



Planning Proposal 26.2017.5.1
Amendment of Byron Local Environmental Plan 2014
Byron Bay Town Centre Planning Control Review

Byron Shire Council

Post Gateway Version – Activation of Rail Corridor

Date: May 2018

Document History

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Part 1 Introduction

1.1 Objective and intended outcomes

The objective of this Planning Proposal is to amend Byron Local Environmental Plan (LEP) 2014 to facilitate future actions recommended by the Byron Bay Town Centre Masterplan.

In particular, the intended outcomes of the amendments are:

1. To amend the notation associated with the SP2 zoning on land within the Byron Bay Rail Corridor and at the Lawson Street South Car Park, to broaden the range of community uses that are permitted;
2. To specify additional land uses that will be permitted with and without consent to implement endorsed landscape plans and to permit a social enterprise use of the station building, previously used as a ticketing office for the rail station; and
3. To list Single Temporary Events and Ceremonies within Schedule 2 of the LEP as Exempt Development in public reserves, public roads, car parks, community land, showgrounds, church grounds, Crown land or other appropriate outdoor areas.

Details of the suggested LEP amendments are outlined in **Appendix A**.

1.2 Property details and existing zones

This Planning Proposal relates specifically to land shown in **Figure 1**, currently zoned SP2 Infrastructure, located within and adjacent to the rail corridor in the Byron Bay Town Centre. The subject land is legally identified as follows:

Site Name	Zone	Legal Description	Owner
Byron Bay Rail Corridor	Zone SP2 Infrastructure (Rail Corridor)	Part of Lot 4729 in DP 1228104	County Rail Infrastructure Authority
Adjacent Rail Land – containing station building (former ticketing office), Railway Hotel and car park	Zone SP2 Infrastructure (Rail Facilities)	Lot 1 in DP 1001454	County Rail Infrastructure Authority
Lawson Street South Car Park	Zone SP2 Infrastructure (Car Park)	Lot 3 & part Lot 7 in DP 827049	Byron Shire Council

As shown in **Figure 1**, the Planning Proposal does not relate to:

- areas containing high environmental value vegetation; and
- an area located within 100m of a Coastal Wetland, as mapped within *State Environmental Planning Policy (Coastal Management) 2018*.

Council has recently entered into a Licence over the Country Rail land, which facilitates the land uses addressed in this Planning Proposal. A copy of that licence is contained as **Appendix B** to this Planning Proposal.

The land identified the table above is listed on the State Heritage Register as *SHR 01107, Plan 2735 Byron Bay Railway Station and Yard Group* (see **Figure 2**).

A **Conservation Management Strategy** has been prepared in relation to this area, to provide a framework within which the proposed amendments to the LEP have been developed. That Conservation Management Strategy is contained at **Appendix C** to this Planning Proposal.

Council is in the process of preparing a **Conservation Management Plan** for the corridor, which will build on the work undertaken for the Management Strategy. That Plan will, amongst other things, specifically address and guide the community and social enterprise uses facilitated by this Planning Proposal.

It is also noted that Council will need to obtain approvals under Section 60 of the Heritage Act 1977 before implementation of the works or activities that might follow the LEP amendment.

The parts of this Planning Proposal that deal with amendments to Schedule 2 of the LEP apply across the whole of Byron Shire.

1.3 Background

The Byron Bay Town Centre Masterplan was adopted by Council on 9 June 2016.

The purpose of the proposed amendment to the LEP is to implement planning controls that align with the strategic direction of the masterplan.

Following a period of extensive community engagement throughout 2015-2016, the masterplan and an 'implementation plan' were agreed, based on the outcomes of the masterplan process.

The implementation plan proposes a 20 year delivery period and includes steps required to fulfil the place principles, town centre strategies and key projects identified by the Council and community during the development of the masterplan.

The 5 key planning priorities in implementing the masterplan include:

1. Establishment of a Byron Bay Leadership Team;
2. Preparation of a Byron Bay Development Control Plan;
3. Amendments to the Local Environmental Plan to reflect the Master Plan;
4. Preparation of a detailed Access and Movement Study and Strategy;
5. Development of a Byron Bay Facilities Asset Management Plan.

A complete copy of Byron Bay Town Centre Masterplan is available [online](#).

Council has undertaken a review of planning controls in and around the Byron Bay Town Centre within the following wider area:

- a northern boundary along the north coast railway corridor and Main Beach;
- an eastern boundary to Massinger Street;
- a western boundary aligned with the approved Butler Street bypass around Gordon Street, Butler Reserve and to Kendal Street; and
- a southern boundary along Browning Street and across Jonson Street following the alignment
- of the approved road reserve to connect with the approved Butler Street bypass.

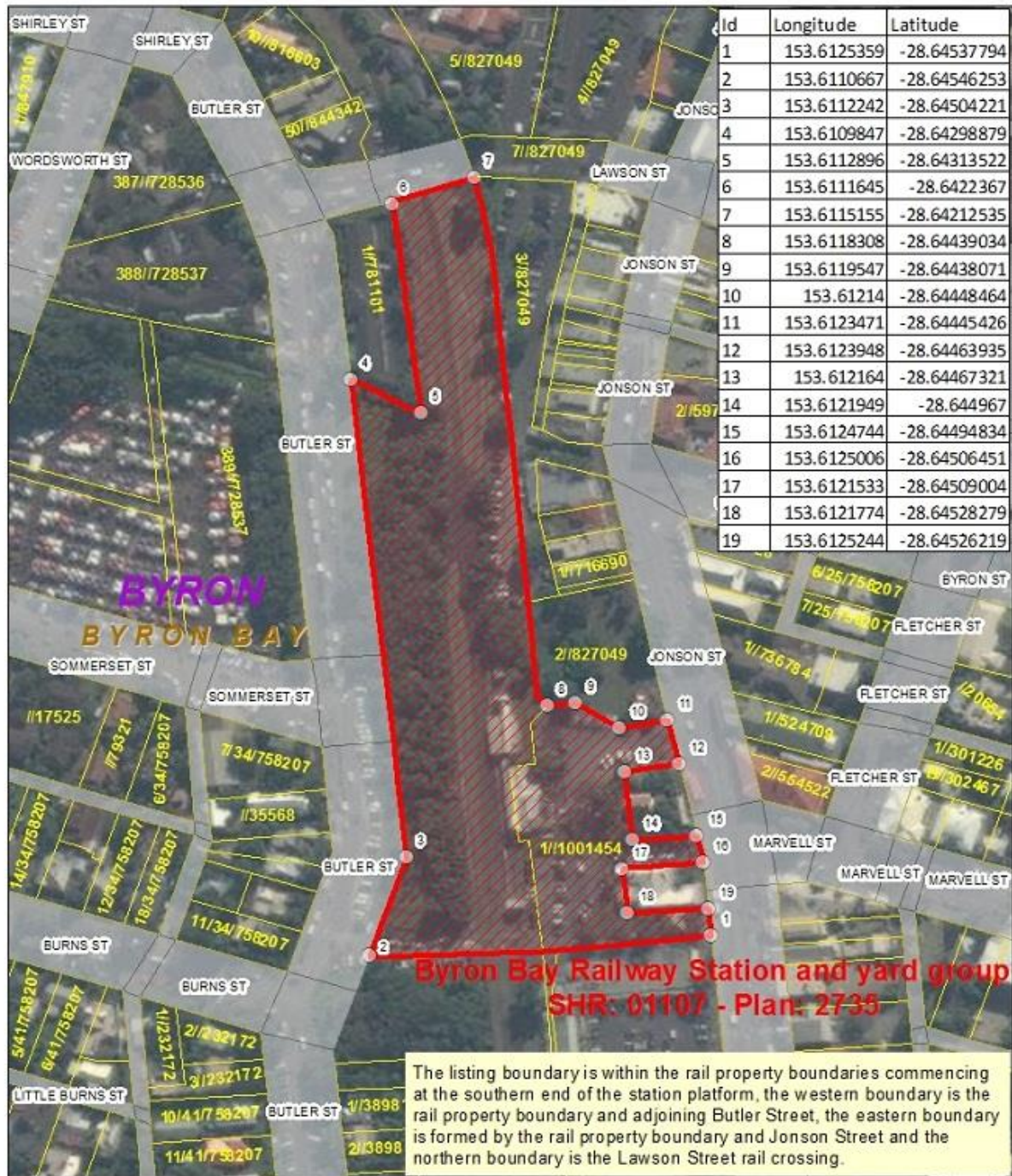
This Planning Proposal will enable the delivery of projects identified in the masterplan and is the first of a number of proposed amendments to the LEP that are being prepared and lodged for Gateway determination in order of priority.

The proposed amendments are intended to ensure permissibility of appropriate land uses that maintain the character of Byron Bay Town Centre. New exempt development provisions are proposed to introduce more simplified development approval processes for low impact, 'pop-up' events and activities, where appropriate.



Figure 1 – Subject Land

Heritage Council of New South Wales



State Heritage Register - SHR 01107, Plan 2735

Byron Bay Railway Station and yard group

Gazettal Date: 02 April 1999

0 40 80 120 160 Metres

Scale: 1:2,500

Datum/Projection: GCS GDA 1994



Legend

- SHR Curtilage
- Land Parcels
- LGAs
- Suburbs
- Roads

Figure 2 – State Heritage Register



Figure 3 – Planning Control Review Area

Part 2 Explanation of provisions

2.1 Planning Proposal

The purpose of this planning proposal is to enable uses identified in the Byron Bay Town Centre Masterplan and facilitate development of key projects.

This primarily relates to land currently zoned SP2 Infrastructure (Rail Corridor), located at Byron Bay Town Centre.

This Planning Proposal suggests the following amendments to Byron Local Environmental Plan 2014.

2.1.1 Rail Corridor Activation

As shown in **Figure 4**, the subject land is currently zoned SP2 Infrastructure (Rail Corridor).

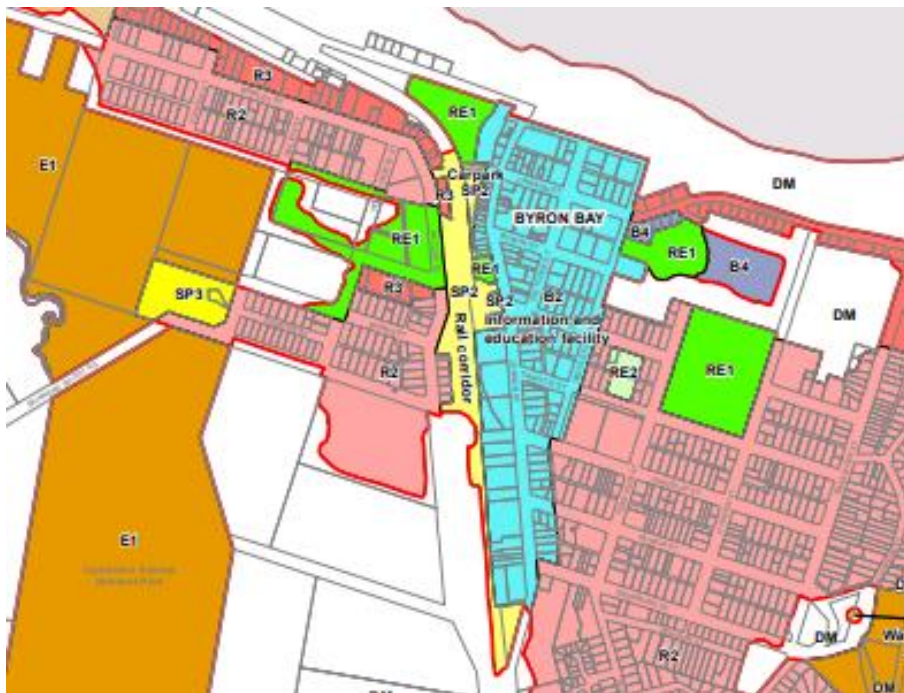


Figure 4 – Current Zoning

The Planning Proposal seeks an amendment to the map notation relating to this land to change “*Rail Corridor*” to “*Rail Corridor and Community Facilities*”.

The amended notation would broaden the range of uses envisaged for the corridor to provide for the activation of the public land by way of community uses, such as exhibitions, meetings, concerts, or similar community activities and events.

2.1.2 Additional Permitted Uses

In addition to the amendment to the SP2 map notation, the Planning Proposal will amend Schedule 1 of the LEP to provide the following additional permitted uses within the corridor:

- markets permitted with development consent, but only in the case of a relocation of existing markets legally operating elsewhere;
- a recreation area, permitted without consent; and
- landscape works undertaken for the implementation of a Council-endorsed Landscape Concept Plan, permitted without consent.

The intention of that amendment is to facilitate the upgrade and beautification of the corridor and to facilitate the temporary or permanent relocation of existing markets.

The Proposal will also amend Schedule 1 of the LEP to provide the following additional permitted uses of the station building, which was previously used as a ticketing office:

- a community facility, including commercial activity undertaken by a not-for-profit organisation or social enterprise, where that activity has demonstrable / measurable social and community benefit.

The station building is shown in **Figure 5** below.



Figure 5: Location of Station Building

The building is described and assessed in detail in the Conservation Management Strategy at **Appendix C**.

2.1.3 Schedule 2 Exempt Development

Exempt development can be carried out without the need for any approval or assessment process. Most exempt development is identified in State Environmental Planning Policy (Exempt and Complying Development Codes) 2008 and includes very minor activities or works that have no impacts.

Schedule 2 of the Byron LEP contains additional activities and uses that are exempt in Byron Shire.

This Planning Proposal intends to add to that schedule by including a range of nominated one-off events and ceremonies where they are carried out on public land. These would include a one-off community event or commercial event, such as the laneway activation events recently held in Byron Bay Town Centre.

This would supersede the existing provision in the schedule relating to *Entertainment and Events on Public Roads*, which would be removed from the schedule.

Part 3 Justification

Section A Need for the planning proposal

Q1 Is the planning proposal a result of any strategic study or report?

Yes. This Planning Proposal is the result of the Byron Bay Town Centre Masterplan (Masterplan). The Masterplan was adopted by Council in June 2016, following a period of extensive community engagement throughout 2015-2016. A copy is available online here: [Byron Bay Town Centre Masterplan](#).

The Masterplan identifies the need to introduce new planning controls, including amendments to the Byron LEP 2014 and Byron DCP 2014, to support the following strategic land use planning outcomes:

- A pedestrian-prioritised centre that supports and integrates alternate modes of transport and creates opportunities for car parking facilities on the edge of the town centre and public transport facilities on the western side of the north coast rail corridor, close to Butler Reserve;
- Increased mix of uses in the town centre by encouraging a multi-functional economy that supports diverse activities including local businesses, local living, and local development opportunities; and
- Preservation of Byron Bay's eclectic village character through high quality design, increased density (floor space) and ensuring the maximum height of buildings is increased where appropriate and does not exceed 3 storeys.

Q2. Is the planning proposal the best means of achieving the objectives or intended outcomes, or is there a better way?

Yes. The Planning Proposal is considered the best means of achieving the objective of ensuring permissibility of a variety of community uses that will activate the currently unused rail corridor. The Planning Proposal will also simplify approval processes for low impact events and activities on public land and other suitable locations in Byron Shire.

Alternative Options

Various options were considered and discussed during preparation of the Planning Proposal, summarised below:

Additional Permitted Uses**Alternative Option:**

Amendment of the land use table for *SP2 Infrastructure* is not possible under the drafting requirements of the [Standard Instrument Local Environmental Plan Order 2006](#).

The principle permissible use on land zoned SP2 is '*The purpose shown on the Land Zoning Map, including any development that is ordinarily incidental or ancillary to development for that purpose.*'

Changing the land use table to permit markets and temporary activities is therefore not a preferred option as this would apply to all land zone SP2 Infrastructure.

Schedule 2 - Single temporary events and ceremonies**Alternative Option:**

A local provision to permit temporary activities and events without development consent on public reserves was considered, as adopted by Coffs Harbour LEP. This approach is not considered suitable as it would not streamline approvals processes for Council, as development would still need to be assessed under Part 5 of the EP&A Act 1979.

Section B Relationship to strategic planning framework**Q3. Is the planning proposal consistent with the objectives and actions of the applicable regional, sub-regional or district plan or strategy (in this case the North Coast Regional Plan 2036)?**

Yes. The Planning Proposal is consistent with the [North Coast Regional Plan 2036](#), which is a 20-year blueprint for the future of the North Coast. The NSW Government's vision for the North Coast is to create the best region in Australia to live, work and play thanks to its spectacular environment and vibrant communities.

To achieve this vision the Government has set four goals for the region:

- The most stunning environment in NSW
- A thriving, interconnected economy
- Vibrant and engaged communities
- Great housing choice and lifestyle options.

Byron Bay is not identified as a regional centre under the *North Coast Regional Plan*. However, it is recognised for its spectacular natural environment and as an important regional tourist destination for the purposes of investment in upgrades to Ballina-Byron Gateway Airport and supporting associated economic growth in the region.

The Plan recognises that the area is integrated with a burgeoning South East Queensland, including Coolangatta Airport, and that hinterland and rural communities are making the most of the increasing global demand for their high-quality agricultural products and that coastal communities are building relationships and leveraging opportunities from the Pacific Highway upgrade.

Byron Shire is known for its natural beauty and character. Unique environmental features, such as the Arakwal National Park and the Cape Byron Marine Park, will continue to draw domestic and international tourists, contribute to attractive lifestyles and grow the local economy.

Byron Shire is one of Australia's most visited local government areas, with stunning beaches, beautiful hinterland and vibrant centres like Byron Bay. Communities are centres of creativity, provide boutique retail, food and accommodation options, essential services, and offer a unique lifestyle. These factors continue to increase the attractiveness of Byron Bay to visitors and new residents and this has a significant effect on the demand for urban land

uses. The NSW Government recognises that tourism can both benefit and increase pressure on the environment and smaller communities.

Byron has a strong economy based on the tourism, creative arts, agricultural, food manufacturing and health sectors. The plan particularly recognises the opportunity to intensify creative industries in Byron that will foster employment and economic activity. Continuing connectivity improvements to Lismore, Ballina, Tweed and South East Queensland through the Pacific Highway upgrade and digital technology will support future economic growth and opportunities.

In summary, this Planning Proposal particularly supports the following regional priorities:

- Support a strong and diversified economy based on Byron Shire's unique character, landscapes and important farmland.
- Manage and support growth in Byron Bay.
- Maximise opportunities associated with the growth of South East Queensland.

This Planning Proposal will streamline approval processes for events and activities that will support locally grown trade including creative industries and farmers markets. It will contribute to a thriving interconnected economy by increasing opportunities for markets and events in partnership with the community of Byron Bay.

Q4. Is the planning proposal consistent with a council's local strategy or other local strategic plan?

On 22 June 2017, Byron Shire Council adopted its *Community Strategic Plan 2027 (CSP) - Linking together our people, our place, our purpose - Byron Shire 2027* ((Resolution 17-268).

All councils are required to prepare a CSP under the NSW Integrated Planning and Reporting Framework. The CSP is the highest level of strategic planning undertaken by a council and its community. Its purpose is to identify the community's main priorities and aspirations for the future, and to plan a clear set of strategies for achieving these goals. The CSP considers the issues and pressures that may affect the community over the next 10 years.

Linking together our people, our place, our purpose - Byron Shire 2027 is built around five key themes. All themes and aims are interconnected and therefore relevant to this Planning Proposal:

<p>Corporate Management...<i>Effective leadership and ethical and accountable decision making.</i></p>	<p>Public land management requires ethical and accountable decision making that will meet the needs of the local community. Working with the community, Council develops plans and strategies using a range of effective communication methods. Council directly engage the community and support transparent and accountable Council decision making.</p> <p>To progress the Byron Bay Town Centre Masterplan (BBTCMP) after its adoption, Council resolved to establish a Leadership Team for a period of 12 months, subject to review and extension by Council to:</p> <ul style="list-style-type: none"> • provide advice and direction on the delivery of the BBTCMP actions; • identify and actively facilitate, where appropriate, opportunities for partnerships and community collaboration; • provide oversight on the timely delivery of actions that are responsive to community needs,
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	<p>acknowledging that the actions of the BBTCMP are flexible and adaptable.</p> <p>The use of land affected by this Planning Proposal is a result of continued engagement with the Byron Bay Leadership Team, Market Traders and Property owners in Byron Bay Town Centre.</p>
Economy... <i>A sustainable and diverse economy which provides innovative employment and investment opportunities in harmony with our ecological and social aims.</i>	The Planning Proposal supports the economy through streamlining processes for approval of temporary activities in accessible locations.
Community Infrastructure... <i>Services and infrastructure that sustain, connect and integrate our communities and environment</i>	The Planning Proposal builds on existing services and infrastructure. Water and sewerage is available. Further environmental improvements and development of public transport and car parking in suitable locations will be enabled through activation of fragmented and underutilised land with temporary and low impact activities. This provides an opportunity to increase public access and use of land in Byron Bay Town Centre.
Society and Culture... <i>Resilient, creative and active communities with a strong sense of local identity and place</i>	Byron Bay Town Centre continues to be a place of growth and diversity where local people can live and work and will be more resilient to outside pressure such as a down turn in tourism. The Planning Proposal implements the Place Principles in Byron Bay Town Centre Masterplan.
Environment... <i>Our natural and built environment is improved for each generation</i>	The Planning Proposal assists the environment to be maintained and protected for future generations by restricting development to existing urban land with no major environmental significance. The Planning Proposal will facilitate improvements to the Byron Rail corridor for low impact temporary use whilst protecting its heritage significance.

On this basis the Planning Proposal is consistent with Council's CSP.

The Byron Bay and Suffolk Park Settlement Strategy 2002 summarises the development potential of Byron Bay and particularly recognises various constraints including:

- Severance of the town of Byron Bay by the North Coast railway line, and the lack of crossings of this line;
- Traffic and parking congestion in town centres; particularly inadequate capacity to cater for through traffic (bypass of Byron Bay town centre is required);
- Stormwater drainage limitations;
- Flora and fauna impacts;
- Acid sulfate soils and peat;
- Limited availability of job opportunities, cost and availability of serviced residential land;
- Physical/ecological constraints to expansion;
- Extent of comparable investment and job opportunities in other nearby centres;
- Flooding/floodplain management; and

- Tourism impacts.

The planning proposal will address urban constraints through activation of the disused railway corridor, and enabling redundant transport infrastructure on the edge of Byron Bay Town Centre to be used by local residents, traders and tourists.


The community activities will be further enabled by improved traffic circulation subject to completion of the Butler Street bypass project, which has progressed significantly in the past year. Approval from the Land and Environment Court for the southern part of the proposed road is complete and project management underway for approval and delivery of the remainder of the route is underway.

The planning proposal will not directly affect the delivery of housing supply. However, it is noted that Council is developing a Residential Strategy to set a clear vision and policy framework for the Shire's urban residential lands and will provide a framework for managing future growth.

Q5. Is the planning proposal consistent with the applicable State Environmental Planning Policies (SEPPs)?

The State Environmental Planning Policies relevant to this Planning Proposal are as follows:

State Environmental Planning Policy (SEPP)	Compliance of Planning Proposal
SEPP 44 – Koala Habitat Protection	<p>SEPP 44 specifies that in order for a forested area to be classified as koala habitat, a minimum of 15% of the trees must be species of trees that provide food for koalas.</p> <p>The closest land mapped by Council as tertiary Koala habitat is to the west of Butler Reserve and this area is not proposed to be rezoned by this Planning Proposal.</p> <p>The Planning Proposal is considered to be consistent with SEPP 44.</p>
SEPP 55 – Remediation of Land	<p>Council acknowledges that the land affected by this planning proposal at the Byron Bay Railway Corridor has a known history of uses associated with a previously active railway corridor.</p> <p>A preliminary assessment has been undertaken and is attached at Appendix D.</p> <p>Council is satisfied that the land can be made suitable for the proposed non-sensitive low impact uses.</p>
SEPP (Coastal Management) 2018	<p>The subject land is located in the Coastal Use Area mapped under this SEPP.</p> <p>Development that could be facilitated by this planning proposal will be consistent with matters for consideration relating to the Coastal Use Area. Specifically:</p> <ul style="list-style-type: none"> • activation of the area through community uses, activities and events will not have any adverse impacts on coastal access; • community activation and associated landscape works will result in positive impacts on the scenic amenity of the area; • development of a Conservation Management Plan, building on the work undertaken to develop the existing Conservation Management Strategy, will ensure that future activities will respect and celebrate the significant heritage of the area; and

State Environmental Planning Policy (SEPP)	Compliance of Planning Proposal
	<ul style="list-style-type: none"> engagement with local Aboriginal knowledge-holders will ensure that the space can be activated in a way that respects and celebrates the significant Aboriginal history of and connection to the place. <p>Land immediately to the south (within the corridor) is mapped as Coastal Wetlands, including a 100m 'buffer'.</p>  <p>The mapped wetland area is contained mostly within the Deferred Matters under LEP 2014.</p> <p>As shown in Figure 1, this area is excluded from the area covered by this Planning Proposal.</p>
SEPP (Exempt and Complying Development Codes) 2008	Schedule 2 of LEP 2014 includes standards and requirements for locally exempt development types that do not repeat or contradict the Codes SEPP. The Planning Proposal will permit Single Temporary Events and Ceremonies as Exempt Development in public reserves, public roads, car parks, community land, showgrounds, church grounds, Crown land or other appropriate outdoor areas under Schedule 2 of the LEP.
SEPP Infrastructure (2007)	This Planning Proposal will permit the development of Markets and other temporary uses on land zoned SP2 Infrastructure under Schedules 1 and 2 of the LEP. This Planning Proposal does not contradict or repeat the Infrastructure SEPP.
SEPP (Vegetation in Non-Rural Areas) 2017	There is nothing in this Planning Proposal that affects the provisions of the Vegetation in Non-Rural Areas SEPP, which is applicable to urban land zoned under the Byron LEP 2014.

Q6. Is the planning proposal consistent with applicable Ministerial Directions (s117 Directions)?

Yes. Consistency with the s117 (2) Directions is assessed in the following table:

Consistency with S117(2) Local Planning Directions

S117 Direction	Application	Relevance to this planning proposal	Consistency with direction
1. Employment and Resources			
1.1 Business and Industrial Zones	<p>Applies when a relevant planning authority prepares a planning proposal that will affect land within an existing or proposed business or industrial zone (including the alteration of any existing business or industrial zone boundary).</p> <p>The objectives of this direction are to:</p> <ul style="list-style-type: none"> (a) encourage employment growth in suitable locations, (b) protect employment land in business and industrial zones, and (c) support the viability of identified strategic centres. <p>A planning proposal must:</p> <ul style="list-style-type: none"> (a) give effect to the objectives of this direction, (b) retain the areas and locations of existing business and industrial zones, (c) not reduce the total potential floor space area for employment uses and related public services in business zones, (d) not reduce the total potential floor space area for industrial uses in industrial zones, and (e) ensure that proposed new employment areas are in accordance with a strategy that is approved by the Director-General of the Department of Planning. 	<p>This Planning Proposal will not directly affect land within an existing Business Zone.</p> <p>It does propose to permit new uses on land adjacent to Byron Bay Town Centre, which is within a business zone.</p> <p>The proposed LEP amendment will permit a range of uses that are complementary to the adjoining business zone objectives. It will not facilitate competing commercial or retail uses.</p>	Consistent

S117 Direction	Application	Relevance to this planning proposal	Consistency with direction
1.2 Rural Zones	<p>Applies when a relevant planning authority prepares a planning proposal that will affect land within an existing or proposed rural zone (including the alteration of any existing rural zone boundary).</p> <p>The objective of this direction is to protect the agricultural production value of rural land.</p> <p>Under this direction a planning proposal must:</p> <ul style="list-style-type: none"> (a) not rezone land from a rural zone to a residential, business, industrial, village or tourist zone. (b) not contain provisions that will increase the permissible density of land within a rural zone (other than land within an existing town or village). 	This Planning Proposal does not affect land within an existing or proposed rural zone.	Consistent
1.3 Mining, Petroleum Production and Extractive Industries	<p>Applies when a relevant planning authority prepares a planning proposal that would have the effect of:</p> <ul style="list-style-type: none"> (a) prohibiting the mining of coal or other minerals, production of petroleum, or winning or obtaining of extractive materials, or (b) restricting the potential development of resources of coal, other minerals, petroleum or extractive materials which are of State or regional significance by permitting a land use that is likely to be incompatible with such development. 	This Planning Proposal does not have any effect on the potential for mining, petroleum production or extraction of materials and resources.	Consistent
1.4 Oyster Aquaculture	<p>Applies when a relevant planning authority prepares any planning proposal that proposes a change in land use which could result in:</p> <ul style="list-style-type: none"> (a) adverse impacts on a Priority Oyster Aquaculture Area or a “current oyster aquaculture lease in the national parks estate”, or (b) incompatible use of land between oyster aquaculture in a Priority Oyster Aquaculture Area or a “current oyster aquaculture lease in the 	This Planning Proposal has no effect on a Priority Oyster Aquaculture Area or other related uses.	Consistent

S117 Direction	Application	Relevance to this planning proposal	Consistency with direction
	national parks estate” and other land uses.		
1.5 Rural Lands	<p>Applies when:</p> <p>(a) a relevant planning authority prepares a planning proposal that will affect land within an existing or proposed rural or environment protection zone (including the alteration of any existing rural or environment protection zone boundary), or</p> <p>(b) a relevant planning authority prepares a planning proposal that changes the existing minimum lot size on land within a rural or environment protection zone.</p> <p>A planning proposal to which clauses (a) and (b) apply must be consistent with the Rural Planning Principles listed in <i>State Environmental Planning Policy (Rural Lands) 2008</i>.</p> <p>A planning proposal to which clause (b) applies must be consistent with the Rural Subdivision Principles listed in <i>State Environmental Planning Policy (Rural Lands) 2008</i>.</p>	This Planning Proposal will have no effect on land within a rural or environment protection zone.	Consistent
2. Environment and Heritage			
2.1 Environment Protection Zones	<p>A planning proposal must include provisions that facilitate the protection and conservation of environmentally sensitive areas.</p> <p>A planning proposal that applies to land within an environment protection zone or land otherwise identified for environment protection purposes in a LEP must not reduce the environmental protection standards that apply to the land (including by modifying development standards that apply to the land). This requirement does not apply to a change to a development standard for minimum lot size for a</p>	As outlined above, areas within the rail corridor that have been identified as being environmental sensitive are specifically excluded from this Planning Proposal.	Consistent

S117 Direction	Application	Relevance to this planning proposal	Consistency with direction
	dwelling in accordance with clause (5) of Direction 1.5 <i>"Rural Lands"</i> .		
2.2 Coastal Protection	<p>This Direction applies when a relevant planning authority prepares a planning proposal that applies to land in the coastal zone.</p> <p>A planning proposal must include provisions that give effect to and are consistent with:</p> <ul style="list-style-type: none"> (a) the NSW Coastal Policy: A Sustainable Future for the New South Wales Coast 1997, (b) the Coastal Design Guidelines 2003, (c) the manual relating to the management of the coastline for the purposes of section 733 of the <i>Local Government Act 1993</i> (the NSW Coastline Management Manual 1990). 	<p>The Planning Proposal applies to land in the Coastal Zone. Byron LEP 2014 currently includes compulsory provisions under Clause 5.5 <i>Development within the coastal zone</i> to provide for the protection of the coastal environment; implement the principles in the NSW Coastal Policy (1997) and is consistent with the Coastal Design Guidelines (2003) and the NSW Coastline Management Manual (1990).</p>	Consistent
2.3 Heritage Conservation	<p>A planning proposal must contain provisions that facilitate the conservation of:</p> <ul style="list-style-type: none"> (a) Items, places, buildings, works, relics, moveable objects or precincts of environmental heritage significance to an area, in relation to the historical, scientific, cultural, social, archaeological, architectural, natural or aesthetic value of the item, area, object or place, identified in a study of the environmental heritage of the area, (b) Aboriginal objects or Aboriginal places that are protected under the <i>National Parks and Wildlife Act 1974</i>, and (c) Aboriginal areas, Aboriginal objects, Aboriginal places or landscapes identified by an Aboriginal heritage survey prepared by or on behalf of an Aboriginal Land Council, Aboriginal body or public authority and provided to the relevant planning 	<p>Byron Bay Railway Station and Yard Group is listed on the State Heritage Register (SHR) listing number 01107. This listing takes effect under the auspices of the NSW Heritage Act, 1977.</p> <p>The physical description of the boundary is defined by the State Heritage inventory sheet as:</p> <p><i>"...commencing at the southern end of the station platform, the western boundary is the rail property boundary and adjoining Butler Street, the eastern boundary is formed by the rail property boundary and Jonson Street and the northern boundary is the Lawson Street rail crossing"</i></p> <p>Part of the land is also mapped within a Conservation Area under BLEP2014. Within this area, the Byron Bay Railway Station and yard group is also listed as a heritage item.</p> <p>A Conservation Management Strategy (see</p>	Inconsistent Justified

S117 Direction	Application	Relevance to this planning proposal	Consistency with direction
	<p>authority, which identifies the area, object, place or landscape as being of heritage significance to Aboriginal culture and people.</p>	<p>Appendix C) has been prepared for this area. The Strategy provides guidance and recommendations <i>to preserve and protect the above-mentioned heritage significance whilst enabling the buildings and place to be adaptively reused for the benefit of the Byron Bay Community.</i></p> <p>As indicated above, Council is also preparing a Conservation Management Plan, to expand on the Strategy, which will specifically shape the future community and social enterprise uses.</p> <p>A search of the NSW Aboriginal Heritage Information Management System (AHIMS), undertaken on 19 October 2017, did not identify any Aboriginal sites or places in or near land within a 50 metre buffer of land affected by proposed additional permitted uses, being the Lawson Street South Car Park and Byron Bay Railway Precinct.</p> <p>Notwithstanding that, Council will liaise with local Aboriginal knowledge-holders in progressing community uses and activities for this place.</p>	
2.4 Recreation Vehicle Areas	<p>A planning proposal must not enable land to be developed for the purpose of a recreation vehicle area (within the meaning of the <i>Recreation Vehicles Act 1983</i>):</p> <ul style="list-style-type: none"> (a) where the land is within an environment protection zone, (b) where the land comprises a beach or a dune adjacent to or adjoining a beach, (c) where the land is not within an area or zone referred to in paragraphs (4)(a) or (4)(b) unless the relevant planning authority has taken into consideration: 	<p>This Planning Proposal does not enable land to be developed for the purpose of a vehicle recreation area (within the meaning of the <i>Recreation Vehicles Act 1983</i>):</p>	N/A

S117 Direction	Application	Relevance to this planning proposal	Consistency with direction
	<ul style="list-style-type: none"> (i) the provisions of the guidelines entitled <i>Guidelines for Selection, Establishment and Maintenance of Recreation Vehicle Areas, Soil Conservation Service of New South Wales, September 1985</i>, and (ii) the provisions of the guidelines entitled <i>Recreation Vehicles Act, 1983, Guidelines for Selection, Design, and Operation of Recreation Vehicle Areas, State Pollution Control Commission, September 1985</i>. 		
2.5 Application of E2 and E3 Zones and Environmental Overlays in Far North Coast LEPs	<p>A planning proposal that introduces or alters an E2 Environmental Conservation or E3 Environmental Management zone or an overlay and associated clause must:</p> <ul style="list-style-type: none"> (a) apply the proposed E2 Environmental Conservation or E3 Environmental Management zones, or the overlay and associated clause, consistent with the Northern Councils E Zone Review Final Recommendations. 	This Planning Proposal does not introduce or alter an E2 or E3 Zone or Environmental Overlays.	N/A
3. Housing, Infrastructure and Urban Development			
3.1 Residential Zones	<p>This direction applies when a relevant planning authority prepares a planning proposal that will affect land within:</p> <ul style="list-style-type: none"> (a) an existing or proposed residential zone (including the alteration of any existing residential zone boundary), (b) any other zone in which significant residential development is permitted or proposed to be permitted. <p>A planning proposal must include provisions that encourage the provision of housing that will:</p>	This Planning Proposal does not affect land within a residential zone or land where residential accommodation is permitted or proposed to be permitted.	N/A

S117 Direction	Application	Relevance to this planning proposal	Consistency with direction
	<p>(a) broaden the choice of building types and locations available in the housing market, and</p> <p>(b) make more efficient use of existing infrastructure and services, and</p> <p>(c) reduce the consumption of land for housing and associated urban development on the urban fringe, and</p> <p>(d) be of good design.</p> <p>A planning proposal must, in relation to land to which this direction applies:</p> <p>(a) contain a requirement that residential development is not permitted until land is adequately serviced (or arrangements satisfactory to the council, or other appropriate authority, have been made to service it), and</p> <p>(b) not contain provisions which will reduce the permissible residential density of land.</p>		
3.2 Caravan Parks and Manufactured Home Estates	<p>Applies when a relevant planning authority prepares a planning proposal.</p> <p>In identifying suitable zones, locations and provisions for caravan parks in a planning proposal, the relevant planning authority must:</p> <p>(a) retain provisions that permit development for the purposes of a caravan park to be carried out on land, and</p> <p>(b) retain the zonings of existing caravan parks, or in the case of a new principal LEP, zone the land in accordance with an appropriate zone under the Standard Instrument (Local Environmental Plans) Order 2006 that would facilitate the retention of the existing caravan park.</p>	This Planning Proposal does not seek to identify suitable zones locations and provision for caravan parks.	N/A


S117 Direction	Application	Relevance to this planning proposal	Consistency with direction
	<p>In identifying suitable zones, locations and provisions for manufactured home estates (MHEs) in a planning proposal, the relevant planning authority must:</p> <ul style="list-style-type: none"> (a) take into account the categories of land set out in Schedule 2 of SEPP 36 as to where MHEs should not be located, (b) take into account the principles listed in clause 9 of SEPP 36 (which relevant planning authorities are required to consider when assessing and determining the development and subdivision proposals), and (c) include provisions that the subdivision of MHEs by long term lease of up to 20 years or under the <i>Community Land Development Act 1989</i> be permissible with consent. 		
3.3 Home Occupations	Planning proposals must permit home occupations to be carried out in dwelling-houses without the need for development consent.	This Planning Proposals does not seek to amend current Byron LEP 2014 provisions that permit home occupations to be carried out in dwelling houses without the need for development consent.	N/A
3.4 Integrating Land Use and Transport	<p>Applies when a relevant planning authority prepares a planning proposal that will create, alter or remove a zone or a provision relating to urban land, including land zoned for residential, business, industrial, village or tourist purposes.</p> <p>A planning proposal must locate zones for urban purposes and include provisions that give effect to and are consistent with the aims, objectives and principles of:</p> <ul style="list-style-type: none"> (a) <i>Improving Transport Choice – Guidelines for planning and development</i> (DUAP 2001), and (b) <i>The Right Place for Business and Services –</i> 	<p>This Planning Proposal will facilitate the temporary use of land, which is zoned for urban purposes.</p> <p>This will be achieved through the provision of additional permitted uses and exempt development and does not create, alter or remove a zone.</p> <p>The underlying objectives of the applicable zone will prevail.</p>	Consistent

S117 Direction	Application	Relevance to this planning proposal	Consistency with direction
	<p><i>Planning Policy</i> (DUAP 2001).</p> <p>The objective of this direction is to ensure that urban structures, building forms, land use locations, development designs, subdivision and street layouts achieve the following planning objectives:</p> <ul style="list-style-type: none"> (a) improving access to housing, jobs and services by walking, cycling and public transport, and (b) increasing the choice of available transport and reducing dependence on cars, and (c) reducing travel demand including the number of trips generated by development and the distances travelled, especially by car, and (d) supporting the efficient and viable operation of public transport services, and (e) providing for the efficient movement of freight 		
3.5 Development Near Licensed Aerodrome	<p>Applies when a relevant planning authority prepares a planning proposal that will create, alter or remove a zone or a provision relating to land in the vicinity of a licensed aerodrome.</p> <p>The main requirements of the Direction are that Council considers the Obstacle Limitation Surface (OLS) as defined by that Department of the Commonwealth for residential purposes, and does not increase residential densities in areas where the ANEF, as from time to time advised by that Department of the Commonwealth, exceeds 25.</p>	This Planning Proposal will not create, alter or remove a zone or a provision relating to land in the vicinity of a licensed aerodrome.	N/A
3.6 Shooting Ranges	<p>Applies when a relevant planning authority prepares a planning proposal that will affect, create, alter or remove a zone or a provision relating to land adjacent to and/or adjoining an existing shooting range.</p> <p>A Planning Proposal must not seek to rezone land</p>	This Planning Proposal does not relate to land adjacent to and/or adjoining an existing shooting range.	N/A

S117 Direction	Application	Relevance to this planning proposal	Consistency with direction
	adjacent to and/or adjoining an existing shooting range that has the effect of permitting more intensive land uses in the area.		
4. Hazard and Risk			
4.1 Acid Sulfate Soils	<p>Applies when a relevant planning authority prepares a planning proposal that will apply to land having a probability of containing acid sulfate soils as shown on the Acid Sulfate Soils Planning Maps.</p> <p>A council shall not prepare a draft LEP that proposes an intensification of land uses on land identified as having a probability of containing acid sulfate soils on the Acid Sulfate Soils Planning Maps unless the council has considered an acid sulfate soils study assessing the appropriateness of the change of land use given the presence of acid sulfate soils.</p>	<p>The Planning Proposal is located on land affected by Acid Sulfate Soils Class 3 as shown on the Acid Sulfate Soils Map in Byron LEP 2014.</p> <p>The Planning Proposal to permit additional uses is not expected to result in intensification of land use compared to the current underlying permissible land uses or result in significant disturbance of soils</p>	Inconsistent Justified
4.2 Mine Subsidence and Unstable Land	<p>Applies when a relevant planning authority prepares a planning proposal that permits development on land that:</p> <p>(a) is within a mine subsidence district, or</p> <p>(b) has been identified as unstable in a study, strategy or other assessment undertaken:</p> <p>(i) by or on behalf of the relevant planning authority, or</p> <p>(ii) by or on behalf of a public authority and provided to the relevant planning authority.</p>	Byron Shire is not in a mine subsidence district and the land affected by this planning proposal has not been identified as unstable land.	N/A
4.3 Flood Prone Land	<p>Applies when a relevant planning authority prepares a planning proposal that creates, removes or alters a zone or a provision that affects flood prone land.</p> <p>A planning proposal must include provisions that give effect to and are consistent with the NSW Flood</p>	<p>The land subject to the Planning Proposal is Flood Prone (1:100 Year Flood) and within the Belongil Creek Flood Planning Area.</p> <p>The Planning Proposal seeks to allow additional permitted provisions on land within a flood planning</p>	Consistent

S117 Direction	Application	Relevance to this planning proposal	Consistency with direction
	<p>Prone Land Policy and the principles of the <i>Floodplain Development Manual 2005</i> (including the <i>Guideline on Development Controls on Low Flood Risk Areas</i>).</p> <p>A planning proposal must not rezone land within the flood planning areas from Special Use, Special Purpose, Recreation, Rural or Environment Protection Zones to a Residential, Business, Industrial, Special Use or Special Purpose Zone.</p> <p>A planning proposal must not contain provisions that apply to the flood planning areas which:</p> <ul style="list-style-type: none"> (a) permit development in floodway areas, (b) permit development that will result in significant flood impacts to other properties, (c) permit a significant increase in the development of that land, (d) are likely to result in a substantially increased requirement for government spending on flood mitigation measures, infrastructure or services, or (e) permit development to be carried out without development consent except for the purposes of agriculture (not including dams, drainage canals, levees, buildings or structures in floodways or high hazard areas), roads or exempt development. <p>A planning proposal must not impose flood related development controls above the residential flood planning level for residential development on land, unless a relevant planning authority provides adequate justification for those controls to the satisfaction of the Director-General (or an officer of the Department nominated by the Director-General).</p> <p>For the purposes of a planning proposal, a relevant</p> 	<p>area, however, it does not rezone land within the flood planning area to a residential, business, industrial, special use or special purpose zone.</p> <p>The requirements of Direction 4.3 are addressed under Byron LEP 2014, which contains provisions under Clause 6.3 Flood planning and 6.4 Floodplain risk management, to:</p> <ul style="list-style-type: none"> • to minimise the flood risk to life and property associated with the use of land, • to allow development on land that is compatible with the land's flood hazard, taking into account projected changes as a result of climate change, • to avoid significant adverse impacts on flood behaviour and the environment. • to enable evacuation of land subject to flooding above the flood planning level, • to protect the operational capacity of emergency response facilities and critical infrastructure during extreme flood events. <p>This planning proposal does not impose new flood planning related development controls or flood planning levels.</p>	

S117 Direction	Application	Relevance to this planning proposal	Consistency with direction
	<p>planning authority must not determine a flood planning level that is inconsistent with the Floodplain Development Manual 2005 (including the <i>Guideline on Development Controls on Low Flood Risk Areas</i>) unless a relevant planning authority provides adequate justification for the proposed departure from that Manual to the satisfaction of the Director-General (or an officer of the Department nominated by the Director-General).</p>		
4.4 Planning for Bushfire Protection	<p>Applies when a relevant planning authority prepares a planning proposal that will affect, or is in proximity to land mapped as bushfire prone land.</p> <p>In the preparation of a planning proposal the relevant planning authority must consult with the Commissioner of the NSW Rural Fire Service following receipt of a gateway determination under section 56 of the Act, and prior to undertaking community consultation in satisfaction of section 57 of the Act, and take into account any comments so made.</p> <p>A planning proposal must:</p> <ul style="list-style-type: none"> (a) have regard to <i>Planning for Bushfire Protection 2006</i>, (b) introduce controls that avoid placing inappropriate developments in hazardous areas, and (c) ensure that bushfire hazard reduction is not prohibited within the APZ. <p>A planning proposal must, where development is proposed, comply with the following provisions, as appropriate:</p> <ul style="list-style-type: none"> (a) provide an Asset Protection Zone (APZ) incorporating at a minimum: 	<p>This Planning Proposal will affect land that is partially in the bushfire vegetation buffer with some parts of the SP2 Zoned land in close proximity to Category 1 vegetation.</p> <p>Council will consult with the Commissioner of the NSW Rural Fire Service (RFS) following receipt of a gateway determination under section 56 of the Act, and prior to undertaking community consultation in satisfaction of section 57.</p> <p>It is expected that because the Planning Proposal does not facilitate residential development or similar inappropriate development in hazardous areas, a Bushfire Safety Authority, under the Rural Fires Act 1997, will not be required.</p> <p>The RFS will indicate any relevant Asset Protection Zones to be provided as part of any new development in response to agency consultation.</p>	Inconsistent Justified

S117 Direction	Application	Relevance to this planning proposal	Consistency with direction
	<ul style="list-style-type: none"> (i) an Inner Protection Area bounded by a perimeter road or reserve which circumscribes the hazard side of the land intended for development and has a building line consistent with the incorporation of an APZ, within the property, and (ii) an Outer Protection Area managed for hazard reduction and located on the bushland side of the perimeter road, (b) for infill development (that is development within an already subdivided area), where an appropriate APZ cannot be achieved, provide for an appropriate performance standard, in consultation with the NSW Rural Fire Service. If the provisions of the planning proposal permit Special Fire Protection Purposes (as defined under section 100B of the <i>Rural Fires Act 1997</i>), the APZ provisions must be complied with, (c) contain provisions for two-way access roads which link to perimeter roads and/or to fire trail networks, (d) contain provisions for adequate water supply for fire fighting purposes, (e) minimise the perimeter of the area of land interfacing the hazard which may be developed, (f) introduce controls on the placement of combustible materials in the Inner Protection Area. 		
5 Regional Planning			
5.1 Implementation of Regional Strategies	This direction applies to land to which the following regional strategies apply:	Not Applicable	N/A

S117 Direction	Application	Relevance to this planning proposal	Consistency with direction
	(a) South Coast Regional Strategy (excluding land in the Shoalhaven LGA) (b) Sydney–Canberra Corridor Regional Strategy		
5.2 Sydney Drinking Water Catchments	Applies when a relevant planning authority prepares a planning proposal that applies to the hydrological catchment.	Not Applicable	N/A
5.3 Farmland of State and Regional Significance on the NSW Far North Coast	The planning proposal must not rezone land mapped as State or regionally significant farmland under the Northern Rivers Farmland Protection Project for an urban use.	The Planning Proposal affects land entirely within a 'Committed Urban Use' on the Northern Rivers Farmland Protection Maps, and is therefore not classified as either Regionally or State Significant farmland.	Consistent
5.4 Commercial and Retail Development along the Pacific Highway, North Coast	Not Applicable	Not Applicable	N/A
5.5 -5.7 Revoked	-	-	N/A
5.8 Second Sydney Airport: Badgerys Creek	Not Applicable	Not Applicable	N/A
5.9 North West Rail Link Corridor Strategy	Not Applicable	Not Applicable	N/A
5.10 Implementation of Regional Plans	Planning proposals must be consistent with a Regional Plan released by the Minister for Planning.	The consistency of this Planning Proposal with the North Coast Regional Plan is addressed in Section B above.	Consistent
6. Local Plan Making			
6.1 Approval and Referral Requirements	A planning proposal must: (a) minimise the inclusion of provisions that require	The planning proposal does not propose the inclusion of any concurrence, consultation or referral	Consistent

S117 Direction	Application	Relevance to this planning proposal	Consistency with direction
	<p>the concurrence, consultation or referral of development applications to a Minister or public authority, and</p> <p>(b) not contain provisions requiring concurrence, consultation or referral of a Minister or public authority unless the relevant planning authority has obtained the approval of:</p> <ul style="list-style-type: none"> (i) the appropriate Minister or public authority, and (ii) the Director-General of the Department of Planning and Environment (or an officer of the Department nominated by the Director-General), <p>prior to undertaking community consultation in satisfaction of section 57 of the Act, and</p> <p>(c) not identify development as designated development unless the relevant planning authority:</p> <ul style="list-style-type: none"> (i) can satisfy the Director-General of the Department of Planning and Environment (or an officer of the Department nominated by the Director-General) that the class of development is likely to have a significant impact on the environment, and (ii) has obtained the approval of the Director-General of the Department of Planning and Environment (or an officer of the Department nominated by the Director-General) prior to undertaking community consultation in satisfaction of section 57 of the Act. 	provisions.	

S117 Direction	Application	Relevance to this planning proposal	Consistency with direction
6.2 Reserving Land for Public Purposes	A planning proposal must not create, alter or reduce existing zonings or reservations of land for public purposes without the approval of the relevant public authority and the Director-General of the Department of Planning and Environment (or an officer of the Department nominated by the Director-General).	This proposal does not create, alter or reduce existing zonings or reservations of land for public purposes.	Consistent
6.3 Site Specific Provisions	<p>Applies when a relevant planning authority prepares a Planning Proposal that will allow a particular development to be carried out.</p> <p>A planning proposal that will amend another environmental planning instrument in order to allow a particular development proposal to be carried out must either:</p> <ul style="list-style-type: none"> (a) allow that land use to be carried out in the zone the land is situated on, or (b) rezone the site to an existing zone already applying in the environmental planning instrument that allows that land use without imposing any development standards or requirements in addition to those already contained in that zone, or (c) allow that land use on the relevant land without imposing any development standards or requirements in addition to those already contained in the principal environmental planning instrument being amended. <p>A planning proposal must not contain or refer to drawings that show details of the development proposal.</p>	This Planning Proposal will allow additional permitted land uses without imposing any development standards or requirements in addition to those already contained in the Byron LEP 2014; the principal environmental planning instrument being amended.	Consistent

Section C Environmental, social and economic impact

Q7. Is there any likelihood that critical habitat or threatened species, populations or ecological communities, or their habitats will be adversely affected as a result of the proposal?

No. The Planning Proposal does not seek to amend planning provisions relating to areas which are known to be ecologically significant land identified for Environmental Protection Purposes.

Q8. Are there any other likely environmental effects as a result of the planning proposal and how are they proposed to be managed?

No. All likely known environmental effects are addressed in Section B, Q5 and Q.6 in this Planning Proposal.

Q9. How has the planning proposal adequately addressed any social and economic effects?

The Planning Proposal could have strong positive social effects by activating this important central open space for a range of community uses. The proposed social enterprise use of the station building, although not yet detailed, will result in strong positive social outcomes.

Section D State and Commonwealth interests

Q.10 Is there adequate public infrastructure for the planning proposal?

Yes. The Planning Proposal relates to land in an existing urban area with access to essential infrastructure.

Q.11 What are the views of State and Commonwealth public authorities consulted in accordance with the gateway determination

State and Commonwealth public authorities were formally involved in this particular Planning Proposal prior to Gateway determination. At this early stage, it appears unlikely that there will be any issues of interest to Commonwealth authorities. State government authorities will be consulted during the public exhibition period.

In accordance with the Gateway Approval, the following public authorities will be consulted:

Public authority/stakeholder	Issue requiring comment
NSW Rural Fire Service	Section 117(4.4) of the <i>Environmental Planning and Assessment Act 1979</i> , Ministerial Direction 4.4 requires consultation with the Commissioner of the NSW Rural Fire Service.
Office of Environment and Heritage	Consideration of ecological issues, Aboriginal and European heritage, as well as flooding and coastal planning.
Transport for NSW	Consideration of use of land within and adjoining the Byron Bay Rail Corridor.
Appropriate Local Aboriginal knowledge-holders and Land Councils	Aboriginal heritage issues.

Part 4 Mapping

The Planning Proposal affects Byron LEP 2014 Zoning Map – Sheet LZN_0033CC, and the Additional Permitted Uses Map - Sheet APU_003CC. Council will need to prepare spatial data to

amend the map in accordance with the NSW Standard Technical Requirements for spatial datasets and maps:

LZN_0033CC: In relation to the subject land, this map sheet currently contains the notation “Road Corridor: for the SP2 zone. This notation will be amended to “Road Corridor and Community Facilities”.

APU_0033CC: This map will be amended to include the subject land.

Part 5 Community consultation

The Planning Proposal was publically exhibited, in a different form, in March 2018. In addition to the matters contained herein, the previously exhibited Proposal sought to include temporary commercial and/or retail uses as permitted within consent for the rail corridor. It also sought to amend the existing provisions of Clause 2.8 of Byron LEP 2014 in relation to temporary land uses, to allow for an increase in the maximum number of days for which approval could be granted, from 14 to 52 days in any 12 month period.

Six individual submissions were received to the previous exhibition. In addition, the Proposal was discussed at a meeting of the Byron Bay Town Centre Guidance Group.

The unanimous view of the Group, and the individual submissions, was that Council should not facilitate commercial uses of the corridor, as such uses would unfairly compete with existing businesses within the town centre.

In response to those comments, the proposal has been amended to remove the previous references to commercial or retail uses.

Other changes to this version of the Planning Proposal have been made to refine the way in which the amendment to the LEP can be made to best facilitate activation of the corridor through community uses and activities.

Council will re-exhibit the Planning Proposal. Given that it was previously exhibited, and that the primary change to the currently version is a direct response to comments received, a **21 day public exhibition period** is recommended.

Notification of the re-exhibited Planning Proposal will include:

- a newspaper advertisement that circulates in the Byron LGA, which is the area affected by the Planning Proposal;
- updates to the web sites of Byron Shire Council and the Department of Planning and Environment,
- letters to relevant State Agencies; and
- notification to those who made submissions to the original exhibition.

Part 6 Project timeline

The proposed timeline for the completion of the Planning Proposal is as follows:

Estimated completion	Plan making step
May-June 2018	Re-exhibition of Planning Proposal. Government agency consultation.
June 2018	Analysis of public submissions. Preparation of Council report.
August 2018	Endorsed Planning Proposal submitted to DPE for finalisation.

Summary and conclusions

This Planning Proposal seeks to permit additional uses and exempt development on the subject land to implement the strategic objectives in the Byron Bay Town Centre Masterplan.

This Planning Proposal will not impact on environmental areas and is entirely serviced by urban infrastructure.

This Planning Proposal will have positive social effects by activating and important central 'green space' for the use and enjoyment of the community.

The proposed changes are consistent with the North Coast Regional Plan 2036 and Council's Community Strategic Plan 2027. The land is identified as an existing urban area. An assessment of the planning proposal indicates that it is consistent with relevant SEPPs. It is consistent with all relevant s117 Directions.

There is sufficient information to enable Council to support the planning proposal.

Appendix A Proposed LEP Amendments

Rail Corridor Activation

Activation is facilitated by the proposed amendment of the notation that accompanies the SP2 Infrastructure Zoning on the Byron LEP 2014 Map LZN_003CC, as shown above in Part 4 of this Planning Proposal.

Additional Permitted Uses

The following clause is proposed to be added to Schedule 1 of Byron LEP 2014:

9. Use of certain land within the Byron Railway Corridor and at Lawson Street Car Park, Byron Bay

- (1) *This clause applies to land at the Byron Rail Corridor and Station Precinct, being Lot 1 DP 1001454 and Part of Lot 4729 DP 1228104 (extending from Lawson Street to the south west corner of Lot 9 DP 617509) and at Lawson Street South Car Park, being Lots 3 & 7 DP 827049.*
- (2) *The following uses are permitted on the land without development consent:*
 - (a) *landscape works undertaken for the implementation of a Council-endorsed Landscape Concept Plan; and*
 - (b) *recreation area.*
- (4) *Development for markets is permitted with development consent, but only in the case of a relocation of existing markets legally operating elsewhere in Byron Shire.*
- (5) *Development for the purposes of a community facility, including commercial activity undertaken by a not-for-profit organisation or social enterprise, is permitted with development consent within the Station Building, previously used as a ticketing office for the rail station, and the adjacent railway platform.*

Schedule 2 Exempt Development

The following clause is proposed to be added to Schedule 2 of Byron LEP 2014:

Single one-off events and ceremonies on public reserves and roads

- (1) *This exemption applies to single occurrence cultural and social activities and events, including markets, concerts, festivals, carnivals, entertainment or educational based events, or the like where the land is used for a period not exceeding seven (7) consecutive days.*
- (2) *Must be located in a public reserve, public road, car park, community land, showgrounds, church grounds, Crown land or other appropriate outdoor area.*
- (3) *Must obtain any necessary approvals, including under the Local Government Act 1993 and the Roads Act 1993, if required.*
- (4) *Must make provision for vehicular or pedestrian access, including deliveries, required for adjoining commercial land.*
- (5) *Must comply with all relevant requirements and provisions of Byron Shire Council's Policies:*
 - (a) *Events on Public and Private Land; and*
 - (b) *Temporary Use of Land.*

Delete the following clause from Schedule 2 of Byron LEP 2014:

Entertainment and events on public roads

Must be in accordance with an approval issued under section 125 of the Roads Act 1993.

Appendix B Licence to use Rail Corridor

Agreement Number: AGR-10131
File Number: JHR/430/5923

INFRASTRUCTURE LICENCE

BETWEEN

TRANSPORT for NSW

AND

BYRON SHIRE COUNCIL

DATED the *1* **day of** *february* **2018**

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LICENCE

BETWEEN: **TRANSPORT for NSW** (ABN 18 804 239 602) of Level 6, 18 Lee Street, Chippendale NSW 2008 (“**TfNSW**”)

AND: The party named as the Licensee in **item 1** of **Schedule 1** (“the **Licensee**”)

BACKGROUND:

- A. TfNSW is the owner of the Land or has the care, control and management of the Land.
- B. The Licensee has requested, and TfNSW has agreed to grant a licence to carry out the Permitted Use on the Licensed Area for the Term in accordance with the terms and conditions of this Licence.
- C. TfNSW has appointed an Agent to manage the Licensed Area and to administer and manage this Licence on its behalf. It is hereby acknowledged that the Agent is a Rail Infrastructure Manager accredited under the Rail Safety Act.

THE PARTIES AGREE AS FOLLOWS:

1. DEFINITIONS

In this Licence the following definitions apply, unless the context requires otherwise:

“**Activity**” means any undertaking, development, work or use in, on, under or near the Licensed Area, and includes the storage, transportation, leak, escape, removal, discharge, release or disposal of any substance, Contaminant or waste in, on, under, to, from or near the Licensed Area.

“**Agent**” means that party named at **item 2** of **Schedule 1** as appointed by TfNSW pursuant to **clause 6**.

“**Asbestos**” has the same meaning as in the WHS Regulation.

“**Asbestos Management Plan**” has the same meaning as in the WHS Regulation.

“**Asbestos Register**” has the same meaning as in the WHS Regulation.

“**Authorisation**” means any approval, consent, exemption, licence or registration, however described, and any renewal of any of them.

“**Bankruptcy Act**” means the *Bankruptcy Act 1966 (Cth)*.

“**Business Day**” means a day not being a Saturday, Sunday or public holiday in New South Wales and excludes the period from, and including, 25 December of one calendar year to 1 January of the following calendar year.

“**Claim**” includes any claim, demand, objection, requisition, remedy, suit, injury, damage, loss, cost, liability, action, proceeding, right of action and claim for compensation (including the costs and expenses of defending or settling any action, proceeding, claim or demand).

“Commencement Date” means the date set out in **item 4** of **Schedule 1**.

“Concept Plan” means the Licensee’s plans for the Licensed Area as set out in **Schedule 10**.

“Construction Induction Certificate” means the certificate of the same name issued after completion of general construction induction training with WorkCover or a registered training organisation.

“Construction Work” has the same meaning as in Part 6.1 of the WHS Regulation.

“Contamination” has the meaning given in the *Contaminated Land Management Act 1997* (NSW).

“Contractor” means each and any of the Licensee’s employees and contractors, including any sub-contractor and, where applicable, includes the Licensee.

“Cost” includes any cost, charge, expense, outgoing, payment or other expenditure of any nature (whether direct, indirect or consequential and whether accrued or paid) including, where appropriate, all legal fees.

“Corporations Act” means the *Corporations Act 2001 (Cth)*.

“CPI” means the consumer price index published by the Australian Bureau of Statistics for All Groups (Sydney) or the index which replaces it under **clause 1.2** of **Schedule 3**.

“CPI Review Date” means each date set out in **item 7A** of **Schedule 1**.

“CRN” means the country regional rail network owned by or vested in TfNSW comprising an operational network, containing passenger, freight and grain lines, and a non-operational network, as it exists from time to time.

“Current CPI” means for a CPI Review Date, the CPI number for the quarter ending immediately before that Review Date.

“Date of Termination” means

- (a) the Expiry Date;
- (b) any earlier date on which this Licence is terminated or otherwise determined; or
- (c) the end of any period of holding over under **clause 12.3**,

as appropriate.

“Employee” means:

- (a) in respect of a party:
 - a. the employees, officers, directors, agents, invitees, lessees, licensees or contractors of, or any other person under the control or supervision of, that party;
 - b. the employees, officers, directors, agents, invitees, lessees, licensees or contractors of, or any other person under the control or supervision of, the agents, lessees, licensees, contractors or any other person under the control or supervision of, a party,

(b) and in respect of the Licensee, includes Contractors.

but TfNSW's Employees do not include the Licensee or the Licensee's Employees.

“Energy” has the meaning given in the NGER Act or other relevant Sustainability Legislation.

“Energy Data” means:

- (a) a record of the total amount of Greenhouse Gases emitted, the total amount of Energy consumed and the total amount of Energy produced in respect of the Licensed Area, as defined in the NGER Act including all information concerning how such amounts were calculated; and
- (b) a record of the data required under the relevant Sustainability Legislation.

“Environmental Law” means any law relating to the environment including any Law relating to land use, planning, pollution of air, soil or ground water, chemicals, waste, the use, transport, storage and handling of dangerous goods, the health or safety of any person or any other matters relating to but not limited to the protection of the environment, health or property.

“Environmental Management Actions” any action taken by the Licensee to protect the environment as a result of assessments associated with activities that can include maintenance, construction and remediation in order to comply with its obligations at Law or under this Licence.

“Event of Default” has the meaning given in **clause 13.3**.

“Expiry Date” means the date set out in **Item 5 of Schedule 1**.

“Fire Break” means a strip of land properly cleared for a minimum width of two (2) metres either side of the Railway Infrastructure and Infrastructure.

“Fixed Rate” means the percentage increase for each Fixed Review Date set out in **item 7B of Schedule 1**.

“Fixed Review Date” means each date set out in **item 7B of Schedule 1**.

“Government Agency” means any government or government department, a governmental semi-governmental or judicial person or a person (whether autonomous or not) charged with administration of any applicable Law.

“Greenhouse Gas” has the meaning given to in the NGER Act.

“Improvement” means all buildings, structures and other improvements, if any, existing on the Licensed Area at the Commencement Date, any other improvements constructed, erected or made to the Licensed Area during the Term and the Licensee's Equipment but excludes the Railway Infrastructure Facilities and excludes any chattels forming part of the Licensee's Equipment.

“Incident” means an occurrence involving or affecting operations on the CRN, which has resulted in, or has the potential to result in, death or injury, property damage, disruption to train services or adverse environmental consequences.

“Infrastructure” means the facility, structure or other installation owned by the Licensee and installed on the Licensed Area by the Licensee pursuant to this Licence, as set out in **Item 3B of Schedule 1**.

“Initial Environmental Report” means a report/s prepared by the Licensee on the environmental condition of the Land and relevant to all construction phases including all associated Environmental Management Actions, attached at **Schedule 5**.

“Land” means the land set out in **item 3A of Schedule 1**.

“Law” includes the common law and equity together with any legislation, delegated legislation, regulations, statutory instruments, statutory notices and statutory directions.

“Liability” means all threatened or actual actions, proceedings, demands, damages, losses, claims, costs, expenses and liabilities.

“Licence” means this document, any Schedule, annexure or exhibit and includes any amendments made thereto.

“Licence Fee” means the fee set out in **item 6 of Schedule 1**.

“Licensed Area” means that part of the Land set out in **item 3B of Schedule 1** but excludes any Railway Infrastructure.

“Licensee’s Equipment” means any and all fixtures and fittings and plant, equipment and chattels installed on, or brought on to, or kept (temporarily or permanently) on the Licensed Area by the Licensee.

“Network Rules and Procedures” means the NSW network rules and procedures as published by the Agent from time to time.

“NGER Act” means the *National Greenhouse and Energy Reporting Act 2007* (Cth) and all associated regulations, policies and guidelines as amended from time to time.

“Payment Date” means the Commencement Date and each anniversary of the Commencement Date during the Term.

“Permitted Use” means the use set out in **item 8 of Schedule 1** and any special conditions set out in **Schedule 2**.

“Pollution” shall have the same meaning ascribed to that term in the Protection of Environment Operations Act 1997 (NSW) or any other Act which repeals or is substituted for that Act.

“Previous CPI” means for a CPI Review Date, the CPI number for the quarter ending immediately before the last Review Date (or if there has not been a review, the Commencement Date).

“Principal Contractor” means the Licensee, or the Licensee’s nominee as authorised in writing by TfNSW, appointed in accordance with **clause 19.1(a)**.

“Principal Contractor Works” means Construction Work, where the cost of the Construction Work is \$250,000 or more, in connection with the Licensed Area.

“Protection Officer” means a worker with appropriate qualifications, as required by the Agent, who is responsible for safe working protection upon and in the Rail Corridor.

“Rail Corridor” means fence line to fence line or 15 metres from the outside rail where there are no fences and also includes any land on which operational Rail Infrastructure Facilities are located.

“Rail Infrastructure Facilities” has the meaning given to that term in the Transport Administration Act.

“Rail Infrastructure Manager” has the meaning given to that term in section 4 of the Rail Safety Law.

“Rail Safety Law” means;

- (a) the Rail Safety National Law as applied (with modifications) as a law of NSW by the *Rail Safety (Adoption of National Law) Act 2012*; and
- (b) any such other NSW Acts which may relate to rail safety.

“Rail Trail” includes any roadway, pathway, track, bridle path, footpath, trail or route on, within, near or adjacent to the Licensed Area which may be used for recreational or leisure activities.

“Railway Infrastructure” means that part of the railway system on and adjacent to the Land, that may or may not be operational, including the Rail Infrastructure Facilities and, in particular, the single line standard gauge track and supporting structures.

“Review Date” means a CPI Review Date, a Fixed Review Date or a Market Review Date (as the context requires).

“RIM” means Rail Infrastructure Manager and has the meaning given to that term in the Rail Safety Law.

“Safety Protocols” means the procedures, rules and protocols in relation to safety as set out in Schedule 4 (as amended by TfNSW from time to time).

“Schedule 1” means schedule 1 to this Licence.

“Schedule 2” means schedule 2 to this Licence.

“Schedule 3” means schedule 3 to this Licence.

“Schedule 4” means schedule 4 to this Licence.

“Schedule 5” means schedule 5 to this Licence.

“Schedule 6” means schedule 6 to this Licence.

“Schedule 7” means schedule 7 to this Licence.

“Schedule 8” means schedule 8 to this Licence.

