Description of the proposal</td>
<td>7</td>
</tr>
<tr>
<td>2.2 Description of the site</td>
<td>12</td>
</tr>
<tr>
<td>2.3 Consistency with legislation</td>
<td>18</td>
</tr>
</tbody>
</table>

## 3. Assessment of the environmental effects and ways of managing those effects

<table>
<thead>
<tr>
<th>Subsection</th>
<th>Page number</th>
</tr>
</thead>
<tbody>
<tr>
<td>3.1 Definition of ‘environment’</td>
<td>35</td>
</tr>
<tr>
<td>3.2 The matters listed in Schedule 2 of the Guidelines</td>
<td>35</td>
</tr>
<tr>
<td>3.3 Short-term, long-term and cumulative effects</td>
<td>78</td>
</tr>
</tbody>
</table>

## 4. Identification of matters likely to be of concern to other parties

<table>
<thead>
<tr>
<th>Subsection</th>
<th>Page number</th>
</tr>
</thead>
<tbody>
<tr>
<td>4.1 Matters likely to be of concern to other parties</td>
<td>83</td>
</tr>
<tr>
<td>4.2 Stakeholders</td>
<td>84</td>
</tr>
<tr>
<td>4.3 Stakeholder consultation</td>
<td>85</td>
</tr>
</tbody>
</table>

## 5. Identification of State assessment requirements and applicable Commonwealth legislation

<table>
<thead>
<tr>
<th>Subsection</th>
<th>Page number</th>
</tr>
</thead>
<tbody>
<tr>
<td>5.1 Commonwealth legislation</td>
<td>86</td>
</tr>
<tr>
<td>5.2 State legislation</td>
<td>87</td>
</tr>
<tr>
<td>5.3 Summary</td>
<td>92</td>
</tr>
</tbody>
</table>

## 6. Conclusion

<table>
<thead>
<tr>
<th>Page number</th>
</tr>
</thead>
<tbody>
<tr>
<td>94</td>
</tr>
</tbody>
</table>

## 7. References

<table>
<thead>
<tr>
<th>Page number</th>
</tr>
</thead>
<tbody>
<tr>
<td>95</td>
</tr>
</tbody>
</table>
Contents (Continued)

List of tables

<table>
<thead>
<tr>
<th>Table</th>
<th>Description</th>
<th>Page</th>
</tr>
</thead>
<tbody>
<tr>
<td>Table 2.1</td>
<td>NGR maintenance centre site designation under the Ipswich Planning Scheme</td>
<td>7</td>
</tr>
<tr>
<td>Table 2.2</td>
<td>Percentage of residents by total personal weekly income (%), 2011</td>
<td>11</td>
</tr>
<tr>
<td>Table 2.3</td>
<td>State planning policies relevant to the NGR maintenance centre</td>
<td>26</td>
</tr>
<tr>
<td>Table 2.4</td>
<td>Relevance of SPP 2/12 to the NGR maintenance centre</td>
<td>27</td>
</tr>
<tr>
<td>Table 3.1</td>
<td>Invasive species</td>
<td>45</td>
</tr>
<tr>
<td>Table 3.2</td>
<td>Threatened fauna species</td>
<td>52</td>
</tr>
<tr>
<td>Table 3.3</td>
<td>Threatened flora species</td>
<td>56</td>
</tr>
<tr>
<td>Table 3.4</td>
<td>EPBC Act matters of national environmental significance</td>
<td>57</td>
</tr>
<tr>
<td>Table 3.5</td>
<td>Migratory species</td>
<td>59</td>
</tr>
<tr>
<td>Table 3.6</td>
<td>Traffic demand – background and with the proposed NGR maintenance centre</td>
<td>75</td>
</tr>
<tr>
<td>Table 3.1</td>
<td>MNES potentially located within the NGR maintenance centre site</td>
<td>86</td>
</tr>
<tr>
<td>Table 3.2</td>
<td>Summary Commonwealth and State legislative requirements</td>
<td>92</td>
</tr>
</tbody>
</table>

List of figures

<table>
<thead>
<tr>
<th>Figure</th>
<th>Description</th>
<th>Page</th>
</tr>
</thead>
<tbody>
<tr>
<td>Figure 1.1</td>
<td>CID flow chart</td>
<td>3</td>
</tr>
<tr>
<td>Figure 1.2</td>
<td>NGR maintenance centre site</td>
<td>5</td>
</tr>
<tr>
<td>Figure 2.1</td>
<td>The Leichhardt-One Mile SLA</td>
<td>9</td>
</tr>
<tr>
<td>Figure 2.2</td>
<td>Population by age group and sex, Leichhardt-One Mile SLA and Queensland, 30 June 2011</td>
<td>10</td>
</tr>
<tr>
<td>Figure 2.3</td>
<td>Draft indicative layout of the NGR maintenance centre site</td>
<td>16</td>
</tr>
<tr>
<td>Figure 2.4</td>
<td>Area classifications</td>
<td>19</td>
</tr>
<tr>
<td>Figure 2.5</td>
<td>Overlay 00 – Character Place</td>
<td>20</td>
</tr>
<tr>
<td>Figure 2.6</td>
<td>Overlay 7A – Defence (Area Control) Regulations and Obstruction Clearance Surfaces</td>
<td>21</td>
</tr>
<tr>
<td>Figure 2.7</td>
<td>Overlay 7B – Operational Airspace, Wildlife Attraction and Lighting Issues</td>
<td>22</td>
</tr>
<tr>
<td>Figure 2.8</td>
<td>Overlay 7C – Australian Noise Exposure Forecast Noise Contours</td>
<td>23</td>
</tr>
<tr>
<td>Figure 2.9</td>
<td>Overlay 14 – Rail Corridor Noise Impact Management Overlay</td>
<td>24</td>
</tr>
<tr>
<td>Figure 2.10</td>
<td>Temporary local planning instruments – Flooding and Urban Stormwater Flow Path Areas</td>
<td>25</td>
</tr>
<tr>
<td>Figure 3.1</td>
<td>NGR maintenance centre site vegetation</td>
<td>42</td>
</tr>
<tr>
<td>Figure 3.2</td>
<td>Koala habitat mapping</td>
<td>55</td>
</tr>
<tr>
<td>Figure 3.3</td>
<td>State-controlled roads</td>
<td>77</td>
</tr>
</tbody>
</table>

List of photographs

| Photo 3.1  | Aerial imagery of the NGR maintenance centre site circa 1955            | 40   |

List of appendices

| Appendix A | Certificate of title                                                   |      |
Abbreviations

%  per cent
ABS  Australian Bureau of Statistics
AHD  Australian Height Datum
ANEF  Australian Noise Exposure Forecast
ASS  Acid sulfate soils
CEMP  Construction Environmental Management Plan
CHMP  Cultural heritage management plan
CID  Community infrastructure designation
CID Guidelines  Guidelines about Environmental Assessment and Public Consultation Procedures for Designating Land for Community Infrastructure (Version 1.1)
CLR  Contaminated land register
Connecting SEQ  Connecting SEQ 2031 – An Integrated Transport Plan for South East Queensland
DATSIMA  Department of Aboriginal and Torres Strait Islander and Multicultural Affairs
dBA  A-weighted decibels
DEHP  Department of Environment and Heritage Protection
DERM  Department of Environment and Resource Management
DNRM  Department of Natural Resources and Mines
DoD  Department of Defence
DSDIP  Department of State Development, Infrastructure and Planning
EMR  Environmental management register
EP Act  Environmental Protection Act 1994
EP Regulation  Environmental Protection Regulation 2008
EPBC Act  Environment Protection and Biodiversity Conservation Act 1999
ERA  Environmentally relevant activity
GQAL  Good quality agricultural land
HVR  High value regrowth
IAR  Initial assessment report
ICC     Ipswich City Council
km     kilometre
km²     square kilometre
km/h     kilometre per hour
KRA     Key Resource Area
m     metre
m²     metre square
MNES     Matter of National Environmental Significance
MOU     Memorandum of Understanding
NC Act     Nature Conservation Act 1992
NGR     New Generation Rollingstock
OESR     Office of Economic and Statistical Research
PASS     Potential acid sulfate soils
Planning Scheme     Ipswich Planning Scheme
PPP     Public private partnership
QUU     Queensland Urban Utilities
RAAF     Royal Australian Air Force
RE     Regional ecosystem
SEQ     South East Queensland
SEQ Regional Plan     South East Queensland Regional Plan 2009-2031
SEWPaC     Commonwealth Department of Sustainability, Environment, Water, Populations and Communities
SLA     Statistical local area
SP Act     Sustainable Planning Act 2009
SP Regulation     Sustainable Planning Regulation 2009
SPP     State planning policy
SPRP     State planning regulatory provision
TLPI     Temporary Local Planning Instrument
TMR     Department of Transport and Main Roads
VM Act     Vegetation Management Act 1999
1. Introduction

On behalf of the Queensland Department of Transport and Main Roads (TMR), Parsons Brinckerhoff is undertaking an initial assessment of a new rollingstock maintenance centre for Community Infrastructure Designation (CID) for a site located at Wulkuraka, Queensland, as part of the greater New Generation Rollingstock (NGR) Project.

In accordance with the requirements of the Queensland Sustainable Planning Act 2009 (SP Act), it is proposed to undertake a CID of land within the Ipswich City Council (ICC) local government area. The land proposed to be designated is located at 1 Ada Street (Lot 27 SP136632) and Dixon Street (west) road reserve, Wulkuraka, which is the site of the NGR maintenance centre.

The NGR Project involves the procurement of up to 100, 6-car passenger train sets and establishing and operating a purpose-built maintenance centre for 30 years.

1.1 Statement of purpose

Parsons Brinckerhoff has prepared this initial assessment report (IAR) to present the findings from first-round assessment as a basis for initial public consultation to provide information for the proposed Ministerial designation of the land for community infrastructure for the development of the new rollingstock maintenance centre.

Schedule 2, Part 1 of the Sustainable Planning Regulation 2009 (SP Regulation) prescribes Community infrastructure for transport, including ‘(8) rail transport infrastructure and (13) storage and works depots and similar facilities, including administrative facilities associated with the provision or maintenance of the community infrastructure mentioned in this part’. The proposed NGR maintenance centre will serve as a works depot for the maintenance and repair of new generation rollingstock required as part of a major expansion to the SEQ passenger rail transport network. The proposal is therefore consistent with the definition for Community Infrastructure under the SP Act and the land can be considered for CID.

1.2 Background

The NGR Project has identified a need to significantly increase the size of its passenger rail fleet, in response to a growing demand for passenger rail services in SEQ. The NGR Project will provide up to 100 additional 6-car passenger train sets to replace old rollingstock and expand the existing fleet, as well as establish and maintain a purpose-built maintenance centre.

The NGR Project is being delivered as an availability payment public private partnership (PPP). An availability payment PPP is a popular funding and procurement model used to deliver public infrastructure projects. TMR is delivering the NGR Project in partnership with Projects Queensland, with technical assistance from Queensland Rail.

The NGR Project has identified 1 Ada Street, Wulkuraka (Lot 27 SP136632) and the adjacent Dixon Street (west) road reserve as the preferred site for a new rollingstock maintenance centre to service the NGR Project. The site was chosen after an assessment of 34 potential sites within the greater Brisbane area. Civil, operational and environmental assessments were conducted to determine the suitability of each site.
ICC has granted a preliminary development approval over the NGR maintenance centre site. However, a development permit application would still be required before development could proceed. The development permit would require full details of the proposed development be provided in the application. These details are currently commercial-in-confidence and are dependent on the requirements of the winning PPP proponent. Therefore, TMR are seeking a CID over the NGR maintenance centre site.

1.2.1 Community infrastructure designation requirements

The process for obtaining a CID over a site is set down in the SP Act and the ‘Guidelines about Environmental Assessment and Public Consultation Procedures for Designating Land for Community Infrastructure’ (CID guidelines) prepared in December 2006 by the former Department of Local Government, Planning, Sport and Recreation (now the Department of State Development, Infrastructure and Planning (DSDIP)).

The CID Guidelines describe the six steps of the CID process as consisting of:

- Step 1 – Preparation of the IAR
- Step 2 – Initial consultation with other parties
- Step 3 – Finalisation of IAR for public notification and second consultation with stakeholders
- Step 4 – Public notification and second consultation with other parties
- Step 5 – Preparation of the Final Assessment Report for the Minister
- Step 6 – Forwarding the Final Assessment Report to the Minister to proceed under the IPA.

These steps are shown graphically in the Figure 1.1.
FLOWCHART SUMMARISING STEPS FOR ENVIRONMENTAL ASSESSMENT AND CONSULTATION

Step 1: Initial assessment report
- Description—of site attributes; existing use; adjoining uses; socio-economic characteristics; nature, scale, intensity of each proposed use; location plan; existing transport networks; relevant planning scheme provisions; consistency with SPP and regional plan.
- Assessment and management—of environmental effects including short-, long-term and cumulative, from use and works, on and off-site.
- Identify matters of concern—to other identified parties.
- Identify assessment requirements—under State and Commonwealth legislation.

Step 2: Initial Consultation
- Initial assessment report to—relevant local governments and public sector entities; other parties identified in step 1.
- Submissions—within at least 15 business days.

Step 3: Finalise initial assessment report
- Including—identification of parties consulted; a summary of submissions; account of submissions.

Step 4: Public notification and second consultation
- Notice—in newspaper describing proposal, providing contact and submission details, and advising that the assessment report is available. Copy of notice to land owner and other parties given a report or identified in step 2.
- Submissions—within at least 15 business days.

Step 5: Prepare final assessment report
- Advice—to any public sector entity likely to be affected by changes arising from consultation.
- Incorporation of—any changes arising from consultation; a copy of all submissions; a summary of submissions and account of issues raised; statement of the views of relevant public sector entities and local governments; statement of any matters proposed to be included in the designation under the IPA, s 2.6.4.

Step 6: Forward final assessment report to Minister
- IPA—s 2.6.7 identifies matters for consideration prior to designation; s 2.6.8 states actions if designation is to occur; s 2.6.9 states actions if the decision is not to designate. If proceeding, a summary of submissions and account of issues raised is sent to each principal submitter.

Source: DSDIP 2006, p. 9

Figure 1.1 CID flow chart
1.3 Statement of position

CID is the preferred method of planning approval for the NGR maintenance centre as it is able to preserve the integrity of the PPP process currently being undertaken for the NGR Project. It is anticipated that upon awarding the final contract the successful proponent will commence construction with minimal delay in accordance with the requirements of the CID.

The NGR Project is a direct response to the anticipated growth in passenger rail demands in SEQ. The planned acquisition of new rollingstock is required to meet this forecast demand.

1.4 Scope of the proposal

The proposed NGR maintenance centre is an integral part of the greater NGR Project and is subject to the CID process. It is consistent with local and regional planning outcomes (refer Section 2 of this report) and will benefit the wider community via the provision of improved public transport services in SEQ.

1.4.1 CID Guidelines

This IAR responds to the CID Guidelines and considers all relevant social, cultural, economic and environmental aspects of the areas potentially affected, directly or indirectly, during the planning, construction and operational stages of the NGR maintenance centre. Short-term, long-term and cumulative impacts are considered.

Consultation is being conducted as an integral part of the CID process and is being undertaken in accordance with the CID Guidelines. In addition, opportunities have and will continue to be provided for stakeholders and the interested public to input at each phase of the NGR Project. Consultation is conducted in accordance with TMR’s community engagement policy and guidelines, the requirements set out in the Contract for the NGR Project, and other relevant standards and guidelines.

The level and nature of investigations documented in this IAR have been commensurate with the likely scale and extent of the impacts. That is, some impacts are discussed in greater detail than others and some impacted areas are discussed in greater detail than others, depending on the location and scale of potential impacts.

1.4.2 NGR maintenance centre site

The site where the NGR maintenance centre is proposed comprises Lot 27 on SP136632, a 10.72 hectare parcel of freehold land owned by Queensland Rail (ownership is being transferred to TMR), and Dixon Street (west) road reserve (1.32 hectares). The site is located immediately to the south of the Ipswich-Rosewood rail line corridor near the Wulkuraka train station within the ICC local government area. The site is shown in Figure 1.2.

The primary access point to the NGR maintenance centre is proposed to be via the eastern side of Lot 1 on RP148910. Approximately 0.84 hectares of the 3.24 hectare lot are proposed to be acquired under the Acquisition of Land Act 1967. As such, Lot 1 on RP148910 does not form part of this CID process.
New Generation Rollingstock Maintenance Centre Community Infrastructure Designation
Draft Initial Assessment Report

Figure 1.2

Lot 27 SP136633

Legend

Train station
NGR maintenance centre site
Railway
Main road
Local road
Cadastre
Waterways

Data Source: Street Pro, Pitney Bowes, 2009
Digital Cadastral Database, DEER 2013

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Digital Cadastral Database, DERM 2013

Department of Transport and Main Roads

www.pb.com.au
2. Description of the proposed community infrastructure and the site within its context

In accordance with section 760 of the SP Act, the CID Guidelines specify the IAR include the following:

a) ‘a description of the proposed site, including any special attributes affecting the site that are identified on each relevant planning scheme, or identified in a State planning policy or the SEQ regional plan, if relevant, where not identified as being adequately reflected in the relevant planning scheme

b) a description of each existing use on the site and uses adjoining the site

c) a description of the socio-economic characteristics of the community surrounding the proposed site

d) a description of the nature, scale and intensity of each use proposed as part of the community infrastructure

e) plans of the proposed community infrastructure showing the respective locations of the uses, buildings and other works, including landscaping, parking areas, driveways and access points

f) a description of existing public transport, pedestrian and cycle networks surrounding the site, including the location of bus stops, train stations, pedestrian paths and cycle paths

gh) a summary of the intentions or outcomes sought for use and works on the site and in the surrounding area, in each relevant planning scheme

h) a statement about consistency with any relevant State planning policy or the SEQ regional plan, if relevant, where not identified as being adequately reflected in the relevant planning scheme

i) a statement about consistency with any relevant regional planning framework other than the SEQ regional plan’.

Each of the items listed above are addressed in the following sections. The plans and description of proposed uses and their locations are of a general nature and do not include technical details for construction purposes or details that would pose a security or safety risk, as specified in the CID Guidelines.
2.1 Description of the proposal

The following sections address the requirements for items 1.1 (a), (b) and (c) of the CID Guidelines.

2.1.1 Description of the proposed site

This section addresses the requirements of item 1.1 (a) ‘a description of the proposed site, including any special attributes affecting the site that are identified on each relevant planning scheme, or identified in a State planning policy or the SEQ regional plan, if relevant, where not identified as being adequately reflected in the relevant planning scheme’, as set out in the CID Guidelines.

2.1.1.1 NGR maintenance centre site

The NGR maintenance centre site is located at 1 Ada Street, Wulkuraka within the ICC local government area, approximately 45 kilometres (km) west of Brisbane and 3 km west of Ipswich.

The site is generally flat with a slight rise to the southern boundary. Regrowth vegetation is present in south-western parts of the site. A culvert traverses the western part of Lot 27 on SP136632 managing stormwater flows.

The NGR maintenance centre site is currently undeveloped and used to store railway materials such as ballast. There are no improvements on site with the exception of boundary fences and gates.

The primary access point to the NGR maintenance centre is proposed to be via the eastern side of Lot 1 on RP148910. Approximately 0.84 hectares of the 3.24 hectare lot are proposed to be acquired under the Acquisition of Land Act 1967, for the purpose of access to the NGR maintenance centre site. As such, Lot 1 on RP148910 does not form part of this CID process.

The NGR maintenance centre site is within the ‘Urban Footprint’ as defined in the South East Queensland Regional Plan 2009-2031 (SEQ Regional Plan) (Queensland Government 2009). Overall, the proposed NGR maintenance centre is defined as a ‘Major Utility’ in the Ipswich Planning Scheme (the Planning Scheme) (ICC) 2006) and is consistent with the strategic intent for these zones (refer section 2.3.1). Table 2.1 provides an overview of the current designation of the site.

Table 2.1 NGR maintenance centre site designation under the Ipswich Planning Scheme

<table>
<thead>
<tr>
<th>NGR maintenance centre site</th>
<th>Designation under the Ipswich Planning Scheme</th>
</tr>
</thead>
<tbody>
<tr>
<td>Lot 27 on SP136632</td>
<td>Sub Area SU2 – Railway of the ‘Special Uses Zone’</td>
</tr>
<tr>
<td>Dixon Street (west) road reserve</td>
<td>Sub Area RB1M – Wulkuraka/Karrabin Medium Impact of the ‘Regional Business and Industry Zone’ and Sub Area SU2 – Railway of the ‘Special Uses Zone’.</td>
</tr>
<tr>
<td></td>
<td>In accordance with Part 1, section 1.14, item 1 of the Planning Scheme, the centreline of the road forms the boundary between the two zones.</td>
</tr>
</tbody>
</table>

2.1.2 Description of each existing land use

This section addresses the requirements of item 1.1 (b) ‘a description of each existing use on the site and uses adjoining the site’, as set out in the CID Guidelines. The purpose of this section is to describe existing and future land uses and the existing land tenure of the site and adjoining land.
2.1.2.1 Tenure and ownership

The NGR maintenance centre site comprises Lot 27 on SP136632, a 10.72 hectares parcel of freehold land owned by Queensland Rail (ownership being transferred to TMR), and Dixon Street (west) road reserve (1.32 hectares) extending from the western boundary of Lot 27 on SP136632 to Toongarra Road intersection. It is bound to the north by the Ipswich-Rosewood rail line corridor (Lot 26 on SP136632), to the west and east by road reserve, and to the south by private freehold land.

Lot 27 on SP136632 is freehold land owned by Queensland Rail in Freehold title. There are no easements registered over this title. The property ownership is in the process of being transferred to TMR. A copy of the certificate of title for Lot 27 on SP136632 is enclosed as Appendix A.

The Dixon Street (west) road reserve is a local government road reserve. The relevant local government is ICC.

Access to the NGR maintenance centre is proposed to be via the eastern side of Lot 1 on RP148910. Approximately 0.84 hectares of the 3.24 hectare lot are proposed to be acquired under the Acquisition of Land Act 1967. The property is currently listed as ‘Vacant land – Freehold’ tenure.

2.1.2.2 Existing land uses

As stated in section 2.1.1.1, there are no improvements onsite, with the exception of boundary fences and access gates. Historically the site has been used continuously for rail related activities since the late 1800’s. Current land uses onsite include the storage of rail ballast and other materials ancillary to railway use. Aerial photographs indicate that the site was generally free of vegetation in 1950 with regrowth vegetation emerging around 1970 in western parts of Lot 27 on SP136632 and the Dixon Street (west) road reserve. Today, the existing vegetation within Lot 27 on SP136632 is limited to a small area of regrowth eucalypt woodland in the south-west corner and along the southern boundary. Land on either side of the Dixon Street (west) road reserve is currently overgrown with exotic grasses and weeds, acacias and isolated eucalypt trees.

The NGR maintenance centre site is located on the southern side of the existing Ipswich-Rosewood rail line. The TransLink Wulkuraka train station is immediately to the east of the site within the Ipswich-Rosewood rail line corridor. Lot 25 on SP136632 to the north of the Ipswich-Rosewood rail line corridor is currently owned by Queensland Rail. An electrical feeder is located within this property.

Land uses to the south-west are freehold industrial in nature, including manufacturing and poultry processing.

Based on historical aerial photographs of the site, residential land uses have existed in the area since the 1950s, particularly along Dixon Road (east). These land uses have intensified, with residential development now the dominant land use to the south-east, east and north-east of the site. Vacant land is still available and residential development in the area is expected to continue.

There are no schools, hospitals or aged care facilities located near the site.

The Amberley Royal Australian Air Force (RAAF) base is located approximately 2 km to the south-west of the site.

2.1.3 Description of socio-economic characteristics

This section relates to the requirements of item 1.1 (c) ‘a description of the socio-economic characteristics of the community surrounding the proposed site’, as set out in the CID Guidelines.
2.1.3.1 Social and community assessment

This section provides an overview of the social and demographic profile of the community surrounding the NGR maintenance centre site using data from the suburb of Leichhardt-One Mile, described as a Statistical Local Area (SLA) by the Australian Bureau of Statistics (ABS). Where necessary, data for the ICC local government area and Queensland have been referenced to provide additional context.

Data for this assessment has been sourced from the Office of Economic and Statistical Research (OESR) (Queensland Treasury and Trade 2013). Data prepared by the OESR is based on the ABS 2006 and 2011 Census’ and 2012 preliminary rebasing of population estimates using the ABS 2011 Census.

2.1.3.2 Existing environment

The approximate location of the NGR maintenance centre site within the Leichhardt-One Mile SLA is shown in Figure 2.1.

Figure 2.1 The Leichhardt-One Mile SLA

Wulkuraka is located in the City of Ipswich, South East Queensland (SEQ). European settlement dated from the 1800s, with Ipswich an important river port. Land was used mainly for farming, timber-getting, sugar cane growing, cotton growing and coal mining.

Significant residential development occurred within Ipswich during the post-war years, with aerial photographs indicating that residential and industrial development in areas near the site accelerating in the 1970s and 80s.
2.1.3.3 Demographic characteristics

Population

As at 30 June 2012, the estimated residential population of Leichhardt-One Mile SLA was 7,166 persons. The population of this area increased an average annual growth rate of 2.6 per cent (%) from 2007 to 2012, which is slightly less than the growth rate of the Ipswich LGA over the same period (3.6%).

The population in Leichhardt-One Mile SLA is projected to increase to 9,519 residents by 2031, representing an average annual growth rate of 1.7%. As a comparison, projected growth rates to 2031 in Ipswich and Queensland are 5.0% and 1.8% per annum, respectively.

Age and family characteristics

In 2011, the population within Leichhardt-One Mile SLA was relatively young with a median age of 31 years of age compared to the Ipswich average age of 32 years and a Queensland average age of 36 years. These population characteristics are clearly visible in the population pyramid shown in Figure 2.2.


In 2011, the family type with the largest number of families was couple families with children, which made up 38% of all families within the Leichhardt-One Mile SLA. In comparison, couple families with children accounted for 46% and 43% of all families in Ipswich and Queensland respectively.

There are a proportionately higher number of one-parent families in the Leichhardt-One Mile SLA, with this family type accounting for almost 30% of family groups, compared to the Ipswich average of 19.9% and a Queensland average of 16.1%.
2.1.3.4 Socio-economic characteristics

Educational achievement

In 2011, Leichhardt-One Mile SLA had 42% of residents (aged over 15 and no longer attending school) whose highest level of schooling was Years 11 or 12. This is lower than the corresponding figures for Ipswich (51%) and Queensland (55%) respectively.

