














Flooding and Stormwater

The relationship of the flooding and stormwater to the riparian corridor, open space and developable land is shown in Figure B.1.3.5. This is further discussed in the Stormwater and WSUD report prepared by GHD.

LEGEND

-  Site Boundary
-  Existing Creek Line
-  Existing Residential
-  Existing Industrial
-  Indicative Stanchion Locations
-  Powerline Easement
-  Proposed Detention Basin
-  Indicative Proposed Riparian Zone (HSO, 2008)
-  Indicative Proposed APZ - 20m
-  Indicative Proposed F3 Freeway - Raymond Terrace Interchange
-  Support Facilities
-  Proposed Public Open Space 26 Ha
-  100 year ARI Existing

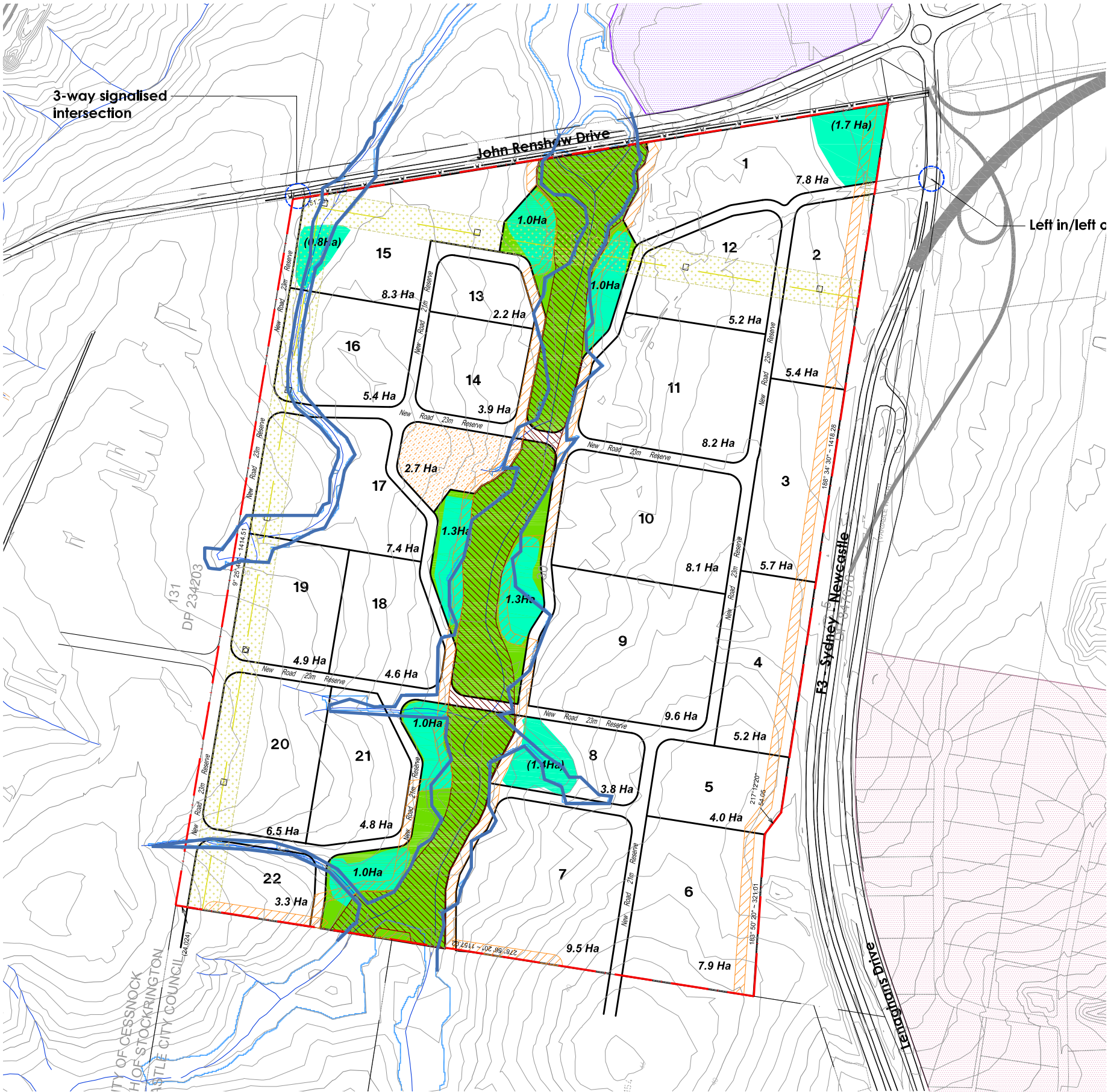


Figure B.1.3.5. Flooding and Stormwater Plan

Landscape Principles

- a. Supplement the screening provided by the Green Buffer Zone along the F3 Freeway boundary (RTA land) with a 20m wide green buffer zone on the development site.
- b. Provide localised vegetation screening to lots at the junction between the F3 Freeway and the electricity easements subject to agreement from TransGrid.
- c. Provide street tree planting to diminish the visual impact of development from site entry points, along the western boundary and within the site generally.
- d. Provide screening from the south by retaining/replanting existing vegetation within a 20m wide buffer along the boundary.
- e. Provide screening along the John Renshaw Drive boundary by retaining/replanting existing vegetation within a 10m wide buffer.
- f. Utilise a palette of locally occurring species to ensure that any new vegetation blends in colour form and texture with the existing vegetation in the broader landscape. This will aid to reduce the development's impact on any district or distant views of the site.

B.1.4. Compatibility with Freight Hub Hunter Project Proposal

The Black Hill Concept Plan is entirely consistent with the work being carried out on the Freight Hub Hunter project on behalf of the NSW Department of Premier and Cabinet.

The Freight Hub concept aims to provide a future Inland Port which combines an intermodal hub to deal with overflow containerised goods from the Port of Newcastle with surrounding employment uses providing outbound manufactured goods which contribute to the demand for the freight hub. This would also be supported by logistics support, warehouse and distribution and general industrial activities.

