

Environmental Interactions

This section of the report expands on the contextual description of the physical environment given in Section 2, and undertakes an analysis of environmental interactions (particularly those at aspects of S.79C (1) (b) and (c) relevant in the circumstances) applicable to the proposed development with specific reference to the site planning objectives specified in Section 3.1. Further, this section reviews a range of comprehensive environmental management measures, again aimed at specifically addressing adopted site planning objectives.

5.1 Context, Setting and Site Layout



Objective

Acknowledge the sites proximity to the Pacific Highway Bypass and its potential to serve motorists.

The Far North Coast Regional Strategy acknowledges the constraints and opportunities applying to the Far North Coast. It specifically identifies Ballina as a preferred location for a “highway service centre”. The subject site is strategically located to meet this need identified by the Far North Coast Regional Strategy. The site has appropriate scenic qualities and the character and amenity of the development proposal will be such as to provide a signature entry statement to the town. The proposal proposes significant streetscape works involving the redefinition of the entry to Ballina through a tree lined avenue commencing at about the boat ramp site and entering into town and through the proposed West Ballina round-about intersection.

The establishment of the Service Centre at the subject site has potential positive impacts in terms of its relationship and compatibility with the adjoining highway.

5.2 Flora and Fauna

Objective

To maintain the ecological integrity of the site.

The existing vegetation on the site consists of sugar cane.

The Ecological Assessment by Cardno and included in **Appendix B, Attachment A** has identified that the site has limited ecological value.

While it has the potential to be habitat for the Vulnerable Grass Owl, this species was not recorded during field surveys, and having regard to the 7 part test set out in Section 5A of the Environmental Planning and Assessment Act 1979, it is concluded that the proposed development is unlikely to have a significant impact on this species.

Accordingly, there are no ecological requirements which need to be factored into the design of the proposed development.

5.3 Waste

Objective

To ensure waste storage areas are available for each proposed building, and that these areas are readily accessible to waste contractors for servicing.

The proposed buildings have ample room for waste storage located near their loading/unloading areas, and ample manoeuvring area through the site to permit access by waste contractors.

Waste areas and means of storage will differ slightly depending on the requirements of each particular tenant.

5.4 Acoustics

Objective

Ensure the acoustic impact of the Service Centre does not unduly impact on sensitive receivers.

The Service Centre is located well distant from sensitive receivers, and isolated by the Pacific Highway Bypass and existing Pacific Highway on its western and southern sides respectively.

The proposed Ballina Western Bypass will adjoin the 'Riverbend' development – a sensitive receiver – however any acoustic measures to reduce noise from traffic using this road should be formulated with the design of the road.

Buildings are to be constructed to Category 2 level of construction under AS3671:2000.

5.5 Visual Environment

Objective

Enhance the visual appearance of the proposed development through contemporary design and landscape planting.

The topography of the site and surrounding area is virtually flat, limiting views. Other than Emigrant Creek opposite the site (across the existing Pacific Highway), there are no noteworthy views or vistas.

The proposed development will eventually be visible from the Pacific Highway Bypass, and visible from the existing Pacific Highway, the boat ramp and Sunmaid Village Caravan Park to the south, the Riverbend development to the east, and from the Ballina Western Bypass.



View of Sunmaid Caravan Park and boat ramp looking east from boat ramp across road

The design of proposed buildings will provide for simple, contemporary structures, which use detailing and colours to effectively break down their size into smaller components. This is further achieved through the use of separate structures for entries and corners, with awnings and overhangs providing protection for shoppers.

The variety of architectural façade treatments will ensure each building has its own character and interest.

Overall, the proposed buildings will collectively provide for a development which relates well to the surrounding locality, and which contributes to the establishment of a 'gateway' or 'entry' into the western outskirts of Ballina.

5.6 Services

Objective

Provide for public utilities to the site, including reticulated water and sewer, electricity and telecommunications.