The number of Leichhardt-One Mile SLA residents with a post-school qualification (i.e. Bachelor degree or higher, advanced diploma or diploma, or certificate) is also relatively low at 44%, compared to 49% for Ipswich and 54% for Queensland.

Employment and income

The largest occupation group of employment for Leichhardt-One Mile SLA were Labourers with 17.3% of the labour force. Other large occupation groups include Technicians and trades workers (15.9%) and Community and personal service workers (14.6%).

The ABS 2011 Census included the calculation of a ‘specialisation ratio’ which measures the representation of an occupation group’s share within a particular SLA relative to Queensland’s occupation group share. Within the Leichhardt-One Mile SLA the highest specialisation ratios occurred in the occupation groups of Labourers and Machinery operators and drivers.

Total personal weekly income is comparatively low within the Leichhardt-One Mile SLA, as illustrated in Table 2.2. The Ipswich LGA and Queensland figures are provided as comparisons.

Table 2.2 Percentage of residents by total personal weekly income (%), 2011

<table>
<thead>
<tr>
<th></th>
<th>Less than $400</th>
<th>$400 to $999</th>
<th>$1,000 to $1,999</th>
<th>$2,000 or more</th>
</tr>
</thead>
<tbody>
<tr>
<td>Leichhardt-One Mile SLA</td>
<td>40</td>
<td>36</td>
<td>15</td>
<td>1</td>
</tr>
<tr>
<td>Ipswich LGA</td>
<td>35</td>
<td>34</td>
<td>21</td>
<td>3</td>
</tr>
<tr>
<td>Queensland</td>
<td>35</td>
<td>32</td>
<td>20</td>
<td>6</td>
</tr>
</tbody>
</table>


Unemployment

The December quarter 2012 unemployment rate for Leichhardt-One Mile SLA was relatively high at 8.5%, compared to the Ipswich and Queensland rates of 5.6% and 5.8% respectively.

2.1.3.5 Future demographic characteristics

Strategic planning documents such as the SEQ Regional Plan (Queensland Government 2009) and the Ipswich Planning Scheme (ICC 2006) were reviewed to provide an indication of anticipated future land uses in the general vicinity of the NGR maintenance centre site. Zoning maps within the Planning Scheme provide an indication of future land uses.

Land is generally zoned for residential land uses in areas to the south-east, east and north-east of the site. Residential development in these areas is expected to intensify over time. Smaller scale ‘in-fill’ residential development is also likely to occur in these areas.

Future residential development includes the ‘Essington Rise’ estate located on the corner of Jane and Aspinall streets immediately to the south of the site. AV Jennings is marketing ‘house and land’ packages within this estate, which comprises residences ranging in size from 300 to 800 square metres (km²).
Existing industrial land uses to the south and south-west of the site are expected to intensify over time as these areas are zoned as ‘Regional Business and Industry’ (low and medium impact). The Planning Scheme (ICC 2006) indicates that suitable land uses in these areas may include transport orientated activities such as warehousing, distribution, transport and wholesaling.

The RAAF base at Amberley is a major employment generator in the region. The SEQ Regional Plan (Queensland Government 2009) identifies opportunities to expand its role to provide more employment.

2.2 Description of the site

The following sections address the requirements of item 1.1 (d), (e) and (f) of the CID Guidelines.

2.2.1 Description of the nature, scale and intensity of each use

This section addresses the requirements of item 1.1 (d) ‘a description of the nature, scale and intensity of each use proposed as part of the community infrastructure’, as set out in the CID Guidelines.

A significant expansion of the Queensland Rail passenger rail fleet means that additional maintenance facilities are required. The NGR Project has identified the NGR maintenance centre site at Wulkuraka as the preferred site for a new maintenance centre to service the new generation rolling stock.

ICC granted a preliminary development approval in November 2011 for the proposed development of a new maintenance centre on Queensland Rail owned land at Lot 27 on SP136632, 1 Ada Street, Wulkuraka.

Proposals were lodged by three proponents in July 2011 in response to the NGR Project’s Request for Proposal issued in December 2010. The procurement phase is now in the final negotiation stage with a contract expected to be awarded to one of two shortlisted proponents in July 2013.

Details surrounding final design are commercial-in-confidence and are dependent on the requirements of the winning proponent. Therefore, this section has been based upon the generic information available to each of the proponents as part of the Request for Proposal.

2.2.1.1 Nature, scale and intensity: Access

Primary access to the NGR maintenance centre site is proposed to be via the eastern side of Lot 1 on RP148910. Approximately 0.84 hectares of the 3.24 hectare lot are proposed to be acquired under the Acquisition of Land Act 1967. As such, Lot 1 on RP148910 does not form part of this CID process.

Secondary access to the site will be via Dixon Street (east), at the eastern boundary of Lot 27 on SP136632.

2.2.1.2 Nature, scale and intensity: NGR maintenance centre

The proposed NGR maintenance centre will be wholly accommodated within Lot 27 on SP136632 and will be the major use of the land to be designated for community infrastructure. The NGR maintenance centre will operate and maintain trains over at least a 25 year period with a permanent work force in the vicinity of up to 200 staff. The proposed NGR maintenance centre will have capacity to operate 24 hours, seven days a week if required.

Key components of the proposed NGR maintenance centre will include, but is not limited to, the following:

- Utility services.
- Site trackwork including holding roads, handover roads and maintenance roads.
- Signalling and yard control.
Overhead traction line equipment.
Decant location.
Maintenance building.
Underfloor wheel lathe building.
Train cleaning facility.
Storage area(s).
Administration office with training/meeting rooms and amenities areas.
Car parking, roadways and pedestrian walkways.
Fencing, lighting and security.
Landscaping.
Temporary on-site office during construction.
Permanent on-site State and Operator office areas.

The components will be developed in accordance with any requirements specified in the Contract. These are further described in the following sections and a draft indicative layout of the key components is shown in Figure 2.3.

Utility services

The utility services will include electricity reticulation, water supply, fire hydrant coverage, stormwater drainage and other services required for the proposed NGR maintenance centre.

Site trackwork

Site trackwork will be undertaken in accordance with MD-10-575 Civil Engineering Track Standards and cater for all operating conditions, including the handover roads, holding roads and maintenance roads.

Signalling and yard control

All signalling equipment and track circuits for the proposed NGR maintenance centre will be in accordance with:

- MD-10-109 Observance of Signals Manual
- MD-10-161 Civil – Fencing and Signage of the Right of Way and Electrification Infrastructure
- MD-10-95 Signalling Positioning Principles
- MD-10-145 Safeworking Principles.

Overhead traction line equipment

The overhead traction line equipment will consist of mast foundations, overhead wires, suspension system and insulators, controls and switchgear to provide electrical power to trains; and will be designed, constructed and operated in accordance with MD-10-191 Electric Traction Systems Standard.

Decant location

The centre will comprise a location for the emptying of effluent from the multiple units. Effluents will be transported to a local reticulated sewer system.
Maintenance building

The maintenance building accommodates the majority of the repair and maintenance work and forms the integral component of the centre. The maintenance building will be approximately 170 m in length and generally rectangular in shape. It will hold 6-car rollingstock (train set) for maintenance and testing with additional room for staff to access the train set at either end. Additional space will be provided outside the shed to accommodate stabling of additional train sets to prevent trains backing up onto the rail corridor.

Underfloor wheel lathe building

Staff will re-profile and shape wheels for the rollingstock. This process is required when a train’s wheels reach certain wear limits and the treads either have to be re-profiled to the correct shape or the wheels replaced. This building will preferably be designed so as the wheels can be re-profiled whilst still on the train, as this is the most efficient process.

The underfloor wheel lathe facility will include all necessary clamping equipment for the multiple units, site trackwork to move all multiple units through it, and a system for gathering and disposing of all contaminants from the centre. The facility may be provided within or independent of the maintenance centre building.

Train cleaning facility

This building accommodates train cleaning facilities including:

- an under-train cleaning location with high pressure hot water jets at the bottom so that train undercarriages can be washed efficiently
- graffiti cleaning location that accesses both sides of multiple units
- interior cleaning location
- a cab external cleaning location to allow external cleaning of cab fronts.

Proper drainage facilities will be provided with wastewater management systems including collection and hazardous waste separation (including oil separation) and appropriate storm water exclusion.

Storage area(s)

This area provides for the storage of tools, parts and other materials and goods required for the maintenance and repair of the rollingstock. A hardstand area will be provided for storage of larger parts and equipment or as a laydown area. Appropriate facilities and infrastructure will be provided for safe storage of chemicals and hazardous materials required for the proposed NGR maintenance centre, as well as contaminant containment systems, and management of trade wastes.

Administration office

The administration building will include the site manager’s office and staff facilities such as lockers, showers, toilets, lunchroom facilities, and potentially training and meeting rooms. The building will conform to Australian Standards AS 1428 Part 2 Enhanced and Additional Requirements – Buildings and Facilities.

Car parking, vehicle and pedestrian access

The primary access to the site is proposed to be via the eastern side of Lot 1 on RP148910. Approximately 0.84 hectares of the 3.24 hectare lot are proposed to be acquired under the Acquisition of Land Act 1967 for access to the site. The access point then connects to part of the Dixon Street (west) road reserve.
Two access points will satisfy emergency access requirements. Access will be controlled via a security gate. Internal access will be via sealed roadways. Car parking will consist of a sealed car park capability of accommodating car numbers sufficient for planned staff and visitor levels, and include kerbing, gutters, line-marked parking spaces, lighting and drainage. It will be designed to comply with the requirements of people with disabilities and conform with AS 1428 Part 2 Enhanced and Additional Requirements – Building and Facilities.

The roads will be developed in accordance with Council standards for an industrial access street and any additional requirements specified in the Contract. All access and parking will be designed in accordance with the provisions of the Ipswich Planning Scheme (ICC 2006) Parking code and Australian Standards (2890 series).

Pedestrian access will comprise sealed, illuminated pedestrian walkways to link all areas where personnel or visitors are likely to gain access, such as the underfloor wheel lathe facility and under train cleaning facility.

Fencing, lighting and security

The proposed NGR maintenance centre will include fencing, lighting and security comprised of high quality CCTV, outdoor and interior lighting, and alarms for external doors, entry points and other openings.

Landscaping

A detailed landscape plan will be prepared for the NGR maintenance centre site that will include local native trees and shrubs. Consideration will be given to using drought tolerant species, ICC’s Vegetation Communities Rehabilitation Guide, and street trees will be selected in accordance with ICC’s street tree strategy. Environmental weeds will also be managed.
Figure 2.3 Draft indicative layout of the NGR maintenance centre

Legend
- Train station
- NGR maintenance centre site

Primary Access Point
Secondary Access Point

Legend:
- Train station
- NGR maintenance centre site

Draft indicative layout of the NGR maintenance centre

New Generation Rollingstock Maintenance Centre Community Infrastructure Designation
Draft Initial Assessment Report

Figure 2.3

Draft indicative layout of the NGR maintenance centre
2.2.2 Plans of the proposed community infrastructure

As stated in Section 2.2.1, details surrounding final design are commercial-in-confidence and are dependent on the requirements of the winning proponent. Figure 2.3 provides an indicative layout for the proposed rollingstock maintenance centre.

2.2.3 Existing public transport network

This section addresses the requirements of item 1.1 (f) ‘a description of existing public transport, pedestrian and cycle networks surrounding the site, including the location of bus stops, train stations, pedestrian paths and cycle paths’.

2.2.3.1 Existing public transport, pedestrian and cycle networks surrounding the site

Existing public transport network

The NGR maintenance centre site is located adjacent to the Wulkuraka train station on the Ipswich-Rosewood rail line on the TransLink network. There are approximately eighteen services between Ipswich and Rosewood via Wulkuraka per weekday. Six morning services travel directly through to Brisbane and on to Caboolture and two evening services travel directly from Brisbane to Rosewood (via Wulkuraka). Services are less frequent at weekends and public holidays. The service between Wulkuraka and Ipswich takes approximately five minutes.

There is no formal TransLink park n’ ride or connecting bus services for Wulkuraka train station.

TransLink bus service 506 travels between Toongarra Road, Wulkuraka and Ipswich. Services are available half hourly with the trip taking approximately 15 minutes. The terminus for this service is on Toongarra Road at May Street and the nearest stop is approximately 800 m south of the site at Flinders Drive, near Wills Street.

There are no long distance or interstate train services available at Ipswich station. All Queensland Rail services are accessed from Brisbane (Central or Roma Street stations). Long distance bus services (Greyhound) travel throughout Queensland with services to Toowoomba, Mount Isa and Charleville accessible from Ipswich.

The nearest airport is the Brisbane International and Domestic Airport, which is approximately 50 km to the north-east.

Existing pedestrian and cycle networks

Pedestrian and cycle networks are generally on-road some footpaths provided, limited only to one side of the road corridor.

Access across the Ipswich-Rosewood rail line corridor is at-grade via Wulkuraka train station. The rail corridor is elevated above the road at Dixon Street/Grace Street, with unformed pedestrian access available on the western side.

ICC has a number of initiatives to promote walking and cycling in the city, including mapped ‘walk friendly’ routes and recreational bike trails. None of these routes or trails is within Wulkuraka.
2.3 Consistency with legislation

The following sections address the requirements of item 1.1 (g), (h) and (i) of the CID Guidelines, as outlined in Section 2 of this report.

2.3.1 Intentions or outcomes sought for use and works on the site and in the surrounding area, in the relevant Planning Scheme

This section addressed the requirements of item 1.1 (g) ‘a summary of the intentions or outcomes sought for use and works on the site and in the surrounding area, in each relevant planning scheme’, as set out in the CID Guidelines.

2.3.1.1 The Planning Scheme

The NGR maintenance centre site is within the jurisdiction of ICC and the relevant Planning Scheme is the Ipswich Planning Scheme (ICC 2006) which took effect in January 2006.

2.3.1.2 Use definition

Schedule 1 of the Planning Scheme (ICC 2006) provides definitions for development. Development of the subject site for railway is defined ‘Major Utility’ which is:

‘...the use of premises for a major utility relating to refuse disposal or processing of water supply, sewerage, electricity, gas, telecommunications, transport, drainage and other like services’.

2.3.1.3 Land use designation

The NGR maintenance centre site is included in the following area classifications (i.e. zones) under the Planning Scheme (ICC 2006) (refer Figure 2.4):

- Lot 27 on SP136632 is included in the Sub Area SU2 – Railway of the ‘Special Uses Zone’.
- The Dixon Street (west) local government road reserve is not included within a specific zone, but land adjoining the western side of the road reserve is included in the Sub Area RB1M – Wulkuraka/Karrabin Medium Impact of the ‘Regional Business and Industry Zone’ and land to the eastern side is within the Sub Area SU2 – Railway of the ‘Special Uses Zone’ under the Ipswich Planning Scheme (ICC 2006). In accordance with Part 1, Section 1.14, item 1 of the Planning Scheme, the centreline of the road forms the boundary between the two zones.
Figure 2.4  Area classifications

The overall outcomes sought for the Special Uses Zone are to cater for works on land used, owned or operated by Federal, State or Local Government for purposes such as municipal services, public utilities, schools, transport networks and community services. Uses and works which by virtue of the location, intensity, combination of uses, operations and/or site characteristics are best managed in a use-specific designation. Additionally 'railways' are identified in the Planning Scheme (ICC 2006) a consistent land use within Sub Area SU2.

The overall outcomes sought for the Regional Business and Industry Zone include the establishment of uses that support the ICC business and industry strategy. Specifically, Sub Area RB1M (Wulkuraka/Karrabin) is located in close proximity to potential and existing air, road and rail transport and provides a particular opportunity for the development of transport orientated activities such as warehousing, distribution, transport and wholesaling.

Surrounding land uses include a mix of residential and industrial uses. To the east of the site, land is predominantly designated for residential uses and is included in the Residential Low Density Zone. To the north, the site adjoins a railway corridor. Further north, land is included in the Large Lot Residential Zone and Rural (Rural Living) Zone. Adjoining land south of the site is included within the Regional Business Zone, Low Impact Sub Area. Industrial uses intensify to the south-west of the site, with the land being designated as Regional Business Zone, Medium Impact Sub Area.
2.3.1.4 Overlay mapping

Overlay Map 00 Character Place

Lot 27 on SP136632 is identified within the Planning Scheme (ICC 2006) as a ‘place of interest’ for ‘railway sidings’ (refer Figure 2.5). This listing relates to the unused railway sidings within the site consistent with the historic uses within the site. The Planning Scheme encourages the conservation of ‘Identified places of Interest’ but does not mandate their conservation or retention ‘in situ’.

The NGR maintenance centre site is not listed as a heritage place under State or Commonwealth legislation.

![Overlay Map 00 Character Place](image)

Figure 2.5 Overlay 00 – Character Place

It is proposed that the unused railway sidings will be removed in order to accommodate the proposed NGR maintenance centre. The removal of the railway sidings is considered appropriate as the site will remain in use for railway activities, albeit at a higher intensity.

Additionally, two cultural heritage assessments (prepared by Turnstone Archaeology and Jagera Daran Pty Ltd) have been previously prepared for the NGR maintenance centre site. The investigations identified a number of items of Indigenous cultural heritage significance within the site.

The relevant Aboriginal parties have been previously consulted and have expressed no objection to the proposed NGR maintenance centre proceeding. However, further consultation with the relevant Aboriginal parties will be undertaken in parallel with this CID process for the proposed NGR maintenance centre.

The NGR maintenance centre will comply with the Cultural Heritage Duty of Care Guidelines under the *Aboriginal Cultural Heritage Act 2003.*
Overlay Map 7A Defence (Area Control) Regulations and Obstruction Clearance Surfaces

The NGR maintenance centre site is entirely within the 15 m building height restriction area and obstruction clearance surfaces associated with the Amberley RAAF base, as shown in Figure 2.6.

Buildings associated with the proposed NGR maintenance centre will not exceed 15 m in height and will not create any vertical obstruction to aircraft from the Amberley RAAF base. Additionally, as the maintenance and repair of the trains will be undertaken within covered areas the proposed NGR maintenance centre will not create any airborne particulates that may impact upon flying conditions, visibility or aircraft operations.

Overlay Map 7B – Operational Airspace, Wildlife Attraction and Lighting Issues

The NGR maintenance centre site is within the 3 km Operational Airspace – Wildlife Attraction Restriction Area associated with the Amberley RAAF base (refer Figure 2.7).
The quantities of waste generated by the NGR maintenance centre are unknown. However, appropriate measures will be undertaken to ensure that waste does not affect health and safety or amenity of nearby users or create an attraction for wildlife (refer Section 3.2.8.9).

Lighting provided as part of the proposed NGR maintenance centre will be in accordance with relevant Australian standards (refer Section 3.3.4).

Overlay Map 7C – 2006 Australian Noise Exposure Forecast Contours

The NGR maintenance centre site is within the 20 – 25 Australian Noise Exposure Forecast (ANEF) Contour associated with the Amberley RAAF base (refer Figure 2.8).
The proposed NGR maintenance centre is not a noise sensitive land use and therefore does not require noise mitigation measures to be incorporated into the design.

Overlay Map 14 – Rail Corridor Noise Impact Management Area Overlay

The NGR maintenance centre site is partially within the Rail Corridor Noise Impact Management Area, as shown in Figure 2.9.
The proposed NGR maintenance centre is not a noise sensitive land use and as such does not require protection from noise associated with the rail corridor.

2.3.1.5 Temporary local planning instruments

Temporary Local Planning Instrument 01/13: Flooding Regulation

In response to the 2011 flood events, ICC issued Temporary Local Planning Instrument (TLPI) 01/12: Flooding Regulation (TLPI 01/12). TLPI 01/12 has now lapsed and has been replaced with TLPI 01/2013, which is effective from June 20, 2013.

Mapping was also revised and is presented as an overlay map within the Planning Scheme (ICC 2006). Urban stormwater flow paths and adopted flood regulation line extend into areas surrounding the NGR maintenance centre site, but do not extend into the site (refer Figure 2.10). The site is unaffected by TLPI 01/13.
2.3.1.6 Level of assessment

Under the Planning Scheme (ICC 2006), the proposed NGR maintenance centre would be code assessable development within Special Uses Zone and the Regional Business and Industry Zone.

The effect of CID is that the use of the site for the proposed NGR maintenance centre (designated community infrastructure) will be exempt from assessment under the Planning Scheme.

2.3.1.7 Consistency with the Planning Scheme

The proposed NGR maintenance centre will create a maintenance centre for the NGR planned to be acquired as part of essential upgrades and expansions to the Queensland Rail passenger rail fleet. The proposed NGR maintenance centre as a ‘Major Utility’ is consistent with the intent of both the Special Uses Zone (Sub Area SU2), which caters for works for purposes including transport networks and railways, and the Regional Business and Industry Zone (Sub Area RB1M (Wulkuraka/Karrabin) which provides opportunities for the development of transport oriented activities to take advantage of the proximity to existing transport networks (including rail).
2.3.2 Consistency with relevant State Planning Policies not identified as being adequately reflected in the relevant Planning Scheme

This section addresses the requirements of item 1.1 (h) ‘a statement about consistency with any relevant State planning policy or the SEQ regional plan, if relevant, where not identified as being adequately reflected in the relevant planning scheme’, as set out in the CID Guidelines.

State planning policies (SPPs) are statutory planning instruments that relate to matters of Queensland state interest. The policies are reflected within overlay mapping, statutory provisions and policies contained within local government planning schemes.

When a local council is developing their local planning scheme they must ensure that the planning scheme reflects the elements outlined in a SPP. If there is a discrepancy between a local planning scheme and a SPP, then what is outlined in the SPP overrides the planning scheme.

Table 2.3 identifies the SPPs that are relevant to the NGR maintenance centre. The relevance of each SPP to the NGR maintenance centre is discussed in the following sections.

Table 2.3 State planning policies relevant to the NGR maintenance centre

<table>
<thead>
<tr>
<th>Policy number</th>
<th>Current state planning policy</th>
<th>Relevant to site</th>
</tr>
</thead>
<tbody>
<tr>
<td>Temporary SPP 2/12</td>
<td>Planning for Prosperity</td>
<td>No</td>
</tr>
<tr>
<td>SPP 1/12</td>
<td>Protection of Queensland's Strategic Cropping Land</td>
<td>No</td>
</tr>
<tr>
<td>SPP 4/11</td>
<td>Protecting wetlands of high ecological significance in Great Barrier Reef catchments</td>
<td>No</td>
</tr>
<tr>
<td>SPP 5/10</td>
<td>Air, Noise and Hazardous Materials</td>
<td>No</td>
</tr>
<tr>
<td>SPP 4/10</td>
<td>Healthy Waters</td>
<td>Yes</td>
</tr>
<tr>
<td>SPP 3/10</td>
<td>Acceleration of compliance assessment</td>
<td>No</td>
</tr>
<tr>
<td>SPP 2/10</td>
<td>South East Queensland Koala Conservation</td>
<td>Yes</td>
</tr>
<tr>
<td>SPP 2/07</td>
<td>Protection of Extractive Resources</td>
<td>No</td>
</tr>
<tr>
<td>SPP 1/07</td>
<td>Housing and Residential Development</td>
<td>No</td>
</tr>
<tr>
<td>SPP 1/03</td>
<td>Mitigating the Adverse Impacts of Flood, Bushfire and Landslide</td>
<td>Yes</td>
</tr>
<tr>
<td>SPP 2/02</td>
<td>Planning and Managing Development Involving Acid Sulfate Soils</td>
<td>No</td>
</tr>
<tr>
<td>SPP 1/02</td>
<td>Development in the Vicinity of Certain Airport and Aviation Facilities</td>
<td>Yes</td>
</tr>
</tbody>
</table>

2.3.2.1 Temporary SPP 2/12: Planning for Prosperity

Temporary SPP 2/12 commenced on 24 August 2012 and is due to expire 12 months from this date. Its purpose is to ensure that economic growth is facilitated by local and state plans and is not adversely affected by planning processes. Policies outlined in the temporary SPP are required to be considered when decisions are made in relation to designation of land for community infrastructure.