The Black Hill site is included within the 4,000ha Freight Hub Investigation Area and the Concept Plan envisages the full range of manufacturing, logistics, warehouse and distribution and general industrial activities which would be required within the Freight Hub.

The Coal & Allied land is one of three potential options put forward for the future siting of the freight hub itself, together with a north-south rail link. The Freight Hub Report highlights that the Coal & Allied site is not the preferred option, commenting that further extensive consultation, field investigation and ground truthing is required prior to any commitment of funds to the Freight Hub.

The Black Hill Concept Plan which supports a broad range of employment uses is therefore clearly compatible with the broader objective of developing employment lands in this strategic location, utilising the connectivity to a fast and efficient road network to provide a regional focus for employment, storage and distribution.

Coal & Allied is focused on making a positive contribution to the manufacturing, logistics, warehouse and distribution and general industrial activities which are required to generate critical mass within the investigation area together with generating higher employment opportunities than a freight hub. This approach is consistent with the initial investigation outcomes of the Freight Hub project and the LHRS.

B.1.5. Visual Impact Assessment

The site is currently screened along its major public frontages, the F3 Freeway and John Renshaw Drive by a combination of topographical features and vegetation. Views into the site occur at the intersection between the F3 Freeway and the electricity easement that runs through the site.

Views of the site from the F3 Freeway and the adjacent residential zone to the east are obscured by a vegetated slope that runs along the entire boundary length.

Along John Renshaw Drive the site boundary is set back from the road on the far side of the water pipeline corridor providing an un-vegetated zone of separation to the development.

Views into the site from the south and west are currently limited by the extensive vegetation on the site.

The Black Hill Estate is to have a 20m vegetated buffer to the eastern and southern boundary, and a 10m buffer to the northern boundary. These are to be planted in an informal manner in contrast to the street tree planting. Species are to be selected from those that occur locally.