“Schedule 9” means schedule 9 to this Licence.

“Schedule 10” means schedule 10 to this Licence.

“**Services**” includes water, electricity, gas, drainage, sewerage, telephone and telecommunications services, including signalling and associated cabling.

“**Sustainability Legislation**” means the NGER Act and any other legislation, regulations, policies and guidelines relating to sustainability, energy efficiency, energy production and energy consumption.

“**Team Manager**” means the person in **item 11** of **Schedule 1**.

“**Term**” means the period starting on the Commencement Date and ending on the Date of Termination and includes any holding over period in accordance with **clause 12.3**

“**Termination Date**” means the date set out in **item 5** of **Schedule 1**.

“**Track Safety Awareness Certificate**” means the card or certificate issued after completion of the relevant Track Safety Awareness course with a registered training organisation.

“**Train Control**” means the Train Control centre in **item 12** of **Schedule 1**.

“**Transport Access Program**” means any development by or on behalf of TfNSW on TfNSW land that is for the purposes of a Bus/Coach interchange.

“**Transport Administration Act**” means the *Transport Administration Act 1988* (NSW).

“**TfNSW**” means Transport for NSW (or its successors or assigns), a NSW Government Agency

“**WHS Act**” means the Work Health and Safety Act 2011 (NSW).

“**WHS Regulation**” means the *Work Health and Safety Regulation 2011* (NSW).

2. INTERPRETATION

Unless expressed to the contrary:

- (a) words importing:
 - (i) the singular include the plural and vice versa; and
 - (ii) any gender includes the other genders;
- (b) if a word or phrase is defined, cognate words and phrases have corresponding definitions;
- (c) where two or more persons are Licensees the covenants and obligations on their part contained binds them jointly and each of them severally;
- (d) a reference to:
 - (i) a person includes a firm, unincorporated association, corporation and a government or statutory body or authority;

- (ii) a person includes its legal personal representatives, successors and assigns;
 - (iii) a statute, ordinance, code or other law includes regulations and other statutory instruments under it and consolidations, amendments, re-enactments or replacements of any of them;
 - (iv) a right includes a benefit, remedy, discretion, authority or power; and
 - (v) an obligation includes a warranty or representation and a reference to a failure to observe or perform an obligation includes a breach of warranty or representation;
- (e) capitalised words not having a defined meaning under clause 1 have the meaning prescribed in the Transport Administration Act at the date of this Licence. To the extent of any inconsistency, the definitions in the Transport Administration Act shall prevail;
- (f) where a reference is made to any body or authority such reference is, if the body or authority has ceased to exist, deemed to be a reference to the body or authority as then serves substantially the same objects as that body or authority and any reference to the President of such body or authority is in the absence of a President to be read as a reference to the senior officer for the time being of the body or authority or such other person fulfilling the duties of the President;
- (g) where the day or last day for taking action or doing anything on which an entitlement is due to arise is a Saturday, Sunday or public holiday in New South Wales, the day or last day for taking action or doing the thing or date on which the entitlement arises is for the purposes of this Licence the immediately following day that is not a Saturday, Sunday or public holiday;
- (h) any act or omission of the Licensee includes any act or omission of any sublicensee, agent, contractor, employee, legal personal representatives, successor or assignee of the Licensee;
- (i) if any form of the word “include” is used, it is to be read as if followed by the words “without limitation”;
- (j) no rule of construction will apply to a clause to the disadvantage of a party merely because that party put forward the clause or would otherwise benefit from it; and
- (k) headings are for convenience only and do not affect the interpretation of a clause.

3. GRANT OF LICENCE

- (a) In consideration of payment of the Licence Fee, TfNSW grants and the Licensee accepts a licence of the Licensed Area for the Permitted Use for the Term, subject to any rights of early termination contained in this Licence.
- (b) This Licence confers no right of exclusive occupation of the Licensed Area to the Licensee and TfNSW may at any time exercise any of its rights as owner or controller (as the case may be) of the Land.
- (c) The rights conferred by this Licence shall rest in contract only and shall not create or confer upon the Licensee any tenancy, estate or interest in or over the Licensed Area

and the rights of the Licensee under this Licence shall be those of a licensee only and do not comprise or include any further or other rights.

- (d) Except as this Licence otherwise expressly provides, the Licensee is not permitted to use or access any part of the Land or the CRN other than the Licensed Area.

4. LICENCE FEE AND CHARGES

- (a) If the Licence is for a period of one year or longer, the Licensee must pay the Licence Fee to TfNSW annually in advance on each Payment Date. If the Date of Termination falls on a date other than an anniversary of the Commencement Date, then the final payment of the Licence Fee will be a proportional payment.
- (b) If the Licence is for a period of less than one year, the Licensee must pay the Licence Fee to TfNSW in equal monthly instalments in advance on the first day of each month. If this Licence commences on a date other than the first day of the month then the first and last payments will be proportional ones.
- (c) The Licensee will be responsible for and pay, to the relevant Government Agency (or any other authority having jurisdiction or authority in respect of the Land), when they are due for payment, the full amount of all accounts, invoices, assessments and charges with regard to:
 - (i) all rates, taxes, charges, assessments, duties, impositions and fees at any time or from time to time payable to any Government Agency in respect of the Licensed Area which are levied or assessed directly on or to the Licensee.
 - (ii) if applicable to the Permitted Use, the use of telephone, light and other facilities and the consumption of electricity, gas, and any and all other services and utilities supplied to or used from and separately metered to the Licensed Area.
- (d) The Licensee must pay to TfNSW within 14 days of demand a reasonable proportion (as determined by TfNSW, acting reasonably) of the amount of all accounts, invoices, assessments and charges with regard to:
 - (i) all rates, taxes, charges, assessments, duties, impositions and fees at any time or from time to time payable to any Government Agency in respect of the Land.
 - (ii) if applicable to the Permitted Use and not separately metered to the Licensed Area, the use of telephone, light and other facilities and the consumption of electricity, gas, and any and all other services and utilities supplied to or used from the Licensed Area.

5. LICENCE FEE REVIEWS

5.1 Review of Licence Fee

The Licence Fee will be reviewed in accordance with **Schedule 3**.

6. TfNSW'S AGENT

- (a) TfNSW may appoint an Agent to manage and control the Land or the Licensed Area on behalf of TfNSW.
- (b) The Agent has the power to operate and manage the Licensed Area on behalf of TfNSW.
- (c) The Agent as so appointed has the full responsibility for the management and administration of the Licensed Area and this Licence and will have the full authority and power of TfNSW to act for and on behalf of TfNSW under this Licence.
- (d) The Licensee agrees that any direction given by any Agent or request for documentation or information from any Agent is to be taken to be a direction or request from TfNSW, and copies of all documentation provided by the Licensee to TfNSW under this Licence can be provided by TfNSW to any Agent.
- (e) TfNSW will give the Licensee prompt written notice of revocation of the appointment of any Agent.

7. USE OF LICENSED AREA

7.1 Permitted Use

The Licensee must use the Licensed Area only for the Permitted Use and must not use or allow the Licensed Area to be used for any other use (without TfNSW's prior written consent).

7.2 Railway Infrastructure

The Licensee, or any of its agents or Contractors as the case may be, must:

- (a) comply with all reasonable directions given by TfNSW or any of TfNSW's Employees in relation to the Railway Infrastructure; and
- (b) notify TfNSW in writing immediately of becoming aware of any damage caused to any part of the Railway Infrastructure.

7.3 Offensive Activities

The Licensee must not carry on any illegal, offensive hazardous or dangerous activities on or from the Licensed Area or create a nuisance or disturbance either:

- (a) for TfNSW;
- (b) for the Agent; or
- (c) for the owners or occupiers or users of any part of the Land or any adjoining property.

7.4 Dangerous Equipment and Installations

The Licensee may only install or use within the Licensed Area Licensee's Equipment which is reasonably necessary for and normally used in connection with the Permitted Use and will not install or bring onto the Licensed Area:

- (a) any electrical, gas powered or other machinery or equipment; or
- (b) any chemicals or other dangerous substances or hazardous chemicals (as that term is defined in the WHS Regulation),

which may pose a danger, risk or hazard.

7.5 No Warranty

TfNSW makes no warranty or representation regarding the suitability of the Licensed Area for the Permitted Use or any other purpose.

7.6 Clearances

- (a) The Licensee must maintain such other clearances around the Railway Infrastructure as TfNSW shall require in writing.

7.7 Comply with Laws

- (a) The Licensee must comply with all Laws which may from time to time apply to the Licensed Area, the Permitted Use or the Licensee's activities on the Licensed Area, including laws relating to work health and safety, endangered species and the control of noxious weeds and feral pests. The Licensee acknowledges and agrees to comply with TfNSW's powers and obligations under the Rail Safety Law, the Transport Administration Act and any other relevant Law, rules or procedures that TfNSW requires the Licensee to comply with.
- (b) The Licensee must obtain, maintain and comply with, at the Licensee's cost, all Authorisations from all Government Agencies which may from time to time be necessary or appropriate for the Licensee's activities on the Licensed Area, including any Authorisations required by any local council, the Environment Protection Authority and the Office of Environment and Heritage.
- (c) The Licensee must not by any act or omission cause or permit any such Authorisations to lapse or be revoked.

7.8 Safety

Any breach of this **clause 7.8** shall be a fundamental breach of this Licence by the Licensee and may result in the immediate termination of this Licence by TfNSW.

- (a) The Licensee has full responsibility for the establishment of safe systems of work and the management of safety in the Licensed Area for all persons accessing the Licensed Area or the Rail Corridor and carrying out the Permitted Use pursuant to this Licence, as appropriate.
- (b) The Licensee must ensure that prior to breaking the surface of the Licensed Area for any reason, the Licensee and all of its Contractors, agents and invitees locate any Services, to avoid conflict and damage. Without limitation, the Licensee must contact "Dial Before You Dig" – telephone 1100 – for information relating to third party buried assets.

- (c) The Licensee must, at no Cost to TfNSW, provide TfNSW with copies of any information acquired by the Licensee in relation to the location of any Services on the Licensed Area.
- (d) The Licensee must exercise the Licensee's rights and perform the Licensee's obligations under this Licence in accordance with all applicable safety standards with which TfNSW or its Agent is obliged to comply under all relevant safety Laws (including *Australian Standard AS 4292 (Railway Safety Management)*).
- (e) The Licensee must comply, and must ensure that all of its Employees entering the Rail Corridor or the Licensed Area comply with the Rail Safety Law, all other applicable Laws and standards including the Network Rules and Procedures and the Safety Protocols.
- (f) The Licensee must ensure that its Employees do not enter the Licensed Area or the Rail Corridor unless appropriately qualified, competent, experienced and accredited to carry out work within the Licensed Area and Rail Corridor.
- (g) Where applicable, the Licensee must ensure that all of its Employees entering the Rail Corridor or the Licensed Area when engaged in work or prior to working in the Rail Corridor or Licensed Area,:
 - (i) hold the relevant Construction Induction Certificate and Track Safety Awareness Certificate and carry copies of such certificates when on the Rail Corridor or the Licensed Area; and
 - (ii) attend any induction or training required by TfNSW.

8. INSURANCE

8.1 Licensee Must Insure

- (a) The Licensee must take out and maintain, at all times during the Term, and require its Contractors to keep current for any time during which they undertake work on the Licensed Area, a public liability insurance policy in respect of the Licensed Area and the business and activities conducted on the Licensed Area for an amount no less than the amount stated in **item 9A** of Schedule 1 (or any other amount that TfNSW may reasonably require from time to time) that:
 - (i) contains all provisions that are normally contained in public liability policies and any other provisions reasonably required by TfNSW; and
 - (ii) without limiting anything in this clause, covers death or injury to any person and damage to property of any person sustained when that person is using or entering the Licensed Area or resulting from anything originating from the Licensed Area.
- (b) If the Licensee carries out any alterations, additions or other works then the Licensee must take out and maintain, until any such works are completed, and require its Contractors to keep current for any time during which they undertake works on the Licensed Area, a contract works insurance policy for the full value of the relevant works.

- (c) The Licensee must effect and maintain during the Term property insurance for the full replacements value of the Licensee's Equipment.
- (d) The Licensee must ensure that its Contractors, hold a current policy of:
 - (i) if there is an amount in **item 9B** of **Schedule 1**, professional indemnity insurance in respect of activities the Contractors conduct on the Land for an amount no less than the amount stated in **item 9B** of **Schedule 1**; and
 - (ii) workers compensation insurance as required under the *Workers Compensation Act 1987* (NSW).
- (e) The insurance policies referred to in **clauses 8.1(a)** and **8.1(b)** must include coverage for TfNSW and the Agent as named insureds for their respective interests in the Licensed Area.
- (f) The insurance policies required to be effected under **clauses 8.1(a)**, **8.1(b)** and **8.1(c)** must:
 - (i) be effected with insurers approved by TfNSW, (acting reasonably);
 - (ii) be on terms acceptable to TfNSW, including a provision or endorsement that no cancellation or material change in coverage will be made without giving TfNSW 60 days prior written notice;
 - (iii) cover events occurring during the policy's currency regardless of when claims are made; and
 - (iv) note that despite any similar policies of TfNSW, the Licensee's policies will be the primary policies.
- (g) The parties acknowledge and agree that:
 - (i) **clause 8.1(f)** in no way derogates from the Licensee's obligation to take out and maintain the policies of insurance required under this Licence; and
 - (ii) in accepting the insurance policy terms TfNSW makes no representation or warranty that the insurance obtained by the Licensee meets the requirements of this Licence.
- (h) The Licensee must provide to TfNSW prior to the Commencement Date certificates of currency or other relevant evidence that the policies of insurance required by this **clause 8.1** are in effect, and thereafter, must provide to TfNSW an updated certificate of currency or other relevant evidence in respect of the policies of insurance required by **clause 8.1** on each anniversary of the Commencement Date or upon request from TfNSW.

8.2 Insurance Affected

- (a) The Licensee must not do anything which may:
 - (i) prejudice any insurance of, or in relation to, the Land; or
 - (ii) increase the premium for that insurance.

- (b) If the Licensee does anything (with or without TfNSW's consent) that increases the premium of any insurance TfNSW has in connection with the Land, the Licensee must on demand pay the amount of that increase to TfNSW.

8.3 Notices of Potential Claims

The Licensee must give written notice in reasonable detail to TfNSW of the occurrence of an event likely to give rise to a claim under a policy of insurance required under this Licence as soon as practicable after the occurrence of the event and must keep TfNSW informed of subsequent developments concerning any claim.

8.4 Settlement of Claims

Without limiting the liability of the Licensee under this Licence, upon settlement of a claim under insurance required by this Licence covering damage to Railway Infrastructure, any money received by the Licensee must be paid to TfNSW.

9. MAINTENANCE OF LICENSED AREA

9.1 Maintenance

- (a) In carrying out the Permitted Use, the Licensee must keep and maintain the Licensed Area, and any Improvements on the Licensed Area, in good repair.
- (b) The Licensee must during the Term:
 - (i) keep the Land and the Licensed Area clean and tidy;
 - (ii) regularly remove from the Land and Licensed Area all surplus materials; and
 - (iii) remove from the Land and Licensed Area regularly all spent material, chattels, effects and things brought onto the Land and Licensed Area or arising from the Licensee's activities on the Land or Licensed Area or activities of its Employees that do not constitute Improvements to the Land or Licensed Area.
- (c) If TfNSW requires the Licensee to do so, the Licensee must promptly repair any damage to the Licensed Area caused or contributed to by the act, omission, negligence or default of the Licensee or its Employees. If the Licensee is unable or unwilling to carry out the required repair in accordance with TfNSW's requirements and timeframe (or if TfNSW considers the repair to be urgently required), TfNSW may carry out the repairs itself at the Licensee's Cost. The Licensee must pay the Costs of such repair within 30 days after receipt of a tax invoice from TfNSW.
- (d) Repairs to or damage to any Railway Infrastructure caused by the act, omission, negligence or default of the Licensee or its Employees, will be carried out by TfNSW at the Licensee's cost and the Licensee must pay the costs within 30 days after receipt of a tax invoice from TfNSW.

9.2 Alterations by Licensee

- (a) Other than in as set out in the Concept Plan, and expressly agreed to by TfNSW in accordance with **clause 5.4 of Schedule 2**, the Licensee must not carry out any alterations or additions, including erecting any advertising signs or structures, to the

Licensed Area without TfNSW's prior written consent, such consent not to be unreasonably withheld.

- (b) The Licensee must provide full details of any proposed alterations and additions to TfNSW for approval.
- (c) TfNSW may impose any conditions it considers necessary if it gives its approval, including requiring the Licensee to obtain TfNSW's consent to any agreements that the Licensee enters into in relation to the alterations or additions.
- (d) The Licensee must carry out any approved alterations and additions:
 - (i) in a proper and workmanlike manner;
 - (ii) in accordance with all Laws and any Authorisations; and
 - (iii) in a way to minimise disturbance to others.
- (e) Unless otherwise agreed in writing between the parties, all alterations and additions to the Licensed Area made pursuant to this clause will be or become the property of TfNSW.
- (f) The Licensee will pay all of TfNSW's Costs (including any consultant's or adviser's costs and legal costs) arising as a result of the Licensee's alterations and additions.

10. TRANSFER BY THE LICENSEE

10.1 Prohibition on Transferring

The Licensee must not sub-licence for a period of greater than 6 months, charge, transfer, assign, or otherwise deal with its interest under this Licence without the prior written consent of TfNSW (which consent may be withheld in TfNSW's absolute discretion).

10.2 Deemed Assignment

If the Licensee is a corporation (not being a company with its shares listed on any Stock Exchange in Australia) or an association, any change in the beneficial ownership of 20% or more of the voting shares in the corporation or any change in the effective control of the corporation or association, will be deemed to be an assignment of the Licence requiring TfNSW's consent.

10.3 Costs

The Licensee must pay all Costs reasonably incurred by TfNSW (including the costs of any consultant or any legal fees) in relation to any dealing under this Licence initiated by the Licensee, including considering whether or not to grant any consent to a request by the Licensee under this **clause 10**.

11. TFNSW'S OBLIGATIONS AND RIGHTS

11.1 Right to Enter

- (a) Nothing in this Licence provides the Licensee with a right to exclusive occupation of the Licensed Area and TfNSW may enter the Licensed Area without notice and exercise any of its rights as owner or controller of the Land, including:
 - i. carrying out repairs and maintenance to the Railway Infrastructure or other works which cannot reasonably be done unless TfNSW or its Contractors enters onto the Licensed Area; and
 - ii. to do anything TfNSW must or may do under this Licence or must do under any Law or to satisfy the requirements of any Government Agency.
- (b) Other than where access is required under Law, in the case of an emergency, or to prevent, rectify or address a material safety issue, TfNSW will provide reasonable notice to the Licensee prior to any entry where practicable to do so.

11.2 Works and Restrictions

- (a) TfNSW may:
 - (i) carry out works on the Licensed Area (including works on the Railway Infrastructure); and
 - (ii) in consultation with the Licensee (to the extent such consultation is practicable in the circumstances), close (temporarily or permanently) and restrict access of certain parts of the Licensed Area to the Licensee.
- (b) TfNSW must (except in cases of emergency) take reasonable steps to minimise interference with the Licensee's use and occupation of the Licensed Area when exercising its rights under this clause.
- (c) The Licensee and any of the Licensee's Employees will comply with any reasonable directions given by TfNSW or any of TfNSW's Employees given in the exercise of TfNSW's rights under this clause.

12. RIGHTS AND OBLIGATIONS ON EXPIRY

12.1 Expiry

This Licence will come to an end at midnight on the Expiry Date unless it is properly terminated earlier by TfNSW or the Licensee under any other provision of this Licence.

12.2 Required Works

Prior to the Date of Termination, (or at such later date as agreed to by TfNSW in its absolute discretion) the Licensee must to the satisfaction of TfNSW:

- (a) if required by TfNSW, remove all of the Licensee's Equipment and repair any damage caused by such removal;
- (b) if required by TfNSW, remove and reinstate any alterations or additions made to the Licensed Area by the Licensee;
- (c) complete any repairs or maintenance which the Licensee is obliged to carry out under this Licence; and

- (d) if required by TfNSW, reinstate the Licensed Area to the condition it was in as at the Commencement Date.

12.3 Holding Over

Unless the option to extend the Licence is exercised by the Licensee in accordance with **Item 5 of Schedule 1**, if, with TfNSW's consent, the Licensee continues to occupy the Licensed Area after the Termination Date, the Licensee does so on a month-to-month basis which:

- (a) either party may terminate on three months' notice given at any time; and
- (b) is on the same terms as this Licence.

13. BREACH AND TERMINATION FOR BREACH

13.1 TfNSW's Rights on Breach – Remedy by TfNSW

- (a) Without limiting **clause 13.5**, if the Licensee is at any time in breach of any of its obligations under this Licence (whether or not that breach constitutes an Event of Default), and the Licensee fails to remedy that breach to the satisfaction of TfNSW, and within a reasonable time after being requested by TfNSW to do so, TfNSW and anybody authorised by TfNSW for that purpose, may at any time thereafter come onto the Licensed Area without notice and do all things necessary to remedy that breach, including any work required to be undertaken on the Licensee's Equipment.
- (b) The Licensee will be liable to pay or reimburse TfNSW for all Costs incurred by TfNSW in exercising any of its rights under **clause 13.1(a)**, which TfNSW may recover from the Licensee as a debt due and payable on demand.

13.2 TfNSW's Rights on Breach – Suspension of Access

- (a) If the Licensee fails to perform any of its obligations under this Licence, TfNSW may render the Licensed Area inaccessible without notice until the default is rectified and any amounts payable under this Licence are paid.
- (b) If the Licensed Area is rendered inaccessible under **clause 13.2(a)**, the Licensee and the Licensee's Employees must not use the Licensed Area and the Licensee must implement reasonable measures to ensure that members of the general public do not use the Licensed Area.
- (c) The exercise by TfNSW of its rights under **clause 13.2(a)** shall not give rise to a claim for compensation by the Licensee or any other party against TfNSW or the Agent.

13.3 Events of Default

Each of the following is an Event of Default:

- (a) any monies (or part of any monies) payable under this Licence are unpaid for the period of seven (7) days after any day on which the same ought to have been paid (although no formal or legal demand has been made);

- (b) the Licensee commits, permits or suffers to occur any breach, or default in the due and punctual observances and performance of any of the covenants, obligations and provisions of this Licence (other than a breach or default referred to in **clause 13.5(a)** or **13.5(b)**, or if **clause 13.5(d)** applies) and:
 - (i) if the breach or default can be remedied, the Licensee does not remedy that default within a reasonable time after TfNSW gives the Licensee notice of the default;
 - (ii) if the breach or default cannot be remedied but TfNSW can be compensated, the Licensee does not pay TfNSW compensation for the breach or default within a reasonable time after TfNSW gives the Licensee notice of the amount of compensation payable; or
 - (iii) the breach or default cannot be remedied or compensated;
- (c) in the case of a Licensee being a company or association:
 - (i) a meeting of the directors or members of the Licensee is convened to pass a resolution that an administrator of the Licensee be appointed or that the Licensee be wound up voluntarily;
 - (ii) any person appoints an administrator of the Licensee;
 - (iii) an application is made to any court to wind up the Licensee;
 - (iv) an application is made pursuant to Section 411 of the Corporations Act;
 - (v) a controller, managing controller, receiver or receiver and manager is appointed to the Licensee or in respect of any property of the Licensee; or
 - (vi) the Licensee is deregistered or dissolved;
- (d) in the case of a Licensee being a natural person:
 - (i) the Licensee commits an act of bankruptcy or a sequestration order is made against the Licensee;
 - (ii) a creditor of the Licensee presents a creditor's petition against the Licensee under the Bankruptcy Act;
 - (iii) the Licensee presents a petition against himself or herself under the Bankruptcy Act;
 - (iv) the Licensee signs an authority under Section 188 of the Bankruptcy Act;
 - (v) the Licensee gives a debt agreement proposal to the Official Trustee under Part IX of the Bankruptcy Act, and that debt agreement proposal is accepted by the Licensee's creditors;
 - (vi) the Licensee becomes subject to an order directing the Official Trustee or a specified registered Trustee to take control of his or her property before sequestration; or

- (vii) the Licensee is convicted of an indictable offence (other than a traffic offence);
- (e) execution is levied against the Licensee and not discharged within thirty (30) days; or
- (f) any property in or on the Licensed Area is seized or taken in execution under any judgment or proceedings.

13.4 Essential terms

The Licensee acknowledges that the following obligations under this Licence are essential terms:

- (a) the obligation to pay the Licence Fee;
- (b) the obligations and prohibitions in relation to use of the Licensed Area, including **clause 7.8** and any obligations and prohibitions set out in **Schedule 2**;
- (c) the obligations and restrictions in relation to additions and alterations to the Licensed Area;
- (d) the restriction on assignment, sub-licensing, mortgaging, licensing, or otherwise dealing with its interest in this Licence;
- (e) the obligation to effect insurance under **clause 8**;
- (f) the obligation under **clause 5.4(j)(ii)** of **Schedule 2** to remove any Infrastructure installed on the Licensed Area, that has not been approved by TfNSW as part of the Concept Plan;
- (g) the obligation to remove or alter any of the Works that do not comply with **clause 5.5(i)(ii)** of **Schedule 2**; and
- (h) any other provisions in **Schedule 2** that are expressed to be essential terms.

13.5 Termination by TfNSW for Breach

TfNSW may terminate this Licence immediately by notice to the Licensee if:

- (a) the Licensee breaches an essential term ; or
- (b) the Licensee uses the Licensed Area for a use other than the Permitted Use; or
- (c) an Event of Default occurs; or
- (d) in TfNSW's reasonable opinion, there is or is likely to be a real safety risk if this Licence continues in operation; or
- (e) the Licensee repudiates this Licence.

13.6 No waiver

If TfNSW accepts payment of the Licence Fee or any other monies late or does not act or exercise any rights immediately or at all in respect of any breach of an essential term, that conduct on the part of TfNSW will not be deemed to amount to a waiver of the essential nature of that essential term.

13.7 Damages

The Licensee agrees that if this Licence is terminated by TfNSW because of a breach by the Licensee, or if the Licensee repudiates this Licence and TfNSW accepts that repudiation thereby ending this Licence, the Licensee will be obliged to pay compensation to TfNSW including the Licence Fee and other monies which TfNSW would otherwise have received under this Licence for the balance of the Term had the Licensee not breached an essential term or repudiated this Licence. In those circumstances TfNSW will be obliged to take reasonable steps to mitigate its losses and to endeavour to licence the Licensed Area at a reasonable fee and on reasonable terms.

13.8 Interest

- (a) If the Licensee defaults in the payment of any amount due to TfNSW under this Licence, the Licensee must pay interest on that amount, or the outstanding balance, until it is paid in full. The interest rate will be 2 percentage points above the prime lending rate charged on overdrafts of \$100,000 or more by the National Australia Bank or its successor:
 - (i) as published within the Australian Financial Review at the time of such default; or
 - (ii) as advised in writing by the Senior Manager responsible for Business Services at the head office of the National Australia Bank.
- (b) The interest referred to in this **clause 13.8** will accrue and be recoverable from day to day.

13.9 Rights of TfNSW Not Limited

The rights of TfNSW under this Licence and at law resulting from a breach of this Licence by the Licensee shall not be excluded or limited in any way by reason of TfNSW having or exercising any powers under this **clause 13**.

13.10 Suspension

- (a) Without in any way limiting the rights of TfNSW under any other provision of this Licence, if TfNSW is entitled to terminate this Licence, it may elect instead to suspend the rights and obligations of the Licensee under this Licence (subject to **clause 13.10(b)**) until such time as the cause giving rise to the right to terminate is remedied or such other time as determined by TfNSW.
- (b) An election referred to in **clause 13.10(a)** is revocable at any time by TfNSW and has no effect upon obligations, debts or liabilities which have accrued before the election to suspend this Licence.

14. TERMINATION FOR CONVENIENCE

14.1 Termination by TfNSW for Convenience

- (a) TfNSW may terminate this Licence at any time during the Term on giving to the Licensee not less than the amount of notice set out in **item 13 of Schedule 1** as part

of any genuine redevelopment, asset rationalisation or project conducted by TfNSW that includes the Land, if TfNSW requires vacant possession of the Land or any part of the Licensed Area; or

- (i) TfNSW determines to resume the Land as part of its rail network operations;
 - (ii) TfNSW requires any part of the Land for a Rail Trail;
 - (iii) TfNSW requires any part of the Land for the Transport Access Program; or
 - (iv) all or part of the Land is needed to meet the requirements of NSW Government Policy.
- (b) If TfNSW terminates this Licence under **clause 14.1(a)**, the Licensee will not be entitled to any compensation from TfNSW.

15. INDEMNITY AND RELEASE

15.1 Risk

- (a) The Licensee uses the Licensed Area at the Licensee's risk and TfNSW accepts no responsibility for undertaking any maintenance, repair or remediation of the Licensed Area or any Improvements on the Licensed Area or any loss or damage to the Licensed Area or any property of the Licensee or any loss, damage or destruction to property or injury to or death of any person.
- (b) If the Licensee is obliged to do anything under this Licence, it must do so at its Cost and at its risk.

15.2 Indemnity

The Licensee is liable for and indemnifies TfNSW and TfNSW's Employees against all Claims for any loss, damage, injury or death, including any Costs associated with the delay or disruption to the use of Rail Infrastructure Facilities or the operation of the CRN, arising out of or in connection with:

- (a) any act or omission of the Licensee and/or its Employees;
- (b) loss or damage to property or injury or death to any person caused by the Licensee, the use of the Licensed Area by the Licensee, livestock being on the Licensed Area including escape of the livestock from the Licensed Area or otherwise relating to the Licensed Area;
- (c) a breach of this Licence by the Licensee;
- (d) any Event of Default; or
- (e) the Licensee's and/or its Employees' use or occupation of the Licensed Area.

15.3 Release

- (a) The Licensee releases TfNSW and TfNSW's Employees from all Claims for any damage, loss, injury or death occurring on, or in respect of, the Licensed Area except to the extent that they are caused by TfNSW's wilful negligence.

- (b) The Licensee acknowledges and agrees that the Licensed Area may be Contaminated and releases and indemnifies TfNSW and TfNSW's Employees against all Liability in relation to the Licensee's use of the Licensed Area.

15.4 Indemnities are Independent

Each indemnity in this Licence is independent from the Licensee's other obligations and continues during this Licence and after this Licence ends, and to the extent that TfNSW's Employees are indemnified TfNSW may act as an agent for them and receive any benefit of any indemnity on their behalf.

16. INDEMNITY – ENVIRONMENT

- (a) The Licensee must not do any act or omit to do any act which may result in, cause, aggravate or exacerbate Contamination of the Land or the Railway Infrastructure or result in a direction, notice or order being given or made under any Environmental Law in respect of the Land or Railway Infrastructure or any breach of any Environmental Law.
- (b) The Licensee does hereby and will continue to indemnify, release and hold harmless TfNSW against all Liabilities suffered or incurred by TfNSW in respect of any:
 - (v) direction, notice or order given or made under any Environmental Law;
 - (vi) breach of any Environmental Law; or
 - (vii) any Claim in respect of Contamination of the Land,arising out of or in relation to any Activity during the Term or the Licensee's use of the Licensed Area.
- (c) This clause shall not merge on the expiration or earlier termination of this Licence.
- (d) This clause is without limitation to the general indemnity contained in **clause 15**.

17. ENVIRONMENTAL

17.1 Licensee's responsibilities

- (c) The Licensee accepts the Licensed Area in its present state of repair and condition at the Commencement Date of this Licence.
- (d) Despite any other provision of this Licence, the Licensee must introduce and implement all operating policies, health and safety policies and environmental policies relating to the Licensed Area.
- (e) The Licensee must comply with all reporting obligations imposed on the Licensee by the Sustainability Legislation relating to the Licensed Area.
- (f) The Licensee must cooperate with TfNSW to enable TfNSW to comply with any of TfNSW's obligations under Sustainability Legislation including:

- (i) keeping accurate records and making available to TfNSW all Energy Data , operating, health, safety and environmental policies relating to the Licensee's use and occupation of the Licensed Area;
 - (ii) providing all information, Energy Data and records that TfNSW reasonably requires the Licensee to provide to assist TfNSW to comply with its obligations under the Sustainability Legislation; and
 - (iii) providing TfNSW with access to the Licensed Area for the purpose of collecting the Energy Data or otherwise in connection with TfNSW's obligations under the Sustainability Legislation.
- (g) TfNSW has the right to use the Licensee's Energy Data, records and information obtained under this clause:
 - (i) as required by Law; and
 - (ii) in any way TfNSW chooses provided the identity of the Licensee is not disclosed if the Licensee requests TfNSW to keep the Licensee's identity confidential.

17.2 Licensee environmental covenants

The Licensee must:

- (h) not to cause or contribute to Pollution or Contamination of or from the Licensed Area;
- (i) not aggravate or exacerbate any Contamination which was present on the Licensed Area prior to the Commencement Date;
- (j) comply with all applicable Environmental Law in respect of the Licensed Area and the conduct of the Permitted Use;
- (k) notify TfNSW as soon as practicable after becoming aware of:
 - (i) a breach of the Environmental Law in respect of the Licensed Area or any Activity carried out in the Licensed Area (other than an Activity carried out by TfNSW or a TfNSW Authorised Person);
 - (ii) an Environmental Notice is served on the Licensee;
 - (iii) any part of the Licensed Area is or becomes Contaminated due to the negligence or default of the Licensee;
 - (iv) existing Contamination on any part of the Licensed Area that is aggravated or exacerbated, whether through the actions of the Licensee or otherwise;
 - (v) any unlawful Pollution is emitted or discharged on or from the Licensed Area that is likely to cause harm; or
 - (vi) any act or omission which is likely to result in Contamination of the Licensed Area, a direction, notice or order being given or made under any Environmental Law in respect of the Licensed Area or any breach of any Environmental Law.

18. ENVIRONMENTAL REMEDIATION

18.1 Licensee to provide Initial Environmental Report

The Licensee must at its own Cost commission an Initial Environmental Report prior to, or promptly after (and in any case no later than 3 months after), the Commencement Date. The Initial Environmental Report:

- (a) scope is to be agreed by TfNSW and Licensee (acting reasonably); and
- (b) must be capable of being relied upon by both TfNSW and the Licensee

18.2 Environmental Management Plan

If required by TfNSW, the Licensee must, within three (3) months of a request by TfNSW, provide to TfNSW an Environmental Management Plan (“**EMP**”) for the management of any environmental issues arising out of or in relation to Licensee’s use and occupation of the Licensed Area. The Licensee must:

- (a) promptly make such amendments to the EMP, and any revised EMP prepared under **clause 18.2**, as required by TfNSW (which may include preparation of a new EMP);
- (b) comply with the EMP; and
- (c) revise the EMP upon commencement of new or amended Environmental Laws or following the occurrence of an Incident or change in business activity and promptly submit the revised EMP to TfNSW.

18.3 Subsequent Environmental Report

If at any time TfNSW reasonably considers that the Licensee’s occupation and/or use of the Licensed Area or the Land may have resulted in Contamination or pollution beyond that which is specified in the Initial Environmental Report then TfNSW may direct the Licensee to and the Licensee shall at its own Cost provide TfNSW with an environmental audit report (the “**Subsequent Environmental Report**”) to be prepared to a specification and by a qualified person approved by TfNSW in writing. TfNSW may exercise its rights under this clause multiple times during the Term.

The Subsequent Environmental Report shall:

- (a) be capable of being relied on by TfNSW and the Licensee. The Subsequent Environmental Report must also, if agreed to by the consultant preparing the Subsequent Environmental Report (and at no additional cost to the Licensee), be capable of being relied on by (or at least released to) any subsequent Licensee for the purposes of establishing the environmental condition of the Land at commencement of any subsequent licence;
- (b) identify all environmental and pollution consequences arising out of or in any way connected with the Licensee's use and occupation of the Licensed Area at any time beyond that which is specified in the Initial Environmental Report; and
- (c) formulate a remediation programme in respect of any Contamination or pollution which arises out of or is in any way connected with the Licensee's use and occupation of the Licensed Area beyond that which is specified in the Initial Environmental

Report, to remediate the Licensed Area to a condition that would enable the Licensed Area to be used for its highest and best use based on the zoning of the Licensed Area at the time the programme is formulated; and

- (d) be prepared in accordance with the guidelines made or approved by the Office of Environment and Heritage under section 105 of the *Contaminated Land Management Act 1997* (NSW) (including the Sampling Design Guidelines (1995) and the Guidelines for Consultants Reporting on Contaminated Sites (August 2011) (as updated or replaced from time to time)) and otherwise use the same methodology as in the Initial Environmental Report or be prepared on such basis as reasonably directed by TfNSW.

18.4 Remediation

- (a) The Licensee agrees at its own Cost to promptly, and in accordance with any requirements, implement the remediation programme referred to in **sub-clause 18.3(c)**. Upon completion of any such remediation programme, the Licensee shall if requested by TfNSW provide TfNSW with a validation report confirming that such programme has been properly completed.
- (b) In the event of the implementation of any remediation programme or compliance with any requirements referred to in this clause occurring or continuing after expiry of the Term, the Licensee must, if TfNSW requires in writing, continue until such time as the programme is completed and the requirements of the Subsequent Environmental Report, any Government Agency or other competent authority, and any Law are complied with, pay the Licence Fee and perform and observe all the Licensee's obligations under this Licence.

19. PAYMENT OBLIGATIONS AND GOODS AND SERVICES TAX

19.1 Payment Obligations

- (a) The Licensee must make payments due under this Licence:
 - (i) without demand (unless this Licence provides demand must be made);
 - (ii) without set-off, counter-claim, withholding or deduction;
 - (iii) to TfNSW or as TfNSW directs; and
 - (iv) by direct debit or such other means as directed by TfNSW.
- (b) If a payment is stated to be due on a particular Payment Date (such as the next Payment Date or the first Payment Date after an event) and there is no such Payment Date, the Licensee must make that payment on demand.

19.2 GST

- (a) In this **clause 19.2**:
 - (i) words and expressions which are not defined in this Licence but which have a defined meaning in GST Law have the same meaning as in the GST Law; and

- (ii) “GST Law” has the meaning given to that expression in the A New Tax System (Goods and Services Tax) Act 1999 (Cth).
- (b) Unless otherwise expressly stated, all amounts or other sums payable or consideration to be provided under this Licence are exclusive of GST.
- (c) If GST is payable by a supplier, or by the representative member for a GST group of which the supplier is a member, on any supply made under this Licence, the recipient will pay to the supplier an amount equal to the GST payable on the supply.
- (d) The recipient will pay the amount referred to in **clause 19.2(c)** in addition to and at the same time that the consideration for the supply is to be provided under this Licence.
- (e) The supplier must deliver a tax invoice or an adjustment note to the recipient before the supplier is entitled to payment of an amount under **clause 19.2(c)**. The recipient can withhold payment of the amount until the supplier provides a tax invoice or an adjustment note, as appropriate.
- (f) If an adjustment event arises in respect of a taxable supply made by a supplier under this Licence, the amount payable by the recipient under **clause 19.2(c)** will be recalculated to reflect the adjustment event and a payment will be made by the recipient to the supplier or by the supplier to the recipient as the case requires.
- (g) Where a party is required under this Licence to pay or reimburse an expense or outgoing of another party, the amount to be paid or reimbursed by the first party will be the sum of:
 - (i) the amount of the expense or outgoing less any input tax credits in respect of the expense or outgoing to which the other party, or to which the representative member for a GST group of which the other party is a member, is entitled; and
 - (ii) if the payment or reimbursement is subject to GST, an amount equal to that GST.

20. WORKPLACE HEALTH AND SAFETY

20.1 Work health and safety

- (a) TfNSW:
 - (i) appoints the Licensee, or the Licensee’s nominee as authorised in writing by TfNSW, as the Principal Contractor in relation to any Principal Contractor Works carried out by the Licensee or on the Licensee’s behalf, including that which is carried out on behalf of TfNSW; and
 - (ii) authorises the Licensee, or the Licensee’s nominee as authorised in writing by TfNSW, to have management or control of the workplace and to discharge the duties of a principal contractor under the WHS Regulation.
- (b) The Licensee, or the Licensee’s nominee as authorised in writing by TfNSW, must:

- (i) ensure that any person employed or engaged by the Licensee to carry out work in the Licensed Area, completes a work health and safety induction programme, to TfNSW's reasonable satisfaction.
 - (ii) comply with the requirements of the WHS Act and WHS Regulation including as the person conducting a business or undertaking in relation to Parts 4.6, 6.3, 6.4 and 6.5 of the WHS Regulation and the duty to consult, cooperate and coordinate activities with all other persons who have a work health and safety duty in relation to the same matter;
 - (iii) promptly notify TfNSW of, and assist TfNSW as requested in relation to, any actual or potential incident of which the Licensee is aware, that arises from the Licensed Area which is notifiable to an Authority;
 - (iv) provide TfNSW, at least 48 hours prior to the intention to commence any Construction Work, with an outline of the scope of that Construction Work; and
 - (v) at all times comply, and must ensure that any contractors (and their employees) engaged by it, or any contractor engaged by any of its contractors, in relation to the Construction Work at all times comply, with the WHS Act, the WHS Regulation and all relevant codes of practice and compliance codes.
- (c) The Licensee agrees that TfNSW does not control or influence health and safety matters in relation to the Licensee's use of the Licensed Area, other than as set out in this Licence.

20.2 Asbestos

- (a) The Licensee must notify TfNSW immediately if any Asbestos is identified within the Licensed Area.
- (b) The Licensee must comply with the Asbestos Management Plan, if any.
- (c) If an Asbestos Register is required to be kept at the Licensed Area, the Licensee must comply with the WHS Regulation in relation to that Asbestos Register.
- (d) The Licensee must not bring, or allow any of its Employees to bring, any Asbestos onto the Licensed Area and if it does so, the Licensee will be responsible for the removal of the Asbestos in accordance with the relevant legislation and guidelines and at its own Cost.
- (e) The Licensee must not disturb or disperse or allow any of its Employees to disturb or disperse any Asbestos that has been identified within the Licensed Area, If it does so, the Licensee will be responsible for the removal or remediation of the Asbestos in accordance with the relevant legislation and guidelines and at its own Cost.

21. TRANSFER BY TfNSW

21.1 Transfer by TfNSW

The Licensee acknowledges and agrees that:

- (a) TfNSW may be reconstituted, renamed, dissolved, replaced or restructured and that some or all of the powers, functions, assets, liabilities or responsibilities of TfNSW may be transferred to or vested in another entity;
- (b) TfNSW may, or may be required to (including as a result of changes to New South Wales Government policy or directions) add to, or dispose of, any property or assets forming part of TfNSW's assets at its absolute discretion;
- (c) any such change to TfNSW's assets may involve amendment to the Licensee's rights and obligations under this Licence, including an amendment to the Licensed Area;
- (d) the Licensee will not have, and TfNSW will not be liable for, any Claim as a result of the changes to TfNSW's assets referred to in this clause.

21.2 Assignment or novation by TfNSW

The Licensee acknowledges and agrees that:

- (a) TfNSW may assign or novate this Licence, its interest in the subject matter of this Licence or any right under this Licence without the prior consent of the Licensee; and
- (b) TfNSW may enter into an subcontracting or agency agreements or arrangements in relation to any of its functions;
- (c) it will undertake all actions reasonably requested by TfNSW to effect such a novation, assignment or other transfer; and
- (d) that it is not entitled to make, and TfNSW and any novatee, assignee or transferee will not be liable upon, any Claim arising from or in connection with any novation, assignment or transfer contemplated by this clause.

22. GENERAL

22.1 Costs

The Licensee must, on request, pay or reimburse to TfNSW:

- (a) all stamp duty (if any) payable on this Licence;
- (b) all legal costs (determined on a solicitor and client basis) incurred by TfNSW in connection with the preparation of this Licence, negotiating, revising and engrossing this Licence (including all attendances on the Licensee and its legal and other advisers and all advices provided to TfNSW) and attending to the execution of this Licence; and
- (c) all legal and other Costs and expenses incurred by TfNSW in consequence of any actual or threatened breach by the Licensee hereunder or in exercising or enforcing (or attempting to do so) any rights or remedies of TfNSW hereunder or at law or otherwise arising in consequence of any actual or threatened beach by the Licensee.

22.2 Waiver

If TfNSW accepts or waives any breach by the Licensee, that acceptance or waiver cannot be taken as an acceptance or waiver of any future breach of the same obligation or of any other obligation under this Licence.

22.3 Governing Laws

This Licence is governed by the law in force in the jurisdiction in which the Licensed Area is located and the parties submit to the exclusive jurisdiction of the courts of that jurisdiction and any courts which may hear appeals from those courts in respect of any proceedings in connection with this Licence.

22.4 No Merger

The provisions of this Licence do not merge on expiry or termination of this Licence.

22.5 No Prejudice to Accrued Rights

The expiration or termination of this Licence shall be without prejudice to the accrued rights of either party at the time of expiration or termination.

22.6 No Fetters

Nothing in this Licence fetters the statutory rights and powers of TfNSW, or of the Licensee.

22.7 Notice

Each communication (including each notice, consent, approval, request, demand, application or form) under or in connection with the provisions of this Licence:

- (a) must be in writing;
- (b) must be addressed as follows (or as otherwise notified by that party to the other party from time to time):

Licensee

Name: The Manager Assets and Projects, Byron Shire Council
Address: 70-90 Station Street, Mullumbimby NSW 2482
Email: phil.warner@byron.nsw.gov.au
For the attention of: Phillip Warner

TfNSW

Name: Transport for NSW
Address: Level 3, 237 Wharf Road, Newcastle
For the attention of: The Property Manager

- (c) must be signed by the party making it or (on that party's behalf) by the solicitor for, or any attorney, director, secretary, authorised officer, that party's authorised representative or any authorised agent of, that party;
- (d) must be delivered by hand or posted by prepaid post to the address, or sent by email to the email address, of the addressee, in accordance with **clause 22.7(b)**;
- (e) is taken to be received by the addressee:
 - (i) (in the case of prepaid post sent to an address in the same country) on the sixth day after the date of posting;

- (ii) (in the case of prepaid post sent to an address in another country) on the fifth day after the date of posting by airmail;
- (iii) (in the case of email) on the first to occur of:
 - (A) receipt by the sender of an email acknowledgement from the recipient's information system showing that the notice has been delivered to the email address set out in **clause 22.7(b)**; and
 - (B) at the time that the notice enters an information system which is under the control of the recipient; and
- (iv) (in the case of delivery by hand) on delivery,
but if the communication is taken to be received on a day that is not a Business Day or after 5.00pm, it is taken to be received at 9.00am on the next Business Day

22.8 Severance

If any part of this Licence is found to be invalid or void or unenforceable, then that part will be severed from this Licence and the remainder of this Licence will continue to apply.

22.9 Entire Agreement

TfNSW and the Licensee acknowledge and agree that this Licence contains and represents the entire agreement reached between them with regard to the Licensed Area and that no promises, representations or undertakings, other than those contained in this Licence, were made or given or relied upon.

22.10 Resumption

If TfNSW receives notice of resumption or acquisition of the Licensed Area or any part of it from or by any Government Agency, then TfNSW may terminate this Licence by giving not less than three (3) months written notice to the Licensee. When such termination takes effect, the rights and obligations of TfNSW and the Licensee hereunder will come to an end and no compensation will be payable as a result of such termination but if any breach by either party still exists at that time then the rights of the other party with regard to that existing breach will continue.

22.11 Survival

The following clauses survive the expiration or earlier determination of this Licence:

- (a) **clauses 7.8, 8, 10.3, 11, 12, 13, 15, 16, 18, 21, 22.1, 23, 25 and 26**; and
- (b) any provisions in **Schedule 2** that are expressed to survive.

22.12 Notice before TfNSW liable

Despite anything to the contrary in this Licence, TfNSW is not in default of a remediable breach of this Licence unless:

- (c) the Licensee has given written notice of the breach to TfNSW; and
- (d) TfNSW has failed to remedy the breach within a reasonable time after receipt of the notice.

22.13 TfNSW's consent

- (a) Subject to any other provision of this Licence, if the Licensee requires TfNSW's consent to do something under this Licence, the consent:
 - (i) may be granted at TfNSW's discretion;
 - (ii) may be granted with conditions; and
 - (iii) must be in writing.
- (b) If the Licence requests the consent of TfNSW under this Licence, the Licensee must pay TfNSW's costs and expenses for the consent.

22.14 Licensee to ensure compliance

If, under this Licence, the Licensee must not do something:

- (a) the Licensee must not authorise another person to do that thing; and
- (b) the Licensee must ensure that the Licensee's employees, agents and Contractors do not do that thing.

22.15 Civil Liability Act

It is agreed that, to the maximum extent permitted by law, the operation of Part 4 of the *Civil Liability Act 2002* (NSW) is excluded in relation to all and any obligations and liabilities of the Licensee under or in connection with this Licence whether such obligations or liabilities are sought to be enforced as a breach of contract or claim in tort (including negligence), in equity, under statute or otherwise at Law.

22.16 Amendments

- (a) Except where this agreement expressly provides otherwise, and subject to **clause 22.16(b)**, the provisions of this Licence may only be varied by a document signed by or on behalf of each party.
- (b) Where the Licensee requests any amendment to this Licence, it will be liable to pay all the Costs incurred by the TfNSW in facilitating that amendment.

23. CONFIDENTIALITY

- (a) Subject to **clause 23(b)**, each party must keep the contents of this Licence (and all plans, documents and information made available to that party for the purpose of entering into this Licence or in the course of the performance of this Licence) confidential, and must not disclose any information to any other person without the written consent of the other party.
- (b) **Clause 23(a)** does not apply in the following circumstances:

- (i) any disclosure required by Law;
- (ii) any disclosure required by any applicable stock exchange listing rules;
- (iii) disclosures to solicitors, barristers or other professional advisers under a duty of confidentiality;
- (iv) disclosure to a banker or other financial institution relevant to a party, to the extent required for the purpose of raising funds or maintaining compliance with credit arrangements;
- (v) disclosure to any consultant engaged by a party in connection with the proper performance of that party's obligations under this Licence;
- (vi) disclosure to a bona fide potential purchaser or licensee of the Land; or
- (vii) disclosure to any Government Agency or other competent authority.

24. SPECIAL CONDITIONS

The special conditions set out in **Schedule 2** form part of this Licence. The Licensee must comply with the special conditions in addition to the other terms and conditions of this Licence. In the event of any inconsistency between the special conditions and the terms of this Licence the special conditions will prevail.

25. RAIL TRAIL

- (a) Notwithstanding any other clause in this Licence, the Licensee acknowledges that:
 - (i) all or part of the Licensed Area, and/or areas adjacent to the Licensed Area, may be required for the purpose of a Rail Trail at any time before or during the Term and as a consequence the Licensed Area may be varied or reduced, or terminated or suspended pursuant to **clause 13.10** or **clause 14.1**; and
 - (ii) if all or part of the Licensed Area, and/or areas adjacent to the Licensed Area are required for a Rail Trail as contemplated in **clause 25(a)(i)**, the use of the Licensed Area (or relevant part thereof) as a Rail Trail will take priority over the Licensee's use of the Licensed Area under this Licence (which may include the termination, suspension, variation or reduction in the Licensed Area, re-organisation of Rail Operations or amendment of the terms and conditions of this Licence).
- (b) If all or part of the Licensed Area, and/or areas adjacent to the Licensed Area, are required for a Rail Trail as contemplated in **clause 25(a)(i)**, the Licensee must:
 - (i) do all things necessary to ensure that the use of the Licensed Area by the Licensee does not interfere with the use of all or part of the Licensed Area as a Rail Trail;
 - (ii) co-operate with TfNSW, any relevant Government Agency or other entity or individual to formulate, implement and enforce appropriate protocols including entering into, for example, a cooperation agreement or Interface

Agreement, to ensure the safe use and operation of the Rail Trail (which may include the termination, suspension, variation or reduction in the Licensed Area, re-organisation of Rail Operations or amendment of the terms and conditions of this Licence); and

- (iii) otherwise comply with any directions given by TfNSW in relation to the Rail Trail.
- (c) The Licensee may not make any Claim in connection with TfNSW's exercise of its rights under this **clause 25**, including but not limited to any Claim for Costs incurred by the Licensee.

26. TRANSPORT ACCESS PROGRAM

- (a) Notwithstanding any other clause in this Licence, the Licensee acknowledges that:
 - (i) all or part of the Licensed Area, and/or areas adjacent to the Licensed Area, may be required for the purpose of a Transport Access Program at any time before or during the Term and as a consequence the Licensed Area may be varied or reduced, or terminated or suspended pursuant to **clause 13.10** or **clause 14.1**; and
 - (ii) if all or part of the Licensed Area, and/or areas adjacent to the Licensed Area are required for a Transport Access Program as contemplated in **clause 26(a)(i)**, the use of the Licensed Area (or relevant part thereof) for a Transport Access Program will take priority over the Licensee's use of the Licensed Area under this Licence (which may include the termination, suspension, variation or reduction in the Licensed Area, re-organisation of Rail Operations or amendment of the terms and conditions of this Licence).
- (b) If all or part of the Licensed Area, and/or areas adjacent to the Licensed Area, are required for a Transport Access Program as contemplated in **clause 26(a)(i)**, the Licensee must:
 - (i) do all things necessary to ensure that the use of the Licensed Area by the Licensee does not interfere with the use of all or part of the Licensed Area for the Transport Access Program;
 - (ii) co-operate with TfNSW, any relevant Government Agency or other entity or individual to formulate, implement and enforce appropriate protocols including entering into, for example, a cooperation agreement or Interface Agreement, to ensure the safe use and operation of the Transport Access Program (which may include the termination, suspension, variation or reduction in the Licensed Area, re-organisation of Rail Operations or amendment of the terms and conditions of this Licence); and
 - (iii) otherwise comply with any directions given by TfNSW in relation to the Transport Access Program.
- (c) The Licensee may not make any Claim in connection with TfNSW's exercise of its rights under this **clause 26**, including but not limited to any Claim for Costs incurred by the Licensee.

27. COUNTERPARTS

This Licence may be executed in counterparts. All counterparts taken together will constitute one Licence.

DATED the 1st day of February 2018

SIGNED for and on behalf of **TRANSPORT**
for NSW by its authorised delegate in the
presence of:



Signature of Witness

Laura Wilson

Name of Witness



Signature of Delegate

Dan Chagnon - Property Manager
Treasurer

Name of Delegate

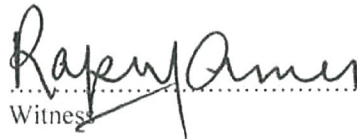
SIGNED for and on behalf of **BYRON**
SHIRE COUNCIL in accordance with the
Local Government Act 1993 by:



Signature of General Manager

MARK ARNOLD

Name of General Manager (print)



Witness

Ralph James

Name of Witness (print)

SCHEDULE 2

SPECIAL CONDITIONS

In this Licence the following definitions apply, unless the context requires otherwise:

“As Built Drawings” means drawings which fully and accurately identify the completed Works, including any changes or modifications to the Design made during the course of completing the Works.

“Completion” means that stage in the performance of the Works when:

- (a) the Works have been completed in accordance with this Licence;
- (b) all debris, rubbish, building materials, construction plant and equipment have been removed from the Land;
- (c) all consents and approvals the Licensee is required to obtain have been obtained; and
- (d) the Licensee has provided to TfNSW As Built Drawings.

“Date for Completion” means the date by which the Works must be completed.

“Design” means the design and location of the Infrastructure.

“Design Review” means TfNSW’s review of the Design as described in **clause 5.1** of this **Schedule 2**.

“Design Review Period” means 8 weeks from the date that the Design is submitted to TfNSW by the Licensee in accordance with **clause 5.1** of this **Schedule 2**.

“Independent Certifier” means an appropriately qualified independent person engaged by the Licensee in accordance with **clause 5.6** of this **Schedule 2**.

“Notice of Completion” means a certificate completed, dated and signed by the Independent Certifier which states:

- (a) that the Works are complete in accordance with this Licence;
- (b) the Works meet the requirements of the Design consented to by TfNSW; and
- (c) the Works are suitable for use in accordance with the relevant Laws and standards.

“TfNSW Material” is any information or data in respect of the Works or TfNSW’s Rail Infrastructure Facilities supplied or made available by TfNSW to the Licensee in any form from time to time, including any reports relating to, or opinions in respect of, any such information or data.

“TfNSW Train Control” means the person occupying the position of TfNSW Train Control as notified by TfNSW to the Licensee from time to time.

“Works” means the construction, installation and commissioning of the Infrastructure not forming part of the Concept Plans already approved by TfNSW, pursuant to clause 9.3 of the body of the Licence, more particularly described in **Schedule 9**.

1 CONDITIONS PRECEDENT

NOT USED.

2 GRANT OF RIGHT TO DO WORKS

- (a) In consideration of payment of the Licence Fee, TfNSW grants and the Licensee accepts, a non-exclusive licence for the Term, subject to any rights of early termination contained in the body of this Licence, to:
 - (i) enter the Licensed Area to conduct the Works at access times agreed with TfNSW in accordance with **clause 5.5(a)** of this **Schedule 2** and to undertake install the Infrastructure referred to in the approved Concept Plan referred to at **clause 5.4** of this **Schedule 2** and set out at **Schedule 10**;
 - (ii) upon completion of those Works and the installation of the Infrastructure set out in the approved Concept Plan, keep and maintain the Infrastructure on the Licensed Area; and
 - (iii) access the Land in order to keep and maintain the Infrastructure on the Licensed Area.
- (b) Subject to **clause 5.5(c)** of this **Schedule 2**, the Works must be completed by the scheduled Date for Completion.

3 INSPECTION FEE

If at any time during the Term TfNSW inspects the Licensed Area for the purpose of determining whether the Works and the Infrastructure will impact on the maintenance requirements of TfNSW's Rail Infrastructure Facilities, then TfNSW may require the Licensee to pay a fee to cover TfNSW's costs of inspection ("**Inspection Fee**") as reasonably determined by TfNSW including TfNSW's internal costs. The Inspection Fee as notified by TfNSW to the Licensee must be paid within 30 days of the date of the notice. An Inspection Fee may be charged more than once during the Term subject to TfNSW's reasonable need to re-inspect the Licensed Area and the Infrastructure during the Term.

4 INTERFACE AGREEMENT

NOT USED.

5 UNDERTAKING THE WORKS

5.1 Design

- (a) The Licensee must submit the Design to TfNSW for consent. The Licensee must not carry out any Works unless and until TfNSW has provided written consent to the Design. If TfNSW refuses consent to the Design, the Licensee may resubmit an amended or new Design for further review by TfNSW in accordance with this clause.
- (b) The Design must, as a minimum, meet or exceed the requirements of any relevant Australian Standard and should comply with all relevant Laws, Authorisations and requirements of Government Agencies.
- (c) The Licensee must forward to TfNSW all information reasonably required by TfNSW to allow TfNSW to review the Design ("**Design Review**").

- (d) The Design Review will take account of any matters considered relevant by TfNSW, which may include, among other things, safety aspects of construction, operation and maintenance of the Infrastructure as well as quality of materials, structural integrity, design suitability, integration with rail facilities, suitability of proposed location and future use.
- (e) TfNSW shall complete the Design Review within the Design Review Period starting from receipt of all relevant information from the Licensee and may in its absolute discretion give or refuse consent to the Design, or give consent subject to conditions.
- (f) The parties acknowledge that this process may have occurred prior to the execution of this Licence.

5.2 The Contractors

- (a) Without in anyway limiting **clause 7.8** of the body of this Licence, the Licensee may only appoint a Contractor to undertake the Works or install the Infrastructure referred to in the approved Concept Plan, provided that the Licensee has notified TfNSW in writing 20 Business Days prior to the appointment of the Contractor, and TfNSW has not objected to the appointment of that Contractor.
- (b) For the purposes of the consideration of an appointment of a Contractor by TfNSW pursuant to **clause 5.2(a)**, the Licensee must provide TfNSW with the following information:
 - (1) the details of the works or function that the Contractor will perform;
 - (2) the name and address of the proposed Contractor;
 - (3) where requested by TfNSW, the terms and conditions of the Contractor's engagement; and
 - (4) any other information that TfNSW reasonably requests.
- (c) The Licensee must also confirm that:
 - (5) the Contractor is appropriately qualified and accredited (where relevant) to perform the works or function that it will be engaged to perform;
 - (6) the Employees of the Contractor, are adequately competent, qualified and certified to carry out the relevant work; and
 - (7) the terms and conditions of the Contractor's engagement are consistent with this agreement.
- (d) TfNSW, may in its absolute discretion, object to the appointment of a Contractor by the Licensee or may withdraw its approval of a Contractor at any time. TfNSW has no liability to the Licensee for refusing or withdrawing approval to any Contractor. If TfNSW withdraws approval to a Contractor before the Works are complete or the Infrastructure referred to in the Concept Plan has been installed, TfNSW may complete the Works or install the Infrastructure referred to in the approved Concept Plan at the Licensee's cost and the Licensee must pay the Costs of such Works or of the installation of the Infrastructure referred to in the approved Concept Plan within 30 days of receipt of an invoice from TfNSW.

- (e) TfNSW will notify the Licensee in writing of its objection within 10 Business Days following receipt of the notification by the Licensee referred to in **clause 5.2(a)** of this **Schedule 2**. If TfNSW objects to the appointment of a Contractor proposed pursuant to **clause 5.2(a)** of this **Schedule 2**, the Licensee may not appoint that Contractor to carry out all or any of the work proposed to be carried out by the Contractor notified to TfNSW under **clause 5.2(a)** of this **Schedule 2**.
- (f) The Licensee must ensure that any Contractor on the Rail Corridor is at all times under the supervision of a Protection Officer and as a minimum complies with the Network Rules and Procedures.

5.3 Liability

- (a) In undertaking the Design Review and giving its consent (whether conditional or absolute) to the Design or a Contractor TfNSW makes no representation or warranty:
 - (i) that the Design, Infrastructure or Contractor:
 - (A) is suitable or fit for any purpose;
 - (B) meets the requirements of TfNSW pursuant to this Licence; or
 - (C) meets the requirements of any applicable Law or standard; or
 - (ii) that any information contained in the Design is correct.
- (b) The Licensee acknowledges that it will make its own enquiries in relation to the matters listed in **clause 5.3(a)** of this **Schedule 2** and shall in no way rely on the Design Review or consent to the Design or a Contractor in relation to those matters. Without in anyway limiting the foregoing, TfNSW shall be in no way liable for any loss, cost or damage arising from the Design, Infrastructure or a Contractor or any loss, cost or damage suffered or incurred by the Licensee or any other person as a result of any deficiency in the Design, Infrastructure or a Contractor.
- (c) Without in anyway limiting this **clause 5.3** of **Schedule 2**, the Licensee acknowledges and agrees that:
 - (i) TfNSW is not responsible for the accuracy of the contents of and makes no representations nor assumes any duty of care in respect of, any of the TfNSW Material;
 - (ii) it has not relied upon any of the TfNSW Material or the non-production of any other document held by TfNSW in entering into this Licence;
 - (iii) it will not rely upon any of the TfNSW Material or the non-production of any other document held by TfNSW in the carrying out of the Works; and
 - (iv) in all respects it has relied on the outcome of its own investigations relating to the entering into of this Licence and the carrying out of the Works.
- (d) Without in anyway limiting this **clause 5.3** of **Schedule 2**, TfNSW is not liable for any Costs incurred by the Licensee as a consequence of the discovery of a condition at the Licensed Area that was not anticipated by the Licensee.

5.4 Concept Plan

- (a) The Licensee has provided TfNSW with its Concept Plan for the Licensed Area, as set out at **Schedule 10**. The Licensee acknowledges and agrees that the Concept Plan attached at **Schedule 10** is correct as at the date of this Licence and does not contain any Works, that is does not contain any matter which will:
 - (i) Substantially change the use of the Railway Infrastructure; or
 - (ii) Specifically affect the Railway Infrastructure
- (b) On the basis of **clause 5.4(a)** of this **Schedule 2**, TfNSW consents to the installation and maintenance of the matters set out in the in the Concept Plan, including the Infrastructure, without the need for further information or Design Review as at the date of this Licence.
- (c) At any time during the Term TfNSW may seek further information or documentation in relation to any of the Infrastructure to be installed and set out in the approved Concept Plan attached as **Schedule 10** (as amended from time to time) including but not limited to, Design Plans and associated documentation.
- (d) The Licensee must inform TfNSW in writing prior to making any changes to the Concept Plan. The Licensee must not make any changes that relate to the Infrastructure approved for installation as referred to at **clause 5.4(b)** of this **Schedule 2** or install any new Infrastructure referred to in any updated Concept Plan without the prior written approval of TfNSW.
- (e) The Licensee must immediately notify TfNSW if any of the matters set out in the Concept Plan at **Schedule 10** (as at the date of this Licence) or as proposed to be amended pursuant to **clause 5.4(d)** of this **Schedule 2**, involve:
 - (i) underboring under the Railway Infrastructure (eg tracks);
 - (ii) excavation within close proximity to Railway Infrastructure; or
 - (iii) proposed structural changes to the Railway Infrastructureand must not take any further action in relation to the Infrastructure, the Concept Plan or the Licensed Area without the prior written approval of TfNSW.
- (f) The Licensee agrees and acknowledges that it:
 - (i) shall comply with the reasonable directions of TfNSW in relation to entering the Licensed Area and the installation of the Infrastructure referred to in the approved Concept Plan;
 - (ii) is the Licensee's responsibility to liaise with TfNSW to make alternative arrangements if the installation of the Infrastructure referred to in the approved Concept Plan is unable to proceed as planned on a particular occasion and that TfNSW is not liable for any costs incurred by the Licensee as a consequence of changes in the timing of access to the Rail Corridor and Licensed Area;
 - (iii) has, prior to executing this Licence, had the opportunity to inspect the Licensed Area and accepts the Licensed Area in its present condition and subject to any defects, latent or patent, whether foreseeable or not;

- (iv) accepts all risk in the installation of the Infrastructure referred to in the approved Concept Plan;
 - (v) undertakes the installation of the Infrastructure referred to in the approved Concept Plan in accordance with all applicable Laws, Authorisations and any other conditions specified by TfNSW or any other Government Agencies;
 - (vi) will not interfere with any other users of the Land or use of the Rail Corridor;
 - (vii) will use its best endeavours to restrict noise and any other nuisance caused by installation of the Infrastructure referred to in the approved Concept Plan;
 - (viii) will immediately notify TfNSW Train Control and Team Manager of any damage it causes to the Rail Corridor, Rail Infrastructure Facilities or the Licensed Area and will comply with any directions of TfNSW in respect to that damage; and
 - (ix) will satisfy TfNSW, through any requirements as notified by TfNSW, that the Infrastructure referred to in the approved Concept Plan has been completed in accordance with the Concept Plan and all relevant Laws..
- (g) The Licensee must install or cause to be installed the Infrastructure referred to in the approved Concept Plan:
- (i) in strict accordance with the Concept Plan consented to by TfNSW;
 - (ii) in strict accordance with any relevant TfNSW standard or Australian Standard for that type of Infrastructure;
 - (iii) in a good and workmanlike manner; and
 - (iv) at the expense of the Licensee in all things.
- (h) Without in any way limiting the indemnities and releases otherwise provided in this Licence:
- (i) the Licensee releases TfNSW from any damage caused to the Infrastructure as a result of; and
 - (ii) the Licensee indemnifies TfNSW and any person claiming through TfNSW against all Claims liability and damage incurred or suffered, including indirect losses arising in any way out of or in connection with,
- any error or omission in the Concept Plan or any inconsistency between the Concept Plan the actual location or nature of the Infrastructure.
- (i) The Licensee must obtain at its own cost all Authorisations required for lawfully installing the Infrastructure referred to in the approved Concept Plan and, without in anyway limiting **clause 7.8** of the body of this Licence must at all times comply with such Authorisations and the requirements of all Laws in any way affecting or applicable to the Infrastructure, including the WHS Act, WHS Regulation and the Rail Safety Law.
 - (j) The Licensee must, during the installation of the Infrastructure referred to in the approved Concept Plan,;

- (i) keep the Infrastructure and the Licensed Area clean and tidy;
 - (ii) regularly remove from the Licensed Area all surplus materials; and
 - (iii) remove from the Licensed Area regularly all spent material, chattels, effects and things brought onto the Licensed Area or arising from the Licensee's activities on the Licensed Area.
- (k) The Licensee agrees that during installation of the Infrastructure referred to in the approved Concept Plan, TfNSW may:
 - (i) at all reasonable times, undertake inspections of the installation of the Infrastructure referred to in the approved Concept Plan; and
 - (ii) acting reasonably, require the Licensee to alter or remove any parts of the Infrastructure that has not been installed in accordance with the Concept Plan consented to by TfNSW at the Cost of the Licensee in all things.
- (l) If the Licensee does not comply with **clause 5.4(j)(ii)** of this **Schedule 2**, TfNSW may carry out any works required without notice and at the Cost of the Licensee. The Licensee must pay such Costs within 30 days after receipt of an invoice from TfNSW.