The temporary SPP outlines 16 policies of State interest. These policies and how they have been taken into account are outlined in Table 2.4.
<table>
<thead>
<tr>
<th>Policy</th>
<th>Relevance to NGR maintenance centre</th>
</tr>
</thead>
</table>
| 1. Remove regulatory barriers which impede the development of the following in appropriately zoned or suitable locations:  
  - agriculture  
  - tourism projects  
  - mining and extractive resource industries  
  - residential, commercial and industrial activities. | The NGR maintenance centre and operations will include industrial activities. The site is appropriately zoned and in a suitable location.  
   The NGR maintenance centre is consistent with the intent of Policy 1. |
| 2. Protect good quality agricultural land (GQAL) from incompatible development - such as residential (including rural residential), commercial and industrial uses - in Rural zoned areas. | The NGR maintenance centre will not impact GQAL or SCL.  
   Policy 2 is not relevant to the NGR maintenance centre. |
| 3. Identify and provide for the infrastructure and services necessary to support a viable and resilient agricultural economy. | The NGR maintenance centre does not involve the provision of infrastructure or services for the agriculture industry.  
   Policy 3 is not relevant to the NGR maintenance centre. |
| 4. Provide specific appropriate locations for the conduct of agricultural activities with significant impacts (for example, intensive animal husbandry and intensive horticulture). | The NGR maintenance centre does not involve agricultural activities.  
   Policy 4 is not relevant to the NGR maintenance centre. |
| 5. Protect existing and appropriate tourism development. | The NGR maintenance centre does not impact on existing tourism or future tourism development in the locality.  
   Policy 5 is not relevant to the NGR maintenance centre. |
| 6. Identify opportunities for the expansion of existing tourism development. | The NGR maintenance centre does not preclude the development of tourism development opportunities in the locality.  
   Policy 6 is not relevant to the NGR maintenance centre. |
| 7. Identify localities or areas appropriate for tourism development, and protect these areas from incompatible development. | The NGR maintenance centre does not impact on existing tourism development or potential tourism development in the locality.  
   Policy 7 is not relevant to the NGR maintenance centre. |
| 8. Provide for the infrastructure and services necessary to support both existing tourism and identified tourism opportunities. | The NGR maintenance centre will provide new generation rollingstock required as part of the greater NGR Project, which will result in a significant expansion of the Queensland Rail passenger fleet.  
   As such, the NGR maintenance centre will via the greater NGR Project support both existing tourism and identified tourism opportunities as it is integral in facilitating a higher level of public transport service in SEQ.  
   The NGR maintenance centre is consistent with the intent of Policy 8. |
| 9. Identify known mineral, petroleum, gas, hard-rock and geothermal reserves, and protect these reserves from incompatible development. | The NGR maintenance centre will not impact upon known mineral, petroleum or gas reserves.  
   The NGR maintenance centre is consistent with the intent of Policy 9. |
| 10. Seek to avoid conflicts between potential development of known mineral, petroleum, gas and geothermal reserves and other incompatible land uses, including by the allocation of new areas for urban development away from known reserves. | The NGR maintenance centre is not urban development or of a mining or extractive resource nature.  
   Policy 10 is not relevant to the NGR maintenance centre. |
<table>
<thead>
<tr>
<th>Policy</th>
<th>Relevance to NGR maintenance centre</th>
</tr>
</thead>
<tbody>
<tr>
<td>11. Provide for development directly supporting the resources industry, such as supporting infrastructure, housing, transportation networks, downstream processing and port facilities.</td>
<td>Although the NGR maintenance centre supports via the NGR Project transportation networks in the form of passenger rail services in SEQ, the centre is not specifically intended to support the resources industry. Policy 11 is not relevant to the NGR maintenance centre.</td>
</tr>
<tr>
<td>12. Facilitate development that supports the efficient extraction of known resource deposits, including by the allocation of sufficient land to support housing, community facilities and amenities for mining workforces.</td>
<td>The NGR maintenance centre will not compromise the efficient extraction of known resource deposits. Policy 12 is not relevant to the NGR maintenance centre.</td>
</tr>
<tr>
<td>13. Facilitate supporting infrastructure, and industrial and commercial activities.</td>
<td>The NGR maintenance centre is infrastructure that will support the long-term economic prosperity of Queensland through ensuring a reliable passenger rail service in SEQ is available. This in turn will facilitate industrial and commercial activities by improving accessibility via public transport. The NGR maintenance centre is consistent with the intent of Policy 13.</td>
</tr>
<tr>
<td>14. Identify and provide for the infrastructure and services necessary to support existing and planned urban areas.</td>
<td>The NGR maintenance centre will provide new generation rollingstock required as part of the greater NGR Project, which will result in a significant expansion of the Queensland Rail passenger fleet. As such, the NGR maintenance centre will support existing and planned urban areas throughout SEQ. The NGR maintenance centre is consistent with the intent of Policy 14.</td>
</tr>
<tr>
<td>15. Amend planning regulations that add unnecessary costs to development.</td>
<td>Policy 15 does not apply as the NGR maintenance centre does not involve planning scheme reform.</td>
</tr>
<tr>
<td>16. Provide an efficient and effective performance-based development assessment process, that: • maximises community engagement and consultation activities at the plan making stage • maximises the use of exempt development, self- • standardises development assessment codes, processes and requirements for common land uses and development types across the state • removes unnecessary costs on development by: † eliminating the ‘gold plating’ of infrastructure † accepting staged infrastructure † using other innovative infrastructure solutions.</td>
<td>Policy 16 does not apply as the NGR maintenance centre does not involve planning scheme reform.</td>
</tr>
</tbody>
</table>

Source: DSDIP 2012
2.3.2.2 SPP 1/12: Protection of Queensland’s Strategic Cropping Land

SPP 1/12: Protection of Queensland’s strategic cropping land (SPP 1/12) is part of the overall legislative and planning framework, established under the Strategic Cropping Land Act 2011 to protect Strategic Cropping Land (SCL) from development that lead to permanent impacts or diminished productivity.

The NGR maintenance centre site does not include any areas identified as Strategic Cropping Land or Potential Strategic Cropping Land. Therefore, SPP 1/12 is not relevant to the NGR maintenance centre.

2.3.2.3 SPP 4/11: Protecting wetlands of high ecological significance in Great Barrier Reef catchments

SPP 4/11 seeks to ensure that development in or adjacent to wetlands of high ecological significance in Great Barrier Reef catchments is planned, designed, constructed and operated to prevent the loss or degradation of wetlands and their values or enhances these values.

This SPP is not relevant to the NGR maintenance centre because it is not located within a Great Barrier Reef wetland protection area as defined in the SPP.

2.3.2.4 SPP 5/10: Air, Noise and hazardous materials

SPP 5/10 commenced in May 2011 and was created to provide a more strategic focus on the location of industrial land uses. It provides strategic direction regarding the location of industrial land to protect communities and individuals from the impacts of air, noise and odour emissions and the impacts from hazardous materials, and how land for industrial land uses will be protected from unreasonable encroachment by incompatible land uses.

The primary focus of SPP 5/10 is to provide direction for the preparation and amendment of local planning instruments, structure plans and master plans. It also applies when lodging a development application for a sensitive use within a ‘management area’.

The western part of the NGR maintenance centre site is within the Wulkuraka Management Area, as defined in SPP 5/10. However, the proposed NGR maintenance centre is not a ‘sensitive use’ as defined in the Queensland Planning Provisions. Therefore the provisions of SPP 5/10 do not apply to the proposed NGR maintenance centre or this CID process.

However, the proposed NGR maintenance centre will be developed in accordance with the Queensland Government’s Code of Practice Railway Noise Management (EMS-STD-46-004) to ensure compliance with the relevant noise standards.

2.3.2.5 SPP 4/10: Healthy waters

The SPP for Healthy Waters is intended to ensure that development is planned, designed, constructed, and operated to manage stormwater and waste water in ways that protect water environmental values specified in the Environmental Protection (Water) Policy 2009. The SPP sets out planning requirements and development assessment criteria. It is supported by the SPP 4/10 Healthy Waters Guideline (DERM 2010).

The NGR maintenance centre is expected to achieve the objectives of the SPP through the development and implementation of an environmental management plan (EMP) for construction and operational works that includes provisions to protect receiving water environmental values from development impacts on water quality objectives.

The NGR maintenance centre will adequately address the policy outcomes of SPP 4/10 by including provisions relating to stormwater management, and erosion and sediment control during the detailed design, construction and operational phases of the centre.
A Stormwater Management Plan will be prepared in accordance with the Queensland Urban Drainage Manual and any relevant Water Sensitive Urban Design guidelines to ensure that any discharged water complies with the Water Quality Objectives outlined in Table 2.3.1 of Ipswich Planning Scheme Policy 3 (ICC 2006).

### 2.3.2.6 SPP 3/10: Acceleration of compliance assessment

This SPP applies for assessing requests for compliance assessment for development for reconfiguring a lot and associated operational works that requires compliance assessment under the SP Regulation.

The SPP relates to development applications for reconfiguring a lot. Therefore this SPP is not relevant to the NGR maintenance centre.

### 2.3.2.7 SPP 2/10: South-east Queensland Koala conservation

The SEQ Koala Conservation State Planning Regulatory Provision (Koala SPRP) and SPP 2/10: Koala Conservation in SEQ (Koala SPP) are aimed at addressing Koala population decline in SEQ.

The NGR maintenance centre site is within the SEQ Koala Protection and is within a Koala SPRP Koala Assessable Development Area. Vegetation in the western parts of the site is mapped as Koala SPRP ‘Medium value bushland’ Koala habitat values.

However, section 1.4(f) of the Koala SPRP states that it does not apply to community infrastructure development conducted on behalf of the State of Queensland. The proposed clearing must be undertaken in compliance with the requirements of the State Government Supported Community Infrastructure Koala Conservation Policy (DEHP 2012). If clearing is greater than 500 m², additional provisions for assessment are triggered.

Any clearing of non-juvenile Koala habitat trees in a bushland habitat should be minimised and offset in accordance with the Offsets for Net Gain of Koala Habitat in South East Queensland Policy (DEHP 2010a).

### 2.3.2.8 SPP 2/07: Protection of extractive resources

The purpose of this SPP is to set out the State’s interests with regard to extractive resources and to establish and protect Key Resource Areas (KRAs) from incompatible development as a result of poor land use decisions. It is intended that this policy maintains the long–term availability of extractive resources in KRAs.

The NGR maintenance centre site does not contain any KRA, nor is the site near to any KRA. Therefore SPP 2/07 is not relevant to the NGR maintenance centre.

### 2.3.2.9 SPP 1/07: Housing and residential development

The purpose of this SPP is to ensure larger, higher growth local government areas identify their community’s housing needs and respond accordingly by analysing, and modifying if necessary, planning schemes to ensure these needs are met. The SPP only applies to the preparation of a new planning scheme, amendment of an existing scheme (including an amendment as a result of a regional planning process).

Therefore SPP 1/07 is not relevant to the NGR maintenance centre.

### 2.3.2.10 SPP 1/03: Mitigating the adverse impacts of flood, bushfire and landslide

The purpose of this policy is to set out the State government’s interests with regard to natural hazards of flood, bushfire and landslide and ensure these matters are adequately addressed when carrying out development assessment.
Annex 2 of the SPP 1/03 identifies the areas within which SPP 1/03 applies. For bushfire and landslide, the SPP applies to Ipswich local government area.

The Ipswich Planning Scheme (ICC 2006) contains overlays and provisions to reflect this SPP.

**Flood**

Queensland Department of Environment and Heritage Protection (DEHP) mapping (Version 2.1) shows two first order watercourses traversing western parts of the site to form one second order watercourse. Aerial photography and site visits indicate that these watercourses are highly modified and cross the site within an existing culvert. Mapping prepared by ICC to support TLPI 01/2013 – Flooding Regulation (TLPI 01/13) shows that whilst urban stormwater flow paths and flood affected areas are mapped within the area, they do not extend into the NGR maintenance centre site (refer Section 2.3.1.5).

Stormwater runoff will be managed by measures such as bio-retention devices located in stormwater detention basins, gross pollutant traps and rainwater tanks (refer Section 3.2.4). A Stormwater Management Plan will be prepared in accordance with the Queensland Urban Drainage Manual and any relevant Water Sensitive Urban Design guidelines to ensure that any discharged water complies with the Water Quality Objectives outlined in Table 2.3.1 of Ipswich Planning Scheme Policy 3 (ICC 2006).

**Bushfire**

The Planning Scheme (ICC 2006) includes overlay mapping (Overlay Map 01 – Bushfire Risk Areas) showing bushfire risk areas within the local government area in accordance with SPP 1/03.

The NGR maintenance centre site does not contain any areas of mapped bushfire risk.

**Landslide**

The Planning Scheme (ICC 2006) includes overlay mapping (Overlay Map 04 – Difficult Topography) showing areas subject to landslide risk within the local government area in accordance with SPP 1/03.

The NGR maintenance centre site does not contain any areas of landslide risk.

2.3.2.11 SPP 2/02: Planning and Managing Development Involving Acid Sulfate Soils

This SPP applies to certain coastal areas of Queensland where the natural ground level is less than 20 m Australian Height Datum (AHD) and soil below 5 m AHD is disturbed by the proposed works.

Annex 1 of the SPP lists the local government areas that SPP 2/02 applies to. ICC is not listed therefore this SPP is not relevant to the NGR maintenance centre.

2.3.2.12 SPP 1/02: Development in the vicinity of certain airport and aviation facilities

This SPP sets out broad principles concerning development in the vicinity of airports and aviation facilities considered essential for the State’s transport infrastructure or national defence system. It also contains broad principles for protecting airports and associated aeronautical facilities from encroachment by incompatible developments, in the interest of maintaining operational integrity and community safety.

Tall physical structures have the potential to pose a hazard to aircraft operations if they protrude through the relevant obstacle limitation surface (OLS). This policy also applies to development that has the potential to create adverse effects on the functioning of aviation facilities caused by the following:

- Physical ‘line of sight’ obstructions.
- Electricity or electro–magnetic emissions.
Structures containing a reflective surface.

Annex 1 of SPP 1/02 identifies the airports and aviation facilities to which the SPP applies, which includes Amberley as an airport of State significance.

SPP 1/02 is reflected in the Planning Scheme (ICC 2006), specifically in overlay mapping (refer Section 2.3.1.4). The proposed NGR maintenance centre will not create any vertical obstruction or involve electrical or electro-magnetic emissions. All improvements on the site will be designed in accordance with the relevant Australian standards.

The proposed NGR maintenance centre will comply with the requirements of SPP 1/02.

2.3.2.13 Single State Planning Policy

The Queensland State government is introducing a new single SPP. The draft single SPP was released by the state government for consultation on 15 April to 12 June 2013.

The draft of the new single SPP includes policies for making or amending planning instruments (i.e. planning schemes), development assessment and community infrastructure. It expresses the state’s interests in planning and development with respect to the following themes:

- Housing and liveable communities.
- Economic growth.
- Environment and heritage.
- Hazards and safety.
- Transport and infrastructure.

The draft SPP currently available does not have a statutory effect and therefore has not been addressed in this report. Until the SPP is completed and adopted, the twelve existing SPPs (refer Table 2.3) remain in effect.

The draft SPP is expected to be finalised and gazetted late-2013. When gazetted the single SPP will be a statutory instrument and have effect throughout the state.

2.3.3 Consistency with the regional planning frameworks

This section directly relates to the requirements of item 1.1 (i) ‘a statement about consistency with any relevant regional planning framework’, as set out in the CID Guidelines.

Assessment of the need for the proposed NGR maintenance centre is consistent with achieving the objectives of:

- SEQ Regional Plan (Queensland Government 2009)
- Connecting SEQ 2031: An Integrated Regional Transport Plan for South East Queensland (Connecting SEQ 2031) (TMR 2011).

2.3.3.1 SEQ Regional Plan 2009-2031

The SEQ Regional Plan (Queensland Government 2009) has been prepared to provide a framework for the management and development of the SEQ region to 2031. It takes precedence over all other planning instruments in SEQ, including planning schemes. It also informs non–statutory processes, such as the planning of new growth areas at a district and neighbourhood level.
The SEQ Regional Plan (Queensland Government 2009) and the associated regulatory provisions were released on 28 July 2009. The next formal review of the Plan is not due until July 2014.

ICC is identified in the SEQ Regional Plan (Queensland Government 2009) as forming most of south-east Queensland’s ‘Western Corridor’ and as such is anticipated to accommodate significant economic and population growth, supported by infrastructure provision. Facilitating growth in the west is a key strategic outcome of the SEQ Regional Plan.

The SEQ Regional Plan (Queensland Government 2009) is based on the medium population projection series, with the City of Ipswich’s population anticipated to expand to 435,000 by 2031, up from was 142,400 in 2006.

The Ipswich town centre, 3 km to the east of the NGR maintenance centre site, remains the key administrative centre and is identified in the SEQ Regional Plan (Queensland Government 2009) as principal regional activity centre. SEQ’s principal regional activity centres serve catchments of regional significance and accommodate key employment concentrations. They also serve business, major comparison and convenience retail, and service uses.

Regional land use categories

The SEQ Regional Plan (Queensland Government 2009) allocates all land into one of three regional land use categories:
  - Regional landscape and rural production area.
  - Urban footprint.
  - Rural living area.

The NGR maintenance centre site is located within the urban footprint regional land use category. The Urban Footprint identifies land that can meet the region’s urban development needs to 2031. The Urban Footprint incorporates the full range of urban uses, including housing, industry, business, infrastructure, community facilities and urban open space.

The NGR maintenance centre is consistent with the intent of the Urban Footprint in the SEQ Regional Plan (Queensland Government 2009).

Regional policies

The SEQ Regional Plan (Queensland Government 2009) contains twelve regional policies to guide State and local government planning processes and decision making. Regional policies set out the desired regional outcomes (DRO), principles and policies to manage growth management in SEQ.

The most directly relevant DROs to the NGR maintenance centre are DRO 8: Compact settlement and DRO 10: Infrastructure.

DRO 8 relates to the creation of well-planned communities supported by a network of accessible and convenient centres. The proposed NGR maintenance centre will support the ongoing expansion of public transport services in SEQ, specifically relating to the acquisition of new rollingstock to facilitate the expansion of the existing passenger rail network. Improved public transport services provide opportunities to reduce dependence on private travel, create more compact settlement patterns, and support the activity centres network throughout SEQ.

The proposed NGR maintenance centre is consistent with DRO 10: Infrastructure which requires for the planned delivery of regional infrastructure, such as public transport services, in a timely manner.
2.3.3.2 Connecting SEQ 2031

Connecting SEQ 2031 (TMR 2011) establishes a long-term plan to develop a sustainable transport system in SEQ. It has been developed as the guiding transport planning and policy document to support the desired regional outcomes of the SEQ Regional Plan (Queensland Government 2009).

Connecting SEQ 2031 (TMR 2011) is an aspirational plan that establishes ambitious targets for the next 20 years including increasing the mode share of public transport from 7% in 2006, to 14% in 2031.

To achieve this target, Connecting SEQ 2031 (TMR 2011) sets in place a plan for a ‘rail revolution’ that is a complete overhaul of the rail system to provide a modern, high capacity network. The ‘rail revolution’ is based on expanding and modernising the network and includes the acquisition of NGR.

The proposed NGR maintenance centre is an integral part of the ‘rail revolution’ as it will service the NGR proposed to be acquired. Therefore the proposed NGR maintenance centre is consistent with the strategic intent of Connecting SEQ 2031 (TMR 2011).
3. Assessment of the environmental effects and ways of managing those effects

This section includes an assessment of the environmental effects of development for the proposed community infrastructure and ways proposed to manage those effects. When addressing the environmental effects of the development, the CID Guidelines require that regard is given to the following:

- The meaning of ‘environment’.
- The matters listed in Schedule 2 of the Guidelines.
- Short-term, long-term and cumulative effects.
- Effects from use and works, during both the construction phase and the operational phase of the proposed community infrastructure.
- On-site and off-site effects.

The NGR maintenance centre will be developed in accordance with Queensland Government’s Environmental Management Principle (MD-12-22), AS/NZS ISO 14001 Environmental Management Systems: Requirements with guidance for use, and any relevant requirements set out in the Contract.

3.1 Definition of ‘environment’

The CID Guidelines define ‘environment’ as including:

- ecosystems and their constituent parts including people and communities
- all natural and physical resources
- those qualities and characteristics of locations, places and areas, however large or small, that contribute to their biological diversity and integrity, intrinsic or attributed scientific value or interest, amenity, harmony, and sense of community
- the social, economic, aesthetic and cultural conditions affecting the matters in paragraphs (a), (b) and (c) or affected by those matters.

3.2 The matters listed in Schedule 2 of the Guidelines

Schedule 2 of the CID Guidelines identifies matters that need to be addressed in the assessment of the environmental effects of the proposed community infrastructure, to the extent that they are relevant to the proposal.
Queensland Department of Transport and Main Roads  New Generation Rollingstock Maintenance Centre  Community Infrastructure Designation - Initial Assessment Report

The matters listed in Schedule 2 of the CID Guidelines include:

- soils and geology
- natural resources
- natural hazards
- water quality
- conservation values
- Environment Protection and Biodiversity Conservation Act 1999
- cultural heritage
- health, safety, amenity and social impacts
- infrastructure
- traffic and transport.

3.2.1 Soils and geology

This section addresses the requirements of Schedule 2, item 1 of the CID Guidelines which requires the following be addressed for the matters of soils and geology:

‘1. Soils and geology

1.1 Is the proposal compatible with the geology and topography of the site?

1.2 Does the site have acid sulfate soils or potential acid sulfate soils?

1.3 Do the site’s soils have erosion potential or does the site have potential hillslope stability problems?

1.4 Is the site subject to salinity or soil degradation? Is any part of the site subject to an approved project plan for soil conservation under the Soil Conservation Act 1986?’

3.2.1.1 Topography and geology

The NGR maintenance centre site is relatively level, varying from approximately 35 m to 40 m AHD. Lot 27 SP136632 has been significantly cut with informal retaining of the bank at the southern side of the lot to ensure the surface is level with the existing Ipswich-Rosewood rail line. There are several stockpiles of ballast material located adjacent to the rail line in the northern part of Lot 27 SP136632.

The former Dixon Street (west) road reserve contains an unsealed road with a gravel surface connecting Karrabin-Rosewood Road with the western access to Lot 27 SP136632. Fill has been placed and levelled across this portion of the site.

Topography in the site is described by Queensland Department of Natural Resources and Mines (DNRM) Interactive Resource and Tenure Map (V4.2, DNRM 2013) as ‘Terraced valley plains’ and is not considered a hazard or issue for development as it is generally flat. However, cut and fill will be required across the site, as well as the construction of a retaining wall at the southern boundary of Lot 27 SP136632.

DNRM’s Interactive Resource and Tenure Map (V4.2, DNRM 2013) indicates that the site crosses two geological units as follows:
Queensland Department of Transport and Main Roads
New Generation Rollingstock Maintenance Centre
Community Infrastructure Designation - Initial Assessment Report

- Gatton sandstone – consisting of lithic labile and feldspatic labile sandstone, form the early Jurassic age.
- Ts/1-SEQ – consisting of claystone, siltstone and sandstone, from the Tertiary age.

The NGR maintenance centre does not propose to impact the underlying geology of the site and is therefore a compatible land use.

### 3.2.1.2 Acid sulfate soils

It is widely accepted that acid sulfate soils (ASS) and potential acid sulfate soils (PASS) are commonly found below 5 m AHD, particularly in low-lying coastal areas.

The site is located approximately 45 km inland with a minimum elevation of 35 m AHD; therefore, it is unlikely that ASS or PASS would be present within the site.

### 3.2.1.3 Soils

**Erosion potential and hillslope stability**

The DNRM Interactive Resource and Tenure Map (V4.2, DNRM 2013) indicates that the NGR maintenance centre site contains brown and red self-mulching cracking clays exhibiting uniform fine cracking smooth faced peds (Ug5.34, Northcote Factual Key or Vertisol Australian Soil Classification system) as the dominant soil type. This underlying soil type is prone to erosion in certain conditions and standard soil management practises must be implemented during the construction and operation of the NGR maintenance centre to reduce soils loss.

However, historical rail activities in the NGR maintenance centre site have introduced many and varied soils and earth fill so an accurate soil description of the site is unreliable. There are several stockpiles of ballast material located adjacent to the Ipswich-Rosewood rail line in the northern part of Lot 27 SP136632.

The site is relatively level and has been heavily modified by historical land uses including a cut and fill being removed to a depth of 4 m to 5 m which has resulted in a steep bank 5 m high on the southern boundary. Lot 27 SP136632 is level with the existing Ipswich-Rosewood rail line. The 5 m high steep bank will be required to be stabilised during the construction and operation of the NGR maintenance centre.

**Soil Conservation Act 1986**

The site is not subject to an approved project plan for soil conservation under the Soil Conservation Act 1986; therefore the provisions of this Act are not applicable to the NGR maintenance centre.

### 3.2.2 Natural resources

This section addresses the requirements of Schedule 2, item 2 of the CID Guidelines which requires the following be addressed for the matter of natural resources:

**‘2. Natural resources**

2.1 Does the site include land identified as good quality agricultural land, or is the site adjacent to agricultural areas? If so, will the proposal be compatible with agricultural activities?

2.2 Are there fisheries habitats or fish habitat areas located on or adjacent to the site?

2.3 Will the proposal require the removal, destruction or damage of marine plants?
2.4 **Will the proposal involve the construction of waterway barrier works in waterways, or require the construction of a fish way?**

2.5 **Will the proposal involve taking, using or interfering with the flow of water on, under or adjoining any part of the site?**

2.6 **Is the site located in or adjacent to a State forest or timber reserve under the Forestry Act 1959?**

2.7 **Does the proposal include clearing of native vegetation not covered by the item below?**

2.8 **Does the proposal include clearing native vegetation in:**
   
   (a) a forest reserve or protected area under the Nature Conservation Act 1992; or
   
   (b) a State forest or timber reserve under the Forestry Act 1959?

2.9 **Does the site include or is it adjacent to any identified mineral, oil, gas or extractive resources, pipelines or haul routes servicing these resources?**

2.10 **Does any part of the site include land that is part of the State Stock Route network?**

2.11 **Does the site include any part of land leased, reserved, or granted in trust under the Land Act 1994?**

2.12 **Is any part of the site within a port or on strategic port land?**

3.2.2.1 **Agriculture**

This section addresses the requirements of Item 2.1 ‘Does the site include land identified as good quality agricultural land, or is the site adjacent to agricultural areas? If so, will the proposal be compatible with agricultural activities?’ as set out in Schedule 2 of the CID Guidelines.

SPP 1/92 Development and the Conservation of Agricultural Land, which governed GQAL expired in December 2012.

Agricultural land is currently protected by SPP 1/12: Protection of Queensland’s strategic cropping land, which commenced in January 2012, in conjunction with the Strategic Cropping Land Act 2011 and Regulation.

DNRM has developed trigger maps to assist in identifying potential strategic cropping land (SCL). Within the SCL mapping, there are two areas defined as ‘protection areas’; these include the Western Protection area and the Southern Protection area, as well as ‘trigger areas’ which provides a broad scale indicator of likely cropping land.

Reference to the DNRM Interactive Resource and Tenure Map (V4.2, DNRM 2013) indicates that the NGR maintenance centre site does not fall within either protection area; nor is it located within the mapped trigger areas.

As the NGR maintenance centre is not located within an area of potential SCL or agricultural land use, it will not conflict with agricultural activities.
3.2.2.2 Fisheries, marine and waterways

This section addresses the requirements of Item 2.2 ‘Are there fisheries habitats or fish habitat areas located on or adjacent to the site’; Item 2.3 ‘Will the proposal require the removal, destruction or damage of marine plants’; and Item 2.4 ‘Will the proposal involve the construction of waterway barrier works in waterways, or require the construction of a fishway?’ as set out in Schedule 2 of the CID Guidelines.

The nearest major watercourse to the NGR maintenance centre site is the Bremer River, which is located within 1 km south-west and north-east of the site, and Ironpot Creek (approximately 800 m north-east). DEHP’s regrowth mapping (Version 2.1) shows two first order watercourses traversing western parts of the site to form one second order watercourse draining north-east towards Bremer River. Aerial photography and site visits indicate that these watercourses are highly modified and cross the site within an existing culvert.

The Department of National Parks, Recreation, Sport and Racing (DNPRSR) manages 70 declared fish habitat areas along the Queensland coast, which protects more than 1.1 million hectares of high quality fish habitats. The nearest major waterways to the NGR maintenance centre site, Bremer River and Ironpot Creek, are not listed by DNPRSR as fisheries habitats or declared fish habitat areas (DNPRSR 2013).

The site is located approximately 45 km inland and outside of the coastal management zone, therefore the NGR maintenance centre will not require the removal, destruction or damage of marine plants.

Given the three tributary watercourses crossing the site appear to be drainage lines/culverts that are highly modified and ephemeral in nature, the NGR maintenance centre is not likely to involve the construction of waterway barrier works in waterways or require the construction of a fishway.

