

Development Application Filling Works

STATEMENT OF ENVIRONMENTAL EFFECTS

Address: Tweed Coast Road, Chinderah

Lot & DP Lot 21 DP1082482

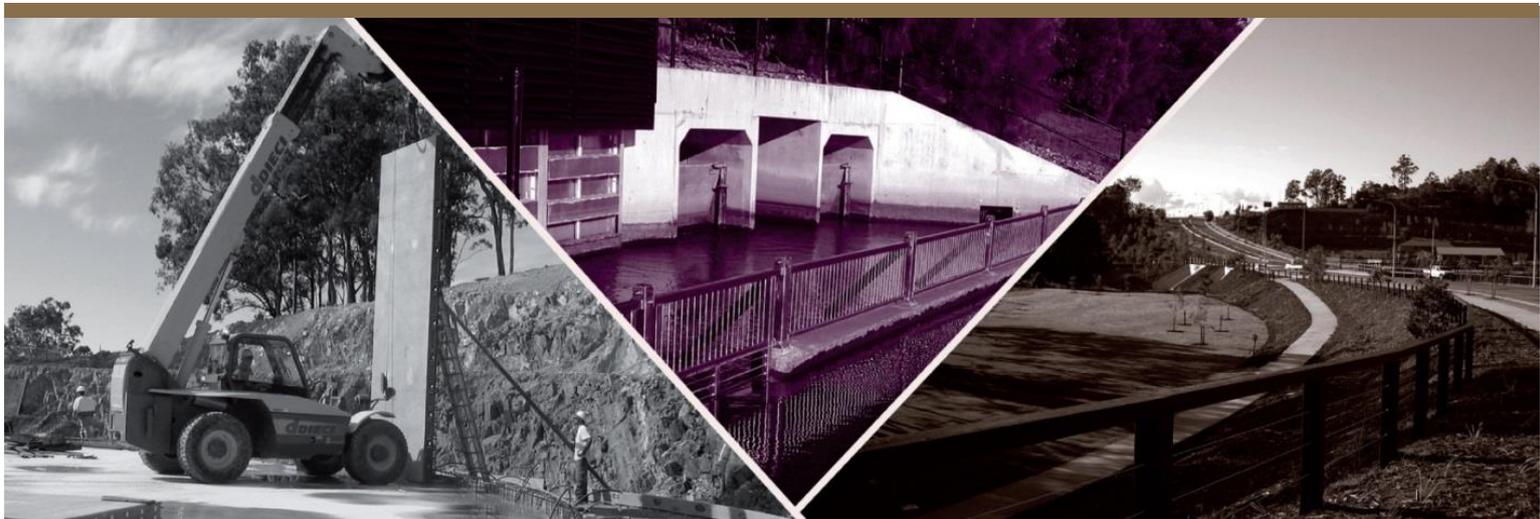
Description:

Local Government: Tweed Shire Council

MUS Reference: 27305ALL

Prepared for: Gales Kingscliff Pty Limited

DATE: NOVEMBER 2020



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Prepared for:
Gales Kingscliff Pty Ltd

Property Address:
Tweed Coast Road,
Chinderah

Real Property Descriptions:
Lot 21 on DP1082482

DOCUMENT CONTROL

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Appendix O	Cudgen Sand Extraction Project Site Layout prepared by R.W. Corkery undated

Appendix P **Gales Illustrative Concept Masterplan** reference 2008-5800 CP-07-V prepared by LFA dated November 2020

Appendix Q **Report on Preliminary Broadscale Geotechnical Investigation** reference GI5222-B prepared by Geotech Investigations Pty Ltd dated 17 November 2020

Proposal Summary	
Property Details	
Address	Tweed Coast Road, Chinderah
Real Property Description	Lot 21 DP1082482
Area:	33.78ha
Land Owner & Applicant Details	
Land Owner:	Gales Kingscliff Pty Ltd
Applicant:	Gales Kingscliff Pty Ltd
Contact:	Gavin Johnson Mortons Urban Solutions 0427704774
Applicant Address:	Gales Kingscliff Pty Ltd c/- Mortons Urban Solutions PO Box 2484 Southport QLD 4215
Proposal Details	
Application Type:	Development application for filling and associated drainage works
Staged Development:	No
Local Government Area:	Tweed Shire Council
Integrated Development:	No
Other Approvals or Licences	
Water Management Act 2000	No
Heritage Act 1977	No
Roads Act 1993	Yes (driveway connection only)
Water Management Act 1912	No

1.0 INTRODUCTION

1.1 Background

This Statement of Environmental Effects has been prepared on behalf of **Gales Kingscliff Pty Ltd** (Gales) and is supporting information to the development application seeking approval for works associated with filling part of the land described as Lot 21 DP1082482.