5.5 The Works

- (a) The Licensee agrees and acknowledges that it:
 - (i) shall comply with the reasonable directions of TfNSW in relation to entering the Licensed Area and the performance of the Works;
 - (ii) understands that the Rail Corridor and Land is part of an operating rail network and that TfNSW does not make any promise that the Licensed Area will be available at any particular time for the carrying out of the Works;
 - (iii) is the Licensee's responsibility to liaise with TfNSW to make alternative arrangements if Works are unable to proceed as planned on a particular occasion and that TfNSW is not liable for any Costs incurred by the Licensee as a consequence of changes in the timing of access to the Rail Corridor and Licensed Area;
 - (iv) has, prior to executing this Licence, had the opportunity to inspect the Licensed Area and accepts the Licensed Area in its present condition and subject to any defects, latent or patent, whether foreseeable or not;
 - (v) accepts all risk in the Works;
 - (vi) undertakes the Works in accordance with all applicable Laws, Authorisations and any other conditions specified by TfNSW or any other Government Agencies;
 - (vii) will not interfere with any other users of the Land or use of the Rail Corridor;

- (viii) will use its best endeavours to restrict noise and any other nuisance caused by the Works;
 - (ix) will immediately notify TfNSW of any anticipated delays in completion of Works;
 - (x) will immediately notify TfNSW Train Control and Team Manager of any damage it causes to the Rail Corridor, Rail Infrastructure Facilities or the Licensed Area and will comply with any directions of TfNSW in respect to that damage; and
 - (xi) will satisfy TfNSW, through any requirements as notified by TfNSW, that the Works have been completed in accordance with the Designs, Laws and Authorisations of Government Agencies.
- (b) The Licensee must carry out or cause to be carried out the Works:
- (i) in strict accordance with the Design consented to by TfNSW;
 - (ii) in strict accordance with any relevant TfNSW standard or Australian Standard for that type of infrastructure;
 - (iii) in a good and workmanlike manner;
 - (iv) at the expense of the Licensee in all things; and
 - (v) on or before the Date for Completion or such other extended date as agreed pursuant to **clause 5.5(c)** of this **Schedule 2**.
- (c) The Licensee may not carry out any Works on the Licensed Area after the Date for Completion, which date will be agreed by the parties prior to the commencement of the Works. If the Licensee believes it will not complete the Works by the Date for Completion, then the Licensee must as soon as possible apply to TfNSW for an extension to the Date for Completion, which TfNSW may give or withhold in its absolute discretion.
- (d) If TfNSW withholds consent to an application for an extension to the Date for Completion in accordance with **clause 5.5(c)** of this **Schedule 2**, TfNSW or the Licensee may terminate this Licence subject to the terms of this Licence.
- (e) When the Works are completed the Licensee must at its own cost in all things and as soon as possible provide to TfNSW certification of the date of completion of the Works and provide two (2) copies of the As Built Drawings.
- (f) Without in any way limiting the indemnities and releases otherwise provided in this Licence:
- (i) the Licensee releases TfNSW from any damage caused to the Infrastructure as a result of; and
 - (ii) the Licensee indemnifies TfNSW and any person claiming through TfNSW against all Claims liability and damage incurred or suffered, including indirect losses arising in any way out of or in connection with,

any error or omission in the As Built Drawings or any inconsistency between such plans and the actual location or nature of the Infrastructure.

- (g) The Licensee must obtain at its own cost all Authorisations required for lawfully carrying out the Works and, without in anyway limiting **clause 7.8(a)** of the body of this Licence must at all times comply with such Authorisations and the requirements of all Laws in any way affecting or applicable to the Works or the Infrastructure, including the WHS Act, WHS Regulation and the Rail Safety Law.
- (h) The Licensee must during the performance of the Works:
 - (i) keep the Works and the Licensed Area clean and tidy;
 - (ii) regularly remove from the Licensed Area all surplus materials; and
 - (iii) remove from the Licensed Area regularly all spent material, chattels, effects and things brought onto the Licensed Area or arising from the Licensee's activities on the Licensed Area.
- (i) The Licensee agrees that during the performance of the Works, TfNSW may:
 - (i) at all reasonable times, undertake inspections of the Works; and
 - (ii) acting reasonably, require the Licensee to alter or remove any parts of the Works that have not been carried out in accordance with the Design consented to by TfNSW at the Cost of the Licensee in all things.
- (j) If the Licensee does not comply with this clause, TfNSW may carry out the Works without notice and at the Cost of the Licensee. The Licensee must pay such Costs within 30 days after receipt of an invoice from TfNSW.

5.6 Independent Certifier

- (a) The Licensee must engage an Independent Certifier acceptable to TfNSW acting reasonably, at the Licensee's Cost for the purpose of:
 - (i) independently certifying that the design for the Works meets the requirements of this Licence, including TfNSW's requirements set out in this Licence;
 - (ii) independently certifying that the Works have reached Completion; and
 - (iii) issuing a Notice of Completion once the Works have reached Completion.
- (b) Prior to commencing the Works, the Licensee must ensure that the Independent Certifier has executed the deed poll in favour of TfNSW which is at **Schedule 8** to this Licence and has provided TfNSW with a copy of the executed deed poll.
- (c) The Independent Certifier is required to act reasonably, in good faith and independently of the Licensee and TfNSW and any of their Employees and the Licensee must ensure that the Independent Certifier performs its functions under this Licence in this manner.
- (d) The Licensee and TfNSW must provide the Independent Certifier with all information and documents as may be reasonably necessary to allow the Independent Certifier to perform its obligations.

6 INFRASTRUCTURE

6.1 Use and maintenance of Infrastructure

- (a) The Licensee owns the Infrastructure and upon completion of the Works as notified pursuant to **clause 5.5(e)** of this **Schedule 2** and the installation of the Infrastructure referred to in the approved Concept Plan, the Licensee is thereafter licensed, subject to the provisions of this Licence, to keep the Infrastructure on the Licensed Area.
- (b) At any time after completion of the Works as notified pursuant to **clause 5.5(e)** of this **Schedule 2** or the installation of the Infrastructure referred to in the approved Concept Plan, the Licensee must, if required by TfNSW, provide surveyed plans in a form acceptable to TfNSW delineating the location of the Infrastructure on the Licensed Area within a period specified by TfNSW.
- (c) **Clause 9.1** of the body of this Licence does not apply during the period of the Works. Once a Notice of Completion has been issued by the Independent Certifier **clause 9.1** of the body of this Licence will apply as drafted to the Infrastructure in addition to **clauses 6.1(d), 6.1(e) and 6.1(f)** of this **Schedule 2** as set out below. **Clauses 6.1(d), 6.1(e) and 6.1(f)** of this **Schedule 2** apply to the Infrastructure installed pursuant to the Concept Plan.
- (d) The Licensee must maintain, repair and keep the Infrastructure in good and substantial repair, order and condition. After completion of the Works or installation to the Infrastructure in the Concept Plan, if the Licensee requires access to the Rail Corridor to undertake maintenance or to carry out any other activity with respect to the Infrastructure, the Licensee must obtain TfNSW's prior consent on each such occasion. TfNSW's consent may upon reasonable grounds be withheld or granted conditionally.
- (e) The Licensee must ensure that the Infrastructure and the Licensee's use of the Infrastructure does not interfere with TfNSW and other users' use of the Land.
- (f) TfNSW may inform the Licensee that maintenance or repairs to the Infrastructure are required in order to protect TfNSW's interests or property. If TfNSW gives such notice to the Licensee the Licensee must carry out the maintenance and repairs required by TfNSW within the time and on the conditions required by TfNSW. If the Licensee is unable or unwilling to carry out the required maintenance in accordance with TfNSW's requirements and timeframe (or if TfNSW considers the maintenance to be urgently required), TfNSW may carry out the maintenance itself at the Licensee's Cost. The Licensee must pay the Costs of such maintenance and repair within 30 days after receipt of an invoice from TfNSW.

6.2 Infrastructure after expiry or termination

- (a) **Clauses 12.2** of the body of this Licence does not apply other than to the Infrastructure to be installed pursuant to the approved Concept Plan.
- (b) Upon the expiration, termination or earlier determination of this Licence:
 - (i) TfNSW may purchase the Infrastructure for the consideration of \$1.00. Upon TfNSW giving notice in writing of the exercise of such option and

paying the \$1.00, title to the Infrastructure shall automatically pass to TfNSW without any further act or instrument being necessary and the Licensee must at its own expense cause any charge, encumbrance or other interest in the Infrastructure to be wholly discharged; or

- (ii) if TfNSW does not purchase the Infrastructure pursuant to **clause 6.2(b)(i)** of this **Schedule 2**, the Licensee must, to the satisfaction of TfNSW:
 - 1. remove all of the Licensee's Equipment and repair any damage caused by such removal;
 - 2. remove and reinstate any alterations or additions made to the Licensed Area by the Licensee;
 - 3. complete any repairs or maintenance which the Licensee is obliged to carry out under this Licence; and
 - 4. otherwise reinstate the Licensed Area to the condition it was in as at the Commencement Date.
- (c) If the Licensee fails to comply with **clause 6.2(b)(ii)** of this **Schedule 2** TfNSW may, at the Cost of the Licensee take any steps necessary to:
 - (i) fulfil the Licensee's obligations under **clause 6.2(b)(ii)** of this **Schedule 2**; and
 - (ii) do anything else related to rendering the Infrastructure safe or inaccessible.
- (d) The Licensee must pay or reimburse TfNSW for all costs incurred under **clause 6.2(c)** of this **Schedule 2**, within 30 days after receiving a request for payment from TfNSW.
- (e) This **clause 6.2** survives expiry or termination of this Licence.

7 REPORTS

- (a) If the Licensee commissions a review, investigation, inquiry, audit or other form of report in relation to the Land, the Improvements, the Infrastructure, the Services or the Railway Infrastructure (**Report**), the Licensee must upon completion of the Report, notify TfNSW of the existence of the Report.
- (b) If TfNSW requests a copy of the Report, the Licensee must provide TfNSW with a copy of the Report within 7 days of the date of request.
- (c) The parties acknowledge that if a copy of the Report is provided to TfNSW, it is provided for information purposes only and TfNSW is not obliged to rely on the Report.

SCHEDULE 6 – PLANS FULL AREA, PROPOSED NEW LICENCE:



NORTHERN BOUNDARY (up close):



SOUTHERN BOUNDARY (up close):



SCHEDULE 9

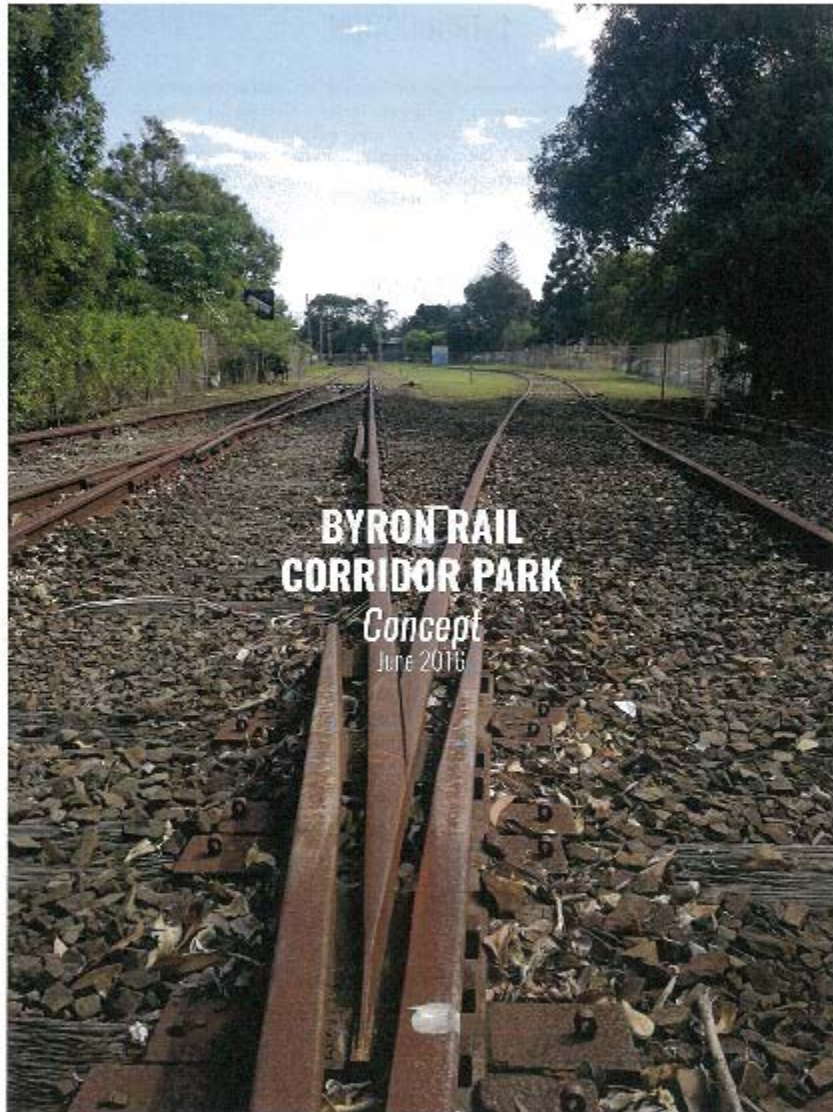
WORKS

None as at the date of the Licence.

SCHEDULE 10

CONCEPT PLAN





PLUMMER & SMITH



Creative Place Making

INTRODUCTION

Plummer & Smith have been engaged by Byron Shire Council to investigate the public space/park potentials for the rail corridor through the centre of Byron Bay. Plummer & Smith is a cross-discipline design studio founded by landscape architect, Dan Plummer and artist, Belinda Smith. The studio is based in the northern rivers and undertakes projects locally, nationally and internationally.

THE PROJECT

The Rail Corridor has been a dormant piece of infrastructure and space adjacent to the heart of Byron Bay since the train service was suspended in 2014- 110 years after it began. The rail corridor's disconnection of residential areas to its west creates a false sense of distance from the town centre. By utilising the rail corridor as open space and/or as a facilitator of sustainable transport corridors its location can unlock potential in adjacent spaces and dramatically improve connections east/west in the town centre areas. Utilising this area as open space and/or sustainable transport also unlocks north/south circulation and connectivity potentials within the town and also beyond to the surrounding local and broader region.

This proposal puts forward a range of potential uses and options for the rail corridor. The key to the proposals is to look at ways of 'future-proofing' the corridor, promoting flexibility and a range of uses, to ensure the specific potential for the town is not lost.



PLUMMER & SMITH

NOTES

1. Butler Street Reserve. Primary public car park for the town, potential bus interchange
2. Timber platform/boardwalk. A threshold to the wetland. Uses and car set down providing links to the town centre
3. Northern link to CBD - timber boardwalk. Potential for shelter elements. Potential history walk - lighting and highlight elements
4. Southern link incorporating Railway Square as a critical public space for the town
5. Existing and improved wetland. Frog and bird habitat - valuing and showcasing the environment
6. Tree 'grassland' park. Close existing area of weeds and debris, possible selective tree removals required
7. Byron Street link. part of the green corridor link from the Recreation Field to Cambridge Wharf
8. Removable infill to tracks to improve functionality as a path. Durable highlight material used. Material and design to ensure easy removal and replacement to allow for varied use now and in the future
9. Grazed space between tracks. Links to adjacent shaded grass area (12). Tracks become paths through 'meadow' park
10. Existing swales and plants, with appropriate signage. Potential for area to be utilised as a zone for 'pop-up' shops or creative incubators. Design and installation of these elements to ensure easy removal and relocation should reflect current uses and potential change in the future
11. Screening element to adjacent property
12. Existing above trees and grass (hence removal)
13. Gravel path along existing tracks
14. Lawson Street South car park - potential markers and event space linked to Rail Corridor Park
15. Railway Square
16. Rail Station platform - performance stage, shadow play stage, outdoor cinema etc linked to potential transport hub
17. Grass trees amongst trees for event viewing area
18. Heritage Water tower as a feature to parkland and Butler Street bypass
19. Existing link retained
20. All perimeter fencing removed
21. Treatment continues south to extent of
22. Butler Street bypass
23. Light rail station - potential service runs south from here
24. Walk through space as light rail barrier and space demarcation

Byron Rail Corridor Park Proposal / June 2016



Byron K. Grubbs: Fed. Proposal / June 2016



PLUMMER & SMITH

Byron Rail Corridor Park Proposal / June 2015

④

Rail line tracks as park's spine and linear park

Potential for flexible use space

Potential for activation of sides of tracks as supporting 'edge' to activate the middle

Existing flat grassed spaces potential for an 'grade connector' to Lawson Street South City Park as an extended event zone



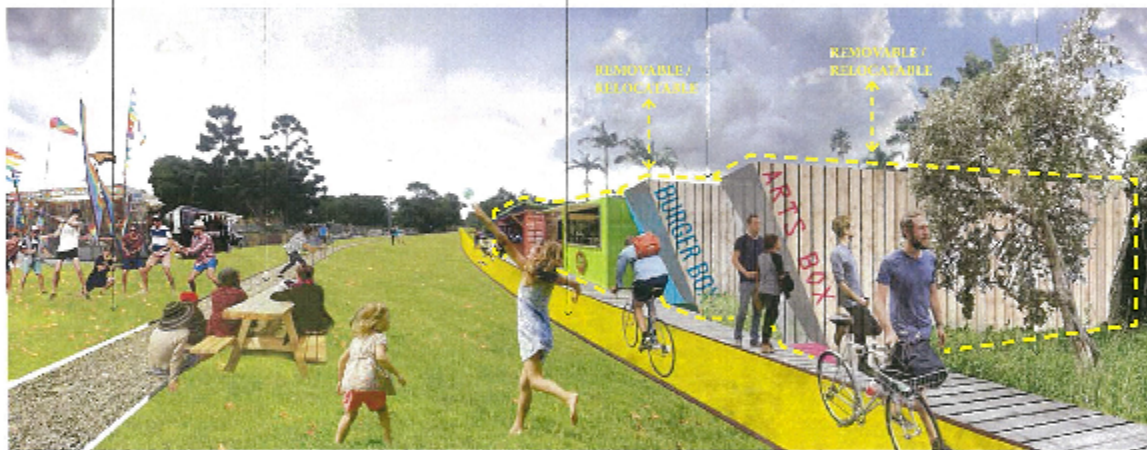
EXISTING VIEW looking south from Lawson Street end of rail corridor

When existing topography allows easy connections can be made to adjacent spaces to broaden temporary event opportunities

Relocatable / removable fixtures make paths of the tracks without precluding their use for rail infrastructure and future

Potential activation through pop-up / temporary fixtures able to be relocated should consider user change in the future

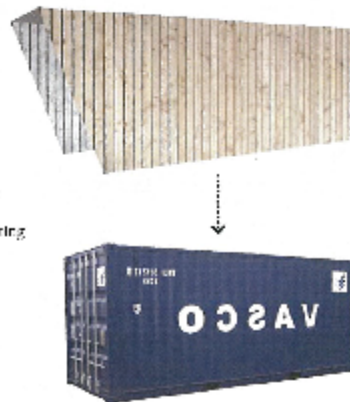
Event / dining / sporting / landscape amenity



POTENTIAL VIEW: a new vision with a ramp structure / bridge / intervention which is removable. A space with urban activation, linear connectivity and flexibility

CONTAINER PODS

Potential for cost effective and relocatable interventions to provide business and activation opportunities in the space. Container pods floor above parking, drainage bowls, drainage paths maintained. Potential to add containers to improve climate control and aesthetics



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Byron Rail Corridor Park Proposal / June 2015

5

12



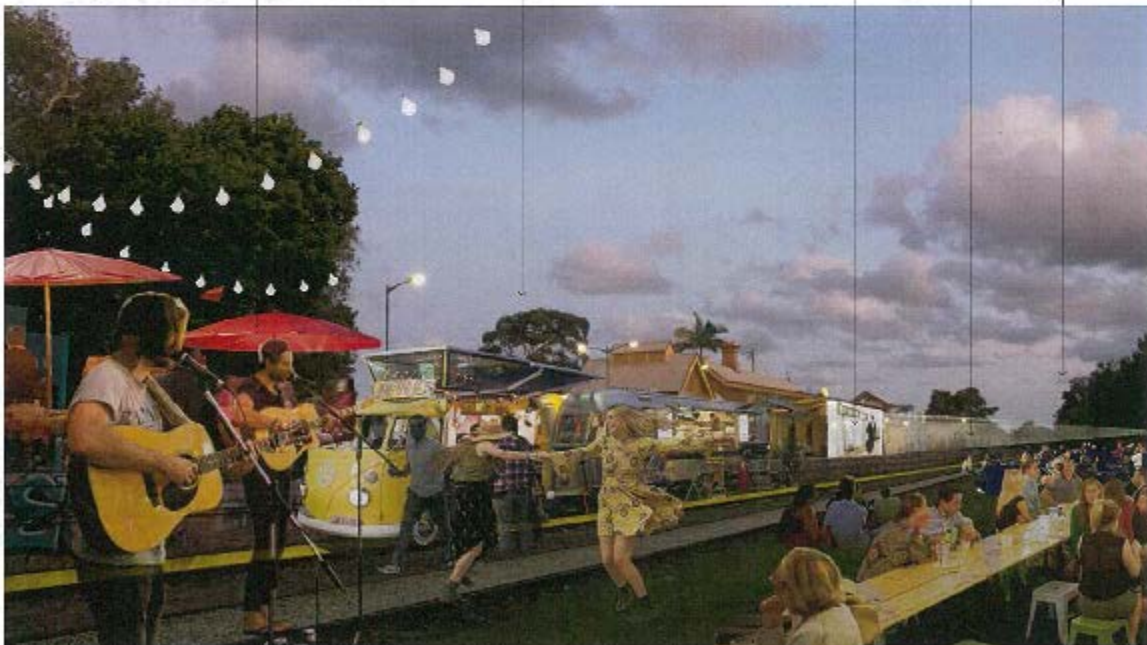
EXISTING VIEW: looking south past the railway station

Community events and
use giving the space day
and night activation

Byron history slideshow
or outdoor cinema on
platform

Potential Lightrail
station located

Open space connects
to park around
Heritage Water tower



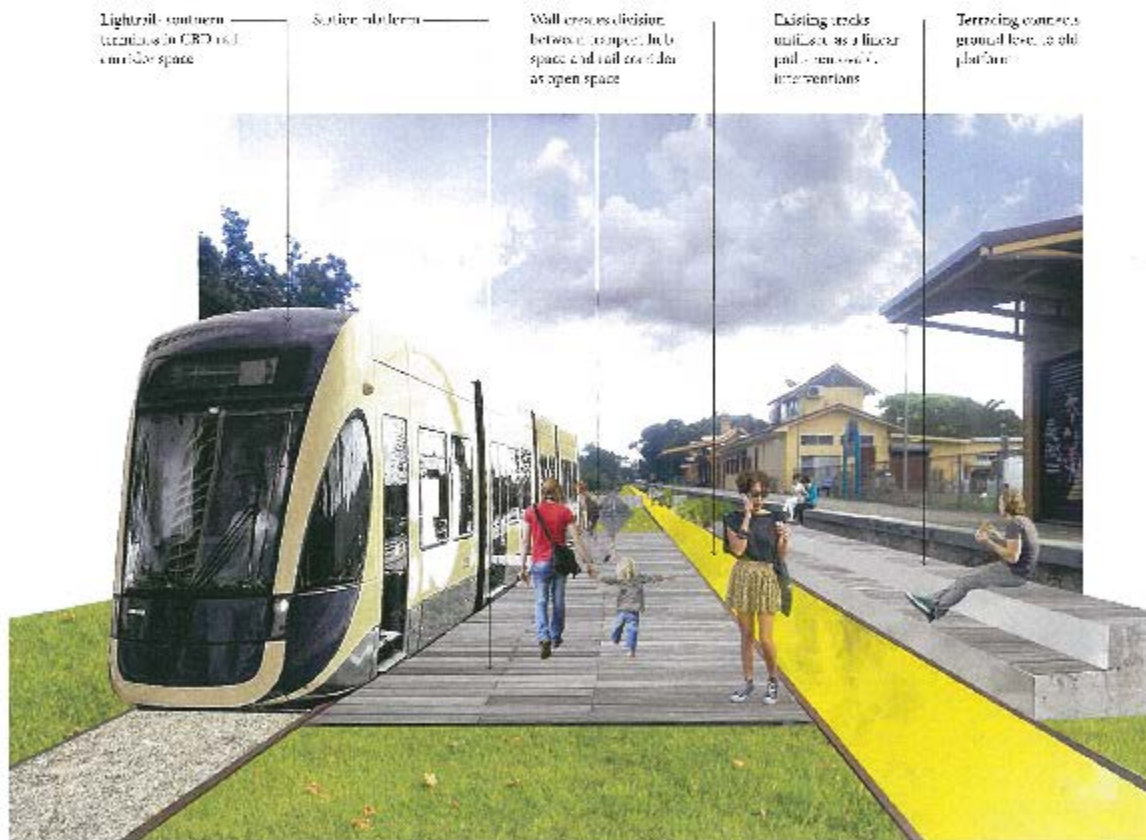
POTENTIAL VIEW: Community food music gathering connectivity

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Byron Rail Corridor Park Proposal / June 2016



EXISTING VIEW looking east along the rail corridor and existing platform



POTENTIAL VIEW Light rail transport co-existing with public space

PLUMMER & SMITH

Byron Rail Corridor Park Proposal / June 2016

LINKING THE TOWN ACROSS THE TRACKS



A key component of this proposal is improving links across town. Re-imagining the rail corridor as a usable flexible space can provide valuable recreational and amenity transport links north-south through the town and potentially beyond. Critically opening the corridor allows for the instigation of a number of east-west links across the rail corridor. This will be a key component of making Butler Street Reserve a viable (and convenient) public car park option for the town centre. This link has the potential to be a design highlight, providing shelter and interest on the path to the town centre, showcasing the environment, and showcasing town history.

INDICATIVE BOARDWALK SECTIONS



Timber boardwalk with vertical screen - privacy wall, highlight material, transparent night lighting



Timber boardwalk with shelter and vertical screen - providing shade and weather protection



Timber boardwalk with in-built seating and solar lighting. Clean links between path structure and adjacent natural areas

LINKING THE TOWN ACROSS THE TRACKS

Byron Rail Corridor link with design intention, a story to tell about the history of the town, and a direct relationship with nature at the heart of the town



15

it provides
playfulness
visual highlight
shelter



it stores
space
knowledge
distance



PLUMMER & SMITH



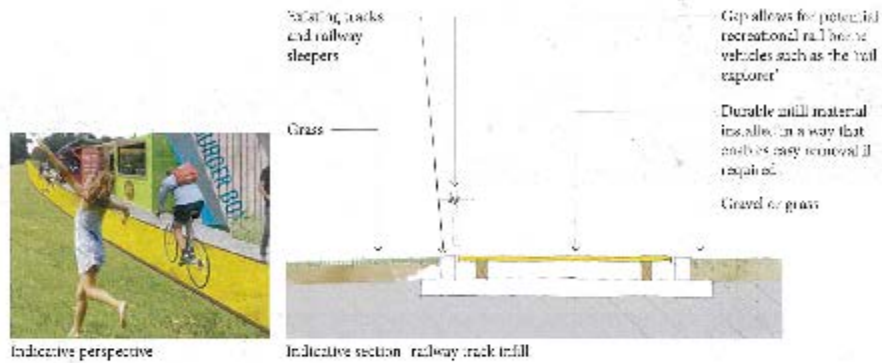
Byron Rail Corridor Park Proposed / June 2015

6

16

PATHS ALONG THE TRACKS

There is the potential to use the rail infrastructure as the basis for new park elements in a way that highlights the rail infrastructure as a feature of the park- new circulation elements combined with hardscape elements and materials. Elements will be designed and installed in a way that enables removal if required in future without damaging rail infrastructure and a variety of uses when intact.



Examples of durable materials and highlight colours - Codi Park Wharf (Aspect Studies)

PLUMMER & SMITH

Byron Rail Corridor Park Proposal / June 2006

PRECEDENTS



Examples of temporary (and movable) activation of post industrial sites- using greenery are currently in place, as part of an intensification of use.



To emphasise "in the London Docklands access by Site Office (left), and to walk boardwalk (right).



Using material and lighting for activation, awareness, and playfulness
Someways by George (Aspect Studios)

PLUMMER & SMITH

Byron Rail Corridor Park Proposal / June 2015

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Appendix C Conservation Management Strategy

CONSERVATION MANAGEMENT STRATEGY



Byron Bay Railway Station and Yard Group

January 2018 | J2825

**Weir
Phillips**
Heritage

Level 19, 100 William Street, Sydney, NSW 2011

Phone: (02) 9310 1010

EXECUTIVE SUMMARY

This Conservation Management Strategy (CMS) has been prepared at the request of Byron Shire Council. The subject property is known as 'Byron Railway Station and Yard group' which is comprised of the:

- Station Building;
- Timber Signal Box;
- Timber out of shed;
- Platform Face;
- Water Tower;
- Refreshment room; and
- former Station Master's residence

Byron Shire Council has been offered the license for the former Railway Station building by the asset owner Transport for NSW through TfNSW's agent John Holland Rail. The former Railway Station building is proposed to be adaptively reused. Byron Shire Council has commissioned this report in order to gain a better understanding of the existing heritage values of the building and the associated yard group. This report provides guidance regarding the management of those heritage values during any future works.

The subject property no longer functions as a railway station. It originally formed part of the Murwillumbah Branch Line, which in its formative years provided an important network of transportation for the North Coast region. The Byron Bay Railway Station connected to the Byron Bay jetty facilitated the conveyance of goods and people to and from the ships berthed at the jetty. The railway station is also noted as being integral to the development of Byron Bay as a township. The historical analysis of the place discovered that many local industries established their businesses within convenient reach of the railway and were often connected to the line with private sidings.

The railway continued to run until 2004 when it became disused by the NSW Government. The former Station Master's house was adaptively re-used as the Tourist Information Office; it is still used for this purpose. The refreshment room was and continues to be used as the Railway Friendly bar and Byron Bay Railway Station was adaptively re-used as the Ticket Office for the local coach services, and the forecourt to the east of the station building, operating as a coach interchange. The ticket office no longer operates from the station building which, along with the platform, line, storage buildings and associated sidings, is no longer in use. Byron Shire Council seeks to adaptively re-use the former station building and is considering other improvements to the land surrounding the railway precinct for the benefit of the wider Byron Bay community.

This document is intended to provide guidance for the adaption to a new use and conservation of the heritage values of the former Byron Bay Railway Station and yard group. It has been prepared with reference to the NSW Heritage Division's publication *Conservation Management Documents* (2002 revision) and James Semple Kerr's *Conservation Plan* (7th edition, 2013) which defines a CMS as a concise document which sets out the significance of the item and develop appropriate policies to enable the significance of the item to be retained in its future use and development.

The assessment procedure contained within this document complies with the NSW Heritage

Manual update, Assessing Heritage Significance (2001), as issued by the NSW Heritage Office, now Branch. The guiding principles are provided by the ICOMOS Australia in the Burra Charter: the Australia ICOMOS Charter for Places of Cultural Significance (2013 update) (refer to Appendix A).

This has been achieved by:

- Preparing a thematic history of the site and local area;
- Undertaking site inspections to better understand the place, its relationship with its neighbouring setting and to identify any significant fabric and major changes which have occurred;
- Identifying the cultural heritage resources of the site, using the above-mentioned guidance tools;
- Assessing the significance of those resources, against the updated heritage manual;
- Compilation of a comparative analysis, based on the 'Typology Study of Railway Buildings', prepared on behalf of John Holland Pty Ltd by GML Heritage Pty Ltd and searches of the State Heritage Register for comparable structures;
- Determining opportunities and constraints that apply to the site;
- Developing policies for conservation, interpretation, and use of the place; and
- Providing an understanding of the conservation planning process among the site's stakeholders.

After undertaking the aforementioned methodology, consideration of significance of individual elements and the assessment of significance for the Railway Station and Yard Group, an updated Statement of Significance was prepared (refer to Section 5.1.2 of this report). In summary, it was determined that the former Byron Bay Railway Station and Yard group is able to demonstrate historic, associated, aesthetic, technical, social, rare and representative heritage significance.

Section 7 of this CMS contains the Conservation Policies, for this heritage listed asset, which are considered to be the ongoing recommendations to preserve and protect the above-mentioned heritage significance whilst enabling the buildings and place to be adaptively reused for the benefit of the Byron Bay Community.

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1 INTRODUCTION

1.1 Preamble

This Conservation Management Strategy (CMS) has been prepared to inform and manage the heritage aspects of future works at the group of buildings known as the Byron Railway Station and yard group, located on the now decommissioned Murwillumbah Branch Line. The yard group is comprised of the following buildings:

- The station building
- Timber signal box
- Timber out of shed
- Platform face
- Water tower
- Refreshment room
- former Station Master's residence

The Murwillumbah Branch Line opened in 1894 and operated for 110 years before closing in 2004. The Station Master's house was converted for use as a Tourist Information Office and until recently the station area continued its use as part of a transport hub with the station building being used as a ticket office for the local coach services, and the forecourt to the east of the station building operating as a coach interchange. The former refreshment room has been converted to use as the railway friendly bar. The bus ticket office no longer operates from the station building which, along with the platform, line, water tower, storage buildings and associated sidings, is no longer in use. Furthermore, the platform is currently used as a congregation point and sleeping area for rough sleepers. This use is considered to put the building at risk from unauthorised entry and fire damage. Byron Shire Council, who have been offered the license for the building by the asset owner Transport for NSW through TfNSW's agent John Holland Rail, seek the opportunity to adaptively re-use the former station building and its surrounding group for the benefit of the wider Byron Bay community.

This document has been prepared at the request of Byron Shire Council. This document is intended to provide guidance for the conservation, retention and/or adaption of the heritage values of the former Byron Bay Railway Station and yard group. The CMS will be further refined for application submission, along with the submission of a Heritage Impact Statement (HIS) assessing the potential impacts of the final proposal on the identified heritage significance of the former Byron Bay Railway Station and yard group.

Byron Bay Railway Station and Yard Group is listed on the State Heritage Register (SHR) listing number 01107. This listing takes effect under the auspices of the *NSW Heritage Act, 1977*.

The Railway Station is listed on the Department of Planning s.170 Register which also falls under the protection of the *NSW Heritage Act, 1977*

The former Byron Bay Railway Station is located within the Byron Shire Council Local Government Area (LGA). The principal planning control for these sites is the *Byron Local Environmental Plan 2014 (BLEP 2014)*.

1.2 Site location

The subject site is located on the Murwillumbah Branch Line which branches off the North Coast Line. Casino Railway Station acted as the interchange between the Murwillumbah Branch Line and the North Coast Line. Figure 1 provides a railway line map showing the location of each railway station on the route.



Figure 1: Murwillumbah Branch Line.
Northern Rivers Rail Trail, 2017.

The listing boundary is shown in Figure 2; this also defines the existing curtilage of the site. The physical description of the boundary is defined by the State Heritage inventory sheet as:

"...commencing at the southern end of the station platform, the western boundary is the rail property boundary and adjoining Butler Street, the eastern boundary is formed by the rail property boundary and Jonson Street and the northern boundary is the Lawson Street rail crossing"

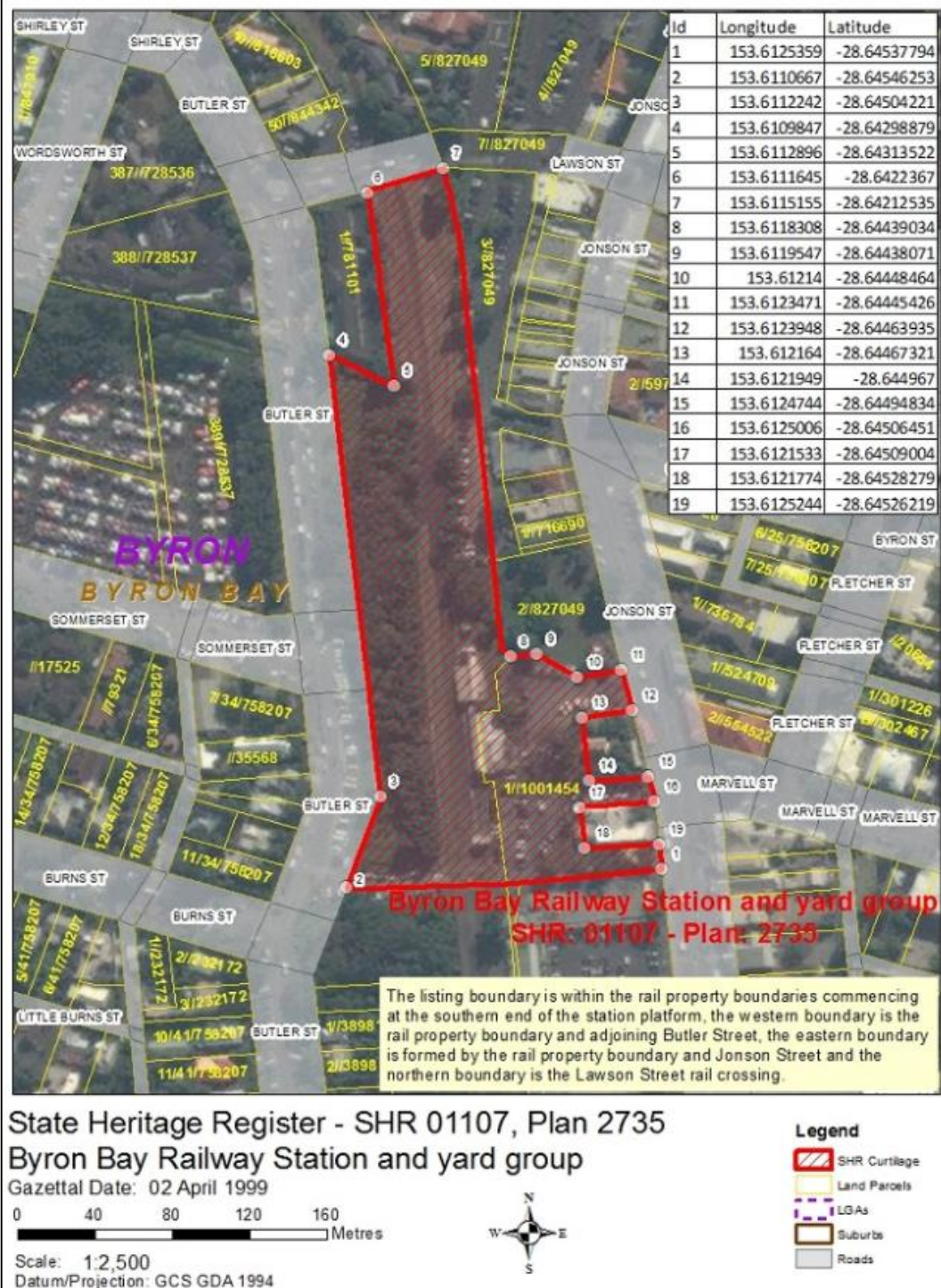


Figure 2: Figure depicts the extent of the State Heritage Listing
NSW Office of Environment and Heritage – Heritage Branch

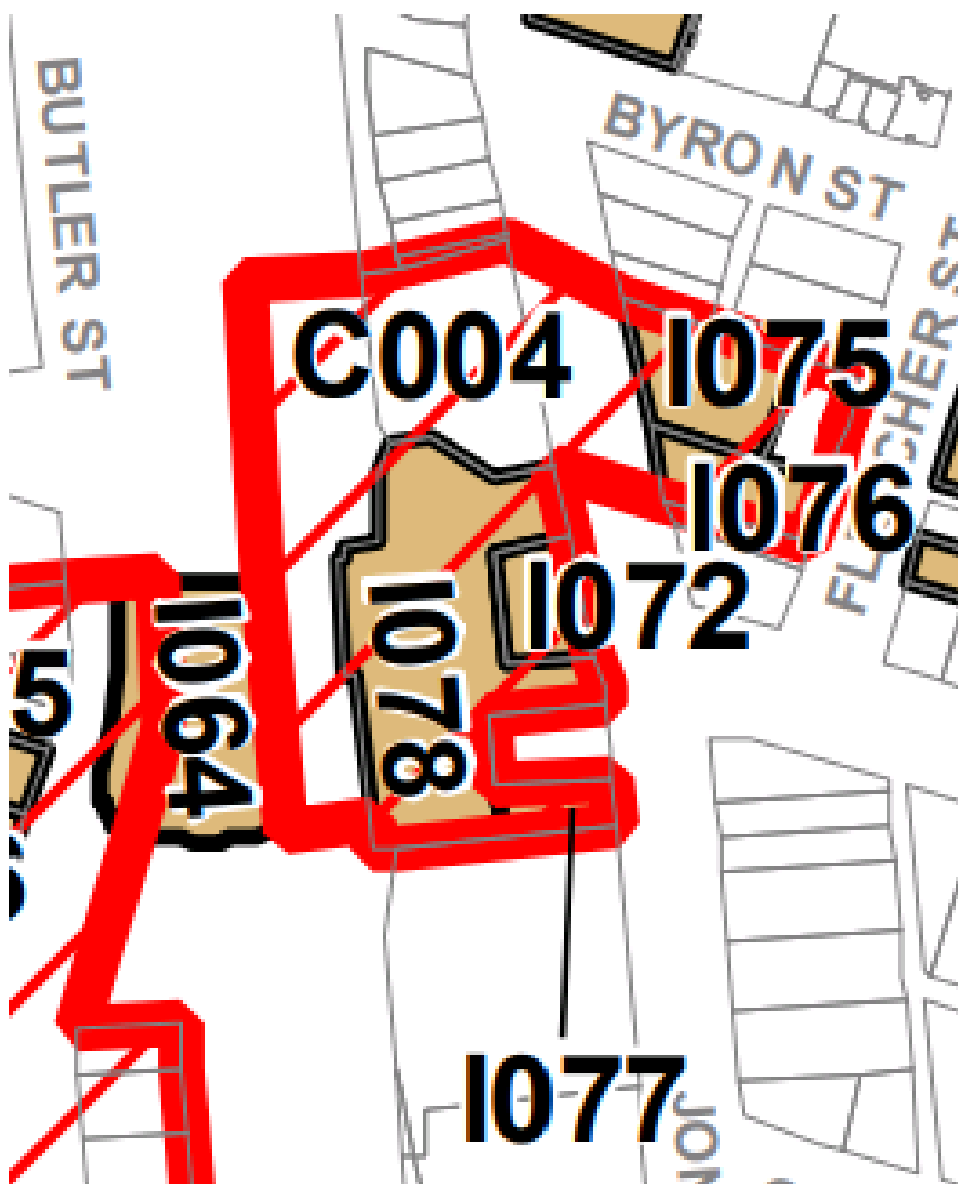


Figure 3: Extract of Byron LEP 2014 Heritage Map (Sheet 003_CC).

Source: https://www.legislation.nsw.gov.au/maps/4c21b833-2d9e-42b2-b6c4-f9b1d81982f0/1350_COM_HER_003CC_020_20140311.pdf

The legal description of heritage listed items within the Railway Yard Group are:

- Part of Lot 4729 in DP 1228104 (Rail corridor and Railway Tower (I064).
- Lot 1 in DP 1001454 (Item 1077 and I078).
- Lot 1 in 827049 (Item I072).
- Conservation Areas (C004) also includes Railway Park – legally described as Lot 2 in DP827049 and includes the community centre and post office on the eastern side of Jonson Street. These are not included in the CMS.



Figure 4: Extract of Byron LEP Heritage Layer over aerial. Source: Byron Shire Council Geocortex

The physical description, included within the State Heritage Register (SHR) Inventory sheet specifically identifies the place as comprising of the following buildings and structures:

BUILDINGS

station building - type 4 timber standard roadside building, c. 1894, LEP, HS

signal box - timber skillion roof, 1913, LEP

out of shed - timber, 1894

STRUCTURES

platform face - brick, 1894

water tower - brick base, rivetted iron tank, Butler St, c. 1894, LEP, HS¹

It is noted that there are other buildings and structures located within the identified site boundaries, however, they have been omitted from the SHR description.

In addition to the above buildings and structures, the Section 170 listing for the site as also makes note of the refreshment room and former Station Master's residence

¹ Byron Bay Railway Station and Yard Group, Casino-Murwillumbah Railway, Byron Bay. State Heritage Inventory Database No.: 5011962

Also of interest is the cottage located at 86 Jonson Street, this is a locally listed item which is described as dating from the 1920s as a residence for NSW Rail employees. Further information regarding this property can be found in Section 1.8 of this report.

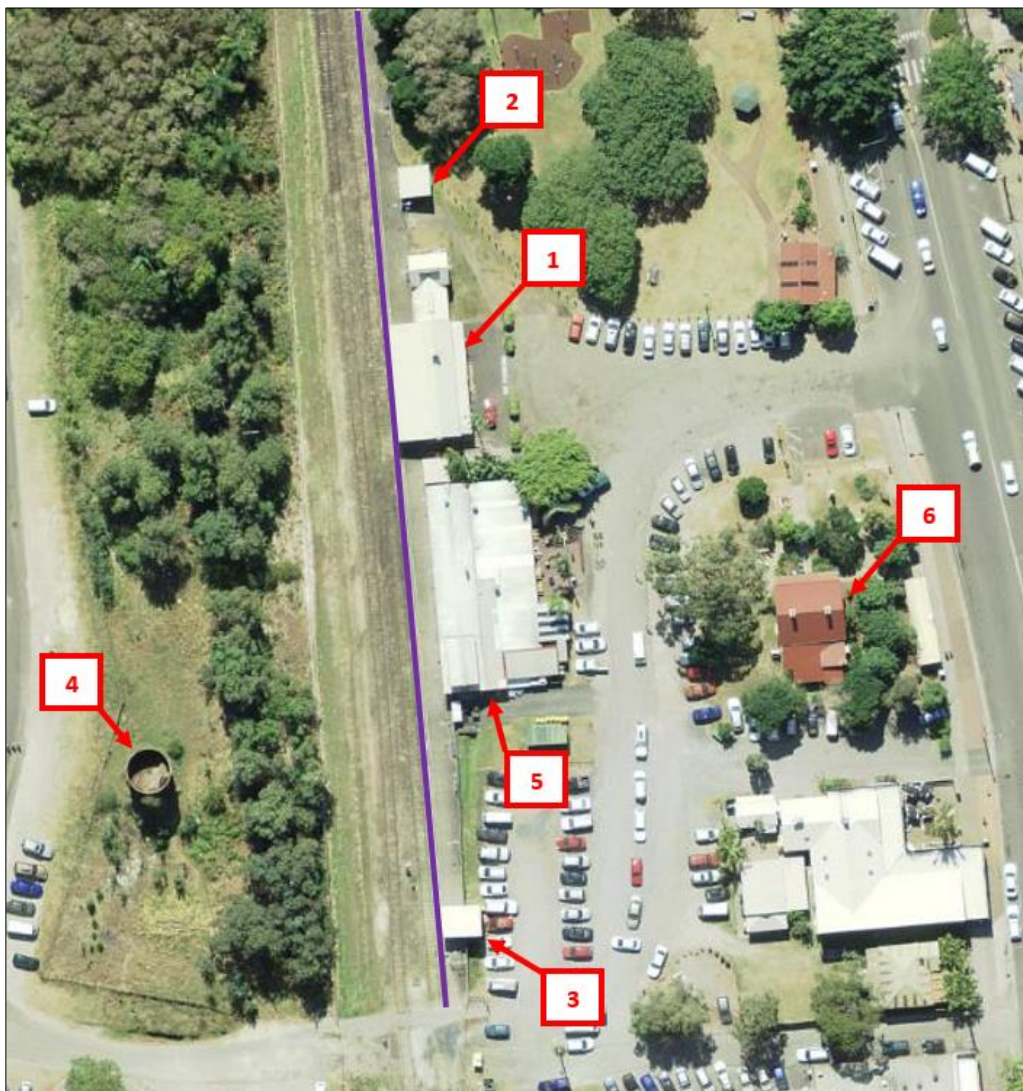


Figure 5: Aerial view of the site. 1. Station Building 2. Timber Signal Box 3.Out of Shed 4. Water Tank 5. Former Refreshment Room 6.Stations Masters House. The purple line indicates the location of the platform
Six Viewer (annotated by Weir Phillips)

1.3 Methodology

This CMS has been prepared with reference to the NSW Heritage Division's publication *Conservation Management Documents* (2002 revision) and James Semple Kerr's *Conservation Plan* (7th edition, 2013).

A main objective of a CMS, as outlined in the J. S. Kerr's *Conservation Plan*, is to set out the significance of the item and develop appropriate policies to enable the significance of the item to be retained in its future use and development. The NSW Heritage Division Publication *Conservation*

Management Documents indicates that a CMS should be a concise document that makes reference to the other documentation where necessary rather than repeat the information included in previous reports, unless of particular relevance.

Site visits were undertaken by Weir Phillips in May and October 2017. Unless otherwise stated, all photographs in this CMS were taken during those site visits.

1.4 Authorship and Acknowledgements

This CMS has been prepared by Louise Doherty, B. Sc. (Hons), Building Conservation and James Phillips B.Sc. Arch., B.Arch., M.Herit.Cons. of Weir Phillips Heritage. The historical information and assessments of significance contained in this CMS partly relies on existing studies (refer to Section 1.5 below). Acknowledgment of the authors of these studies is duly given.

The authors also thank Sasha Graham (Byron Shire Council), David Ward (John Holland Rail) Patricia Docherty (Byron Shire Council) Bronwyn Miller (Byron Bay Library) and The Byron Shire Historical Society for their help and assistance with the preparation of this report.

1.5 Documentary Evidence

The following documents, plans and publications have been used for the preparation of this CMS:

General References

- State Heritage Inventory including listing sheets for Byron Bay Railway Station and Yard Group.
- Dunn, Ian, *Byways of Steam 18: The Railway from Nowhere to Nowhere, The Grafton to the Tweed Railway 1894- 1932*, Eveleigh Press, 2002.
- Stuart Macintyre and Sean Calmer, chapter 8 – Colonial States and Civil Society 1860-90, *The Cambridge History of Australia: Volume 1: Indigenous and Colonial Australia*, Cambridge University Press, 2015
- GML Heritage Pty Ltd, Typology of Railway Station Buildings Comparative Analysis, prepared for John Holland Rail Pty Ltd, June 2016.
- GHD Pty Ltd, Water Tower Structural Assessment, prepared for Byron Shire Council, October 2017
- David Scobie Architects Pty Ltd, Statement of Heritage Impact, prepared for John Holland Group – Country Rail Network, August 2016

1.6 Historic Plans and Photographs

- Original plans for the Byron Bay Station as provided by Australian Rail Historical Society (ARHS).
- Contemporary plans from 1996 provided by Byron Shire Council.
- Historic Images provided by the Byron Bay Historical Society
- Historic images and pamphlets provided by the Byron Shire Library

1.7 Conservation Management Documents and Council Documents

- Byron Development Control Plan 2014
- Byron Local Environment Plan 2014
- Kerr, James Semple, *The Conservation Plan: A Guide to the Preparation of Conservation Plans for Places of European Cultural Significance*, NSW, National Trust of Australia (NSW), 2002
- NSW Heritage Division, *Conservation Management Documents*, 2002 update

1.8 Limitations

A comprehensive Aboriginal history and assessment was not provided for. An assessment of archaeological potential and archaeological significance, Aboriginal or historical, were not relevant to the project and remained outside the scope of this CMS.

Furthermore, it is noted that a contemporary Aboriginal meeting place is located in the vicinity of the site. It is understood that the Former Railway Station does not form part of this site; however, at the time of writing this report the local Arakwal Community had not verified the extent of the meeting place.

The site inspection did not include internal inspections of the following building or structures timber Signal Box, timber out of shed, platform face and water tower. Furthermore, the refreshment room is privately tenanted and does not form part of the proposed works; therefore, only a cursory internal inspection of this place was undertaken.

Furthermore, the locally listed item, known as 86 Jonson Street, does not form part of this study. The building is not proposed to be offered for license to the Byron Shire Council by the asset owner, and will remain under the care of Transport for NSW. This building does not share any site lines with the other buildings on the site and has been separated from the railway precinct by a modern commercial development. 86 Jonson Street is to be considered a neighbouring locally listed heritage item and is noted in Section 2.1 of this report.

As previously noted, the former Byron Bay Railway Station is protected by multiple listings, each using different terminology to describe the place. The SHR listing refers to the “*Byron Bay Station and Yard Group*”, The LEP includes listings for the “*Byron Bay Station*” and “*Byron Bay Precinct – Conservation Area*”. For consistency, every effort has been made to use the SHR terminology, except when referencing the LEP listing.

2 HERITAGE MANAGEMENT FRAMEWORK

This section outlines the statutory requirements applicable to the former Byron Railway Station and Yard Group as a result of their heritage listings.

2.1 Heritage Management Framework - Statutory listings

The station and yard is subject to the following statutory heritage listings:

- State Heritage Register: Byron Bay Railway Station and Yard Group, Byron Bay. Register No.: 01107.
- Is listed in Schedule 5 of the Byron Shire Council LEP 2014:
- Items I064 - Byron Bay former railway water tower, Butler Street, in road reserve adjacent to railway line;
- Item I072 - Byron Bay Visitors Centre, Jonson Street, Lot 1, DP 827049;
- Item I077 – Cottage, 86 Jonson Street, Lot 1, DP 1001454 (refer to section 1.8 of this report); and
- Item I078 - Byron Bay Railway Precinct, 86 Jonson Street, Lot 1, DP 1001454 and adjoining railway land;
- Located within a Conservation Area (C004): Railway Precinct, Byron Bay Conservation Area as defined by Schedule 5 of the Byron LEP 2014.

2.2 Relevant heritage legislation

In NSW, heritage listings give rise to statutory requirements to consider the heritage impact of any proposed works onto a heritage item. The following requirements are relevant to any works being proposed to the subject property.

2.2.1 NSW Heritage Act, 1977

The *NSW Heritage Act, 1977* provides statutory obligations for the conservation of items of heritage significance in NSW. Places, buildings, works, relics, movable objects or precincts considered to be of significance for the whole of NSW are listed on the State Heritage Register (SHR). The SHR is administered by the Heritage Division of the Office of Environment and Heritage (OEH) and includes a diverse range of over 1500 items. Any alteration to these assets is governed by heritage guidelines and works cannot be carried out without approval from the Heritage Council of NSW.

Additionally, there is a requirement for any state agency to maintain a register of their heritage assets listed under Section 170 of the *NSW Heritage Act, 1977*. Requirements for the conservation and maintenance of these assets are provided in the *State Agency Heritage Guide: Management of Heritage Assets by NSW Government Agencies*, endorsed by the Heritage Council of NSW (2005). The guide prescribes that “heritage assets, and their importance, should always be considered by agencies as an integrated part of their asset management” and that “alterations should be planned and executed to minimise negative impacts on heritage significance and appropriate mitigating measures should be identified.”

2.2.2 Local Environmental Plans

In NSW, the *Environmental Planning and Assessment Act, 1979* (EP&A) sets out statutory obligations for local governments to take into consideration the impacts to the environment and the community of any proposed development or land-use change. Under the EP&A Act, local government must prepare and implement a Local Environmental Plan (LEP) to regulate development within their respective Local Government Area (LGA). Clause 5.10 of the LEP generally prescribes the statutory requirements related to heritage conservation. *Byron LEP 2014* prescribes the following statutory requirement in relation to heritage conservation:

(5) Heritage assessmentⁱ

The consent authority may, before granting consent to any development:

- (a) on land on which a heritage item is located, or*
- (b) on land that is within a heritage conservation area, or*
- (c) on land that is within the vicinity of land referred to in paragraph (a) or (b) require a heritage management document to be prepared that assesses the extent to which the carrying out of the proposed development would affect the heritage significance of the heritage item or heritage conservation area concerned.*

2.2.3 Development Control Plan

Development Control Plans (DCP) provides detailed planning and design guidelines to support the planning controls in the Local Environmental Plan (LEP). The Byron Shire Development Control Plan was prepared and adopted in 2014 by the Byron Shire. It identifies Councils requirements for development quality on land to which the Byron LEP 2014 applies. Any development application prepared for the subject property will need to be assessed as an Integrated Development Assessment meaning that the heritage provisions of the State Heritage Office and Byron Shire Council will need to be considered as part of that Development Assessment.

Clause C1.6.5 of the 2014 DCP identifies the following policies applicable to the Byron Bay Railway Precinct:

Policy

- 1. Retain all attributes of the Heritage Conservation Area that demonstrate its heritage character and significance including: built form; modest height, bulk and scale; focus on the community space and landscape around Railway Park; civic streetscape character; pattern of subdivision development; and all original external fabric.*
- 2. The relationship of former civic structures (railway station, post office and school of arts) should not be diminished by any development that would cause visual dislocation. The open space should be retained.*
- 3. Development must foster integration of the site with the surrounding pedestrian network and open spaces.*
- 4. On-site parking, underground parking and vehicle driveways across the*

footpath are not compatible in this precinct.

The following Heritage Controls from the DCP are also noted as being of relevance to the subject property.

- *C1.3 Conservation Guidelines and Requirements – Heritage Items, Heritage Conservation Areas and Development in their Vicinity*
- *C1.3.1 General Streetscape Context*
- *C1.3.2 Signage and Advertising*
- *C1.3.3 Gardens and Landscape*
- *C1.4.1 Roof Form and Chimneys*
- *C1.4.2 Verandahs*
- *C1.4.3 Windows and Doors*
- *C1.4.4 Building Materials*
- *C1.4.5 Colours*
- *C1.5.1 New Development in the Vicinity of a Heritage Item*
- *C1.6.5 Railway Precinct, Byron Bay Conservation Area*
- *C1.6.9 New Development in Heritage Conservation Areas*
- *C1.6.10 Alterations and additions in Heritage Conservation Areas*

Of particular relevance to the subject site is Clause C1.6.11 *Change of Use in Heritage Conservation Areas*.

The objectives of which are:

Objectives

- 1. To recognize that the form and character of Heritage Conservation Areas are influenced and affected by the use of individual sites within the Heritage Conservation Area.*
- 2. To preserve the form, character and function of Heritage Conservation Areas.*
- 3. To ensure that changes of use in Heritage Conservation Areas do not create incompatibility or conflicts with their heritage character or values.*

Performance Criteria

- 1. Proposals seeking consent for change of use within a Heritage Conservation Area must demonstrate that the proposed change is not likely to create incompatibility or discordance over time with the heritage character or heritage values of the Heritage Conservation Area, or with individual heritage items.*
- 2. The applicant's assessment of compatibility of the proposed development with the Heritage Conservation Area must include details of all proposed physical changes to the site and to existing development resulting from the proposed change of use, including but not limited to changes in vegetation, signage, colours, materials and the like.*

Prescriptive Measures: *There are no Prescriptive Measures.*

3 HISTORICAL BACKGROUND

3.1 Original occupation

The Northern Rivers of New South Wales is the traditional home of the language group known as the Bundjalung. The Bundjalung language group is comprised of many groups including the Widjabul, Minjunbal and the Arakwal groups. The Bundjalung are noted as residing in the region extending from the Clarence River in the south, the Logan River in the north and the foothills of the Great Dividing Range in the west.² The complex community was bound by rites of language, marriage and ceremony and although estimates can be made based on archaeological evidence, the true size of the population that lived in the region before the arrival of the Europeans will never be known.

Located within this vast area is the place traditionally known as Cavanbah (or Cavvanba) home to the Arakwal people. Cavanbah is now known as Byron Bay and the Bundjalung of Byron Bay Arakwal People date their occupation of the land to at least 22,000 years. They are the recognised Traditional Aboriginal custodians of the Byron Bay District. The home of the Arakwal extends from Seven Mile Beach in the south to the Brunswick River in the North and western escarpment of Byron Bay³.

The landform of the area was created by a volcanic eruption 23 million years ago, the caldera or depression created by the eruption is a sacred site to the Arakwal and many other tribes from the area. The combination of the volcanic soil, plentiful natural water sources and temperate climate resulted in a rich area teeming with natural life that abundantly supplied and sustained the local Aboriginal community.

The relatively remote location of the region sheltered the local Aboriginal community from the arrival of the European colonists and free settlers for a considerable time. When John Oxley first charted the region in 1818 he noted that there was a substantial Aboriginal population in the coastal area of the Northern Rivers region⁴.

Prior to the arrival of the cedar getters, in the 1830s, the Arakwal were able to continue their traditional lifestyle, caring for the land, seeking sustenance from bush tucker and par-taking in traditional cultural ceremonies. On the arrival of the Europeans, change was inevitable, the traditional lifestyles started to breakdown with Aboriginal families no longer able to live off the land, large tracts of which would have been taken for settlement. Conflict occurred most notably with the 1850 massacre south of Suffolk Park and sadly an important men's ceremonial ground was destroyed in the course of constructing the Cape Byron Lighthouse⁵.

By the 1890s, some of the local Aboriginal population had been engaged by the local farmers clearing scrub and working on the cattle stations⁶

In more recent times the community of Byron Bay worked collaboratively to protect and

² Byron Shire Council Website accessed 13/06/2017

³ Arakwal People of Byron Bay website accessed 13/06/2017

⁴ NSW Heritage Office, *Regional Histories of New South Wales*, p.58

⁵ Ibid.,

⁶ NSW Heritage Office, p65

enhance the traditional culture of the land. Several native claims have been won and land has been protected in its natural state as the Cape Byron Headland Trust Reserve and the Arakwal National Park.

The park next to the Railway Station has been identified as an important contemporary site of significance for the local Aboriginal Community.

3.2 European establishment of the Region

3.2.1 Exploration

The region was first surveyed, in 1818, by Surveyor-General John Oxley. Oxley attempted several explorations of the area starting from Bathurst and attempting to trace the course of the recently discovered Lachlan River. Oxley's goal was to follow the river to the coast. Unfortunately, his route was obstructed by the area now known as Macquarie Marshes, described by Oxley as 'an ocean of reeds'. Oxley had greater success surveying the area from the water. He reached Port Macquarie and reported in favour of the location for the creation of the Penal Colony., Which was remote and sufficient distance from the pastoralists and settlers within the Cumberland Plains. Oxley continued to sail north to Port Curtis in Queensland, on his return trip he explored the Brisbane River and again successfully recommended the location for a penal settlement⁷. Whilst in the northern coast area Oxley commented on the fertile soil of the region and abundance of timber, however it would be another decade before European settlement in the region would commence⁸.

Although Cape Byron had been named by Captain Cook, during his 1770 exploration of the east coast, the Bay was not surveyed until 1828 when Henry Rous, aboard the HMAS Rainbow⁹, charted the area. Rous was attempting to find the previously uncharted Clarence River, he failed. However, on his return to Sydney he found, chartered and named the Brunswick River¹⁰.



Figure 6: Henry John Rous.
John Oxley Library, State library of Queensland

⁷ E.W, Dunlop, 'Oxley, John Joseph (1784- 1828) Australian Dictionary of Biography,

⁸ NSW Heritage Office, p59

⁹ Ibid., p66

¹⁰ Louise T. Daley, 'Rous, Henry John (1795-1877)', Australian Dictionary of Biography, National Centre of Biography, Australian National University, <http://adb.anu.edu.au/biography/rous-henry-john-2611/text3597>, published first in hardcopy 1967, accessed online 27 June 2017.

3.2.2 Barriers to Settlement

Prior to the 1830s, settlement of the region had been precluded under the terms of the 'limits of location'. The limits of location identified the area which was permitted to be settled, known as the 19 Counties.

The Limits of Location was a Government Order issued, in 1826, by Governor Darling. Darling's intention was to provide a boundary in which land grants could be issued in order to focus the settlement within an area that could be managed and policed by the Government. Prior to this time, land grants were given by the Governor; they were free and could consist of up to 30 acres¹¹. Darling, like Brisbane and Macquarie before him, was struggling to contain the boundaries of the settlement. People moving beyond the boundaries was seen as a growing problem, partly due to remote locations being considered to be rough and lawless places that were impossible to police.¹² Land could be legally acquired from the Government those outside of the permitted area, residing on Crown Land, were deemed to be unauthorised occupants, also known as 'squatters'. Squatters were generally people of high social standing who grazed their livestock on large tracts of land to which they had no legal title.¹³ In 1826, the area of permitted occupation was expanded, in an attempt to control and legalise settlement of the colony, authorised settlers within the newly expanded area, were given grazing leases and depasturing licenses.¹⁴ This, however, wasn't very effective and the 1833 The Encroachment Act was drawn up to attempt to tackle the ongoing problem of unauthorised settlement of Crown Land. The Act authorised the appointment of 13 Commissioners of Land. These Commissioners were intended to curb the illegal settlement. Again, despite this action, the illegal squatting continued. By the late 1830s, Surveyor Robert Dixon created a map showing the acreage of land granted within the area of NSW, Byron Bay is not shown on this map as the furthest northern extent is shown as Smoky Cape, located 60 kilometres north of Port Macquarie. In 1837, the Legislative Council passed an Act to legalise settled land, the alternative approach of legalising and regulating squatters grazing rights, for the annual sum of £10¹⁵. A decade later the land was divided into three categories Settled, Intermediate, and Unsettled and leases were offered respectively in the following lengths: 1 year, 8 years and 14 years.

By 1861, when the Robinson Land Act was introduced, nearly one million acres or 404,858 hectares of land had been claimed outside the 1836 boundaries of the limits of occupation¹⁶. From 1861 – 1884, the Robinson Land Act permitted all Crown Land to be selected, permitting land grants of 40-320 acres without a survey. The only conditions were that the purchaser had to prove they had the funds to improve the land and intended to occupy it for a minimum of three years.¹⁷

The limits of occupation and attempts to curb squatting reduced the speed at which the colony was being settled and the North Coast of NSW was not officially settled until the late 1830s with Brunswick Heads becoming the first officially settled area within the region¹⁸.

¹¹ State Library Website: Squattocracy: Accessed 14/06/2017

¹² Poiner and Jack, *Limits of Location: Creating a Colony*, Sydney University Press, p9

¹³ State Library Website: Squattocracy: Accessed 14/06/2017

¹⁴ State Records Website: accessed 14/06/17

¹⁵ Ibid.,

¹⁶ Poiner and Jack, p9

¹⁷ State Records

¹⁸ Peter Duke, *Byron Bay: The History, Beauty and Spirit*, self published

Other significant barriers to the settlement of the region include the distance from Sydney and the establishment of penal colonies to the south, first at Newcastle and later at Port Macquarie and Brisbane River. The government of the time precluded settlement surrounding the prisons. This no doubt added to the perception that the region was remote and unsafe to the free settlers arriving in the colony.

3.2.3 Cedar Getters

Cedar Getters were often the first Europeans to explore natural areas of bush. The colony had a great demand for timber and favoured cedar, a soft easily worked timber, which grew in coastal regions. Cedar trees were capable of providing vast amounts of material with mature trees be recorded as being as much as two metres in diameter. Cedar was noted as bearing a visual resemblance to mahogany and was used extensively within the colony for building purposes and furniture making.

Some of the earliest Cedar getters had previously worked the South Coast within the Illawarra region. Having cleared great tracts of land on the southern coast they sought new reserves of the material heading to the previously unharvested supply to the north and by the earlier 1840's were said to have cleared land as far as the Richmond¹⁹.

Early cedar getters first worked the land surrounding the rivers. After the timber was felled, it would be rolled into the river, floated downstream to the ports where it was loaded on to boats and then shipped back to Sydney for sale. One of the early stores was located at Gundirimba south of Lismore, boats could be loaded here or the logs floated down the river to Ballina²⁰.

By the 1870's, cedar from the region was also being used in the shipbuilding enterprises in Woodburn and the saw mill at Wyrallah²¹

The publication *Byron Bay: The History, Beauty and Spirit* describe the transportation from Byron Bay in 1850:

*...sailing ships collecting cedar would moor in Byron Bay. The trees were felled on the hillsides, the logs pulled down the chutes of the small surrounding valleys and hauled to the beach. A line would be rowed to the ship, loped around a pulley and returned to the beach. The logs were bundled together and hooked up to one end of the line. The other end was attached to a bullock team which walked down the beach drawing the logs out through the surf to the ships bound for Sydney.*²²

¹⁹ NSW Heritage Office, p60

²⁰ Ibid., p66

²¹ Ibid.,

²² Duke p20



Figure 7: Timber workers felling a cedar by hand.
Byron Bay Historical Society.