3.2.2.3 Flow of water

This section addresses the requirements of Item 2.5 ‘Will the proposal involve taking, using or interfering with the flow of water on, under or adjoining any part of the site?’ as set out in Schedule 2 of the CID Guidelines.

The NGR maintenance centre will not involve the taking or using of the flow of water on, under or adjoining any part of the site. The impact to drainage patterns and groundwater flow is addressed in detail in Section 3.2.4.7.

3.2.2.4 Vegetation

This section addresses the requirements of Item 2.6 ‘Is the site located in or adjacent to a State forest or timber reserve under the Forestry Act 1959?’, Item 2.7 ‘Does the proposal include clearing of native vegetation not covered by the item below?’, and Item 2.8 ‘Does the proposal include clearing native vegetation in: (a) a forest reserve or protected area under the Nature Conservation Act 1992; or (b) a State forest or timber reserve under the Forestry Act 1959?’ as set out in Schedule 2 of the CID Guidelines.

State forest or timber reserve

The site is not located in or adjacent to a State forest or timber reserve under the Forestry Act 1959; therefore the provisions of this Act are not applicable to the NGR maintenance centre.

Forest reserve or protected area

The site is not located in or adjacent to a forest reserve or protected area under the Nature Conservation Act 1992 (NC Act); therefore the provisions of this Act are not applicable to the NGR maintenance centre.
Remnant vegetation

Remnant vegetation in Queensland is classified by community type, known as regional ecosystems (REs). REs are vegetation communities that are consistently associated with a particular combination of geology, land form and soil in a bioregion as described by Sattler and Williams (1999). The Queensland Herbarium has mapped the remnant extent of REs for much of the State using a combination of satellite imagery, aerial photography and on-ground studies.

Conservation status for each RE is assigned one of three categories: Endangered, Of Concern or Least Concern under the Vegetation Management Regulation 2000. This status is determined according to its current distribution relative to its pre-European clearing distribution.

There are no areas of remnant vegetation mapped within the NGR maintenance centre site (refer to Figure 3.1). This is confirmed through historical aerial imagery of the site which shows the area existing vegetation had been cleared prior to 1955 (refer to Photo 3.1).

![Aerial Imagery of the NGR Maintenance Centre Site Circa 1955](Image)

Source: Department of Environment and Resource Management (DERM) 1955

Photo 3.1 Aerial Imagery of the NGR maintenance centre site circa 1955

Essential habitat

Essential habitat is defined by DEHP as habitat essential for a species of wildlife listed as threatened under the NC Act and is recorded on the Essential Habitat Database Version 3.1

There is no mapped VM Act Essential habitat or Essential habitat species records within the NGR maintenance centre site (refer to Figure 3.1). The nearest area of mapped Essential habitat is located approximately 700 m south-east within a small area of mapped remnant vegetation. This area of Essential habitat is associated with the Koala (*Phascolarctos cinereus* (SEQ bioregion)) (DEHP 2013). The Koala, as it relates to the NGR maintenance centre, is discussed in detail in Sections 3.2.5.2 and 3.2.6.3.
High value regrowth vegetation

High value regrowth (HVR) vegetation is mature native vegetation that has not been cleared since 31 December 1989. HVR is designated a conservation status based on the RE represented within the regrowth vegetation. HVR and regrowth watercourses are regulated under the Queensland vegetation management framework and are shown on DEHP Regrowth Vegetation Mapping.

The vegetation occurring within the NGR maintenance centre site is mapped as HVR vegetation containing Of Concern REs (DEHP 2013) (refer to Figure 3.1). The HVR present is RE 12.9-10.7, described as Eucalyptus crebra woodland on sedimentary rocks.

The NGR maintenance centre will result in the clearing of all HVR vegetation from the site.

Clearing HVR vegetation comprises operational works assessable under the SP Act, unless the clearing is made exempt under Schedule 24 of the SP Regulation. The following exemptions listed under Schedule 24 of the SP Regulation will apply to the NGR maintenance centre:

a) ‘Under Part 2, item 2(g) – for freehold land, clearing that is for urban purposes in an urban area and the vegetation is regulated regrowth vegetation.

b) Under Part 2, item 2(l) – for freehold land, clearing of regulated regrowth vegetation under the regrowth vegetation code

c) Under Part 2, item 2(n) – for freehold land, clearing for development that is a significant community project to the extent it involves clearing regulated regrowth

d) Under Part 2, item 5(a(i)) – for land that is a road under the Land Act 1994, clearing that is carried out by a local government or by or for the chief executive of the department in which the Transport Infrastructure Act is administered and is necessary to construct road infrastructure or to source construction material for roads

e) Under Part 2, item 5(a(iii)) – for land that is a road under the Land Act 1994, clearing that is carried out by a local government or by or for the chief executive of the department in which the Transport Infrastructure Act is administered and in an urban area and the vegetation is shown on the regional ecosystem map or remnant map as other than remnant vegetation.’

As such, it is considered that an application and assessment against the Regional Vegetation Management Code for Southeast Queensland Bioregion by DNRM is not required for clearing of HVR vegetation within the site.
3.2.2.5 Extractive resources

This section addresses the requirements of Item 2.9 ‘Does the site include or is it adjacent to any identified mineral, oil, gas or extractive resources, pipelines or haul routes servicing these resources?’ as set out in Schedule 2 of the CID Guidelines.

The DNRM Interactive Resource and Tenure Map (V4.2, DNRM, 2013) indicates that the NGR maintenance centre site does not include, nor is it adjacent to, any identified mineral, oil, gas or extractive resources, pipelines or haul routes servicing such resources. Therefore, this is not applicable to the NGR maintenance centre.

3.2.2.6 State stock route

This section addresses the requirements of Item 2.10 ‘Does any part of the site include land that is part of the State Stock Route network?’ as set out in Schedule 2 of the CID Guidelines.

The NGR maintenance centre site does not include land that is part of the State Stock Route network; therefore this is not applicable to the NGR maintenance centre (DERM 2009).

3.2.2.7 Land Act 1994

This section addresses the requirements of Item 2.11 ‘Does the site include any part of land leased, reserved, or granted in trust under the Land Act 1994?’ as set out in Schedule 2 of the CID Guidelines.

Lot 27 SP136632 is freehold land and therefore is not leased, reserved or granted in trust under the Land Act 1994 (Queensland Government 2013).

The Dixon Street (west) road reserve is classified as reserved land under the Land Act 1994 (Queensland Government 2013).

The final configuration and tenure arrangement of the primary access to the NGR maintenance centre and adjoining neighbours is in progress and cannot be confirmed at this stage.

3.2.2.8 Port

This section addresses the requirements of Item 2.12 ‘Is any part of the site within a port or on strategic port land?’ as set out in Schedule 2 of the CID Guidelines.

The NGR maintenance centre site is approximately 45 km inland and therefore not located within a port or on strategic port land; therefore this is not applicable to the NGR maintenance centre.

3.2.3 Natural hazards

This section addresses the requirements of Schedule 2, Item 3 of the CID Guidelines which requires the following be addressed for the matter of natural hazards:

‘3. Natural hazards

3.1 Is the site or its access at risk from natural hazards, such as flooding or drainage, bushfire and landslip?

3.2 Is the site or its access at risk from storm surge?

3.3 Are there any declared pests in the area or is any part of the site subject to a local government pest management plan?’
3.2.3.1 Hydrological hazards

This section addresses the part of the requirements of Item 3.1 ‘Is the site or its access at risk from natural hazards, such as flooding or drainage, bushfire and landslip?’ as set out in Schedule 2 of the CID Guidelines.

The Flooding and Urban Stormwater Flow Path Areas overlay map (OV05) within the Planning Scheme (ICC 2006) indicates that the NGR maintenance centre site is not within the 1 in 100 flood line, the 1 in 20 development line nor an urban stormwater flow path area (ICC 2013).

Flood maps of the 1974 and 2011 flood events indicate the site itself is unlikely to be affected by flooding from the Bremer River or Ironpot Creek.

3.2.3.2 Bushfire

This section addresses the part of the requirements of Item 3.1 ‘Is the site or its access at risk from natural hazards, such as flooding or drainage, bushfire and landslip?’ as set out in Schedule 2 of the CID Guidelines.

The Bushfire Risk Area overlay map (OV01) within the Planning Scheme (ICC 2006) indicates that the NGR maintenance centre site does not contain any areas of bushfire risk. Additionally, the site is proposed to be fully cleared of vegetation (aside from landscaping), further reducing bushfire risk (ICC 2013).

The mapping indicates that the land to the north of the Ipswich-Rosewood rail line is classified as a bushfire risk area. However, the Ipswich-Rosewood rail line would likely act as a fire break between the property to the north and the site. Therefore, the site and its access have a negligible level of risk from bushfires.

3.2.3.3 Landslide

This section addresses the part of the requirements of Item 3.1 ‘Is the site or its access at risk from natural hazards, such as flooding or drainage, bushfire and landslip?’ as set out in Schedule 2 of the CID Guidelines.

SPP 1/03 ‘Mitigating the Adverse impacts of flood, bushfire and landslide’ defines landslide hazard areas as areas which contain a slope of 15% or greater (Queensland Government 2003).

The NGR maintenance centre site is relatively level, with elevations between approximately 35 m to 40 m AHD across the site. However, cut and fill will be required across the site to accommodate the proposed buildings and infrastructure, as well as the construction of a retaining wall at the southern boundary of Lot 27 SP136632.

The Planning Scheme (ICC 2006) does not contain a landslide hazard overlay map. Although there is no landslide hazard mapping for the site, the risk of landslide on the site is considered minimal due to the topography of the site. A retaining wall at the southern boundary will manage any risk of landslide in the area of steep topography.

3.2.3.4 Storm surge

This section addresses the requirements of Item 3.2 ‘Is the site or its access at risk from storm surge?’ as set out in Schedule 2 of the CID Guidelines.

The NGR maintenance centre site is located approximately 45 km inland, at a minimum elevation of 35 m AHD and is therefore not a coastal location and will not be affected by storm surge. Therefore, this item is not applicable.
3.2.3.5 Pests

This section addresses the requirements of Item 3.3 ‘Are there any declared pests in the area or is any part of the site subject to a local government pest management plan?’ as set out in Schedule 2 of the CID Guidelines.

An invasive species is a species occurring, as a result of human activities, beyond its accepted normal distribution and which threatens valued environmental, agricultural or other social resources by the damage it causes (Commonwealth Department of Sustainability, Environment, Water, Populations and Communities (SEWPaC) 2013).

Invasive species can be listed as declared pests under the Land Protection (Pest and Stock Route Management) Act 2002. Declared pests pose a threat to the Queensland industries, natural resources, environment and human welfare. Declaration imposes a responsibility upon landowners, including all landowning state agencies, to control pests (Department of Agriculture, Fisheries and Forestry (DAFF) 2012a).

A declared pest (flora or fauna) is one that is listed as Class 1, 2 or 3 in the Land Protection (Pest and Stock Route Management) Regulation 2003. There are also 28 fauna species specifically categorised as ‘non-declared’ under the Land Protection (Pest and Stock Route Management) Act 2002 (DAFF 2012a). These animals include:

- mammals commonly kept for commercial or social benefit
- non-native mammals, reptiles or amphibians that are widespread but have minimal negative commercial, environmental or social impacts; and/or there are no cost-effective, broad scale control measures available.

A ‘Protected Matters Search Tool’ database search identified 22 invasive fauna species and 15 invasive Weeds of National Significance listed as potentially occurring within a kilometre radius of the NGR maintenance centre site (SEWPaC, 2013).

Table 3.1 summarises the invasive species and includes the species’ declaration status under the Land Protection (Pest and Stock Route Management) Regulation 2003.

Table 3.1 Invasive species

<table>
<thead>
<tr>
<th>Scientific name1</th>
<th>Common name</th>
<th>Declaration status</th>
<th>Habitat or species type of presence3</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Birds</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Acridotheres tristis</td>
<td>Common Myna, Indian Myna</td>
<td>Not listed</td>
<td>Species or species habitat likely to occur within area</td>
</tr>
<tr>
<td>Anas platyrhynchos</td>
<td>Mallard</td>
<td>Not listed</td>
<td>Species or species habitat likely to occur within area</td>
</tr>
<tr>
<td>Carduelis carduelis</td>
<td>European Goldfinch</td>
<td>Not listed</td>
<td>Species or species habitat likely to occur within area</td>
</tr>
<tr>
<td>Columba livia</td>
<td>Rock Pigeon, Rock Dove, Domestic Pigeon</td>
<td>Not listed</td>
<td>Species or species habitat likely to occur within area</td>
</tr>
<tr>
<td>Lonchura punctulata</td>
<td>Nutmeg Mannikin</td>
<td>Not listed</td>
<td>Species or species habitat likely to occur within area</td>
</tr>
<tr>
<td>Passer domesticus</td>
<td>House Sparrow</td>
<td>Not listed</td>
<td>Species or species habitat likely to occur within area</td>
</tr>
<tr>
<td>Streptopelia chinensis</td>
<td>Spotted Turtle-Dove</td>
<td>Not listed</td>
<td>Species or species habitat likely to occur within area</td>
</tr>
<tr>
<td>Scientific name1</td>
<td>Common name</td>
<td>Declaration status</td>
<td>Habitat or species type of presence3</td>
</tr>
<tr>
<td>------------------</td>
<td>-------------</td>
<td>--------------------</td>
<td>-------------------------------------</td>
</tr>
<tr>
<td><em>Sturnus vulgaris</em></td>
<td>Common Starling</td>
<td>Not listed</td>
<td>Species or species habitat likely to occur within area</td>
</tr>
<tr>
<td><strong>Mammal</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><em>Bos taurus</em></td>
<td>Domestic Cattle</td>
<td>Non-declared</td>
<td>Species or species habitat likely to occur within area</td>
</tr>
<tr>
<td><em>Canis lupus familiaris</em></td>
<td>Domestic Dog</td>
<td>Non-declared</td>
<td>Species or species habitat likely to occur within area</td>
</tr>
<tr>
<td><em>Felis catus</em></td>
<td>Cat, House Cat, Domestic Cat</td>
<td>Non-declared</td>
<td>Species or species habitat likely to occur within area</td>
</tr>
<tr>
<td>Feral deer</td>
<td>Feral deer species in Australia</td>
<td>Class 3</td>
<td>Species or species habitat likely to occur within area</td>
</tr>
<tr>
<td><em>Lepus capensis</em></td>
<td>Brown Hare</td>
<td>Non-declared</td>
<td>Species or species habitat likely to occur within area</td>
</tr>
<tr>
<td><em>Mus musculus</em></td>
<td>House Mouse</td>
<td>Non-declared</td>
<td>Species or species habitat likely to occur within area</td>
</tr>
<tr>
<td><em>Oryctolagus cuniculus</em></td>
<td>Rabbit, European Rabbit</td>
<td>Class 2</td>
<td>Species or species habitat likely to occur within area</td>
</tr>
<tr>
<td><em>Rattus norvegicus</em></td>
<td>Brown Rat, Norway Rat</td>
<td>Non-declared</td>
<td>Species or species habitat likely to occur within area</td>
</tr>
<tr>
<td><em>Rattus rattus</em></td>
<td>Black Rat, Ship Rat</td>
<td>Non-declared</td>
<td>Species or species habitat likely to occur within area</td>
</tr>
<tr>
<td><em>Sus scrofa</em></td>
<td>Pig</td>
<td>Non-declared</td>
<td>Species or species habitat likely to occur within area</td>
</tr>
<tr>
<td><em>Vulpes vulpes</em></td>
<td>Red Fox, Fox</td>
<td>Class 2</td>
<td>Species or species habitat likely to occur within area</td>
</tr>
<tr>
<td><strong>Frogs</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><em>Bufo marinus</em></td>
<td>Cane Toad</td>
<td>Non-declared</td>
<td>Species or species habitat likely to occur within area</td>
</tr>
<tr>
<td><em>Rhinella marina</em></td>
<td>Cane Toad</td>
<td>Not listed</td>
<td>Species or species habitat likely to occur within area</td>
</tr>
<tr>
<td><strong>Reptiles</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><em>Hemidactylus frenatus</em></td>
<td>Asian House Gecko</td>
<td>Non-declared</td>
<td>Species or species habitat likely to occur within area</td>
</tr>
<tr>
<td><strong>Plants</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><em>Anredera cordifolia</em></td>
<td>Madeira Vine, Jalap, Lamb's-tail, Mignonette Vine, Anredera, Gulf Madeiravine, Heartleaf, Madeiravine, Potato Vine</td>
<td>Class 3</td>
<td>Species or species habitat likely to occur within area</td>
</tr>
<tr>
<td><em>Asparagus africanus</em></td>
<td>Climbing Asparagus, Climbing Asparagus Fern</td>
<td>Not listed</td>
<td>Species or species habitat likely to occur within area</td>
</tr>
<tr>
<td>Scientific name1</td>
<td>Common name</td>
<td>Declaration status</td>
<td>Habitat or species type of presence3</td>
</tr>
<tr>
<td>-----------------</td>
<td>------------------------------------------------------------------------------</td>
<td>-------------------</td>
<td>-------------------------------------</td>
</tr>
<tr>
<td><em>Cabomba caroliniana</em></td>
<td>Cabomba, Fanwort, Carolina Watershield, Fish Grass, Washington Grass, Watershield, Carolina Fanwort</td>
<td>Class 2</td>
<td>Species or species habitat likely to occur within area</td>
</tr>
<tr>
<td><em>Chrysanthemoides monilifera</em></td>
<td>Bitou Bush, Boneseed</td>
<td>Class 1</td>
<td>Species or species habitat may occur within area</td>
</tr>
<tr>
<td><em>Dolichandra unguis-cati</em></td>
<td>Cat’s Claw Vine, Yellow Trumpet Vine, Cat’s Claw Creeper, Funnel Creeper</td>
<td>Not listed</td>
<td>Species or species habitat likely to occur within area</td>
</tr>
<tr>
<td><em>Eichhornia crassipes</em></td>
<td>Water Hyacinth, Water Orchid, Nile Lily</td>
<td>Class 2</td>
<td>Species or species habitat likely to occur within area</td>
</tr>
<tr>
<td><em>Lantana camara</em></td>
<td>Lantana, Kamara Lantana, Large-leaf Lantana, Pink Flowered Lantana, Red Flowered Lantana, Red-Flowered Sage, White Sage</td>
<td>Class 3</td>
<td>Species or species habitat likely to occur within area</td>
</tr>
<tr>
<td><em>Lycium ferocissimum</em></td>
<td>African Boxthorn, Boxthorn</td>
<td>Class 2</td>
<td>Species or species habitat likely to occur within area</td>
</tr>
<tr>
<td><em>Opuntia spp.</em></td>
<td>Prickly Pears</td>
<td>Class 1</td>
<td>Species or species habitat likely to occur within area</td>
</tr>
<tr>
<td><em>Parkinsonia aculeata</em></td>
<td>Parkinsonia, Jerusalem Thorn, Jelly Bean Tree, Horse Bean</td>
<td>Class 2</td>
<td>Species or species habitat likely to occur within area</td>
</tr>
<tr>
<td><em>Parthenium hysterophorus</em></td>
<td>Parthenium Weed, Bitter Weed, Carrot Grass, False Ragweed</td>
<td>Class 2</td>
<td>Species or species habitat likely to occur within area</td>
</tr>
<tr>
<td><em>Sagittaria platyphylla</em></td>
<td>Delta Arrowhead, Arrowhead, Slender Arrowhead</td>
<td>Not listed</td>
<td>Species or species habitat likely to occur within area</td>
</tr>
<tr>
<td><em>Salix spp. except S.babylonica, S.x calodendron &amp; S.x reichardtii</em></td>
<td>Willows except Weeping Willow, Pussy Willow and Sterile Pussy Willow</td>
<td>Class 1</td>
<td>Species or species habitat likely to occur within area</td>
</tr>
<tr>
<td><em>Salvinia molesta</em></td>
<td>Salvinia, Giant Salvinia, Aquarium Watermoss, Kariba Weed</td>
<td>Class 2</td>
<td>Species or species habitat likely to occur within area</td>
</tr>
<tr>
<td><em>Senecio madagascariensis</em></td>
<td>Fireweed, Madagascar Ragwort, Madagascar Groundsel</td>
<td>Class 2</td>
<td>Species or species habitat likely to occur within area</td>
</tr>
</tbody>
</table>

Source: SEWPaC 2013; DEHP 2013

(1) Records returned from desktop study only (SEWPaC 2013; DEHP 2013)

(2) Based solely on Protected Matters records(SEWPaC 2013)

Under the Land Protection (Pest and Stock Route Management) Act 2002, local governments are required to develop a pest management plan for their local council area. ICC has developed a pest management plan for the Ipswich local government area. The site falls within the boundaries of the ICC Council pest management plan, therefore the NGR maintenance centre will need to follow the requirements of this plan.
Fire ants

Fire ants are a dangerous imported pest that could spread to large areas of Australia, severely damaging the environment, our outdoor lifestyle and the agriculture and tourism industries. Restricted areas and movement controls are in place to restrict the spread of fire ants in areas of SEQ.

The NGR maintenance centre site is located within the Ipswich suburb of Wulkuraka; Wulkuraka falls within a declared fire ant restricted area and is listed as a High Risk Restricted Area (DAFF 2012b).

The *Plant Protection Act 1989* requires commercial operators to develop strategies to reduce the spread of fire ants. Requirements are placed on the movement of ‘restricted items’ and ‘high risk items’ (including soil) (as defined in the Plant Protection Regulation 2002) from a fire ant restricted area.

The NGR maintenance centre may require excavation and the removal of high risk items (i.e. soil) from within a fire ant restricted area. If the NGR maintenance centre requires the movement of soil offsite, then an Approved Risk Management Plan must be obtained and the requirements of the plan adhered to (DAFF 2012b).

### 3.2.4 Water quality

This section addresses the requirements of Schedule 2, item 4 of the CID Guidelines which requires the following be addressed for the matter of water quality:

‘4. Water quality

4.1 Will the proposal have impacts on surface or groundwater quality?

4.2 Is the site in close proximity to a watercourse?

4.3 Is any part of the site within a wild river area declared under the Wild Rivers Act 2005?

4.4 Does any part of the proposal involve development below high water mark (tidal), or within the beds and banks of a watercourse, lake or spring (non-tidal)?

4.5 Will wastewater disposal or stormwater from the proposal affect water quality either by sedimentation or contamination from effluent?

4.6 Will the proposal have impact on hydrology, including:

   (a) change to existing drainage patterns;

   (b) groundwater flow?’

#### 3.2.4.1 Surface water quality

This section addresses requirements relating to surface water quality of Item 4.1 ‘Will the proposal have impacts on surface or groundwater quality?’ as set out in Schedule 2 of the CID Guidelines.

Surface water quality will not be impacted by the NGR maintenance centre as stormwater will be captured from new and existing impermeable surfaces, then subsequently managed and released into constructed drainage networks. A Stormwater Management Plan will be prepared in accordance with the Queensland Urban Drainage Manual (Queensland Government 2013) and any relevant Water Sensitive Urban Design guidelines to ensure that any discharged water complies with the Water Quality Objectives outlined in Table 2.3.1 of Ipswich Planning Scheme Policy 3 (ICC 2006).
3.2.4.2 Groundwater quality

This section addresses requirements relating to groundwater quality of Item 4.1 ‘Will the proposal have impacts on surface or groundwater quality?’ as set out in Schedule 2 of the CID Guidelines.

Impact to groundwater quality are unlikely to occur as, the NGR maintenance centre will be sealed hardstand, with fuel and oil storage to be bunded so as to avoid accidental spills or leakage.

It is assumed that groundwater for water supply during construction will not be required for the NGR maintenance centre.

Control measures will be implemented to minimise potential impacts to groundwater during the construction of the NGR maintenance centre. Control measures may include:

- Control runoff from construction areas. Erosion and sediment controls will be managed so that any runoff does not impact aquifers.
- Limiting the depth of excavation particularly where groundwater levels are shallow. For example water inflows were recorded during the geotechnical investigation at two locations: TP30 (0.6 m depth) and TP02 (0.8 m depth) (SKMa, 2011), these locations are both to the west of the NGR maintenance centre site which is expected in low lying terrain.
- Follow standard environmental management procedures, such as:
  - providing spill kits onsite to clean up any accidental spills that may occur during construction
  - refuelling plant and equipment on relatively level ground at least 20 m away from waterways, drainage lines and sensitive areas
  - implementing additional spill containment measures where it is not practicable to construct away from waterways, drainage lines and sensitive areas.

In the case of a contamination event, monitoring of groundwater quality will assist in identifying and addressing any groundwater quality issues and provide information for implementing corrective actions within an appropriate timeframe.

3.2.4.3 Watercourses

This section addresses the requirements of Item 4.2 ‘Is the site in close proximity to a watercourse?’ as set out in Schedule 2 of the CID Guidelines.

The nearest major watercourse to the NGR maintenance centre site is the Bremer River, which is located within 1 km south-west and north-east of the site, and Ironpot Creek (approximately 800 m north-east). DEHP’s regrowth mapping (Version 2.1) shows two first order watercourses traversing western parts of the site to form one second order watercourse draining north-east towards Bremer River. Aerial photography and site visits indicate that these watercourses are highly modified and cross the site within an existing culvert.

3.2.4.4 Wild rivers

This section addresses the requirements of Item 4.3 ‘Is any part of the site within a wild river area declared under the Wild Rivers Act 2005?’ as set out in Schedule 2 of the CID Guidelines.

No part of the NGR maintenance centre site is located within a wild river area declared under the Wild Rivers Act 2005. Therefore, these items are not applicable.
3.2.4.5 Development below high water mark (tidal), or within the beds and banks of a watercourse, lake or spring (non-tidal)

This section addresses the requirements of Item 4.4 ‘Does any part of the proposal involve development below high water mark (tidal), or within the beds and banks of a watercourse, lake or spring (non-tidal)?’ as set out in Schedule 2 of the CID Guidelines.

The NGR maintenance centre site is not located on land that is below high water mark (tidal) or within the beds and banks of a watercourse, lake or spring (non-tidal). Therefore, these items are not applicable.

3.2.4.6 Wastewater disposal and stormwater

This section addresses the requirements of Item 4.5 ‘Will wastewater disposal or stormwater from the proposal affect water quality either by sedimentation or contamination from effluent?’ as set out in Schedule 2 of the CID Guidelines.

Existing cross-drainage structures are located underneath Lot 27 SP136632 to manage stormwater flows. However, Queensland Rail has advised that due to the lack of maintenance these drainage structures are not operational (SKM 2011a).