Water Supply and Sewerage

The Engineering Statement by Cardno and included in **Appendix D** (see also **Appendix B, Attachment F**), identifies a 200mm water main along the frontage of the site (to the existing Pacific Highway).

In relation to reticulated sewer, it provides that a number of options are available in terms of provision, including connection to the sewage pump station located in front of the Coastline Ford Car Yard approximately 1.5km from the site long the existing Pacific Highway,

or otherwise to the existing sewer system located within the adjoining Riverbend development to the east.

Electricity and Telecommunications

Electricity and telecommunications are preset in the locality, and connection of the proposed development to these is considered achievable.

5.7 Traffic and Access

Objective

Ensure that traffic movements from the development do not unduly impact on the efficiency of the surrounding road network, or its safety.

Ensure that traffic movement within the site is efficient.

Provide a development which is easily accessible and therefore convenient.

Rationalise the traffic/access network to the existing Pacific Highway where it adjoins the southern boundary of the site, providing the opportunity for reducing direct access to the Highway.

The proposed development seeks to capitalise on the site’s unique position, which will eventually have it fronting the Pacific Highway Bypass and the existing Pacific Highway, with the Ballina Western Bypass to the east. In regard to the latter, the proposed development seeks to commence the construction of the Ballina Western Bypass - with this to be located along the eastern part of the site.

It is proposed to construct an access to the site from the southbound off ramp of the Pacific Highway Bypass, providing direct access to the Service Centre, with a further left in/left out access from the Service Centre proposed in the south western corner of the site to the existing Pacific Highway. In addition, access to the Service Centre will also be available via a road in the north of the site to the Ballina Western Bypass, which is to be dedicated as public road.



The Traffic Impact Assessment by CRG and included in **Appendix B, Attachment C**, provides that the various access arrangements proposed will not unduly affect the operation of the various surrounding roads or intersections.

5.8 Stormwater Drainage and Soils

Objective

Ensure that construction works are appropriately managed to minimise site erosion and maintain the current quality of water exiting the site, and to ensure the proper management of acid sulfate soils.

Ensure that the quality and quantity of stormwater exiting the site does not adversely affect nearby properties or water bodies (Emigrant Creek) and that existing drainage patterns are not materially altered,

and that water sensitive urban design and best practice engineering is employed.

The Internal Hydraulic Assessment, Stormwater Management Plan and Erosion and Sediment Control Plan, respectively included in **Appendix B, Attachments D, E and B** collectively address stormwater water quality and quantity issues arising from the proposed development.

The Internal Hydraulic Assessment provides that:

"It is proposed to provide the required storage capacity of 2150m³ by the use of rainwater tanks, which will detain runoff from the roofed areas on the site, and detention basins incorporated with in the stormwater drainage network. Overflow from the rainwater tanks will flow into the detention basins. The basins will double as water quality treatment devices and will be suitably designed so as to perform effectively for both tasks."

The Stormwater Management Plan has been prepared having regard to Chapter 13 – Stormwater Management of the Ballina DCP.

The Plan meets the objectives of Chapter 13, and notably provides a treatment train whereby roof water is directed to water tanks, before entering the vegetated bioretention swales, while surface runoff is directed to rubbish bins before being directed to vegetated bioretention swales and basins.

The Erosion and Sediment Control Plan addresses the construction phase of the proposed development, including earthworks and civil construction. It provides a range of measures to control erosion and sediment, and to manage dust nuisance, while having regard to the management of acid sulfate soils. The Plan has been produced having regard to Chapter 13 – Stormwater Management within the Ballina DCP, as well as the vegetation present on the site; soil characteristics; site drainage; and proposed works.

5.9 Hazards

Objective

Review and mitigate potential site planning hazards with respect to contamination and flooding.

Flooding

The site is flood prone, with levels ranging from RL 0.4m AHD to RL 1.8m AHD and a Q100 flood level of RL 2.14m AHD. It will be necessary to fill the site in order to accommodate the proposed development.

