JOHN HOLLAND

New Intercity Fleet Maintenance Facility

Annual Sustainability Report – 2018
NIF-JHG-RPT-SU-000002

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1 About this report

This annual report has been prepared by John Holland and relates to the New Intercity Fleet Maintenance Facility (NIF) project and embodies the principles of the Global Reporting Index (GRI). This report seeks to outline Environmental, Economic and Social aspects and performance. John Holland processes determine which aspects are material and to be reported on by the project, as specified in the project-specific sustainability management system.

2 Overview

The NIF project is a $300m project located at Kangy Angy on the NSW Central Coast. The NSW Long Term Transport Master Plan (NSW Government 2012a; 'Transport Master Plan') and its supporting document, Sydney's Rail Future (NSW Government 2012b), identifies the need to enhance rail passenger services, in particular for longer distance travel outside the metropolitan network.

In May 2014, the NSW Government announced its intention to invest in the procurement of the New Intercity Fleet, a fleet of trains that will carry Central Coast, Newcastle, the Blue Mountains and South Coast customers to and from Sydney. The introduction of the New Intercity Fleet will allow for the replacement of the older train's fleets used currently to provide intercity services.

In developing the New Intercity Fleet program, the new trains would provide for:

- A more consistent and improved level of customer service for intercity passengers
- The retirement of the two oldest electric train set types currently in operation
- A reduction in the costs of intercity operations
- Increasing capacity for intercity passengers.

The primary need for the proposed New Intercity Fleet Maintenance Facility is a direct result of the current procurement of the New Intercity Fleet trains and the requirement to adequately maintain these trains. However, an opportunity also exists to improve current train operations across the Sydney metropolitan network through the development of the New Intercity Fleet Maintenance Facility at Kangy Angy.

The New Intercity Fleet Maintenance Facility project comprises:

- Main Facility Works - the key elements of the main facility works are:
  - Maintenance Facility capable of heavy and light maintenance of rolling stock
  - Yard Area consisting of:
    - Standing Roads 1 to 4 to accommodate a Long NIF Train (204m length) and other multiple configurations of the NIF Train
    - Wheel Lathe Road
    - Standing Road 6 (Bio-wash/Graffiti)
    - Standing Road 7 and all required infrastructure and Services for the Standing Roads
  - Wheel Lathe Building
  - Ancillary Buildings to provide the support systems to maintain the operation of the Maintenance Facility, including a Traction Substation, Security Building, Fire Pump Building, Water Treatment Building, Waste Storage Building and Train Wash Building
  - Staff Support Buildings comprising an Amenities Building for the Operator's drivers and Security Building
  - provision of rail specialist equipment such as the Train Wash Plant and carriage weighing system

- interfacing with the Rolling Stock Supplier for supply and installation of additional rail specialist equipment such as the wheel lathe and train jacking system and
- a rail connection to RailCorp Assets including all associated rail systems.

- CSR and HV Enabling Works - these works must be completed to enable construction of the Maintenance Facility:
  - The clearing and grubbing of the Site
  - Construction of a new CSR from approximately 93.180km to 94.900km on the Up Side
  - The relocation of the Sydney Trains 66kV Feeder between Pole 13 to Pole 33 including new aerial line, underground cable, two over-track crossings, new poles, new conductors, earthing and removal of redundant poles
  - The relocation of the Sydney Trains 11kV Feeder between Pole 16 to UGOH Pole 36 including new underground cable, new poles and new conductors, and removal of redundant poles
  - Modification to Ausgrid Network PA16 (11kV) and PA24R (11kV) that are impacted by the Maintenance Facility
  - Relocation of the existing signalling and communication cable route and associated cables from Down Side to Up Side of the MNL
  - Relocation of two Locks from the Down Side to the Up Side of the MNL
  - Relocation of signalling local routes from Down Side to Up Side of the MNL
  - Relocation of the existing fibre optic communications network from Down Side to Up Side of the MNL.
- Access Bridge and Road Works - The Access Bridge and Road Works includes construction of a roundabout and a road which rises to cross the Main North Line via an elevated bridge and then enters the NIF Maintenance Facility site at grade, as well as continuing to join Orchard Road. The key elements of the Works include:
  - The clearing and grubbing of the Site to the extent required to complete the Works
  - Upgrade of the existing Ausgrid access track on the Turpentine Road alignment north from its intersection with Ourimbah Road (the Heavy Haul Road)
  - 15 span viaducts approximately 348 meters in length (bridge deck only)
  - Ramped approaches and associated roadworks at each end of the viaduct
  - A new roundabout intersection to connect the new road with Enterprise Drive
  - Civil works including the construction of embankments, culverts, earthworks, drainage, retaining walls and roads
  - Utilities works including for lighting, water supply, temporary Services for site facilities as required
  - Bridge furnishings including parapets, signage, handrails and throw screens
  - Landscaping, signage and fencing and
  - The reinstatement of disturbed fencing, vegetation, drainage infrastructure and roads to prior condition.