Figure 8: Example of a Timber getters camp.
Byron Bay Historical Society.



Figure 9: Bullock team hauling timber from the region.
Byron Bay Historical Society



Figure 10: Bullock teams crossing the Richmond River.
Byron Bay Historical Society.

Although it is not known, exactly, when the first saw mill in Byron Bay was opened, it is noted that in August 1887 a saw mill was identified as being a necessary development in the region. This was discussed in an article prepared for the *Clarence and Richmond Examiner and New England Advertiser*. The article stated that a saw mill would be a great benefit to the then town of Cavvanba (later known as Byron Bay). The article lamented that each land holding contained ample timber, which at that time, could not be worked and was largely going to waste and that a saw mill would provide employment for the region²³.

By September 1891, the *Lismore Northern Star* was reporting that the Lismore Saw Mill was opening a new mill in Byron Bay which was said to be capable of matching the North Lismore Saw Mill's weekly production of 25,000 feet of timber. The manager is noted as being a Mr J. E. Glasgow

²³ "Byron Bay. " *Clarence and Richmond Examiner and New England Advertiser* (Grafton, NSW: 1859 - 1889) 23 August 1887: 2. Web. 30 Jun 2017 <<http://nla.gov.au/nla.news-article62106100>>.

²⁴ who was later noted as being manager of 'the local saw mill' who in 1895 were supplying the Sydney Markey with 6in. x 1in. floor boards²⁵.

The Byron Bay saw mill was located to the east of the railway line and furnished with its own railway siding (refer to Figure 26). It was again mentioned in the press, in 1923, when a large fire started in the railway yard of the Saw Mill. The stock quickly ignited and, due to the lack of a fire brigade in Byron Bay, was unable to be extinguished²⁶. The fire was said to have destroyed 40,000ft²⁷ of dressed timber and burnt the Saw Mill to the ground. The then manager, Mr R. Montgomery, reopened the saw mill the following month²⁸. However, the siding from the train line was no longer evident in the 1934 signal diagram (refer to Figure 27), suggesting either that the saw mill did not continue to operate from this location or that it no longer relied on the rail system to do so.

3.2.4 Transportation

The first forms of transport introduced into the area were required to assist with the transportation of timber back to the Sydney market. It was also necessary to convey supplies and men to the area to service the industry.

The coastline north of Port Macquarie is notable for its lack of natural ports; it does however have a series of river mouths which in the early years were traversed by small boats. However, rivers, such as the Richmond, were too narrow for sailing ships to use their sails; instead they were pulled by man-powered vessels known as droghers, until the 1860s when steam powered droghers became available²⁹.

In the 1850s, the Grafton Steamboat Navigation Co. began to service the region the fledgling fleet included the *William the Fourth*, the first steam ship built in the colony and a new paddle steamer. In the following decade, the service had extended to the Clarence and Richmond Rivers and was renamed the Clarence and Richmond River Steam Navigation Co. The first service to Byron Bay was provided by George Nicholls, the service from Sydney took two days and two nights. Nicholls operated the business until he sold it in 1905 to the North Coast Steam Navigation Co. who ran a service from Byron Bay to their Sussex Street wharf in Darling Harbour³⁰.

Utilising the coast was not the only means of transport into the area and many used the roads. However, due to the climate of the region the roads were unreliable and could become impassable

²⁴ "The North Lismore Saw-mill Company. " *Northern Star (Lismore, NSW : 1876 - 1954)* 26 September 1891: 2. Web. 30 Jun 2017 <<http://nla.gov.au/nla.news-article71736176>>.

²⁵ "Byron Bay. " *The Sydney Mail and New South Wales Advertiser (NSW : 1871 - 1912)* 23 February 1895: 409. Web. 30 Jun 2017 <<http://nla.gov.au/nla.news-article162735768>>.

²⁶ "FIRE AT BYRON BAY" *Tweed Daily (Murwillumbah, NSW : 1914 - 1949)* 3 August 1923: 2. Web. 30 Jun 2017 <<http://nla.gov.au/nla.news-article190178124>>.

²⁷ "COUNTRY NEWS. SAW MILL BURNED." *The Sydney Morning Herald (NSW : 1842 - 1954)* 3 August 1923: 12. Web. 30 Jun 2017 <<http://nla.gov.au/nla.news-article16085202>>

²⁸ "NEW SAW MILL FOR BYRON BAY." *Northern Star (Lismore, NSW : 1876 - 1954)* 11 September 1923: 4. Web. 30 Jun 2017 <<http://nla.gov.au/nla.news-article93616484>>.

²⁹ Dunn, Ian, *Byways of Steam 18: The Railway from Nowhere to Nowhere, The Grafton to the Tweed Railway 1894-1932*, Eveleigh Press, 2002 p 11

³⁰ Dunn, Ian, p 12

for days.

Improvement of the transportation system was necessary to ensure that stock and people could be easily transported to the region, thus encouraging its growth. Fortunately, during the development of regional Australia, the Government recognised that the provision of transportation was one of the principal forms of Assistance that they, the Government, could lend to industry, farmers and the early settlers throughout NSW. The development of transportation also opened up more regions for farming and the reduction in transportation costs made farming more profitable³¹ and kept the price of commodities lower.

In 1887, the Public Works Department approved the construction of a jetty at Byron Bay. The jetty, which was to be located to the southern end of the beach was to project from the beach into the Ocean.

The selectors in the area has lobbied hard for the construction of the jetty, prior to its construction the timber was 'surfed' to boats which were anchors offshore. The process of loading the awaiting was described by the Byron Bay correspondent for the Clarence and Richmond Examiner and New England Advertiser, it is noted that construction of the jetty had begun but was not yet complete:

The steamship 'Tweed' lay at anchor about three-quarters of a mile to the west of the jetty loading timber, which kept about eight men besides the steamer's crew at work. This is how it is "Surfed" here: - two ropes are fixed between the vessel and the shore, to be used alternately; a team of bullocks is employed drawing each log into water sufficient to float it, when two active surfers seize it by the 'tail' (which has been previously attached by means of an iron 'dog' driven into one end of the log), and tow it over to where one of the lines is stretched, to which, after a lot of diving and ducking under the breakers, it is firmly fixed. When a sufficient number has been 'bent on' to this line, a signal is given from the shore and the steamer's donkey hauls away, returning the second line to be re-loaded. Often the waves wash over the bullock's heads, especially the leaders; and surfing timber is quite exciting when there is a 'fresh' in the Bay.³²

The jetty was finally completed in August 1888 and stood at 1,320 feet in length and 22 feet wide. Ships could berth along the side. Cargo could be loaded and unloaded via a series of 6 trucks which ran on a 3 feet 6 inches gauge horse pulled tram system³³.

Transport to the region was further improved, in 1894, by the introduction of the Murwillumbah Branch Line, then known as the Tweed Railway. The proposed Tweed Railway line was isolated from the main railway system, which resulted in it servicing only the stations located on the branch line.

The railway connection between the Byron Bay jetty and branch line resulted in greater efficiencies in providing transportation and the provision of goods to the entire region. There were

³¹ S. Macintyre and S. Scalmer, *Colonial States and Civil Society: The Cambridge History Of Australia*, Cambridge University Press, 2013 p193

³² "Byron Bay." *Clarence and Richmond Examiner and New England Advertiser* (Grafton, NSW : 1859 - 1889) 22 March 1887: 2. Web. 30 Jun 2017 <<http://nla.gov.au/nla.news-article62103141>>.

³³ ARHS Bulletin No 88, February 1945 August 1888

incompatibilities between the jetty line, which utilised a narrow gauge, and the railway which was constructed on the standard gauge of 4 feet 8½ inches.

In the early years, the differences between the gauges was managed by the manual transference of loads between the ships, the horse drawn system and railway station. Effectively, goods and people were unloaded and reloaded twice on reaching Byron Bay. As the railway and ocean bound traffic increased, the incompatible gauges resulted in significant delays for both goods and passengers. The issue was resolved by extending the standard gauge track onto the jetty. This permitted goods to be loaded directly from ships and then transported by rail to any destination on the Tweed Railway.



Figure 11: Undated postcard of the horses which may have been used to pull the tram

Source: Photo courtesy of EJ Wright Collection, Byron Bay Library

In 1911, the jetty was extended by 270 feet to provide deeper moorings and to respond to the increase in passengers travelling to the region by ship. The general public benefited through the improvements in steamer service which had resulted in travel times being reduced to 20-24 hours to or from Sydney. The North Coast Steam Navigation Company took over the working of the jetty and the influx of passengers to the region continued with passenger trams running 3 times daily between the jetty and the Railway Station.



Figure 12: The old jetty in 1919

Source: Photo courtesy of EJ Wright Collection, Byron Bay Library

Over time, it became apparent that the location of the jetty was deemed to be unsatisfactory, both due to the shallow mooring but also its relatively exposed location to the south of the beach where its only protection came from the Cape Byron to the south. In 1927, these concerns proved themselves to be valid when the S.S Wollongbar was wrecked after it broke its moorings and ran aground in the shallow water. After the wreck of the S.S Wollongbar, construction of the new jetty was approved $\frac{3}{4}$ mile to the north; a new siding was constructed from the railway to the proposed new location which allowed for the transportation of materials, goods and workmen directly to the site. The jetty was completed in October 1929 and the old jetty was abandoned the following month.



Figure 13: A large boat, possibly the SS Wollongbar, run aground in shallow water.

Source: Photo courtesy of EJ Wright Collection, Byron Bay Library



Figure 14: A rare photograph depicting both the old and new jetty.

Source: Photo courtesy of EJ Wright Collection, Byron Bay Library

During WWII, the 2nd S.S. Wollongbar was requisitioned for the war effort and scuppered in 1943. This resulted in the North Coast Navigation company abandoning the service to Byron Bay resulting in the area having two disused jetties.

Further disaster occurred when, in 1954, a cyclone swept down from southern Queensland and washed away part of the 'new' jetty. Recollections of the event include descriptions of the outer section of the jetty having been torn away and the destruction of 22 fishing boats which made up two thirds of the areas fishing fleet³⁴.

The 'new' jetty remained in place until the 1970's when it was deemed unsafe by the Public Works department. The jetty was dismantled and the piles were removed using explosives that were placed by a team of divers³⁵.

³⁴ 'THE CYCLONE THAT WIPED OUT BYRON BAY'S FISHING INDUSTRY' ABC North Coast, 20 February, 2014 by Margaret Burin

³⁵ 'THE BYRON BAY JETTYS' Common Ground Australia Website, 24 June 2013 by Max Pendergast



Figure 15: Undated image of the old Byron Bay Jetty. This is believed to be the original jetty which had been constructed prior to the establishment of the Tweed Railway and used a narrow gauge tramway. This photo appears to a date from the time after the conversion to standard gauge. ARHSnsw.



Figure 16: Undated image of what appears to be the second jetty which was designed for use with a standard gauge siding off the Tweed Railway. Note also the gantry cranes for loading and unloading boats. ARHSnsw.

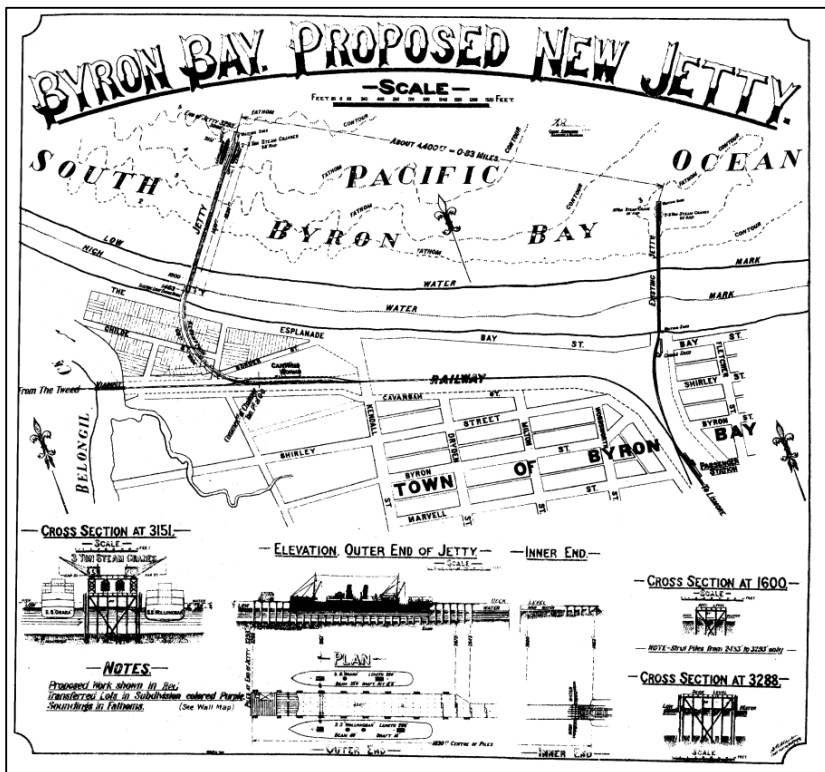


Figure 17: Plan of Byron Bay showing the location of the proposed new jetty to the upper left of the image and its relationship with the old jetty to the right of the image. ARHSnsw.



Figure 18: Demolition of the jetty.
Max Prendergast.

3.2.5 Farming

After the closure of the Port Macquarie prison in the 1830s, the land surrounding the former penal station was opened up to free settlers, much of the land had not been cleared and was therefore not as attractive as land previously cleared by the timber getters. The land to the north of the region was less accessible slowing the settlement of the region. As previously mentioned, the 1861 Land Alienation Act opened up Crown land for sale³⁶. The act also permitted the Governor the right to reserve or dedicate Crown land to define the sites of new cities towns, villages and to define the limits of suburban land of existing urban settlements. The Act allowed for the securement of water supply and for the purpose of creating the following civic services.

railway or railway station —any public road canal or other internal communication—any public quay or landing-place—any public reservoir aqueduct or watercourse — or for the preservation of water supply—or for any purpose of defense—or as the site for any place of public worship any hospital asylum or infirmary any public market or slaughter-house any college school mechanics' institute public library museum or other institution for public instruction or amusement—or for any pasturage common— or for public health recreation convenience or enjoyment—or for the interment of the dead—or for any other public purpose And upon any such notice being published in the Gazette such lands shall become and be reserved or dedicated accordingly and may at any time thereafter be granted for such purposes in fee simple Provided that an abstract of any intended reservation or dedication shall be laid before both Houses of Parliament one calendar month before such reservation or dedication is made³⁷.

The land could only be used for the purpose it had been reserved for. The area of Byron Bay and the Cape were established as a reserve while the surrounding land was offered for selection. Under the terms of the Alienation Act rural land that had been deemed eligible for settlement could be offered as free selection holdings of up to 320 acres. This was increased to 640 acres in 1875³⁸.

The Thematic History of Byron Bay prepared in 2006 by Brett Stubbs states:

Thomas Skelton took up the 640 acre portion 1, Parish of Byron, on 2 June that year, probably qualifies as the first settler in the Byron Bay area. The adjacent portions 2 (Joseph Wright, 100 acres) and 3 (Eli Hayter, 640 acres) followed Skelton's on 16 June.³⁹

Farming the regions commenced with sheep but then made way for dairy. Dairy farming in the region was made easier due to the railway and advances in dairy production during the 1880s included refrigeration and mechanical cream separation. Farmers created co-operative bodies and began to work together to establish collective bargaining and source transportation methods thus

³⁶ NSW Heritage Office, p61

³⁷ Crown land Alienation Act of 1861

³⁸ Heritage Office p61

³⁹ B Stubbs, Thematic History of Byron Shire, November 2006 p68

minimising cost.⁴⁰

Dairy farming in the area was a surprising success, with many people believing that the industry was unsuited to the region due to the tropical climate. The industry soon spread throughout the Far North Coast. The hills, verging on the river valleys, were found to be well suited to the industry with the Richmond River dominating dairy production within the area. The region attracted dairy farmers from the south coast who relocated to the area, transporting their existing cattle stock to the area via the port at Ballina. In the 1890s, it was discovered that the South American grass *Paspalum dilatatum*⁴¹ (dallisgrass) could be used as cattle fodder and could be grown abundantly in the region. This eliminated the need to purchase and transport fodder from other regions⁴². The land was cleared of its native scrub and large areas of *Paspalum dilatatum* were planted⁴³. Advances in refrigeration and cream separation counteracted the regions the hot temperatures and made the industry profitable. In the early days dairies or creameries were numerous; advances in the industry resulted in many of the smaller dairies or creameries closing and eventually reducing to two larger regional creameries at Lismore and Byron Bay⁴⁴.

The Byron Bay creamery was established after a local meeting was held to form “The North Coast Fresh Food and Cold Storage Co-operative Company (Limited)” (NORCO) shares were offered at £1 each.

The creamery, which was to be located on land near the saw mill, was opened in June 1895. It was located close to the railway line; a loop track gave the creamery access to both the Tweed Railway line and the Byron Bay Jetty⁴⁵.

The rural industries in the region continued to prosper until the 1960s when they began to decline. Dairy farmers left the industry and moving to other industries such as beef cattle,⁴⁶ tourism, sandmining and the cultivation and growing of tropical fruits such as macadamias and bananas.⁴⁷. In 1961, the headquarters of NORCO moved from Byron Bay to Lismore.

⁴⁰ S. Macintyre and S. Scalmer, *Colonial States and Civil Society: The Cambridge History Of Australia*, Cambridge University Press, 2013 p193

⁴¹ NEW SOUTH WALES FLORA Online, Plant Net website, accessed 19 June 2017

⁴² Heritage Office p67

⁴³ Ibid.,

⁴⁴ Ibid.,

⁴⁵ Dunn, p47

⁴⁶ Duke, p71

⁴⁷ Heritage office p67



Figure 19: Undated photograph of the NORCO plant
Photo courtesy of EJ Wright Collection, Byron Bay Library



Figure 20: Undated photograph of the NORCO plant
Source: Photo courtesy of EJ Wright Collection, Byron Bay Library



Figure 21: Undated image of stock cars at Byron Bay Railway Station. Note the rail tractor used to move the cattle wagons also appears in Figure 16.

ARHSnsw

3.2.6 Ocean related industries

3.2.6.1 Fishing

Prior to the European settlement of the area, the fish had been a staple component of the Arakwal diet for thousands of years. This source of food was also utilized by the first European settlers who, after construction of the jetty, would fish from the bay providing supply to the local area. The fishing industry later grew to stock other markets around Australia. In the 1920s, a local firm, Poulson's Fisheries Ltd, established a processing and Canning Plant in the area specialising in iced, canned and smoked fish⁴⁸.

The Byron Bay fishing industry continued until 1954 when the jetty and most of the fishing boats were destroyed by the previously mentioned cyclone which had swept down from Queensland. On re-establishment, the fishermen who decided to return to the industry, many did not, relocated to Brunswick heads⁴⁹.



Figure 22: Boats can be seen on the jetty and fishermen cast a line from the jetty

Source: Photo courtesy of EJ Wright Collection, Byron Bay Library

3.2.6.2 Whaling

In 1954, the fishing industry was replaced by commercial whaling which operated in the area until 1962. The newly founded whaling company A.W Anderson and Co., owners of the local meat works, are said to have established the venture in response to the cyclone and the need to provide an alternate industry for the area. They purchased two converted naval coastal patrol boats, named Byron I and Byron II, which operated out of Ballina. The season ran from May 1 to October 31 each year. The company was allowed to take 150 whales per year. It is presumed that there were other

⁴⁸Byron Bay Historical Society Website <http://byronbayhistoricalsociety.org.au/development-of-byron-bay/population/> accessed 3 July 2017

⁴⁹ 49 'THE CYCLONE THAT WIPED OUT BYRON BAY'S FISHING INDUSTRY' ABC North Coast, 20 February, 2014 by Margaret Burin

companies also operating within the area with similar allocation permitted.

The whaling industry had a devastating impact on the humpback whale population. A total of 1,146 Humpbacks and two Sei Whales were slaughtered during the whaling operation and the industry collapsed due to the depletion of the stock⁵⁰.



Figure 23: A captured whale is dragged back to port alongside the whaling vessel

Source: Photo courtesy of EJ Wright Collection, Byron Bay Library



Figure 24: The whales were hauled from the jetty to the plant by rail. Shown here being pulled by the engine locally known as the green frog.

Source: Photo courtesy of EJ Wright Collection, Byron Bay Library

⁵⁰ Byron's Whaling Past, Byron Shire news 26 May 2005 <https://www.byronnews.com.au/news/apn-byrons-whaling/142630/> accessed 3rd July 2017

3.2.6.3 Tourism

Tourism in the region boomed the 1960s, initiated by the introduction of surfing to Australia and the growing awareness that an alternative lifestyle could be pursued within this laid back sub-tropic area. Backpackers were among the first tourist to the region and they are said to have returned home, spreading the word about the area. Early tourist travelled to the area by train and camped. The train was well used at this time. However, when the train stopped at the station, it would cross the only road into town and cause delays to local traffic.⁵¹

A further tourism boom occurred in the early 1990s, after the release of Crocodile Dundee, parts of which had been filmed in the area. The star of the movie, Paul Hogan, and co-writer, John Cornell, purchased and refurbished the Beach Hotel drawing a surge of visitors to the area. In response to the rapid growth in tourism, locals let rooms in their houses, purchased second homes to rent and built cabins. Larger scale development also occurred and at such a fast rate that the town's infrastructure could not keep pace. This resulted in the local council placing a moratorium on development to allow time to improve infrastructure and manage the growth. Today, Byron Bay is said to host nearly 2 million tourists per year.⁵²

3.2.7 Development of the Town

The town of Byron Bay started to grow after the arrival of the first settlers 1881. The cedar getters who had come before resided in a more itinerant manner using shacks and tents for accommodation. During the mid-1880s sale of land commenced and two hotels were constructed.

However, it is of interest to note that the town is said to have become established after the introduction of the railway line in 1894⁵³. The 1912 parish map, refer to Figure 25, shows that the Mechanics Institute was established in 1895 and the following year the Post and Telegraph Office was opened.

⁵¹ Brief History Of Byron Town, Council & Bypass: <http://www.byron-bay.com/blog/49/brief-history-of-byron-town-council-bypass/> accessed 3rd July 2017

⁵² Ibid

⁵³ Stubbs, p69

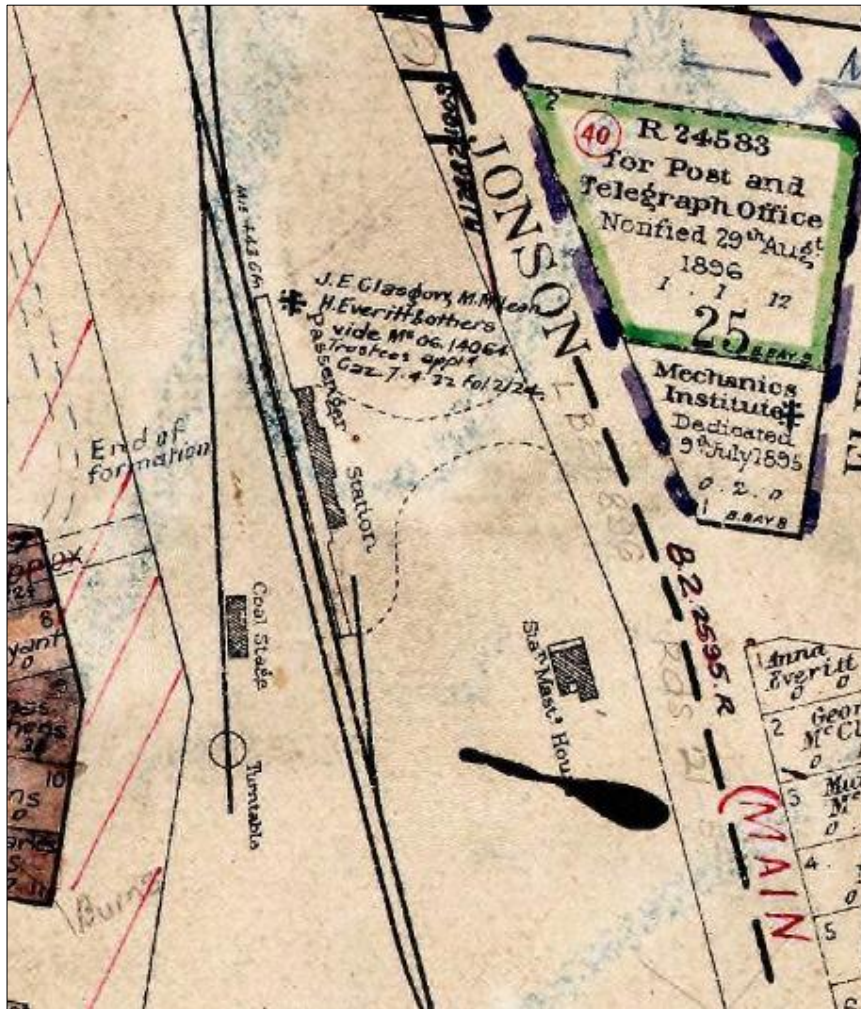


Figure 25: The 1912 Parish Map of Byron Bay showing the Train Station

In 1906, a town council was elected and the following year the surf lifesaving club was opened.

The population, of 1,500, in 1917 was employed in the various industries operating from the town including fishing, farming, butter factory, saw mill, sand mining, meat processing and even a local piggery.⁵⁴

⁵⁴ Brief History of Byron Town, Council & Bypass: <http://www.byron-bay.com/blog/49/brief-history-of-byron-town-council-bypass/>

3.3 Development of Byron Bay Railway Station

3.3.1 Tweed Railway

In the 1880's, plans were put forward for a railway connecting the North Coast to the Great Northern Railway. This was required to ensure that goods and people could be easily transported between the North Coast region and Sydney. Initially, an inland route was considered running from Sydney to Newcastle and up to the north of the state. However, due to the topography of the region and the need to bridge several rivers, most of which, at that time were teeming with vessels carrying supplies up the rivers to the inland towns, this would have been an incredibly expensive undertaking. Despite the concerns regarding the costs, the NSW government were aware that they needed to ensure the region was connected to reliable transport, not only to promote regional growth but also to secure the goods and supplies from the area to the Sydney market. There were legitimate concerns, that, if the transport network was not improved the region would find trade with Queensland of greater benefit to them.⁵⁵

The 1884 plan included two railway lines one from Inverell to Grafton and the other from Grafton to Tweed. These rail routes, if constructed, would have not only linked the region directly to Sydney but also provided the rail link to the port towns on the east coast, particularly the already established jetty at Byron.

Despite the expense, the Grafton to Tweed line remained favourable and was to be included as part of the Stuart Dibbs Ministry proposed railway construction program. However, this was overturned after a change of government⁵⁶. Further delays occurred to major infrastructure projects due to the onset of the 1890s economic depression.

The railway line was next considered by the NSW Parliament Public Standing Committee, which had been formed to impartially examine and determine the location of railway lines and infrastructure. Prior to the establishment of the committee, the location of railways and their workshops had been determined by the Minister, as a result of which, the system was perceived to be flawed as politicians would lobby for their localities to be considered for the location of infrastructure. Workshops were especially favourable, for political reasons, as they could guarantee employment within a region. These decisions were also often overturned after a change of government causing delays in the establishment of essential infrastructure.

The 1890 Public Standing Committee determined that the Grafton to Tweed line should be constructed, noting that the line would eventually form a trunk line to Queensland. The Committee also found that

“railway facilities are a necessary cultivation, and settlement will be retarded without their provision. The work will be a great advantage to the colony”⁵⁷

The committee also specifically identified Byron Bay as a station stop; however, this appears to have been for geographical and financial reasons rather than identifying Byron Bay as an essential

⁵⁵ Dunn p.17

⁵⁶ Ibid.,

⁵⁷ Quoted in Dunn p21

economic component of the region.⁵⁸

Many businesses in the region were in favour of the proposed rail not only for distribution of their products but also the bringing in of supplies such as the 500-700 tons per annum required at the Colonial Sugar Refining Co. at Condong⁵⁹.

The committee also heard from various engineers and timber specialists regarding the various obstacles in the region. The committee revised their original decision and determined that the Lismore to Tweed route should be constructed making the line an unconnected branch line.

The contract for the 62½ miles of track was initially separated into four separate contracts with contract Number 3, covering the 23½ miles from Nashua through Byron Bay to Mullumbimby, awarded to Mr Martin Danaher, which along with contract Number 2 was the first section of line to be opened on 15th May 1894. The whole line was opened on Christmas Eve 1894⁶⁰.

An additional 5 contracts were awarded for railway stations, workshops and other infrastructure. William Mitchell won the contract for building the stations at Binna Burra, Granuaille (Bangalow) Cavvanba (Byron Bay), Tiagra Grass and Mullumbimby. Charles Hoskins was the successful tenderer for the provision of circular water tanks at Lismore, Byron Bay and Murwillumbah.

Further changes to the route of the Tweed Railway line were undertaken in 1903. The Lismore to Casino section of the line was opened and two years later the line was extended to Grafton.

Consideration was also given to a branch line north to Kyogle. Kyogle was an established agricultural town with prospering cattle and milk industries. Again, the Public Works Committee saw the benefit in supporting the area through the provision of a railway link and approved the connection between Casino and Kyogle with the branch line opening in 1910.

In 1932, a railway bridge was constructed over the Clarence River which provided the region with a direct railway connection to Sydney.

The Tweed Railway continued to operate until 2004, when it was determined to no longer be required and was deemed to be disused by the Government.

3.3.2 Construction of Byron Bay Station

As noted above, the works at Byron Bay were undertaken in three stages:

- Track work
- Station building
- Water tank

The track work was laid by Mr Martin Danaher. Originally from Limerick, Ireland, Danaher was a well-respected railway contractor who had previously been responsible for the construction of several notable lines in New Zealand.

⁵⁸ Dunn p.22

⁵⁹ Ibid., p24

⁶⁰ Ibid., p25

Prior to becoming a railway contractor, Danaher is noted as having built the entire of the Auckland Sewerage system, constructed the Auckland City Markets, the Queens Wharf and carried out the reclamation of Freeman's Bay⁶¹. Danaher was known as a competent contractor often taking on projects that had financially ruined his predecessor and finishing works within record times. It is perhaps for these reasons that Danaher was selected to construct the 23½ miles from Nashua through Byron Bay to Mullumbimby. Budgetary overspends, during the construction of track, were anticipated due to the lack of a substantial survey being undertaken prior to the selection of the track route and the nature of the areas typography. This resulted in inevitable deviations to avoid steep slopes and other natural landforms. The budget for the works was £149,418, the eventual bill came to £170,000⁶². Having started construction in October 1891, Danaher was one of the first contractors to complete his section and ran a train along his route in a special ceremony, held on 14 January 1894, to mark the opening of St Kevin's Creek to Byron Creek (Bangalow) section, four months before the scheduled official opening, scheduled for 15 May 1894⁶³.

Little has been discovered about William Mitchel, who constructed the Byron Bay Railway Station included the main station building, the station master's house, the warehouse, the coal siding, the pump house and the brick base of the water tank.

With the exception of the base of the water tank, the designs of the built structures on site were provided by the NSW Railways who were responsible for the design of railway stations and associated buildings. The NSW Railways used simple standard station designs, adapting them to respond to the environment in which they were to be located. Therefore, the style of station building, and brick Station Master's house, at Byron Bay bear a striking resemblance to that of Lismore and other locations around NSW (refer to section 5.2.2) ⁶⁴

The Byron Bay Railway Station structures were designed to be a series of single storey timber buildings. The station building was one room wide and comprised: a ticket and parcel office; ladies waiting room; general waiting room; and toilet facilities. The station building was the more ornate of the timber buildings. It was designed to be asymmetrical in form with a corrugated iron clad gable roof and single painted brick chimney. Decorative features of the original roof form include triangular air vents, and timber barge boards. The building had a matching pavilion to north with ventilation lantern and is connected to the main structure by a small weatherboard section set beneath a hipped roof. The eastern, road side, elevation was designed to be set beneath a corrugated iron hipped roof verandah, supported by timber posts. While the western elevation includes a large projecting awning, supported by decorative wall mounted steel brackets covering the platform.

It is believed, although not known for certain, that the Charles Hoskins, who won the contact to construct the three water tanks Lismore, Byron Bay and Murwillumbah, was Mr Charles Henry Hoskins who, in 1908, became one of the founding partners of the Illawarra based Hoskins Iron and Steel Company. In the years prior to this, Hoskins at 25 years of age, relocated to Sydney from Ballarat where he, along with his two brothers founded an engineering business. The brothers specialised in engines, boilers and steel pipes, they received the contact to install Sydney's first six feet water main, they later undertook similar work in other states and eventually laid 350 miles of

⁶¹ "OBITUARY." *The Catholic Press (Sydney, NSW: 1895 - 1942)* 15 November 1906: 13. Web. 1 Jul 2017 <<http://nla.gov.au/nla.news-article106291201>>.

⁶² Dunn, p35

⁶³ Ibid., p30

⁶⁴ GML Heritage Pty Ltd, *Typology Study of Railway Buildings – Comparative Analysis*, p.13-14

steel pipe from Perth to Coolgardie which gave them the funds required to purchase the struggling Lithgow Iron works in 1908⁶⁵.

The Byron Bay tank base is noted as being more decorative than its counter-parts in Lismore and Murwillumbah. The design of the base is unique to Bryon Bay Station. It was constructed by William Mitchell who, rather than building a plain circular base, as the builders in the other locations had instead, built a decorative brick stand which include detailing to creating segmented 'panels' onto which the metal water tank was mounted.



Figure 26: Undated Image of Byron Bay Railway Station. Note the roof vent details. ARHSnsw



Figure 27: Undated image of Byron Bay Station. Note that the tracks are level with the platform and not in a cutting as currently shown on site. ARHSnsw

⁶⁵ "MR. CHARLES HOSKINS DEAD." *Lithgow Mercury* (NSW: 1898 - 1954) 15 February 1926: 2. Web. 1 Jul 2017 <<http://nla.gov.au/nla.news-article224590903>>

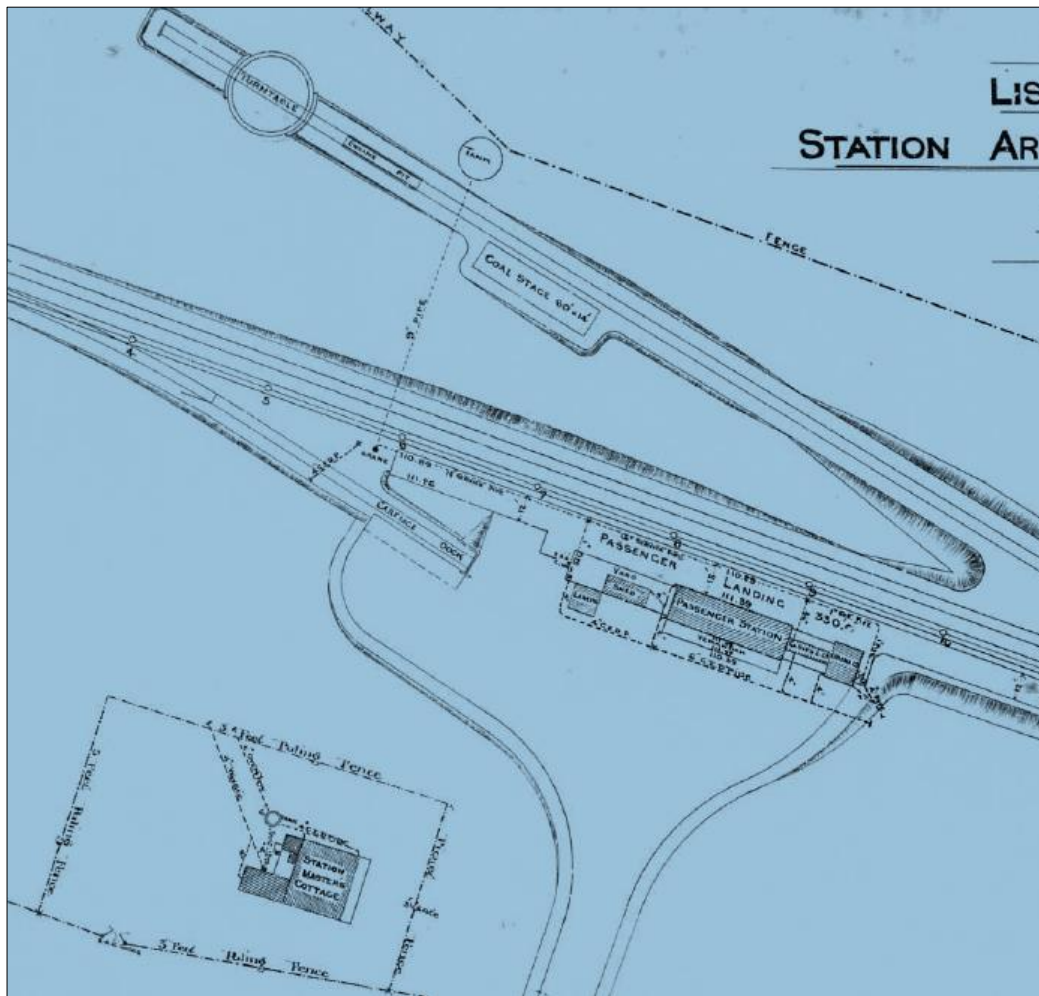


Figure 28: Extract from the 1892 Station arrangement plans showing the location of the station master's house, coal stage, water tank and storage sheds. ARHSnsw

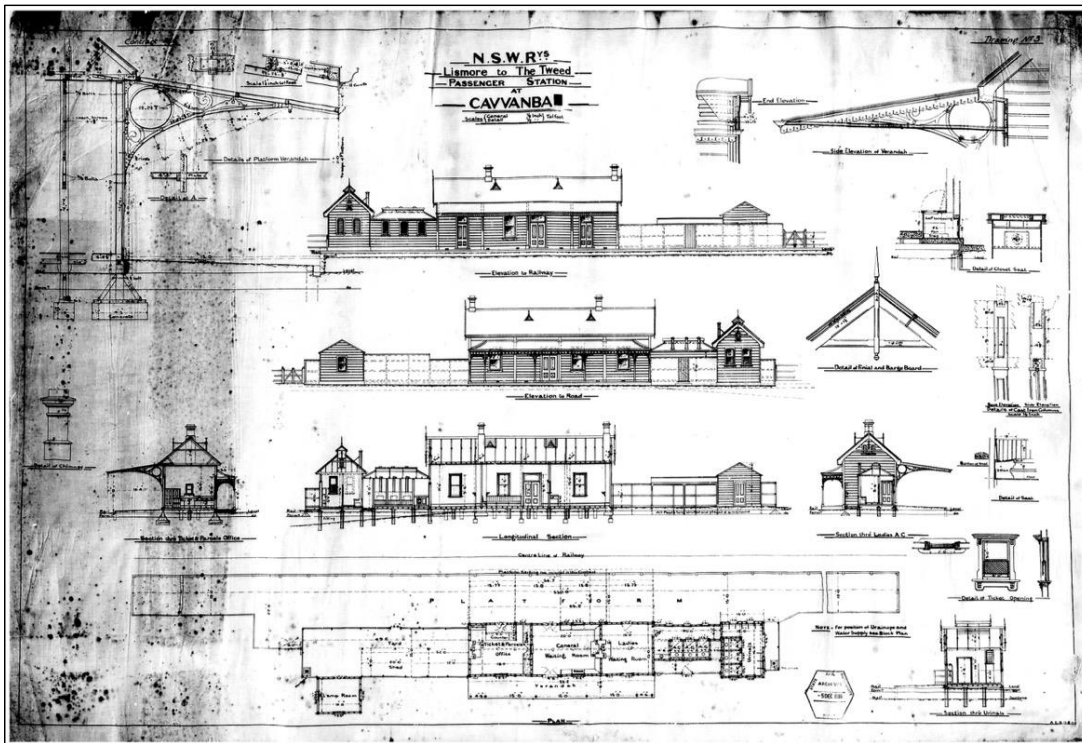


Figure 29: Original plans of Cavvanba (Byron Bay) Railway Station.
ARHSnsw

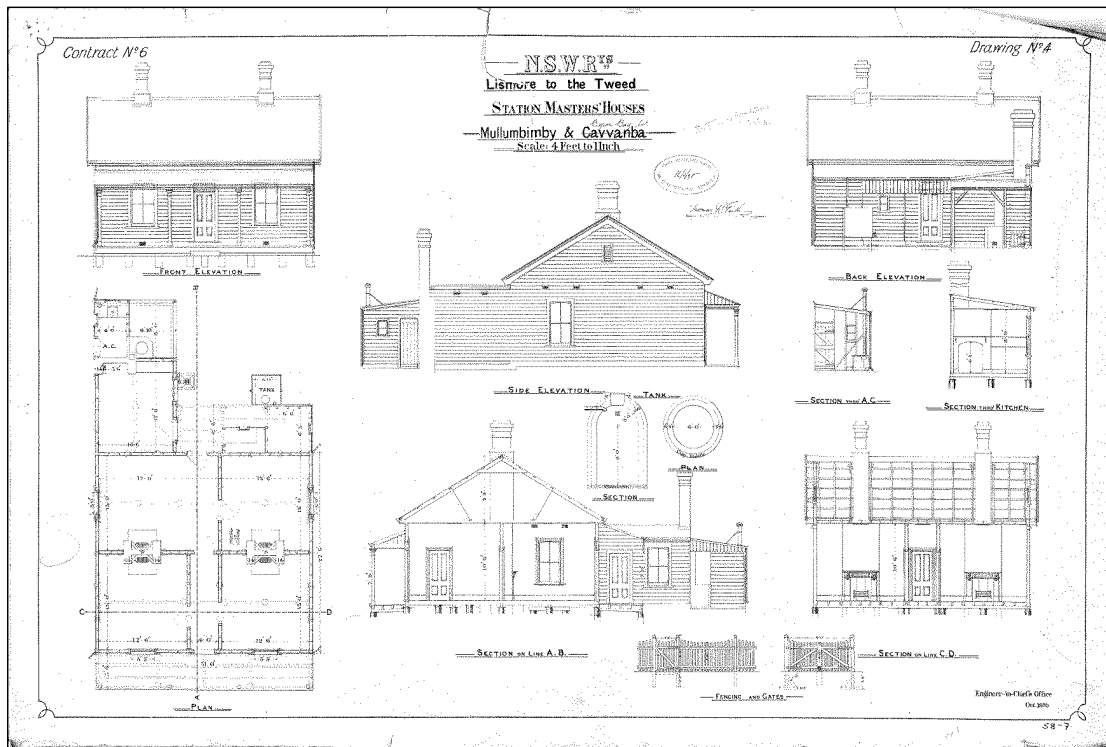


Figure 30: Plans of Station Master's House at Mullumbimby and Cavvanba (Byron Bay).
ARHSnsw

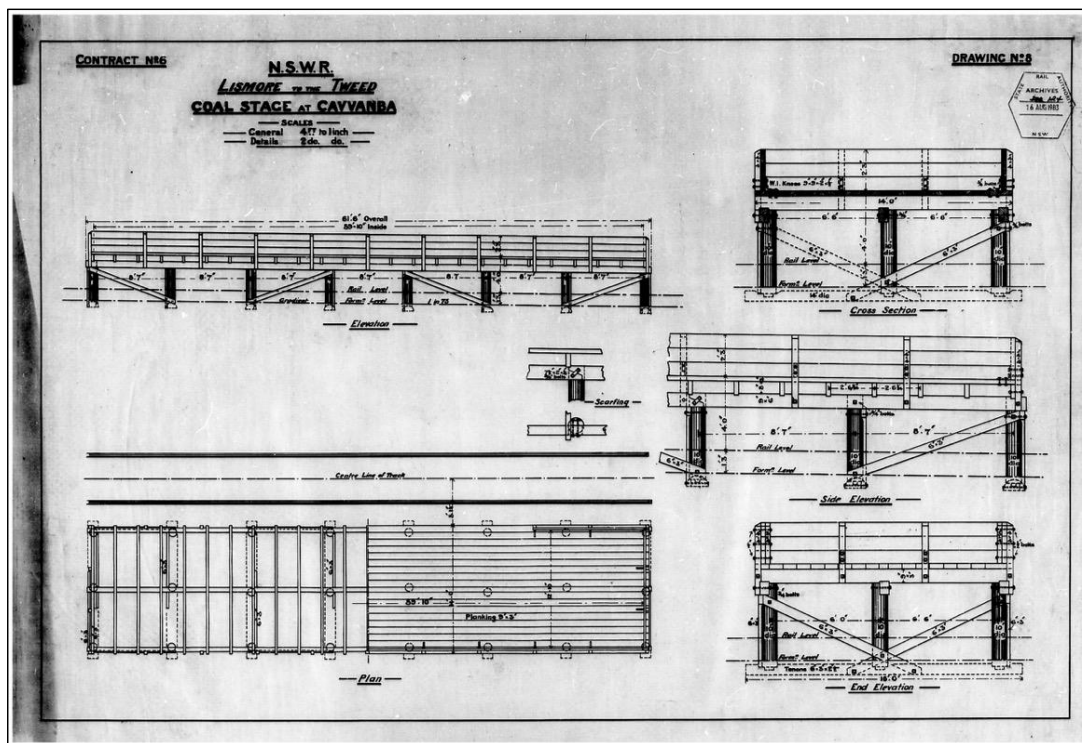


Figure 31: Plans of the Coal Stage.
ARHSnsw

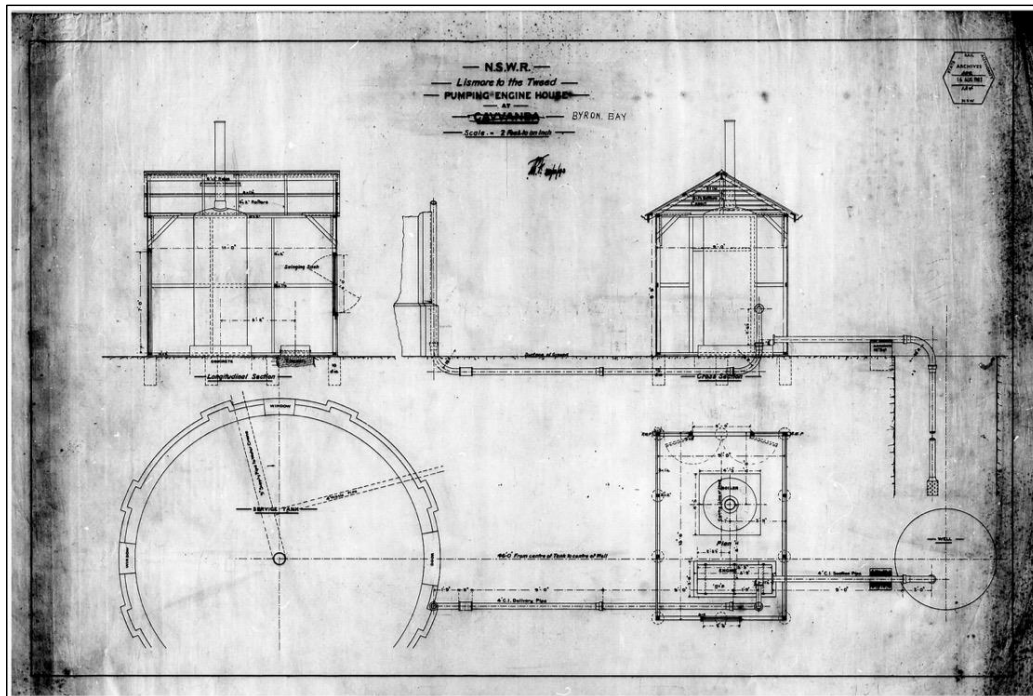


Figure 32: Plans of the pumping engine house, containing the boiler and engine. This was connected to the water tank located to the west of the tracks. No evidence remains of the pumping shed and its location is not apparent on the Track and Signal diagrams show in Figure 40 - Figure 42 below ARHS_{nsw}

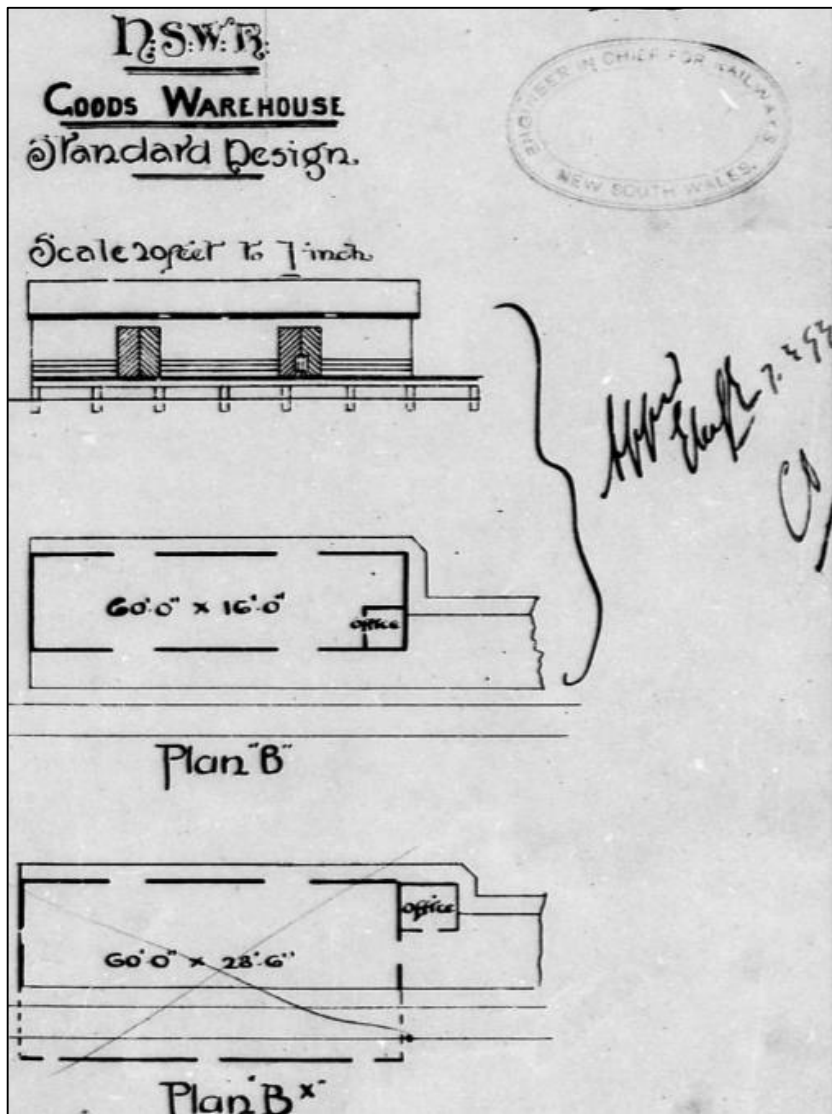


Figure 33: Plan and elevation of the Goods Warehouse.
ARHSnsw

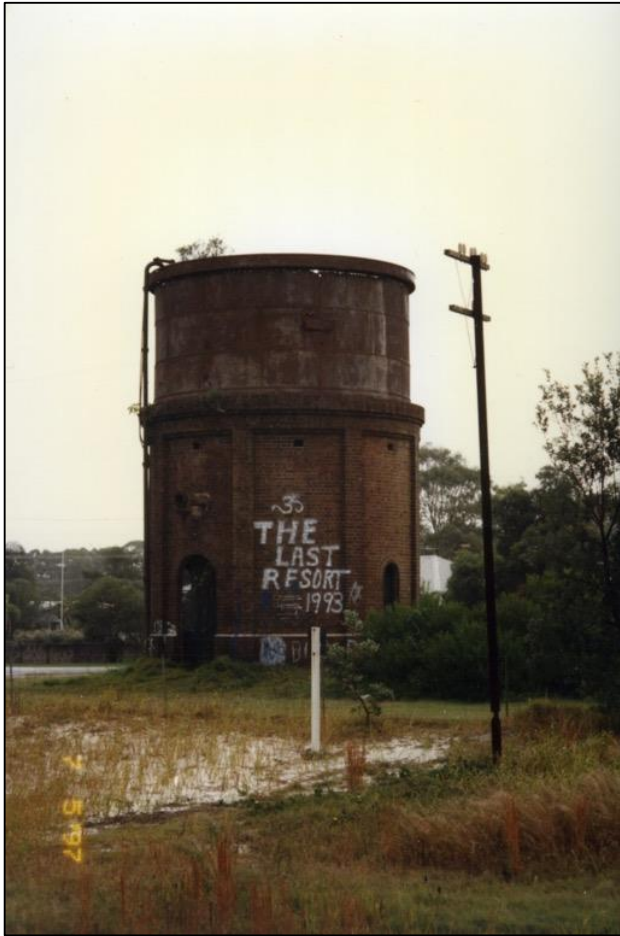


Figure 34 Water Tank with decorative base constructed by William Mitchell. Dunn

3.3.3 Changes to the exterior of Byron Bay Railway Station.

In early 1900s, several plans (as shown in Figure 35-Figure 42) were drawn up to extend the station building to the south to accommodate a refreshment room. The proposed plans varied in length from a simple addition of a small refreshment room and kitchen annex, to a substantial addition which would have more than doubled the length of the building. Although, it is not known precisely which development was followed, a photograph of the Station taken during the Victory day celebrations, refer to Figure 39, depicts a long single storey addition consistent with the plans shown in Figure 37 and Figure 38.

The Railway Commission also prepared a number of technical diagrams showing the signals and interlocking arrangements of the station. These diagrams show the railway station in relation to the neighbouring industries that utilised sidings from the railway to their premises.

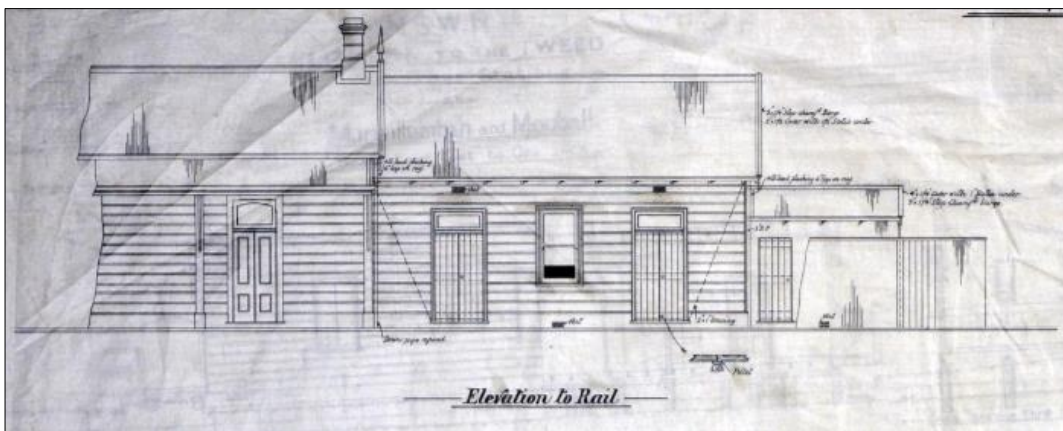


Figure 35: 1906 Elevation of the proposed refreshment rooms. This did not eventuate.

ARHSnsw

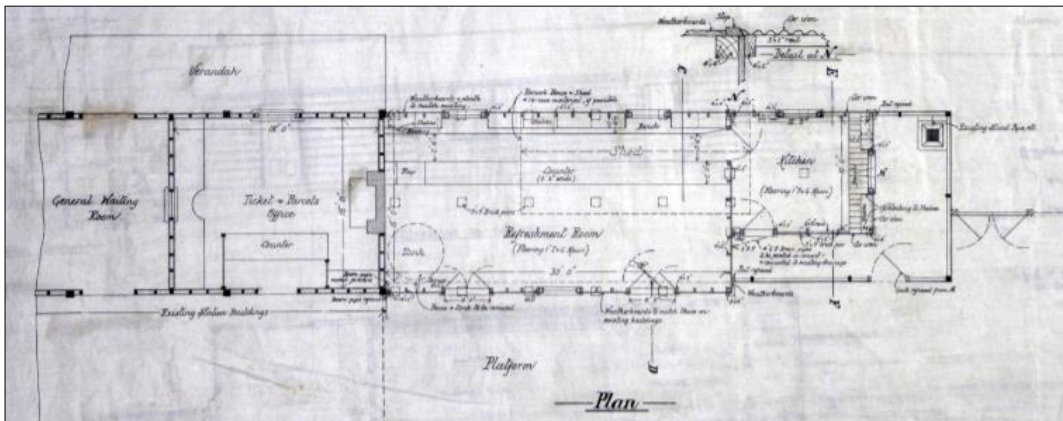


Figure 36: This 1906 floor plan shows the simple addition proposed to the south of the existing.

ARHSnsw

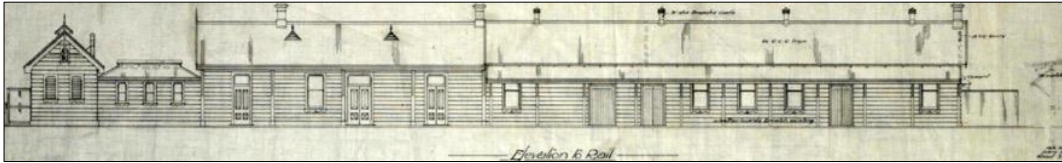


Figure 37: The 1914 refreshment room extension doubled the size of the station.

ARHSnsw

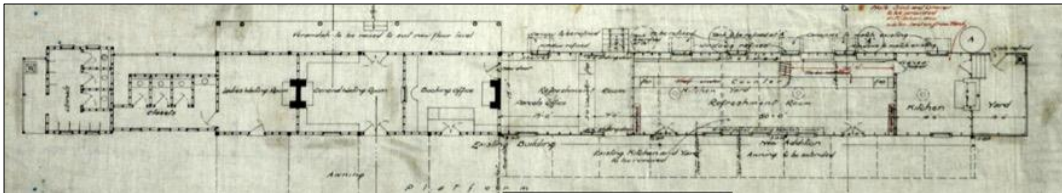


Figure 38: Floor plans of the above.

ARHSnsw



Figure 39: Victory Day March 1918 showing the station building, extended refreshment room and water tower. The war memorial remains has been relocated to the front yard of the Former Station Master's House. The gate posts, gate and fence to the eastern boundary have been removed.

Photo courtesy of EJ Wright Collection, Byron Bay Library

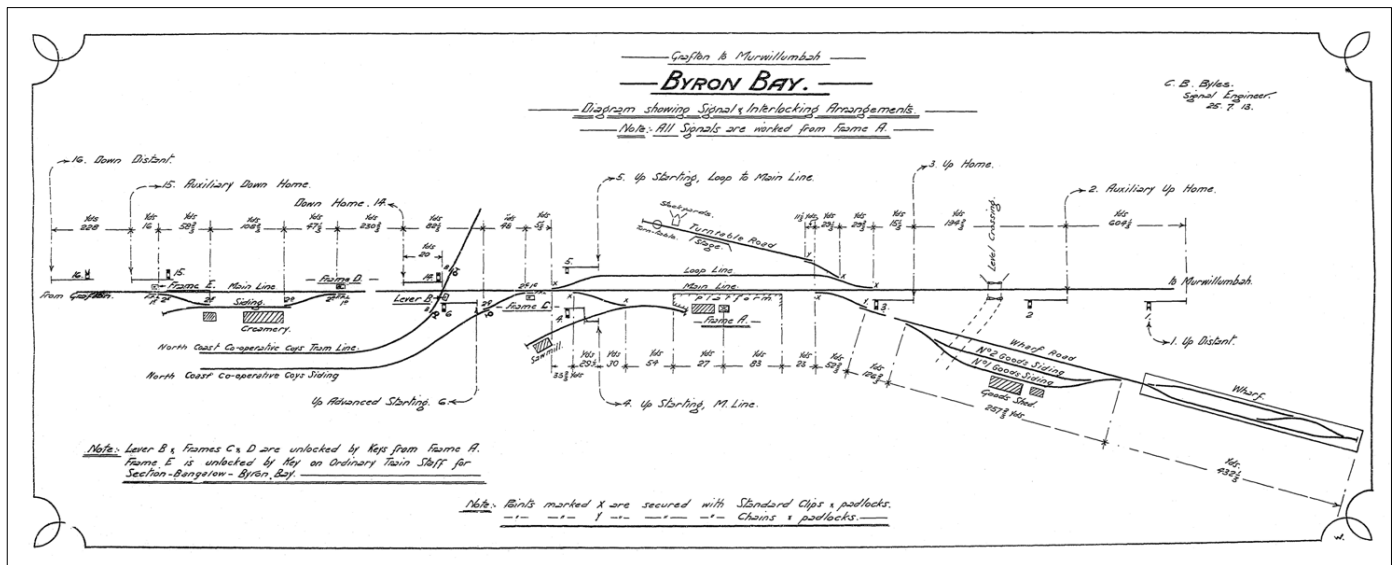


Figure 40: The 1913 Track and Signal diagram illustrates the location of the creamy, saw mill, goods shed and wharf.
ARHSnsw

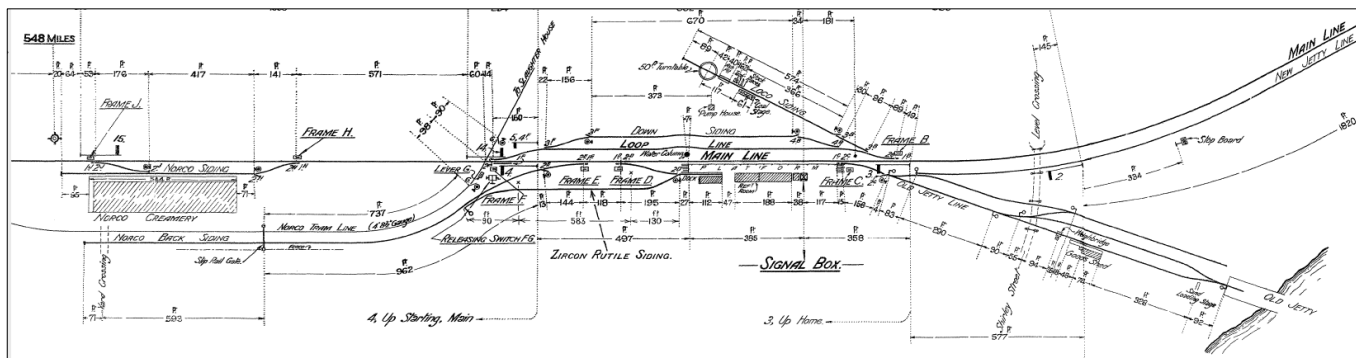


Figure 41: The 1934 Track and Signal diagram identified the refreshment room addition. The creamery and goods shed are shown as extent in 1934 retaining the same location as shown in the 1913 diagram (Figure 27). However, the line terminates before the old jetty line and the saw mill line has been removed. A branch line parallel to the main line then extends to the new jetty (Shown in Figure 28).

ARHSnsw

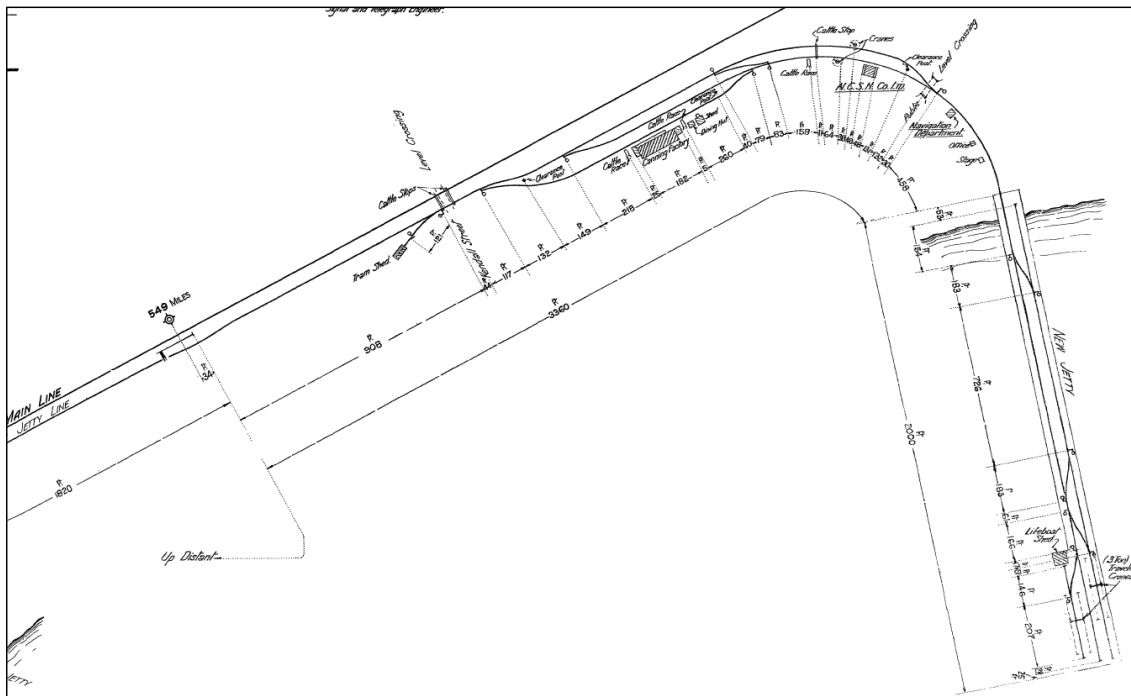


Figure 42: The northern portion of the 1934 Track and Signal diagram showing the jetty line leading off which can be seen the canning factory, navigational department and cattle races.
 ARHSnsw

3.3.4 Changes to the Interior of Byron Bay Railway Station

The interior layout of the station building was altered, in 1994, by the then owners of the site, Countrylink. The building was still in use and changes included improvements to the bathroom area; increase the internal waiting space. The changes reflect the changing nature of travel resulting in luggage no longer being required to be carried separately.

The plans shown in Figure 43-Figure 45 show the building in its original form and modified form, including approved changes to the interior, as follows:

- The removal of the wall between the waiting room and luggage area.
- The widening of the former female toilet space to create modern bathrooms and an accessible toilet.
- The removal of the interior of the former male toilets to create a store.
- The removal of the former store room.

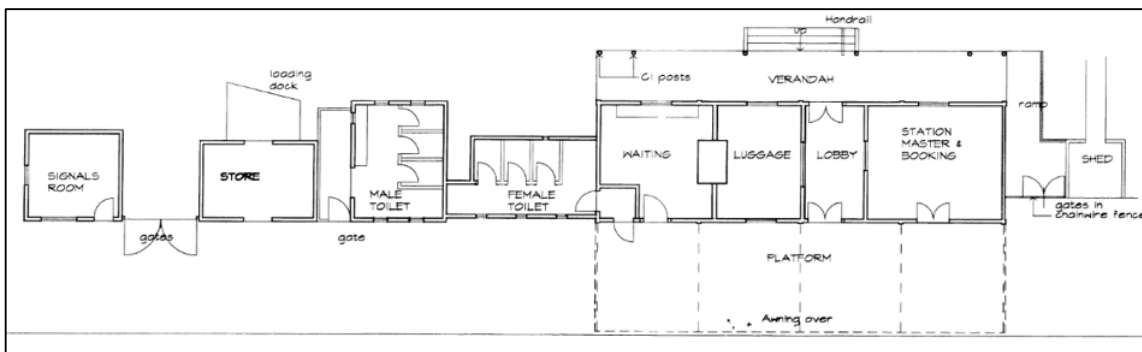


Figure 43: Interior of the Railway Station, prior to 1994. It appears that there had been little change prior to this time. Note that the building is no longer connected to the refreshment room.

Countrylink

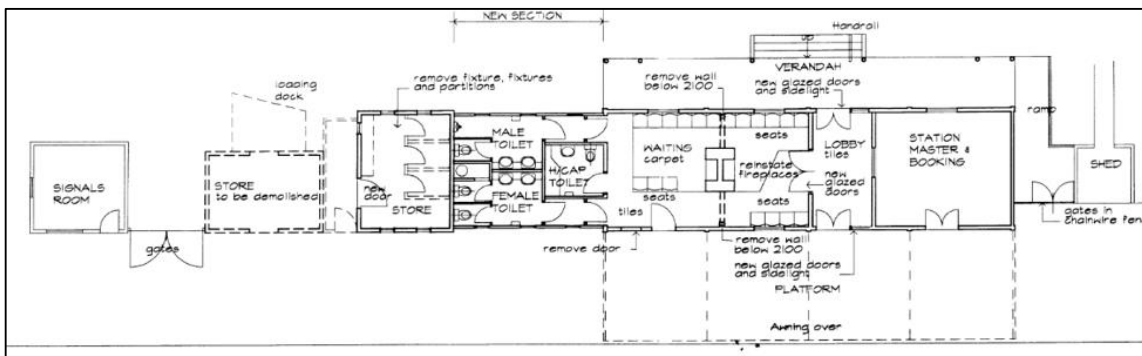


Figure 44: The Station building floorplan. Showing changes approved 1994, including the removal of the wall to the waiting room and reconfiguration of the bathroom area.