In accordance with SPP 4/10 Healthy Waters Guideline and the Urban Stormwater Quality Planning Guidelines 2013; surface runoff will be treated to reduce the amount of total pollutants discharging into receiving waters as part of a Stormwater Management Plan. The plan will be prepared in accordance with the latest version of the Queensland Urban Drainage Manual and any relevant Water Sensitive Urban Design guidelines to ensure that any discharged water complies with the Water Quality Objectives outlined in Table 2.3.1 of Ipswich Planning Scheme Policy 3 (ICC 2006).

On-site stormwater runoff will be generated from new and existing impermeable surfaces and will be managed by measures such as bio-retention devices located in stormwater detention basins, gross pollutant traps and rainwater tanks consistent with the SPP 4/10 Healthy Waters Guideline (DERM 2010).

The disposal of wastewater will be approved by a Trade Waste connection permit and will be disposed to the ICC wastewater network during low flow periods. Consistent with standard industry practices, all non-treated trade waste and/or treated slurry residues will be removed from the site and disposed of at a suitable wastewater treatment facility.

3.2.4.7 Impact to drainage patterns and groundwater flow

This section addresses the requirements of Item 4.6 ‘Will the proposal have impact on hydrology, including: (a) change to existing drainage patterns; (b) groundwater flow?’ as set out in Schedule 2 of the CID Guidelines.

The NGR maintenance centre site appears to naturally drain north-east towards the Bremer River, with three drainage lines crossing the western extent of Lot 27 SP136632 within a culvert. However, the drainage paths around the site are degraded (SKM 2011a). Drainage patterns may be impacted by an increase in the amount of impermeable surfaces which will generate additional stormwater runoff. The increase in stormwater runoff will be appropriately managed so that the runoff rate does not exceed existing rates, this will be achieved through construction management methods in accordance with the Queensland Urban Drainage Manual (Queensland Government 2013).

A Stormwater Management Plan will be prepared during detailed design, in accordance with the Queensland Urban Drainage Manual and any relevant Water Sensitive Urban Design guidelines to ensure that any discharged water complies with the Water Quality Objectives outlined in Table 2.3.1 of Ipswich Planning Scheme Policy 3 (ICC 2006).
Groundwater flow may also be impacted by an increase in impermeable surfaces which can potentially alter the groundwater recharge regime affecting groundwater flow. Given that the extent of additional impermeable surfaces is minimal compared to the wider catchment area, and is limited to the immediate site, these alterations are expected to be negligible.

Another potential impact to groundwater flow is flow direction in the unconfined aquifer as a result of aquifer compaction caused by cut and fill earthworks. Change to groundwater flow direction is expected to be of a short-term nature during and immediately following construction, after which time groundwater is expected to restabilise.

3.2.5 Conservation values

This section addresses the requirements of Schedule 2, Item 5 of the CID Guidelines which requires the following be addressed for the matter of conservation values:

‘5.1. Conservation values

5.1 Is the site identified in the SEQ regional plan and/or the Koala Conservation Plan and Management Program 2006 as any of the following?

- Koala conservation area
- Koala sustainability area
- Urban koala area

5.2 Is the site in or adjacent to an area protected under the Nature Conservation Act 1992?

5.3 Is the site in an area or adjacent to an area likely to have rare, endangered or threatened flora or fauna?

5.4 Does the proposal involve building work on land that is partly or completely seaward of a coastal building line under the Coastal Protection and Management Act 1995?

5.5 Does the proposal involve work within a coastal management district under the Coastal Protection and Management Act 1995?

5.6 Is the site included in an area over which a State or regional coastal management plan applies?

5.7 Is the site in or adjacent to an area protected under the Marine Parks Act 1982?

5.8 Will the proposal affect the biodiversity and conservation values of the site?’

3.2.5.1 Protected areas

This section addresses the requirements of Item 5.2 ‘Is the site in or adjacent to an area protected under the Nature Conservation Act 1992?’ as set out in Schedule 2 of the CID Guidelines.

The NGR maintenance centre site is not located in or adjacent to a protected area under the NC Act; therefore this is not applicable to the NGR maintenance centre.
3.2.5.2 Threatened species

This section addresses the requirements of Item 5.3 ‘Is the site in an area or adjacent to an area likely to have rare, endangered or threatened flora or fauna?’ as set out in Schedule 2 of the CID Guidelines.

To determine the presence of species of conservation significance within or adjacent to the NGR maintenance centre site, database searches were undertaken.

For NC Act threatened species, a search of the DEHP ‘Wildlife Online’ database was undertaken (DEHP, 2013). This search tool generates a report on recorded wildlife sightings and listings of plants, fungi, protists, mammals, birds, reptiles, amphibians, freshwater fish, marine and cartilaginous fish, butterflies and other priority invertebrates in the area of interest.

For EPBC Act threatened species, a search of the SEWPaC ‘Protected Matters Search Tool’ database (SEWPaC, 2013) was undertaken. This search tool generates a report on matters of national environmental significance that are likely to occur in the area of interest. The search of the site included a 1 km buffer zone. The full search results are presented in Table 3.4 of Section 3.2.6.

EPBC Act threatened species results have been combined with the NC Act results in the following sections to consolidate reporting.

Threatened fauna

The EPBC Act Protected Matters search returned 19 threatened fauna species, including six mammals, 10 birds, two reptiles and one fish species. Of the 19 EPBC Act threatened species, the Wildlife Online search returned only one threatened mammal, the Koala (*Phascolarctos cinereus*). The Koala is listed as Vulnerable under both the NC Act and the EPBC Act. The Koala is discussed in further detail in the following section as well as in Section 3.2.6.

Table 3.2 lists the threatened fauna species that may occur, or whose habitat may be present, within 1 km of the site.

Table 3.2 Threatened fauna species

<table>
<thead>
<tr>
<th>Scientific name1</th>
<th>Common name</th>
<th>NC Act Status2</th>
<th>EPBC Act Status3</th>
<th>Habitat or species type of presence4</th>
</tr>
</thead>
<tbody>
<tr>
<td><em>Chalinolobus dwyeri</em></td>
<td>Large-eared Pied Bat, Large Pied Bat</td>
<td>V</td>
<td>V</td>
<td>Species or species habitat may occur within area</td>
</tr>
<tr>
<td><em>Dasyurus hallucatus</em></td>
<td>Northern Quoll</td>
<td>-</td>
<td>E</td>
<td>Species or species habitat may occur within area</td>
</tr>
<tr>
<td><em>Petrogale penicillata</em></td>
<td>Brush-tailed Rock-wallaby</td>
<td>V</td>
<td>V</td>
<td>Species or species habitat may occur within area</td>
</tr>
<tr>
<td><em>Phascolarctos cinereus</em></td>
<td>Koala (combined populations of Qld, NSW and the ACT)</td>
<td>V</td>
<td>V</td>
<td>Species or species habitat known to occur within area</td>
</tr>
<tr>
<td><em>Potorous tridactylus tridactylus</em></td>
<td>Long-nosed Potoroo (SE mainland)</td>
<td>V</td>
<td>V</td>
<td>Species or species habitat may occur within area</td>
</tr>
<tr>
<td><em>Pteropus poliocephalus</em></td>
<td>Grey-headed Flying-fox</td>
<td>-</td>
<td>V</td>
<td>Foraging, feeding or related behaviour known to occur within area</td>
</tr>
</tbody>
</table>
### Scientific name | Common name | NC Act Status | EPBC Act Status | Habitat or species type of presence
--- | --- | --- | --- | ---
**Birds**

<table>
<thead>
<tr>
<th>Scientific name</th>
<th>Common name</th>
<th>NC Act Status</th>
<th>EPBC Act Status</th>
<th>Habitat or species type of presence</th>
</tr>
</thead>
<tbody>
<tr>
<td>Anthochaera phrygia</td>
<td>Regent Honeyeater</td>
<td>E</td>
<td>E</td>
<td>Foraging, feeding or related behaviour may occur within area</td>
</tr>
<tr>
<td>Botaurus poiciloptilus</td>
<td>Australasian Bittern</td>
<td>-</td>
<td>E</td>
<td>Species or species habitat likely to occur within area</td>
</tr>
<tr>
<td>Cyclopsitta diophthalma coxeni</td>
<td>Coxen's Fig-Parrot</td>
<td>E</td>
<td>E</td>
<td>Species or species habitat likely to occur within area</td>
</tr>
<tr>
<td>Dasyornis brachypterus</td>
<td>Eastern Bristlebird</td>
<td>E</td>
<td>E</td>
<td>Species or species habitat may occur within area</td>
</tr>
<tr>
<td>Erythropiliorchis radiatus</td>
<td>Red Goshawk</td>
<td>E</td>
<td>V</td>
<td>Species or species habitat known to occur within area</td>
</tr>
<tr>
<td>Geophaps scripta scripta</td>
<td>Squatter Pigeon (southern)</td>
<td>V</td>
<td>V</td>
<td>Species or species habitat likely to occur within area</td>
</tr>
<tr>
<td>Lathamus discolor</td>
<td>Swift Parrot</td>
<td>E</td>
<td>E</td>
<td>Species or species habitat may occur within area</td>
</tr>
<tr>
<td>Poephila cincta cincta</td>
<td>Black-throated Finch (southern)</td>
<td>E</td>
<td>E</td>
<td>Species or species habitat may occur within area</td>
</tr>
<tr>
<td>Rostratula australis</td>
<td>Australian Painted Snipe</td>
<td>V</td>
<td>V</td>
<td>Species or species habitat may occur within area</td>
</tr>
<tr>
<td>Turnix melanogaster</td>
<td>Black-breasted Button-quail</td>
<td>V</td>
<td>V</td>
<td>Species or species habitat likely to occur within area</td>
</tr>
</tbody>
</table>

**Reptiles**

<table>
<thead>
<tr>
<th>Scientific name</th>
<th>Common name</th>
<th>NC Act Status</th>
<th>EPBC Act Status</th>
<th>Habitat or species type of presence</th>
</tr>
</thead>
<tbody>
<tr>
<td>Delma torquata</td>
<td>Collared Delma</td>
<td>V</td>
<td>V</td>
<td>Species or species habitat may occur within area</td>
</tr>
<tr>
<td>Furina dunmalli</td>
<td>Dunmall's Snake</td>
<td>V</td>
<td>V</td>
<td>Species or species habitat may occur within area</td>
</tr>
</tbody>
</table>

**Fish**

<table>
<thead>
<tr>
<th>Scientific name</th>
<th>Common name</th>
<th>NC Act Status</th>
<th>EPBC Act Status</th>
<th>Habitat or species type of presence</th>
</tr>
</thead>
<tbody>
<tr>
<td>Neoceratodus forsteri</td>
<td>Australian Lungfish, Queensland Lungfish</td>
<td>-</td>
<td>V</td>
<td>Species or species habitat likely to occur within area</td>
</tr>
</tbody>
</table>

Source: SEWPaC 2013; DEHP 2013

(1) Records returned from desktop study only (SEWPaC 2013; DEHP 2013)

(2) NC Act conservation status: Extinct in the Wild (EX), Endangered (E), Vulnerable (V), Near Threatened (NT), Not Listed (-)

(3) EPBC Act conservation status: Critically Endangered (CE), Endangered (E), Vulnerable (V), Not Listed (-)

(4) Based solely on Essential Habitat and Protected Matters records

**Koala**

This section addresses the requirements of Item 5.1 ‘Is the site identified in the SEQ regional plan and/or the Koala Conservation Plan and Management Program 2006 as any of the following?’, ‘Koala conservation area; Koala sustainability area; Urban koala area’ as set out in Schedule 2 of the CID Guidelines.

This section has been prepared using previous Koala habitat assessments prepared by SKM (2011b) for the Development Application for Preliminary Approval and subsequent information requests submitted to ICC in 2011.
The Koala habitat assessments concluded that although the former Dixon Street (west) road reserve may provide opportunistic habitat and food resources to Koalas moving through the area (in low numbers), this area of land will not sustain a significant population of Koalas for either breeding or dispersal.

The assessment was based on the young age of regrowth vegetation, the high level of weed infestation, particularly the dense weedy understorey which is not favoured by Koalas and the small area of the parcel of land.

The NGR maintenance centre site is located within the SEQ Koala Protection Area requiring assessment under SPP 2/10 Koala Conservation in SEQ (SPP 2/10). SPP 2/10 requires a Koala Management Strategy be prepared for all projects within the SEQ Koala Protection Area. The Koala Management Strategy will include, at a minimum:

- clear identification and marking of boundaries for limits of clearing
- implementation of toolbox talks on the awareness of the Koala to ensure workers do not approach, feed or handle Koalas
- measures in construction practices to not increase the risk of death or injury to Koala, including the engagement of a qualified spotter catcher
- measures to ensure under no circumstances will trees be felled with Koala present in them or if a tree with a crown overlaps a tree which a koala is present.

SPP 2/10 further requires that any unavoidable clearing of non-juvenile Koala habitat trees be minimised and offset in accordance with the Offsets for Net Gain of Koala Habitat in South East Queensland Policy. Refer to section 3.2.6.3 for discussion on the Commonwealth protection of the Koala under the EPBC Act.

Koala offsets

The Offsets for Net Gain of Koala Habitat in South East Queensland Policy (offsets policy) (2012) is used to ensure that environmental offsets for unavoidable impacts on high quality koala habitat contributes to a net gain in bushland koala habitat in South East Queensland. The offsets policy provides a framework and direction for using environmental offsets to counterbalance unavoidable clearing of koala habitat—where the impacts cannot be avoided or minimised.

Where non-juvenile Koala habitat trees are removed, development must offset that loss at a ratio of 5:1. Three options for offset liability are provided for by the offsets policy – self delivery, delivery via an offsets broker or financial contribution. Financial contributions will be collected by the relevant decision maker (either local government or the State) and used to acquit the offset liability.

The number of non-juvenile Koala habitat trees to be impacted by the development of the NGR maintenance facility will be determined during the detailed design phase and offsets will be calculated accordingly.
Threatened flora

The EPBC Act Protected Matters search returned six threatened flora species. Of the EPBC Act threatened species, the Wildlife Online search returned no threatened flora species under the NC Act within the site. Table 3.3 presents the threatened flora species that may be present, or whose habitat may be present, within 1 km of the site. Due to the disturbed nature of the site, it is unlikely that any threatened flora species are present within the site itself.

Table 3.3 Threatened flora species

<table>
<thead>
<tr>
<th>Scientific name</th>
<th>Common name</th>
<th>NC Act status</th>
<th>EPBC Act status</th>
<th>Habitat or species type of presence</th>
</tr>
</thead>
<tbody>
<tr>
<td>Bosistoa selwynii</td>
<td>Heart-leaved Bosistoa</td>
<td>- V</td>
<td></td>
<td>Species or species habitat likely to occur within area</td>
</tr>
<tr>
<td>Bosistoa transversa</td>
<td>Three-leaved Bosistoa</td>
<td>- V</td>
<td></td>
<td>Species or species habitat likely to occur within area</td>
</tr>
<tr>
<td>Notelaea ipsviciensis</td>
<td>Cooneana Olive</td>
<td>E CE</td>
<td></td>
<td>Species or species habitat may occur within area</td>
</tr>
<tr>
<td>Phebalium distans</td>
<td>Mt Berryman Phebalium</td>
<td>E CE</td>
<td></td>
<td>Species or species habitat may occur within area</td>
</tr>
<tr>
<td>Streblus pendulinus</td>
<td>Siah’s Backbone, Sia’s Backbone, Isaac Wood</td>
<td>- E</td>
<td></td>
<td>Species or species habitat likely to occur within area</td>
</tr>
<tr>
<td>Thesium australe</td>
<td>Austral Toadflax, Toadflax</td>
<td>V V</td>
<td></td>
<td>Species or species habitat likely to occur within area</td>
</tr>
</tbody>
</table>

Source: SEWPaC 2013; DEHP 2013
(1) Records returned from desktop study only (SEWPaC 2013; DEHP 2013)
(2) NC Act conservation status: Extinct in the Wild (EX), Endangered (E), Vulnerable (V), Near Threatened (NT), Not Listed (-)
(3) EPBC Act conservation status: Critically Endangered (CE), Endangered (E), Vulnerable (V), Not Listed (-)
(4) Based solely on Protected Matters records

3.2.5.3 Coastal and marine matters

This section addresses the requirements of Item 5.4 ‘Does the proposal involve building work on land that is partly or completely seaward of a coastal building line under the Coastal Protection and Management Act 1995?’, Item 5.5 ‘Does the proposal involve work within a coastal management district under the Coastal Protection and Management Act 1995?’ Item 5.6 ‘Is the site included in an area over which a State or regional coastal management plan applies?’ and Item 5.7 ‘Is the site in or adjacent to an area protected under the Marine Parks Act 1982?’ as set out in Schedule 2 of the CID Guidelines.

The coastal zone includes Queensland’s coastal waters, islands and generally land below 10 m AHD (or mid-tide level) or 5 km from the coast (whichever is greater).

The NGR maintenance centre site is located approximately 45 km inland, at a minimum elevation of 35 m AHD and is therefore not a coastal location. Further, a review of the Coastal Protection and Management Act 1995 Queensland Coastal Plan mapping confirms that the site is not within the Coastal Zone or a Coastal Hazard Area.

The site is not in or adjacent to an area protected under the Marine Parks Act 1982.
3.2.5.4 Impact on biodiversity and conservation values

This section addresses the requirements of Item 5.8 ‘Will the proposal affect the biodiversity and conservation values of the site?’ as set out in Schedule 2 of the CID Guidelines.

As discussed in the previous sections, there is no remnant vegetation present within the NGR maintenance centre site.

The existing land use and small size of vegetation present within the site, as well as the associated edge effect and presence of weeds, has already degraded the ecological integrity of the remaining vegetation community and faunal habitat.

The NGR maintenance centre will be immediately adjacent to the existing Ipswich-Rosewood rail line corridor and in close proximity to industrial land uses, consequently it is expected that there will be minimum additional impact on the local ecology as a result of the NGR maintenance centre.

A detailed landscape plan will be prepared that will include local native trees and shrubs. Consideration will be given to using drought tolerant species, ICC’s Vegetation Communities Rehabilitation Guide, and Street trees will be selected in accordance with ICC’s Street Tree Strategy. Environmental weeds will also be managed.

3.2.6 Environment Protection and Biodiversity Conservation Act 1999

This section addresses the requirements of Schedule 2, item 6 of the CID Guidelines which requires the following be addressed for the matters of the Environment Protection and Biodiversity Conservation Act 1999 (EPBC Act):


6.1 Does part or all of the proposal significantly impact upon a matter of national environmental significance? If so, the proposal needs to be referred to the Commonwealth Department of the Environment and Heritage [former] for a determination as to whether or not it is a controlled action under EPBC Act, Section 67.’

For EPBC Act matters, a search of the SEWPaC ‘Protected Matters Search Tool’ database (SEWPaC, 2013) was undertaken. This search tool generates a report on matters of national environmental significance or other matters protected by the EPBC Act that are likely to occur in the area of interest.

The search of the EPBC Protected Matter Search Tool undertaken of the site included a 1 km buffer zone. An overview of the search results are presented in Table 3.4.

Table 3.4 EPBC Act matters of national environmental significance

<table>
<thead>
<tr>
<th>Matter of national environmental significance</th>
<th>Protected matters search results</th>
</tr>
</thead>
<tbody>
<tr>
<td>World heritage properties</td>
<td>None</td>
</tr>
<tr>
<td>National heritage places</td>
<td>None</td>
</tr>
<tr>
<td>Wetlands of international importance</td>
<td>The site is upstream from Ramsar-listed Moreton Bay</td>
</tr>
</tbody>
</table>
| Threatened species and ecological communities | 1 Critically Endangered threatened ecological community  
25 Threatened species  
2 Critically Endangered |
3.2.6.1 Wetlands of international importance

The EPBC Act enhances the management and protection of Australia’s Ramsar wetlands. Ramsar wetlands are recognized as a matter of national environmental significance (MNES) under the EPBC Act. Consequently, an action that has, will have, or is likely to have, a significant impact on the ecological character of a Ramsar wetland must be referred to the Minister and undergo an environmental assessment and approval process.

The site is upstream from the Ramsar-listed Moreton Bay. The NGR maintenance centre will have negligible impact on Moreton Bay as there will be no release of contaminants to the surrounding waters.

3.2.6.2 Threatened ecological communities

Vegetation communities may be protected as ‘threatened ecological communities’ under the EPBC Act. Projects which have the potential to significantly impact a threatened ecological community may require referral to SEWPaC for assessment.

One threatened ecological community, Lowland Rainforest of Subtropical Australia, was identified as a community that ‘may occur within the area’.

Listing advice for the Critically Endangered community Lowland Rainforest of Subtropical Australia community outlines the REs that are considered representative of the community, where the requirements of the description, key diagnostic characteristics and condition thresholds are met (Threatened Species Scientific Committee 2011). The mapped HVR RE within the site (RE 12.9-10.7) is not considered representative of Lowland Rainforest of Subtropical Australia. Therefore, it is unlikely the threatened ecological community is present within the site.

3.2.6.3 Threatened species

Listed threatened species are recognized as a MNES under the EPBC Act. Consequently, any action that is likely to have a significant impact on listed threatened species must be referred to the Minister and undergo an environmental assessment and approval process.

The EPBC Act Protected Matters search returned 25 threatened species, including 19 threatened fauna species and six threatened flora species, that may be present, or whose habitat may be present, within 1 km of the site. It is unlikely the NGR maintenance centre will have a significant impact on EPBC Act threatened species. However, given there are non-juvenile Koala habitat trees (as defined by the Koala SPP) present within the site, the NGR maintenance centre will be referred to SEWPaC for Koalas.
Koala

As discussed in Section 3.2.5.2, SKM (2011b) completed a Koala habitat assessment on behalf of Queensland Rail in response to ICC’s information request in relation to the preliminary approval DA lodged over 1 Ada Street, Wulkuraka. The Dixon Street (west) road reserve did not form part of the subject land to the DA. As such, an additional report was later prepared to specifically address Koala habitat in the road reserve.

The Koala habitat assessments concluded that although the former Dixon Street (west) road reserve may provide opportunistic habitat and food resources to Koalas moving through the area (in low numbers), this area of land will not sustain a significant population of Koalas for either breeding or dispersal.

The Koala is listed as Vulnerable under the EPBC Act for the combined populations of Queensland, New South Wales, and the Australian Capital Territory. An EPBC assessment is currently being undertaken by TMR in parallel with this IAR.

Refer to Section 3.2.5.2 for discussion on the State protection of the Koala.

3.2.6.4 Migratory species

Migratory species are those animals that migrate to Australia and its external territories, or pass through or over Australian waters during their annual migrations.

All species of listed migratory animals are matters of national environmental significance under the EPBC Act. An action will require approval if the action has, will have, or is likely to have, a significant impact on a listed migratory species.

As presented in Table 3.5, 14 migratory species, including two Endangered and one Vulnerable species were identified as migratory species that may, or whose habitat may, occur in the local area (i.e. site with 1 km buffer). The NGR maintenance centre is unlikely to have a significant impact on any EPBC listed migratory species.

Table 3.5 Migratory species

<table>
<thead>
<tr>
<th>Scientific name</th>
<th>Common name</th>
<th>EPBC Act status</th>
<th>Habitat or species type of presence</th>
</tr>
</thead>
<tbody>
<tr>
<td>Migratory marine birds</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Apus pacificus</td>
<td>Fork-tailed Swift</td>
<td>-</td>
<td>Species or species habitat likely to occur within area</td>
</tr>
<tr>
<td>Cyclopsitta diophthalma coxeni</td>
<td>Coxen's Fig-Parrot</td>
<td>E</td>
<td>Species or species habitat likely to occur within area</td>
</tr>
<tr>
<td>Haliaeetus leucogaster</td>
<td>White-bellied Sea-Eagle</td>
<td></td>
<td>Species or species habitat likely to occur within area</td>
</tr>
<tr>
<td>Hirundapus caudacutus</td>
<td>White-throated Needletail</td>
<td></td>
<td>Species or species habitat known to occur within area</td>
</tr>
<tr>
<td>Merops ornatus</td>
<td>Rainbow Bee-eater</td>
<td></td>
<td>Species or species habitat may occur within area</td>
</tr>
<tr>
<td>Monarcha melanopsis</td>
<td>Black-faced Monarch</td>
<td></td>
<td>Species or species habitat known to occur within area</td>
</tr>
</tbody>
</table>
### Scientific name

<table>
<thead>
<tr>
<th>Scientific name</th>
<th>Common name</th>
<th>EPBC Act status²</th>
<th>Habitat or species type of presence³</th>
</tr>
</thead>
<tbody>
<tr>
<td>Monarcha trivirgatus</td>
<td>Spectacled Monarch</td>
<td></td>
<td>Species or species habitat known to occur within area</td>
</tr>
<tr>
<td>Myiagra cyanoleuca</td>
<td>Satin Flycatcher</td>
<td></td>
<td>Species or species habitat known to occur within area</td>
</tr>
<tr>
<td>Rhipidura rufifrons</td>
<td>Rufous Fantail</td>
<td></td>
<td>Species or species habitat likely to occur within area</td>
</tr>
<tr>
<td>Xanthomyza phrygia</td>
<td>Regent Honeyeater</td>
<td>E*</td>
<td>Foraging, feeding or related behaviour may occur within area</td>
</tr>
</tbody>
</table>

### Migratory wetlands species

<table>
<thead>
<tr>
<th>Scientific name</th>
<th>Common name</th>
<th>EPBC Act status²</th>
<th>Habitat or species type of presence³</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ardea alba</td>
<td>Great Egret, White Egret</td>
<td></td>
<td>Species or species habitat likely to occur within area</td>
</tr>
<tr>
<td>Ardea ibis</td>
<td>Cattle Egret</td>
<td></td>
<td>Species or species habitat likely to occur within area</td>
</tr>
<tr>
<td>Gallinago hardwickii</td>
<td>Latham’s Snipe, Japanese Snipe</td>
<td></td>
<td>Species or species habitat may occur within area</td>
</tr>
<tr>
<td>Rostratula benghalensis (sensu lato)</td>
<td>Painted Snipe</td>
<td>V*</td>
<td>Species or species habitat may occur within area</td>
</tr>
</tbody>
</table>

Source: SEWPaC 2013

(1) Records returned from desktop study only (SEWPaC 2013)
(2) EPBC Act conservation status: Endangered (E), Vulnerable (V), Not Listed (-) Species is listed under a different scientific name on the EPBC Act Threatened Species list (*).
(3) Based solely on Protected Matters records

### 3.2.7 Cultural heritage

This section addresses the requirements of Schedule 2, Item 7 of the CID Guidelines which requires the following be addressed for the matters of cultural heritage:

‘7. Cultural heritage

7.1 Does the site involve, or is the site adjacent to, any place entered in the heritage register under the Queensland Heritage Act 1992, or identified as having cultural heritage significance in the relevant planning scheme.