A study undertaken by WBM Oceanics (**Appendix D** to this SEE) which examines filling of the site, recommends a development scenario involving the incorporation of a floodway through the site to reduce flood impacts across the flood plain to the north. The floodway described in the WBM report is to be constructed in association with the development of the subject site. The culverts envisaged by the WBM Oceanics report do not form part of the

subject application. In a severe flooding event the whole of the arterial road network within Ballina Island will be submerged and accordingly the provision of culverts at this particular location would seem inappropriate unless it is intended to lift the whole of the arterial road network generally.

Site Contamination

The Contamination Assessment by Cardno and included in **Appendix E** identifies that the site is potentially contaminated on account of past and present agricultural land practices.

Notwithstanding, the site is not included on the EPA contaminated land register, nor have there been any registered Cattle Dips on site. Precautionary site testing is proposed.

Potential sources of land contamination are from the use and storage of pesticides associated with the current and past use of the site for agricultural purposes, in particular sugar cane cultivation. There is however potential for some contamination to exist on site due to current and past agricultural uses. Further testing to confirm the extent of potential contamination are being carried out.

Technological hazards

The service station component of the proposed development is distant from sensitive land uses (i.e. residential), and combined with its construction to appropriate standards, will pose little risk or hazard to persons or property both on and adjoining the site.



View from Teven Road near its intersection with the Highway looking east – Subject site in middle ground immediately beyond the road works construction.

5.10 Social and Economic Considerations

Objective

Provide a development which offers employment opportunities and which has a multiplier effect on the local economy.

Ballina is a fast growing regional centre serving a catchment of over 78 000 people, with the Far North Coast Regional Strategy specifically identifying Ballina as a preferred location for a “highway service centre”. Once the Pacific Highway Bypass and Ballina Western Bypass are constructed, the site will have the benefit of being located close to main roads, providing ready and convenient access to motorists.

The proposed development will provide both full-time and part-time employment opportunities. In addition, it will produce a further

substantial multiplier effect off-site. As a consequence, the proposed development will have a significant positive economic impact for Ballina principally arising through employment opportunities (job creation), and capturing expenditure which might otherwise have been spent outside the locality.

5.11 Cultural Considerations

Objective

Ensure that development does not impact on items of early European or Aboriginal significance.

The site is presently used for cane farming, and has little cultural significance. In addition, it contains no items of heritage value, and has no adverse impact on heritage items in the locality.

5.12 Land to be Dedicated

Objective

Commence the Ballina Western Bypass.

It is proposed to dedicate that part of the site which is to contain the Ballina Western Bypass.

The actual area to be dedicated will be subject to detailed design, and may vary dependent on changes as a result of conditions of consent.

The land to be dedicated is linked to achieving site planning objectives which seek to achieve safe and efficient access to the site (Ballina Western Bypass).

5.13 Cumulative Impacts

Objective

Ensure that the cumulative impact of the development is appropriately considered.



Cumulative impact is the effect on the environment that results from the incremental impact of an action or project when added to another past, present or reasonably foreseeable future actions. Some cumulative impacts arise as a result of individually minor but collectively significant actions taking place over a period of time. In the context of the Application the combined effect of more than one development in a single locality is particularly relevant.

Work has commenced on the Pacific Highway Bypass and Council has adopted a route for the Ballina Western Bypass. These individual decisions have combined to create the effect of isolating the subject site. These decisions combined with the decision in the Far North Coast Regional Strategy to designate Ballina as an appropriate location along the Pacific Highway Bypass route for a “highway service centre”. The effect on the environment of these various incremental decisions mainly relate to the effect on the urban footprint of Ballina – extending the town’s gateway further west, and on the social and economic context of Ballina.

The cumulative decisions of the RTA and Council in relation to road infrastructure and the strategic decisions on the part of the NSW Government in its Far North Coast Strategy have led to a cumulative result which clearly identifies the subject site as important in terms of the western edge and gateway to Ballina, and as a site ideal for accommodating the Service Centre.