2.1 Overall approach to sustainability

This project is committed to sustainability and creating lasting benefits through an integrated consideration of social, environmental, and economic aspects in all its activities. It is registered for an Infrastructure

Sustainability rating and obliged to achieve at least an IS Design Rating and IS As-Built Rating of Excellent. The project has developed a Sustainability Management Plan which specifies the sustainability requirements the project must meet in order to enhance its sustainability performance.

Overall responsibility for Sustainability sits with the Project Director with responsibility delegated to a number of area leads including Sustainability, Environment, Commercial, Design, Construction, Community and Stakeholder Engagement.

3 Environmental aspects and performance

3.1 Environmental management

Consideration of the potential impacts has been undertaken having regard to the factors provided in Clause 228 of the (NSW) Environmental Planning and Assessment Regulation 2000 (EP&A Regulation) and the matters of national environmental significance under the EPBC Act. The NIF project is expected to have both positive and negative environmental and social impacts.

A significant impact on a threatened species listed as Vulnerable under both the TSC Act (Mahony's Toadlet and Wallum Froglet) and the EPBC Act (*Melaleuca biconvexa*) and one EEC (Swamp Mahogany – Cabbage Palm swamp forest) has been identified. As such, a SIS has been prepared as part of the assessment of the Project. With the implementation of suitable management and mitigation measures, the remaining impacts associated with the Project are not anticipated to be substantial, and therefore an EIS is not considered to be required for the Project.

To manage the legislated environmental conditions that construction projects are subject to, an ISO14001 certified Environmental Management System (EMS) has been implemented. This includes a detailed Construction Environmental Management Plan and associated obligation register to manage significant environmental aspects of the project.

3.2 Water

The NIF project has developed a water sensitive approach to carrying out project activities. Water used by the project for material compaction and dust suppression is obtained from non-potable water sources where possible. Current sources include rainwater harvesting and re-use of extracted groundwater.

Additionally, the project is legally obliged to obtain a water supply works application to extract any groundwater required from the Natural Resources Access Regulator. This has been obtained by the project.

To identify an approach to reducing the built infrastructure's dependence on water use a full lifecycle analysis will be completed and findings will be published in the 2019 annual report. The projects target is to reduce water usage by 20% compared to the base case footprint.

3.3 Carbon emissions and energy

The NIF Project has been actively reducing its impact on carbon emissions and energy throughout the infrastructure lifecycle. A full lifecycle analysis will be completed, and findings published in the 2019 annual report to identify elements that could lead to significant reductions. The project will aim to reduce GHG emissions by 30% compared to a base case footprint. Initial modelling identified the most significant contributor to environmental impacts during operations is lighting.

Several initiatives have been developed that target reducing energy use in the areas above.

For operational energy the following has been included in the design:

- LED lighting
- Skylights in the main building
- A clear wall on the SE façade

- Perimeter lighting has been designed out and has been replaced with a Perimeter Intrusion Detection System (PDIS).

3.4 Materials

Managing environmental impacts associated with materials is important to the NIF project due to the significance of those impacts. The project has focused on managing concrete and steel. These materials also form a significant portion of the costs associated with this project.

In an effort to understand the opportunity to reduce environmental impacts of the significant materials consumed by the project, a full lifecycle analysis will be completed, and findings published in the 2019 annual report. This will provide direction on where to focus efforts to reduce material use. In all cases initiatives are being pursued to reduce demand for materials through lean design and the use of site-won materials, seeking alternative lower impact materials via suppliers and to increase the durability of installed materials beyond the specified design life. The Project has a target to ensuring greater than 9% of materials/products by value have ISCA approved environmental labels, for example:

- GECA Good Environmental Choice Australia Ecolabel
- Green Building Council of Australia BEP
- Ecospecifier Green Tag
- ISEAL Alliance compliant whole supply chain Stewardship Scheme Certification
- Environmental Product Declarations – product-specific
- Environmental Product Declarations – industry-wide

3.5 Recycled materials and waste

Recycling materials is important in conserving non-renewable materials that infrastructure projects use. It is a project policy that all concrete will include, where possible without comprising strength requirements, a minimum 25% substitution of fly ash or 50% blast furnace slag and 95% of site won topsoil will be reused on-site.