7.3 Does the site contain any items on the register of the Queensland Estate, Aboriginal and Torres Strait Islander Cultural Heritage Register or Cultural Heritage Database

7.4 Is it possible the site may contain areas or objects of archaeological or historic significance for Aboriginal or Torres Strait Islander cultural heritage values?

7.5 Does any part of the site include Aboriginal or Torres Strait Islander land, or land subject to a native title claim or Indigenous Land Use Agreement?’

Please note that Item 7.2 does not exist in current version of the CID Guidelines as it references obsolete legislation.
To address the above matters, ICC, relevant State government agencies, and two cultural heritage assessments (prepared by Turnstone Archaeology and Jagera Daran Pty Ltd) commissioned by Queensland Rail in 2012 for the NGR maintenance centre site have been referenced.

3.2.7.1 State heritage register and the Planning Scheme

This section addresses the requirements of Item 7.1 ‘Does the site involve, or is the site adjacent to, any place entered in the heritage register under the Queensland Heritage Act 1992, or identified as having cultural heritage significance in the relevant planning scheme?’, as set out in Schedule 2 of the CID Guidelines.

Queensland Heritage Register

A search of the Queensland Heritage Register undertaken on 28 May 2008 for the suburb of ‘Wulkuraka’ identified two State Heritage places in the suburb as follows:

- Sadliers Crossing Railway Bridge – located approximately 600 m east of the site.
- Sandstone Railway Culvert and Remains – located approximately 700 m north of the site.

The proposed NGR maintenance centre will not impact upon either of the above State Heritage places.

There are no State Heritage places within or directly adjacent to the site.

Planning Scheme

The NGR maintenance centre site is identified in the Planning Scheme (ICC 2006) as a ‘place of interest’ for ‘railway sidings’, as shown in overlay mapping (refer Section 2.3.1.4 of this report). Schedule 3 of the Planning Scheme (ICC 2006) lists the site as the ‘Wulkuraka Railway Sidings’ described as ‘Historic Railway Site’.

Part 11 of the Planning Scheme (ICC 2006) describes an identified ‘place of interest’ as places that:

- are located in an area where the stated planning expectation is that the land could be developed at a significantly higher intensity than offered by the existing building
- have an economic value which is very low compared to other nearby land and there is limited prospect of continued use or adaptive reuse of existing buildings
- are in a state of significant structural disrepair, and there is significant risk to persons or property
- where the cultural significance or streetscape value is marginal.

The Planning Scheme (ICC 2006) encourages the conservation of ‘identified places of interest’ but does not mandate their conservation. It is proposed that these unused railway sidings will be removed in order to accommodate the proposed NGR maintenance centre within the site. The removal of the railway sidings is considered appropriate as the site will remain in use for railway activities, albeit at a higher intensity.

3.2.7.2 Recorded cultural heritage items

This section addresses the requirements of Item 7.3 ‘Does the site contain any items on the register of the Queensland Estate, Aboriginal and Torres Strait Islander Cultural Heritage Register or Cultural Heritage Database?’ as set out in Schedule 2 of the CID Guidelines.

A search of the Department of Aboriginal and Torres Strait Islander and Multicultural Affairs (DATSIMA) Aboriginal Cultural Heritage Database and Register http://www.datsima.qld.gov.au/atsis/aboriginal-torres-strait-islander-peoples/indigenous-cultural-heritage undertaken on 4 June 2013 reveals that no Aboriginal cultural heritage is recorded for the NGR maintenance centre site (including a 100 m buffer).
However, DATSIMA advise that it is probable that the absence of recorded Aboriginal cultural heritage places reflects a lack of previous cultural heritage surveys of the area and therefore their records are not likely to reflect a true picture of the Aboriginal cultural heritage values of the area.

Two cultural heritage assessments have been undertaken for the site. These are described in Section 3.2.7.3.

3.2.7.3 Risk to Aboriginal cultural heritage

This section addresses the requirements of Item 7.4 ‘Is it possible the site may contain areas or objects of archaeological or historic significance for Aboriginal or Torres Strait Islander cultural heritage values?’ as set out in Schedule 2 of the CID Guidelines.

Turnstone Archaeology with Jagera Daran Pty Ltd conducted an Aboriginal and historical heritage survey and assessment of the proposed NGR maintenance centre site in January 2012. Jagera Daran Pty Ltd undertook a cultural heritage survey with consultants Turnstone Archaeology providing support and preparing a technical report. The purpose of the survey was to determine whether the proposed NGR maintenance centre will impact on Aboriginal cultural heritage landscapes, features, sites, and objects identified under the Queensland Cultural Heritage Act 2003. The survey included the site as well as Queensland Rail owned land on the northern side of the Ipswich-Rosewood rail line corridor (Lot 25 on SP136632).

The survey defined sites by cultural knowledge or by the presence of archaeological material such as scarred trees, stone artefacts, artefact concentrations or hearths. Archaeologists undertaking the field surveys noted that ground integrity was compromised due to all ground surfaces being modified over time. The study area has been heavily modified by historical land uses including a cut and fill being removed to a depth of 4 m to 5 m which has resulted in a steep bank 5 m high on the southern boundary.

Turnstone Archaeology undertook predicative modelling whereby a range of associated data and historical evidence is compiled to assess the likelihood of cultural sites in any given landscape. This predictive modelling was used by Jagera Daran in conjunction with field survey in locating sites.

Six new Significant Aboriginal Areas or cultural heritage sites were located on the surface close to the southern boundary of the site. Only two of these sites are within the context of their original deposition with the remaining likely to have been relocated during historical landfill and clearance of the area.

The proposed impacts of the proposed NGR maintenance centre are discussed in section 9.1 of the Turnstone Archaeology report. The report notes that the proposed NGR maintenance centre will have a major impact on the areas south of the Ipswich-Rosewood rail line, however those impacts will ‘occur generally within a heavily modified area that has had the cultural layers removed’ (Turnstone Archaeology, 2012, p. 65).

Turnstone Archaeology assigned all the sites with low to medium scientific significance.

Turnstone Archaeology’s recommendations relevant to the NGR maintenance centre site made on the basis of the survey are as follows:

- A copy of the report produced by Turnstone Archaeology is to be lodged with the Cultural Heritage Coordination Unit, DERM (now DATSIMA).
- That a test pit be excavated near the southern boundary (GPS coordinate 472873 6945632) of the site to investigate whether there is a potential for sub-surface cultural heritage in an area that may be impacted by construction associated with the NGR maintenance centre (such as a retaining wall or embankment).
- Monitoring is not required for the bulk of the site but should be undertaken should any impacts occur along the southern boundary be anticipated.

- Queensland Rail funds meetings for discussion with the relevant Aboriginal Elders regarding the nature of the reported Aboriginal sacred site which was situated nearby to the site. Note: Previous consultation has been undertaken by Queensland Rail with the relevant Aboriginal parties. Further consultation may be undertaken by TMR as part of the CID process (refer Section 3.2.7.4 of this report).

- Appropriate signage be erected noting the connection of the Jagera, Ugarapul and Yuggera Peoples to the site.

Jagera Daran noted that the original land surface remained inside the southern boundary of the site and was approximately 10 m in width, with this area containing the best change of any Aboriginal cultural heritage sites surviving in this area.

Jagera Daran assigned a Cultural Significance Rating of ‘Significant Aboriginal Artefacts’ acknowledging that as Traditional Owners the items are significant as they give evidence of Aboriginal occupation in the area. Jagera Daran recommend using a monitoring process to help mitigate potential Aboriginal cultural heritage sites which may be present subsurface, specifically monitoring of construction activities that involve soil disturbance throughout the proposed construction period along the southern section of the site.

Should potential for impact be confirmed, the recommendations set out in the cultural heritage assessment reports will guide the preparation of a voluntary Cultural Heritage Management Plan (CHMP) to be implemented during the construction phase of the proposed NGR maintenance centre.

### 3.2.7.4 Aboriginal land, native title and Indigenous land use agreements

This section addresses the requirements of Item 7.5 ‘Does any part of the site include Aboriginal or Torres Strait Islander land, or land subject to a native title claim or Indigenous Land Use Agreement?’ as set out in Schedule 2 of the CID Guidelines.

A search of the National Native Title Tribunal database (http://www.nntt.gov.au/Applications-And-Determinations/Search-Applications/Pages/Search.aspx) was undertaken on 6 June, 2013 for the entire ICC local government area. Four applications were identified, three of which have a status of ‘Discontinued’ and one ‘Active’. The active claimant within the ICC local government area is the Yugara/Yugarapul People (Tribunal file no. QC2011/008). This claim does not extend across the NGR maintenance centre site.

Additionally, native title is extinguished on land granted freehold title prior to 23 December 1996 or within a road (as a ‘public work’) constructed prior to 1 January 1994. The site is comprised on land held in freehold title and road reserve. However, the road reserve is unconstructed therefore native title may exist in the road reserve.

The site does not include any land subject to a native title claim or Indigenous Land Use Agreement.

### 3.2.8 Health, safety, amenity and social impacts

This section addresses the requirements of Schedule 2, Item 8 of the CID Guidelines which requires the following be addressed for the matters of health, safety, amenity and social impacts:

8. Health, safety, amenity and social impacts

8.1 Is the proposal an environmentally relevant activity as listed in schedule 1 of the Environmental Protection Regulation 1998?
8.2 Does the site include lands recorded in the environmental management register or contaminated land register under the Environmental Protection Act 1994, or a notifiable activity under schedule 2 of that Act?

8.3 Does the proposal have the potential to release contaminants, or include a notifiable activity under the Environmental Protection Act 1994, schedule 2?

8.4 Is the proposal sensitive to air quality?

8.5 Are there known or potential air quality problems in the area that may affect the proposal?

8.6 Does the proposal have the potential to create air quality problems for the area or odour emissions? If so, will the proposal affect the amenity of adjoining or nearby uses due to the times, nature, intensity and proximity of the air quality problems or odour?

8.7 Will the proposal generate significant greenhouse gas emissions?

8.8 Is the proposal a noise sensitive land use? If so, are surrounding uses compatible?

8.9 Does the proposal have the potential to create noise nuisance for the surrounding area? If so, will the proposal affect the amenity of adjoining or nearby uses due to the times, nature, intensity and proximity of the noise?

8.10 Will the proposal include external lighting? If so, will the proposal affect the amenity of adjoining or nearby uses due to the times, nature, intensity and proximity of external lighting?

8.11 Will the appearance of the proposal, including the physical compatibility of the proposal (e.g. scale, height, materials, colours, site coverage) affect the amenity of adjoining or nearby uses?

8.12 Will the proposal impact on scenic values including landscape character and visual amenity?

8.13 Will the proposal generate significant amounts of traffic? If so, will the proposal affect the amenity of adjoining or nearby uses due to the times and nature of traffic generation, the location of access points, and the adequacy of on-site parking and public transport?

8.14 Will the proposal generate significant amounts, or sensitive types, of waste? If so, will the waste affect the health, safety or amenity of adjoining or nearby uses?

8.15 Will the proposal create a need for personal safety and building security measures? If so, is there a need for crime prevention measures for users of the site and for access to the site? Would such measures affect the safety and amenity of adjoining or nearby uses?
8.16 Is the proposal likely to have any impacts on the economic activities of the area, including:

(a) labour and markets;

(b) service delivery;

(c) local industries?

8.17 Is the proposal controversial or could it lead to conflict or concern in the community?

8.18 Is the proposal a childcare centre? If so, building requirements under the Queensland Development Code, part 22, may apply.

8.19 Is the proposal a nursing home or hostel? If so, requirements under the Health Regulation 1996 may apply.

8.20 Is the proposal a private health facility? If so, requirements under the Queensland Development Code, part 7, may apply.

8.21 Does the proposal involve a major hazard facility or is the site within or adjacent to a major hazard facility under the Dangerous Goods Safety Management Act 2001?

3.2.8.1 Environmentally relevant activity

This section addresses the requirements of Item 8.1 ‘Is the proposal an environmentally relevant activity as listed in schedule 1 of the Environmental Protection Regulation 1998?’ as set out in Schedule 2 of the CID Guidelines.

Environmentally relevant activities (ERAs) are industrial activities with the potential to release contaminants into the environment. Management of the ERAs is regulated under the Environmental Protection Act 1999 (EP Act), with the ERAs defined in Schedule 2 of the Environmental Protection Regulation 2008 (EP Regulation).

The NGR maintenance centre is likely to include ERAs, as listed in the EP Regulations. These are further detailed in Section 5.2.4.

3.2.8.2 Contaminated land and notifiable activities

This section addresses the requirements of Item 8.2 ‘Does the site include lands recorded in the environmental management register or contaminated land register under the Environmental Protection Act 1994, or a notifiable activity under schedule 2 of that Act?’ and Item 8.3 ‘Does the proposal have the potential to release contaminants, or include a notifiable activity under the Environmental Protection Act 1994, schedule 2?’ as set out in Schedule 2 of the CID Guidelines.

Part 8 of the EP Act outlines requirements for the management of contaminated land in Queensland, including specifying requirements for managing land listed on the Environmental Management Register (EMR) and Contaminated Land Register (CLR). Schedule 3 of the EP Act lists ‘notifiable activities’ which are generally considered to be activities likely to cause contamination.

Lot 27 SP136632 is currently listed on the EMR for the notifiable activity ‘hazardous contaminants’ due to previous rail activities. However, Lot 27 SP136632 is not currently listed on the CLR. The Dixon Street (west) road reserve is not listed on the EMR or the CLR.
The NGR maintenance centre will also trigger the commencement of a number of notifiable activities within the NGR maintenance centre site as defined in Schedule 3 of the EP Act.

These may include:

- abrasive blasting
- chemical storage (other than petroleum products or oil under Item 29)
- engine reconditioning works
- waste storage, treatment or disposal

### 3.2.8.3 Air quality

This section addresses the requirements of Item 8.4 ‘Is the proposal sensitive to air quality?’ Item 8.5 ‘Are there known or potential air quality problems in the area that may affect the proposal?’ and Item 8.6 ‘Does the proposal have the potential to create air quality problems for the area or odour emissions? If so, will the proposal affect the amenity of adjoining or nearby uses due to the times, nature, intensity and proximity of the air quality problems or odour?’ as set out in Schedule 2 of the CID Guidelines.

The NGR maintenance centre is not sensitive to air quality, nor are there known or potential air quality problems in the area that may affect it.

The NGR maintenance centre will service electric passenger trains only. No diesel trains will be serviced onsite. All trafficable areas will be sealed. The NGR maintenance centre will maintain and repair the trains within enclosed or covered areas. Therefore no airborne particulates (e.g. smoke, dust, ash, steam or gaseous) are likely to be emitted from activities carried out.

Given the NGR maintenance centre will be developed in accordance with any requirements specified in the Contract with regard to safety, human factors, and the environment; significant odour, air or dust pollutants are not anticipated to be created by the NGR maintenance centre.

### 3.2.8.4 Greenhouse gases

This section addresses the requirements of Item 8.7 ‘Will the proposal generate significant greenhouse gas emissions?’ as set out in Schedule 2 of the CID Guidelines.

As discussed in Section 3.2.8.2, the NGR maintenance centre will service electric passenger trains only. No diesel trains will be serviced. Therefore the NGR maintenance centre will not generate significant greenhouse gas emissions.

### 3.2.8.5 Noise

This section addresses the requirements of Item 8.8 ‘Is the proposal a noise sensitive land use? If so, are surrounding uses compatible?’ and Item 8.9 ‘Does the proposal have the potential to create noise nuisance for the surrounding area? If so, will the proposal affect the amenity of adjoining or nearby uses due to the times, nature, intensity and proximity of the noise?’ as set out in Schedule 2 of the CID Guidelines.

The NGR maintenance centre is not a noise sensitive use and as such will not require protection from noise generated from the Ipswich-Rosewood rail line corridor.

A noise assessment (SKM 2011c) was undertaken by SKM consultants on behalf of Queensland Rail in August 2011 to determine the operational noise emissions associated with the NGR maintenance centre. Ambient levels for sensitive receptors located near the proposed NGR maintenance centre are presently quite high and include existing noise from the Ipswich-Rosewood rail line, the surrounding road network, nearby industrial land uses, and the Amberley RAAF base.
The NGR maintenance centre will maximise separation between existing residential properties and proposed activities likely to generate the highest noise levels (i.e. workshops). Activities which are likely to generate much lower noise levels, such as the Queensland Rail train crew facilities will be located in closest proximity to residential properties.

To ensure compliance with the relevant noise standards, the final design of the NGR maintenance centre will comply with the Queensland Government’s Code of Practice Railway Noise Management (EMS-STD-46-004) and incorporate a number of mitigation strategies which are further discussed in Section 3.3.3.

### 3.2.8.6 Lighting

This section addresses the requirements of Item 8.10 ‘Will the proposal include external lighting? If so, will the proposal affect the amenity of adjoining or nearby uses due to the times, nature, intensity and proximity of external lighting?’ as set out in Schedule 2 of the CID Guidelines.

As the proposed NGR maintenance centre may involve a 24 hour, seven day a week operation, lighting will be required onsite. Light spill resulting from the proposed NGR maintenance centre will potentially affect sensitive receptors located in Dixon Street (east) and Grace Street.

During detailed design, various design elements will be incorporated to ensure that light spill is minimised and complies with Australian standards for lighting. Lighting design will also be in accordance with CASA’s Manual of Standards for Aerodromes and the Department of Defence requirements relating to the Amberley RAAF base. This is discussed further in Section 3.3.4.

### 3.2.8.7 Amenity

This section addresses the requirements of Item 8.11 ‘Will the appearance of the proposal, including the physical compatibility of the proposal (e.g. scale, height, materials, colours, site coverage) affect the amenity of adjoining or nearby uses?’ and Item 8.12 ‘Will the proposal impact on scenic values including landscape character and visual amenity?’ as set out in Schedule 2 of the CID Guidelines.

The NGR maintenance centre site is not identified as an area of high visual amenity or scenic value. View lines to the site from residential and industrial areas to the south are obscured by vegetation and elevation changes.

The closest sensitive receptors are the residents of dwellings in Dixon Street (east) and Grace Street, particularly 64 Grace Street (Lot 8 SP103906) which overlooks the Ipswich-Rosewood rail line corridor. Visual amenity values for these receptors are already significantly eroded by the presence of the rail corridor.

Although the proposed NGR maintenance centre will change the visual character of the site, it remains consistent with the overall historic use and strategic intent for the site. This is discussed in detail in Section 3.3.2.

### 3.2.8.8 Traffic generation

This section addresses the requirements of Item 8.13 ‘Will the proposal generate significant amounts of traffic? If so, will the proposal affect the amenity of adjoining or nearby uses due to the times and nature of traffic generation, the location of access points, and the adequacy of on-site parking and public transport?’ as set out in Schedule 2 of the CID Guidelines.
The NGR maintenance centre is not expected to generate significant amounts of traffic with the proportion of traffic attributable to the proposed NGR maintenance centre below 5% of daily background estimates for Karrabin-Rosewood Road to horizons for the 2015 and 2025 horizons. Traffic impacts will generally be limited to the operation of the primary access point at the Toongarra Road/ access point intersection. All trucks, delivery and service vehicles will access the site via the primary access point. The secondary access at Dixon Street (east) is proposed to be available to staff, visitors and emergency vehicles only.

Land uses adjacent to Dixon Street (west) are industrial in nature. As stated above, traffic generated by the proposed NGR maintenance centre is expected to be low and the proposed primary access point will provide a suitable level of service.

Land uses within Dixon Street (east) are residential and therefore sensitive to heavy traffic movements in particular. Heavy vehicles will not require access to the site via Dixon Street (east) (with the exception of emergency vehicles).

Parking for staff, visitors and heavy vehicles and circulation roadways will be provided onsite. Adequate facilities will be provided onsite for loading and/or unloading. Pedestrian and cycle access will be available at both access points with public transport users expected to access the site at Dixon Street (east). Turn-around facilities will also be accommodated onsite.

Therefore, the NGR maintenance centre is not expected to impact the amenity of adjoining or nearby uses due to traffic generated by the proposed NGR maintenance centre.

Further assessment regarding traffic and transport is provided in Section 3.2.10 of this report.

3.2.8.9 Waste

This section addresses the requirements of Item 8.14 ‘Will the proposal generate significant amounts, or sensitive types, of waste? If so, will the waste affect the health, safety or amenity of adjoining or nearby uses?’ as set out in Schedule 2 of the CID Guidelines.

The quantities of waste to be generated by the NGR maintenance centre are unknown. However, with appropriate management the waste will not affect the health safety or amenity of adjoining or nearby uses.

All waste or excess construction materials will be minimised by careful management and ordering of the required materials. Spoil volumes will be minimised by careful balancing of cut and fill operations, as well as the possible reuse of spoil to reshape and stabilise areas around the site.

Hazardous substances will be properly stored and disposed of in accordance with legislation and the proposed Construction Environmental Management Plan (CEMP), which will be prepared as part of the approval process.

3.2.8.10 Safety

This section addresses the requirements of Item 8.15 ‘Will the proposal create a need for personal safety and building security measures? If so, is there a need for crime prevention measures for users of the site and for access to the site? Would such measures affect the safety and amenity of adjoining or nearby uses?’ as set out in Schedule 2 of the CID Guidelines.

The main risk to public safety during construction is the use of heavy machinery (e.g. bull-dozers, excavators). To minimise this risk to the public, all construction areas will be fenced off. The construction will require the use of trucks to transport materials and equipment. Where heavy vehicles or machinery has significant interaction with general traffic, traffic management will be employed to limit the risk of conflict.
Operational safety issues are significantly different to those during the construction period. If unauthorised persons enter the site, the risk is high due to the possible conflict with trains and contact with overhead wires; however, appropriate safety measures should stop all unauthorised persons entering.

The NGR maintenance centre will operate with strong security measures through, at a minimum:

- fencing and entrance gates
- CCTV
- surface treatments
- signage.

These measures will clearly delineate for the general public that this area is for authorised access only. The general public will not be able to access the site, as the two access points to the NGR maintenance centre will be gated. Fences and walls will be designed, constructed and maintained to assist in highlighting entrances and paths in order to increase pedestrian security and safety.

The areas along the perimeter of the site will be free from trees or other foliage which can be used to aid climbing or obscure passive surveillance and/or CCTV signage will be erected along the perimeter fence to provide a warning to deter trespass.

External lighting will be provided to vehicular and pedestrian movement areas, including roads, paths and car parks, in order to provide visibility and safety at night.

The proposed NGR maintenance centre will adopt best practice safety practices and processes and compliance with a Workplace Health and Safety Management Plan; and will be designed, constructed, and operated in accordance with the following safety standards and documents:

- AS 4024 Safety of Machinery.
- AS 4292 Railway Safety Management.
- MD11-1339 Safety Risk Management.
- MD-12-21 Rail Safety.
- MD-12-232 Registrable Plant and Plan Design.
- MD-12-138 Plant Management.
- Best practice safety features and concepts.
- National Code of Practice for CCTV systems for the Mass Passenger Sector for Counter Terrorism.
- MD-12-163 Human Factors.
- ISO 6385 Ergonomic principles in the design of work systems.
- ISO 9241-210 Human-centred design processes for interactive system.

The NGR maintenance centre will include fire hydrant coverage in accordance with all requirements specified in the Contract and the International Fire Engineering Guidelines.
3.2.8.11 Economic

This section addresses the requirements of Item 8.16 ‘Is the proposal likely to have any impacts on the economic activities of the area, including: (a) labour and markets; (b) service delivery; (c) local industries?’ as set out in Schedule 2 of the CID Guidelines.

Development of the NGR maintenance centre will have significant job creation impacts, with up to 200 new jobs created by the operational phase of the centre. Jobs will also be created during the construction phase of the NGR maintenance centre.

The creation of the jobs will likely attract new residents to the area, having a positive impact on the local economy. Additionally, the NGR maintenance centre will have an indirect positive impact on the State economy through revenue created by the public use of the new passenger rollingstock, which the centre will service.

Overall, the NGR maintenance centre is expected to have a positive impact on the local and State economy.

3.2.8.12 Community concern

This section addresses the requirements of Item 8.17 ‘Is the proposal controversial or could it lead to conflict or concern in the community?’ as set out in Schedule 2 of the CID Guidelines.

This impact will be further defined through the next stages of the CID process, which includes extensive consultation with the identified stakeholders. Refer to Section 4 for further details.

3.2.8.13 Childcare centre

This section addresses the requirements of Item 8.18 ‘Is the proposal a childcare centre?’ as set out in Schedule 2 of the CID Guidelines.

This is not applicable as the NGR maintenance centre is not a childcare centre.

3.2.8.14 Nursing home or hostel

This section addresses the requirements of Item 8.19 ‘Is the proposal a nursing home or hostel?’ as set out in Schedule 2 of the CID Guidelines.

This is not applicable as the NGR maintenance centre is not a nursing home or hostel.

3.2.8.15 Private health facility

This section addresses the requirements of Item 8.20 ‘Is the proposal a private health facility?’ as set out in Schedule 2 of the CID Guidelines.

This is not applicable as the NGR maintenance centre is not a private health facility.

3.2.8.16 Major hazard facility

This section addresses the requirements of Item 8.21 ‘Does the proposal involve a major hazard facility or is the site within or adjacent to a major hazard facility under the Dangerous Goods Safety Management Act 2001?’ as set out in Schedule 2 of the CID Guidelines.

This is not applicable as the NGR maintenance centre is not a major hazard facility.
3.2.9 Infrastructure

This section addresses the requirements of Schedule 2, Item 9 of the CID Guidelines which requires the following be addressed for the matter of infrastructure:

‘9. Infrastructure

9.1 Does the proposal create additional demand for infrastructure, including augmentation of existing networks, for:

(a) water;
(b) sewerage;
(c) roads;
(d) wastewater management;
(e) solid waste management;
(f) energy;
(g) telecommunications?

9.2 Is the site in the vicinity of an airport or aviation facilities, or both?

9.3 Is any part of the site situated in an electricity easement or within 100 m of a substation site?’

3.2.9.1 Water and wastewater infrastructure

This section addresses the requirements of Item 9.1 ‘Does the proposal create additional demand for infrastructure, including augmentation of existing networks, for: (a) water; (b) sewerage?’ as set out in Schedule 2 of the CID Guidelines.