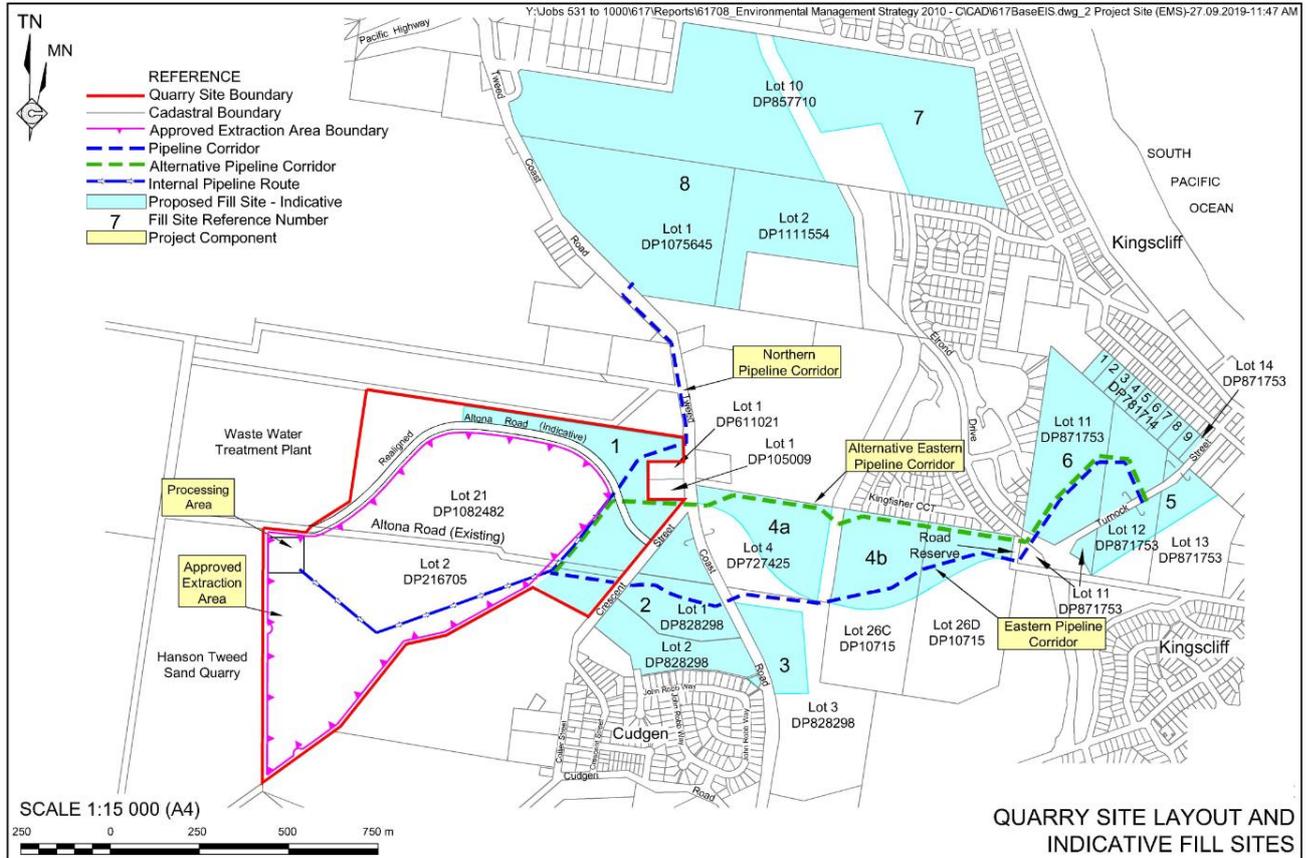
The following provides a summary of relevant history to this application:

- Project Approval 05_0103 was granted for the Cudgen Lakes Sand Quarry (the Quarry) on 16 June 2009 and was last modified 22 January 2019. **Appendix O** is an extract from May 2008 executive summary showing Lot 21 with Altona Drive (realigned) crossing the lot east-west, with most of the area to the south being a lake and the area to the north being a sand processing area, to the west and otherwise a proposed fill site. After extraction of the northern extraction site this area was approved to be filled.
- The Quarry is approved to extract soil and sand resources from Lot 21 DP1082482 and Lot 2 DP216705, through both dredging and excavation and to transport material either by road or hydraulically via designated pipeline corridors. The Quarry is also approved to import virgin excavated natural material (VENM) for either processing and sale as product or for use in backfilling the extraction lake.