The existing vegetation between the estate and the F3 is to be maintained to form a flora and a fauna corridor as per the Newcastle-Lake Macquarie Western Corridor Planning Strategy. This buffering will shield future on-site buildings from passing motorists on John Renshaw Drive and the F3.

In the main, future building envelopes would also be set back some distance from the western site boundary. Land adjoining the site to the west was previously used as a poultry farm and is now owned by the Catholic Church. The super lots depicted in the Concept Plan would be separated from this land by the proposed north-south access road and the Transgrid easement. This would provide an effective 'buffer' of around 83 metres from the site boundary. The access road would be planted with street trees and the TransGrid easement will be vegetated to comply with TransGrid's requirements. Both street trees and the easement vegetation will provide a buffer to diminish the visual impact of the development from the west.

No formal development proposal for the adjacent Catholic Church lands has been lodged at this stage, however it is understood that residential and industrial uses have been considered in the past. It should be noted that this land is also within the LHRS Freight Hub study area, therefore potential exists for similar employment generating uses to occur on adjacent lands in future.



View A View South from F3 Freeway



View B View North West from F3 Freeway



View C View West along John Renshaw Drive



View D View South from John Renshaw Drive through powerline easement

- 20m Landscaped Buffer in Private Lots
- 10m Landscaped Buffer in Private Lots
- Collector Road planted with street trees and vegetated Transgrid Easement
- Viney Creek Open Space Spine including riparian corridor, APZ and recreation areas
- Existing vegetation in RTA reserve

Figure B.1.5.1 Visual Impact Assessment

B.1.6.Landscape Treatment

The landscape treatment to the Black Hill Estate aims to create a vegetated setting that offers passive recreation opportunities and habitat value whilst preserving the character of the local landscape.

The treatment comprises of the following zones;

A Central spine open space

B Street treatment

C Vegetated boundary buffers

D F3 Freeway green buffer zone

These Zones are described below.

A - Central Spine Open Space

This zone will provide a passive recreation core to the development comprising of a vegetated riparian corridor, APZ zones, passive open space, shared pedestrian and cycle paths and a network of stormwater basins forming part of the sites WSUD strategy. Endemic species are to be used throughout.

The environmental function (including biodiversity maintenance, corridor provision) of the proposed riparian corridor will be managed during and post development through a combination of the following:

- Retention of riparian vegetation will provide a wildlife corridor, filter stormwater runoff prior to its entry into the waterway to the north of the estate

- Appropriate nutrient and sediment control via best practice development – water sensitive urban design
- Installation of appropriate nutrient and sediment control measures pre, during and post –development to ensure ongoing water quality and management of direct and potential indirect impacts to the site and downstream environs
- Restricted pedestrian access to the core riparian corridor
- Active and ongoing management by the Local Government end user under appropriate management plan(s). Management plans will cover:
 - Access
 - Weed management
 - Regeneration
 - Erosion control
 - Riparian edge management

B - Street Treatment

Streets are to be planted with endemic Eucalypt species at 10m centres, a maximum of two species to be used per street. Trees are to be spaced with full consideration given to their impact upon vehicle movement and site lines.

C - Vegetated Boundary Buffers

The Black Hill Estate is to have the following buffers;

C1. Northern Boundary (John Renshaw Drive) - a 10m vegetated buffer

C2. Eastern Boundary (F3 Freeway) – a 20m wide vegetated buffer supplementing the Green Buffer Zone on the RTA land between the development site and the Freeway

C3. Southern Boundary (Private Land Owners) – 20m green buffer zone

C4. Western Boundary (Catholic Church Land) - street trees and the TransGrid easement vegetation will provide a buffer to diminish the visual impact of the proposed development from the west.

All vegetated buffer zones are to be planted in an informal manner in contrast to the street tree planting. Species are to be selected from those that occur locally.

D. F3 Freeway Green Buffer Zone

The existing vegetation is to be maintained to form a flora and a fauna corridor as per the Draft Newcastle-Lake Macquarie Western Corridor Planning Strategy.