The NIF project has the following targets that are aimed at minimising waste generated from the project:

- 95% of spoil is diverted from landfill
- 90% of inert and non-hazardous waste will be diverted from landfill
- 60% of Office waste will be diverted from landfill

4 Economic aspects and performance

Following is a snapshot of the economic impact and performance of the NIF project:

Economic Aspect	Impact
Preliminary cost benefit analysis of all sustainability initiatives	
Capital expenditure savings	To be advised in the 2019 annual report.
Expected operational expenditure reductions	To be advised in the 2019 annual report.
Workforce & Supply Chain	
Total number inducted to site	821 (as of 31/10/2018)
Total percentage of direct local employees (local being NSW Central Coast and Newcastle)	57%

Total number of suppliers engaged	Suppliers - 26 Sub-contractors - 44 Hire - 26 Consultants - 34
% of expenditure on local suppliers	19%
Indigenous Enterprise	3
Social Enterprise	1

4.1 Climate change

Climate change has been considered in project design and climate change risks were identified by John Holland processes as specified in the project-specific sustainability management system. The following was completed to address climate change adaptation:

- Identify climate change projections
- Identify direct and indirect climate change risks to the asset over the forecast useful life
- Model impacts of the projected climate change for all High and Extreme priority climate change risks and
- Identify adaptation options to treat all extreme and high priority climate change risks

Through design, all extreme and high risks have been mitigated and moderate risks have been suitably addressed. There are no residual risks greater than moderate.

4.2 Sustainable transport

There are several features included in the design which support sustainable transport. These include the ultimate design allowing for future rail expansion of the northern line. A shared path has also been included from enterprise drive roundabout to the maintenance facility and onwards to Orchard Rd.

5 Social aspects performance

5.1 Community & stakeholder engagement

To ensure the impacts of the project on the community are appropriately managed a Community Liaison Management Plan has been implemented on the NIF project. The plan aims to foster communication and co-operation with the community and stakeholders, including the Transport for New South Wales (TfNSW) and Local Government Authorities. The plan is aligned with TfNSW Standard Requirements (TSRs).

5.2 Heritage assessments

The project has been informed by several heritage assessments which include an Aboriginal Cultural Heritage Assessment Report and Non-Aboriginal Heritage Impact Assessment Report. The project also applied for an Aboriginal Impact Permit prior to works commencing.

5.3 Legacy aspects

Through a process of research, opportunity scanning and consultation, priority issues of impacted communities and stakeholders were determined. John Holland is committed to positively contributing to communities in which it operates and creating outcomes that support community priorities. John Holland will actively pursue three outcomes identified in the Wyong Community Plan 2008-13 developed by Wyong Shire

Council (now the Central Coast Council following an amalgamation of local Council). The priority issues and treatments identified included:

Issue	Treatment
Young people are respected and valued	Minimum 8% of total workforce aged less than 25. Apprentices 20% of all trade positions Learning Workers 20% of total full-time equivalent positions.
Recognise, encourage and respect diversity	Minimum 5% aboriginal workers within total workforce. Double the number of women in non-traditional pathways. (i.e. 1% industry standard is 1%)
Enhance Community safety	Create safe access for residents during flood events
Promotes healthy lifestyles	Increase active transport facilities

5.4 Diversity

The NIF project is committed to building, valuing and promoting diversity and inclusiveness across our business. We know that diverse perspectives result in greater innovation and will help us to remain one of Australia's most recognised and respected construction brands.

Key statistics:

- 64 women have been inducted to site, i.e. 6.41 per cent of site personal inducted are female.
- 22 aboriginal people have been inducted to site, i.e. 2.2 per cent of site personal inducted are indigenous.

The NIF project have also created the following programs to assist apprentices to enter the workforce.

- An Electrical pre-apprenticeship program will give local young people the opportunity to try a trade and learn valuable skills that will lead to employment opportunities.
- A Plumbing pre-apprenticeship program will commence in November, this will give local young people the opportunity to try a trade and learn valuable skills that will lead to employment opportunities. The pre-apprenticeship program will be used to feed recruitment of apprentices for our Plumbing contractor. There are expected to be 12 participants in this program.

The following program is currently in planning stage:

- An Aboriginal pre-employment program that will be aligned to the Certificate II in construction. This program will have employment outcomes on the project for successful candidates.

5.5 Workplace safety

John Holland's AS/NZS 4801 certified Workplace Health and Safety Management System manages workplace safety on site which is informed by a detailed Safety and Health Management Plan. The project is committed to having one health and safety representative per work group. There has been zero Lost Time Injuries to date.