Key statistics for the currently approved operations (see figure 1) are as follows:

- Approved Extraction Area = 44.7ha with a single lake.
- Maximum Approved Extraction Depth = -20m AHD.
- Maximum Extraction Batters = 1:3 V:H.
- Estimated Resource Volume = 7,275,000m³.
- Quarry operations approved to 31 December 2047.
- Maximum approved extraction = 650,000m³ per financial year.
- Maximum annual road transportation = 300,000t per financial year.
- Maximum annual VENM imports = 45,000t per financial year.
- Maximum product dispatch = 12 laden trucks per hour during the approved transportation hours of 7:00am to 6:00pm Monday to Friday and 7:00am to 1:00pm Saturday.

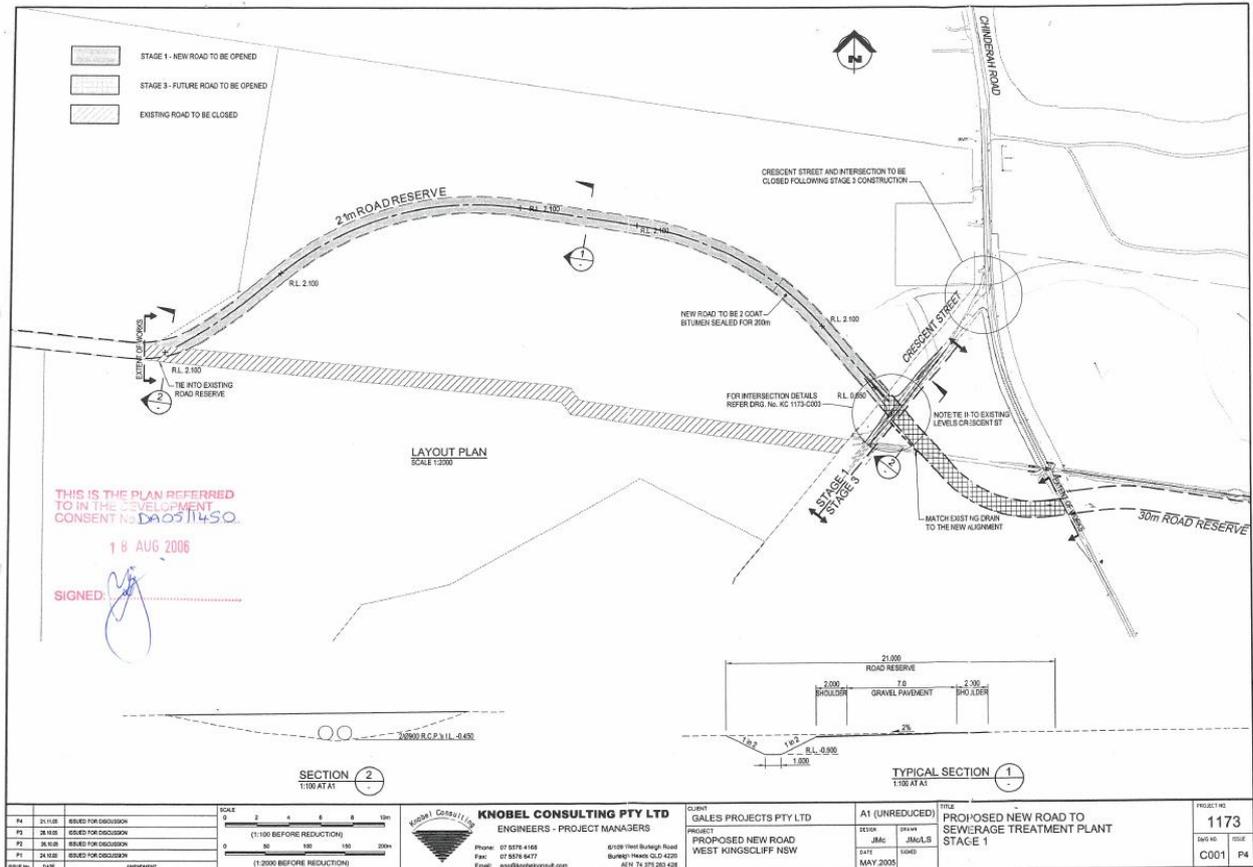
Figure 1: Quarry Site Layout



Source: Project Approval 05_0103 – 22 January 2019

- On 18 August 2006, Gales obtained an approval for DA05/1450 to relocate Altona Drive as shown in figure 2. This alignment was proposed to take the road around the northern perimeter of the then southern approved extraction area (lake), with a separate extraction area to the north of the alignment to be refilled with imported VENM. The road was positioned further south than originally proposed to allow room for sports fields as required by Council at that time. Both extraction areas have now been consolidated into a single lake as was in Gales original proposal and because Council no longer requires the area for sports fields.