SKM (2011d) analysed the water requirements for the site and demonstrated that a suitable water supply could be provided for the NGR maintenance centre by augmenting the existing networks for:

- normal water service – a 100 mm diameter main connected to Ada Street
- fire fighting supply service – a 150 mm diameter main connected to Beirne Street.

The design of water services for the NGR maintenance centre will be undertaken in accordance with the Planning Guidelines for Water Supply and Sewerage.

The existing wastewater infrastructure can be relocated outside the various proposed building zones mitigating any impact on the wastewater infrastructure. The discharges will be suitably timed following discussions with QUU (Queensland Urban Utilities) to ensure no pressuring of the system. All non-treated trade waste and/or treated slurry residues will be removed from the site and disposed of at a suitable wastewater treatment facility.

The Planning Scheme (ICC 2006) indicates that there are a number of proposed sewer augmentations within the sewer catchment, including a trunk main upgrade through the site.
As this information is compiled for and held by ICC, further discussions are required with ICC and QUU to ascertain the future sewer infrastructure upgrade within the site. Relocation of the sewer as part of the NGR maintenance centre should incorporate any upgrade to size as indicated in the Planning Scheme (ICC 2006).

3.2.9.2 Roads

This section addresses the requirements of Item 9.1 ‘Does the proposal create additional demand for infrastructure, including augmentation of existing networks, for: (c) roads?’ as set out in Schedule 2 of the CID Guidelines.

Refer to Section 3.2.10 traffic and transport for information on roads.

3.2.9.3 Wastewater management

This section addresses the requirements of Item 9.1 ‘Does the proposal create additional demand for infrastructure, including augmentation of existing networks, for: (d) wastewater management?’ as set out in Schedule 2 of the CID Guidelines.

Wastewater from site amenities and trains will be disposed of directly into the sewer system. Trade wastes from maintenance operations will be pre-treated prior to pumping to remove washed oils and grease. The treated water will then be disposed to the sewer.

Wastewater will be managed in accordance with a Wastewater Management Plan for the NGR maintenance centre. Proper drainage facilities will be provided with wastewater management systems including collection and hazardous waste separation (including oil separation) and appropriate storm water exclusion.

Consultation with QUU and Queensland Health will be required to confirm whether such wastes are to be treated as clinical waste and any pre-treatment requirements.

3.2.9.4 Solid waste management

This section addresses the requirements of Item 9.1 ‘Does the proposal create additional demand for infrastructure, including augmentation of existing networks, for: (e) solid waste management?’ as set out in Schedule 2 of the CID Guidelines.

A Waste Management Plan for the NGR maintenance centre will be prepared and will include as a minimum the following technical information:

- Details of waste storage, servicing and collection from the site.
- Details of waste storage, servicing and collection of biological waste (human and animal).
- Site layout plan providing forward motion entry for waste vehicles to and from the site.
- Certification by a registered professional engineer of Queensland that demonstrates compliance with the necessary waste vehicle turning requirements.

As part of the management of solid waste, areas and receptacles for the storage and removal of waste must be:

- designed, located and screened, where necessary, so as not to present an unsightly appearance, when viewed from a street or public ‘right of way’
- designed and located to facilitate access by the Local Government’s waste removal vehicles
- covered, contained and managed so as not to create an attraction for wildlife.
3.2.9.5 Airport or aviation facilities

This section addresses the requirements of Item 9.2 ‘Is the site in the vicinity of an airport or aviation facilities, or both?’ as set out in Schedule 2 of the CID Guidelines.

The NGR maintenance centre site is located approximately 3 km north-east of Amberley RAAF Base.

The height of the NGR maintenance centre will not exceed 15 m and will not be a vertical obstruction for aircraft from the RAAF Base. No works undertaken by the NGR maintenance centre will emit airborne that could impair the visual or flying conditions and affect a pilot’s visibility or aircraft operations within the operational airspace of the RAAF Base.

Mitigation measures will be put in place by the NGR maintenance centre so as to not interfere with the RAAF Base. Particular attention will be given to the lighting of the NGR maintenance centre, so as not to cause distraction or interference with a pilot’s visibility while in control of approaching or departing aircraft. Further, areas and receptacles for the storage and removal of waste will be covered, contained and managed so as not to create an attraction for wildlife that may interfere with operational airspace.

3.2.9.1 Energy transmission infrastructure

This section addresses the requirements of Item 9.1 ‘Does the proposal create additional demand for infrastructure, including augmentation of existing networks, for: (f) energy?’ and Item 9.3 ‘Is any part of the site situated in an electricity easement or within 100 m of a substation site?’.

The NGR maintenance centre site is not located within an electricity easement. The site is located within 100 m of a substation; however, the site is located on the other side of the Ipswich-Rosewood rail line corridor and therefore will not impact on the substation.

The NGR maintenance centre does not impose a load on any public utility beyond its capability to service the greater NGR Project.

3.2.9.2 Telecommunications

This section addresses the requirements of Item 9.1 ‘Does the proposal create additional demand for infrastructure, including augmentation of existing networks, for: (g) telecommunications?’ as set out in Schedule 2 of the CID Guidelines.

The NGR maintenance centre does not impose a load on any public utility beyond its capability to service the greater NGR Project.

3.2.10 Traffic and transport

This section addresses the requirements of Schedule 2, Item 10 of the CID Guidelines which requires the following be addressed for the matters of traffic and transport:

‘10. Traffic and transport

10.1 Will the proposal generate additional vehicle, pedestrian or cycle traffic, or increase demand for public transport? If so, is there a need to change one or more of the following in the locality to meet the needs of those using the community infrastructure:

(a) traffic management arrangements;

(b) public transport networks and services;
(c) pedestrian and cycling networks?

10.2 Does the location and design of the proposed community infrastructure enable connections to public transport, cycling and pedestrian networks?

10.3 Is the proposal consistent with the land use and transport planning principles detailed in relevant integrated regional transport plans?

10.4 Are changes proposed to the traffic ingress and egress for the site?

10.5 Does the site adjoin or gain access from a State-controlled road? Will the proposal impact on a State-controlled road?

10.6 Will the proposal impact on the provision of existing or future public passenger transport services or facilities?

10.7 Will the proposal impact on existing or future railway land or facilities?

10.8 Does the proposal involve tidal works or prescribed tidal works?’

This section has been addressed referencing information prepared by consultants (SKM 2011e) commissioned by Queensland Rail to support the Application for Preliminary Approval made to ICC in June 2011 including subsequent information requests from ICC and TMR as referral agency dated 28 September 2011 and 10 November 2011. It also references information prepared to address Conditions 12, 13 and 14 arising from the Preliminary Approval dated 24 November 2011 and the referral agency response from TMR.

3.2.10.1 Generation of additional traffic and increased demand for public transport

This section addresses the requirements of Item 10.1 ‘Will the proposal generate additional vehicle, pedestrian or cycle traffic, or increase demand for public transport? If so, is there a need to change one or more of the following in the locality to meet the needs of those using the community infrastructure (a) traffic management arrangements; (b) public transport networks and services; (c) pedestrian and cycling networks?’ as set out in Schedule 2 of the CID Guidelines.

Vehicular traffic

Traffic demands associated with the proposed NGR maintenance centre will include light vehicle traffic on the surrounding road network associated with movements of employees, visitors and contractors to and from the site. Some heavy vehicles will also access the site as required.

The majority of staff (80%) is expected to access the proposed NGR maintenance centre by private vehicle with the remaining 20% expected to travel via public transport. No more than 100 staff and 30 visitors are expected to be on site at any one time.

A comparison of estimated background daily traffic demands for Karrabin-Rosewood Road with and without the proposed NGR maintenance centre is provided in Table 3.6.
Table 3.6 Traffic demand – background and with the proposed NGR maintenance centre

<table>
<thead>
<tr>
<th>Time horizon</th>
<th>Background demand (vpd$^1$)</th>
<th>Demand with the proposed NGR maintenance centre (vpd$^1$)</th>
<th>Proportion of traffic attributable to proposed NGR maintenance centre</th>
</tr>
</thead>
<tbody>
<tr>
<td>2015 (first year of operation)</td>
<td>7,600</td>
<td>340</td>
<td>4.5 %</td>
</tr>
<tr>
<td>Year 2025 (ten year operating)</td>
<td>10,600</td>
<td>340</td>
<td>3.2</td>
</tr>
</tbody>
</table>

1. vpd = vehicles per day
2. Based on Ipswich Strategic Transport Model data from ICC for Toongarra Road to the east and Karrabin-Rosewood Road to the west of Dixon Street (west)

Given the low (i.e. less than 5% of daily background daily estimates for Karrabin-Rosewood Road) forecast traffic generation from the proposed NGR maintenance centre, a capacity assessment for the surrounding road network was deemed to be not required. This is consistent with the TMR’s Guidelines for Assessment of Road Impacts and Development (2006).

Traffic impacts are generally limited to the operation of the primary access point at the Toongarra Road turnoff at Lot 1 on RP148910

Pedestrian and cycle traffic

Pedestrian and cycle movements generated by the proposed NGR maintenance centre are expected to be low and limited to foot access to public transport services. Existing pedestrian and cycle networks are sufficient to accommodate any increase in pedestrian or cycle movements.

Public transport

Approximately 20% of proposed NGR maintenance centre staff are expected to access their workplace by public transport. This is not expected to place undue demand on the existing public transport network (refer Section 2.2.4 for a description of the existing public transport network).

3.2.10.2 Location and design – connections to public transport, cycling and pedestrian networks

This section addresses the requirements of Item 10.2 ‘Does the location and design of the proposed community infrastructure enable connections to public transport, cycling and pedestrian networks?’ as set out in Schedule 2 of the CID Guidelines.

The NGR maintenance centre site is located west of the Wulkuraka train station; a walking distance of approximately 100 m. Access from the site to the station is level with an at-grade pedestrian crossing of the Ipswich-Rosewood rail line from the east-bound platform. TransLink bus service 506 travels between Toongarra Road, Wulkuraka and Ipswich. The nearest stop is approximately 800 m south of the site at Flinders Drive, near Wills Street.

Pedestrian and cycle networks are generally on-road with limited footpaths provided. Secure pedestrian access to the site will be available via both access points with public transport users most likely to use the secondary access point at Dixon Street (east). As both rail and bus service the centre and are within walking distance, the location and design of the proposed NGR maintenance centre will be accessible by active and public transport.
3.2.10.3 Consistency with relevant integrated regional transport plans

This section addresses the requirements of Item 10.3 ‘Is the proposal consistent with the land use and transport planning principles detailed in relevant integrated regional transport plans?’ as set out in Schedule 2 of the CID Guidelines.

As discussed in Section 2.3.3, the proposed NGR maintenance centre is consistent with achieving the objectives of:

- SEQ Regional Plan (Queensland Government 2009).

The proposed NGR maintenance centre is suitably located in the urban footprint regional land use category of the SEQ Regional Plan (Queensland Government 2009) and will support the Regional Plan’s strategic directions, in particular relating to the creation of well planned communities supported by a network of accessible and convenient centres (DRO 8) and planned delivery of regional infrastructure including public transport (DRO 10). The proposed NGR maintenance centre will support the ongoing expansion of public transport services in SEQ, specifically relating to the maintenance of new rollingstock for the existing passenger rail network.

Connecting SEQ 2031 (TMR 2011) is the guiding transport planning and policy document that supports strategic intent of the SEQ Regional Plan (Queensland Government 2009). Connecting SEQ (TMR 2011) sets in place a plan for a ‘rail revolution’ that is a complete overhaul of the rail system to provide a modern, high capacity network including the acquisition of NGR Project. The proposed NGR maintenance centre is an integral part of the ‘rail revolution’ as it will service the new generation rollingstock proposed to be acquired.

3.2.10.4 Changes proposed to traffic ingress/egress

This section addresses the requirements of Item 10.4 ‘Are changes proposed to the traffic ingress and egress for the site?’ as set out in Schedule 2 of the CID Guidelines.

The primary access point will be designed to allow access by all trucks, delivery and service vehicles and will include:

- a security entrance control point
- a turn-around area outside the security entrance for articulated vehicles
- a gate for access to a utility services easement
- a footpath for staff access.

Additionally, the intersection of Toongarra Road and the primary access point will be upgraded and reconfigured to provide appropriate access to the site to and from the surrounding road network. This intersection will be designed in accordance with TMR standards to accommodate 19.0 m AVs and 12.5 m heavy rigid vehicles to and from Toongarra Road and will be able to accommodate a 25 m low loader truck under escort. A secondary access point to the site will be available via Dixon Street (east). This access will be restricted to use by NGR maintenance centre staff and visitors, and emergency vehicles only. A pedestrian access point will also be provided.

3.2.10.5 Access from State-controlled road

This section addresses the requirements of Item 10.5 ‘Does the site adjoin or gain access from a State-controlled road? Will the proposal impact on a State-controlled road?’ as set out in Schedule 2 of the CID Guidelines.
The proposed NGR maintenance centre may affect Karrabin-Rosewood Road, a State-controlled road which commences at the end of Toongarra Road, near the intersection with the Dixon Street (west) immediately to the west of the site. As discussed in Section 3.2.10.1, above, the proposed NGR maintenance centre is expected to have a low (less than 5% of daily background estimates) impact on forecast traffic generation to 2015 and 2025. Traffic impacts will be limited to the operation of the primary access point at Toongarra Road.

In order to accommodate the required access to the proposed NGR maintenance centre, the intersection of Toongarra Road and the primary access point is to be upgraded and will provide an acceptable level of service within Karrabin-Rosewood Road. The roads will be developed in accordance with Council standards for an industrial access street and any additional requirements specified in the Contract.

Other State-controlled roads in the general vicinity of the NGR maintenance centre site include the Warrego Highway 3 km to the north and the Cunningham Highway 5 km to the south. The proposed NGR maintenance centre will not have a measurable impact on these State-controlled roads. The State-controlled roads are shown in Figure 3.3.

![Figure 3.3 State-controlled roads](source: DTMR, 2013)
3.2.10.6 Impact on the provision of existing or future public transport services/facilities

This section addresses the requirements of Item 10.6 ‘Will the proposal impact on the provision of existing or future public passenger transport services or facilities?’ as set out in Schedule 2 of the CID Guidelines.

As part of the NGR Project, the State government proposes to significantly increase the size of the passenger rail fleet, acquire new passenger train sets to replace old rollingstock, and expand the existing fleet. The proposed NGR maintenance centre will provide maintenance and service facilities for new rollingstock required to meet the growing demand for passenger rail services in SEQ.

Therefore, the proposed NGR maintenance centre will have a positive impact on the ongoing provision and expansion of public transport services in SEQ.

3.2.10.7 Impact on the existing or future railway land or facilities

This section addresses the requirements of Item 10.7 ‘Will the proposal impact on existing or future railway land or facilities?’ as set out in Schedule 2 of the CID Guidelines.

The proposed NGR maintenance centre is a railway activity being undertaken on freehold land held by Queensland Rail utilised for railway purposes. Item 10.7 is therefore not directly applicable in this instance as the proposed NGR maintenance centre is part of a planned upgrade to existing railway land and facilities. However, the development of the site for ‘a rail maintenance facility’ is consistent with the intent for this land under the Planning Scheme (ICC 2006) and the SEQ Regional Plan (Queensland Government 2009).

3.2.10.8 Tidal works or prescribed tidal works

This section addresses the requirements of Item 10.8 ‘Does the proposal involve tidal works or prescribed tidal works?’ as set out in Schedule 2 of the CID Guidelines

The proposed NGR maintenance centre will not involve works within any tidal watercourses, and therefore will not involve tidal works or prescribed tidal works.

3.3 Short-term, long-term and cumulative effects

The section addresses the requirements of Items (c), (d), and (e) as set out in Section 3, Step 1 (1.2) of the CID Guidelines, which ensures regard is given to the following:

‘(c) short-term, long-term and cumulative effects;’

‘(d) effects from use and works, during both the construction phase and the operational phase of the proposed community infrastructure;’

‘(e) on-site and off-site effects.’

3.3.1 Land use and property impacts

3.3.1.1 Acquisition of land

The NGR maintenance centre site comprises two parcels of land. Lot 27 on SP136632 is freehold land owned by Queensland Rail. Dixon Street (west) is land designated as road controlled by ICC. It is anticipated that Dixon Street (west) road reserve will be closed and the tenure changed to reflect its new use as part of the NGR maintenance centre.

No acquisition of private property is required for the proposed NGR maintenance centre.
3.3.1.2 Impacts on existing land uses

Existing land uses adjacent to the NGR maintenance centre site are industrial to the south-west, residential to the south-east, east and north-east. To the north of the site is land owned by Queensland Rail.

The site is located within 100 m of residential areas with the closest residences being those fronting Ada Street and Dixon Street (east). The majority of the proposed buildings will be greater than 200 m from these residential areas.

Sensitive receptors include residential dwellings and land uses such as schools, hospitals, and aged care facilities. Further residential dwellings are located in Grace Street on the northern side of the Ipswich-Rosewood rail line corridor. There are no schools, hospitals or aged care facilities surrounding the site.

Impacts during construction will be associated mainly with nuisances such as noise and dust associated with earthworks. Impacts may include temporary traffic movements within the surrounding road network. Primary access to the site during the construction phase will be via entrance off Toongarra Road. Construction will be undertaken in accordance with the EP Act and will be detailed in the CEMP which will be developed by the construction contractor and approved prior to construction.

Operational impacts to surrounding land uses will be largely mitigated by ensuring the proposed NGR maintenance centre is appropriately designed. Final design of the proposed NGR maintenance centre will endeavour to orient aspects of the development associated with higher noise levels away from residential land uses to maximise separation distances to these sensitive receptors.

Mitigation measures will be applied to ensure compliance with the relevant codes and polices, and will incorporate landscaping and fencing treatments as acoustic barriers and aesthetic screens. Traffic forecast generation from the proposed NGR maintenance centre (as discussed in Section 3.2.10 of this report) are low, and impacts on traffic will be minimal on the external road network. The secondary access point, at Dixon Street (east), will not be accessible by heavy vehicles consistent with Dixon Street’s (east) function as a residential street.

Some vegetation is apparent in aerial mapping between the site and the nearest dwelling in Dixon Street (east), which will act as a buffer between these land uses. The existing Ipswich-Rosewood rail line and the Wulkuraka train station form a visual buffer to residential properties north of the rail corridor. No schools, hospitals or aged care facilities are expected to be impacted by the proposed NGR maintenance centre.

3.3.1.3 Impacts on future land uses

Residential land uses surrounding the site are expected to intensify over time in line with the strategic intent for this area under the SEQ Regional Plan (Queensland Government 2009) and the Planning Scheme (ICC 2006).

ICC PD Online system (http://pdonline.ipswich.qld.gov.au) was reviewed to identify if any current development applications had been lodged or if approval had recently been granted in areas immediately surrounding the site. Notable development applications in the area include:

- 74 and 76 Grace Street, Wulkuraka (ICC reference 8692/2006) – within Lot 1 on RP51476 and Lot 2 RP92401 located between Queensland Rail owned land and Grace Street, this proposal incorporates the development of 57 residential dwelling units and a shopping centre, to be constructed in three stages. This development is oriented away from the Queensland Rail land (and thus the proposed NGR maintenance centre) and includes a proposed 2 m acoustic fence and landscaping at the boundary of the Queensland Rail land. This development was initially approved by ICC in July 2010, with a negotiated decision notice issued January 2011.
14 Arnold Street, Wulkuraka (ICC reference 2629/210) – residential subdivision involving 80 residential lots varying in size from approximately 300 to 850 km², and development of eight residential dwellings on land located on the corner of Grace and Arnold Street, north of the Ipswich-Rosewood rail line corridor and the site. Approved by ICC June 2011.

113 Gregory Street (ICC reference 2343/2008) – residential subdivision involving two lots into 33 lots ranging in size from 450 to 825 km². Approved by ICC in May 2011.

Other development known to be occurring in the area includes the ‘Essington Rise’ estate being developed by AV Jennings immediately to the south of the site. This is currently being marketed by AV Jennings at http://www.essingtonrise.com.au/ with land in the Stage 2 and 2a releases currently available and priced between $145,000 and $175,000.

There are also a number of smaller-scale development approvals involving dual occupancies and subdivision (for example, one lot into eight) indicating that there is significant optimism in the residential development market in Wulkuraka. It is apparent that the impending development of the site for the proposed NGR maintenance centre is not having an undue effect on achieving the highest and best use of the land in the surrounding area.

The development of the proposed NGR maintenance centre may also act as a ‘catalyst’ project in the Ipswich region and improve confidence in the industrial sector.

3.3.2 Visual amenity impacts

The existing visual character of the site is vacant land with sparse vegetation including isolated trees and grass. The terrain is generally flat banked to approximately 5 m at the southern boundary. Regrowth vegetation is present in the south-west of the site. Grassed areas are mowed and generally maintained. The site is currently utilised by Queensland Rail to store stockpiles of rail ballast and other railway associated materials. The site is fully fenced with gates at the Dixon Street (east) and Dixon Street (west). Internal access tracks are informal and unformed. The site is occasionally blighted by the illegal dumping of rubbish. The site is not identified as an area of high visual amenity or scenic character.

The overall character of surrounding area to the south-west of the site is industrial, including undeveloped industrial land. To the south-east, east and north-east, the prevailing character is residential, with residential development dating from around the 1950’s, with new low density development emerging. Immediately to the north of the site is the Ipswich-Rosewood rail line. Queensland Rail own land north of the rail reserve which is generally undeveloped with the exception of an electrical substation and hardstand area adjacent to the southern boundary.

The closest sensitive receptors are the residents of dwellings in Dixon Street (east) and Grace Street, particularly 64 Grace Street (Lot 8 SP103906) which overlooks the existing Ipswich-Rosewood rail line corridor. Visual amenity values for these receptors are already significantly eroded by the presence of the rail corridor.

View lines to the site from residential and industrial areas to the south are obscured by vegetation and elevation changes.

The residents of 155 Toongarra Road (between Dixon Street (west) and Toongarra Road) may also experience some reduced visual amenity associated with the construction of the proposed primary access point to the site.

The existing railway line and Wulkuraka train station will act as a visual buffer to properties south of Jupiter Street as they are lower in elevation near this section of the railway corridor compared to the residential land to the north.
Potential visual impacts relate to impacts during the construction and operational phases of the proposed NGR maintenance centre. Works during the construction phase will result temporarily alter the visual amenity in the area. During construction the greatest visual impacts will occur during the removal of existing vegetation prior to construction of the proposed NGR maintenance centre. Construction associated with the primary access point will also be clearly visible from Toongarra Road. Temporary construction facilities such as site offices and laydown areas will be present during this stage of the NGR maintenance centre. A CEMP will be developed prior to construction to manage impacts during construction.

Although the proposed NGR maintenance centre will change the visual character of the site, it remains consistent with the overall historic use and strategic intent for the site.

The proposed NGR maintenance centre will be visible from a range of vantage points including surrounding properties (particularly 64 Grace Street), trains traveling on the Ipswich-Rosewood rail line, the surrounding road network and the Wulkuraka train station. Mitigation measures such as the selection of suitable materials, landscaping treatments and visual screening will be incorporated into the final design to minimise the impact on the visual character on the surrounding area, whilst maintaining security.

It is also anticipated that security measures incorporated into the final design of the proposed NGR maintenance centre will deter unauthorised trespass having the positive effect of eliminating unsightly illegal dumping of rubbish.

3.3.3 Noise impacts

Noise sources during the construction phase are temporary and may be associated with increased traffic movements, construction and excavation. Impacts arising during the construction phase will be managed in accordance with the CEMP which will be developed by the construction contractor prior to commencement.

A noise assessment was undertaken by SKM consultants on behalf of Queensland Rail in August 2011 to determine the operational noise emissions associated with the NGR maintenance centre. The noise assessment used information based on activities at the Sydney Metro depot, which were considered to be similar to the proposed NGR maintenance centre at Wulkuraka. It assumed a 24 hour work schedule for a 15 m tall building. The assessment was used to determine the NGR maintenance centre’s compliance with the Noise Code of Practice for noise impact, with the Environmental Protection (Noise) Policy 2008 for background creep criteria, and with the EcoAccess sleep disturbance criteria.

Ambient levels for sensitive receptors located near the proposed NGR maintenance centre are presently quite high and include existing noise from the Ipswich-Rosewood rail line, the surrounding road network, nearby industrial land uses, and the Amberley RAAF base.

The noise assessment indicated some day and evening exceedances (up to 7 A-weighted decibels (dBA)) and some night-time exceedances (up to 5 dBA) of the noise impact criteria for sensitive receptors located adjacent to the south-east of the site. The report does note that these exceedances can be substantially mitigated by suitable design.

To ensure compliance with the relevant noise standards, the final design of the NGR maintenance centre will comply with the Queensland Government’s Code of Practice Railway Noise Management (EMS-STD-46-004) and incorporate a number of mitigation strategies including:

- sitting noise generating activities (i.e. the wheel lathe and mechanical plant) to maximise the separation from existing residential properties
- operational controls such as switching certain equipment off or lower during the night
- selection of quieter equipment
- use of mechanical noise control for air conditioning and ventilation plant
suitable sizing of openings for the wheel lathe and maintenance facility
- a potential noise barrier along the southern and eastern boundaries of the site.

The proposed NGR maintenance centre can achieve compliance with all applicable noise criteria.

3.3.4 Lighting impacts

As the proposed NGR maintenance centre is a 24-hour operation lighting is required onsite, including specific task-based lighting as well as general lighting for access into and circulation within the site, and security lighting.

Light spill resulting from the proposed NGR maintenance centre will potentially affect sensitive receptors located in Dixon Street (east) and Grace Street (in particular 64 Grace Street which overlooks the existing Ipswich-Rosewood rail line and the site).

During the detailed design stage various design elements will be incorporated to ensure that light spill is minimised. All relevant Australian standards and codes will be complied with including AS 4282 which relates to the obtrusive effects of outdoor lighting.

Lighting design will also be in accordance with CASA’s Manual of Standards for Aerodromes and the DoD requirements relating to the Amberley RAAF base. Further, CASA and DoD will be consulted as part of this CID process to ensure the NGR maintenance centre does not inadvertently affect their aircraft operations.

3.3.5 Ecology

The existing land use and small size of vegetation present in the NGR maintenance centre site, as well as the associated edge effect and presence of weed species, has already degraded the ecological integrity of the remaining vegetation community and faunal habitat. Given the existing faunal barrier presented by the existing Ipswich-Rosewood rail line corridor, it is not expected that the NGR maintenance centre would present any further substantial impediments to faunal movements within and adjacent to the site.