Countrylink

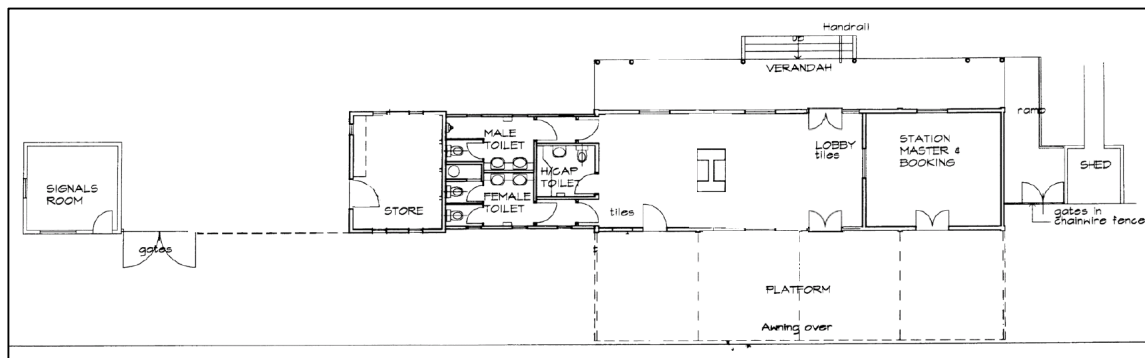


Figure 45: The current Station building floorplan, 2017
Byron Shire Council

3.3.5 Changes to the Station Master's House

The exterior of the Stations Master's House has undergone little change since its original construction. The only notable additions to the exterior are the corrugated iron lean-to set under a skillion roof to the rear of the property and the replacement of the original galvanised iron roof with a red zincalume roof.

Documentation regarding changes to the interior of the building has not been discovered during research undertaken as part of this study; however, an internal inspection revealed that the majority of the internal walls have been removed. Nibs and bulkheads remain to demonstrate the former location of the walls, **Error! Reference source not found.** provides an approximation of the current floor plan, refer to Section 4.3.2 below.

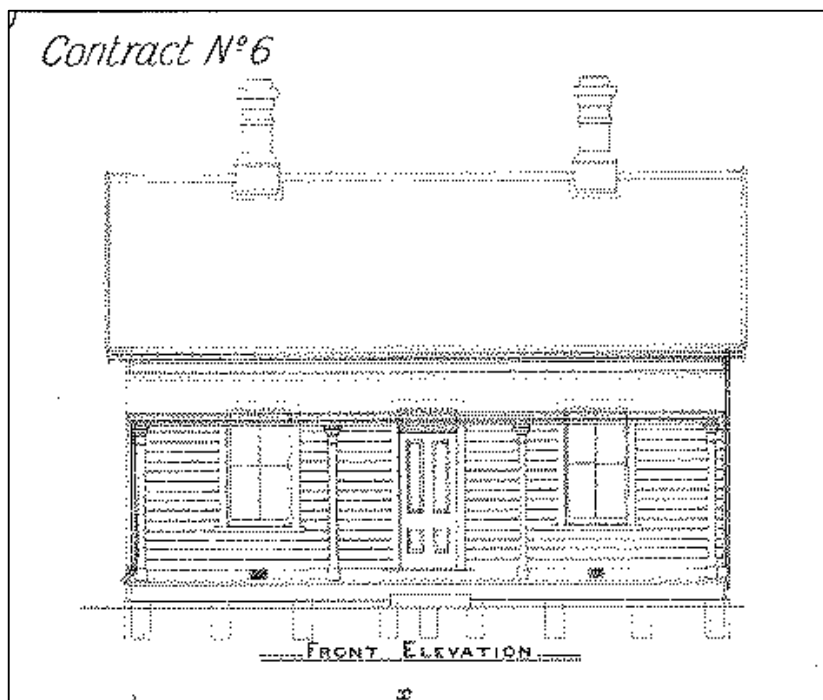


Figure 46: The original design of the front façade.
ARHSnsw



Figure 47: 1918 Victory Day March showing the Station Master's House
 Photo courtesy of EJ Wright Collection, Byron Bay Library



Figure 48: An undated photograph of the Station Master's House prior to its conversion to use as a Tourist Information Office.
 Photo courtesy of EJ Wright Collection, Byron Bay Library

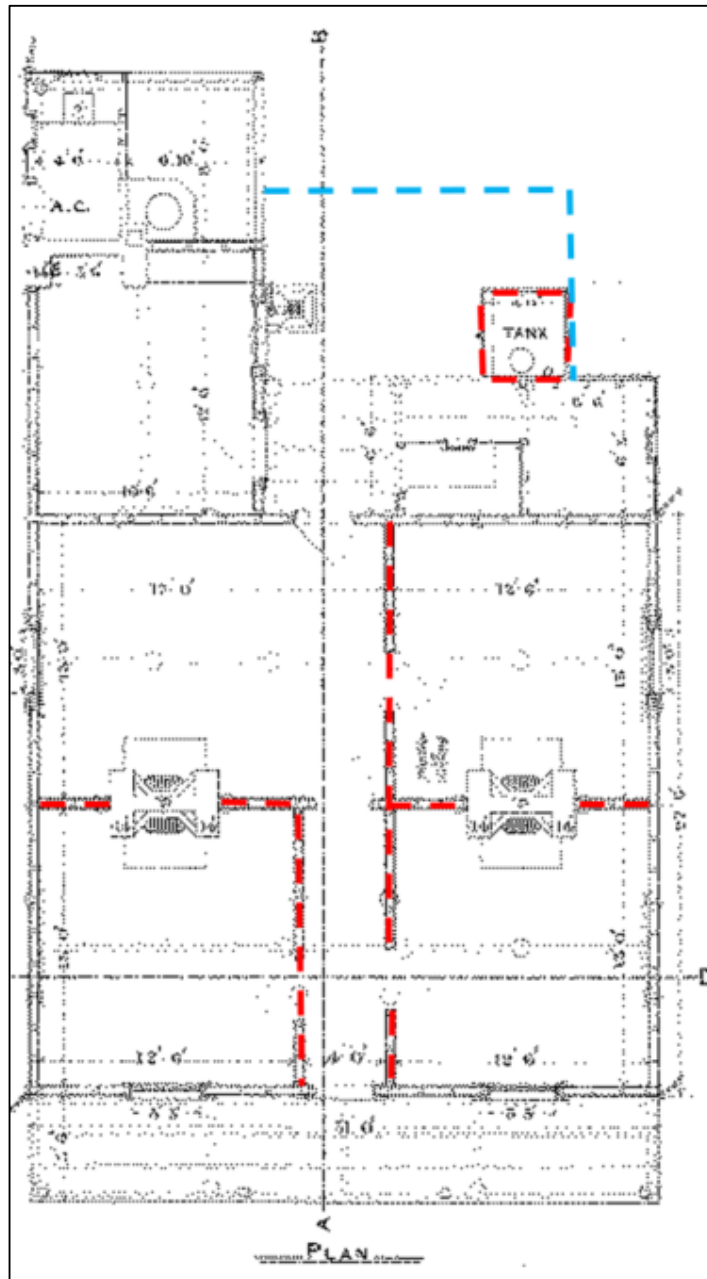


Figure 49: The red lines indicate the walls which have been removed and the blue lines denote the location of the rear lean-to skillion
 AHMS modified by Weir Phillips not to scale

3.3.6 Changes to the Water Tower

Other than weathering it is not considered that the watertower structure has been altered since its initial construction. However, it is noted that the siding and turntable, shown in Figures 28, 40 and 41 are no longer visible and many have been removed.



Figure 50: undated image of a steam train at Byron Bay with the water tower in the background. Note the siding providing access for the steam trains to the Water Tower.

Photo courtesy of EJ Wright Collection, Byron Bay Library



Figure 51: undated image of the water tower

Photo courtesy of EJ Wright Collection, Byron Bay Library

3.3.7 Changes to the out of Shed and Signal Room

It is not known what changes have been made to the Out of Shed and Signal Room since their initial construction.

4 PHYSICAL ANALYSIS

This section provides a general description of the former Byron Bay Railway Station and Yard Group.

4.1 Byron Bay Railway Station

4.1.1 Physical Context and General Description

Byron Bay Railway Station is located in the heart of the town of Byron Bay.

The Station Group is accessed by road from Jonson Street. A municipal car park is located to the centre of the group. The first building accessed from Jonson Street is the former Station Master's House located to the southern side of the car park.

The former Station Master's house is a single storey timber building is set under a galvanised iron roof with a masonry chimney. The building has been painted with a traditional heritage colour scheme and adaptively reused as the tourist information office.



Figure 52: The former Station Master's house as viewed from the Municipal car park.
Google Maps.

To the north of the Station Master's house is a grassed park area (Railway Park), Lot 2 in DP 827049, owned by Byron Shire Council containing mature established trees and local amenity buildings. It is understood that the park is of importance to the Arakwal family group as a meeting place and is also noted as containing a memorial totem for a deceased member of the family.



Figure 53: Railway Park area to the north of the railway group.
Google Maps.

The area also includes the Railway Friendly Bar which is located to the immediate south of the Railway Station building. This facility has operated in this location for the past 30 years, created in what was the former refreshment room. Alterations to this building include a large extension to the south, including a pop up second floor addition. Also added is the verandah to the front creating a large beer garden area.



Figure 54: Railway Friendly Bar
Google Maps.

4.1.2 The Neighbouring Context

For ease of reference, Figure 55 has been prepared to demonstrate the location from which the photographs, contained within this chapter, were taken.



Figure 55: Map demonstrating the location from which figures 56 -65 were taken
Source: Six Viewer (annotated by Weir Phillips)

The eastern access to the former Byron Bay Railway Station and yard group is achieved via Jonson Street, which is the main thoroughfare of the town of Byron Bay. It features a wide busy road lined with commercial properties catering to both locals and visitors to the town. The buildings are generally one and two storeys in height and range from a variety of different construction eras.



Figure 56: Typical context of Jonson Street.
Weir Phillips

The southern boundary of the site is delineated by the pedestrian walkway, across the former tracks, leading to Butler Street to the west of the site. The pedestrian walkway is constructed of concrete with a wire fence. Also located on this southern boundary is a concrete structure which may have been the edge of a loading platform associated with the turntable for the Water Tower siding.



Figure 57: Pedestrian walkway to the southern boundary.
Weir Phillips



Figure 58: remnants of the concrete structure to the southern boundary and view to the pedestrian walkway.

Weir Phillips

Butler Street to the west is lined with grass verges and the development is comprised of a mix of a quiet residential area with open community space used for sporting facilities and community markets. Butler Street leads to Shirley Street in the north which defines the northern boundary of the site.

To the north of the Shirley Street boundary is a modern train way station which is planned to be used to transport visitors to and from a local holiday resort to the north west of Byron Bay. It is understood that this privately operated solar powered train service is owned by the Byron Bay Railroad Company Ltd. Also noted to the northern boundary is the former rail crossing signal lights and the railway tracks which remain visible intersecting Shirley Street.



Figure 59: View to the new railway station terminus operated by Byron Bay Railroad Company Ltd to the north of the site. Note the train tracks remain evident in the roadway.

Weir Phillips



Figure 60: The former train signal lights to the north of the site.
Weir Phillips

The north-eastern section of the site is bound by a car parking area. The southern section of this car park is included within the boundary of the SHR and property title for the Railway Station and Group. There is no above ground evidence in this area of the former railway or its associated sidings. A portion of the Railway Park area containing a wide grassed space, mature trees, children's play facilities and the Aboriginal Totem honouring Micky Kay of the Arakwal Bundjalung Community also forms part of the listing area.



Figure 61: View to car parking area from Railway Park looking north.
Weir Phillips



Figure 62: View to Lawson Street South Car Park to the north east corner of the site Weir Phillips



Figure 63: Southern corner of the car park which is included as part of the listed area Weir Phillips



Figure 64: Children's play area in Railway Park adjoining the Railway Yard Group
Weir Phillips



Figure 65: Totem honouring the life of Micky Kay of the Arakwal Bundjalung community
Weir Phillips

4.2 Byron Bay Railway Station

4.2.1 Exterior



Figure 66: Former Railway Station Building as viewed from the East.
Google Maps.

The Byron Bay Railway Station building is noted as being a single storey Federation era timber station building. It is asymmetrical in form with a corrugated iron clad gable roof, a single painted brick chimney and timber barge boards. The building retains its matching pavilion to north with ventilation lantern. This pavilion is connected to the main structure by a small weatherboard section set beneath a hipped roof. The eastern, road side, elevation is set beneath a corrugated iron hipped roof verandah, supported by Corinthian posts. The main entry is located to the centre of the verandah with a single timber window to the southern selection of the elevation and two further timber windows to the north.

The western elevation of the building is viewed from the former railway platform. It features a large projecting awning. While the western elevation includes a, supported by decorative wall mounted steel brackets covering the concrete platform.

The platform is accessed via two sets of timber doors leading from the building.



Figure 67: Former Railway Station Building as viewed from the north of the former platform.
Weir Phillips



Figure 68: Former Railway Station Building detail of iron verandah supports and timber joinery details.
Weir Phillips

The former platform is large flat elevated area, retaining some of the railway benches, although it is noted that these are now deteriorating. The platform is bound by the railway buildings to the east and its edge to the tracks to the west. It is noted that the edge of the platform has been painted with a yellow line to warn that the edge of the platform, painted white, drops to the tracks below.

The former railway line has not been used in over 10 years further information regarding the remaining track can be seen in section 4.8. The perimeter of the site has been augmented with the addition of a fence which cuts across the former locomotive siding.



Figure 69: Photograph showing the platform and the former railway track and track bed. Also visible is the perimeter fence addition.

Weir Phillips

Other buildings with access to the platform include the rear of the Railway Friendly Bar and a series of small timber storage sheds accessed via modern roller doors. The southernmost shed has an overhanging roof supported by timber posts.



Figure 70: Storage shed and rear of Railway friendly Bar
Weir Phillips



Figure 71: Southernmost storage shed.
Weir Phillips

4.2.2 Interior

The interior of the Byron Bay Railway Station has been adaptively re-used and until recently has been used as a ticket office and information centre for the local coach services. The interior retains the former ticket office interior and consists of three distinct areas:

- The Ticket Office.
- The Waiting Room.
- Customer Toilets.

The main interior space, being the ticket office and waiting room, is comprised of a series of rooms which feature the original timber lined walls and ceilings. The original timber framed windows and doors are extent to the main elevations.

Major changes to the interior space include the addition of the modern ticket office window, the removal of the walls dividing the waiting room into general and female spaces. However, despite this change the fireplace with timber surround to the centre of the building has been retained. Other changes to the interior include:

- No items of moveable heritage were noted.
- The addition of tiles to the floor of the waiting room.
- Reconfiguration and modern fit out to the bathroom interiors.



Figure 72 to Figure 76 below illustrate the interior of the station building.



Figure 72: Waiting room interior with central fireplace. Note the timber lined walls and later floor tiles.

Weir Phillips



Figure 73: Original timber Sliding sash window.

Weir Phillips



Figure 74: Timber door and joinery detail.
Weir Phillips



Figure 75: Ticket office window. Not original.
Weir Phillips



Figure 76: Modern Internal finishes noted throughout the bathrooms.
Weir Phillips

4.3 The Station Master's House

4.3.1 Exterior

The former Station Master's house is a single storey timber cottage. The building is symmetrical in form with a red gable roof, a pair of painted brick chimneys and simple timber barge boards. The building also features a full width verandah set under its own roof and supported by four simple timber columns. The central entry door to the building is flanked by a pair of timber sliding sash windows.

Both the east and west elevations feature sash windows with timber and zinc alum window hoods, which provide protection from the sun. As mentioned in Section 3.3.5 above, the rear of the property has been altered with a metal addition set under a skillion roof. The original rear chimney and lean-tos appear to be intact.



Figure 77: Northern elevation.
Weir Phillips



Figure 78: Western elevation of the former Station Master's House.
Weir Phillips



Figure 79: Eastern Elevation showing the simple timber barge detail.
Weir Phillips



Figure 80: Rear/southern elevation with non-original lean-to extension.
Weir Phillips

4.3.2 Interior

The interior of the building has been adaptively re-used as the Tourist Information Office. It is believed that it has operated in this function since c.2002. As shown in **Error! Reference source not found.**, the building has been substantially altered with the removal of most of its internal walls to create a single shop area. The rooms to the rear of the building comprise of office and storage space.

However, as with the station building, the fireplaces have been retained and the location of the former walls is represented by nibs and bulkheads. A simple decorative timber valance suspends from the bulkheads, this is believed to be a non-original decorative item. Other changes to the interior include carpet and timber detailing to the floor, staff toilet to the rear and addition of modern strip lighting.

No items of moveable heritage were noted on site.



Figure 81: Interior of the Station Master's House. The internal walls have been removed and the remaining bulkheads embellished with suspended decorative timber valances.
Weir Phillips



Figure 82: Detail of the valance and ceiling.
Weir Phillips



Figure 83: Image showing the modified space note the detail to the floor and the remnant fireplace.
Weir Phillips



Figure 84: Fireplace with white tiles, not considered to be original, grate and painted timber surround.
Weir Phillips



Figure 85: Office area to the rear of the building.
Weir Phillips



Figure 86: original rear of the building with storage shed.
Weir Phillips



Figure 87: Modern bathroom facilities.
Weir Phillips



Figure 88 Rear addition.
Weir Phillips

4.4 Former Refreshment Room - Railway Friendly Bar

4.4.1 Exterior

The former refreshment room now known as the Railway Friendly Bar differs in appearance to the building seen in Figure 39. It is not known whether this building replaced that structure or whether this is a modification of the original building. The current structure is not attached to the station building and it also appears that the roof pitch is shallower than the building shown in the earlier image.

The current single storey structure is a wide profile weatherboard building set under a metal roof. The windows to the west elevation have timber framed metal clad window hoods. Both the doors and windows feature timber joinery.

The current building has been altered with the addition of a second storey and hi-line aluminum framed windows to the southern elevation. The eastern elevation has been modified with the removal of the earlier windows, addition of a large verandah area and external kitchen. The forecourt to the east is used as a beer garden.



Figure 89 Western elevation of the Railway Friendly Bar and platform edge.
Weir Phillips



Figure 90 The railway friendly bar as viewed from the platform area.
Weir Phillips



Figure 91 the beer garden with the building to the rear.
Weir Phillips



Figure 92: Large verandah addition to the eastern elevation.
Weir Phillips



Figure 93: area beneath the large verandah addition looking to the outside bar and kitchen beyond.
Weir Phillips

4.4.2 Interior

The interior of the building is comprised of a series of rooms used as a public house. The main room contains a long bar with perimeter seating. A secondary room with a dome ceiling which again is used as a seating area. The interior is consistent with a public house and no significant evidence of its use as a refreshment room was noted during the site inspection.

The kitchens and ancillary rooms were not inspected during the site visit.



Figure 94 The bar area.
Weir Phillips



Figure 95 Southern section of the bar area.
Weir Phillips

4.5 Water tower

The water tower is a circular brick structure approximately 6.5 m high supporting a riveted steel plate reservoir. Both the brick tower and reservoir are approximately 6 m in diameter. A recent engineering report prepared by GHD for the purposes of construction management of the adjoining by-pass on Butler Street estimated that the reservoir was '*at least 3.6 m high on top of the tower.*' The brick work is noted as being laid in the English bond with alternating courses of headers and stretchers. Other decorative detailing includes the creation of six sections defined by piers running from the brick base to the string courses beneath the tank.

The water tower was used to fill the water tanks of steam trains which would have approached the water tower via a purpose built siding and turntable. The water tower is not believed to have fulfilled an operational role since phasing out of steam engines in the mid-20th Century. Furthermore, the siding and turntable are no longer visible and may have been removed.

No major additions have been introduced to this build since its original construction.

The interior of the building was not inspected as part of the site work; however, images are included in the structural engineer's report undertaken at Councils request GHD for the purposes of construction management of the adjoining by-pass road project on Butler Street. The report shows that the interior is largely open, the brick work unpainted and that a pipe extends from the bottom of the tank.



Figure 96 The water Tower as viewed from the west.
Weir Phillips

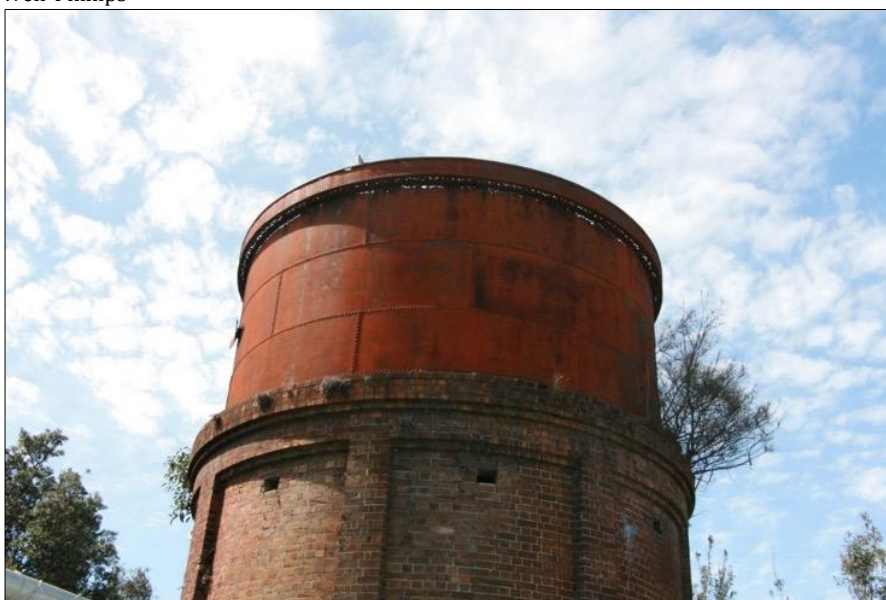


Figure 97 The tank is deteriorating. The corrosion has formed holes beneath the upper rim.
Weir Phillips



Figure 98: Deterioration to the building is also noted to the brick tower, note the missing sill to the arched opening.

Weir Phillips



Figure 99 and Figure 100: Interior of the Water Tower.

GHD Pty Ltd

4.6 Signal box

The signal box is a skillion roof single room detached building features a timber door and window which has been secured with wire mesh.

The interior of the signal box was not inspected during the site visit



Figure 101: Western elevation of Signal box and platform edge
Weir Phillips



Figure 102: Rear of the Signal Box
Weir Phillips

4.7 Out of shed

The out of shed is a single storey, one room storage, building constructed of timber and set under a metal skillion roof. The roof extends beyond the line of the building to create a deep verandah over the platform. The western façade is comprised of a large metal roller door. It is not known when this building was constructed however it is noted that it does not appear to be visible in **Error!**

Reference source not found. which was taken in 1918. The interior of the out of shed was not inspected during the site visit.



Figure 103 The western elevation of the Out of Shed
Weir Phillips



Figure 104: Eastern elevation of the Out of Shed.
Weir Phillips

4.8 Remnant rail infrastructure

Besides the buildings and platform edge a number of items relating to the former railway use have remained on site including: tracks, signal lights, signal posts, switches, switch levers as well as the platform edge. Images of these items have been included below, refer to Figure 105 and Figure 113.



Figure 105: Both sets of tracks are evident to the southern end of the site.
Weir Phillips



Figure 106: The western tracks have been relocated by Byron Bay Railroad Company Ltd to the north of Lawson Street. The eastern tracks remain in situ.
Weir Phillips



Figure 107: The former train signal lights to the north of the site on Lawson Street rail road crossing.
Weir Phillips



Figure 108: Railway Signal Post. Note that both sets of track are evident to the north of the site.
Weir Phillips



Figure 109: One of two surviving railway stitch levers.
Weir Phillips



Figure 110: remaining components of railway switch.
Weir Phillips



Figure 111: Eastern railway switch lever.
Weir Phillips



Figure 112: Remnant track in appropriate location of unction leading to the water tower siding.
Weir Phillips



Figure 113: Detail of platform edge showing brick wall set beneath concrete slabs and topped with metal trim.
Weir Phillips



Figure 114: The platform face includes details such as the survey marks believed to date from the construction of the platform.
Plummer and Smith

5 HERITAGE SIGNIFICANCE

5.1 Heritage significance of the former Byron Bay Railway Station and yard group

5.1.1 Significance criteria assessment

It is noted that the former Byron Bay Railway Station and yard group has been identified as a State and locally listed heritage item, refer to section 5.2 of this report. This assessment provides an updated assessment of the group measured against the criterion of the New South Wales Heritage Office, now Division. The Guidelines for Inclusion/Exclusion are as provided by *Assessing Heritage Significance, NSW Heritage Manual Update*.

Criterion (a)

An item is important in the course, or pattern, of New South Wales' cultural or natural history (or the cultural or natural history of the local area)

Guidelines for Inclusion	Guidelines for Exclusion
<ul style="list-style-type: none">shows evidence of a significant human activity	<ul style="list-style-type: none">has incidental or unsubstantiated connections with historically important activities or processes
<ul style="list-style-type: none">is associated with a significant activity or historical phase	<ul style="list-style-type: none">provides evidence of activities or processes that are of dubious historical importance
<ul style="list-style-type: none">maintains or shows continuity of a historical process or activity	<ul style="list-style-type: none">has been altered so that it can no longer provide evidence of a particular association

The former Byron Bay Railway Station and yard group is historically significant for the following reasons:

- Byron Bay as a town was formally established after the opening of the Railway Station. The introduction of the railway is therefore historically important to the establishment and ongoing development of Byron Bay.
- The Byron Bay Railway Station and yard group, as part of the Tweed Railway, formed an important role within the development and growth of the North Coast. During the establishment of the region, Byron Bay was one of only two locations with a jetty, which at that time was used to transport goods and people to and from the region. One of the conditions on approval of the Tweed Railway line was that Byron Bay was to have a station. The addition of the railway station not only promoted the growth of Byron Bay as a town but also created a transport hub which greatly improved the efficiency of transporting goods and people within the region.
- The location of the Byron Bay Railway Station and yard group assisted with the growth of the multiple industries within the region, including dairy, farming, canning, timber and the sugar industry within the North Coast. The location of the railway enabled milk and cream to be transported to the creamery (Local Heritage Item I079- *Former Norco Butter Factory*) to the south on Jonson Street, where it was turned into butter and then conveyed to market in Sydney. The sugar industry used the rail and jetty connection to transport unrefined sugar from the plant and coal to the plant. Local industries chose to locate their factories

near to the railway line often utilising a siding to efficiently move their goods.

- The construction of the Tweed Railway line constituted a major transport project which marked the history of the region. The project spanned several decades with surveying starting as early as the 1880s and the final bridge over the Clarence River being completed in 1930 which created a direct link to Sydney.

Criterion (b)

An item has strong or special association with the life or works of a person, or group of persons, of importance in New South Wales' cultural or natural history (or the cultural or natural history of the local area)

Guidelines for Inclusion	Guidelines for Exclusion
<ul style="list-style-type: none">• shows evidence of a significant human occupation	<ul style="list-style-type: none">• has incidental or unsubstantiated connections with historically important people or events
<ul style="list-style-type: none">• is associated with a significant event, person, or group of persons	<ul style="list-style-type: none">• provides evidence of people or events that are of dubious historical importance
<ul style="list-style-type: none">• maintains or shows continuity of a historical process or activity	<ul style="list-style-type: none">• has been altered so that it can no longer provide evidence of a particular association

It is noted that the site is located close to an area which is considered to have an important association with the Arakwal Family Group as a meeting place. At the time of preparation, it was not possible to ascertain whether the perception of the meeting place included the railway station or its associated buildings.

Byron Bay Railway Station and yard group has associations with several people including:

- Martin Danaher, constructor of the railway lines;
- William Mitchel, builder of the railway station and base of the water tank; and
- Charles Hoskins, builder of the water tank.

It is considered probable that additional research could provide further associations with the former station master's responsible for Byron Bay Railway Station.

Criterion (c)

An item is important in demonstrating aesthetic characteristics and/or a high degree of technical achievement in New South Wales (or the local area)

Guidelines for Inclusion	Guidelines for Exclusion
<ul style="list-style-type: none">shows or is associated with, creative or technical innovation or achievement	<ul style="list-style-type: none">is not a major work by an important designer or artist
<ul style="list-style-type: none">is the inspiration for creative or technical innovation or achievement	<ul style="list-style-type: none">has lost its design or technical integrity
<ul style="list-style-type: none">is aesthetically distinctive or has landmark qualities	<ul style="list-style-type: none">its positive visual or sensory appeal or landmark and scenic qualities have been more than temporarily degraded
<ul style="list-style-type: none">exemplifies a particular taste, style or technology	<ul style="list-style-type: none">has only a loose association with a creative or technical achievement

The railway station is noted as being a good example of a Federation era timber building with simple decorative features. The station building itself is noted as being one of several railway buildings within NSW which were built to the same design.

Given the site's prominence within the locality and its former importance to the town it is considered that the site is a landmark item.

The water tank is noted for its decorative brick work which is believed to be one of two remaining buildings of this type in NSW.

Criterion (d)

An item has strong or special association with a particular community or cultural group in New South Wales (or the local area) for social, cultural or spiritual reasons

Guidelines for Inclusion	Guidelines for Exclusion
<ul style="list-style-type: none">is important for its association with an identifiable group	<ul style="list-style-type: none">is only important to the community for amenity reasons
<ul style="list-style-type: none">is important to a community's sense of place	<ul style="list-style-type: none">is retained only in preference to a proposed alternative

The site is of importance to the Arakwal Family group as a contemporary meeting place.

Community consultation was not carried out during the preparation of this report. However, based on the historical values of the line and its use as a railway station from 1894 until 2004 and its more recent use as a coach travel office, it is possible to assume that the railway station and yard group would possess social values for the following groups:

- The former users of the line and the localities served by the line.
- The state rail agencies managing, maintaining and contributing to the everyday functioning of the line.

- Former Station Masters and rail employees who were involved with the day to day operation of the Tweed Railway and Byron Bay Railway Station.
- Rail enthusiasts

Criterion (e)

An item has potential to yield information that will contribute to an understanding of New South Wales' cultural or natural history (or the cultural or natural history of the local area)

Guidelines for Inclusion	Guidelines for Exclusion
<ul style="list-style-type: none"> • has the potential to yield new or further substantial scientific and/or archaeological information 	<ul style="list-style-type: none"> • has little archaeological or research potential
<ul style="list-style-type: none"> • is an important benchmark or reference site or type 	<ul style="list-style-type: none"> • only contains information that is readily available from other resources of archaeological sites
<ul style="list-style-type: none"> • provides evidence of past human cultures that is unavailable elsewhere 	<ul style="list-style-type: none"> • the knowledge gained would be irrelevant to research on science, human history of culture

The Railway Station is considered to be a typical example of a rural railway station and is not considered to possess a high degree of technical or research significance.

The site may yield archaeological resources regarding its initial construction.

The area surrounding the water tank is considered to have archaeological potential as the former siding and turntable were located in close proximity to the structure. If it is still present, the turntable and side may yield further information regarding the use and technology employed during the steam era.

Criterion (f)

An item possesses uncommon, rare or endangered aspects of New South Wales' cultural or natural history (of the cultural or natural history of the local area)

Guidelines for Inclusion	Guidelines for Exclusion
<ul style="list-style-type: none"> • provides evidence of a defunct custom, way of life or process 	<ul style="list-style-type: none"> • is not rare
<ul style="list-style-type: none"> • demonstrate a process, custom or other human activity that is in danger of being lost 	<ul style="list-style-type: none"> • is numerous but under threat
<ul style="list-style-type: none"> • shown unusually accurate evidence of a significant human activity 	
<ul style="list-style-type: none"> • is the only example of its type 	
<ul style="list-style-type: none"> • demonstrate designs or techniques of exceptional interest 	
<ul style="list-style-type: none"> • shown rare evidence of a significant human activity important to a 	

Guidelines for Inclusion	Guidelines for Exclusion
community	

Byron Bay Railway Station is considered to be a typical example of a timber framed, weatherboard Roadside Railway Station Building Constructed in the Federation era

The design of the base of the water tank is noted as being rare and considered to be one of two surviving water towers of this type in NSW.

Criterion (g)

An item is important in demonstrating the principal characteristics of a class of New South Wales (or a class of the local areas):

- Cultural or natural places; or
- Cultural or natural environments

Guidelines for Inclusion	Guidelines for Exclusion
<ul style="list-style-type: none"> • is a fine example of its type 	<ul style="list-style-type: none"> • is a poor example of its type
<ul style="list-style-type: none"> • has the potential characteristics of an important class or group of items 	<ul style="list-style-type: none"> • does not include or has lost the range of characteristics of a type
<ul style="list-style-type: none"> • has attributes typical of a particular way of life, philosophy, custom, significant process, design, technique of activity 	<ul style="list-style-type: none"> • does not represent well the characteristics that make up a significant variation of type
<ul style="list-style-type: none"> • is a significant variation to a class of items 	
<ul style="list-style-type: none"> • is part of a group which collectively illustrates a representative type 	
<ul style="list-style-type: none"> • is outstanding because of its setting, condition or size 	
<ul style="list-style-type: none"> • is outstanding because of its integrity or the esteem in which it is held 	

The Byron Bay possesses representativeness significance on the following grounds:

- Byron Bay Railway station is a good example of a rural Railway station built to improve the provision of transport within the north coast region.
- The water tower is an outstanding example of its type.

5.1.2 Statement of significance

Part of the site in Railway Park is noted as potentially being of importance to the Arakwal Family group as a contemporary meeting place.

Byron Bay Railway Station and yard group is historically significant to the town of Byron Bay and also as being part of the former Tweed Railway line. The Railway Station and yard group is an

important piece of transport infrastructure provided support to the region and aided the growth of several key industries including shipping, farming, timber, food production and tourism.

Aesthetically the building is noted as being part of a cohesive group located to the centre of the town. Its role as an important piece of transport to the region would result in the building and surrounding having landmark significance and would have undoubtedly be held in high esteem by the local community. The social significance of the railway station would also extend to former regular users of the line, as well as for the agencies and personnel in charge of its operation. It is also considered that the unique formation of the Tweed Railway line would be significant for rail enthusiast and local historians.

The station building is noted as being a representative example of timber framed, weatherboard clad roadside station group. The design of the building was a standard design with many surviving examples.

The water tower, which was constructed by William Mitchell, builder of the station, is also noted for its decorative brick work and is believed to be one of two surviving water towers of its type. It is also considered that the area surrounding the water tank has archaeological potential as the location of the former siding and turntable.

The significance of the group has been reduced by the cessation of use as a railway station and train services.

5.2 Heritage significance of Byron Bay Railway Station

5.2.1 Established significance

The State Heritage Inventory defines the significance of Byron Bay Railway Station and yard group as follows:

“Byron Bay station group is a coherent group of railway buildings with good detailing and containing a number of unusual features including the circular water tank on a brick base and the railway hotel attached to the station building. The station building is an excellent example of the timber standard roadside type and the location of the station and residence in the main street of Byron Bay contribute in a significant way to the streetscape of the town. The water tank is one of two tanks of this design known to survive and is therefore of high significance.”⁶⁶

The Byron Shire Council’s heritage inventory sheet for the Railway Precinct states:

The place is a group of modest civic buildings and landscape elements, which help define both the historical antecedents and the locus of community activity in the township of Byron Bay. Its current elements together form an unbroken link with the first settlement of the township.

Although the passage of years has wrought cosmetic changes to the area (such as some kerbing and guttering, road sealing, footpath, public toilet and telephone installations) and renovations to many of the buildings, the character of the location remains intact, despite progressive redevelopment of the remainder of the township.

The landscape remains an open area, from the central point of which all but one element can be seen. An aesthetically pleasing aspect of the landscape is that the area contains only one building of two storeys (The Community Centre), on the eastern perimeter.⁶⁷

Clause C1.6.5 of the 2014 Byron Shire Development Control Plan (DCP) includes the following Statement of Significance for the Railway Precinct Conservation Area

The place is a group of modest civic buildings and landscape elements, which help define both the historical antecedents and the locus of community activity in the township of Byron Bay. Its current elements together form an unbroken link with the first settlement of the township. Although the passage of years has wrought cosmetic changes to the area (such as some kerbing and guttering, road sealing, footpath, Public Toilet and telephone installations) and renovations to many of the buildings, the character of the location remains intact, despite progressive redevelopment of the remainder of the township. The landscape remains an open area, from the central point for which all but

⁶⁶ *Byron Bay Railway Station and Yard Group, Casino-Murwillumbah Railway, Byron Bay.* State Heritage Inventory Database No.: 5011962.

⁶⁷ Railway Precinct, Jonson Street, Byron Bay, NSW, Item no 1078

one element can be seen. An aesthetically pleasing aspect of the landscape is that the area contains only one building of two storeys (The Community Centre), on the eastern perimeter.

5.2.2 Comparative Analysis of the Station Building

In 2016, GML Heritage Pty Ltd prepared a Typology Study of Railway Buildings on behalf of John Holland Pty Ltd. The intent of the study was to provide a comparative analysis of 53 Station buildings located across the Country Regional Network. The study compared the building in terms of 'age, type, form, fabric, condition and integrity'⁶⁸.

Byron Bay Railway Station was included in this study and considered to be 'Type 4 Standard Roadside Station Building (Third Class Station Buildings)' The building was one of 25 identified as belonging to this typological group the others were:

*Ben Bullen; Ben Lomond; Black Mountain; Borenore; Capertree; Carcoar; Calandulla; Cobar; Corowa; Cowra; Deepwater; Dumaresq; Gundagai; Guyra; Jerilderie; Lismore; Lue; Michelago; Molong; Nyngan; Rylstone; Temora; Woodstock; Yass Town*⁶⁹.

Of the 25 Buildings belonging to the Type 4 Standard Roadside Station Building, the following eight were constructed of timber framed weather board: Black Mountain; Borenore; Gundagai; Lismore; Molong; Rylstone; Woodstock and Yass Town⁷⁰.

The following buildings from the Type 4 Standard Roadside Station Building were also constructed in the Federation era: Cobar; Corowa; Lismore; Temora; Yass Town⁷¹.

In conclusion, the Byron Station Building, as a weatherboard Standard Roadside Station Building constructed in the Federation era, is directly comparable with the station buildings at Lismore and Yass Town.

Also noted, in the report, is that both Lismore and Byron Bay have been identified as being maintained in a good condition, Yass Town was found to be in a fair condition. However, Yass Town was considered to demonstrate a high degree of integrity with Lismore and Byron Bay both demonstrating a medium degree of integrity.



⁶⁸ GML Heritage Pty Ltd, *Typology Study of Railway Buildings – Comparative Analysis*, p.i.

⁶⁹ Ibid, p87

⁷⁰ Ibid, p100

⁷¹ Ibid, p83-84

Figure 115 & 116 Details of Lismore Station. Note the decorative awning detail.
JHL 2015 image taken from GML Heritage Typology Study 2016.



Figure 117 & 118: Yass Town Railway Station. Note the Gable ended pavillion to the left of the image.
GML 2016.

The typology report notes that the Railway Department offices, who were responsible for designing railway stations for NSW between 1850 and 1970s, used simple standard station designs adapting the designs to respond to the environment in which they were to be located.

Therefore, the style of station building at Byron Bay, comprised of a main building with amenities wing and gable ended storage building is also evident at many stations dating from the 1890s. The following stations are constructed of Timber or Brick but in the same design as Byron Bay Station:

- Ben Lomond
- Black Mountain
- Carcoar
- Cobar
- Corowa
- Deepwater
- Dumaresq
- Glenn Innes;
- Lue
- Michelago
- Molong and
- Temora⁷²

It is noted Byron Bay Station is a representative example of a rural Railway station built in the 1890s.

5.2.3 Comparative Analysis of the Station complex

In terms of comparison for the wider Station Yard Group a search of the NSW Heritage Register identified 96 Railway Station Groups on the State Heritage Register. Many of these listings included several of the buildings identified as belonging to the Byron Bay Group such as a: Station Building, Station Master's residence, refreshment room, platform face, signal box, and out of shed. Lismore and Yass Town, both of which were identified in Section 5.2.2 as being comparable to the station

⁷² GML Heritage Pty Ltd, *Typology Study of Railway Buildings – Comparative Analysis*, p.18-69

building as weatherboard Standard Roadside Station Building constructed in the Federation era were also comparable to Byron Bay for retention of the following buildings or structures.

- Yass Town:
- Station Building
 - Station Masters Residence
 - Refreshment room
 - Signal box
 - Platform faces

- Lismore:
- Station Building
 - Residence - 18 Malendy Drive
 - Platform faces - brick

The above station groups also differed from the Byron Station Group in that they contain buildings not demonstrated at Byron Bay: Yass has an additional residence and pedestrian footbridge while Lismore retains the carriage building with Saw tooth roof. Furthermore, neither of the station groups retains a water tower.

Therefore, Byron Bay is not considered to be unique or rare due to the retention of a group of buildings pertaining to its original use as a Railway Group but rather representative of this typology.

5.2.4 Comparative Analysis of the Water Tower

The water tower located at Byron Bay is acknowledged as being a rare surviving example of its type due to its uncommon construction. To test the rarity of the item it is important to search for comparable examples of the type and style of structure to determine if the item is rare within its immediate locality or rare within the State of NSW.

A search of the NSW Heritage Inventory using the term 'Water Tower' returned 23 results these results were cross checked by means of a search for 'Water Tank' Many of these water tanks and towers were found to be of concrete construction or square steel tanks supported on a steel stand.

In total three brick towers were found during these searches including Narrandera, Deniliquin and Meranburn.



Figure 119: Brick and steel circular water tank Narrandera (Source Photograph by David Windeyer)

Although circular and constructed of brick, it is considered that Narrandera Water Tank is not comparable to Byron Bay due to the scale of the structure and the size and fabric of the water tank. It is also noted that this does not appear to be part of a railway group.

Deniliquin water tank is noted as being constructed in the 1880s as part of the Deniliquin reticulated water system. The structure comprises a brick tower supporting a riveted wrought iron tank. While constructed of the same materials as Byron Bay, the Deniliquin water tank appears to be taller and is also noted as not being constructed for the same purpose.

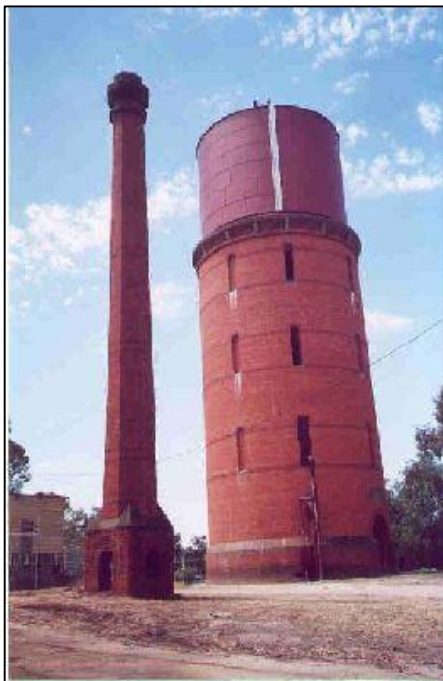


Figure 120: Deniliquin water tank (Source: Image by Ms. Janet Mathewson NSW Heritage Inventory)

The Meranburn Water Tank and stand was constructed in 1893 and is the only surviving component of the Meranburn Railway Station Group. The tower was used to supply water to steam engines using the station. The lipped wrought iron tank is supported by a Flemish bond face brick circular tower with arched piers and thickened brick bands to the top and base. The tower is aesthetically comparable to that of Byron bay, and features similar the windows and doors openings as well as the piered brick work and string courses. A key point of difference is that the steel tank at Meranburn retains a name panel identifying Cooke and Webb, engineers of Redfern as its fabricators.

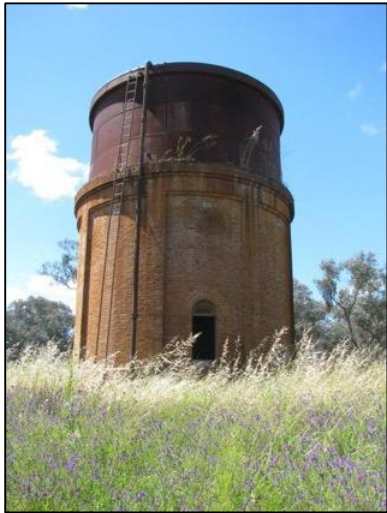


Figure 121: Meranburn Water Tank (Source: Image by BJ Hickson, NSW Heritage Inventory)



Figure 122: Interior of Meranburn Water Tank (Source: Image by BJ Hickson, NSW Heritage Inventory)

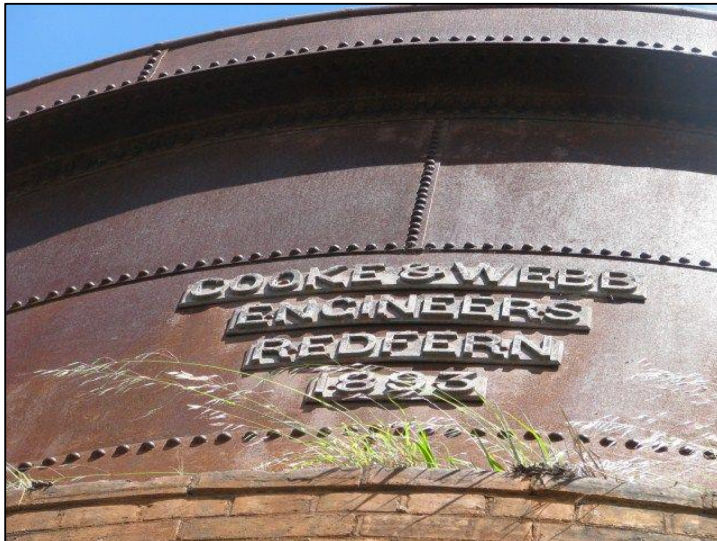


Figure 123: Makers mark to the exterior of the tank (Source: Image by BJ Hickson, NSW Heritage Inventory)

It is considered that the water tanks at Bryon Bay and Meranburn are rare surviving examples of this style of steam engine infrastructure in NSW.

5.3 Grading of Significance

The significance of the main elements of the site have been assessed and ranked for the purpose of developing conservation policies and determining priorities.

As explained below this CMS uses the rankings of **Exceptional**, **High**, **Moderate**, **Neutral** and **Intrusive**. This system of rankings was introduced to NSW in 2001 by the NSW Heritage Office (now Office of Environment and Heritage – Heritage Branch) in their publication Assessing Heritage Significance.

The different rankings used are as follows:

- A Exceptional:** elements identified as being of exceptional significance include those which are rare or outstanding in their own right and/or are fundamental to demonstrating the significance of the site. These elements will usually display a high degree of integrity.
- B High:** elements identified as being of high significance represent those elements which provide evidence of a key phase in the history of the site’s development or that of the surrounding area. These elements may not be as distinctive as those classified as being of exceptional significance, yet still strongly embody the heritage values of the place. These elements may display some loss of original fabric, provided that these alterations do not detract substantially from significance.
- C Moderate:** elements identified as being of moderate significance consist of those elements which are not individually significant, but which when considered within the context of the site as a whole nevertheless have some significance. Such elements generally provide coherence, context and/or links between other significant elements and contribute to the understanding of the evolution of the site. Moderately significant elements may have been altered or modified; they may contribute to the interpretation of the site.
- D Neutral:** neutral elements neither contribute nor detract from the significance of a site.
- X Intrusive:** elements identified as intrusive are those elements which, while they may potentially contribute to a comprehensive understanding of the evolution of the site and how it has been used, have no historical value and/or are located in a manner which is unsympathetic to or detract from the significance of other significant elements




5.3.1 Significance of the general site elements




Sections 5.3.2 - 5.3.7 of this report identify the significance of the built fabric of the site elements, Figure 124 has been prepared to demonstrate the heritage significance of the general site elements. The water tower is noted as being the only item of exceptional significance.







Figure 124: Heritage Significance of the Byron Bay Railway Group (Source: sixviewer, annotated by Weir Phillips)


5.3.2 Schedule of significant elements - former Byron Bay Railway Station Building



Element	Significance	Photograph
External		
Built Form of Station	High	
Platform	Moderate	
Former track and location of the alignment	Moderate	

Element	Significance	Photograph
Platform awning	High	
Verandah Braces	High	
Timber Windows	High	

Element	Significance	Photograph
Timber doors	High	
White Metal Screens over windows and fanlights	Intrusive	
Interior		
Ceilings		
Waiting Room ceilings	<p>Timber Boards: High</p> <p>Later services Intrusive</p>	




Element	Significance	Photograph
Bathroom Ceilings	Neutral	
Floors		
Floor Tiles to interior	Intrusive	
Bathroom Tiles	Neutral	
Walls		




Element	Significance	Photograph
Timber boards interiors	High	
Remnant Timber joinery	High	
Metal air vents	Moderate	




Element	Significance	Photograph
Bathroom tiles	Neutral	
Ticket office window	Neutral	
Other elements		
Fluorescent lighting	Intrusive	



Element	Significance	Photograph
Fireplace and surround	High	
Timber platform Benches and	Moderate	
Internal furniture	Intrusive	




5.3.3 Schedule of significant elements - former Station Master House Building

Element	Significance	Photograph
External		
Built Form of Station masters house	High	
Metal roof and chimney	High	
Verandah and posts	High	

Element	Significance	Photograph
Timber Windows and doors	High	
Rear addition	Low	
Internal		
Ceiling		
Ceilings Front rooms	<p>Timber Boards: High</p> <p>Non-original Timber screens Neutral</p> <p>Later services Intrusive</p>	


Element	Significance	Photograph
Ceilings Back room	Neutral Later services Intrusive	
Floors		
Floors Front rooms	Carpet and timber insert Neutral	
Floor to back area	Neutral	

Element	Significance	Photograph
Walls		
Timber lined interior walls	High	
Remnant timber joinery	High Later services Intrusive	


Element	Significance	Photograph
Remnant timber walls to rear (now-internalised)	High	
Other elements		
Fluorescent lighting	Intrusive	
Fireplace and surround	High	




5.3.4 Schedule of significant elements - former refreshment room

Element	Significance	Photograph
External		
Built form of refreshment room	Moderate	
Timber Doors and windows	Moderate	


Element	Significance	Photograph
Interior		
Interiors	Neutral	

5.3.5 Schedule of significant elements - former Water Tower


Element	Significance	Photograph
External		
Built Form	Exceptional	

Element	Significance	Photograph
Brick tower	Exceptional	
Water tank	Exceptional	
Interior including brickwork and pipe infrastructure	Exceptional	

5.3.6 Schedule of significant elements - Signal box

Element	Significance	Photograph
External		
Built Form	Moderate	

5.3.7 Schedule of significant elements - Out Of building

Element	Significance	Photograph
External		
Built Form	Moderate	

5.4 Integrity

Integrity, in terms of heritage significance, can exist on a number of levels. A heritage item or place may be an intact example of a particular architectural style or period and thus have a high degree of significance for its ability to illustrate this style or period.

The appraisal of a places integrity is undertaken after a comparison of the places history, including a review of early plans and photos, against an analysis of the current condition, degree of change and extent of surviving original fabric.

5.4.1 Integrity of the former Byron Bay Railway Station

Consideration of the original plans for Byron Bay Railway Station (refer to **Figure 29** and **Figure 43**) in conjunction with the remnant fabric demonstrates that the building has some change from its original construction. Changes to the building have included the:

- replacement of the roof and removal of the decorative air vents;
- removal of the setback of the ladies' toilet to the east elevation;
- removal of the wall between the waiting room and luggage area;
- reconfiguration of the former female toilet space to create modern bathrooms and an accessible toilet.
- removal of the interior of the former male toilets to create a store.

However, it is considered that the extent of change is consistent with the ongoing use of the building over the period of 120 years.

Many original elements of the building have been retained on site, such as the timber walls, doors, windows and the fireplace to the interior.

It is noted, that some fittings, fixtures and elements of movable heritage that one might expect to be at a railway station, such as a clock and timetables, are not evident. However, copies of some of these items may be currently included in historical collections and further investigation is required.

Elements such as the original seats would likely have been replaced due to poor condition. These have been replaced with modern equivalents.

5.4.2 Integrity of former Station Master's House

It is considered that the external form of the former Station Master's House has, with the exception of the roof material, retained the majority of its original fabric. However, the interior of the building has been subject to extensive alteration including:

- Removal of the internal walls;
- Covering of the floors, (the condition of the floors beneath is not known);
- Enclosure of the rear section of the building;
- Refurbishment of the fireplaces; and
- Insertion of intrusive services.

5.4.3 Integrity of former refreshment room

The former refreshment room has been modified to facilitate its modern use as a public house. The interior of the place retains no original fabric and is no longer able to be read as a refreshment room.

The exterior of the building has undergone change to the eastern elevation and via the addition of a second storey protruding from the roof. The western elevation is considered to have undergone little change.

5.4.4 Integrity of the former water tower

As noted in Section 4.5 of this report, the water tower has not been altered or added to since its original construction. However, the integrity of the building is considered to be at risk due to the extent of the deterioration of its fabric caused primarily by its disuse and lack of ongoing maintenance.

The key areas of concern with regards to deterioration are:

- The rust and corrosion of the water tank;
- The Structural stability of the brick tower;
- The effect of the weight loading of the water tank on its deteriorated support system;
- Deterioration of brickwork and pointing, with many sections of both requiring repair; and
- Growth of weeds from the brickwork, the roots of which will be causing further damage to the structure.
- The incidences of graffiti on the structure.

5.4.5 Integrity of Signal box

The Signal Box appears to be intact with no major alteration. It is also noted as being in a relatively good condition.

5.4.6 Integrity of Out of building

The integrity of the Out Of building is currently being diminished by graffiti. However, it is noted as being in a generally sound condition.

5.5 Curtilage

When the future of a heritage item or place is being considered, a decision must be made about the extent of land around it that could be considered to contain its heritage significance. This boundary is often referred to as the curtilage of a site.

Curtilage is a difficult concept that is subject to many interpretations. Curtilage takes into consideration tangible and intangible historic relationships and aesthetic relationships defined by vistas and visual corridors. In other words, curtilage moderates between a site and its setting. Curtilage may be comprised of more or less than the legal or physical boundary of a site:

*'At times there is a clear distinction between the place and its setting – only rarely is a culturally significant place self-contained within definite boundaries, without some visible link to the world around it. If the cultural significance of a place relates to its visual attributes – such as form, scale, colour, texture and materials – its setting is of special importance.'*⁷³

⁷³ Commentary for Article 8 of the Burra Charter in Marquis-Kyle, Peter and Walker, Meredith, *The Illustrated Burra Charter*, QLD, Australia ICOMOS Inc., 1992, p.38.

For the purposes of this CMS, the following definition, provided by the NSW Heritage Division, has been adopted.

Curtilage is:

'... the area of land (including land covered by water) surrounding an item or area of heritage significance which is essential for retaining and interpreting its heritage significance. This can apply to either:

Land which is integral to the heritage significance of the items or the built heritage; or

*A Precinct which includes buildings, works, relics, trees or places and their setting.*⁷⁴

5.5.1 Different Types of Curtilages

The NSW Heritage Division has identified a number of types of curtilage:

- *Lot boundary curtilage*: the most common type of curtilage, comprising the boundary of the property containing the heritage item.
- *Reduced lot boundary curtilage*: less than the lot boundary of a site.
- *Expanded heritage curtilage*: greater than the lot boundary of a site.⁷⁵

5.5.2 Existing Curtilage Definitions for the Site

The State Heritage Register listing provides for a lot boundary curtilage that encompasses Lot 1 DP 1001454 as shown in **Figure 2** as described as:

*The listing boundary is within the rail property boundaries commencing at the southern end of the station platform, the western boundary is the rail property boundary and adjoining Butler Street, the eastern boundary is formed by the rail property boundary and Jonson Street and the northern boundary is the Lawson Street rail crossing.*⁷⁶

According to current cadastre layers held by Byron Shire Council, it is noted that the State Heritage Curtilage is also located within the rail corridor, that is part of Lot 4729 DP 1228104 and within Lot 1 in 827049 in the south east corner on Jonson Street..

The Section 170 Listing for the site describes the boundaries as:

*The eastern boundary is a line extending along the western boundary of the former Station Masters residence to the council park at the north, then west to the northern end of the platform and across the tracks to Butler Street property boundary, then extending south to the vehicular level crossing at the Sydney end of the platform, and then east across the rail tracks to a line extending along the western boundary of the former Station Masters residence*⁷⁷

⁷⁴ New South Wales Heritage Office and Department of Urban Affairs and Planning, *Heritage Curtilages*, NSW, NSW Heritage Office and Department of Urban Affairs and Planning, 1996, p.3.

⁷⁵ New South Wales Heritage Office and Department of Urban Affairs and Planning, *Heritage Curtilages*, op.cit., 1996, pp.5-7.

⁷⁶ *Byron Bay Railway Station and Yard Group, Casino-Murwillumbah Railway*, Byron Bay. State Heritage Inventory Database No.: 5011962

⁷⁷ *Byron Bay Railway Precinct*, Jonson Street, Byron Bay: State Heritage Inventory Database No: 3150006

The Byron Shire Council describes the boundaries of the site as comprising Part Lot 4729 DP 1228104(Rail corridor and Railway Tower (I064), Lot 1 DP 1001454(Item 1077 and I078), Lot 1 DP 827049(Item I072)⁷⁸

5.5.3 Discussion

The SHR listing for the site follows the legal boundaries as defined by the sites real property title known as Lot 1 in DP 1001454. It is considered that for the majority of the site this is an effective means of defining the extent of the listing and is generally consistent with the perceived curtilage of the site.

However, the north-eastern boundary of the site extends beyond the perimeter fence into the neighbouring car park. Traditionally the route of the tram to the old jetty did pass though this space. However, the current listing does not appear to be based on the route of the former tram line includes only a small component of the car park and former tram route. Furthermore, the listing includes no mention of either the tram line or the car park in terms of its importance to Byron Bay Railway Station.

The car park has no physical or perceived connection to the Railway Station Group and it is clear that it is only included due to the line of the real property title. It is considered that the inclusion of this section of the car park does not meaningfully add to an understanding of the places heritage values and has resulted in the necessity for the site users to request exemptions under s.57 (2) of the Heritage Act for works and temporary change of use.

5.5.4 Recommendation

Based on the above discussion it is recommended that the curtilage of the heritage item is amended to exclude the southern section of the neighbouring car park. The inclusion of the additional longitude and latitude points between Point 7 and 8 shown on Figure 2 are suggested:

Point	Longitude	Latitude
A	153.611605375	-28.643235594
B	153.611565972	-28.643808559
C	153.611586089	-28.643983928
D	153.611653144	-28.644194606

⁷⁸ Byron Bay Railway Station, 86 Jonson Street, Byron Bay. State Heritage Inventory Database No: 1260002



Figure 125: Recommended realignment of SHR curtilage to exclude car park area

6 CONSTRAINTS AND OPPORTUNITIES

The role of the conservation strategy in this CMS is to provide general guidelines for the conservation and future use of the former Byron Bay Railway Station and yard group with the aim of maintaining, enhancing and interpreting the identified cultural significance of the place. In order to appropriately provide conservation policies, it is necessary to have an understanding of the existing constraints that apply to the site, and envisage any current or future opportunities that may enhance heritage and community outcomes.

6.1 Heritage significance

The following requirements have been prepared specifically for the former Byron Bay Railway Station building:

- To recognise and acknowledge the individual and collective significance of the former Byron Bay Railway Station and yard group, including the elements listed in Section 5.3 of this CMS.
- To recognise and acknowledge significance including historic, associational, aesthetic, social, rarity and the representativeness of the group.
- To encourage an appropriate level of heritage listing.
- To encourage an appropriate curtilage to facilitate a clear understanding of the extent of the significant space surrounding the heritage item.
- To appropriately manage the heritage asset and conserve significant fabric of the station group.
- To provide interpretation for the site to ensure that site users are given the opportunity to understand the history and significance of the place.
- To put in place strategies for preserving heritage assets and machinery in order to facilitate the future reactivation of these spaces when an appropriate re-use has been identified.
- To secure the site from potential harm through vandalism or misuse, and to meet owner and tenant's requirements without damaging significant fabric and spaces.

6.2 Statutory obligations

'Byron Bay Railway Station and Yard Group' is listed on the State Heritage Register ('Byron Bay Railway Station and Yard Group, Byron Bay'. Register No.: 01107) and Schedule 5 of the Byron Shire Council LEP Item no's. I064, I077 and I078. This gives rise to statutory requirements as outlined in Section 2.2 of this CMS.

Additional legislation and codes, such as BASIX, the Building Code of Australia (BCA) and disability access requirements apply to this site and require to be considered for any development at the site.

6.3 Physical Condition

This CMS does not provide for a detailed condition report. However, the following should be noted with regard to the condition of the former Byron Bay Railway Station and Yard Group:

- With the exception of the water tower, the exterior fabric of the buildings has been well maintained and are considered to be in a generally good condition. However, it is important to note that the station building is considered to be at risk due to the former platform being used by rough sleepers. Furthermore, the water tower is noted as being at risk of further deterioration due to disuse and deferred maintenance.
- Until recently the interior of the station building was used as a ticket office and was renovated to facilitate this use.
- The toilets within the former station building have been recently renovated and the configuration of these rooms has been altered since the original construction of the building.
- The interior of the Station Master's House has been highly modified in order to facilitate its current use as a tourist information office.
- Alterations, upgrades and maintenance of services to both the station building and the Station Master's House appear to have been undertaken in a generally sympathetic manner.
- The down siding and turntable, providing access to the water tower, are believed to have been removed.
- The Railway Friendly Bar was not inspected in detail however, it appears to be in a good, well maintained condition.
- The water tower is in a deteriorated condition and requires structural repair and commitment to an ongoing maintenance schedule.
- The Signal Box and Out of Shed were not inspected in detail however, they appear to be in a good, well maintained condition.
- The remnant rail infrastructure, identified in Section 4.8 of this report, is in a deteriorated condition due to disuse and exposure to weathering.

6.4 Integrity

The integrity of the former Byron Bay Railway Station building, former Station Master's house, former refreshment room, signal box and out of shed have been assessed to be generally good.

The Water Tower and remnant rail infrastructure, as described above, is noted as being in a deteriorated condition due to disuse, deferred maintenance and exposure to weathering.

6.5 Byron Shire Council requirements

6.5.1 Station building

The State Government changed the status of the Tweed Railway to disused in 2004, since this time the station building has been under the control of various entities, most recently (since 2012) under the management of John Holland Rail Pty. Ltd. as an agent for Transport for NSW Country Rail Contracts, and until recently was used as a ticket office for the local bus services. The building is currently disused and noted as being at risk due to rough sleepers who use the platform for temporary accommodation. Social issues have arisen from this unauthorised use exposing the

building to the risk of fire, vandalism and unauthorised entry. It has been noted that the greatest risk to the building is posed in the evening and during the night.

John Holland Rail has offered the building on a license to Byron Shire Council. The Council is currently undertaking a Master Plan of the area and seek to adaptively re-use the former station building and adjacent areas as a civic place for the community.

Council is also undertaking an Expressions of Interest process, whereby the building will be sub-licensed to a social enterprise or not-for-profit organisation to occupy the building for a period of up to ten years. Review of this CMS will be mandatory and applicants will be assessed on their capacity to manage and maintain the building and surrounds in accordance with the heritage strategies outlined within this CMS report.

Byron Shire Council may consider options which include converting the station building to a café/restaurant leading on to the platform area and may include the addition of a temporary stepped-down timber deck leading from the platform which may serve the dual purpose of providing a public safety measure against potential falls, which could also be used for dining, art space, entertainment, performance and community gathering point.

Once the Byron Shire Council has determined the future use of the site, detailed plans will be prepared and accompanied by a Statement of Heritage Impact to assess the potential impacts arising from that use.

6.5.2 Station Master's House

The Station Master's Home has been leased by Byron Shire Council for use as a Tourism Information Office. The building has been used for this purpose for over 15 years.

It is understood that the current use of the building will continue for the foreseeable future.

The building is well maintained and in active use.

6.5.3 Former Refreshment Room

The former refreshment room is currently leased to the publican of the Railway Friendly Bar. The role of Byron shire Council, with regards to this building, is that of the consent authority.

Furthermore, it should be noted that the lessee of the Railway Friendly Bar is considered to be stakeholder with regards to any changes or proposal within the railway corridor.

6.5.4 Water Tower

It is understood that the Council is considering an expression of interest for the land including the water tower, which could potentially result in Council becoming the caretaker of this structure.

John Holland Rail has offered the building on a license to Byron Shire Council. The Council is currently undertaking a Master Plan of the area and seek to adaptively re-use the former station building and adjacent areas as a civic place for the community.

The condition of this structure is considered to be severely deteriorated and requires immediate

structural repair. It is understood, that at this stage no operational use has been determined for the water tower and that it is intended to maintain it in situ in relation to planned road construction works associated with the proposed by pass. There is potential for interpretation material to be prepared that describes the structure as a remnant of Australia's history of steam transport.

Should Byron Shire Council propose a future use of the site, detailed plans will be prepared and accompanied by a Statement of Heritage Impact to assess the potential impacts arising from that use.

6.5.5 Signal Box and Out of Shed

It is understood that the Signal Box and Out of Shed are to remain under the under the management of John Holland Rail Pty. Ltd. as an agent for Transport for NSW Country Rail Contracts.

6.5.6 Tracks, platforms and other remnant fabric

The tracks, platforms and other remnant fabric remain under the management of John Holland Rail Pty. Ltd. as an agent for Transport for NSW Country Rail Contracts.

It is understood that Council is currently considering an expression of interest for the lease of this infrastructure corridor. As part of this process Council has engaged a remediation specialist to study the area and determine the extent of contamination and identify any necessary remediation works.

Remediation works will need to be considered by the NSW Heritage Office with regards to the proposed methodology and any impacts arising from that work. Once Byron Shire Council has determined the future use of the site, detailed plans will be prepared and accompanied by a Statement of Heritage Impact to assess the potential impacts arising from that use.

6.6 Adaptive re-use

One of the principal objectives of this CMS is to address the current under-utilisation of the station building. A further objective is the provision of heritage analysis and ongoing heritage advice for the other buildings and structures within the group.

As noted previously, the water tower was decommissioned after diesel engines replaced steam trains on the Mullumbimby line which itself was deactivated in 2004. These two events have resulted in the buildings and infrastructure, which collectively formed Byron Bay Railway Station being unable to operate in their original and intended capacity. The Stations Masters House has been adaptively reused as a Tourist Information Office and the refreshment room has been re-used as the Railway Friendly Bar. The remaining buildings and structures on site are currently unused.

It is widely acknowledged that heritage buildings are best maintained when they are in active use. Deterioration of fabric in older buildings is often caused by the ingress of water or pest related damage. When buildings are in continual use these types of issues are noted quickly and remediated to ensure the continued operation of the building. Vacant and under-utilised buildings are also at an increased risk of vandalism, fire and deferred maintenance due to repairs not being prioritised. With the exception of the water tower, the buildings are noted as being well maintained and currently demonstrate little deterioration of fabric, the unused buildings are noted

as increasingly becoming a target for vandalism and unauthorised access.

It is also noted that heritage buildings are generally best suited to the purpose for which they were built, this is particularly true of buildings built for civic purposes. However, as demonstrated by the site, it is not always possible for that purpose to continue. In such an instance a suitable re-use must be considered to ensure that the buildings are protected against natural deterioration and man-made damage. It is also noted that the community holds buildings such as former railway stations and their associated infrastructure in high esteem.

For a re-use to be successful it is important that it is compatible with the building, in terms of scale, location, practicality and the limitations of the remnant original fabric. Proposed designs for adaptive reuse must include provisions for the retention of historic character and conserve significant fabric. Adaption of existing buildings, to allow them to provide functions for which they were not originally constructed, usually requires the introduction of new services, modifications and adaption. New work can be permitted. However; the creation of a relationship between the new and the old elements of the place needs to be an integral element of any proposed design. This can only be achieved by gaining a sound understanding of the old through analysis of the heritage significance of the place and its significant fabric. The new work must also include interpretation of the heritage significance of the place and its significant fabric.