Figure 2 Approved Altona Road Realignment



Source: Knobel Consulting

- Concurrently with the subject application, Gales are working on a planning proposal to progress the Gales Master Plan and the following related development proposals, which demonstrate an integrated approach to development on Gales land holdings:
 - A Construction Certificate (CC) application was lodged with Council on 9 October 2020 for filling works. This relates to the approval to fill areas north and south of Turnock Street approved in DA05/0004.03.
 - A DA is for an alternate haul route enabling fill material to be moved by truck to the fill area approved by DA05/0004.03 was lodged on 28 October 2020.
 - A request to the State for the Secretaries Environmental Assessment Requirements (SEAR's) was lodged on 25 May 2020 associated with a designated DA for the Turnock Street extension and roundabout with Tweed Coast Road. Council have provided owners consent to enable this DA to be lodged following the preparation of an Environmental Impact Assessment.
 - A DA is being prepared that proposes the relocation of Altona Road and Crescent Street. These works are required to avoid the approved extraction lake and improve the intersection of Crescent Street and Tweed Coast Road. On 15 June 2020 Gales provided concept plans for the proposed road relocations to Council for its consideration. Following discussion with Council, an email response was received on 25 June 2020 stating that "We accept the proposed alignment in concept, subject to merit assessment of the detailed

design for compliance with relevant Austroads and Council standards”. This application also relies on Councils owners consent for minor works within road reserve.

The KLP and Kingscliff DCP have identified the potential for a range of uses on Lot 21 adjacent to the approved extraction lake including:

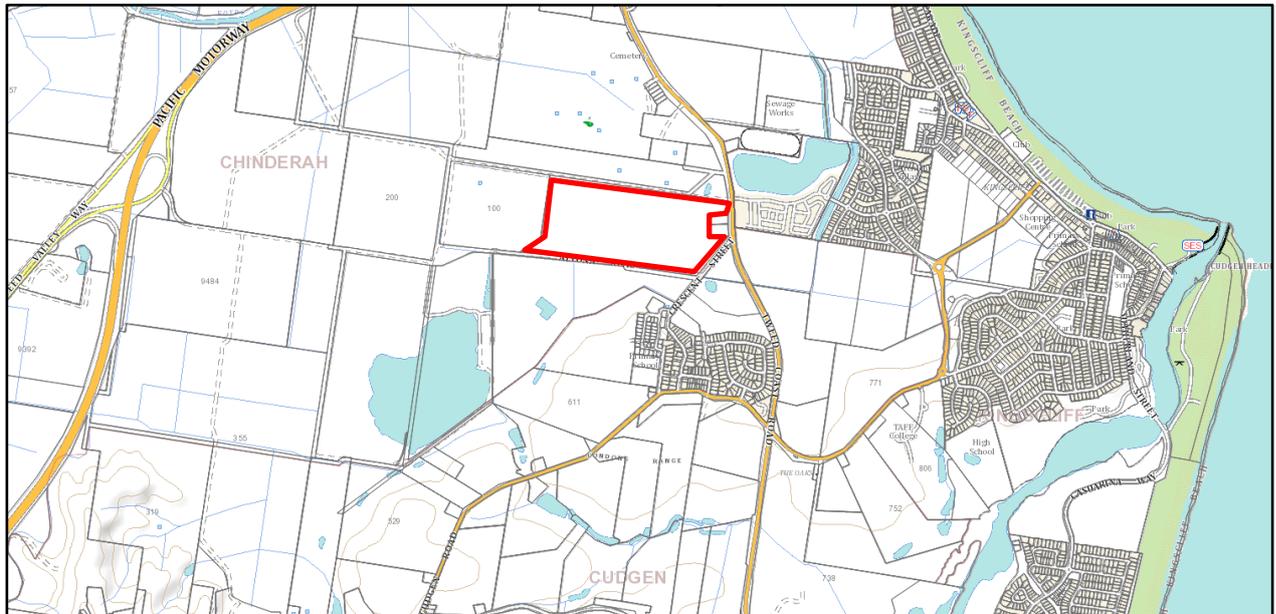
- Sports and recreation
- Tourist accommodation
- Light industrial adjacent to the sewerage treatment plant

Whilst these uses are subject to further detailed planning, the fill proposed by this application may be used to enable these uses to proceed in the future.

1.2 Site Details and Context

The subject site is described as Lot 21 DP1082482 and is owned by Gales Kingscliff Pty Limited. Its approximate location is illustrated in Figure 3. The land has an area of 33.78ha.

Figure 3: Subject Site



Source: NSW Spatial Map Viewer

The site is generally flat, clear of significant native vegetation and located below the 1 in 100 year flood level. It is currently being used for cattle grazing and intended for future sand extraction.

Figure 4: Subject Site Aerial



Source: Google Maps

As shown in figure 4, the site adjoins the Kingscliff sewerage treatment plant to the west. Residential properties and Noble Park Estate are located to the east and south east. Rural properties and the Chinderah golf course are located to the north. Land to the south forms part of the Gales extraction area.