The NGR maintenance centre will be immediately adjacent to the existing Ipswich-Rosewood rail line corridor and Wulkuraka train station and in close proximity to industrial land uses, consequently it is expected that there will be minimum additional impact on the local ecology as a result of the NGR maintenance centre.
4. Identification of matters likely to be of concern to other parties

The section addresses the requirements of Items (a) and (b) as set out in section 3, Step 1 (1.3) of the CID Guidelines, which ensures regard is given to the following:

‘(a) the matters likely to be of concern to other parties affected or likely to be affected by development for the proposed community infrastructure; and

(b) those other parties in (a) by type or organisation.

Parties to consider include:

- State public sector entities
- Commonwealth government agencies
- local government
- owner/s of the land
- adjoining land owner/s
- community groups
- conservation groups
- Aboriginal groups
- business or industry associations.’

Stakeholders have been identified and listed in Section 4.2

4.1 Matters likely to be of concern to other parties

Matters that may be of concern to other parties who may be affected by development for the proposed community infrastructure include:

- traffic and safety impacts on surrounding road network, including State-controlled roads
- impacts of planned entry/exit points
- loss of vegetation in particular Koala habitat
- noise impacts and mitigation measures
- lighting impacts and mitigation measures
- Indigenous and non-Indigenous cultural heritage
- flooding, hydrology and stormwater management issues
- visual and amenity matters including building design (size, materials, colours), potential sound barriers and fencing treatments, landscaping treatments, site access, security
- social and economic impacts, in particular employment opportunities during both the construction and operational phases
- waste management including management of regulated waste and air and odour impacts
- contaminated land management including management of contaminated soil
- perceptions from surrounding residents of impacts to private property values

These issues will be explored during the stakeholder consultation required as part of the CID process.

4.2 Stakeholders

4.2.1 Local government – Ipswich City Council

- CEO, Carl Wulff.
- Mayor, Cr Paul Pisasale.
- Deputy Mayor, Cr Victor Atwood.
- Councillor for Division 6, Cr Cheryl Bromage.

4.2.2 Elected representatives

- Sean Choat, State Member for Ipswich West.
- Shayne Neumann, Federal Member for Blair.

4.2.3 Other government agencies and departments

- Department of Defence: RAAF Base Amberley – WGCDR Clive Wells.
- Department of Aboriginal and Torres Strait Islander and Multicultural affairs.
- Department of Community Safety.
- Department of Environment and Heritage Protection.
- Department of Natural Resources and Mines.
- Department of State Development, Infrastructure and Planning.
- Department of Transport and Main Roads.
- Queensland Police Service.

4.2.4 Business

- AV Jennings (developer of Essington Rise).
- Adjacent industrial property owners:
  - Aquatex Environmental Ltd
  - Stegges Ltd
  - Envirofill Pty Ltd.
4.2.5 Community infrastructure

- Energex.
- Queensland Urban Utilities.
- Telstra.

4.2.6 Education

No educational institutions are located near the NGR maintenance centre site.

4.2.7 Community

- Ipswich Chamber of Commerce and Industry.
- Leichhardt-Wulkuraka Neighbourhood Watch.
- Adjacent residential property owners.

4.2.8 Environmental groups and organisations

- Ipswich Koala Protection Society.
- Rana Frog Group Inc.
- Ipswich Bushcare groups.

4.2.9 Indigenous groups

There are no active native title claims affecting the site. However, the cultural heritage assessments (prepared by Turnstone Archaeology and Jagera Daran Pty Ltd) commissioned by Queensland Rail in 2012 identified the connection of the Jagera, Ugarapul and Yuggera Peoples to the site (refer Section 3.2.7 of this report).

Relevant indigenous stakeholders for the NGR maintenance centre are:

- the Cultural Heritage body for the site is Jagera Daran Pty Ltd
- the Aboriginal Party for the site is Jagera People #2.

Previous consultation undertaken by Queensland Rail with these indigenous groups was conducted as part of the Aboriginal Heritage Survey (Turnstone Archaeology 2012; Jagera Daran Pty Ltd 2012).

The survey identified potential for Aboriginal Cultural Heritage artefacts to be located within the site and provided a list of recommendations to help to mitigate any potential impact of the development. At the time of writing, the TMR Metro cultural heritage team were in the process of undertaking assessment of whether future development footprint would extend into the heritage management area, as identified in the survey report. Should potential for impact be confirmed, a voluntary CHMP will be prepared for the site to ensure the proponent’s duty of care in relation to Aboriginal Cultural Heritage. The voluntary CHMP management requirements will be based on recommendations provided in the survey report.

4.3 Stakeholder consultation

Consultation will be conducted during subsequent phases of the CID process in accordance with TMR’s community engagement policy and guidelines, the requirements set out in the Contract for the NGR Project, and other relevant standards and guidelines.
5. Identification of State assessment requirements and applicable Commonwealth legislation

The CID will be undertaken in accordance with Chapter 5, Part 2 of the Queensland SP Act. In accordance with these provisions, assessment against requirements of a local planning scheme is not required. However, this does not exempt the proponent from obtaining approvals/licenses and meeting obligations under other relevant Commonwealth and State legislation.

5.1 Commonwealth legislation

5.1.1 Environment Protection and Biodiversity Act 1999

The EPBC Act provides a legal framework to protect and manage nationally and internationally important flora, fauna, ecological communities and heritage places, defined under the EPBC Act as a MNES.

The findings of a search of the ‘Protected Matters Search Tool’ maintained by the Commonwealth Department of Sustainability, Environment, Water, Population and Communities (SEWPac) for the NGR maintenance centre site are presented in Table 5.1 (also refer Section 3.2.6).

Table 5.1 MNES potentially located within the NGR maintenance centre site

<table>
<thead>
<tr>
<th>Matter of national environmental significance</th>
<th>Protected matters search results</th>
</tr>
</thead>
<tbody>
<tr>
<td>World heritage properties</td>
<td>None</td>
</tr>
<tr>
<td>National heritage places</td>
<td>None</td>
</tr>
<tr>
<td>Wetlands of international importance</td>
<td>The site is upstream from Ramsar-listed Moreton Bay</td>
</tr>
<tr>
<td>Threatened species and ecological communities</td>
<td>1 Critically Endangered threatened ecological community</td>
</tr>
<tr>
<td></td>
<td>25 Threatened species</td>
</tr>
<tr>
<td></td>
<td>2 Critically Endangered</td>
</tr>
<tr>
<td></td>
<td>8 Endangered</td>
</tr>
<tr>
<td></td>
<td>15 Vulnerable</td>
</tr>
<tr>
<td>Migratory species</td>
<td>14 Migratory species</td>
</tr>
<tr>
<td></td>
<td>2 Endangered</td>
</tr>
<tr>
<td></td>
<td>1 Vulnerable</td>
</tr>
<tr>
<td>Commonwealth marine areas</td>
<td>None</td>
</tr>
<tr>
<td>Great Barrier Reef Marine Park</td>
<td>None</td>
</tr>
<tr>
<td>Nuclear actions (including uranium mines)</td>
<td>None</td>
</tr>
</tbody>
</table>
A site-based ecological assessment against the EPBC Matters of National Environmental Significance, Significant Impact Guidelines 1.1 (2009) is required to determine whether the NGR maintenance centre has the potential to significantly impact on any of the protected matters. The assessment will confirm or otherwise the presence of the identified species and ecological communities on site. If, as an outcome of this assessment, a significant impact is identified, a referral to the SEWPuC is required under the EPBC Act.

An EPBC assessment is currently being undertaken by TMR in parallel with this IAR (also refer Section 3.2.6 for further details).

5.2 State legislation

5.2.1 Environmental approvals

5.2.1.1 Vegetation Management Act 1999

The Vegetation Management Act 1999 (VM Act) protects native woody vegetation that is:

- mapped as remnant vegetation on a RE or remnant map
- regulated regrowth vegetation.

In accordance with Schedule 3, Part 1, Table 4, of the SP Regulation, an application for a permit for operational works (clearing native vegetation) is required for development that is:

- clearing of native vegetation
- assessable development prescribed under section 232 (1) of the SP Act.

For the purposes of the SP Act, the proposed development is assessable development. An application requires code assessment against the Regional Vegetation Management Code for Southeast Queensland Bioregion and an approval from the DNRM.

Under provisions of the SP Act, a range of exemptions is provided from assessment and/or self-assessment processes in relation to development of public transport infrastructure. Approval processes and exemptions vary depending on the tenure of land, the type of vegetation, the size of area to be cleared and the purpose of clearing.

The site is mapped on the RE maps as containing mapped Of Concern HVR vegetation under the VM Act, with no remnant vegetation present within the site.

The current tenure of the land on which vegetation clearing is required is Freehold and a road reserve (Dixon Street (west) – a dedicated not constructed local government road).

It is considered the following exemptions listed under Schedule 24 of the SP Regulation will apply to the NGR maintenance centre:

a) Under Part 2, item 2(g) – for freehold land, clearing that is for urban purposes in an urban area and the vegetation is regulated regrowth vegetation.

b) Under Part 2, item 2(l) – for freehold land, clearing of regulated regrowth vegetation under the regrowth vegetation code

c) Under Part 2, item 2(n) – for freehold land, clearing for development that is a significant community project to the extent it involves clearing regulated regrowth
d) Under Part 2, item 5(a(i)) – for land that is a road under the Land Act 1994, clearing that is carried out by a local government or by or for the chief executive of the department in which the Transport Infrastructure Act is administered and is necessary to construct road infrastructure or to source construction material for roads

e) Under Part 2, item 5 (a(iii)) – for land that is a road under the Land Act 1994, clearing that is carried out by a local government or by or for the chief executive of the department in which the Transport Infrastructure Act is administered and in an urban area and the vegetation is shown on the regional ecosystem map or remnant map as other than remnant vegetation.

As such, it is considered that an application and assessment against the Regional Vegetation Management Code for Southeast Queensland Bioregion by DNRM is not required for clearing regrowth vegetation within the site.

5.2.1.2 Nature Conservation Act 1992

All plants that are native to Australia are ‘protected plants’ under the NC Act. DEHP administers this Act to ensure that protected plants and their parts are not illegally removed from the wild.

A clearing permit authorises the legitimate destruction or ‘taking’ of common, rare, Vulnerable and Endangered plants, except where an exemption applies. Section 29 of the Nature Conservation (Protected Plants) Conservation Plan 2000 outlines the restrictions on grant of clearing permits.

A desktop search, utilising a buffer of 1 km around the site, identified 4 protected species, including the Koala (SEQ bioregion) (Phascolarctos cinereus) listed as Vulnerable under the NC Act. The Koala is also listed as Vulnerable under the EPBC Act. Habitat for the Koala exists within the high-value regrowth vegetation mapped within the site.

A flora and fauna survey is required to confirm the presence or otherwise of the protected species onsite.

Where the flora and fauna survey identifies protected flora which will be impacted upon through clearing, a permit to take protected plants is required. Where clearing will destroy or otherwise impact on animal breeding places of protected fauna species, a species management program will be required to accompany the permit application and must be prepared by a suitably experienced ecologist.

However, TMR has negotiated a MOU with DEHP for the removal of vegetation for common species under Nature Conservation Regulations. The MOU has certain requirements which TMR must comply with depending on the circumstances of the Project.

Given the absence of remnant vegetation onsite, as well as the degraded condition of existing vegetation community and faunal habitat (i.e. presence of weeds, edge effects), it is expected that there will be minimum additional impact on the local ecology as a result of the NGR maintenance centre. Heritage

Two types of heritage are considered in relation to the NGR maintenance centre. These are:

- European cultural heritage
- Aboriginal cultural heritage.

The following section further discusses how these relate to the site.
5.2.1.3 Queensland Heritage Act 1992

The Queensland Heritage Act 1992 provides for the conservation of Queensland’s historical cultural heritage. Section 30 of the Act established the Queensland Heritage Register. The Heritage Register records registered places, heritage agreements relating to registered places, protected areas, and orders and permits made under the Act in relation to registered places.

The NGR maintenance centre site is not identified on the Queensland Heritage Register, therefore no permit requirements are triggered for this site.

It is noted that the site is identified in Schedule 3 of the local planning scheme (ICC 2006) as a ‘place of interest’ for ‘railway sidings’. It is considered that the historic use of the site for railway purposes will continue through the proposed use of the site for railway maintenance activities.

5.2.1.4 Aboriginal Cultural Heritage Act 2003

The Aboriginal Cultural Heritage Act 2003 established the following means for protecting significant Aboriginal cultural heritage:

- A register of Aboriginal cultural heritage.
- An aboriginal cultural heritage database.
- Processes for addressing land use impacts.

The Act requires that the proponent, when carrying out an activity, takes all reasonable and practicable measures to ensure that the activity does not harm Aboriginal cultural heritage. This is known as the ‘cultural heritage duty of care’ (section 23(1) of the Aboriginal Cultural Heritage Act 2003).

Sections 87 to 80 of the Act require a CHMP to be developed and approved if any of the following are required for the NGR maintenance centre:

- an Environmental Impact Statement
- other environmental authority
- a requirement under the SP Act.

The assessment identified that none of the above circumstances apply to the NGR maintenance centre. Therefore, a CHMP is not required for the NGR maintenance centre.

However, it is noted that the Ipswich area is an important area to the Traditional Owners for the Jagera, Yuggera and Ugarapul tribes, as it holds a number of significant registered artefact sites, dreaming areas, occupation sites and quarry sites. A number of aboriginal cultural surveys have been conducted of the site and the surrounding area in recent times.

An Aboriginal Cultural Heritage survey over the Wulkuraka development site was undertaken by Turnstone Archaeology and Jagera Daran in January 2012. The survey provided the first stage of assessing the site to ascertain if the proposed infrastructure will impact on Aboriginal Cultural Heritage landscapes, features, sites and objects identified under the Queensland Aboriginal Cultural Heritage Act 2003.

Throughout the survey large stone pieces were found throughout the site, indicating that there was a stone source prior to construction of the railway line. The survey identified potential for Aboriginal Cultural Heritage artefacts to be located within the site and provided a list of recommendations to help to mitigate any potential impact of the development.
At the time of writing, the TMR Metro cultural heritage team were in the process of undertaking assessment of whether future development footprint would extend into the heritage management area, as identified in the survey report (Turnstone Archaeology 2012; Jagera Daran Pty Ltd 2012). Should potential for impact be confirmed, a voluntary CHMP will be prepared for the site to ensure the proponent’s duty of care in relation to Aboriginal Cultural Heritage. The voluntary CHMP management requirements will be based on recommendations provided by the survey report (Turnstone Archaeology 2012; Jagera Daran Pty Ltd 2012).

5.2.2 Contaminated land

Management of contaminated land is regulated under the EP Act (Chapter 7, Part 8). Contaminated land refers to land contaminated by hazardous substances that may pose risk to human health or the environment. Land known to have contamination is recorded on the CLR.

Activities identified as being likely to cause land contamination are listed as ‘notifiable activities’ in Schedule 3 of the EP Act. Land that has been or is being used for a ‘notifiable activity’ is automatically recorded on the EMR. Sites recorded on the EMR register, pose a low risk of human health and do not necessarily require remediation or the ceasing of the current land use.

Contaminated soil must not be removed from sites listed on CLR or EMR. Where removal of soil is required from land recorded on either register, a soil disposal permit is required from the DEHP, administering the EP Act. The disposal permit states the amount of soil to be removed, how it is to be transported and how it is to be treated.

The NGR maintenance centre site is included on the EMR for the notifiable activity ‘hazardous contaminant’ due to possible high arsenic levels along the existing Ipswich-Rosewood rail line corridor. Therefore, contaminated soil disposal may be required.

Under the SP Regulation, Schedule 3, Part 2, Table 2 – Material change of use of premises, Item 6 – Making a material change of use of premises if all or part of the premises is on the EMR or CLM register requires assessment by DEHP, unless as identified under item (b) there is currently a notifiable activity on the land and the activity is continuing.

It is considered that this notifiable activity being ‘railway yards’ as defined by the EP Act will be continued through the proposed use of the site as ‘rail maintenance facility’ and no additional referral to DEHP.

5.2.3 Environmentally relevant activities

ERAs are industrial activities with the potential to release contaminants into the environment. Management of the ERAs is regulated under the EP Act, with the ERAs defined in Schedule 2 of the EP Regulation.

Previously, ‘railway maintenance facility’ was defined as ERA 72 (Railway facility) and required a permit under the EP Act. Following the commencement of the Environmental Protection (Greentape Reduction) and Other Legislation Amendment Act 2012 (commenced 31 March 2013), a railway facility is no longer defined as an ERA under Schedule 2 of the EP Regulation and a development permit is not required.

During the construction and development stage of the proposed maintenance centre the following activities, listed as ERAs in Schedule 2 of the EP Regulation, may potentially be conducted and would require development permits:

- ERA 8 – Chemical storage.
- ERA 16 – Extractive and screening activities (Note: ERA 16 does not include extracting material from (2b) a road reserve for constructing a road or (2c) a place for constructing a road or railway at the place; in this case a permit is not required).
- ERA 56 – Regulated waste storage.
ERA 63 (1) – Sewage treatment, with design capacity 21-100 Equivalent Persons (EPs).
ERA 64 – Water treatment.

The requirement for a permit will be subject to relevant thresholds, as identified in Schedule 2 of the EP Regulation.

The DEHP has simplified the environmental compliance framework for the ERAs where environmental outcomes can be achieved by compliance with the standard conditions set in the Codes of environmental compliance. Where compliance with a relevant Code is achieved, an application to the DEHP will not be required.

Application for the ERA permit is typically submitted as part of the Material Change of Use application to local government under the SP Act. In this case, an application directly to the DEHP will be required.

5.2.4 Building approvals

The NGR maintenance centre will involve building works associated with construction of the proposed centre.

Under the SP Regulation, Schedule 3 – Assessable development, self-assessable development and type of assessment, Part 2, Table 1 – Building works, building works carried out by or on behalf of the State, a public sector entity or a local government, other than building works declared under the Building Act 1975 to be exempt development, is a self-assessable development. Self-assessable development does not require a permit application. However, compliance with the Building Code of Australia relevant standards and codes is required.

If not carried out by or on behalf of the State government entity, building work approvals are required.

Construction of the centre will involve assessment by a building certifier. A building certifier will assess the design plans for compliance with relevant standards and codes, including the requirements of the Building Code of Australia. During the construction stage, the building certifier may carry out site inspections, and prior to the building being occupied a Certificate of Classification will be issued.

5.2.5 Other considerations for statutory compliance

5.2.5.1 Environmental nuisance management

Management of environmental nuisances, including noise, is regulated under the EP Act and the Environmental Protection (Noise) Policy 2008 (EP (Noise) Policy). The acoustic quality objectives for specified sensitive receivers and time of day are prescribed in Schedule 1, column 3 of the EP (Noise) Policy. Under Part 1, Division 1, s.98-99 of the EP Regulation, management of noise nuisance is devolved to local government. Relevant noise standards are generally provided in local planning schemes and local laws.

Accordingly, compliance with the ICC Proposed Local Law 8 – Nuisances and Community Health and Safety 2013 will be required. This local law addresses noise, vibration, dust and light nuisance.

5.2.5.2 Local laws under the Local Government Act 2009

The NGR maintenance centre will potentially require the use of adjoining local roads and the Dixon Street road reserve for access and construction purposes. Any alteration or improvement to local government controlled areas or roads require a permit under the ICC Proposed Local Law 7– Local Government Controlled Areas and Roads 2013. ICC Proposed Local Law 4 – Permits 2013 outlines the requirements and process for obtaining permits under local laws.
5.3 Summary

In conclusion, all relevant requirements under the State legislative system have been identified and are being complied with. Table 5.2 provides a summary of statutory requirements and the status of compliance.

Table 5.2 Summary Commonwealth and State legislative requirements

<table>
<thead>
<tr>
<th>Legislation</th>
<th>Permit/approval</th>
<th>Assessment manager</th>
<th>Status</th>
<th>Actions</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Commonwealth</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Environment Protection and Biodiversity Act 1999</td>
<td>Referral for non-controlled action</td>
<td>SEWPaC</td>
<td>EPBC assessment only</td>
<td>Assessment against EPBC Significance Guidelines – completed</td>
</tr>
<tr>
<td>Sustainable Planning Act 2009</td>
<td>Material change of use (Major Utility)</td>
<td>ICC</td>
<td>Exempt under Chapter 5, SP Act, CID process</td>
<td>CID process - current</td>
</tr>
<tr>
<td>Vegetation Management Act 1999/Sustainable Planning Act 2009</td>
<td>Operational Works (vegetation clearing) in relation to clearing native vegetation</td>
<td>DNRM</td>
<td>Exempt; Schedule 24 of the SP Regulation</td>
<td>-</td>
</tr>
<tr>
<td>Nature Conservation Act 1992</td>
<td>Permit to take protected plants</td>
<td>DNRM</td>
<td>To be confirmed</td>
<td>Preparation of Species Management Program, if required.</td>
</tr>
<tr>
<td>Environmental Protection Act 1994/Sustainable Planning Act 2009</td>
<td>Material change of use on land registered on ERM and CLM</td>
<td>DEHP</td>
<td>Not required; Schedule 3 of the SP Regulations where notifiable activity is continuing</td>
<td>-</td>
</tr>
<tr>
<td>Environmental Protection Act 1994/Sustainable Planning Act 2009</td>
<td>Contaminated soil disposal permit</td>
<td>DEHP</td>
<td>Required</td>
<td>Confirm whether movement of contaminated soil may be required</td>
</tr>
<tr>
<td>Environmental Protection Act 1994/Sustainable Planning Act 2009</td>
<td>ERAs</td>
<td>DEHP</td>
<td>Not required as part of this CID process</td>
<td>-</td>
</tr>
<tr>
<td>Environmental Protection Act 1994/Sustainable Planning Act 2009</td>
<td>Compliance with environmental nuisance management requirements</td>
<td>ICC</td>
<td>Required</td>
<td>Noise management, light and dust management requirements to be included in the Site management plan</td>
</tr>
<tr>
<td>Aboriginal Cultural Heritage Act 2003</td>
<td></td>
<td>ICC</td>
<td>Not required</td>
<td>Should potential for impact be confirmed, a voluntary CHMP will be prepared for the site</td>
</tr>
<tr>
<td>Queensland Cultural Heritage Act 1992–State Heritage/Sustainable</td>
<td>Permit (Material change of use on a Queensland Heritage</td>
<td>DEHP</td>
<td>Not required; not a State Heritage Place</td>
<td>-</td>
</tr>
<tr>
<td>Legislation</td>
<td>Permit/approval</td>
<td>Assessment manager</td>
<td>Status</td>
<td>Actions</td>
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<tr>
<td>Planning Act 2009</td>
<td>place)</td>
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<td></td>
</tr>
<tr>
<td>Queensland Cultural Heritage Act 1992– Local Heritage/Sustainable Planning Act 2009</td>
<td>Permit (Material change of use on a Local Heritage place)</td>
<td>ICC</td>
<td>Not required; Schedule 3, Part 1, Table 5, item 3(b)</td>
<td>Should potential for impact be confirmed, a voluntary CHMP will be prepared for the site</td>
</tr>
<tr>
<td>Local laws under the Local Government Act 2009</td>
<td>Permit to undertake Works on Local Government Controlled Roads</td>
<td>ICC</td>
<td>Required; not part of this CID process</td>
<td></td>
</tr>
<tr>
<td>Native Title (Queensland) Act 1993</td>
<td>Native Title Notification</td>
<td>DNRM</td>
<td>Required; not part of this CID process</td>
<td>Native title notification process for works required within road reserve.</td>
</tr>
<tr>
<td>Building Code of Australia</td>
<td>Building certification</td>
<td>Building certifier</td>
<td>Required; not part of this CID process</td>
<td></td>
</tr>
</tbody>
</table>
6. Conclusion

The NGR Project is a Queensland Government response to meet the significantly increasing demands for passenger rail services in SEQ. The purpose-built NGR maintenance centre will address the requirement to maintain and service up to 100 additional 6-car passenger train sets, which are needed to replace old rollingstock and expand the existing fleet.

The community and stakeholders will be consulted throughout the CID process as specified in the CID Guidelines.

The key impacts of the NGR maintenance centre and the mitigation measures proposed include:

- cumulative noise impacts will be mitigated through design techniques, including:
  - siting noise generating activities so as to maximise the separation from existing residential properties
  - selection of quieter equipment and operational controls such as switching certain equipment off or lower during the night
  - use of mechanical noise control for air conditioning and ventilation plant
  - suitable sizing of openings for the wheel lathe and maintenance facility
  - noise buffers, where appropriate

- traffic related impacts, including increased usage of local road networks and intersection road safety

- visual impacts, including amenity and lighting impacts, will be mitigated through:
  - selection of suitable materials for construction
  - incorporation of landscaping treatments and screening into the final design
  - incorporation of light spill amelioration design elements, which comply with the Australian standards and codes relating to the obtrusive effects of outdoor lighting
  - lighting design will also be in accordance with all CASA and the DoD requirements, relating to the Amberley RAAF base.

Overall, the NGR maintenance centre is expected to have a positive impact on the region, with the creation of up to several hundred jobs and the subsequent attraction of construction and operational workforces to the area. The development of the NGR maintenance centre may act as a ‘catalyst’ in the Ipswich region and improve confidence in the industrial sector. Further, the NGR maintenance centre will have an indirect positive impact on the State economy through revenue generated by the public use of the new passenger rollingstock, which the NGR maintenance centre will service.

The environmental assessment and consultation activities completed through this IAR, and that will continue through the CID process outlined in the Guidelines, allow the conclusion to be drawn that there is sufficient justification for the NGR maintenance centre site to be designated for community infrastructure.
7. References


- Jagera Daran Pty Ltd 2012, Aboriginal Cultural Heritage Assessment of the proposed NGR Maintenance Depot, Wulkuraka (Wulkuraka Train Station and Infrastructure upgrade), unpublished
- Turnstone Archaeology 2012, Cultural Heritage Investigation of the proposed NGR Maintenance Depot Wulkuraka, Southeast Queensland, unpublished
Appendix A
Certificate of title
CURRENT TITLE SEARCH
DEPT OF NATURAL RESOURCES AND MINES, QUEENSLAND

Request No: 16252016
Search Date: 29/05/2013 14:44

Title Reference: 50444768
Date Created: 24/06/2003

Previous Title: 17347250
17349111
17349112
17349113
50215919

REGISTERED OWNER

Dealing No: 713435061  30/08/2010

QUEENSLAND RAIL LIMITED A.C.N. 132 181 090

ESTATE AND LAND

Estate in Fee Simple

LOT 27     SURVEY PLAN 136632
County of CHURCHILL         Parish of BRASSALL
Local Government: IPSWICH

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   Deed of Grant No. 10520030 (POR 528)
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