The benefits to adaptively reusing the space can also extend to:

- Interpretation– an understanding of the structure, its former use, relationship with the surrounding buildings and importance in the development of Byron Bay can be imparted to the new site users and visitors to the place. See also Section 6.7, below.
- Financial support for repairs and maintenance – A successful new use can generate a revenue stream for ongoing repairs and maintenance of the place and surrounding infrastructure or landscaping. It can also provide the impetus for maintaining the building and its setting in a good condition. This is particularly relevant in spaces where the general public are encouraged to visit and socialise.
- Retention of historic buildings and their original fabric – If redundant buildings are not re-used they can face dereliction, ruin and even demolition.
- May be extended to explore wider options for the site and programming for shared uses.

While various reuses for the former station building have merit, late night activation of the site is considered to be essential for the ongoing protection of the building. If the building is used as an art gallery, retail and office space, this could increase the risk of unauthorised access of the building due to the storage of items on site overnight. Furthermore, alternative uses should, subject to statutory and owners consent, lend themselves easily to the re-use of the track area. Steps should not be undertaken, for example, that would preclude the future installation of a railway carriage that could be accessed directly from the platform.

One possible solution would be for the former station building would be to adaptively re-use it to accommodate multiple sympathetic uses, for example an art gallery or meeting place during the day and a café/bar, with programmed entertainment in the evening. However, the use of the building for multiple operations may be restricted by the relatively small scale of the building and its associated amenities. Careful consideration must be given to the requirements of each operation and their suitability in terms of the available space.

It should be noted that the zoning and setting of the former railway station building would preclude residential and industrial uses. Furthermore, the small scale of the building impedes uses such as an education facility, day care, care home, hospital or medical centre. It is also noted that the lack of available large-scale ancillary buildings excludes uses such as a mechanical workshop or similar operation.

6.7 Interpretation

Providing an understanding of what a Heritage Site or Heritage Item is and why it is important is a key tenet of the heritage conservation process. To communicate these values, some form of interpretation is usually required. Interpretation, in a heritage or museum context, involves explaining an item and its Significance.⁷⁹ Interpretation supports, and can enhance, recognition and understanding of the importance of heritage places among site owners, users and the broader community.

The interpretation guidelines produced by the NSW Heritage Division explain the interpretative process and encourage good interpretative practices including:

- understanding the history and significance of the site;
- identifying opportunities for interpretation;
- understanding the potential audiences; and
- encouraging relevant, respectful and thought-provoking interpretation.

Conservation, restoration and maintenance are key heritage elements and are often the best way of preserving significant attributes and associations. In many instances, however, retention is not always possible or past buildings/structures known to have stood on the site have been removed, leaving only potential archaeological deposits. Other ways of interpreting significance, such as interpretation panels, public art, or tracing archaeological remains in different finishes, can be used.

It is also noted that several former components of the site have been removed or are no longer evident including:

- Gates and fences, refer to Figure 39
- Sidings and turntable, refer to Figure 40 - Figure 42
- Track, refer to section 4.8
- Large billboard, refer to front cover

Future adaptive re-uses of the place should consider whether the reintroduction of these elements would benefit the heritage values of the site.

The Byron Bay Railway and Yard Group calls for interpretation that extends beyond the physical fabric or the interpretation of lost physical fabric. The significance of this site also lies strongly in its association with Tweed Railway, growth and development of Byron Bay, the rarity of Water Tower design and its association with the steam powered travel.

⁷⁹ 'What is Interpretation?' in T. Ambrose and C. Paine, *Museum Basics*, London, ICOM in conjunction with Routledge, 1993, p.67.

The following key interpretation principles for the site have been developed using the guidance derived from the *Burra Charter* and the NSW Heritage Division guidelines:

- Focus on the history and significance of the site and its elements and from these develop site-specific themes and stories.
- Involve people with skills and experience in heritage interpretation.
- Follow the guidelines provided by the *Burra Charter* and NSW Heritage Office (Division) documents.
- Identify potential audiences.
- Ensure that consultation is undertaken with Aboriginal stakeholders for any interpretation involving Aboriginal history and/or artefacts.
- Use fabric and landscape elements (conserved or newly created), documentary research and graphic materials to convey and interpret the significance of the site.
- Ensure that any interpretation recommendations are integrated with the planning process, in particular with the architectural design of the new development.
- Ensure research is thorough and that accumulated materials are publicly deposited upon completion of this project.
- Ensure that the interpretation recommendations and devices have the potential to be engaging and stimulating by evaluating them during and after development.
- Ensure that interpretative devices are of a high quality.
- Ensure that interpretative devices are accessible and reversible where required.
- Plan for continuing maintenance and regular review of interpretative media.

6.8 Mothballing of Assets

Asset mothballing is the act of closing a building or asset to preserve its operational function through a period of dis-use.

It can also be used to

- ensure that significant fabric and machinery is not unnecessarily removed from site; and
- facilitate the re-opening of buildings in the future to permit, either the recommencement of operations or, the adaptive re-use and the building as a working museum or interpretation centre.

Ordinarily, studies considering the effects of mothballing on the equipment and mechanisms are undertaken as part of the remediation works prior to the closure of the facility. In the case of Byron Bay Railway Station, it is not clear if these studies were undertaken.

It is considered that the Water Tower should also be mothballed until a suitable reuse has been determined. Prior to mothballing of this structure, it is essential that structural repairs and catch-up maintenance are undertaken to arrest the decay of the building.

The signal box is also considered to be eligible for mothballing, this will ensure that the building and any surviving machinery can be used at a later date for either operation purposes or as a component of the interpretation of the site.

Asset Mothballing requires the following steps to be undertaken:

- Assessment of the condition of the building or asset;
- Prepare an inventory of any remaining mechanisms to the interior;
- Ensure the asset is kept secure and monitored in a regular basis;
- Undertake Structural and Remediation works to ensure that the buildings are retained in a good condition;
- Consideration for future uses for the assets;
- Ensure financial resources are available for the ongoing maintenance of the building in its mothballed condition;
- Investigate the work and processes required to maintain the machinery in its current condition and its future reestablishment; and
- Prepare a plan for the future of the place.

6.9 Ongoing security of the railway station

Until a satisfactory long-term use is found for the building, essential temporary security protection is required. These works should be temporary in nature but provide adequate security and be fully reversible.

Security systems which physically discourage occupation of the site after hours such as garden sprinklers should not be used. Use of garden sprinklers has potential to damage original fabric. Installation would also be intrusive.

Security should be achieved by the following means:

- Erection of a temporary fence to secure the area under the station awning. This fence should be fully removable and not fixed to the station building.
- Provision of security lighting to the area under the station canopy.
- Provision of regular security patrols through the night.
- Affixing “Do not trespass” signs to the temporary fence.

7 CONSERVATION STRATEGY AND POLICIES

The principal objective of this CMS is to provide guidance for the future of the buildings and structures which make up the former Byron Bay Railway Station and yard group include the potential future use of the former station building. The policies below take into account the constraints and opportunities detailed in Section 6.0.

The conservation guidelines and policies provided in this section have been based on the principles outlined in the Burra Charter (Appendix A): The Australia ICOMOS Charter for Places of Cultural Significance (ICOMOS Australia, 2013). Article 3.1 Cautious Approach has been followed which prescribes that conservation “requires a cautious approach of changing as much as necessary but as little as possible”.

Development of this strategy has had regard to:

- The constraints and opportunities arising from the assessment of heritage significance.
- Requirements imposed by external factors and agencies including applicable planning controls.
- The location of the building.
- The physical condition and degree of integrity of the fabric of the place.
- Identification of potential adaptive re-use.

7.1 Conservation Principles

In order to retain the heritage integrity of the place, change must be managed in a manner that embraces the following principles:

1. An understanding of the original use and layout of the station is retained.
2. Where possible, original fabric is to be retained and repaired.
3. Where original fabric cannot be retained, alternatives are to be sourced to maintain the sense of the original design.

7.2 Elements to be retained

The following elements of the former Byron Bay Railway Station and yard group have been assessed to be of exceptional and high heritage significance and are recommended to be retained to achieve optimum conservation outcomes:

1. Water tower (Exceptional Heritage Significance)
 - Built form
 - Brick tower
 - Water tank
2. Former Station Building (High Heritage Significance)
 - Built form, including chimney
 - Platform

- Platform Verandah and support braces
 - Timber doors, windows, frames, lintels and other associated joinery
 - Timber board lining to interior walls and ceilings
 - Internal fireplace, surround and chimney
3. Former Station Master's house (High Heritage Significance)
- Built form, including chimney
 - Verandah and support posts
 - Timber doors, windows, frames, lintels and other associated joinery
 - Timber board lining to interior walls and ceilings
 - Remnant internal joinery such skirting boards, door and window lintels and sills
 - Timber Boards of now internalized exterior weatherboards
 - Internal fireplace and chimney

7.3 Elements that may be altered

Other elements of the former Byron Bay Railway station and yard group are of lesser heritage significance and may be altered or removed. These elements include:

1. Elements not assessed to be of high significance in this CMS, provided that any replacement or addition of these elements is suitable to the existing context and does not physically or visually impact on elements of high significance in the vicinity.
2. In the event of the discovery of material containing asbestos, or any other noxious or hazardous material, this material should be removed with minimal damage to original fabric. Where removal is impossible without impacting original material, the replacement material should reflect the overall design principles of the station. A heritage architect should be consulted during the design process to optimise heritage outcomes.
 - a. A risk analysis must be conducted to assess whether removal or stabilisation in situ is the best solution.
 - b. The *NSW Heritage Act 1977* exemptions do not allow for the removal of large amounts of hazardous materials. The standard approvals processes will apply.
3. If future development consents approve the removal of significant architectural detailing, an interpretation of the element should be incorporated into the new scheme with the involvement of a heritage architect. Any new material should be chosen to respect the original design.
4. Unsympathetic changes may be removed and replaced with sympathetic alternatives, for example: lighting, later services, ticket office window to the former station building, tiled floor to interior of the former station building and Station Master's house and the metal safety screens to the windows of the former station building and signal box.

7.4 Conservation policies

The following conservation policies provide a framework for any work to be undertaken at the former Byron Bay Railway Station and Yard Group.

7.4.1 General Guidelines

- Policy 01** This Conservation Management Strategy should be endorsed by the Byron Shire Council and recognised as the principal conservation guide to future planning and development of the place.
- Policy 02** The significance of the former Byron Bay Railway Station and Yard Group should be recognised by the Byron Shire Council. The identified heritage values of the place should be duly considered when managing maintaining and redeveloping the site by owners, the Byron Shire Council and future lessees or licensees.
- Policy 03** Where possible, new works must retain elements of high significance and provide for their conservation and long-term maintenance. This can be achieved by the creation of cyclical and catch-up maintenance programs prepared specifically for the subject property.
- Policy 04** The former station building should continue to be listed forming part of the heritage listed former station group identified on the State Heritage Register (SHR) and within Schedule 5 of the LEP. The SHI form should be updated, Byron Shire Council, to reflect revised descriptions and Statement of Significance.
- Policy 05** That the State Heritage Listing is amended to exclude the southern section of the neighbouring car park (Lawson Street South) located to the north-east boundary of the site.
- Policy 06** A suitably qualified heritage architect or consultant should be involved during the design stages of any proposal at the former station building and yard group.
- Policy 07** All appropriate approvals for new works should be obtained as per the statutory requirements outlined in Section 2 of this CMS unless they are exempt works. The approval authority in this instance is the Heritage Council of NSW.
- Policy 08** The structural repairs identified in the report prepared by GHD, regarding the Water Tower, should be considered a matter of priority, specifically in relation to road construction works for the Butler Street by pass.

7.4.2 Use

- Policy 09** Byron Bay Railway Station and Yard Group no longer operates in its original capacity and must be adapted to ensure the long-term conservation of this group of buildings. This adaption is to be carefully planned by the Byron Shire Council and future lessees or licensees to ensure that, where possible, the heritage significance of the place and its fabric is preserved and enhanced.
- Policy 10** The place's former use as a Railway Station is to be recognised as being integral part of the significance of the site. Any future proposals for adaptive re-use must consider the

interpretation of its former use.

- Policy 11** Spaces that are no longer used for their original purpose, or are currently used, may be adapted provided they respect the original layout and significant fabric and do not provide undue visual impact.
- Policy 12** Spaces which are no longer used for their original purpose and have not been identified as being suitable for adaptive re-use, at this stage, should be considered for Asset Mothballing to ensure that they are retained in a good condition for future use or interpretation purposes.

7.4.3 Alterations

- Policy 13** Significant fabric as identified in this CMS should be retained and conserved (Section 7.2).
- Policy 14** Significant fabric should be regularly inspected and repaired where appropriate. Work should be carried out by qualified professionals who have experience with heritage buildings and places.
- Policy 15** Where appropriate, works proposing alterations to the site should explore the opportunity to carry out further restoration works to the significance elements of the former station and yard group. A maintenance plan should be prepared for the building to identify the restoration works required for each building or structure.
- Policy 16** Any proposal to remove significant fabric, as identified within this report, should be substantiated by appropriate justifications and thoroughly documented. Any significant fabric to be removed from the site should be photographically recorded prior to its removal and appropriately interpreted in any new scheme proposed
- Policy 17** Removal or alterations to significant fabric must be limited to elements of lesser significance. If significant elements must be removed or altered, such removal/alterations should be limited as much as possible. Any removal or alterations should comply with Section 7.3 of this CMS.
- Policy 18** Restoration works must not be based on conjecture but must, to the contrary, demonstrate respect for the original design and fabric of the building. Any reintroduction of missing elements, such as the ticket office window, must relate to historic documentation showing the original design or features.
- Policy 19** Prior to the undertaking of works believed to be Standard Exemptions, the site user is to verify the provisions of the “*Standard Exemptions for works requiring Heritage Council approval*” guidance document and adhere to the requirements of that document.

7.4.4 Additions

Policy 20 Any new building or elements to the site should be designed so as to be respectful to the original configuration of the yard group, as defined within State Heritage Register (SHR) listing number 01107 and significant fabric as identified in Section 5.3 of this CMS.

Policy 21 Any new building or alterations and additions to the existing buildings or infrastructure should be designed so as to minimise fabric and visual impacts to elements of significance of the former railway station and yard group. This CMS must be consulted during the design phase of any potential works.

Policy 22 Any new building or alterations and additions to the existing buildings should be identifiable as such whilst remaining sympathetic to the original design in form and style. New structures should be designed to follow the existing built form of the Station group buildings, including the former Station Building which was constructed as a series of pavilions. Any new structure must be deferential to the existing buildings and respect the established setbacks and single storey scale of the existing structures. In particular any new buildings should not be located closer to the platform edge than the existing station building.

The installation of commercial kitchens can be invasive and have the potential to detrimentally impact items and fabric of significant value. It is therefore preferable that they are located in lower heritage significant spaces. However, should there be a need to install a commercial kitchen into the existing station building, careful consideration should be given to its placement. Particular consideration should be given to kitchen exhaust location and to a design that will ensure the exhaust will not constitute a potential fire hazard. The location of the exhaust should also be carefully located in terms of its visual impact on the roofscape of the station building.

In general, it is preferable to locate a commercial kitchen in a new, sympathetically-designed structure adjacent to existing buildings.

It would also be preferable for toilets to be located in a new and separate structure to allow full use of the former station building for activities that do not require water and drainage services.

Policy 23 Where possible, new works should explore the opportunity for restoration works to the former station building. A maintenance plan should be prepared for the building to identify the restoration works required for the building.

7.4.5 Interpretation

Policy 24 A heritage interpretation plan should be prepared for the former Byron Bay Railway Station and Yard Group that encompasses all aspects of the history and heritage significance of the Railway Station and surrounding yard group. This plan should be incorporated into the planning of any new use.

- Policy 25** Consideration must be given to the potential use and housing of elements that were historically associated with the railway station that may have been removed from the site. This could include tickets, timetables, advertising materials and larger items such as engines and carriages.
- Policy 26** Alternative uses should, subject to statutory and owners consent, lend themselves easily to the re-use of the track area. Steps should not be undertaken that would preclude the future installation of a railway carriage that could be accessed directly from the platform.
- Policy 27** Consideration should be given to the reintroduction of site elements that have been removed or lost and their ability to be used in the site.
- Policy 28** Any new works should be designed to incorporate interpretation to ensure that the new and old elements of the place demonstrate a cohesive, respectful relationship.

7.4.6 Archival recording

- Policy 29** Where major alterations or additions are proposed, such as changes to the appearance or layout of the buildings or place, an archival recording of the site should be prepared prior to the commencement of work. Recordings should be conducted in accordance with the guidelines of the Heritage Division Publication *Photographic Recording of Heritage Items Using Film and Digital Capture*.

7.4.7 Archaeology

- Policy 30** This CMS does not cover any archaeological implications of the sites. However, no excavation is anticipated by this CMS and as such it is considered that there is little or no chance of archaeological remains being disturbed. In the event of ground breaking works being undertaken an assessment of the archaeological potential of the site will be required.
- Policy 31** In the event of the discovery of archaeological remains, work must stop immediately and the NSW Heritage Office contacted in accordance with the requirement of the NSW Heritage Act 1977

7.4.8 Distribution of Conservation Management Strategy

- Policy 32** Copies of this document should be retained by Byron Shire Council and the Heritage Council of NSW.
- Policy 33** A copy of this document should be provided to prospective and new sub-lessees or licensees to ensure that they are aware of the heritage values of the site and the need to protect them.

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Appendix A - The Burra Charter

The Australian ICOMOS Charter for Places of Cultural Significance 2013

THE BURRA CHARTER

The Australia ICOMOS Charter for
Places of Cultural Significance

2013



Australia ICOMOS Incorporated
International Council on Monuments and Sites

ICOMOS

ICOMOS (International Council on Monuments and Sites) is a non-governmental professional organisation formed in 1965, with headquarters in Paris. ICOMOS is primarily concerned with the philosophy, terminology, methodology and techniques of cultural heritage conservation. It is closely linked to UNESCO, particularly in its role under the World Heritage Convention 1972 as UNESCO's principal adviser on cultural matters related to World Heritage. The 11,000 members of ICOMOS include architects, town planners, demographers, archaeologists, geographers, historians, conservators, anthropologists, scientists, engineers and heritage administrators. Members in the 103 countries belonging to ICOMOS are formed into National Committees and participate in a range of conservation projects, research work, intercultural exchanges and cooperative activities. ICOMOS also has 27 International Scientific Committees that focus on particular aspects of the conservation field. ICOMOS members meet triennially in a General Assembly.

Australia ICOMOS

The Australian National Committee of ICOMOS (Australia ICOMOS) was formed in 1976. It elects an Executive Committee of 15 members, which is responsible for carrying out national programs and participating in decisions of ICOMOS as an international organisation. It provides expert advice as required by ICOMOS, especially in its relationship with the World Heritage Committee. Australia ICOMOS acts as a national and international link between public authorities, institutions and individuals involved in the study and conservation of all places of cultural significance. Australia ICOMOS members participate in a range of conservation activities including site visits, training, conferences and meetings.

Revision of the Burra Charter

The Burra Charter was first adopted in 1979 at the historic South Australian mining town of Burra. Minor revisions were made in 1981 and 1988, with more substantial changes in 1999.

Following a review this version was adopted by Australia ICOMOS in October 2013.

The review process included replacement of the 1988 Guidelines to the Burra Charter with Practice Notes which are available at: australia.icomos.org

Australia ICOMOS documents are periodically reviewed and we welcome any comments.

Citing the Burra Charter

The full reference is *The Burra Charter: The Australia ICOMOS Charter for Places of Cultural Significance, 2013*. Initial textual references should be in the form of the *Australia ICOMOS Burra Charter, 2013* and later references in the short form (*Burra Charter*).

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The Burra Charter consists of the Preamble, Articles, Explanatory Notes and the flow chart.

This publication may be reproduced, but only in its entirety including the front cover and this page. Formatting must remain unaltered. Parts of the Burra Charter may be quoted with appropriate citing and acknowledgement.

Cover photograph by Ian Stapleton.

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Preamble

Considering the International Charter for the Conservation and Restoration of Monuments and Sites (Venice 1964), and the Resolutions of the 5th General Assembly of the International Council on Monuments and Sites (ICOMOS) (Moscow 1978), the Burra Charter was adopted by Australia ICOMOS (the Australian National Committee of ICOMOS) on 19 August 1979 at Burra, South Australia. Revisions were adopted on 23 February 1981, 23 April 1988, 26 November 1999 and 31 October 2013.

The Burra Charter provides guidance for the conservation and management of places of cultural significance (cultural heritage places), and is based on the knowledge and experience of Australia ICOMOS members.

Conservation is an integral part of the management of places of cultural significance and is an ongoing responsibility.

Who is the Charter for?

The Charter sets a standard of practice for those who provide advice, make decisions about, or undertake works to places of cultural significance, including owners, managers and custodians.

Using the Charter

The Charter should be read as a whole. Many articles are interdependent.

The Charter consists of:

- Definitions Article 1
- Conservation Principles Articles 2–13
- Conservation Processes Articles 14–25
- Conservation Practices Articles 26–34
- The Burra Charter Process flow chart.

The key concepts are included in the Conservation Principles section and these are further developed in the Conservation Processes and Conservation Practice sections. The flow chart explains the Burra Charter Process (Article 6) and is an integral part of

the Charter. Explanatory Notes also form part of the Charter.

The Charter is self-contained, but aspects of its use and application are further explained, in a series of Australia ICOMOS Practice Notes, in *The Illustrated Burra Charter*, and in other guiding documents available from the Australia ICOMOS web site: australia.icomos.org.

What places does the Charter apply to?

The Charter can be applied to all types of places of cultural significance including natural, Indigenous and historic places with cultural values.

The standards of other organisations may also be relevant. These include the *Australian Natural Heritage Charter*, *Ask First: a guide to respecting Indigenous heritage places and values* and *Significance 2.0: a guide to assessing the significance of collections*.

National and international charters and other doctrine may be relevant. See australia.icomos.org.

Why conserve?

Places of cultural significance enrich people's lives, often providing a deep and inspirational sense of connection to community and landscape, to the past and to lived experiences. They are historical records, that are important expressions of Australian identity and experience. Places of cultural significance reflect the diversity of our communities, telling us about who we are and the past that has formed us and the Australian landscape. They are irreplaceable and precious.

These places of cultural significance must be conserved for present and future generations in accordance with the principle of inter-generational equity.

The Burra Charter advocates a cautious approach to change: do as much as necessary to care for the place and to make it useable, but otherwise change it as little as possible so that its cultural significance is retained.

A a a O O o po a e 1

Articles

Article 1. Definitions

For the purposes of this Charter:

- 1.1 *Place* means a geographically defined area. It may include elements, objects, spaces and views. Place may have tangible and intangible dimensions.
- 1.2 *Cultural significance* means aesthetic, historic, scientific, social or spiritual value for past, present or future generations.
- Cultural significance is embodied in the *place* itself, its *fabric*, *setting*, *use*, *associations*, *meanings*, records, *related places* and *related objects*.
- Places may have a range of values for different individuals or groups.
- 1.3 *Fabric* means all the physical material of the *place* including elements, fixtures, contents and objects.
- 1.4 *Conservation* means all the processes of looking after a *place* so as to retain its *cultural significance*.
- 1.5 *Maintenance* means the continuous protective care of a *place*, and its *setting*.
- Maintenance is to be distinguished from repair which involves *restoration* or *reconstruction*.
- 1.6 *Preservation* means maintaining a *place* in its existing state and retarding deterioration.
- 1.7 *Restoration* means returning a *place* to a known earlier state by removing accretions or by reassembling existing elements without the introduction of new material.
- 1.8 *Reconstruction* means returning a *place* to a known earlier state and is distinguished from *restoration* by the introduction of new material.
- 1.9 *Adaptation* means changing a *place* to suit the existing *use* or a proposed use.
- 1.10 *Use* means the functions of a *place*, including the activities and traditional and customary practices that may occur at the place or are dependent on the place.

Explanatory Notes

Place has a broad scope and includes natural and cultural features. Place can be large or small: for example, a memorial, a tree, an individual building or group of buildings, the location of an historical event, an urban area or town, a cultural landscape, a garden, an industrial plant, a shipwreck, a site with in situ remains, a stone arrangement, a road or travel route, a community meeting place, a site with spiritual or religious connections.

The term cultural significance is synonymous with cultural heritage significance and cultural heritage value.

Cultural significance may change over time and with use.

Understanding of cultural significance may change as a result of new information.

Fabric includes building interiors and sub-surface remains, as well as excavated material.

Natural elements of a place may also constitute fabric. For example the rocks that signify a Dreaming place.

Fabric may define spaces and views and these may be part of the significance of the place.

See also Article 14.

Examples of protective care include:

- maintenance — regular inspection and cleaning of a place, e.g. mowing and pruning in a garden;
- repair involving restoration — returning dislodged or relocated fabric to its original location e.g. loose roof gutters on a building or displaced rocks in a stone bora ring;
- repair involving reconstruction — replacing decayed fabric with new fabric

It is recognised that all places and their elements change over time at varying rates.

New material may include recycled material salvaged from other places. This should not be to the detriment of any place of cultural significance.

Use includes for example cultural practices commonly associated with Indigenous peoples such as ceremonies, hunting and fishing, and fulfillment of traditional obligations. Exercising a right of access may be a use.

Articles

- 1.11 *Compatible use* means a *use* which respects the *cultural significance* of a *place*. Such a use involves no, or minimal, impact on cultural significance.
- 1.12 *Setting* means the immediate and extended environment of a *place* that is part of or contributes to its *cultural significance* and distinctive character.
- 1.13 *Related place* means a *place* that contributes to the *cultural significance* of another place.
- 1.14 *Related object* means an object that contributes to the *cultural significance* of a *place* but is not at the place.
- 1.15 *Associations* mean the connections that exist between people and a *place*.
- 1.16 *Meanings* denote what a *place* signifies, indicates, evokes or expresses to people.
- 1.17 *Interpretation* means all the ways of presenting the *cultural significance* of a *place*.

Conservation Principles

Article 2. Conservation and management

- 2.1 *Places of cultural significance* should be conserved.
- 2.2 The aim of *conservation* is to retain the *cultural significance* of a *place*.
- 2.3 *Conservation* is an integral part of good management of *places of cultural significance*.
- 2.4 *Places of cultural significance* should be safeguarded and not put at risk or left in a vulnerable state.

Article 3. Cautious approach

- 3.1 *Conservation* is based on a respect for the existing *fabric, use, associations* and *meanings*. It requires a cautious approach of changing as much as necessary but as little as possible.
- 3.2 Changes to a *place* should not distort the physical or other evidence it provides, nor be based on conjecture.

Article 4. Knowledge, skills and techniques

- 4.1 *Conservation* should make use of all the knowledge, skills and disciplines which can contribute to the study and care of the *place*.

Explanatory Notes

Setting may include: structures, spaces, land, water and sky; the visual setting including views to and from the place, and along a cultural route; and other sensory aspects of the setting such as smells and sounds. Setting may also include historical and contemporary relationships, such as use and activities, social and spiritual practices, and relationships with other places, both tangible and intangible.

Objects at a place are encompassed by the definition of place, and may or may not contribute to its cultural significance.

Associations may include social or spiritual values and cultural responsibilities for a place.

Meanings generally relate to intangible dimensions such as symbolic qualities and memories.

Interpretation may be a combination of the treatment of the fabric (e.g. maintenance, restoration, reconstruction); the use of and activities at the place; and the use of introduced explanatory material.

The traces of additions, alterations and earlier treatments to the fabric of a place are evidence of its history and uses which may be part of its significance. Conservation action should assist and not impede their understanding.

Articles

- 4.2 Traditional techniques and materials are preferred for the *conservation* of significant *fabric*. In some circumstances modern techniques and materials which offer substantial conservation benefits may be appropriate.

Article 5. Values

- 5.1 *Conservation* of a *place* should identify and take into consideration all aspects of cultural and natural significance without unwarranted emphasis on any one value at the expense of others.
- 5.2 Relative degrees of *cultural significance* may lead to different *conservation* actions at a *place*.

Article 6. Burra Charter Process

- 6.1 The *cultural significance* of a *place* and other issues affecting its future are best understood by a sequence of collecting and analysing information before making decisions. Understanding cultural significance comes first, then development of policy and finally management of the *place* in accordance with the policy. This is the Burra Charter Process.
- 6.2 Policy for managing a *place* must be based on an understanding of its *cultural significance*.
- 6.3 Policy development should also include consideration of other factors affecting the future of a *place* such as the owner's needs, resources, external constraints and its physical condition.
- 6.4 In developing an effective policy, different ways to retain *cultural significance* and address other factors may need to be explored.
- 6.5 Changes in circumstances, or new information or perspectives, may require reiteration of part or all of the Burra Charter Process.

Article 7. Use

- 7.1 Where the *use* of a *place* is of *cultural significance* it should be retained.
- 7.2 A *place* should have a *compatible use*.

Explanatory Notes

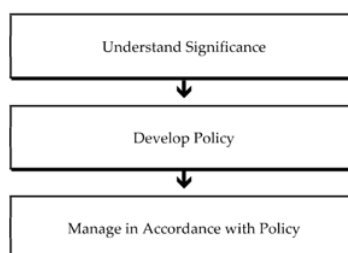
The use of modern materials and techniques must be supported by firm scientific evidence or by a body of experience.

Conservation of places with natural significance is explained in the Australian Natural Heritage Charter. This Charter defines natural significance to mean the importance of ecosystems, biodiversity and geodiversity for their existence value or for present or future generations, in terms of their scientific, social, aesthetic and life-support value.

In some cultures, natural and cultural values are indivisible.

A cautious approach is needed, as understanding of cultural significance may change. This article should not be used to justify actions which do not retain cultural significance.

The Burra Charter Process, or sequence of investigations, decisions and actions, is illustrated below and in more detail in the accompanying flow chart which forms part of the Charter.



Options considered may include a range of uses and changes (e.g. adaptation) to a *place*.

The policy should identify a use or combination of uses or constraints on uses that retain the cultural significance of the *place*. New use of a *place* should involve minimal change to significant fabric and use; should respect associations and meanings; and where appropriate should provide for continuation of activities and practices which contribute to the cultural significance of the *place*.

Articles

Article 8. Setting

Conservation requires the retention of an appropriate *setting*. This includes retention of the visual and sensory setting, as well as the retention of spiritual and other cultural relationships that contribute to the *cultural significance* of the *place*.

New construction, demolition, intrusions or other changes which would adversely affect the setting or relationships are not appropriate.

Article 9. Location

- 9.1 The physical location of a *place* is part of its *cultural significance*. A building, work or other element of a place should remain in its historical location. Relocation is generally unacceptable unless this is the sole practical means of ensuring its survival.
- 9.2 Some buildings, works or other elements of *places* were designed to be readily removable or already have a history of relocation. Provided such buildings, works or other elements do not have significant links with their present location, removal may be appropriate.
- 9.3 If any building, work or other element is moved, it should be moved to an appropriate location and given an appropriate *use*. Such action should not be to the detriment of any *place* of *cultural significance*.

Article 10. Contents

Contents, fixtures and objects which contribute to the *cultural significance* of a *place* should be retained at that place. Their removal is unacceptable unless it is: the sole means of ensuring their security and *preservation*; on a temporary basis for treatment or exhibition; for cultural reasons; for health and safety; or to protect the place. Such contents, fixtures and objects should be returned where circumstances permit and it is culturally appropriate.

Article 11. Related places and objects

The contribution which *related places* and *related objects* make to the *cultural significance* of the *place* should be retained.

Article 12. Participation

Conservation, *interpretation* and management of a *place* should provide for the participation of people for whom the place has significant *associations* and *meanings*, or who have social, spiritual or other cultural responsibilities for the place.

Article 13. Co-existence of cultural values

Co-existence of cultural values should always be recognised, respected and encouraged. This is especially important in cases where they conflict.

Explanatory Notes

Setting is explained in Article 1.12.

For example, the repatriation (returning) of an object or element to a place may be important to Indigenous cultures, and may be essential to the retention of its cultural significance.

Article 28 covers the circumstances where significant fabric might be disturbed, for example, during archaeological excavation.

Article 33 deals with significant fabric that has been removed from a place.

For some places, conflicting cultural values may affect policy development and management decisions. In Article 13, the term cultural values refers to those beliefs which are important to a cultural group, including but not limited to political, religious, spiritual and moral beliefs. This is broader than values associated with cultural significance.

Conservation Processes

Article 14. Conservation processes

Conservation may, according to circumstance, include the processes of: retention or reintroduction of a *use*; retention of *associations* and *meanings*; *maintenance*, *preservation*, *restoration*, *reconstruction*, *adaptation* and *interpretation*; and will commonly include a combination of more than one of these. Conservation may also include retention of the contribution that *related places* and *related objects* make to the *cultural significance* of a *place*.

Article 15. Change

15.1 Change may be necessary to retain *cultural significance*, but is undesirable where it reduces cultural significance. The amount of change to a *place* and its *use* should be guided by the *cultural significance* of the place and its appropriate *interpretation*.

15.2 Changes which reduce *cultural significance* should be reversible, and be reversed when circumstances permit.

15.3 Demolition of significant *fabric* of a *place* is generally not acceptable. However, in some cases minor demolition may be appropriate as part of *conservation*. Removed significant fabric should be reinstated when circumstances permit.

15.4 The contributions of all aspects of *cultural significance* of a *place* should be respected. If a place includes *fabric*, *uses*, *associations* or *meanings* of different periods, or different aspects of cultural significance, emphasising or interpreting one period or aspect at the expense of another can only be justified when what is left out, removed or diminished is of slight cultural significance and that which is emphasised or interpreted is of much greater cultural significance.

Article 16. Maintenance

Maintenance is fundamental to *conservation*. Maintenance should be undertaken where *fabric* is of *cultural significance* and its maintenance is necessary to retain that *cultural significance*.

Article 17. Preservation

Preservation is appropriate where the existing *fabric* or its condition constitutes evidence of *cultural significance*, or where insufficient evidence is available to allow other *conservation* processes to be carried out.

Conservation normally seeks to slow deterioration unless the significance of the place dictates otherwise. There may be circumstances where no action is required to achieve conservation.

When change is being considered, including for a temporary use, a range of options should be explored to seek the option which minimises any reduction to its cultural significance.

It may be appropriate to change a place where this reflects a change in cultural meanings or practices at the place, but the significance of the place should always be respected.

Reversible changes should be considered temporary. Non-reversible change should only be used as a last resort and should not prevent future conservation action.

Maintaining a place may be important to the fulfilment of traditional laws and customs in some Indigenous communities and other cultural groups.

Preservation protects fabric without obscuring evidence of its construction and use. The process should always be applied:

- where the evidence of the fabric is of such significance that it should not be altered; or
- where insufficient investigation has been carried out to permit policy decisions to be taken in accord with Articles 26 to 28.

New work (e.g. stabilisation) may be carried out in association with preservation when its purpose is the physical protection of the fabric and when it is consistent with Article 22.

Article 18. Restoration and reconstruction

Restoration and reconstruction should reveal culturally significant aspects of the *place*.

Article 19. Restoration

Restoration is appropriate only if there is sufficient evidence of an earlier state of the *fabric*.

Article 20. Reconstruction

20.1 *Reconstruction* is appropriate only where a *place* is incomplete through damage or alteration, and only where there is sufficient evidence to reproduce an earlier state of the *fabric*. In some cases, reconstruction may also be appropriate as part of a *use* or practice that retains the *cultural significance* of the *place*.

20.2 *Reconstruction* should be identifiable on close inspection or through additional *interpretation*.

Article 21. Adaptation

21.1 *Adaptation* is acceptable only where the adaptation has minimal impact on the *cultural significance* of the *place*.

21.2 *Adaptation* should involve minimal change to significant *fabric*, achieved only after considering alternatives.

Article 22. New work

22.1 New work such as additions or other changes to the *place* may be acceptable where it respects and does not distort or obscure the *cultural significance* of the *place*, or detract from its *interpretation* and appreciation.

22.2 New work should be readily identifiable as such, but must respect and have minimal impact on the *cultural significance* of the *place*.

Article 23. Retaining or reintroducing use

Retaining, modifying or reintroducing a significant *use* may be appropriate and preferred forms of *conservation*.

Article 24. Retaining associations and meanings

24.1 Significant *associations* between people and a *place* should be respected, retained and not obscured. Opportunities for the *interpretation*, commemoration and celebration of these associations should be investigated and implemented.

24.2 Significant *meanings*, including spiritual values, of a *place* should be respected. Opportunities for the continuation or revival of these meanings should be investigated and implemented.

Places with social or spiritual value may warrant reconstruction, even though very little may remain (e.g. only building footings or tree stumps following fire, flood or storm). The requirement for sufficient evidence to reproduce an earlier state still applies.

Adaptation may involve additions to the *place*, the introduction of new services, or a new use, or changes to safeguard the *place*. Adaptation of a *place* for a new use is often referred to as 'adaptive re-use' and should be consistent with Article 7.2.

New work should respect the significance of a *place* through consideration of its siting, bulk, form, scale, character, colour, texture and material. Imitation should generally be avoided.

New work should be consistent with Articles 3, 5, 8, 15, 21 and 22.1.

These may require changes to significant *fabric* but they should be minimised. In some cases, continuing a significant use, activity or practice may involve substantial new work.

For many *places* associations will be linked to aspects of use, including activities and practices.

Some associations and meanings may not be apparent and will require research.

Article 25. Interpretation

The *cultural significance* of many *places* is not readily apparent, and should be explained by *interpretation*. Interpretation should enhance understanding and engagement, and be culturally appropriate.

In some circumstances any form of interpretation may be culturally inappropriate.

Conservation Practice**Article 26. Applying the Burra Charter Process**

- 26.1 Work on a *place* should be preceded by studies to understand the place which should include analysis of physical, documentary, oral and other evidence, drawing on appropriate knowledge, skills and disciplines.
- 26.2 Written statements of *cultural significance* and policy for the *place* should be prepared, justified and accompanied by supporting evidence. The statements of significance and policy should be incorporated into a management plan for the place.
- 26.3 Groups and individuals with *associations* with the *place* as well as those involved in its management should be provided with opportunities to contribute to and participate in identifying and understanding the *cultural significance* of the place. Where appropriate they should also have opportunities to participate in its *conservation* and management.
- 26.4 Statements of *cultural significance* and policy for the *place* should be periodically reviewed, and actions and their consequences monitored to ensure continuing appropriateness and effectiveness.

The results of studies should be kept up to date, regularly reviewed and revised as necessary.

Policy should address all relevant issues, e.g. use, interpretation, management and change.

A management plan is a useful document for recording the Burra Charter Process, i.e. the steps in planning for and managing a place of cultural significance (Article 6.1 and flow chart). Such plans are often called conservation management plans and sometimes have other names.

The management plan may deal with other matters related to the management of the place.

Monitor actions taken in case there are also unintended consequences.

Article 27. Managing change

- 27.1 The impact of proposed changes, including incremental changes, on the *cultural significance* of a *place* should be assessed with reference to the statement of significance and the policy for managing the place. It may be necessary to modify proposed changes to better retain cultural significance.
- 27.2 Existing *fabric*, *use*, *associations* and *meanings* should be adequately recorded before and after any changes are made to the *place*.

Article 28. Disturbance of fabric

- 28.1 Disturbance of significant *fabric* for study, or to obtain evidence, should be minimised. Study of a *place* by any disturbance of the fabric, including archaeological excavation, should only be undertaken to provide data essential for decisions on the *conservation* of the place, or to obtain important evidence about to be lost or made inaccessible.

28.2 Investigation of a *place* which requires disturbance of the *fabric*, apart from that necessary to make decisions, may be appropriate provided that it is consistent with the policy for the place. Such investigation should be based on important research questions which have potential to substantially add to knowledge, which cannot be answered in other ways and which minimises disturbance of significant fabric.

Article 29. Responsibility

The organisations and individuals responsible for management and decisions should be named and specific responsibility taken for each decision.

Article 30. Direction, supervision and implementation

Competent direction and supervision should be maintained at all stages, and any changes should be implemented by people with appropriate knowledge and skills.

Article 31. Keeping a log

New evidence may come to light while implementing policy or a plan for a *place*. Other factors may arise and require new decisions. A log of new evidence and additional decisions should be kept.

Article 32. Records

32.1 The records associated with the *conservation* of a *place* should be placed in a permanent archive and made publicly available, subject to requirements of security and privacy, and where this is culturally appropriate.

32.2 Records about the history of a *place* should be protected and made publicly available, subject to requirements of security and privacy, and where this is culturally appropriate.

Article 33. Removed fabric

Significant *fabric* which has been removed from a *place* including contents, fixtures and objects, should be catalogued, and protected in accordance with its *cultural significance*.

Where possible and culturally appropriate, removed significant fabric including contents, fixtures and objects, should be kept at the place.

Article 34. Resources

Adequate resources should be provided for *conservation*.

Words in italics are defined in Article 1.

New decisions should respect and have minimal impact on the cultural significance of the place.

The best conservation often involves the least work and can be inexpensive.

The Burra Charter Process

Steps in planning for and managing a place of cultural significance

The Burra Charter should be read as a whole.

Key articles relevant to each step are shown in the boxes. Article 6 summarises the Burra Charter Process.



Appendix D Contamination Report

27 March 2018

Colin Sims

Project Officer

Byron Shire Council

Via email: colin.sims@byron.nsw.gov.au

Contamination Site Assessment (Additional Works)**Byron Railway Corridor, Byron Bay, NSW****1. Introduction and Background**

JBS&G Australia Pty Ltd (JBS&G) was commissioned by Byron Shire Council (the client) to conduct a preliminary contamination site assessment in relation to a property identified as the Byron Railway Corridor, Byron Bay, NSW (the Site). The Preliminary Contamination Assessment (dated 12 January 2018) made the following recommendations:

- *Further investigations are required to delineate the extent of asbestos containing material (ACM) detected at BH05/MW02. Identified areas impacted with ACM will require management or removal by an appropriately licensed contractor under supervision by a Licenced Asbestos Assessor (LAA);*
- *Groundwater monitoring wells should be surveyed in order to confirm the groundwater flow direction;*
- *An additional round of groundwater monitoring should be conducted to assess dissolved and total metals concentrations in groundwater. As MW02 was unable to be sampled during the November 2017 event, the additional round of groundwater sampling should include assessment of metals, TRH, BTEXN, PAHs, phenols and OCPs at this location.*

JBS&G was commissioned by the client to address the recommendations made in the Preliminary Contamination Assessment. This letter provides a summary of the additional works undertaken to address the recommendations.

It is noted that Usher and Company was engaged directly by the client to survey the three groundwater wells (see **Attachment F**).

2. Objective

The objective of the contamination site assessment was to address the recommendations made in the Preliminary Contamination Assessment.

3. Scope of Works

The scope of works included assessing the lateral/vertical extent of the asbestos contamination in soil detected at BH05/MW02 and resampling of the three groundwater monitoring wells installed by JBS&G.

4. Site Identification

The location of the site is shown in **Figure 1** (see **Attachment A**), and the layout of the site is shown on **Figure 2** (see **Attachment A**). The site details are summarised **Table 4.1** and described in detail in the following sections.

Table 4.1:: Site Details

Lot/DP	Part of Lot 4729 DP 1228104
Address	Corner Butler and Lawson Streets, Byron Bay, NSW
Local Government Authority	Byron Shire Council
Site Area	Approximately 1.5 ha
Current Landuse	Disused rail corridor
Proposed Landuse	Public Open Space
Site zoning	5A – Special Uses Zone
Approximate co-ordinates of the centre of the site¹	Latitude: 559735.61 Longitude: 6831294.47

5. PSI Summary

The PSI (JBS&G, 2018) made the following conclusions:

- The available historical information indicates that the primary historical potentially contaminating activities of concern relate to the former use of the site as a rail corridor;
- No field evidence of contamination (staining or odour) was identified during the field investigation. However, Asbestos Containing Material (ACM) fragments were noted in surface soils at BH05/MW02;
- Soil analytical results were predominantly below adopted screening criteria, with the exception of the following:
 - Bonded ACM and Friable Asbestos / Asbestos Fines (FA/AF) were detected in soils at concentrations exceeding the adopted criteria in sample BH05/MW02 (0-0.3m). The lateral and vertical extent of bonded ACM and FA/AF contamination has not been defined;
 - The 95% Upper Confidence Limit (UCL) mean (95%UCLmean) zinc concentration is above the site specific Ecological Investigation Level (EIL). The elevated 95%UCLmean is related to a single result of 1,900mg/kg in sample BH01/MW01 0-0.4m which is skewing the data set. The lateral and vertical extent of zinc contamination associated with location BH01/MW01 0-0.4m has not been defined.
- Three groundwater monitoring wells have been installed, but only two were able to be sampled (MW01, MW03). The sample analysis identified contaminant concentrations to be below adopted criteria, with the exception of:
 - Arsenic concentrations in both wells above adopted drinking water criteria which are potentially associated with an upgradient source, noting that this cannot be confirmed unless a groundwater monitoring well survey is conducted in order to facilitate calculation of the groundwater flow direction; and
 - Zinc concentrations in both wells above adopted ecosystem maintenance criteria, with the concentrations identified in MW01 possibly related to an onsite source based upon

¹ Google Earth <http://www.google.com/earth>. Date accessed 10 November 2017

the available soil data. The significance of the zinc concentrations cannot be determined without groundwater monitoring well survey and confirmation of both total and dissolved zinc concentrations.

6. Sampling

The sampling methodology adhered to during the investigation is presented in **Table 6.1**.

Table 6.1: Investigation and Methodology

Task	Detail
Soil Sampling	<ul style="list-style-type: none"> 10 shallow soil sampling boreholes were excavated with a hand auger in the vicinity of BH05/MW02 (refer to Figure 3(see Attachment A)). Boreholes were excavated in two circles surrounding BH05/MW2 to a maximum depth of 0.3m BGL (depth of fill); Sampling equipment was decontaminated between investigation locations using potable water and phosphate-free detergent. An equipment rinsate blank was taken during the drilling program to verify this process; The soil encountered was logged in accordance with the United Soil Classification System (USCS) and soil samples were collected at lithology changes or where visual/olfactory evidence of contamination was observed; New, clean, disposable gloves were used for the collection of each sample; Soil samples were collected in clean acid washed sample jars and plastic bags (for asbestos) provided by the laboratory and immediately placed on ice for storage and transport; Quality samples were collected to ensure that results were not biased by field sampling techniques or laboratory methods; Following completion of logging and sampling, the soil cuttings were used to backfill the bores and surface was matched to surroundings; Samples were transported to the laboratory under chain-of-custody (COC) documentation for selected chemical analyses; Samples were transported to the National Association of Testing Authorities (NATA) accredited laboratory Eurofins for chemical analysis; Inter-laboratory duplicate samples were analysed by Envirolab, which is also NATA accredited for the analyses undertaken.
Groundwater Sampling	<ul style="list-style-type: none"> The three onsite wells were gauged using an interface probe prior to any purging or sampling to assess the presence of light non-aqueous phase liquid (LNAPL), if any; Following the gauging event, the groundwater wells were purged and sampled using low flow sampling techniques; Field parameters including pH, electrical conductivity, dissolved oxygen, redox potential and temperature were recorded during purging; New, clean, disposable gloves were used for the collection of the sample; The sample was collected in clean acid washed sample bottles provided by the laboratory and immediately placed on ice for storage and transport; The sample was transported to the laboratory under chain-of-custody (COC) documentation for selected chemical analyses; and The sample was transported to the National Association of Testing Authorities (NATA) accredited laboratory Eurofins for chemical analysis.

7. Analysis

The analytical program was designed to investigate the potential presence of Chemicals of Potential Concern (COPC) associated with identified target locations. The analyses completed for soil and groundwater is summarised below in **Table 7.1**.

Table 7.1: Soil Analysis Summary

Sample Type	No. of Sampling Locations	Analyses (exc. QA/QC)
Fibre cement fragment	1 sample	Asbestos (identification)
Soil	5 samples	Asbestos (quantification)
Groundwater	Groundwater wells – 3 samples	TRH/BTEXN, PAH, OCP, phenols, heavy metals (dissolved and total)

7.1 Assessment Criteria and Investigation Levels

The following assessment criteria and investigation levels were used in the interpretation of the laboratory results.

The National Environment Protection (Assessment of Site Contamination) 1999, as amended 2013 (the NEPM) states that:

“Investigation levels and screening levels are the concentrations of a contaminant above which further appropriate investigation and evaluation will be required”.

An exceedance of an investigation or screening level does not indicate that there is an unacceptable risk to human health or ecological receptors, but rather that further site-specific assessment may be required to quantify the potential risk. Applicable criteria for relevant land uses are discussed below.

7.1.1 Potential Human Health Risks

The NEPM Health based Investigation Levels (HILs) are used to assess the potential risks to human health. The NEPM also provides Health Screening Levels (HSLs) for BTEXN and volatile petroleum hydrocarbon fractions based on vapour intrusion risks from soil contamination. HSLs are provided for bonded ACM in soil and friable asbestos (FA) and asbestos fines (AF) in soil. These criteria has been adopted for this investigation.

7.1.2 Potential Ecological Risks

The NEPM Ecological Investigation Levels (EILs) and Ecological Screening Levels (ESLs) for residential land use are also available. However, EILs/ESLs are not available for asbestos.

7.1.3 Groundwater

Based on Department of Environment and Conservation NSW (2007) *Guidelines for the Assessment and Management of Groundwater Contamination*, all environmental values of the groundwater must be identified to assess potential risk. This includes a consideration of human and ecological health. Depending on location of the contaminated site, the groundwater quality may protect some, or all, of the following:

- Aquatic ecosystems;
- Human uses;
- Human Health in non-use scenarios;
- Irrigation/Livestock watering; and
- Buildings and structures.

The available information indicates that it is unlikely that groundwater in the vicinity of the site is being used for drinking water purposes, however, drinking water represents a potential beneficial use based upon the relatively low salinity of the groundwater encountered.

The following groundwater assessment criteria were adopted for screening purposes:

- NEPM HSLs for vapour intrusion: The HSLs for BTEX and volatile hydrocarbons for an open space scenario. Groundwater was identified at a depth between 0.9m and 2.3m below surface, hence the guidelines for 2 – 4m have been adopted for screening purposes;

- *NHMRC (2011) Australian Drinking Water Guidelines 2011* (updated October 2017): Aesthetic and Health criteria;
- *ANZECC/ARMCANZ (2000) Australian and New Zealand Guidelines for Fresh and Marine Water Quality 2000* (ANZECC 2000): The ANZECC 2000 guidelines provide tabulated values based on percentage species protection for various aquatic environments and water uses. The percent protection appropriate for the site has been conservatively placed at 95% for freshwater ecosystems (including the swamp);
- ANZECC 2000 guidelines for irrigation and livestock watering; and
- *NHMRC (2008) Guidelines for Managing Risk in Recreational Waters 2008* (GMRRW): appropriate for assessing risk associated with direct contact considering various environmental values.

7.2 Material Encountered

The subsurface conditions identified during JBS&G's investigations can be summarised as follows:

- Fill material was identified to comprise gravelly silty sand;
- No field evidence of contamination (staining or odour) was identified. However, grey compressed fibre cement material was noted in AS07/ACM01. One fragment was identified in AS07 only. The fragment was located within surface soil (just below the grass).

7.3 Groundwater Field Observations

The following water quality parameter data were collected during the sampling works.

Table 7.2: Groundwater Field Parameters Summary

Well ID	Date	RL (m AHD)	SWL (m BTOC)	RWL (m AHD)	Dissolved Oxygen (ppm)	Temperature (°C)	pH	EC (uS/cm)	Redox Potential (mV)
BH01/MW01	30/01/2018	3.345	2.624	0.721	0.10	26.0	4.59	91.6	125.5
BH05/MW02	30/01/2018	1.500	0.563	0.937	0.32	28.0	5.50	168.1	-112.7
BH12/MW03	30/01/2018	3.125	1.108	2.017	0.09	26.5	5.70	18.8	10.1

Notes:

SWL = standing water level, m BTOC = metres below top of casing.

Groundwater was observed to have a moderate turbidity. No hydrocarbon odour or sheen was identified during field works.

The EC results indicate that use of groundwater for a beneficial extractive use (e.g. drinking water, stock water, irrigation) could be realistic. Acidic pH was recorded in all wells and anoxic conditions were noted in BH05/MW02.

The three onsite groundwater wells were surveyed by Usher and Company in January 2018. The survey results are attached to this letter (see **Attachment F**). Based on the groundwater gauging undertaken on 30 January 2018 the groundwater flow direction is towards the north.

7.4 Soil Analytical Results

During the October 2017 sampling event, bonded ACM as well as friable asbestos (FA) and asbestos fines (AF) were reported in BH05/MW02 (0-0.3m) at concentrations above HSLs (0.5% bonded ACM, 0.01% FA/AF).

During the 2018 sampling event, visual evidence of asbestos was noted in ACM01 which was a sample of grey compressed fibre cement material. Laboratory analysis confirmed the presence of chrysotile asbestos in the sample. However, no bonded ACM or FA/AF was detected in the soil sample collected from this location (AS07). No bonded ACM or FA/AF was detected in the remaining samples analysed (AS03, AS06, AS09 and AS11).

Based on the January 2018 sampling event, asbestos contamination has been detected in near surface soil at two locations in the north west corner of the site (cleared area, west of the swamp, approximately 60m² in area). This area is not within the fenced rail easement and is clear of vegetation. Based upon the available information, there is no clear conceptual explanation for why bonded ACM and FA/AF are present in this area. However, the two detections were reported in near surface fill material. Based on the available information and the necessity of adopting a conservative approach with respect to FA/AF contamination, JBS&G recommend that fill material within this area of the site is assumed to contain unacceptable asbestos contamination.

The detected asbestos contamination (including friable asbestos and asbestos fines) represents a potentially unacceptable risk to human health that requires remediation and/or management.

7.5 Groundwater Analytical Results

The groundwater analytical results reported contaminant concentrations (TRH, OCP, PAH, BTEXN and phenols) below the LOR. JBS&G note that although the summary tables show criteria exceedances for total metals, these are irrelevant for ecosystem maintenance as these criteria should be compared to dissolved metals results.

The following metals were detected at concentrations exceeding the adopted screening criteria:

- Total arsenic exceeded the adopted drinking water guideline in all wells in January 2018, with the concentration detected in BH12/MW03 also exceeding the adopted long term irrigation and recreational guideline;
- Dissolved arsenic exceeded the adopted drinking water guideline in BH01/MW01 in November 2017 and BH12/MW03 in November 2017 and January 2018, with the concentration detected in BH12/MW03 also exceeding the adopted long term irrigation and recreational guideline in January 2018;
- Dissolved chromium concentrations exceeded the adopted fresh water ecosystem protection guideline in BH05/MW02 in January 2018;
- Dissolved zinc concentrations exceeded the adopted fresh water ecosystem protection guideline in BH01/MW01 and BH12/MW03 in November 2017 and January 2018.

The highest arsenic concentration was detected in the southern most well (i.e. BH12/MW03), which represents the hydraulically upgradient boundary based on the groundwater flow direction. The arsenic concentrations detected may be related to an upgradient source. The available information indicates that it is unlikely that groundwater in the vicinity of the site is being used for drinking water purposes, however, drinking water represents a potential beneficial use based upon the relatively low salinity of the groundwater encountered. Exceedances of the long term irrigation and recreational guideline were reported in the upgradient bore only, which is consistent with an upgradient source.

Dissolved chromium has been detected in a single sample at concentrations exceeding the fresh water ecosystem criteria (i.e. 0.001mg/L vs 0.002mg/L). This criteria exceedance is not considered to be of significance based upon the isolated and marginal nature of the exceedance, the basis for the criteria (i.e. Chromium VI) and the lack of evidence for a historical Chromium VI source onsite.

At the time of the previous report, it was identified that the highest zinc concentration detected in soil was at location BH01/MW01 (1,900mg/kg)² and it possible that the zinc concentration detected in BH01/MW01 is representative of site originated contamination. However, it was suspected that the zinc results could be explained to some extent by localised changes in redox potential and pH. Review of the 2018 total/dissolved zinc concentrations indicates comparable total zinc levels in the upgradient (MW03) and downgradient (MW01) wells, with dissolved zinc concentrations in MW01 an order of magnitude lower in 2018 than 2017 (0.14mg/L vs 0.043mg/L). On weight of evidence, JBS&G considers that the zinc concentrations detected in groundwater across the site are most likely related to natural conditions or an upgradient source.

8. Quality Assurance / Quality Control (QA/QC)

The results of the QA/QC program are presented in the following sections.

8.1 QA/QC Results

QA/QC summary tables are attached to this letter. This review summarises QA/QC measures undertaken at the site. Complete laboratory analysis reports and chain of custody documentation are attached to this letter.

Table 8.1: QA/QC Results Summary

Data Quality Objective	Frequency	Data Quality Indicator	Criteria Met
<i>Precision</i>			
Blind duplicates (intra laboratory)	1 / 20 samples	<50% RPD	Yes
Blind duplicates (inter laboratory)	1 / 20 samples	<50% RPD	Yes
<i>Accuracy</i>			
Laboratory control samples	1 per lab batch	70-130%	Yes
Matrix spikes	1 per lab batch	70-130%	Yes
<i>Representativeness</i>			
Sampling appropriate for media and analytes	All samples	All samples	Yes
Samples extracted and analysed within holding times.	All samples	Inorganics (14 days)	Yes
<i>Comparability</i>			
Standard operating procedures for sample collection & handling	All Samples	All samples	Yes
Standard analytical methods used for all analyses	All Samples	All samples	Yes
Consistent field conditions, sampling staff and laboratory analysis	All Samples	All samples	Yes
Limits of reporting appropriate and consistent	All Samples	All samples	Yes
Completeness			
Sample description and COCs completed and appropriate	All Samples	All samples	Yes
Appropriate documentation	All Samples	All samples	Yes
Satisfactory frequency and result for QC samples	All QA/QC samples	-	
Data from critical samples is considered valid	-	Critical samples valid	Yes

8.2 QA/QC Discussion

RPD calculations and other QA/QC tables are attached to this letter.

² JBS&G (2018) Preliminary Contamination Assessment Byron Rail Corridor, Byron Bay, NSW. January 2018.

8.2.1 Precision

Blind (intra-lab) Duplicates

The rate of blind duplicate sampling and analysis for groundwater was one blind duplicate per twenty primary samples which met the nominated frequency. RPDs were all within the acceptable limits.

No duplicate samples were collected for asbestos.

Split (Inter-lab) Duplicates

The rate of split duplicate sampling and analysis for groundwater was one split duplicate per twenty primary samples which met the nominated frequency. The RPD for arsenic was 78%, copper was 82% and zinc was 61% (between QC01A and primary sample MW02) which is above the data quality indicator of 50%. The elevated RPDs are likely due to the different analytical methods used by the laboratories.

Laboratory Duplicates

The rate of laboratory duplicate analysis was one laboratory duplicate per batch of samples which met the nominated frequency. The RPD for lead was 30% and mercury was 37%, which were noted to fail. However, the RPDS reported passed Eurofins QC/acceptance criteria as defined in their internal Quality Control Review.

8.2.2 Accuracy

Laboratory Control Samples

Analyses completed for laboratory control samples were within the acceptable range of 70-130% adopted for this investigation and within the laboratory control limits.

Matrix Spike Samples

Analyses completed for matrix spike samples were within the acceptable range of 70-130% adopted for this investigation and within the laboratory control limits.

8.2.3 Representativeness

The sampling undertaken was appropriate for characterisation and included media and analytes which were considered appropriate for the scope of works. All samples were collected wearing a new pair of disposable nitrile gloves for each sample.

Holding times

Copies of Sample Receipt Notices (SRNs) are attached. All analyses were undertaken within holding times.

Rinsate Sample

One rinsate samples were collected.

Analyses completed for the rinsate sample met the acceptable range of less than the LOR adopted for this investigation.

8.2.4 Comparability

Eurofins, the primary laboratory, and Envirolab, the secondary laboratory, are NATA accredited for all analytical methods used. The laboratories used similar analytical methods and the analytical data were comparable between laboratories as indicated by the results of duplicate analysis (noting there were some RPD exceedances for metals). Where different LORs were adopted by the laboratories, consideration of the data set was not impacted.

Furthermore, the samples collected for assessment purposes are considered comparable as all samples were collected by experienced JBS&G personnel in accordance with standard JBS&G sampling methods.

8.2.5 Completeness

Documentation

All laboratory and field documentation was complete. Chain of custody documentation is provided with laboratory reports attached to this letter.

Frequency for QC Samples

The frequency of analysis of all QC samples was considered appropriate and valid. Or where the small batch size limited completion of specific analysis, sufficient other quality analyses were available to demonstrate that the DQI criteria were suitable addressed.

8.2.6 Sensitivity

The adopted water analytical methods provided suitable LORs with respect to the adopted site assessment criteria.

8.3 QA/QC Conclusions

The field sampling and handling procedures across the site produced QA/QC results which indicate that data collected is of an acceptable quality and suitable for use in site characterisation.

The NATA certified laboratory reports indicate that the project laboratory was achieving levels of performance within its recommended control limits during the period when the samples from this program were analysed.

On the basis of the results of the field and laboratory QA/QC program, the soil data is of an acceptable quality upon which to draw conclusions regarding the environmental condition of the site.

9. Conceptual Site Model

Based on the findings of the PSI and DSI, the following working conceptual site model (**Table 9.1**) has been developed.

Table 9.1: Conceptual Site Model

CSM Element	
Sources and Mechanisms of Contamination	<p>On the basis of the PSI phase, the potential AECs have been identified to comprise:</p> <ul style="list-style-type: none"> The former rail corridor; The presence of fill material across the site. <p>On the basis of the DSI phase, the actual AECs have been identified to comprise asbestos (including bonded ACM and FA/AF) in near surface soil (~60m² cleared area west of the swamp).</p>
Contaminants of Concern	<p>On the basis of the PSI phase, the COPC have been identified to include ACM, metals, BTEXN, TRH, PAHs and OCPs.</p> <p>On the basis of the DSI phase, the primary COPC comprise asbestos.</p>
Environmental Media of Concern	<p>On the basis of the PSI phase, soil and groundwater are the primary media of concern.</p> <p>On the basis of the DSI phase, soil is the primary media of concern.</p>
Exposure Pathways of Concern	<p>On the basis of the PSI phase, the primary exposure pathways of concern include:</p> <ul style="list-style-type: none"> Direct contact with soil or extracted groundwater. Incidental ingestion of soil. Inhalation of dust/vapour. <p>On the basis of the DSI phase, the primary exposure pathways of concern comprise inhalation of asbestos fibres.</p>

CSM Element	
Potential Receptors of Concern	<p>On the basis of the PSI:</p> <ul style="list-style-type: none"> The primary potential human receptors of concern include future onsite land users, construction workers and subsurface maintenance workers; The primary environmental receptors of concern include onsite terrestrial organisms. <p>On the basis of the DSI:</p> <ul style="list-style-type: none"> The primary potential human receptors of concern comprise future onsite land users; The primary environmental receptors of concern comprise onsite terrestrial organisms.
Preferential pathways for vapour migration	Given all soil results for volatiles were below HSLs, soil vapour contamination is not considered to represent a potentially significant risk.
Source – Pathway – Receptor Linkages	<p>Complete source, pathway, receptor linkages are currently complete for</p> <ul style="list-style-type: none"> Asbestos (including bonded ACM and FA/AF) in near surface soil > fibre inhalation (if generated) > future onsite land users.

10. Conclusions

Based upon the project objectives and scope; and subject to the limitations attached to this letter, the following conclusions are made:

- The additional testing conducted in relation to the previous detections of asbestos indicates that asbestos contamination (including bonded ACM and FA/AF) is present which warrants remediation and/or management in order risks to human health to acceptable levels;
- The additional groundwater monitoring indicates an absence of site originated groundwater contamination which warrants onsite remediation and/or management.

10.1 Recommendations

Based upon the analytical results and finding of the investigation the following recommendations are made:

- Groundwater onsite should not be used for any purpose other than monitoring;
- Interim management measures should be developed and implemented in order to manage risks posed by the identified asbestos contamination;
- Once the future design plans for the site are confirmed a Remediation Action Plan is required for the management of asbestos (including bonded ACM and FA/AF) detected in the cleared area west of the swamp.

11. Closure

Should you have any questions regarding this letter, please contact the undersigned.