2.0 THE PROPOSAL

This proposal is directly related to the existing Project Approval 05_0103 which was granted for the Cudgen Lakes Sand Quarry (the Quarry) on 16 June 2009 and was last modified 22 January 2019. The Quarry is approved to extract soil and sand resources from Lot 21 DP1082482 and Lot 2 DP216705 (now Lot 51 DP1268405 due to a boundary adjustment in its south eastern part), through both dredging and excavation and to transport material either by road or hydraulically via designated pipeline corridors.

Two aspects of the project approval directly affect this application, being:

1. The Quarry is approved to import VENM for either processing and sale as product or for use in backfilling the extraction lake. Some of the imported fill material would be utilised for this purpose.
2. The area external to the lake is proposed to be filled and is shown as indicative fill site 1 in Figure 1. The area shown unfilled to the east of the indicative fill remains from the original sand processing area, which is now located south of Altona Road to the southwest.

It is noted that the original 3.7ha processing area (shown in **Appendix O**) was also approved be filled 1m above the existing ground level with 4m high perimeter bunding, i.e. the majority of Lot 21 external to the final lake was planned to be filled.

As illustrated in the engineering plans included in **Appendix A**, filling works would involve:

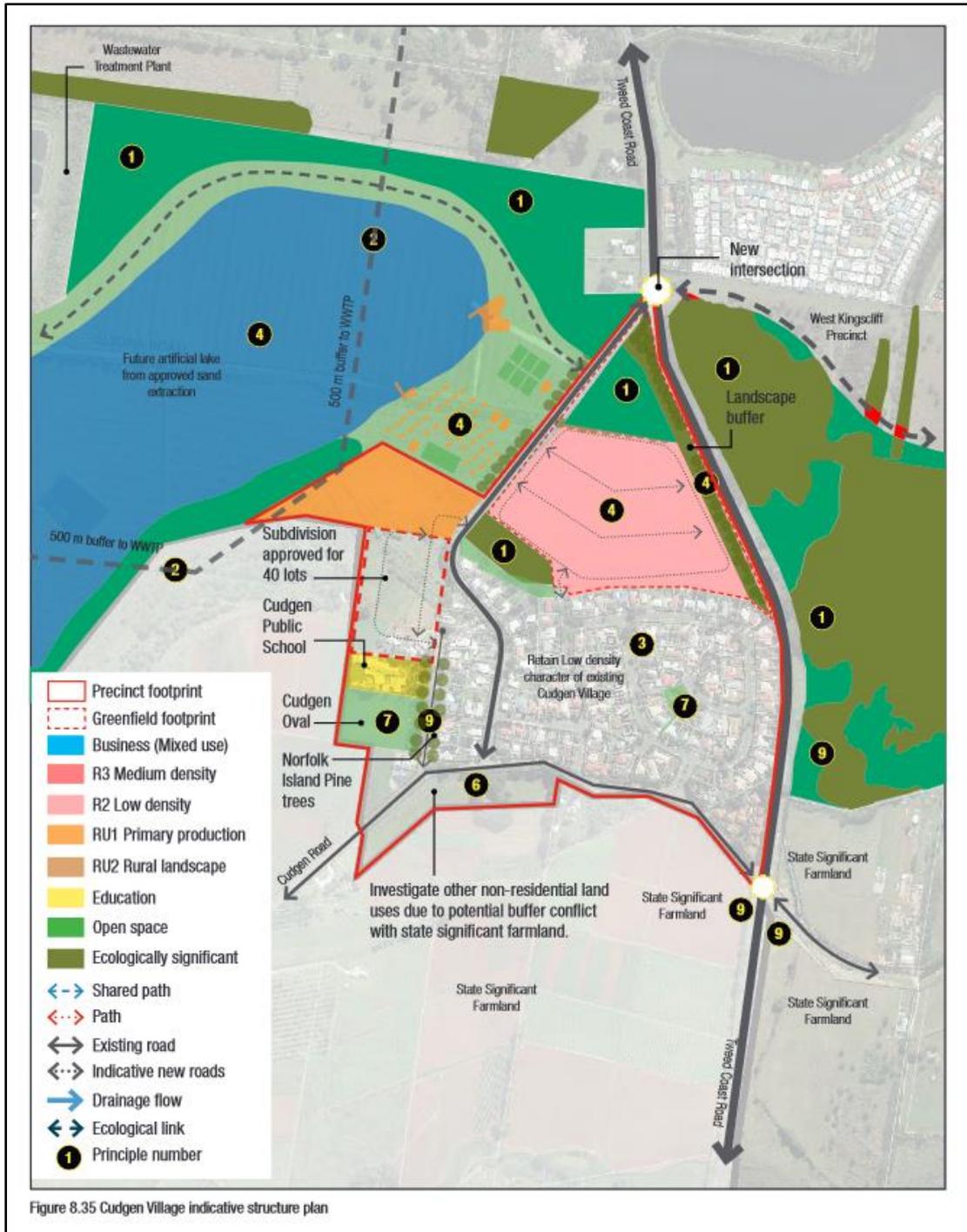
- Filling part of Lot 21 DP1082482 to approximately RL2.2m AHD. Generally, 1 in 4 batters are proposed at the edges of the fill to blend to natural ground. Filling will occur in stages as illustrated in the engineering plans. Filling works are proposed to be setback from the following features:
 - 40m minimum from the drain located to at the northern edge of Lot 21
 - 40m minimum from the drain located just south of existing Altona Road
 - 10m minimum from the residential properties located to the east of Lot 21
 - 10m minimum from the Kingscliff Wastewater Treatment Plant

It is noted that the setback to the drains to the north and south of the lot will avoid triggering integrated development.

- Drainage works associated with the filling
- The installation of sediment and erosion control devices
- The installation of a compound for the storage of machinery and equipment, worker car parking, etc.

The purpose of the fill in the short term will be to raise the level of the land to achieve improved pasture for existing grazing practices occurring on the land. In the medium to longer term the majority of the fill will be utilised to create future sports fields external to the lake area and for reprofiling of the lake edges as allowed for under the Project Approval. Fill may be utilised for backfilling of the lake and for mixing with the sand resource as is also allowed under the Project Approval. With further filling to raise the land to the Q100 design flood level, and subject to development approval, some parts of the fill area may be used for alternative land use, as contemplated by the KLP and Gales Master Plan. Refer to Figure 5. A copy of the Gales Master Plan is included in **Appendix P**.

Figure 5: KLP Cudgen Structure Plan



Source: Tweed Shire Council Kingscliff Locality Plan

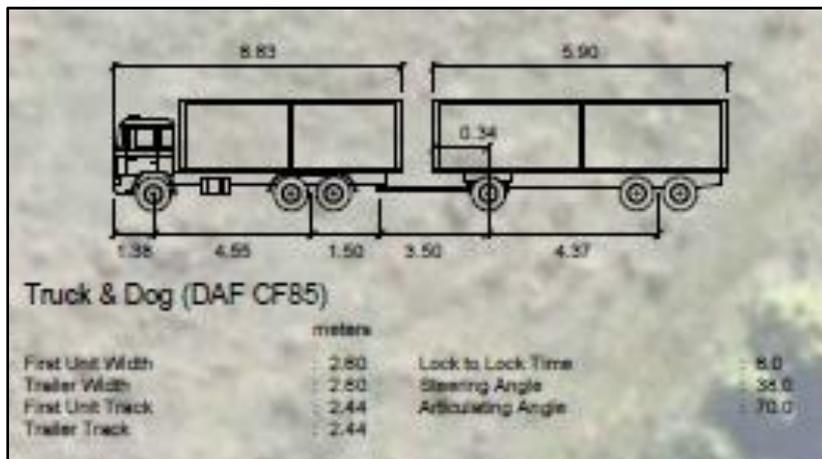
It is proposed to source fill from areas external to land owned by Gales. The specific source is unable to be identified at this stage but is likely to originate from major infrastructure projects like the M1 upgrade in South East Queensland. This application seeks flexibility to obtain fill from potentially several sources over an unspecified period of time.

Fill delivered to the site will be VENM or excavated natural material (ENM) that is free of contaminants and achieves standards required for future urban development.

The quantity of fill required is estimated at 259,277m³. Taking account of a bulking factor of 30% this results in approximately 337,060m³ of uncompacted fill required to be delivered to the site.

Fill material is proposed to be delivered to the site by truck and dog (refer to **Figure 6**). The inbound haul route would use the existing road network via the Pacific Motorway, southbound via Tweed Coast Road, right into Crescent Street and right into the subject site. The outbound route would involve a left turn out of the site to Crescent Street, a left turn into Tweed Coast Road before trucks would travel north to the Pacific Motorway. If filling activities were to occur without interruption, it is estimated that it would involve 348 truck movements per day over a minimum period of approximately 28 weeks. Considering typical operating hours of 7am to 6pm this will be the equivalent to 32 heavy vehicle movements per hour (16 ingress / 16 egress).

Figure 6: Truck and Dog



Source: Bitzios Consulting

Engineering plans and documentation have been included in this application - refer to **Appendix 1**.