Yours sincerely:



Stuart Derham
Senior Environmental Scientist
JBS&G Australia Pty Ltd

Reviewed/Approved by:



Kane Mitchell
Managing Principal QLD
JBS&G Australia Pty Ltd

Attachments:

Attachment A – Figures

Attachment B – Tables

Attachment C – Calibration Certificates

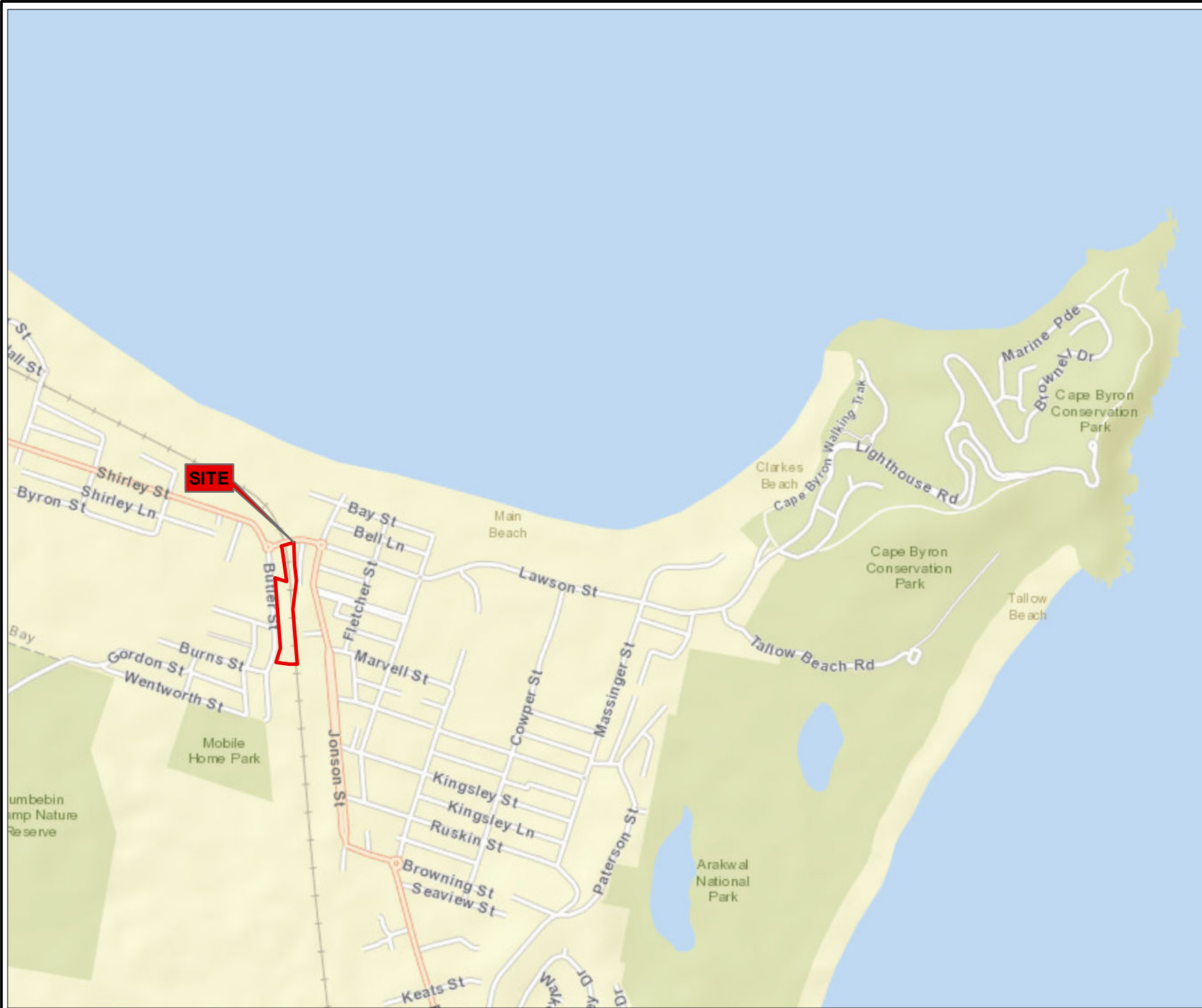
Attachment D – QA/QC

Attachment E – Laboratory Certificates

Attachment F – Survey

Attachment G – Limitations

Attachment A– Figures



Legend:

Approximate Site Boundary



Job No: 54298

Client: Byron Shire Council

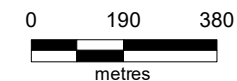
Version: R01 Rev A

Date: 26-Oct-2017

Drawn By: RF

Checked By: JM

Scale 1:15,500



Coor. Sys. GDA 1994 MGA Zone 56

**Byron Rail Corridor Park
Byron Bay, NSW**

SITE LOCATION

FIGURE 1:



Legend:

- Approximate Site Boundary
- Swamp



Job No: 54298

Client: Byron Shire Council

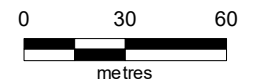
Version: R01 Rev A

Date: 16-Nov-2017

Drawn By: RF

Checked By: JM

Scale 1:2,250



Coor. Sys. GDA 1994 MGA Zone 56

Byron Rail Corridor Park
Byron Bay, NSW

SITE LAYOUT

FIGURE 2:



Legend:

Approximate Site Boundary

type

Borehole Location

Groundwater Well / Borehole Location

Asbestos in Soil Location



Job No: 54298

Client: Byron Shire Council

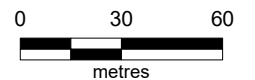
Version: R01 Rev A

Date: 16-Feb-2018

Drawn By: RF

Checked By: JM

Scale 1:2,250



Coor. Sys. GDA 1994 MGA Zone 56


**Byron Rail Corridor Park
Byron Bay, NSW**

SAMPLE LOCATION

FIGURE 3:

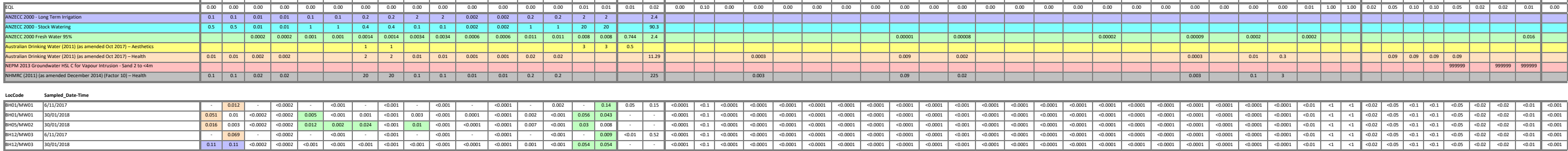
Attachment B – Tables





Asbestos																	
Approx. Sample Mass	Asbestos from ACM in Soil	Asbestos from FA & AF in Soil	Mass ACM	Mass Asbestos in ACM	Mass FA	Mass Asbestos in FA	Mass AF	Mass Asbestos in AF	Mass Asbestos in FA & AF	Asbestos Reported Result	Asbestos Sample Dimensions	ACM - Comment	AF - Comment	FA - Comment	Organic Fibres - Comment	Respirable Fibres - Comment	Synthetic Fibres - Comment
g	%w/w	%w/w	g	g	g	g	g	g	g	Comment	Comment	Comment	Comment	Comment	Comment	Comment	Comment
EQL																	
NEPM 2013 HSL Asbestos in Soil - Bonded ACM - Recreational - HSL C	0.02																
NEPM 2013 HSL Asbestos in Soil - FA & AF - HSL		0.001															

LocCode	Sample_Depth_Range	Sampled_Date-Time																	
ACM01		30/01/2018	41	0	0	0	0	0	0	0	0	0	1	1	1	1	1	1	1
AS03		30/01/2018	731	0	0	0	0	0	0	0	0	0	1	-	1	1	1	1	1
AS06		30/01/2018	778	0	0	0	0	0	0	0	0	0	1	-	1	1	1	1	1
AS07		30/01/2018	666	0	0	0	0	0	0	0	0	0	1	-	1	1	1	1	1
AS09		31/01/2018	661	0	0	0	0	0	0	0	0	0	1	-	1	1	1	1	1
AS11		31/01/2018	616	0	0	0	0	0	0	0	0	0	1	-	1	1	1	1	1
BH01/MW01	0-0.4	30/10/2017	730	0	0	0	0	0	0	0	0	0	1	-	1	1	1	1	1
BH02	0-0.2	30/10/2017	557	0	0	0	0	0	0	0	0	0	1	-	1	1	1	1	1
BH03	0-0.3	30/10/2017	778	0	0	0	0	0	0	0	0	0	1	-	1	1	1	1	1
BH04	0-0.3	30/10/2017	620	0	0	0	0	0	0	0	0	0	1	-	1	1	1	1	1
BH05/MW02	0-0.3	30/10/2017	689	0.5641	0.0118	48.57	3.885	0.1007	0.0352	0.5113	0.046	0.0813	1	-	1	1	1	1	1
BH06	0-0.3	30/10/2017	713	0	0	0	0	0	0	0	0	0	1	-	1	1	1	1	1
BH06	0.5-1	30/10/2017	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
BH07	0-0.3	30/10/2017	809	0	0	0	0	0	0	0	0	0	1	-	1	1	1	1	1
BH08	0-0.5	30/10/2017	630	0	0	0	0	0	0	0	0	0	1	-	1	1	1	1	1
BH09	0-0.3	30/10/2017	612	0	0	0	0	0	0	0	0	0	1	-	1	1	1	1	1
BH10	0-0.3	30/10/2017	630	0	0	0	0	0	0	0	0	0	1	-	1	1	1	1	1
BH11	0-0.3	30/10/2017	651	0	0	0	0	0	0	0	0	0	1	-	1	1	1	1	1
BH12/MW03	0-0.4	30/10/2017	762	0	0	0	0	0	0	0	0	0	1	-	1	1	1	1	1





EQL	PAH															SVOC															TPH					Volatile											
	Acenaphthylene	Anthracene	Benzo(a)anthracene	Benzo(a)pyrene	Benzo(b)fluoranthene	Benzo(g,h,i)perylene	Benzo(k)fluoranthene	Chrysene	Dibenz(a,h)anthracene	Fluoranthene	Fluorene	Indeno(1,2,3-c,d)pyrene	Naphthalene	Phenanthrene	Pyrene	PAHs (Total)	2,4,5-trichlorophenol	2,4,6-trichlorophenol	2,4-dichlorophenol	2,4-dimethylphenol	2,4-dinitrophenol	2,6-dichlorophenol	2-chlorophenol	2-Methylphenol	2-nitrophenol	3- & 4-Methylphenol	4,6-Dinitro-2-methylphenol	4,6-Dinitro-σ-cyclohexyl phenol	4-Chloro-3-Methylphenol	4-nitrophenol	Phenol	Total Halogenated Phenol	Total Non-Halogenated Phenol	Total Tetrachlorophenols	Pentachlorophenol	Dioxin	C10-C14 Fraction	C15-C28 Fraction	C29-C36 Fraction	C10-C36 Fraction (Total)	Benzene	Ethylbenzene	Toluene	Xylene (o)	Xylene (m & p)	Xylene (Total)	
	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L		
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.01	0.01	0.00	0.00	0.03	0.00	0.00	0.00	0.01	0.01	0.03	0.10	0.01	0.03	0.00	0.01	0.10	0.03	0.01	0.10	0.05	0.10	0.10	0.10	0.00	0.00	0.00	0.00	0.00	0.00	0.00
ANZECC 2000 - Long Term Irrigation																																															
ANZECC 2000 - Stock Watering																																															
ANZECC 2000 Fresh Water 95%													0.016				0.02	0.16		0.045			0.49								0.32				0.01					0.95	0.08	0.18	0.35		0.625		
Australian Drinking Water (2011) (as amended Oct 2017) – Aesthetics																	0.002	0.0003					0.0001															0.003	0.025			0.02					
Australian Drinking Water (2011) (as amended Oct 2017) – Health				0.00001													0.02	0.2					0.3											0.01		0.09	0.09	0.09	0.09	0.001	0.3	0.8			0.6		
NEPM 2013 Groundwater HSL C for Vapour Intrusion - Sand 2 to <4m													999999																								999999	999999	999999			999999			999999		
NHMRC (2011) (as amended December 2014) (Factor 10) – Health			0.0001														0.2	2					3											0.1					0.001	0.3	0.8			6			
LocCode	Sampled_Date-Time																																														
BH01/MW01	6/11/2017	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.01	<0.01	<0.003	<0.003	<0.03	<0.003	<0.003	<0.003	<0.003	<0.01	<0.006	<0.03	<0.1	<0.01	<0.03	<0.003	<0.01	<0.1	<0.03	<0.01	<0.1	<0.05	<0.1	<0.1	<0.1	<0.001	<0.001	<0.001	<0.001	<0.002	<0.003
BH01/MW01	30/01/2018	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.01	<0.01	<0.003	<0.003	<0.03	<0.003	<0.003	<0.003	<0.003	<0.01	<0.006	<0.03	<0.1	<0.01	<0.03	<0.003	<0.01	<0.1	<0.03	<0.01	<0.1	<0.05	<0.1	<0.1	<0.1	<0.001	<0.001	<0.001	<0.001	<0.002	<0.003
BH05/MW02	30/01/2018	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.01	<0.01	<0.003	<0.003	<0.03	<0.003	<0.003	<0.003	<0.01	<0.006	<0.03	<0.1	<0.01	<0.03	<0.003	<0.01	<0.1	<0.03	<0.01	<0.1	<0.05	<0.1	<0.1	<0.1	<0.001	<0.001	<0.001	<0.001	<0.002	<0.003	
BH12/MW03	6/11/2017	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.01	<0.01	<0.003	<0.003	<0.03	<0.003	<0.003	<0.003	<0.01	<0.006	<0.03	<0.1	<0.01	<0.03	<0.003	<0.01	<0.1	<0.03	<0.01	<0.1	<0.05	<0.1	<0.1	<0.1	<0.001	<0.001	<0.001	<0.001	<0.002	<0.003	
BH12/MW03	30/01/2018	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.01	<0.01	<0.003	<0.003	<0.03	<0.003	<0.003	<0.003	<0.01	<0.006	<0.03	<0.1	<0.01	<0.03	<0.003	<0.01	<0.1	<0.03	<0.01	<0.1	<0.05	<0.1	<0.1	<0.1	<0.001	<0.001	<0.001	<0.001	<0.002	<0.003	

Attachment C – Calibration Certificate

Multi Parameter Water Meter

Instrument YSI Quatro Pro Plus
Serial No. 15K101083



Air-Met Scientific Pty Ltd
1300 137 067

Item	Test	Pass	Comments
Battery	Charge Condition	✓	
	Fuses	✓	
	Capacity	✓	
Switch/keypad	Operation	✓	
Display	Intensity	✓	
	Operation (segments)	✓	
Grill Filter	Condition	✓	
	Seal	✓	
PCB	Condition	✓	
Connectors	Condition	✓	
Sensor	1. pH	✓	
	2. mV	✓	
	3. EC	✓	
	4. D.O	✓	
	5. Temp	✓	
Alarms	Beeper		
	Settings		
Software	Version		
Data logger	Operation		
Download	Operation		
Other tests:			

Certificate of Calibration

This is to certify that the above instrument has been calibrated to the following specifications:

Sensor	Serial no	Standard Solutions	Certified	Solution Bottle Number	Instrument Reading
1. pH 7.00		pH 7.00	NIST	307928	pH 7.00
2. pH 4.00		pH 4.00	NIST	307927	pH 4.00
3. mV		240mV	NIST	300321/311902	240mV
4. EC		2.76mS	NIST	304153	2.76mS
6. D.O		0 ppm	NIST	5253	0 ppm
7. Temp		24.oC	NIST	MultiTherm 09000528	24.oC

Calibrated by:

Ricky Kneebone

Calibration date:

29-Jan-18

Next calibration due:

28-Jul-18

Oil / Water Interface Meter

Instrument: Geotech Interface Meter (60m)
Serial No. 3882



Air-Met Scientific Pty Ltd
1300 137 067

Item	Test	Pass	Comments
Battery	Compartment	✓	
	Capacity	✓	9v
Probe	Cleaned/Decon.	✓	
	Operation	✓	
Connectors	Condition	✓	
		✓	
Tape Check	Cleaned	✓	
Connectors	Checked for cuts	✓	
Instrument Test	At surface level	✓	

Certificate of Calibration

This is to certify that the above instrument has been cleaned and tested.

Calibrated by:

Chris Lynch

A handwritten signature in black ink, appearing to be "cl", written over the printed name "Chris Lynch".

Calibration date:

29-Jan-18

Next calibration due:

30-Mar-18

Attachment D – QA/QC

Field Blanks (WATER)
Filter: SDG in(582697)

SDG	582697
Field ID	R.BLANK
Sampled_Date/Time	30/01/2018
Sample Type	Field_B

Method_Type	ChemName	Units	EQL	
Heavy Metal	Arsenic (Total)	mg/l	0.001	
	Arsenic (Total) (Filtered)	mg/l	0.001	<0.001
	Cadmium	mg/l	0.0002	
	Cadmium (Filtered)	mg/l	0.0002	<0.0002
	Chromium (Total)	mg/l	0.001	
	Chromium (Total) (Filtered)	mg/l	0.001	<0.001
	Copper	mg/l	0.001	
	Copper (Filtered)	mg/l	0.001	<0.001
	Lead	mg/l	0.001	
	Lead (Filtered)	mg/l	0.001	<0.001
	Mercury (Inorganic)	mg/l	0.0001	
	Mercury (Inorganic) (Filtered)	mg/l	0.0001	<0.0001
	Nickel	mg/l	0.001	
	Nickel (Filtered)	mg/l	0.001	<0.001
	Zinc	mg/l	0.005	
	Zinc (Filtered)	mg/l	0.005	<0.005
Organic	C6-C9 Fraction	mg/l	0.02	<0.02
	>C10-C16 Fraction	mg/l	0.05	<0.05
	>C16-C34 Fraction	mg/l	0.1	<0.1
	>C34-C40 Fraction	mg/l	0.1	<0.1
	>C10-C16 less Naphthalene (F2)	mg/l	0.05	<0.05
	C6-C10 Fraction	mg/l	0.02	<0.02
	C6-C10 less BTEX (F1)	mg/l	0.02	<0.02
	Naphthalene	mg/l	0.01	<0.01
	Endosulfan alpha	mg/l	0.0001	
PAH	Acenaphthene	mg/l	0.001	<0.001
	Acenaphthylene	mg/l	0.001	<0.001
	Anthracene	mg/l	0.001	<0.001
	Benz(a)anthracene	mg/l	0.001	<0.001
	Benzo(a)pyrene	mg/l	0.001	<0.001
	Benzo(b,j)fluoranthene	mg/l	0.001	<0.001
	Benzo(g,h,i)perylene	mg/l	0.001	<0.001
	Benzo(k)fluoranthene	mg/l	0.001	<0.001
	Chrysene	mg/l	0.001	<0.001
	Dibenz(a,h)anthracene	mg/l	0.001	<0.001
	Fluoranthene	mg/l	0.001	<0.001
	Fluorene	mg/l	0.001	<0.001
	Indeno(1,2,3-c,d)pyrene	mg/l	0.001	<0.001
	Naphthalene	mg/l	0.001	<0.001
	Phenanthrene	mg/l	0.001	<0.001
	Pyrene	mg/l	0.001	<0.001
	PAHs (Total)	mg/l	0.001	<0.001
SVOC	Hexachlorobenzene	mg/l	0.0001	
	2,4,5-trichlorophenol	mg/l	0.01	<0.01
	2,4,6-trichlorophenol	mg/l	0.01	<0.01
	2,4-dichlorophenol	mg/l	0.003	<0.003
	2,4-dimethylphenol	mg/l	0.003	<0.003
	2,4-dinitrophenol	mg/l	0.03	<0.03
	2,6-dichlorophenol	mg/l	0.003	<0.003
	2-chlorophenol	mg/l	0.003	<0.003
	2-Methylphenol	mg/l	0.003	<0.003
	2-nitrophenol	mg/l	0.01	<0.01
	3- & 4-Methylphenol	mg/l	0.006	<0.006
	4,6-Dinitro-2-methylphenol	mg/l	0.03	<0.03
	4,6-Dinitro-o-cyclohexyl phenol	mg/l	0.1	<0.1
	4-Chloro-3-Methylphenol	mg/l	0.01	<0.01
	4-nitrophenol	mg/l	0.03	<0.03
	Phenol	mg/l	0.003	<0.003
	Total Halogenated Phenol	mg/l	0.01	<0.01
	Total Non-Halogenated Phenol	mg/l	0.1	<0.1
	Total Tetrachlorophenols	mg/l	0.03	<0.03
	Pentachlorophenol	mg/l	0.01	<0.01
	Dinoseb	mg/l	0.1	<0.1
TPH	C10-C14 Fraction	mg/l	0.05	<0.05
	C15-C28 Fraction	mg/l	0.1	<0.1
	C29-C36 Fraction	mg/l	0.1	<0.1
	C10-C36 Fraction (Total)	mg/l	0.1	<0.1
Volatile	Benzene	mg/l	0.001	<0.001
	Ethylbenzene	mg/l	0.001	<0.001
	Toluene	mg/l	0.001	<0.001
	Xylene (o)	mg/l	0.001	<0.001
	Xylene (m & p)	mg/l	0.002	<0.002
	Xylene (Total)	mg/l	0.003	<0.003

Field Duplicates (WATER)
Filter: SDG in("582697")

SDG		582697	582697	582697	ENVIROLAB 2018-02-02T00:00:00	
Field ID		MW02	QC01_300118	RPD	MW02	QC01A_300118
Sampled Date/Time		30/01/2018	30/01/2018		30/01/2018	30/01/2018
Method	ChemName	Units	EQL			
OCP	Organochlorine Pesticides EPAVic	µg/l	1	<1.0	<1.0	0
	Other Organochlorine Pesticides EPAVic	µg/l	1	<1.0	<1.0	0
Heavy Metals	Arsenic (Total) (Filtered)	mg/l	0.001	0.003	0.004	29
	Arsenic (Total)	mg/l	0.001	0.016	0.004	120
	Cadmium (Filtered)	mg/l	0.0002	<0.0002	<0.0002	0
	Cadmium	mg/l	0.0002 (Primary): 0.0001 (Interlab)	<0.0002	<0.0002	0
	Chromium (Total) (Filtered)	mg/l	0.001	0.002	0.002	0
	Chromium (Total)	mg/l	0.001	0.012	0.003	120
	Copper (Filtered)	mg/l	0.001	<0.001	<0.001	0
	Copper	mg/l	0.001	0.024	<0.001	184
	Lead (Filtered)	mg/l	0.001	<0.001	<0.001	0
	Lead	mg/l	0.001	0.01	<0.001	164
	Mercury (Inorganic) (Filtered)	mg/l	0.0001	<0.0001	<0.0001	0
	Mercury (Inorganic)	mg/l	0.0001 (Primary): 0.00005 (Interlab)	<0.0001	<0.0001	0
	Nickel (Filtered)	mg/l	0.001	<0.001	<0.001	0
	Nickel	mg/l	0.001	0.007	<0.001	150
	Zinc (Filtered)	mg/l	0.005	0.008	0.014	55
	Zinc	mg/l	0.005 (Primary): 0.001 (Interlab)	0.03	0.014	73
Organic	C6-C9 Fraction	mg/l	0.02 (Primary): 0.01 (Interlab)	<0.02	<0.02	0
	TPH					
	C10-C14 Fraction	mg/l	0.05	<0.05	<0.05	0
	C15-C28 Fraction	mg/l	0.1	<0.1	<0.1	0
Organic	C29-C36 Fraction	mg/l	0.1	<0.1	<0.1	0
	C10-C36 Fraction (Total)	mg/l	0.1	<0.1	<0.1	0
	>C10-C16 Fraction	mg/l	0.05	<0.05	<0.05	0
	>C16-C34 Fraction	mg/l	0.1	<0.1	<0.1	0
Organic	>C34-C40 Fraction	mg/l	0.1	<0.1	<0.1	0
	>C10-C16 less Naphthalene (F2)	mg/l	0.05	<0.05	<0.05	0
	C6-C10 Fraction	mg/l	0.02 (Primary): 0.01 (Interlab)	<0.02	<0.02	0
	C6-C10 less BTEX (F1)	mg/l	0.02 (Primary): 0.01 (Interlab)	<0.02	<0.02	0
Volatile	Benzene	mg/l	0.001	<0.001	<0.001	0
	Ethylbenzene	mg/l	0.001	<0.001	<0.001	0
	Toluene	mg/l	0.001	<0.001	<0.001	0
	Xylene (o)	mg/l	0.001	<0.001	<0.001	0
	Xylene (m & p)	mg/l	0.002	<0.002	<0.002	0
	Xylene (Total)	mg/l	0.003	<0.003	<0.003	0
Organic	Naphthalene	mg/l	0.01 (Primary): 0.001 (Interlab)	<0.01	<0.01	0
	PAH					
PAH	Acenaphthene	mg/l	0.001	<0.001	<0.001	0
	Acenaphthylene	mg/l	0.001	<0.001	<0.001	0
	Anthracene	mg/l	0.001	<0.001	<0.001	0
	Benz(a)anthracene	mg/l	0.001	<0.001	<0.001	0
	Benzo(a)pyrene	mg/l	0.001	<0.001	<0.001	0
	Benzo(b)fluoranthene	mg/l	0.001	<0.001	<0.001	0
	Benzo(k)fluoranthene	mg/l	0.001	<0.001	<0.001	0
	Benzo(a,h)perylene	mg/l	0.001	<0.001	<0.001	0
	Benzo(k)fluoranthene	mg/l	0.001	<0.001	<0.001	0
	Chrysene	mg/l	0.001	<0.001	<0.001	0
	Dibenz(a,h)anthracene	mg/l	0.001	<0.001	<0.001	0
	Fluoranthene	mg/l	0.001	<0.001	<0.001	0
	Fluorene	mg/l	0.001	<0.001	<0.001	0
	Indeno(1,2,3-c,d)pyrene	mg/l	0.001	<0.001	<0.001	0
	Naphthalene	mg/l	0.001	<0.001	<0.001	0
	Phenanthrene	mg/l	0.001	<0.001	<0.001	0
	Pyrene	mg/l	0.001	<0.001	<0.001	0
	PAHs (Total)	mg/l	0.001	<0.001	<0.001	0
OCP	Hexachlorobenzene	mg/l	0.0001 (Primary): 0.0002 (Interlab)	<0.0001	<0.0001	0
	SVOC					
SVOC	2,4,5-trichlorophenol	mg/l	0.01 (Primary): 0.001 (Interlab)	<0.01	<0.01	0
	2,4,6-trichlorophenol	mg/l	0.01 (Primary): 0.001 (Interlab)	<0.01	<0.01	0
	2,4-dichlorophenol	mg/l	0.003 (Primary): 0.001 (Interlab)	<0.003	<0.003	0
	2,4-dimethylphenol	mg/l	0.003 (Primary): 0.001 (Interlab)	<0.003	<0.003	0
	2,4-dinitrophenol	mg/l	0.03 (Primary): 0.02 (Interlab)	<0.03	<0.03	0
	2,6-dichlorophenol	mg/l	0.003 (Primary): 0.001 (Interlab)	<0.003	<0.003	0
	2-chlorophenol	mg/l	0.003 (Primary): 0.001 (Interlab)	<0.003	<0.003	0
	2-Methylphenol	mg/l	0.003 (Primary): 0.001 (Interlab)	<0.003	<0.003	0
	2-nitrophenol	mg/l	0.01 (Primary): 0.001 (Interlab)	<0.01	<0.01	0
	3- & 4-Methylphenol	mg/l	0.006	<0.006	<0.006	0
	4,6-Dinitro-2-methylphenol	mg/l	0.03 (Primary): 0.01 (Interlab)	<0.03	<0.03	0
	4,6-Dinitro-3-cyclohexyl phenol	mg/l	0.1	<0.1	<0.1	0
	4-Chloro-3-Methylphenol	mg/l	0.01 (Primary): 0.005 (Interlab)	<0.01	<0.01	0
	4-nitrophenol	mg/l	0.03 (Primary): 0.02 (Interlab)	<0.03	<0.03	0
	Phenol	mg/l	0.003 (Primary): 0.001 (Interlab)	<0.003	<0.003	0
	Total Halogenated Phenol	mg/l	0.01	<0.01	<0.01	0
	Total Non-Halogenated Phenol	mg/l	0.1	<0.1	<0.1	0
	Total Tetrachlorophenols	mg/l	0.03	<0.03	<0.03	0
OCP	4,4-DDE	µg/l	0.1 (Primary): 0.2 (Interlab)	<0.1	<0.1	0
	Aldrin	mg/l	0.0001 (Primary): 0.0002 (Interlab)	<0.0001	<0.0001	0
	Aldrin + Dieldrin (Sum of Total)	mg/l	0.0001	<0.0001	<0.0001	0
	alpha-BHC	mg/l	0.0001 (Primary): 0.0002 (Interlab)	<0.0001	<0.0001	0
	beta-BHC	mg/l	0.0001 (Primary): 0.0002 (Interlab)	<0.0001	<0.0001	0
	Dieldrin	mg/l	0.0001 (Primary): 0.0002 (Interlab)	<0.0001	<0.0001	0
	DDD	mg/l	0.0001 (Primary): 0.0002 (Interlab)	<0.0001	<0.0001	0
	DDT	mg/l	0.0001 (Primary): 0.0002 (Interlab)	<0.0001	<0.0001	0
	DDT+DDE+DDD (Sum of Total)	mg/l	0.0001	<0.0001	<0.0001	0
	Chlordane	mg/l	0.001	<0.001	<0.001	0
	delta-BHC	mg/l	0.0001 (Primary): 0.0002 (Interlab)	<0.0001	<0.0001	0
	Endosulfan alpha	mg/l	0.0001 (Primary): 0.0002 (Interlab)	<0.0001	<0.0001	0
	Endosulfan beta	mg/l	0.0001 (Primary): 0.0002 (Interlab)	<0.0001	<0.0001	0
	Endosulfan sulphate	mg/l	0.0001 (Primary): 0.0002 (Interlab)	<0.0001	<0.0001	0
	Endrin	mg/l	0.0001 (Primary): 0.0002 (Interlab)	<0.0001	<0.0001	0
	Endrin aldehyde	mg/l	0.0001 (Primary): 0.0002 (Interlab)	<0.0001	<0.0001	0
	Endrin ketone	mg/l	0.0001	<0.0001	<0.0001	0
	Heptachlor	mg/l	0.0001 (Primary): 0.0002 (Interlab)	<0.0001	<0.0001	0
	Heptachlor Epoxide	mg/l	0.0001 (Primary): 0.0002 (Interlab)	<0.0001	<0.0001	0
	Lindane	mg/l	0.0001 (Primary): 0.0002 (Interlab)	<0.0001	<0.0001	0
	Methoxychlor	mg/l	0.0001 (Primary): 0.0002 (Interlab)	<0.0001	<0.0001	0
	Toxaphene	mg/l	0.01	<0.01	<0.01	0
SVOC	Pentachlorophenol	mg/l	0.01 (Primary): 0.005 (Interlab)	<0.01	<0.01	0
	Dinoseb	mg/l	0.1	<0.1	<0.1	0

*RPDs have only been considered where a concentration is greater than 5 times the EQL

**High RPDs are in bold (Acceptable RPDs for each EQL multiplier range are: 30 (1-20 x EQL); 30 (20-30 x EQL); 30 (> 30 x EQL))

***Interlab Duplicates are matched on a per compound basis as methods vary between laboratories. Any methods in the row header relate to those used in the primary laboratory

Attachment E - Laboratory Certificates



CHAIN OF CUSTODY

LABORATORY BATCH NO.: 54298													
PROJECT NAME: Byron Bay													
DATE NEEDED BY: 5 DAY TAT													
PHONE: Sydney: 02 8245 0300 Perth: 08 9488 0100 Brisbane: 07 3112 2688													
SEND REPORT & INVOICE TO: (1) adminsw@ibsg.com.au; (2) S.SHEKHAN@ibsg.com.au; (3) S.SBAKER@ibsg.com.au													
COMMENTS / SPECIAL HANDLING / STORAGE OR DISPOSAL:													
SAMPLE ID	MATRIX	DATE	TIME	TYPE & PRESERVATIVE	pH	RECEIVED BY:				FOR RECEIVING LAB ONLY:			
MW01	Water	30.01		2vc SWOC, metals, P, Preserved P		NAME: D. C. [Signature]	COOLER SEAL - Yes..... No.....	Intact..... Broken.....	COOLER SEAL - Yes..... No..... COOLER TEMP..... deg C COOLER SEAL - Yes..... No..... COOLER TEMP..... deg C				
MW02						DATE: 31/1/14							
MW03						OF: S. [Signature]							
QC01-300118						NAME: S. [Signature]							
QC01A-350118						OF: S. [Signature]							
ACM01	Material			Asbestos bag.		DATE:							
Trip Blank	Water			2vc		OF:							
Trip Spike	Water			2vc									
AS01	Soil			Asbestos Bag									
AS02													
AS03													
AS04													
AS05													
AS06													
AS07													
AS08													
AS09		31.01											
AS10													
AS11													

COPY SENT

[illegible]

Certificate of Analysis

JBS & G Australia (QLD) P/L
Level 3, Turbot Street
Brisbane
QLD 4000



NATA Accredited
Accreditation Number 1261
Site Number 20794

Accredited for compliance with ISO/IEC 17025 – Testing
 The results of the tests, calibrations and/or
 measurements included in this document are traceable
 to Australian/national standards.

Attention: Sarah Baker

Report 582697-W
Project name BYRON BAY
Project ID 54298
Received Date Jan 31, 2018

Client Sample ID			MW01 Water	MW02 Water	MW03 Water	QC01_300118 Water
Sample Matrix			B18-Fe00459	B18-Fe00460	B18-Fe00461	B18-Fe00462
Eurofins mgt Sample No.			Jan 30, 2018	Jan 30, 2018	Jan 30, 2018	Jan 30, 2018
Date Sampled						
Test/Reference	LOR	Unit				
Total Recoverable Hydrocarbons - 1999 NEPM Fractions						
TRH C6-C9	0.02	mg/L	< 0.02	< 0.02	< 0.02	< 0.02
TRH C10-C14	0.05	mg/L	< 0.05	< 0.05	< 0.05	< 0.05
TRH C15-C28	0.1	mg/L	< 0.1	< 0.1	< 0.1	< 0.1
TRH C29-C36	0.1	mg/L	< 0.1	< 0.1	< 0.1	< 0.1
TRH C10-36 (Total)	0.1	mg/L	< 0.1	< 0.1	< 0.1	< 0.1
BTEX						
Benzene	0.001	mg/L	< 0.001	< 0.001	< 0.001	< 0.001
Toluene	0.001	mg/L	< 0.001	< 0.001	< 0.001	< 0.001
Ethylbenzene	0.001	mg/L	< 0.001	< 0.001	< 0.001	< 0.001
m&p-Xylenes	0.002	mg/L	< 0.002	< 0.002	< 0.002	< 0.002
o-Xylene	0.001	mg/L	< 0.001	< 0.001	< 0.001	< 0.001
Xylenes - Total	0.003	mg/L	< 0.003	< 0.003	< 0.003	< 0.003
4-Bromofluorobenzene (surr.)	1	%	129	130	134	131
Total Recoverable Hydrocarbons - 2013 NEPM Fractions						
Naphthalene ^{N02}	0.01	mg/L	< 0.01	< 0.01	< 0.01	< 0.01
TRH C6-C10	0.02	mg/L	< 0.02	< 0.02	< 0.02	< 0.02
TRH C6-C10 less BTEX (F1) ^{N04}	0.02	mg/L	< 0.02	< 0.02	< 0.02	< 0.02
TRH >C10-C16	0.05	mg/L	< 0.05	< 0.05	< 0.05	< 0.05
TRH >C10-C16 less Naphthalene (F2) ^{N01}	0.05	mg/L	< 0.05	< 0.05	< 0.05	< 0.05
TRH >C16-C34	0.1	mg/L	< 0.1	< 0.1	< 0.1	< 0.1
TRH >C34-C40	0.1	mg/L	< 0.1	< 0.1	< 0.1	< 0.1
Polycyclic Aromatic Hydrocarbons						
Acenaphthene	0.001	mg/L	< 0.001	< 0.001	< 0.001	< 0.001
Acenaphthylene	0.001	mg/L	< 0.001	< 0.001	< 0.001	< 0.001
Anthracene	0.001	mg/L	< 0.001	< 0.001	< 0.001	< 0.001
Benz(a)anthracene	0.001	mg/L	< 0.001	< 0.001	< 0.001	< 0.001
Benzo(a)pyrene	0.001	mg/L	< 0.001	< 0.001	< 0.001	< 0.001
Benzo(b&j)fluoranthene ^{N07}	0.001	mg/L	< 0.001	< 0.001	< 0.001	< 0.001
Benzo(g,h,i)perylene	0.001	mg/L	< 0.001	< 0.001	< 0.001	< 0.001
Benzo(k)fluoranthene	0.001	mg/L	< 0.001	< 0.001	< 0.001	< 0.001
Chrysene	0.001	mg/L	< 0.001	< 0.001	< 0.001	< 0.001
Dibenz(a,h)anthracene	0.001	mg/L	< 0.001	< 0.001	< 0.001	< 0.001
Fluoranthene	0.001	mg/L	< 0.001	< 0.001	< 0.001	< 0.001
Fluorene	0.001	mg/L	< 0.001	< 0.001	< 0.001	< 0.001
Indeno(1.2.3-cd)pyrene	0.001	mg/L	< 0.001	< 0.001	< 0.001	< 0.001

Client Sample ID			MW01 Water	MW02 Water	MW03 Water	QC01_300118 Water
Sample Matrix			B18-Fe00459	B18-Fe00460	B18-Fe00461	B18-Fe00462
Eurofins mgt Sample No.			Jan 30, 2018	Jan 30, 2018	Jan 30, 2018	Jan 30, 2018
Date Sampled						
Test/Reference	LOR	Unit				
Polycyclic Aromatic Hydrocarbons						
Naphthalene	0.001	mg/L	< 0.001	< 0.001	< 0.001	< 0.001
Phenanthrene	0.001	mg/L	< 0.001	< 0.001	< 0.001	< 0.001
Pyrene	0.001	mg/L	< 0.001	< 0.001	< 0.001	< 0.001
Total PAH*	0.001	mg/L	< 0.001	< 0.001	< 0.001	< 0.001
2-Fluorobiphenyl (surr.)	1	%	84	81	118	108
p-Terphenyl-d14 (surr.)	1	%	145	96	75	99
Organochlorine Pesticides						
Chlordanes - Total	0.001	mg/L	< 0.001	< 0.001	< 0.001	< 0.001
4,4'-DDD	0.0001	mg/L	< 0.0001	< 0.0001	< 0.0001	< 0.0001
4,4'-DDE	0.0001	mg/L	< 0.0001	< 0.0001	< 0.0001	< 0.0001
4,4'-DDT	0.0001	mg/L	< 0.0001	< 0.0001	< 0.0001	< 0.0001
a-BHC	0.0001	mg/L	< 0.0001	< 0.0001	< 0.0001	< 0.0001
Aldrin	0.0001	mg/L	< 0.0001	< 0.0001	< 0.0001	< 0.0001
b-BHC	0.0001	mg/L	< 0.0001	< 0.0001	< 0.0001	< 0.0001
d-BHC	0.0001	mg/L	< 0.0001	< 0.0001	< 0.0001	< 0.0001
Dieldrin	0.0001	mg/L	< 0.0001	< 0.0001	< 0.0001	< 0.0001
Endosulfan I	0.0001	mg/L	< 0.0001	< 0.0001	< 0.0001	< 0.0001
Endosulfan II	0.0001	mg/L	< 0.0001	< 0.0001	< 0.0001	< 0.0001
Endosulfan sulphate	0.0001	mg/L	< 0.0001	< 0.0001	< 0.0001	< 0.0001
Endrin	0.0001	mg/L	< 0.0001	< 0.0001	< 0.0001	< 0.0001
Endrin aldehyde	0.0001	mg/L	< 0.0001	< 0.0001	< 0.0001	< 0.0001
Endrin ketone	0.0001	mg/L	< 0.0001	< 0.0001	< 0.0001	< 0.0001
g-BHC (Lindane)	0.0001	mg/L	< 0.0001	< 0.0001	< 0.0001	< 0.0001
Heptachlor	0.0001	mg/L	< 0.0001	< 0.0001	< 0.0001	< 0.0001
Heptachlor epoxide	0.0001	mg/L	< 0.0001	< 0.0001	< 0.0001	< 0.0001
Hexachlorobenzene	0.0001	mg/L	< 0.0001	< 0.0001	< 0.0001	< 0.0001
Methoxychlor	0.0001	mg/L	< 0.0001	< 0.0001	< 0.0001	< 0.0001
Toxaphene	0.01	mg/L	< 0.01	< 0.01	< 0.01	< 0.01
Aldrin and Dieldrin (Total)*	0.0001	mg/L	< 0.0001	< 0.0001	< 0.0001	< 0.0001
DDT + DDE + DDD (Total)*	0.0001	mg/L	< 0.0001	< 0.0001	< 0.0001	< 0.0001
Vic EPA IWRG 621 OCP (Total)*	0.001	mg/L	< 0.001	< 0.001	< 0.001	< 0.001
Vic EPA IWRG 621 Other OCP (Total)*	0.001	mg/L	< 0.001	< 0.001	< 0.001	< 0.001
Dibutylchloroendate (surr.)	1	%	110	56	73	110
Tetrachloro-m-xylene (surr.)	1	%	104	79	67	73
Phenols (Halogenated)						
2-Chlorophenol	0.003	mg/L	< 0.003	< 0.003	< 0.003	< 0.003
2,4-Dichlorophenol	0.003	mg/L	< 0.003	< 0.003	< 0.003	< 0.003
2,4,5-Trichlorophenol	0.01	mg/L	< 0.01	< 0.01	< 0.01	< 0.01
2,4,6-Trichlorophenol	0.01	mg/L	< 0.01	< 0.01	< 0.01	< 0.01
2,6-Dichlorophenol	0.003	mg/L	< 0.003	< 0.003	< 0.003	< 0.003
4-Chloro-3-methylphenol	0.01	mg/L	< 0.01	< 0.01	< 0.01	< 0.01
Pentachlorophenol	0.01	mg/L	< 0.01	< 0.01	< 0.01	< 0.01
Tetrachlorophenols - Total	0.03	mg/L	< 0.03	< 0.03	< 0.03	< 0.03
Total Halogenated Phenol*	0.01	mg/L	< 0.01	< 0.01	< 0.01	< 0.01
Phenols (non-Halogenated)						
2-Cyclohexyl-4,6-dinitrophenol	0.1	mg/L	< 0.1	< 0.1	< 0.1	< 0.1
2-Methyl-4,6-dinitrophenol	0.03	mg/L	< 0.03	< 0.03	< 0.03	< 0.03
2-Methylphenol (o-Cresol)	0.003	mg/L	< 0.003	< 0.003	< 0.003	< 0.003
2-Nitrophenol	0.01	mg/L	< 0.01	< 0.01	< 0.01	< 0.01

Client Sample ID			MW01 Water	MW02 Water	MW03 Water	QC01_300118 Water
Sample Matrix			B18-Fe00459	B18-Fe00460	B18-Fe00461	B18-Fe00462
Eurofins mgt Sample No.			Jan 30, 2018	Jan 30, 2018	Jan 30, 2018	Jan 30, 2018
Date Sampled						
Test/Reference	LOR	Unit				
Phenols (non-Halogenated)						
2,4-Dimethylphenol	0.003	mg/L	< 0.003	< 0.003	< 0.003	< 0.003
2,4-Dinitrophenol	0.03	mg/L	< 0.03	< 0.03	< 0.03	< 0.03
3&4-Methylphenol (m&p-Cresol)	0.006	mg/L	< 0.006	< 0.006	< 0.006	< 0.006
4-Nitrophenol	0.03	mg/L	< 0.03	< 0.03	< 0.03	< 0.03
Dinoseb	0.1	mg/L	< 0.1	< 0.1	< 0.1	< 0.1
Phenol	0.003	mg/L	< 0.003	< 0.003	< 0.003	< 0.003
Total Non-Halogenated Phenol*	0.1	mg/L	< 0.1	< 0.1	< 0.1	< 0.1
Phenol-d6 (surr.)	1	%	53	75	87	88
Heavy Metals						
Arsenic	0.001	mg/L	0.051	0.016	0.11	0.004
Arsenic (filtered)	0.001	mg/L	0.010	0.003	0.11	0.004
Cadmium	0.0002	mg/L	< 0.0002	< 0.0002	< 0.0002	< 0.0002
Cadmium (filtered)	0.0002	mg/L	< 0.0002	< 0.0002	< 0.0002	< 0.0002
Chromium	0.001	mg/L	0.005	0.012	< 0.001	0.003
Chromium (filtered)	0.001	mg/L	< 0.001	0.002	< 0.001	0.002
Copper	0.001	mg/L	0.001	0.024	< 0.001	< 0.001
Copper (filtered)	0.001	mg/L	< 0.001	< 0.001	< 0.001	< 0.001
Lead	0.001	mg/L	0.003	0.010	< 0.001	< 0.001
Lead (filtered)	0.001	mg/L	< 0.001	< 0.001	< 0.001	< 0.001
Mercury	0.0001	mg/L	0.0001	< 0.0001	< 0.0001	< 0.0001
Mercury (filtered)	0.0001	mg/L	< 0.0001	< 0.0001	< 0.0001	< 0.0001
Nickel	0.001	mg/L	0.002	0.007	0.001	< 0.001
Nickel (filtered)	0.001	mg/L	< 0.001	< 0.001	< 0.001	< 0.001
Zinc	0.005	mg/L	0.056	0.030	0.054	0.014
Zinc (filtered)	0.005	mg/L	0.043	0.008	0.054	0.014

Client Sample ID			R.BLANK Water
Sample Matrix			B18-Fe00471
Eurofins mgt Sample No.			Jan 30, 2018
Date Sampled			
Test/Reference	LOR	Unit	
Total Recoverable Hydrocarbons - 1999 NEPM Fractions			
TRH C6-C9	0.02	mg/L	< 0.02
TRH C10-C14	0.05	mg/L	< 0.05
TRH C15-C28	0.1	mg/L	< 0.1
TRH C29-C36	0.1	mg/L	< 0.1
TRH C10-36 (Total)	0.1	mg/L	< 0.1
BTEX			
Benzene	0.001	mg/L	< 0.001
Toluene	0.001	mg/L	< 0.001
Ethylbenzene	0.001	mg/L	< 0.001
m&p-Xylenes	0.002	mg/L	< 0.002
o-Xylene	0.001	mg/L	< 0.001
Xylenes - Total	0.003	mg/L	< 0.003
4-Bromofluorobenzene (surr.)	1	%	73

Client Sample ID			R.BLANK
Sample Matrix			Water
Eurofins mgt Sample No.			B18-Fe00471
Date Sampled			Jan 30, 2018
Test/Reference	LOR	Unit	
Total Recoverable Hydrocarbons - 2013 NEPM Fractions			
Naphthalene ^{N02}	0.01	mg/L	< 0.01
TRH C6-C10	0.02	mg/L	< 0.02
TRH C6-C10 less BTEX (F1) ^{N04}	0.02	mg/L	< 0.02
TRH >C10-C16	0.05	mg/L	< 0.05
TRH >C10-C16 less Naphthalene (F2) ^{N01}	0.05	mg/L	< 0.05
TRH >C16-C34	0.1	mg/L	< 0.1
TRH >C34-C40	0.1	mg/L	< 0.1
Polycyclic Aromatic Hydrocarbons			
Acenaphthene	0.001	mg/L	< 0.001
Acenaphthylene	0.001	mg/L	< 0.001
Anthracene	0.001	mg/L	< 0.001
Benz(a)anthracene	0.001	mg/L	< 0.001
Benzo(a)pyrene	0.001	mg/L	< 0.001
Benzo(b&j)fluoranthene ^{N07}	0.001	mg/L	< 0.001
Benzo(g,h,i)perylene	0.001	mg/L	< 0.001
Benzo(k)fluoranthene	0.001	mg/L	< 0.001
Chrysene	0.001	mg/L	< 0.001
Dibenz(a,h)anthracene	0.001	mg/L	< 0.001
Fluoranthene	0.001	mg/L	< 0.001
Fluorene	0.001	mg/L	< 0.001
Indeno(1,2,3-cd)pyrene	0.001	mg/L	< 0.001
Naphthalene	0.001	mg/L	< 0.001
Phenanthrene	0.001	mg/L	< 0.001
Pyrene	0.001	mg/L	< 0.001
Total PAH*	0.001	mg/L	< 0.001
2-Fluorobiphenyl (surr.)	1	%	91
p-Terphenyl-d14 (surr.)	1	%	143
Phenols (Halogenated)			
2-Chlorophenol	0.003	mg/L	< 0.003
2,4-Dichlorophenol	0.003	mg/L	< 0.003
2,4,5-Trichlorophenol	0.01	mg/L	< 0.01
2,4,6-Trichlorophenol	0.01	mg/L	< 0.01
2,6-Dichlorophenol	0.003	mg/L	< 0.003
4-Chloro-3-methylphenol	0.01	mg/L	< 0.01
Pentachlorophenol	0.01	mg/L	< 0.01
Tetrachlorophenols - Total	0.03	mg/L	< 0.03
Total Halogenated Phenol*	0.01	mg/L	< 0.01
Phenols (non-Halogenated)			
2-Cyclohexyl-4,6-dinitrophenol	0.1	mg/L	< 0.1
2-Methyl-4,6-dinitrophenol	0.03	mg/L	< 0.03
2-Methylphenol (o-Cresol)	0.003	mg/L	< 0.003
2-Nitrophenol	0.01	mg/L	< 0.01
2,4-Dimethylphenol	0.003	mg/L	< 0.003
2,4-Dinitrophenol	0.03	mg/L	< 0.03
3&4-Methylphenol (m&p-Cresol)	0.006	mg/L	< 0.006
4-Nitrophenol	0.03	mg/L	< 0.03
Dinoseb	0.1	mg/L	< 0.1
Phenol	0.003	mg/L	< 0.003
Total Non-Halogenated Phenol*	0.1	mg/L	< 0.1
Phenol-d6 (surr.)	1	%	28

Client Sample ID			R.BLANK
Sample Matrix			Water
Eurofins mgt Sample No.			B18-Fe00471
Date Sampled			Jan 30, 2018
Test/Reference	LOR	Unit	
Heavy Metals			
Arsenic (filtered)	0.001	mg/L	< 0.001
Cadmium (filtered)	0.0002	mg/L	< 0.0002
Chromium (filtered)	0.001	mg/L	< 0.001
Copper (filtered)	0.001	mg/L	< 0.001
Lead (filtered)	0.001	mg/L	< 0.001
Mercury (filtered)	0.0001	mg/L	< 0.0001
Nickel (filtered)	0.001	mg/L	< 0.001
Zinc (filtered)	0.005	mg/L	< 0.005

Sample History

Where samples are submitted/analysed over several days, the last date of extraction and analysis is reported. A recent review of our LIMS has resulted in the correction or clarification of some method identifications. Due to this, some of the method reference information on reports has changed. However, no substantive change has been made to our laboratory methods, and as such there is no change in the validity of current or previous results (regarding both quality and NATA accreditation).

If the date and time of sampling are not provided, the Laboratory will not be responsible for compromised results should testing be performed outside the recommended holding time.

Description	Testing Site	Extracted	Holding Time
Eurofins mgt Suite B7A (filtered metals)			
Total Recoverable Hydrocarbons - 1999 NEPM Fractions	Melbourne	Feb 07, 2018	7 Day
- Method: LTM-ORG-2010 TRH C6-C36			
BTEX	Melbourne	Feb 02, 2018	14 Day
- Method: TRH C6-C40 - LTM-ORG-2010			
Total Recoverable Hydrocarbons - 2013 NEPM Fractions	Melbourne	Feb 02, 2018	7 Day
- Method: TRH C6-C40 - LTM-ORG-2010			
Total Recoverable Hydrocarbons - 2013 NEPM Fractions	Melbourne	Feb 07, 2018	7 Day
- Method: TRH C6-C40 - LTM-ORG-2010			
Polycyclic Aromatic Hydrocarbons	Melbourne	Feb 07, 2018	7 Day
- Method: LTM-ORG-2130 PAH and Phenols in Water by GCMS			
Phenols (Halogenated)	Melbourne	Feb 07, 2018	7 Days
- Method: LTM-ORG-2130 PAH and Phenols in Water by GCMS			
Phenols (non-Halogenated)	Melbourne	Feb 07, 2018	7 Day
- Method: LTM-ORG-2130 PAH and Phenols in Water by GCMS			
Metals M8 filtered	Melbourne	Feb 06, 2018	28 Day
- Method: LTM-MET-3040 Metals in Waters by ICP-MS			
Organochlorine Pesticides	Melbourne	Feb 07, 2018	7 Day
- Method: LTM-ORG-2220 OCP & PCB in Soil and Water			
Metals M8	Melbourne	Feb 06, 2018	28 Days
- Method: LTM-MET-3040 Metals in Waters by ICP-MS			

Company Name: JBS & G Australia (QLD) P/L
Address: Level 3, Turbot Street
Brisbane
QLD 4000

Project Name: BYRON BAY
Project ID: 54298

Order No.:
Report #: 582697
Phone: 07 3181 5738
Fax:

Received: Jan 31, 2018 6:00 PM
Due: Feb 8, 2018
Priority: 5 Day
Contact Name: -Border

Eurofins | mgt Analytical Services Manager : Ryan Gilbert

Sample Detail						Asbestos - AS4964	Asbestos Absence / Presence	HOLD	HOLD	Organochlorine Pesticides	Metals M8	Eurofins mgt Suite B7A (filtered metals)
Melbourne Laboratory - NATA Site # 1254 & 14271								X		X	X	X
Sydney Laboratory - NATA Site # 18217						X	X		X			
Brisbane Laboratory - NATA Site # 20794												
Perth Laboratory - NATA Site # 23736												
External Laboratory												
No	Sample ID	Sample Date	Sampling Time	Matrix	LAB ID							
1	MW01	Jan 30, 2018		Water	B18-Fe00459					X	X	X
2	MW02	Jan 30, 2018		Water	B18-Fe00460					X	X	X
3	MW03	Jan 30, 2018		Water	B18-Fe00461					X	X	X
4	QC01_300118	Jan 30, 2018		Water	B18-Fe00462					X	X	X
5	ACM01	Jan 30, 2018		Building Materials	B18-Fe00463		X					
6	TRIP BLANK	Jan 30, 2018		Water	B18-Fe00464			X				
7	TRIP SPIKE	Jan 30, 2018		Water	B18-Fe00465			X				
8	AS03	Jan 30, 2018		Soil	B18-Fe00466	X						
9	AS06	Jan 30, 2018		Soil	B18-Fe00467	X						

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Melbourne Laboratory - NATA Site # 1254 & 14271								X		X	X	X
Sydney Laboratory - NATA Site # 18217						X	X		X			
Brisbane Laboratory - NATA Site # 20794												
Perth Laboratory - NATA Site # 23736												
10	AS07	Jan 30, 2018		Soil	B18-Fe00468	X						
11	AS09	Jan 31, 2018		Soil	B18-Fe00469	X						
12	AS11	Jan 31, 2018		Soil	B18-Fe00470	X						
13	R.BLANK	Jan 30, 2018		Water	B18-Fe00471							X
14	AS01	Jan 30, 2018		Soil	B18-Fe00472				X			
15	AS02	Jan 30, 2018		Soil	B18-Fe00473				X			
16	AS04	Jan 30, 2018		Soil	B18-Fe00474				X			
17	AS05	Jan 30, 2018		Soil	B18-Fe00475				X			
18	AS08	Jan 30, 2018		Soil	B18-Fe00476				X			
19	AS10	Jan 30, 2018		Soil	B18-Fe00477				X			
Test Counts						5	1	8	8	4	4	5

Internal Quality Control Review and Glossary

General

1. Laboratory QC results for Method Blanks, Duplicates, Matrix Spikes, and Laboratory Control Samples are included in this QC report where applicable. Additional QC data may be available on request.
2. All soil results are reported on a dry basis, unless otherwise stated.
3. All biota results are reported on a wet weight basis on the edible portion, unless otherwise stated.
4. Actual LORs are matrix dependant. Quoted LORs may be raised where sample extracts are diluted due to interferences.
5. Results are uncorrected for matrix spikes or surrogate recoveries except for PFAS compounds.
6. SVOC analysis on waters are performed on homogenised, unfiltered samples, unless noted otherwise.
7. Samples were analysed on an 'as received' basis.
8. This report replaces any interim results previously issued.

Holding Times

Please refer to 'Sample Preservation and Container Guide' for holding times (QS3001).

For samples received on the last day of holding time, notification of testing requirements should have been received at least 6 hours prior to sample receipt deadlines as stated on the Sample Receipt Advice.

If the Laboratory did not receive the information in the required timeframe, and regardless of any other integrity issues, suitably qualified results may still be reported.

Holding times apply from the date of sampling, therefore compliance to these may be outside the laboratory's control.

****NOTE:** pH duplicates are reported as a range NOT as RPD

Units

mg/kg: milligrams per kilogram

mg/L: milligrams per litre

ug/L: micrograms per litre

ppm: Parts per million

ppb: Parts per billion

%: Percentage

org/100mL: Organisms per 100 millilitres

NTU: Nephelometric Turbidity Units

MPN/100mL: Most Probable Number of organisms per 100 millilitres

Terms

Dry	Where a moisture has been determined on a solid sample the result is expressed on a dry basis.
LOR	Limit of Reporting.
SPIKE	Addition of the analyte to the sample and reported as percentage recovery.
RPD	Relative Percent Difference between two Duplicate pieces of analysis.
LCS	Laboratory Control Sample - reported as percent recovery.
CRM	Certified Reference Material - reported as percent recovery.
Method Blank	In the case of solid samples these are performed on laboratory certified clean sands and in the case of water samples these are performed on de-ionised water.
Surr - Surrogate	The addition of a like compound to the analyte target and reported as percentage recovery.
Duplicate	A second piece of analysis from the same sample and reported in the same units as the result to show comparison.
USEPA	United States Environmental Protection Agency
APHA	American Public Health Association
TCLP	Toxicity Characteristic Leaching Procedure
COC	Chain of Custody
SRA	Sample Receipt Advice
QSM	Quality Systems Manual ver 5.1 US Department of Defense
CP	Client Parent - QC was performed on samples pertaining to this report
NCP	Non-Client Parent - QC performed on samples not pertaining to this report, QC is representative of the sequence or batch that client samples were analysed within.
TEQ	Toxic Equivalency Quotient

QC - Acceptance Criteria

RPD Duplicates: Global RPD Duplicates Acceptance Criteria is 30% however the following acceptance guidelines are equally applicable:

Results <10 times the LOR : No Limit

Results between 10-20 times the LOR : RPD must lie between 0-50%

Results >20 times the LOR : RPD must lie between 0-30%

Surrogate Recoveries: Recoveries must lie between 50-150%-Phenols & PFASs

PFAS field samples that contain surrogate recoveries in excess of the QC limit designated in QSM 5.1 where no positive PFAS results have been reported have been reviewed and no data was affected.

QC Data General Comments

1. Where a result is reported as a less than (<), higher than the nominated LOR, this is due to either matrix interference, extract dilution required due to interferences or contaminant levels within the sample, high moisture content or insufficient sample provided.
2. Duplicate data shown within this report that states the word "BATCH" is a Batch Duplicate from outside of your sample batch, but within the laboratory sample batch at a 1:10 ratio. The Parent and Duplicate data shown is not data from your samples.
3. Organochlorine Pesticide analysis - where reporting LCS data, Toxaphene & Chlordane are not added to the LCS.
4. Organochlorine Pesticide analysis - where reporting Spike data, Toxaphene is not added to the Spike.
5. Total Recoverable Hydrocarbons - where reporting Spike & LCS data, a single spike of commercial Hydrocarbon products in the range of C12-C30 is added and it's Total Recovery is reported in the C10-C14 cell of the Report.
6. pH and Free Chlorine analysed in the laboratory - Analysis on this test must begin within 30 minutes of sampling. Therefore laboratory analysis is unlikely to be completed within holding time. Analysis will begin as soon as possible after sample receipt.
7. Recovery Data (Spikes & Surrogates) - where chromatographic interference does not allow the determination of Recovery the term "INT" appears against that analyte.
8. Polychlorinated Biphenyls are spiked only using Aroclor 1260 in Matrix Spikes and LCS.
9. For Matrix Spikes and LCS results a dash " - " in the report means that the specific analyte was not added to the QC sample.
10. Duplicate RPDs are calculated from raw analytical data thus it is possible to have two sets of data.

Quality Control Results

Test	Units	Result 1			Acceptance Limits	Pass Limits	Qualifying Code
Method Blank							
Total Recoverable Hydrocarbons - 1999 NEPM Fractions							
TRH C6-C9	mg/L	< 0.02			0.02	Pass	
TRH C10-C14	mg/L	< 0.05			0.05	Pass	
TRH C15-C28	mg/L	< 0.1			0.1	Pass	
TRH C29-C36	mg/L	< 0.1			0.1	Pass	
Method Blank							
BTEX							
Benzene	mg/L	< 0.001			0.001	Pass	
Toluene	mg/L	< 0.001			0.001	Pass	
Ethylbenzene	mg/L	< 0.001			0.001	Pass	
m&p-Xylenes	mg/L	< 0.002			0.002	Pass	
o-Xylene	mg/L	< 0.001			0.001	Pass	
Xylenes - Total	mg/L	< 0.003			0.003	Pass	
Method Blank							
Total Recoverable Hydrocarbons - 2013 NEPM Fractions							
Naphthalene	mg/L	< 0.01			0.01	Pass	
TRH C6-C10	mg/L	< 0.02			0.02	Pass	
TRH >C10-C16	mg/L	< 0.05			0.05	Pass	
TRH >C16-C34	mg/L	< 0.1			0.1	Pass	
TRH >C34-C40	mg/L	< 0.1			0.1	Pass	
Method Blank							
Polycyclic Aromatic Hydrocarbons							
Acenaphthene	mg/L	< 0.001			0.001	Pass	
Acenaphthylene	mg/L	< 0.001			0.001	Pass	
Anthracene	mg/L	< 0.001			0.001	Pass	
Benz(a)anthracene	mg/L	< 0.001			0.001	Pass	
Benzo(a)pyrene	mg/L	< 0.001			0.001	Pass	
Benzo(b&j)fluoranthene	mg/L	< 0.001			0.001	Pass	
Benzo(g,h,i)perylene	mg/L	< 0.001			0.001	Pass	
Benzo(k)fluoranthene	mg/L	< 0.001			0.001	Pass	
Chrysene	mg/L	< 0.001			0.001	Pass	
Dibenz(a,h)anthracene	mg/L	< 0.001			0.001	Pass	
Fluoranthene	mg/L	< 0.001			0.001	Pass	
Fluorene	mg/L	< 0.001			0.001	Pass	
Indeno(1,2,3-cd)pyrene	mg/L	< 0.001			0.001	Pass	
Naphthalene	mg/L	< 0.001			0.001	Pass	
Phenanthrene	mg/L	< 0.001			0.001	Pass	
Pyrene	mg/L	< 0.001			0.001	Pass	
Method Blank							
Organochlorine Pesticides							
Chlordanes - Total	mg/L	< 0.001			0.001	Pass	
4,4'-DDD	mg/L	< 0.0001			0.0001	Pass	
4,4'-DDE	mg/L	< 0.0001			0.0001	Pass	
4,4'-DDT	mg/L	< 0.0001			0.0001	Pass	
a-BHC	mg/L	< 0.0001			0.0001	Pass	
Aldrin	mg/L	< 0.0001			0.0001	Pass	
b-BHC	mg/L	< 0.0001			0.0001	Pass	
d-BHC	mg/L	< 0.0001			0.0001	Pass	
Dieldrin	mg/L	< 0.0001			0.0001	Pass	
Endosulfan I	mg/L	< 0.0001			0.0001	Pass	
Endosulfan II	mg/L	< 0.0001			0.0001	Pass	

Test	Units	Result 1			Acceptance Limits	Pass Limits	Qualifying Code
Endosulfan sulphate	mg/L	< 0.0001			0.0001	Pass	
Endrin	mg/L	< 0.0001			0.0001	Pass	
Endrin aldehyde	mg/L	< 0.0001			0.0001	Pass	
Endrin ketone	mg/L	< 0.0001			0.0001	Pass	
g-BHC (Lindane)	mg/L	< 0.0001			0.0001	Pass	
Heptachlor	mg/L	< 0.0001			0.0001	Pass	
Heptachlor epoxide	mg/L	< 0.0001			0.0001	Pass	
Hexachlorobenzene	mg/L	< 0.0001			0.0001	Pass	
Methoxychlor	mg/L	< 0.0001			0.0001	Pass	
Toxaphene	mg/L	< 0.01			0.01	Pass	
Method Blank							
Phenols (Halogenated)							
2-Chlorophenol	mg/L	< 0.003			0.003	Pass	
2,4-Dichlorophenol	mg/L	< 0.003			0.003	Pass	
2,4,5-Trichlorophenol	mg/L	< 0.01			0.01	Pass	
2,4,6-Trichlorophenol	mg/L	< 0.01			0.01	Pass	
2,6-Dichlorophenol	mg/L	< 0.003			0.003	Pass	
4-Chloro-3-methylphenol	mg/L	< 0.01			0.01	Pass	
Pentachlorophenol	mg/L	< 0.01			0.01	Pass	
Tetrachlorophenols - Total	mg/L	< 0.03			0.03	Pass	
Method Blank							
Phenols (non-Halogenated)							
2-Cyclohexyl-4,6-dinitrophenol	mg/L	< 0.1			0.1	Pass	
2-Methyl-4,6-dinitrophenol	mg/L	< 0.03			0.03	Pass	
2-Methylphenol (o-Cresol)	mg/L	< 0.003			0.003	Pass	
2-Nitrophenol	mg/L	< 0.01			0.01	Pass	
2,4-Dimethylphenol	mg/L	< 0.003			0.003	Pass	
2,4-Dinitrophenol	mg/L	< 0.03			0.03	Pass	
3&4-Methylphenol (m&p-Cresol)	mg/L	< 0.006			0.006	Pass	
4-Nitrophenol	mg/L	< 0.03			0.03	Pass	
Dinoseb	mg/L	< 0.1			0.1	Pass	
Phenol	mg/L	< 0.003			0.003	Pass	
Method Blank							
Heavy Metals							
Arsenic	mg/L	< 0.001			0.001	Pass	
Arsenic (filtered)	mg/L	< 0.001			0.001	Pass	
Cadmium	mg/L	< 0.0002			0.0002	Pass	
Cadmium (filtered)	mg/L	< 0.0002			0.0002	Pass	
Chromium	mg/L	< 0.001			0.001	Pass	
Chromium (filtered)	mg/L	< 0.001			0.001	Pass	
Copper	mg/L	< 0.001			0.001	Pass	
Copper (filtered)	mg/L	< 0.001			0.001	Pass	
Lead	mg/L	< 0.001			0.001	Pass	
Lead (filtered)	mg/L	< 0.001			0.001	Pass	
Mercury	mg/L	< 0.0001			0.0001	Pass	
Mercury (filtered)	mg/L	< 0.0001			0.0001	Pass	
Nickel	mg/L	< 0.001			0.001	Pass	
Nickel (filtered)	mg/L	< 0.001			0.001	Pass	
Zinc	mg/L	< 0.005			0.005	Pass	
Zinc (filtered)	mg/L	< 0.005			0.005	Pass	
LCS - % Recovery							
Total Recoverable Hydrocarbons - 1999 NEPM Fractions							
TRH C6-C9	%	111			70-130	Pass	
TRH C10-C14	%	106			70-130	Pass	

Test	Units	Result 1			Acceptance Limits	Pass Limits	Qualifying Code
LCS - % Recovery							
BTEX							
Benzene	%	115			70-130	Pass	
Toluene	%	107			70-130	Pass	
Ethylbenzene	%	103			70-130	Pass	
m&p-Xylenes	%	104			70-130	Pass	
Xylenes - Total	%	103			70-130	Pass	
LCS - % Recovery							
Total Recoverable Hydrocarbons - 2013 NEPM Fractions							
Naphthalene	%	101			70-130	Pass	
TRH C6-C10	%	105			70-130	Pass	
TRH >C10-C16	%	115			70-130	Pass	
LCS - % Recovery							
Polycyclic Aromatic Hydrocarbons							
Acenaphthene	%	116			70-130	Pass	
Acenaphthylene	%	116			70-130	Pass	
Anthracene	%	106			70-130	Pass	
Benz(a)anthracene	%	91			70-130	Pass	
Benzo(a)pyrene	%	97			70-130	Pass	
Benzo(b&j)fluoranthene	%	100			70-130	Pass	
Benzo(g,h,i)perylene	%	118			70-130	Pass	
Benzo(k)fluoranthene	%	101			70-130	Pass	
Chrysene	%	94			70-130	Pass	
Dibenz(a,h)anthracene	%	119			70-130	Pass	
Fluoranthene	%	120			70-130	Pass	
Fluorene	%	116			70-130	Pass	
Indeno(1,2,3-cd)pyrene	%	125			70-130	Pass	
Naphthalene	%	116			70-130	Pass	
Phenanthrene	%	117			70-130	Pass	
Pyrene	%	122			70-130	Pass	
LCS - % Recovery							
Phenols (Halogenated)							
2-Chlorophenol	%	61			30-130	Pass	
2,4-Dichlorophenol	%	63			30-130	Pass	
2,4,5-Trichlorophenol	%	63			30-130	Pass	
2,4,6-Trichlorophenol	%	65			30-130	Pass	
2,6-Dichlorophenol	%	65			30-130	Pass	
4-Chloro-3-methylphenol	%	69			30-130	Pass	
Pentachlorophenol	%	70			30-130	Pass	
Tetrachlorophenols - Total	%	91			30-130	Pass	
LCS - % Recovery							
Phenols (non-Halogenated)							
2-Cyclohexyl-4,6-dinitrophenol	%	44			30-130	Pass	
2-Methyl-4,6-dinitrophenol	%	91			30-130	Pass	
2-Methylphenol (o-Cresol)	%	57			30-130	Pass	
2-Nitrophenol	%	76			30-130	Pass	
2,4-Dimethylphenol	%	44			30-130	Pass	
2,4-Dinitrophenol	%	49			30-130	Pass	
3&4-Methylphenol (m&p-Cresol)	%	56			30-130	Pass	
4-Nitrophenol	%	78			30-130	Pass	
Dinoseb	%	92			30-130	Pass	
Phenol	%	42			30-130	Pass	
LCS - % Recovery							
Heavy Metals							

Test			Units	Result 1			Acceptance Limits	Pass Limits	Qualifying Code
Arsenic			%	105			80-120	Pass	
Arsenic (filtered)			%	105			80-120	Pass	
Cadmium			%	114			80-120	Pass	
Cadmium (filtered)			%	114			80-120	Pass	
Chromium			%	110			80-120	Pass	
Chromium (filtered)			%	110			80-120	Pass	
Copper			%	111			80-120	Pass	
Copper (filtered)			%	111			80-120	Pass	
Lead			%	109			80-120	Pass	
Lead (filtered)			%	109			80-120	Pass	
Mercury			%	118			75-125	Pass	
Mercury (filtered)			%	118			70-130	Pass	
Nickel			%	111			80-120	Pass	
Nickel (filtered)			%	111			80-120	Pass	
Zinc			%	83			80-120	Pass	
Zinc (filtered)			%	83			80-120	Pass	
Test	Lab Sample ID	QA Source	Units	Result 1			Acceptance Limits	Pass Limits	Qualifying Code
Spike - % Recovery									
Total Recoverable Hydrocarbons - 1999 NEPM Fractions				Result 1					
TRH C10-C14	M18-Fe01431	NCP	%	82			70-130	Pass	
Spike - % Recovery									
Total Recoverable Hydrocarbons - 2013 NEPM Fractions				Result 1					
TRH >C10-C16	M18-Fe01431	NCP	%	83			70-130	Pass	
Spike - % Recovery									
Polycyclic Aromatic Hydrocarbons				Result 1					
Acenaphthene	M18-Ja21659	NCP	%	82			70-130	Pass	
Acenaphthylene	M18-Ja21659	NCP	%	84			70-130	Pass	
Anthracene	M18-Ja21659	NCP	%	99			70-130	Pass	
Benz(a)anthracene	M18-Ja21659	NCP	%	121			70-130	Pass	
Benzo(a)pyrene	M18-Ja21659	NCP	%	118			70-130	Pass	
Benzo(b&j)fluoranthene	M18-Ja21659	NCP	%	114			70-130	Pass	
Benzo(g,h,i)perylene	M18-Ja21659	NCP	%	123			70-130	Pass	
Benzo(k)fluoranthene	M18-Ja21659	NCP	%	125			70-130	Pass	
Chrysene	M18-Ja21659	NCP	%	108			70-130	Pass	
Dibenz(a,h)anthracene	M18-Ja21659	NCP	%	121			70-130	Pass	
Fluoranthene	M18-Ja21659	NCP	%	110			70-130	Pass	
Fluorene	M18-Ja21659	NCP	%	76			70-130	Pass	
Indeno(1,2,3-cd)pyrene	M18-Ja21659	NCP	%	123			70-130	Pass	
Naphthalene	M18-Ja21659	NCP	%	76			70-130	Pass	
Phenanthrene	M18-Ja21659	NCP	%	98			70-130	Pass	
Pyrene	M18-Ja21659	NCP	%	110			70-130	Pass	
Spike - % Recovery									
Organochlorine Pesticides				Result 1					
Chlordanes - Total	M18-Fe00707	NCP	%	83			70-130	Pass	
4,4'-DDD	M18-Fe00707	NCP	%	82			70-130	Pass	
4,4'-DDE	M18-Fe00707	NCP	%	99			70-130	Pass	
4,4'-DDT	M18-Fe00707	NCP	%	99			70-130	Pass	
a-BHC	M18-Fe00707	NCP	%	90			70-130	Pass	
Aldrin	M18-Fe00707	NCP	%	85			70-130	Pass	
b-BHC	M18-Fe00707	NCP	%	100			70-130	Pass	
d-BHC	M18-Fe00707	NCP	%	103			70-130	Pass	
Dieldrin	M18-Fe00707	NCP	%	96			70-130	Pass	
Endosulfan I	M18-Fe00707	NCP	%	100			70-130	Pass	
Endosulfan II	M18-Fe00707	NCP	%	113			70-130	Pass	

Test	Lab Sample ID	QA Source	Units	Result 1			Acceptance Limits	Pass Limits	Qualifying Code
Endosulfan sulphate	M18-Fe00707	NCP	%	79			70-130	Pass	
Endrin	M18-Fe00707	NCP	%	106			70-130	Pass	
Endrin aldehyde	M18-Fe00707	NCP	%	80			70-130	Pass	
Endrin ketone	M18-Fe00707	NCP	%	88			70-130	Pass	
g-BHC (Lindane)	M18-Fe00707	NCP	%	98			70-130	Pass	
Heptachlor	M18-Fe00707	NCP	%	88			70-130	Pass	
Heptachlor epoxide	M18-Fe00707	NCP	%	92			70-130	Pass	
Hexachlorobenzene	M18-Fe00707	NCP	%	97			70-130	Pass	
Methoxychlor	M18-Fe00707	NCP	%	114			70-130	Pass	
Spike - % Recovery									
Phenols (Halogenated)				Result 1					
2-Chlorophenol	M18-Ja16888	NCP	%	87			30-130	Pass	
2,4-Dichlorophenol	M18-Ja16888	NCP	%	99			30-130	Pass	
2,4,5-Trichlorophenol	M18-Ja16888	NCP	%	100			30-130	Pass	
2,4,6-Trichlorophenol	M18-Ja16888	NCP	%	98			30-130	Pass	
2,6-Dichlorophenol	M18-Ja16888	NCP	%	101			30-130	Pass	
4-Chloro-3-methylphenol	M18-Ja16888	NCP	%	107			30-130	Pass	
Pentachlorophenol	M18-Ja16888	NCP	%	128			30-130	Pass	
Tetrachlorophenols - Total	M18-Ja16888	NCP	%	90			30-130	Pass	
Spike - % Recovery									
Phenols (non-Halogenated)				Result 1					
2-Methyl-4,6-dinitrophenol	M18-Ja16888	NCP	%	63			30-130	Pass	
2-Methylphenol (o-Cresol)	M18-Ja16888	NCP	%	96			30-130	Pass	
2-Nitrophenol	M18-Ja16888	NCP	%	113			30-130	Pass	
2,4-Dimethylphenol	M18-Ja16888	NCP	%	98			30-130	Pass	
3&4-Methylphenol (m&p-Cresol)	M18-Ja16888	NCP	%	88			30-130	Pass	
4-Nitrophenol	M18-Ja16888	NCP	%	74			30-130	Pass	
Dinoseb	M18-Ja16888	NCP	%	85			30-130	Pass	
Phenol	M18-Ja16888	NCP	%	64			30-130	Pass	
Spike - % Recovery									
Heavy Metals				Result 1					
Arsenic	B18-Fe03925	NCP	%	98			75-125	Pass	
Arsenic (filtered)	B18-Fe00459	CP	%	102			70-130	Pass	
Cadmium	B18-Fe03925	NCP	%	103			75-125	Pass	
Cadmium (filtered)	B18-Fe00459	CP	%	110			70-130	Pass	
Chromium	B18-Fe03925	NCP	%	103			75-125	Pass	
Chromium (filtered)	B18-Fe00459	CP	%	107			70-130	Pass	
Copper	B18-Fe03925	NCP	%	104			75-125	Pass	
Copper (filtered)	B18-Fe00459	CP	%	108			70-130	Pass	
Lead	B18-Fe03925	NCP	%	100			75-125	Pass	
Lead (filtered)	B18-Fe00459	CP	%	108			70-130	Pass	
Mercury	M18-Fe03331	NCP	%	115			70-130	Pass	
Mercury (filtered)	P18-Fe02941	NCP	%	103			70-130	Pass	
Nickel	B18-Fe03925	NCP	%	102			75-125	Pass	
Nickel (filtered)	B18-Fe00459	CP	%	108			70-130	Pass	
Zinc	B18-Fe03925	NCP	%	101			75-125	Pass	
Zinc (filtered)	B18-Fe00459	CP	%	109			70-130	Pass	
Spike - % Recovery									
Total Recoverable Hydrocarbons - 1999 NEPM Fractions				Result 1					
TRH C6-C9	P18-Ja20456	NCP	%	97			70-130	Pass	
Spike - % Recovery									
BTEX				Result 1					
Benzene	P18-Ja20456	NCP	%	110			70-130	Pass	
Toluene	P18-Ja20456	NCP	%	95			70-130	Pass	

Test	Lab Sample ID	QA Source	Units	Result 1			Acceptance Limits	Pass Limits	Qualifying Code
Ethylbenzene	P18-Ja20456	NCP	%	90			70-130	Pass	
m&p-Xylenes	P18-Ja20456	NCP	%	89			70-130	Pass	
o-Xylene	P18-Ja20456	NCP	%	92			70-130	Pass	
Xylenes - Total	P18-Ja20456	NCP	%	90			70-130	Pass	
Spike - % Recovery									
Total Recoverable Hydrocarbons - 2013 NEPM Fractions				Result 1					
Naphthalene	P18-Ja20456	NCP	%	81			70-130	Pass	
TRH C6-C10	P18-Ja20456	NCP	%	104			70-130	Pass	
Test	Lab Sample ID	QA Source	Units	Result 1			Acceptance Limits	Pass Limits	Qualifying Code
Duplicate									
Total Recoverable Hydrocarbons - 1999 NEPM Fractions				Result 1	Result 2	RPD			
TRH C10-C14	B18-Fe00459	CP	mg/L	< 0.05	< 0.05	<1	30%	Pass	
TRH C15-C28	B18-Fe00459	CP	mg/L	< 0.1	< 0.1	<1	30%	Pass	
TRH C29-C36	B18-Fe00459	CP	mg/L	< 0.1	< 0.1	<1	30%	Pass	
Duplicate									
Total Recoverable Hydrocarbons - 2013 NEPM Fractions				Result 1	Result 2	RPD			
TRH >C10-C16	B18-Fe00459	CP	mg/L	< 0.05	< 0.05	<1	30%	Pass	
TRH >C16-C34	B18-Fe00459	CP	mg/L	< 0.1	< 0.1	<1	30%	Pass	
TRH >C34-C40	B18-Fe00459	CP	mg/L	< 0.1	< 0.1	<1	30%	Pass	
Duplicate									
Polycyclic Aromatic Hydrocarbons				Result 1	Result 2	RPD			
Acenaphthene	M18-Fe00706	NCP	mg/L	< 0.001	< 0.001	<1	30%	Pass	
Acenaphthylene	M18-Fe00706	NCP	mg/L	< 0.001	< 0.001	<1	30%	Pass	
Anthracene	M18-Fe00706	NCP	mg/L	< 0.001	< 0.001	<1	30%	Pass	
Benz(a)anthracene	M18-Fe00706	NCP	mg/L	< 0.001	< 0.001	<1	30%	Pass	
Benzo(a)pyrene	M18-Fe00706	NCP	mg/L	< 0.001	< 0.001	<1	30%	Pass	
Benzo(b&i)fluoranthene	M18-Fe00706	NCP	mg/L	< 0.001	< 0.001	<1	30%	Pass	
Benzo(g,h,i)perylene	M18-Fe00706	NCP	mg/L	< 0.001	< 0.001	<1	30%	Pass	
Benzo(k)fluoranthene	M18-Fe00706	NCP	mg/L	< 0.001	< 0.001	<1	30%	Pass	
Chrysene	M18-Fe00706	NCP	mg/L	< 0.001	< 0.001	<1	30%	Pass	
Dibenz(a,h)anthracene	M18-Fe00706	NCP	mg/L	< 0.001	< 0.001	<1	30%	Pass	
Fluoranthene	M18-Fe00706	NCP	mg/L	< 0.001	< 0.001	<1	30%	Pass	
Fluorene	M18-Fe00706	NCP	mg/L	< 0.001	< 0.001	<1	30%	Pass	
Indeno(1,2,3-cd)pyrene	M18-Fe00706	NCP	mg/L	< 0.001	< 0.001	<1	30%	Pass	
Naphthalene	M18-Fe00706	NCP	mg/L	< 0.001	< 0.001	<1	30%	Pass	
Phenanthrene	M18-Fe00706	NCP	mg/L	< 0.001	< 0.001	<1	30%	Pass	
Pyrene	M18-Fe00706	NCP	mg/L	< 0.001	< 0.001	<1	30%	Pass	
Duplicate									
Organochlorine Pesticides				Result 1	Result 2	RPD			
Chlordanes - Total	M18-Fe00706	NCP	mg/L	< 0.001	< 0.001	<1	30%	Pass	
4,4'-DDD	M18-Fe00706	NCP	mg/L	< 0.0001	< 0.0001	<1	30%	Pass	
4,4'-DDE	M18-Fe00706	NCP	mg/L	< 0.0001	< 0.0001	<1	30%	Pass	
4,4'-DDT	M18-Fe00706	NCP	mg/L	< 0.0001	< 0.0001	<1	30%	Pass	
a-BHC	M18-Fe00706	NCP	mg/L	< 0.0001	< 0.0001	<1	30%	Pass	
Aldrin	M18-Fe00706	NCP	mg/L	< 0.0001	< 0.0001	<1	30%	Pass	
b-BHC	M18-Fe00706	NCP	mg/L	< 0.0001	< 0.0001	<1	30%	Pass	
d-BHC	M18-Fe00706	NCP	mg/L	< 0.0001	< 0.0001	<1	30%	Pass	
Dieldrin	M18-Fe00706	NCP	mg/L	< 0.0001	< 0.0001	<1	30%	Pass	
Endosulfan I	M18-Fe00706	NCP	mg/L	< 0.0001	< 0.0001	<1	30%	Pass	
Endosulfan II	M18-Fe00706	NCP	mg/L	< 0.0001	< 0.0001	<1	30%	Pass	
Endosulfan sulphate	M18-Fe00706	NCP	mg/L	< 0.0001	< 0.0001	<1	30%	Pass	
Endrin	M18-Fe00706	NCP	mg/L	< 0.0001	< 0.0001	<1	30%	Pass	
Endrin aldehyde	M18-Fe00706	NCP	mg/L	< 0.0001	< 0.0001	<1	30%	Pass	
Endrin ketone	M18-Fe00706	NCP	mg/L	< 0.0001	< 0.0001	<1	30%	Pass	

Duplicate								
Organochlorine Pesticides				Result 1	Result 2	RPD		
g-BHC (Lindane)	M18-Fe00706	NCP	mg/L	< 0.0001	< 0.0001	<1	30%	Pass
Heptachlor	M18-Fe00706	NCP	mg/L	< 0.0001	< 0.0001	<1	30%	Pass
Heptachlor epoxide	M18-Fe00706	NCP	mg/L	< 0.0001	< 0.0001	<1	30%	Pass
Hexachlorobenzene	M18-Fe00706	NCP	mg/L	< 0.0001	< 0.0001	<1	30%	Pass
Methoxychlor	M18-Fe00706	NCP	mg/L	< 0.0001	< 0.0001	<1	30%	Pass
Toxaphene	M18-Fe00706	NCP	mg/L	< 0.01	< 0.01	<1	30%	Pass
Duplicate								
Phenols (Halogenated)				Result 1	Result 2	RPD		
2-Chlorophenol	M18-Fe00706	NCP	mg/L	< 0.003	< 0.003	<1	30%	Pass
2,4-Dichlorophenol	M18-Fe00706	NCP	mg/L	< 0.003	< 0.003	<1	30%	Pass
2,4,5-Trichlorophenol	M18-Fe00706	NCP	mg/L	< 0.01	< 0.01	<1	30%	Pass
2,4,6-Trichlorophenol	M18-Fe00706	NCP	mg/L	< 0.01	< 0.01	<1	30%	Pass
2,6-Dichlorophenol	M18-Fe00706	NCP	mg/L	< 0.003	< 0.003	<1	30%	Pass
4-Chloro-3-methylphenol	M18-Fe00706	NCP	mg/L	< 0.01	< 0.01	<1	30%	Pass
Pentachlorophenol	M18-Fe00706	NCP	mg/L	< 0.01	< 0.01	<1	30%	Pass
Tetrachlorophenols - Total	M18-Fe00706	NCP	mg/L	< 0.03	< 0.03	<1	30%	Pass
Duplicate								
Phenols (non-Halogenated)				Result 1	Result 2	RPD		
2-Cyclohexyl-4,6-dinitrophenol	M18-Fe00706	NCP	mg/L	< 0.1	< 0.1	<1	30%	Pass
2-Methyl-4,6-dinitrophenol	M18-Fe00706	NCP	mg/L	< 0.03	< 0.03	<1	30%	Pass
2-Methylphenol (o-Cresol)	M18-Fe00706	NCP	mg/L	< 0.003	< 0.003	<1	30%	Pass
2-Nitrophenol	M18-Fe00706	NCP	mg/L	< 0.01	< 0.01	<1	30%	Pass
2,4-Dimethylphenol	M18-Fe00706	NCP	mg/L	< 0.003	< 0.003	<1	30%	Pass
2,4-Dinitrophenol	M18-Fe00706	NCP	mg/L	< 0.03	< 0.03	<1	30%	Pass
3&4-Methylphenol (m&p-Cresol)	M18-Fe00706	NCP	mg/L	< 0.006	< 0.006	<1	30%	Pass
4-Nitrophenol	M18-Fe00706	NCP	mg/L	< 0.03	< 0.03	<1	30%	Pass
Dinoseb	M18-Fe00706	NCP	mg/L	< 0.1	< 0.1	<1	30%	Pass
Phenol	M18-Fe00706	NCP	mg/L	< 0.003	< 0.003	<1	30%	Pass
Duplicate								
Heavy Metals				Result 1	Result 2	RPD		
Arsenic	B18-Fe03925	NCP	mg/L	0.004	0.004	2.0	30%	Pass
Arsenic (filtered)	B18-Fe00459	CP	mg/L	0.010	0.009	3.0	30%	Pass
Cadmium	B18-Fe03925	NCP	mg/L	< 0.0002	< 0.0002	<1	30%	Pass
Cadmium (filtered)	B18-Fe00459	CP	mg/L	< 0.0002	< 0.0002	<1	30%	Pass
Chromium	B18-Fe03925	NCP	mg/L	< 0.001	< 0.001	<1	30%	Pass
Chromium (filtered)	B18-Fe00459	CP	mg/L	< 0.001	< 0.001	<1	30%	Pass
Copper	B18-Fe03925	NCP	mg/L	0.001	0.001	20	30%	Pass
Copper (filtered)	B18-Fe00459	CP	mg/L	< 0.001	< 0.001	<1	30%	Pass
Lead	B18-Fe03925	NCP	mg/L	0.002	< 0.001	140	30%	Fail
Lead (filtered)	B18-Fe00459	CP	mg/L	< 0.001	< 0.001	<1	30%	Pass
Mercury	B18-Fe03925	NCP	mg/L	0.0003	0.0002	37	30%	Fail
Mercury (filtered)	B18-Fe00459	CP	mg/L	< 0.0001	< 0.0001	<1	30%	Pass
Nickel	B18-Fe03925	NCP	mg/L	0.001	0.001	15	30%	Pass
Nickel (filtered)	B18-Fe00459	CP	mg/L	< 0.001	< 0.001	<1	30%	Pass
Zinc	B18-Fe03925	NCP	mg/L	0.008	0.008	1.0	30%	Pass
Zinc (filtered)	B18-Fe00459	CP	mg/L	0.043	0.045	5.0	30%	Pass
Duplicate								
Total Recoverable Hydrocarbons - 1999 NEPM Fractions				Result 1	Result 2	RPD		
TRH C6-C9	M18-Ja21663	NCP	mg/L	< 0.02	< 0.02	<1	30%	Pass

Q15

Duplicate								
BTEX				Result 1	Result 2	RPD		
Benzene	M18-Ja21663	NCP	mg/L	< 0.001	< 0.001	<1	30%	Pass
Toluene	M18-Ja21663	NCP	mg/L	< 0.001	< 0.001	<1	30%	Pass
Ethylbenzene	M18-Ja21663	NCP	mg/L	< 0.001	< 0.001	<1	30%	Pass
m&p-Xylenes	M18-Ja21663	NCP	mg/L	< 0.002	< 0.002	<1	30%	Pass
o-Xylene	M18-Ja21663	NCP	mg/L	< 0.001	< 0.001	<1	30%	Pass
Xylenes - Total	M18-Ja21663	NCP	mg/L	< 0.003	< 0.003	<1	30%	Pass
Duplicate								
Total Recoverable Hydrocarbons - 2013 NEPM Fractions				Result 1	Result 2	RPD		
Naphthalene	M18-Ja21663	NCP	mg/L	< 0.01	< 0.01	<1	30%	Pass
TRH C6-C10	M18-Ja21663	NCP	mg/L	< 0.02	< 0.02	<1	30%	Pass

Comments

Sample Integrity

Custody Seals Intact (if used)	N/A
Attempt to Chill was evident	Yes
Sample correctly preserved	No
Appropriate sample containers have been used	No
Sample containers for volatile analysis received with minimal headspace	Yes
Samples received within HoldingTime	Yes
Some samples have been subcontracted	No

Comments

Qualifier Codes/Comments

Code	Description
N01	F2 is determined by arithmetically subtracting the "naphthalene" value from the ">C10-C16" value. The naphthalene value used in this calculation is obtained from volatiles (Purge & Trap analysis).
N02	Where we have reported both volatile (P&T GCMS) and semivolatile (GCMS) naphthalene data, results may not be identical. Provided correct sample handling protocols have been followed, any observed differences in results are likely to be due to procedural differences within each methodology. Results determined by both techniques have passed all QAQC acceptance criteria, and are entirely technically valid.
N04	F1 is determined by arithmetically subtracting the "Total BTEX" value from the "C6-C10" value. The "Total BTEX" value is obtained by summing the concentrations of BTEX analytes. The "C6-C10" value is obtained by quantitating against a standard of mixed aromatic/aliphatic analytes.
N07	Please note:- These two PAH isomers closely co-elute using the most contemporary analytical methods and both the reported concentration (and the TEQ) apply specifically to the total of the two co-eluting PAHs
Q15	The RPD reported passes Eurofins mgt's QC - Acceptance Criteria as defined in the Internal Quality Control Review and Glossary page of this report.

Authorised By

Ryan Gilbert	Analytical Services Manager
Alex Petridis	Senior Analyst-Metal (VIC)
Harry Bacalis	Senior Analyst-Volatile (VIC)
Joseph Edouard	Senior Analyst-Organic (VIC)



Glenn Jackson

National Operations Manager

Final report - this Report replaces any previously issued Report

- Indicates Not Requested

* Indicates NATA accreditation does not cover the performance of this service

Measurement uncertainty of test data is available on request or please [click here](#).

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Certificate of Analysis



Accredited for compliance with ISO/IEC 17025-Testing
The results of the tests, calibrations and/or
measurements included in this document are traceable
to Australian/national standards.

JBS & G Australia (QLD) P/L
Level 3, Turbot Street
Brisbane
QLD 4000

Attention: Sarah Baker
Report 582697-V2-AID
Project Name BYRON BAY
Project ID 54298
Received Date Jan 31, 2018
Date Reported Feb 08, 2018

Methodology:

Asbestos Fibre
Identification

Conducted in accordance with the Australian Standard AS 4964 – 2004: Method for the Qualitative Identification of Asbestos in Bulk Samples and in-house Method LTM-ASB-8020 by polarised light microscopy (PLM) and dispersion staining (DS) techniques.

NOTE: Positive Trace Analysis results indicate the sample contains detectable respirable fibres.

Unknown Mineral
Fibres

Mineral fibres of unknown type, as determined by PLM with DS, may require another analytical technique, such as Electron Microscopy, to confirm unequivocal identity.

NOTE: While Actinolite, Anthophyllite and Tremolite asbestos may be detected by PLM with DS, due to variability in the optical properties of these materials, AS4964 requires that these are reported as UMF unless confirmed by an independent technique.

Subsampling Soil
Samples

The whole sample submitted is first dried and then passed through a 10mm sieve followed by a 2mm sieve. All fibrous matter greater than 10mm, greater than 2mm as well as the material passing through the 2mm sieve are retained and analysed for the presence of asbestos. If the sub 2mm fraction is greater than approximately 30 to 60g then a sub-sampling routine based on ISO 3082:2009(E) is employed.

NOTE: Depending on the nature and size of the soil sample, the sub-2 mm residue material may need to be sub-sampled for trace analysis, in accordance with AS 4964-2004.

Bonded asbestos-
containing material
(ACM)

The material is first examined and any fibres isolated for identification by PLM and DS. Where required, interfering matrices may be removed by disintegration using a range of heat, chemical or physical treatments, possibly in combination. The resultant material is then further examined in accordance with AS 4964 - 2004.

NOTE: Even after disintegration it may be difficult to detect the presence of asbestos in some asbestos-containing bulk materials using PLM and DS. This is due to the low grade or small length or diameter of the asbestos fibres present in the material, or to the fact that very fine fibres have been distributed intimately throughout the materials. Vinyl/asbestos floor tiles, some asbestos-containing sealants and mastics, asbestos-containing epoxy resins and some ore samples are examples of these types of material, which are difficult to analyse.

Limit of Reporting

The performance limitation of the AS4964 method for inhomogeneous samples is around 0.1 g/kg (0.01% (w/w)). Where no asbestos is found by PLM and DS, including Trace Analysis where required, this is considered to be at the nominal reporting limit of 0.01 % (w / w). The examination of large sample sizes (500 mL is recommended) may improve the likelihood of identifying ACM in the > 2mm fraction. The NEPM screening level of 0.001 % (w / w) asbestos in soil for FA (friable asbestos) and AF (asbestos fines) then applies where they are able to be quantified by gravimetric procedures. This quantitative screening is not generally applicable to FF (free fibres) and results of Trace Analysis are referred.

NOTE: NATA News March 2014, p.7, states in relation to AS4964: "This is a qualitative method with a nominal reporting limit of 0.01%" and that currently in Australia "there is no validated method available for the quantification of asbestos". Accordingly, NATA Accreditation does not cover the performance of this service (indicated with an asterisk). This report is consistent with the analytical procedures and reporting recommendations in the National Environment Protection (Assessment of Site Contamination) Measure, 2013 (as amended) and the Western Australia Guidelines for the Assessment, Remediation and Management of Asbestos-Contaminated Sites in Western Australia, 2009, including supporting document Recommended Procedures for Laboratory Analysis of Asbestos in Soil, June 2011.

Project Name BYRON BAY
Project ID 54298
Date Sampled Jan 30, 2018 to Jan 31, 2018
Report 582697-V2-AID

Client Sample ID	Eurofins mgt Sample No.	Date Sampled	Sample Description	Result
ACM01	18-Fe00463	Jan 30, 2018	Approximate Sample 41g / 70x40x10mm Sample consisted of: Grey compressed fibre cement material	Chrysotile asbestos detected.
AS03	18-Fe00466	Jan 30, 2018	Approximate Sample 731g Sample consisted of: Brown fine grain soil, rocks and organic debris	No asbestos detected at the reporting limit of 0.001% w/w.* Organic fibre detected. No respirable fibres detected.
AS06	18-Fe00467	Jan 30, 2018	Approximate Sample 778g Sample consisted of: Brown fine grain soil, rocks and organic debris	No asbestos detected at the reporting limit of 0.001% w/w.* Organic fibre detected. No respirable fibres detected.
AS07	18-Fe00468	Jan 30, 2018	Approximate Sample 666g Sample consisted of: Brown fine grain soil, rocks and organic debris	No asbestos detected at the reporting limit of 0.001% w/w.* Organic fibre detected. No respirable fibres detected.
AS09	18-Fe00469	Jan 31, 2018	Approximate Sample 661g Sample consisted of: Brown fine grain soil, rocks and organic debris	No asbestos detected at the reporting limit of 0.001% w/w.* Organic fibre detected. No respirable fibres detected.
AS11	18-Fe00470	Jan 31, 2018	Approximate Sample 616g Sample consisted of: Brown fine grain soil, rocks and organic debris	No asbestos detected at the reporting limit of 0.001% w/w.* Organic fibre detected. No respirable fibres detected.

Sample History

Where samples are submitted/analysed over several days, the last date of extraction and analysis is reported. A recent review of our LIMS has resulted in the correction or clarification of some method identifications. Due to this, some of the method reference information on reports has changed. However, no substantive change has been made to our laboratory methods, and as such there is no change in the validity of current or previous results (regarding both quality and NATA accreditation).

If the date and time of sampling are not provided, the Laboratory will not be responsible for compromised results should testing be performed outside the recommended holding time.

Description	Testing Site	Extracted	Holding Time
Asbestos - LTM-ASB-8020	Sydney	Feb 22, 2018	Indefinite
Asbestos - LTM-ASB-8020	Sydney	Feb 22, 2018	Indefinite

Company Name: JBS & G Australia (QLD) P/L
Address: Level 3, Turbot Street
Brisbane
QLD 4000

Project Name: BYRON BAY
Project ID: 54298

Order No.:
Report #: 582697
Phone: 07 3181 5738
Fax:

Received: Jan 31, 2018 6:00 PM
Due: Feb 8, 2018
Priority: 5 Day
Contact Name: -Border

Eurofins | mgt Analytical Services Manager : Ryan Gilbert

Sample Detail						Asbestos - WA guidelines	Asbestos Absence / Presence	HOLD	HOLD	Organochlorine Pesticides	Metals M8	Eurofins mgt Suite B7A (filtered metals)
Melbourne Laboratory - NATA Site # 1254 & 14271								X		X	X	X
Sydney Laboratory - NATA Site # 18217						X	X		X			
Brisbane Laboratory - NATA Site # 20794												
Perth Laboratory - NATA Site # 23736												
External Laboratory												
No	Sample ID	Sample Date	Sampling Time	Matrix	LAB ID							
1	MW01	Jan 30, 2018		Water	B18-Fe00459					X	X	X
2	MW02	Jan 30, 2018		Water	B18-Fe00460					X	X	X
3	MW03	Jan 30, 2018		Water	B18-Fe00461					X	X	X
4	QC01_300118	Jan 30, 2018		Water	B18-Fe00462					X	X	X
5	ACM01	Jan 30, 2018		Building Materials	B18-Fe00463		X					
6	TRIP BLANK	Jan 30, 2018		Water	B18-Fe00464			X				
7	TRIP SPIKE	Jan 30, 2018		Water	B18-Fe00465			X				
8	AS03	Jan 30, 2018		Soil	B18-Fe00466	X						
9	AS06	Jan 30, 2018		Soil	B18-Fe00467	X						

Company Name: JBS & G Australia (QLD) P/L
Address: Level 3, Turbot Street
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Project Name: BYRON BAY
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Sample Detail						Asbestos - WA guidelines	Asbestos Absence / Presence	HOLD	HOLD	Organochlorine Pesticides	Metals M8	Eurofins mgt Suite B7A (filtered metals)
Melbourne Laboratory - NATA Site # 1254 & 14271								X		X	X	X
Sydney Laboratory - NATA Site # 18217						X	X		X			
Brisbane Laboratory - NATA Site # 20794												
Perth Laboratory - NATA Site # 23736												
10	AS07	Jan 30, 2018		Soil	B18-Fe00468	X						
11	AS09	Jan 31, 2018		Soil	B18-Fe00469	X						
12	AS11	Jan 31, 2018		Soil	B18-Fe00470	X						
13	R.BLANK	Jan 30, 2018		Water	B18-Fe00471							X
14	AS01	Jan 30, 2018		Soil	B18-Fe00472				X			
15	AS02	Jan 30, 2018		Soil	B18-Fe00473				X			
16	AS04	Jan 30, 2018		Soil	B18-Fe00474				X			
17	AS05	Jan 30, 2018		Soil	B18-Fe00475				X			
18	AS08	Jan 30, 2018		Soil	B18-Fe00476				X			
19	AS10	Jan 30, 2018		Soil	B18-Fe00477				X			
Test Counts						5	1	8	8	4	4	5

Internal Quality Control Review and Glossary

General

1. QC data may be available on request.
2. All soil results are reported on a dry basis, unless otherwise stated.
3. Samples were analysed on an 'as received' basis.
4. This report replaces any interim results previously issued.

Holding Times

Please refer to 'Sample Preservation and Container Guide' for holding times (QS3001).

For samples received on the last day of holding time, notification of testing requirements should have been received at least 6 hours prior to sample receipt deadlines as stated on the Sample Receipt Advice.

If the Laboratory did not receive the information in the required timeframe, and regardless of any other integrity issues, suitably qualified results may still be reported.

Holding times apply from the date of sampling, therefore compliance to these may be outside the laboratory's control.

Units

% w/w: weight for weight basis	grams per kilogram
Filter loading:	fibres/100 graticule areas
Reported Concentration:	fibres/mL
Flowrate:	L/min

Terms

Dry	Where a moisture has been determined on a solid sample the result is expressed on a dry basis
LOR	Limit of Reporting
COC	Chain of Custody
SRA	Sample Receipt Advice
ISO	International Standards Organisation
AS	Australian Standards
WA DOH	Western Australia Department of Health
NOHSC	National Occupational Health and Safety Commission
ACM	Bonded asbestos-containing material means any material containing more than 1% asbestos and comprises asbestos-containing-material which is in sound condition, although possibly broken or fragmented, and where the asbestos is bound in a matrix such as cement or resin. Common examples of ACM include but are not limited to: pipe and boiler insulation, sprayed-on fireproofing, troweled-on acoustical plaster, floor tile and mastic, floor linoleum, transite shingles, roofing materials, wall and ceiling plaster, ceiling tiles, and gasket materials. This term is restricted to material that cannot pass a 7 mm x 7 mm sieve. This sieve size is selected because it approximates the thickness of common asbestos cement sheeting and for fragments to be smaller than this would imply a high degree of damage and hence potential for fibre release.
FA	FA comprises friable asbestos material and includes severely weathered cement sheet, insulation products and woven asbestos material. This type of friable asbestos is defined here as asbestos material that is in a degraded condition such that it can be broken or crumbled by hand pressure. This material is typically unbonded or was previously bonded and is now significantly degraded (crumbling).
PACM	Presumed Asbestos-Containing Material means thermal system insulation and surfacing material found in buildings, vessels, and vessel sections constructed no later than 1980 that are assumed to contain greater than one percent asbestos but have not been sampled or analyzed to verify or negate the presence of asbestos.
AF	Asbestos fines (AF) are defined as free fibres, or fibre bundles, smaller than 7mm. It is the free fibres which present the greatest risk to human health, although very small fibres (< 5 microns in length) are not considered to be such a risk. AF also includes small fragments of bonded ACM that pass through a 7 mm x 7 mm sieve. (Note that for bonded ACM fragments to pass through a 7 mm x 7 mm sieve implies a substantial degree of damage which increases the potential for fibre release.)
AC	Asbestos cement means a mixture of cement and asbestos fibres (typically 90:10 ratios).

Comments

V2 - REPORTED RESULTS UPDATED TO WA GUIDELINES.

Sample Integrity

Custody Seals Intact (if used)	N/A
Attempt to Chill was evident	Yes
Sample correctly preserved	No
Appropriate sample containers have been used	No
Sample containers for volatile analysis received with minimal headspace	Yes
Samples received within HoldingTime	Yes
Some samples have been subcontracted	No

Comments

Qualifier Codes/Comments

Code	Description
N/A	Not applicable

Asbestos Counter/Identifier:

Sayeed Abu Senior Analyst-Asbestos (NSW)

Authorised by:

Matthew Quigley Senior Analyst-Asbestos (NSW)



Glenn Jackson
National Operations Manager

Final Report – this report replaces any previously issued Report

- Indicates Not Requested

* Indicates NATA accreditation does not cover the performance of this service

Uncertainty data is available on request

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Sample Receipt Advice

Company name: **JBS & G Australia (QLD) P/L**
Contact name: **-Border**
Project name: **BYRON BAY**
Project ID: **54298**
COC number: **Not provided**
Turn around time: **5 Day**
Date/Time received: **Jan 31, 2018 6:00 PM**
Eurofins | mgt reference: **582697**

Sample information

- ☒ A detailed list of analytes logged into our LIMS, is included in the attached summary table.
- ☒ All samples have been received as described on the above COC.
- ☒ COC has been completed correctly.
- ☒ Attempt to chill was evident.
- ☒ Appropriately preserved sample containers have been used.
- ☒ All samples were received in good condition.
- ☒ Samples have been provided with adequate time to commence analysis in accordance with the relevant holding times.
- ☒ Appropriate sample containers have been used.
- ☒ Sample containers for volatile analysis received with zero headspace.
- ☒ Split sample sent to requested external lab.
- ☒ Some samples have been subcontracted.

N/A Custody Seals intact (if used).

Notes

PLEASE BE ADVISED SAMPLE MW01 1 VIAL ARRIVED BROKEN. MW01 & MW02 RECIEVED METALS FILTERED CONTAINER THEREFORE B7AFILT APPLIED. MW03 METALS TOTAL CONTAINER PROVIDED THEREFORE B7A APPLIED. QC01 & R.BLANK METALS CONTAINER NOT SPECIFIED THEREFORE B7A APPLIED.QC01A_300118 SENT TO ENVIRO LAB AS REQUESTED.

Contact notes

If you have any questions with respect to these samples please contact:

Ryan Gilbert on Phone : or by e.mail: RyanGilbert@eurofins.com

Results will be delivered electronically via e.mail to -Border - redlinesa@border.gov.au.

Note: A copy of these results will also be delivered to the general JBS & G Australia (QLD) P/L email address.

CERTIFICATE OF ANALYSIS 184387

Client Details

Client	JBS & G (NSW & WA) Pty Ltd
Attention	Sarah Baker
Address	Level 1, 50 Margaret St, Sydney, NSW, 2000

Sample Details

Your Reference	<u>54298, Byron Bay</u>
Number of Samples	1 Water
Date samples received	02/02/2018
Date completed instructions received	02/02/2018

Analysis Details

Please refer to the following pages for results, methodology summary and quality control data.
 Samples were analysed as received from the client. Results relate specifically to the samples as received.
 Results are reported on a dry weight basis for solids and on an as received basis for other matrices.
Please refer to the last page of this report for any comments relating to the results.

Report Details

Date results requested by	09/02/2018
Date of Issue	08/02/2018
NATA Accreditation Number 2901. This document shall not be reproduced except in full.	
Accredited for compliance with ISO/IEC 17025 - Testing. Tests not covered by NATA are denoted with *	

Results Approved By

Dragana Tomas, Senior Chemist
 Jaimie Loa-Kum-Cheung, Senior Chemist
 Jeremy Faircloth, Organics Supervisor

Authorised By



David Springer, General Manager

vTRH(C6-C10)/BTEXN in Water		
Our Reference		184387-1
Your Reference	UNITS	QC01A_300118
Date Sampled		30/01/2018
Type of sample		Water
Date extracted	-	05/02/2018
Date analysed	-	05/02/2018
TRH C ₆ - C ₉	µg/L	<10
TRH C ₆ - C ₁₀	µg/L	<10
TRH C ₆ - C ₁₀ less BTEX (F1)	µg/L	<10
Benzene	µg/L	<1
Toluene	µg/L	<1
Ethylbenzene	µg/L	<1
m+p-xylene	µg/L	<2
o-xylene	µg/L	<1
Naphthalene	µg/L	<1
Surrogate Dibromofluoromethane	%	129
Surrogate toluene-d8	%	95
Surrogate 4-BFB	%	81

svTRH (C10-C40) in Water		
Our Reference		184387-1
Your Reference	UNITS	QC01A_300118
Date Sampled		30/01/2018
Type of sample		Water
Date extracted	-	05/02/2018
Date analysed	-	05/02/2018
TRH C ₁₀ - C ₁₄	µg/L	<50
TRH C ₁₅ - C ₂₈	µg/L	<100
TRH C ₂₉ - C ₃₆	µg/L	<100
TRH >C ₁₀ - C ₁₆	µg/L	<50
TRH >C ₁₀ - C ₁₆ less Naphthalene (F2)	µg/L	<50
TRH >C ₁₆ - C ₃₄	µg/L	<100
TRH >C ₃₄ - C ₄₀	µg/L	<100
Surrogate o-Terphenyl	%	68

PAHs in Water		
Our Reference		184387-1
Your Reference	UNITS	QC01A_300118
Date Sampled		30/01/2018
Type of sample		Water
Date extracted	-	05/02/2018
Date analysed	-	05/02/2018
Naphthalene	µg/L	<1
Acenaphthylene	µg/L	<1
Acenaphthene	µg/L	<1
Fluorene	µg/L	<1
Phenanthrene	µg/L	<1
Anthracene	µg/L	<1
Fluoranthene	µg/L	<1
Pyrene	µg/L	<1
Benzo(a)anthracene	µg/L	<1
Chrysene	µg/L	<1
Benzo(b,j+k)fluoranthene	µg/L	<2
Benzo(a)pyrene	µg/L	<1
Indeno(1,2,3-c,d)pyrene	µg/L	<1
Dibenzo(a,h)anthracene	µg/L	<1
Benzo(g,h,i)perylene	µg/L	<1
Benzo(a)pyrene TEQ	µg/L	<5
Total +ve PAH's	µg/L	NIL (+)VE
Surrogate <i>p</i> -Terphenyl-d14	%	89

OCP in water		
Our Reference		184387-1
Your Reference	UNITS	QC01A_300118
Date Sampled		30/01/2018
Type of sample		Water
Date extracted	-	05/02/2018
Date analysed	-	05/02/2018
HCB	µg/L	<0.2
alpha-BHC	µg/L	<0.2
gamma-BHC	µg/L	<0.2
beta-BHC	µg/L	<0.2
Heptachlor	µg/L	<0.2
delta-BHC	µg/L	<0.2
Aldrin	µg/L	<0.2
Heptachlor Epoxide	µg/L	<0.2
gamma-Chlordane	µg/L	<0.2
alpha-Chlordane	µg/L	<0.2
Endosulfan I	µg/L	<0.2
pp-DDE	µg/L	<0.2
Dieldrin	µg/L	<0.2
Endrin	µg/L	<0.2
pp-DDD	µg/L	<0.2
Endosulfan II	µg/L	<0.2
pp-DDT	µg/L	<0.2
Endrin Aldehyde	µg/L	<0.2
Endosulfan Sulphate	µg/L	<0.2
Methoxychlor	µg/L	<0.2
Surrogate TCMX	%	74

HM in water - total		
Our Reference		184387-1
Your Reference	UNITS	QC01A_300118
Date Sampled		30/01/2018
Type of sample		Water
Date prepared	-	06/02/2018
Date analysed	-	06/02/2018
Arsenic-Total	µg/L	7
Cadmium-Total	µg/L	<0.1
Chromium-Total	µg/L	5
Copper-Total	µg/L	10
Lead-Total	µg/L	4
Mercury-Total	µg/L	<0.05
Nickel-Total	µg/L	3
Zinc-Total	µg/L	16

Speciated Phenols in water		
Our Reference		184387-1
Your Reference	UNITS	QC01A_300118
Date Sampled		30/01/2018
Type of sample		Water
Date extracted	-	05/02/2018
Date analysed	-	06/02/2018
Phenol	µg/L	<1
2-Chlorophenol	µg/L	<1
4-Chloro-3-Methylphenol	µg/L	<5
2-Methylphenol (O-Cresol)	µg/L	<1
3/4-Methylphenol (m/p-Cresol)	µg/L	<2
2-Nitrophenol	µg/L	<1
2,4-Dimethylphenol	µg/L	<1
2,4-Dichlorophenol	µg/L	<1
2,6-Dichlorophenol	µg/L	<1
2,4,5-Trichlorophenol	µg/L	<1
2,4,6-Trichlorophenol	µg/L	<1
2,4-Dinitrophenol	µg/L	<20
4-Nitrophenol	µg/L	<20
2346-Tetrachlorophenol	µg/L	<1
2-methyl-4,6-Dinitrophenol	µg/L	<10
Pentachlorophenol	µg/L	<5
Surrogate 2-fluorophenol	%	55
Surrogate Phenol-d ₆	%	39
Surrogate 2,4,6-Tribromophenol	%	84
Surrogate p-Terphenyl-d ₁₄	%	92

Method ID	Methodology Summary
Metals-021	Determination of Mercury by Cold Vapour AAS.
Metals-022	Determination of various metals by ICP-MS.
Org-003	Soil samples are extracted with Dichloromethane/Acetone and waters with Dichloromethane and analysed by GC-FID. F2 = (>C10-C16)-Naphthalene as per NEPM B1 Guideline on Investigation Levels for Soil and Groundwater (HSLs Tables 1A (3, 4)). Note Naphthalene is determined from the VOC analysis.
Org-005	Soil samples are extracted with dichloromethane/acetone and waters with dichloromethane and analysed by GC with dual ECD's.
Org-012	Soil samples are extracted with Dichloromethane/Acetone and waters with Dichloromethane and analysed by GC-MS.
Org-012	Soil samples are extracted with Dichloromethane/Acetone and waters with Dichloromethane and analysed by GC-MS. Benzo(a)pyrene TEQ as per NEPM B1 Guideline on Investigation Levels for Soil and Groundwater - 2013.
Org-013	Water samples are analysed directly by purge and trap GC-MS.
Org-016	Soil samples are extracted with methanol and spiked into water prior to analysing by purge and trap GC-MS. Water samples are analysed directly by purge and trap GC-MS. F1 = (C6-C10)-BTEX as per NEPM B1 Guideline on Investigation Levels for Soil and Groundwater.

QUALITY CONTROL: vTRH(C6-C10)/BTEXN in Water						Duplicate		Spike Recovery %		
Test Description	Units	PQL	Method	Blank	#	Base	Dup.	RPD	LCS-W1	[NT]
Date extracted	-			05/02/2018	[NT]	[NT]	[NT]	[NT]	05/02/2018	[NT]
Date analysed	-			05/02/2018	[NT]	[NT]	[NT]	[NT]	05/02/2018	[NT]
TRH C ₆ - C ₉	µg/L	10	Org-016	<10	[NT]	[NT]	[NT]	[NT]	100	[NT]
TRH C ₆ - C ₁₀	µg/L	10	Org-016	<10	[NT]	[NT]	[NT]	[NT]	100	[NT]
Benzene	µg/L	1	Org-016	<1	[NT]	[NT]	[NT]	[NT]	98	[NT]
Toluene	µg/L	1	Org-016	<1	[NT]	[NT]	[NT]	[NT]	89	[NT]
Ethylbenzene	µg/L	1	Org-016	<1	[NT]	[NT]	[NT]	[NT]	95	[NT]
m+p-xylene	µg/L	2	Org-016	<2	[NT]	[NT]	[NT]	[NT]	110	[NT]
o-xylene	µg/L	1	Org-016	<1	[NT]	[NT]	[NT]	[NT]	108	[NT]
Naphthalene	µg/L	1	Org-013	<1	[NT]	[NT]	[NT]	[NT]	[NT]	[NT]
Surrogate Dibromofluoromethane	%		Org-016	126	[NT]	[NT]	[NT]	[NT]	112	[NT]
Surrogate toluene-d8	%		Org-016	92	[NT]	[NT]	[NT]	[NT]	87	[NT]
Surrogate 4-BFB	%		Org-016	83	[NT]	[NT]	[NT]	[NT]	100	[NT]

QUALITY CONTROL: svTRH (C10-C40) in Water					Duplicate			Spike Recovery %		
Test Description	Units	PQL	Method	Blank	#	Base	Dup.	RPD	LCS-W2	[NT]
Date extracted	-			05/02/2018	[NT]	[NT]	[NT]	[NT]	05/02/2018	[NT]
Date analysed	-			05/02/2018	[NT]	[NT]	[NT]	[NT]	05/02/2018	[NT]
TRH C ₁₀ - C ₁₄	µg/L	50	Org-003	<50	[NT]	[NT]	[NT]	[NT]	109	[NT]
TRH C ₁₅ - C ₂₈	µg/L	100	Org-003	<100	[NT]	[NT]	[NT]	[NT]	116	[NT]
TRH C ₂₉ - C ₃₆	µg/L	100	Org-003	<100	[NT]	[NT]	[NT]	[NT]	95	[NT]
TRH >C ₁₀ - C ₁₆	µg/L	50	Org-003	<50	[NT]	[NT]	[NT]	[NT]	109	[NT]
TRH >C ₁₆ - C ₃₄	µg/L	100	Org-003	<100	[NT]	[NT]	[NT]	[NT]	116	[NT]
TRH >C ₃₄ - C ₄₀	µg/L	100	Org-003	<100	[NT]	[NT]	[NT]	[NT]	95	[NT]
Surrogate o-Terphenyl	%		Org-003	84	[NT]	[NT]	[NT]	[NT]	121	[NT]

QUALITY CONTROL: PAHs in Water					Duplicate				Spike Recovery %	
Test Description	Units	PQL	Method	Blank	#	Base	Dup.	RPD	LCS-W2	[NT]
Date extracted	-			05/02/2018	[NT]	[NT]	[NT]	[NT]	05/02/2018	[NT]
Date analysed	-			05/02/2018	[NT]	[NT]	[NT]	[NT]	05/02/2018	[NT]
Naphthalene	µg/L	1	Org-012	<1	[NT]	[NT]	[NT]	[NT]	85	[NT]
Acenaphthylene	µg/L	1	Org-012	<1	[NT]	[NT]	[NT]	[NT]	[NT]	[NT]
Acenaphthene	µg/L	1	Org-012	<1	[NT]	[NT]	[NT]	[NT]	[NT]	[NT]
Fluorene	µg/L	1	Org-012	<1	[NT]	[NT]	[NT]	[NT]	82	[NT]
Phenanthrene	µg/L	1	Org-012	<1	[NT]	[NT]	[NT]	[NT]	87	[NT]
Anthracene	µg/L	1	Org-012	<1	[NT]	[NT]	[NT]	[NT]	[NT]	[NT]
Fluoranthene	µg/L	1	Org-012	<1	[NT]	[NT]	[NT]	[NT]	82	[NT]
Pyrene	µg/L	1	Org-012	<1	[NT]	[NT]	[NT]	[NT]	100	[NT]
Benzo(a)anthracene	µg/L	1	Org-012	<1	[NT]	[NT]	[NT]	[NT]	[NT]	[NT]
Chrysene	µg/L	1	Org-012	<1	[NT]	[NT]	[NT]	[NT]	85	[NT]
Benzo(b,j+k)fluoranthene	µg/L	2	Org-012	<2	[NT]	[NT]	[NT]	[NT]	[NT]	[NT]
Benzo(a)pyrene	µg/L	1	Org-012	<1	[NT]	[NT]	[NT]	[NT]	91	[NT]
Indeno(1,2,3-c,d)pyrene	µg/L	1	Org-012	<1	[NT]	[NT]	[NT]	[NT]	[NT]	[NT]
Dibenzo(a,h)anthracene	µg/L	1	Org-012	<1	[NT]	[NT]	[NT]	[NT]	[NT]	[NT]
Benzo(g,h,i)perylene	µg/L	1	Org-012	<1	[NT]	[NT]	[NT]	[NT]	[NT]	[NT]
Surrogate p-Terphenyl-d14	%		Org-012	103	[NT]	[NT]	[NT]	[NT]	91	[NT]

QUALITY CONTROL: OCP in water					Duplicate				Spike Recovery %	
Test Description	Units	PQL	Method	Blank	#	Base	Dup.	RPD	LCS-W1	[NT]
Date extracted	-			05/02/2018	[NT]	[NT]	[NT]	[NT]	05/02/2018	[NT]
Date analysed	-			05/02/2018	[NT]	[NT]	[NT]	[NT]	05/02/2018	[NT]
HCB	µg/L	0.2	Org-005	<0.2	[NT]	[NT]	[NT]	[NT]	[NT]	[NT]
alpha-BHC	µg/L	0.2	Org-005	<0.2	[NT]	[NT]	[NT]	[NT]	97	[NT]
gamma-BHC	µg/L	0.2	Org-005	<0.2	[NT]	[NT]	[NT]	[NT]	[NT]	[NT]
beta-BHC	µg/L	0.2	Org-005	<0.2	[NT]	[NT]	[NT]	[NT]	105	[NT]
Heptachlor	µg/L	0.2	Org-005	<0.2	[NT]	[NT]	[NT]	[NT]	102	[NT]
delta-BHC	µg/L	0.2	Org-005	<0.2	[NT]	[NT]	[NT]	[NT]	[NT]	[NT]
Aldrin	µg/L	0.2	Org-005	<0.2	[NT]	[NT]	[NT]	[NT]	106	[NT]
Heptachlor Epoxide	µg/L	0.2	Org-005	<0.2	[NT]	[NT]	[NT]	[NT]	108	[NT]
gamma-Chlordane	µg/L	0.2	Org-005	<0.2	[NT]	[NT]	[NT]	[NT]	[NT]	[NT]
alpha-Chlordane	µg/L	0.2	Org-005	<0.2	[NT]	[NT]	[NT]	[NT]	[NT]	[NT]
Endosulfan I	µg/L	0.2	Org-005	<0.2	[NT]	[NT]	[NT]	[NT]	[NT]	[NT]
pp-DDE	µg/L	0.2	Org-005	<0.2	[NT]	[NT]	[NT]	[NT]	109	[NT]
Dieldrin	µg/L	0.2	Org-005	<0.2	[NT]	[NT]	[NT]	[NT]	111	[NT]
Endrin	µg/L	0.2	Org-005	<0.2	[NT]	[NT]	[NT]	[NT]	105	[NT]
pp-DDD	µg/L	0.2	Org-005	<0.2	[NT]	[NT]	[NT]	[NT]	113	[NT]
Endosulfan II	µg/L	0.2	Org-005	<0.2	[NT]	[NT]	[NT]	[NT]	[NT]	[NT]
pp-DDT	µg/L	0.2	Org-005	<0.2	[NT]	[NT]	[NT]	[NT]	[NT]	[NT]
Endrin Aldehyde	µg/L	0.2	Org-005	<0.2	[NT]	[NT]	[NT]	[NT]	[NT]	[NT]
Endosulfan Sulphate	µg/L	0.2	Org-005	<0.2	[NT]	[NT]	[NT]	[NT]	120	[NT]
Methoxychlor	µg/L	0.2	Org-005	<0.2	[NT]	[NT]	[NT]	[NT]	[NT]	[NT]
Surrogate TCMX	%		Org-005	83	[NT]	[NT]	[NT]	[NT]	89	[NT]

Client Reference: 54298, Byron Bay

QUALITY CONTROL: HM in water - total					Duplicate			Spike Recovery %		
Test Description	Units	PQL	Method	Blank	#	Base	Dup.	RPD	LCS-W2	[NT]
Date prepared	-			06/02/2018	[NT]	[NT]	[NT]	[NT]	06/02/2018	[NT]
Date analysed	-			06/02/2018	[NT]	[NT]	[NT]	[NT]	06/02/2018	[NT]
Arsenic-Total	µg/L	1	Metals-022	<1	[NT]	[NT]	[NT]	[NT]	100	[NT]
Cadmium-Total	µg/L	0.1	Metals-022	<0.1	[NT]	[NT]	[NT]	[NT]	104	[NT]
Chromium-Total	µg/L	1	Metals-022	<1	[NT]	[NT]	[NT]	[NT]	95	[NT]
Copper-Total	µg/L	1	Metals-022	<1	[NT]	[NT]	[NT]	[NT]	98	[NT]
Lead-Total	µg/L	1	Metals-022	<1	[NT]	[NT]	[NT]	[NT]	105	[NT]
Mercury-Total	µg/L	0.05	Metals-021	<0.05	[NT]	[NT]	[NT]	[NT]	98	[NT]
Nickel-Total	µg/L	1	Metals-022	<1	[NT]	[NT]	[NT]	[NT]	98	[NT]
Zinc-Total	µg/L	1	Metals-022	<1	[NT]	[NT]	[NT]	[NT]	103	[NT]

QUALITY CONTROL: Speciated Phenols in water					Duplicate			Spike Recovery %		
Test Description	Units	PQL	Method	Blank	#	Base	Dup.	RPD	LCS-W3	[NT]
Date extracted	-			05/02/2018	[NT]	[NT]	[NT]	[NT]	05/02/2018	[NT]
Date analysed	-			06/02/2018	[NT]	[NT]	[NT]	[NT]	06/02/2018	[NT]
Phenol	µg/L	1	Org-012	<1	[NT]	[NT]	[NT]	[NT]	32	[NT]
2-Chlorophenol	µg/L	1	Org-012	<1	[NT]	[NT]	[NT]	[NT]	61	[NT]
4-Chloro-3-Methylphenol	µg/L	5	Org-012	<5	[NT]	[NT]	[NT]	[NT]	[NT]	[NT]
2-Methylphenol (O-Cresol)	µg/L	1	Org-012	<1	[NT]	[NT]	[NT]	[NT]	48	[NT]
3/4-Methylphenol (m/p-Cresol)	µg/L	2	Org-012	<2	[NT]	[NT]	[NT]	[NT]	[NT]	[NT]
2-Nitrophenol	µg/L	1	Org-012	<1	[NT]	[NT]	[NT]	[NT]	[NT]	[NT]
2,4-Dimethylphenol	µg/L	1	Org-012	<1	[NT]	[NT]	[NT]	[NT]	[NT]	[NT]
2,4-Dichlorophenol	µg/L	1	Org-012	<1	[NT]	[NT]	[NT]	[NT]	[NT]	[NT]
2,6-Dichlorophenol	µg/L	1	Org-012	<1	[NT]	[NT]	[NT]	[NT]	64	[NT]
2,4,5-Trichlorophenol	µg/L	1	Org-012	<1	[NT]	[NT]	[NT]	[NT]	[NT]	[NT]
2,4,6-Trichlorophenol	µg/L	1	Org-012	<1	[NT]	[NT]	[NT]	[NT]	[NT]	[NT]
2,4-Dinitrophenol	µg/L	20	Org-012	<20	[NT]	[NT]	[NT]	[NT]	[NT]	[NT]
4-Nitrophenol	µg/L	20	Org-012	<20	[NT]	[NT]	[NT]	[NT]	64	[NT]
2346-Tetrachlorophenol	µg/L	1	Org-012	<1	[NT]	[NT]	[NT]	[NT]	[NT]	[NT]
2-methyl-4,6-Dinitrophenol	µg/L	10	Org-012	<10	[NT]	[NT]	[NT]	[NT]	[NT]	[NT]
Pentachlorophenol	µg/L	5	Org-012	<5	[NT]	[NT]	[NT]	[NT]	85	[NT]
Surrogate 2-fluorophenol	%		Org-012	37	[NT]	[NT]	[NT]	[NT]	46	[NT]
Surrogate Phenol-d ₆	%		Org-012	24	[NT]	[NT]	[NT]	[NT]	31	[NT]
Surrogate 2,4,6-Tribromophenol	%		Org-012	55	[NT]	[NT]	[NT]	[NT]	84	[NT]
Surrogate p-Terphenyl-d ₁₄	%		Org-012	67	[NT]	[NT]	[NT]	[NT]	86	[NT]

Result Definitions

NT	Not tested
NA	Test not required
INS	Insufficient sample for this test
PQL	Practical Quantitation Limit
<	Less than
>	Greater than
RPD	Relative Percent Difference
LCS	Laboratory Control Sample
NS	Not specified
NEPM	National Environmental Protection Measure
NR	Not Reported

Quality Control Definitions

Blank	This is the component of the analytical signal which is not derived from the sample but from reagents, glassware etc, can be determined by processing solvents and reagents in exactly the same manner as for samples.
Duplicate	This is the complete duplicate analysis of a sample from the process batch. If possible, the sample selected should be one where the analyte concentration is easily measurable.
Matrix Spike	A portion of the sample is spiked with a known concentration of target analyte. The purpose of the matrix spike is to monitor the performance of the analytical method used and to determine whether matrix interferences exist.
LCS (Laboratory Control Sample)	This comprises either a standard reference material or a control matrix (such as a blank sand or water) fortified with analytes representative of the analyte class. It is simply a check sample.
Surrogate Spike	Surrogates are known additions to each sample, blank, matrix spike and LCS in a batch, of compounds which are similar to the analyte of interest, however are not expected to be found in real samples.
Australian Drinking Water Guidelines recommend that Thermotolerant Coliform, Faecal Enterococci, & E.Coli levels are less than 1cfu/100mL. The recommended maximums are taken from "Australian Drinking Water Guidelines", published by NHMRC & ARMC 2011.	

Laboratory Acceptance Criteria

Duplicate sample and matrix spike recoveries may not be reported on smaller jobs, however, were analysed at a frequency to meet or exceed NEPM requirements. All samples are tested in batches of 20. The duplicate sample RPD and matrix spike recoveries for the batch were within the laboratory acceptance criteria.

Filters, swabs, wipes, tubes and badges will not have duplicate data as the whole sample is generally extracted during sample extraction.

Spikes for Physical and Aggregate Tests are not applicable.

For VOCs in water samples, three vials are required for duplicate or spike analysis.

Duplicates: <5xPQL - any RPD is acceptable; >5xPQL - 0-50% RPD is acceptable.

Matrix Spikes, LCS and Surrogate recoveries: Generally 70-130% for inorganics/metals; 60-140% for organics (+/-50% surrogates) and 10-140% for labile SVOCs (including labile surrogates), ultra trace organics and speciated phenols is acceptable.

In circumstances where no duplicate and/or sample spike has been reported at 1 in 10 and/or 1 in 20 samples respectively, the sample volume submitted was insufficient in order to satisfy laboratory QA/QC protocols.

When samples are received where certain analytes are outside of recommended technical holding times (THTs), the analysis has proceeded. Where analytes are on the verge of breaching THTs, every effort will be made to analyse within the THT or as soon as practicable.

Where sampling dates are not provided, Envirolab are not in a position to comment on the validity of the analysis where recommended technical holding times may have been breached.

Measurement Uncertainty estimates are available for most tests upon request.

Report Comments

Total metals: no unfiltered, preserved sample was received, therefore analysis was conducted from the unpreserved sample bottle.

Note: there is a possibility some elements may be underestimated.

SAMPLE RECEIPT ADVICE

Client Details

Client	JBS & G (NSW & WA) Pty Ltd
Attention	Sarah Baker, Stewart Dearden

Sample Login Details

Your reference	54298, Byron Bay
Envirolab Reference	184387
Date Sample Received	02/02/2018
Date Instructions Received	02/02/2018
Date Results Expected to be Reported	09/02/2018

Sample Condition

Samples received in appropriate condition for analysis	YES
No. of Samples Provided	1 Water
Turnaround Time Requested	Standard
Temperature on Receipt (°C)	13.4
Cooling Method	Ice Pack
Sampling Date Provided	YES

Comments

Nil

Please direct any queries to:

Aileen Hie

Phone: 02 9910 6200
Fax: 02 9910 6201
Email: ahie@envirolab.com.au

Jacinta Hurst

Phone: 02 9910 6200
Fax: 02 9910 6201
Email: jhurst@envirolab.com.au

Analysis Underway, details on the following page:



Envirolab Services Pty Ltd

ABN 37 112 535 645

12 Ashley St Chatswood NSW 2067

ph 02 9910 6200 fax 02 9910 6201

customerservice@envirolab.com.au

www.envirolab.com.au

Sample ID	VTRH(C6-C10)/BTEXN in Water	svTRH (C10-C40) in Water	PAHsin Water	OCP in water	HM in water - total	Speciated Phenols in water
QC01A_300118	✓	✓	✓	✓	✓	✓

The '✓' indicates the testing you have requested. **THIS IS NOT A REPORT OF THE RESULTS.**

Additional Info

Sample storage - Waters are routinely disposed of approximately 1 month and soils approximately 2 months from receipt.

Requests for longer term sample storage must be received in writing.



CHAIN OF CUSTODY

[illegible]

Received AS Sydney
Rebecca
@ 2/2/18 10.30

Received 1/2/18

2/2/18 10:30

COPY

12.2°C

3:00 pm

Attachment F – Survey

Notes :

1. This plan is prepared for the client from a combination of field survey and existing records for the purpose as instructed by the client and should not be used for any other purpose.

2. The title boundaries shown hereon were not marked by the author at the time of survey and have been determined by plan dimension only and not by field measurement.

3. Services shown hereon have been located where possible by field survey. If not able to be so located known services have been plotted from the records of relevant authorities where available and have been noted accordingly on this plan. Where such records do not exist or are considered inadequate, a notation has been made hereon.

4. Contours depicted are surveyed ground levels and may not represent Ground Level as defined by the Planning Scheme for the overall determination of height.

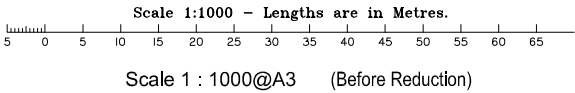
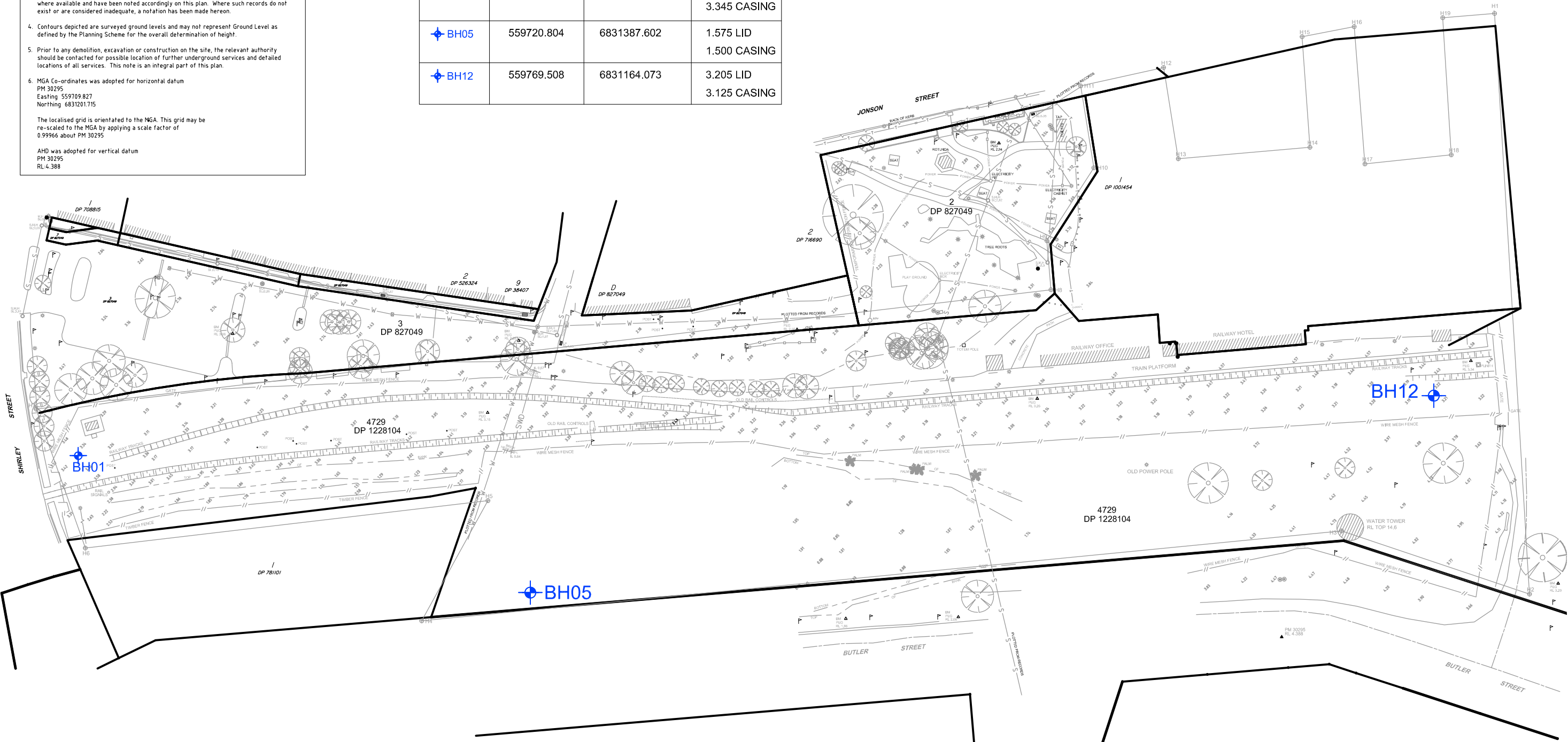
5. Prior to any demolition, excavation or construction on the site, the relevant authority should be contacted for possible location of further underground services and detailed locations of all services. This note is an integral part of this plan.

6. MGA Co-ordinates was adopted for horizontal datum
PM 30295
Easting 559709.827
Northing 6831201.715

The localised grid is orientated to the MGA. This grid may be re-scaled to the MGA by applying a scale factor of 0.99966 about PM 30295

AHD was adopted for vertical datum
PM 30295
RL 4.388

POINT	MGA EASTING	MGA NORTHING	RL A.H.D
BH01	559754.680	6831499.473	3.370 LID 3.345 CASING
BH05	559720.804	6831387.602	1.575 LID 1.500 CASING
BH12	559769.508	6831164.073	3.205 LID 3.125 CASING



USHER & COMPANY Surveying & Land Development Consultants A.B.N. 70 128 414 602 PO Box 756, BURLEIGH HEADS QLD 4220 Phone: (07) 55 358 346 Email: admin@usherandcompany.com.au	PLAN OF MONITORING WELLS BYRON RAIL CORRIDOR			DATUM: AHD	ISSUE	DATE	CHECKED
				DATE OF SURVEY: 30-01-18	A	05/02/2018	SB
				SURVEYED BY: BJ			
				ORIGIN: PSM 30295 RL4.388 AHD CLASS D, ORDER 4			
ADDRESS LOT 4729 DP 1228104		LOCALITY BYRON BAY	JOB REF. 10178				

Attachment G - Limitations

This report has been prepared for use by the client who has commissioned the works in accordance with the project brief only, and has been based in part on information obtained from the client and other parties.

The advice herein relates only to this project and all results conclusions and recommendations made should be reviewed by a competent person with experience in environmental investigations, before being used for any other purpose.

JBS&G accepts no liability for use or interpretation by any person or body other than the client who commissioned the works. This report should not be reproduced without prior approval by the client, or amended in any way without prior approval by JBS&G, and should not be relied upon by other parties, who should make their own enquires.

Sampling and chemical analysis of environmental media is based on appropriate guidance documents made and approved by the relevant regulatory authorities. Conclusions arising from the review and assessment of environmental data are based on the sampling and analysis considered appropriate based on the regulatory requirements.

Limited sampling and laboratory analyses were undertaken as part of the investigations undertaken, as described herein. Ground conditions between sampling locations and media may vary, and this should be considered when extrapolating between sampling points. Chemical analytes are based on the information detailed in the site history. Further chemicals or categories of chemicals may exist at the site, which were not identified in the site history and which may not be expected at the site.

Changes to the subsurface conditions may occur subsequent to the investigations described herein, through natural processes or through the intentional or accidental addition of contaminants. The conclusions and recommendations reached in this report are based on the information obtained at the time of the investigations.

This report does not provide a complete assessment of the environmental status of the site, and it is limited to the scope defined herein. Should information become available regarding conditions at the site including previously unknown sources of contamination, JBS&G reserves the right to review.