These plans illustrate:

- The proposed staging of filling works
- Drainage and stormwater treatment areas
- Vehicle access point
- Compound location for plant, equipment, site office, parking and toilets

Works will involve the stripping and stockpiling of topsoil pending it being respread over the fill area followed by compaction. Machinery involved in this process is expected to include:

- 1 x 12 tonne Excavator
- 1 to 2 x Dump Truck/s as required
- 1 x D6 Dozer
- 1 x Water Cart

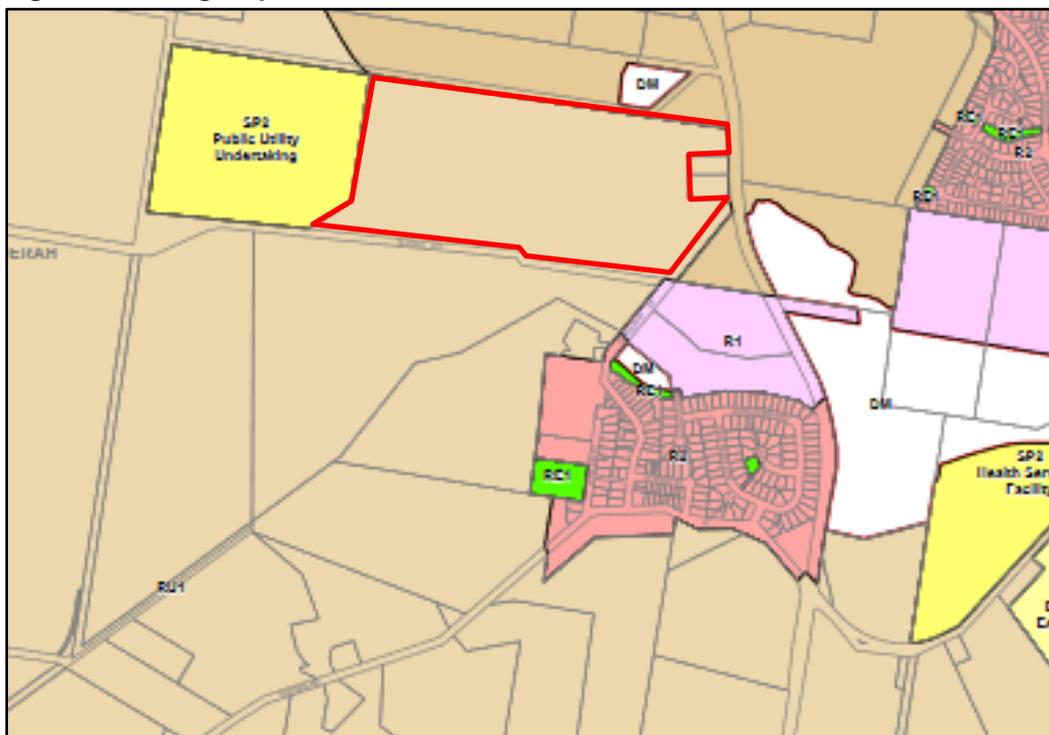
3.0 STATEMENT OF ENVIRONMENTAL EFFECTS

The following includes an assessment of environmental effects of the proposed development as described previously within this report. This includes assessment of matters that are relevant to the proposal against relevant Planning Controls.

3.1 Tweed Local Environmental Plan 2014

The land is shown as RU1 Primary Production on the LEP zoning map. Refer to figure 7, with the site outlined in red.

Figure 7: Zoning Map



Source: Tweed Shire Council LEP 2014 Mapping

The objectives of the RU1 Primary Production zone are stated as:

- To encourage sustainable primary industry production by maintaining and enhancing the natural resource base.
- To encourage diversity in primary industry enterprises and systems appropriate for the area.
- To minimise the fragmentation and alienation of resource lands.
- To minimise conflict between land uses within this zone and land uses within adjoining zones.
- To protect prime agricultural land from the economic pressure of competing land uses.

The land is currently used for grazing purposes and this will continue in the short term. In the medium to longer term sand resources will be extracted from the subject land in accordance with Project Approval 05_0103. The filling will initially provide pasture improvement by resolving the drainage and standing water issues affecting the land. As noted in the proposal description, the Project Approval allows for the importation of VENM to be used for mixing with the sand to make garden and

construction products. Further the VENM is approved to reprofile the lake edges, during and following extraction.

The purpose of the fill will therefore achieve the zone objectives relating to maintaining and enhancing primary industry production and will not fragment or alienate land nominated as resource land (sand extraction). Matters relevant to the conflict between the proposal and adjacent zones are addressed in Section 4 of this report.

The filling and consequent drainage works proposed by this application are defined in the Tweed LEP 2014 as:

- Earthworks – means excavation or filling
- Drainage - means any activity that intentionally alters the hydrological regime of any locality by facilitating the removal of surface or ground water. It may include the construction, deepening, extending, opening, installation or laying of any canal, drain or pipe, either on the land or in such a manner as to encourage drainage of adjoining land.

In accordance with clause 7.2 Earthworks of the Tweed LEP 2014, consent for the earthworks is required.

The following clauses of the Tweed LEP 2014 are relevant to the Subject Site or proposed development:

3.1.1 1.2 Aims of Plan

In considering development within the Tweed Shire it is required to consider the aims stated in clause 1.2(2). These matters are considered below:

Aim	Response
Clause 1.2(2)	
<p><i>(a) to give effect to the desired outcomes, strategic principles, policies and actions contained in the Council's adopted strategic planning documents, including, but not limited to, consistency with local indigenous cultural values, and the national and international significance of the Tweed Caldera,</i></p>	<p>This development application has considered the numerous "...strategic principles, policies and actions contained in the Council's adopted strategic planning documents..." as applicable to the proposal.</p> <p>The SEE and accompanying appended reports/assessments have acknowledged the significance of the environment in which the proposed development is located. Issues which have been appropriately considered and addressed include:</p> <ul style="list-style-type: none"> • Flooding/stormwater/drainage • Acid sulfate soils • Ecological significance (flora and fauna) • Noise/acoustics • Geotechnical/soil conditions • Contamination • Environmental management • Indigenous and cultural values

	<p>The DA does not present any inconsistencies with the Tweed LEP 2014 and Tweed DCP 2008. With the management measures and the setback proposed to drains and adjacent properties the proposal does not generate any significant impacts to the environment or neighboring land.</p>
<p><i>(b) to encourage a sustainable local economy and small business, employment, agriculture, affordable housing, recreational, arts, social, cultural, tourism and sustainable industry opportunities appropriate to Tweed,</i></p>	<p>This development application relates to existing grazing and sand extraction activities. The proposal is directly associated with a significant investment in the local economy and will generate employment.</p>
<p><i>(c) to promote the responsible sustainable management and conservation of Tweed's natural and environmentally sensitive areas and waterways, visual amenity and scenic routes, built environment, and cultural heritage,</i></p>	<p>The filling work is proposed in an area approved for sand extraction. It is clear of significant vegetation and considered to have minimal environmental value. Works have been setback a minimum of 40m from existing drains.</p> <p>The filled area will be used for grazing and once pasture is established will not present any differently to other rural properties in the area.</p>
<p><i>(d) to promote development that is consistent with the principles of ecologically sustainable development and to implement appropriate action on climate change,</i></p>	<p>Works are located in areas of low ecological value and avoid drainage lines. The proposal would result in raised land that is less impacted river floods and drainage issues.</p> <p>The proposal will enable the use of fill material likely sourced from major infrastructure projects. In doing so it will sustainably utilise a resource that may otherwise end up in landfill.</p>
<p><i>(e) to promote building design which considers food security, water conservation, energy efficiency and waste reduction,</i></p>	<p>This clause not applicable to this application.</p>
<p><i>(f) to promote the sustainable use of natural resources and facilitate the transition from fossil fuels to renewable energy,</i></p>	<p>The proposal will enable the use of fill material likely sourced from major infrastructure projects. In doing so it will sustainably utilise a resource that may otherwise end up in landfill. The fill source is relatively close and could potentially involve reduced fossil fuel reliance.</p>
<p><i>(g) to conserve or enhance the biological diversity, scenic quality and geological and ecological integrity of Tweed,</i></p>	<p>The following assessments/reports appended to the SEE document how the proposed development will “...conserve or enhance the biological diversity, scenic quality and geological and ecological integrity of Tweed.”</p> <ul style="list-style-type: none"> • Appendix B Flora and Fauna Assessment • Appendix C Environmental Management Plan • Appendix D Acid Sulfate Soils Management Plan

	<ul style="list-style-type: none"> • Appendix E Flood Impact Assessment Report <p>The Subject Site has been assessed and is considered to be of low ecological value. The majority of the site is approved for sand extraction.</p>
<i>(h) to promote the management and appropriate use of land that is contiguous to or interdependent on land declared a World Heritage site under the Convention Concerning the Protection of World Cultural and Natural Heritage, and to protect or enhance the environmental significance of that land,</i>	This clause is not applicable to this application as the Subject Site is not a declared World Heritage site.
<i>(i) to conserve or enhance areas of defined high ecological value</i>	<p>The following assessments / reports appended to the SEE document how the proposed development will “...conserve or enhance areas of defined high ecological value.”</p> <ul style="list-style-type: none"> • Appendix B Flora and Fauna Assessment • Appendix C Environmental Management Plan • Appendix D Acid Sulfate Soils Management Plan • Appendix E Flood Impact Assessment Report <p>The Subject Site has been assessed and is considered to be of low ecological value. The majority of the site is approved for sand extraction.</p>
<i>(j) to provide special protection and suitable habitat for the recovery of the Tweed coastal Koala.</i>	The Tweed Coast Comprehensive Koala Plan of Management mapping indicates that the land affected by the proposed filling works is outside of preferred koala habitat.

3.1.2 7.1 Acid Sulfate Soils (ASS)

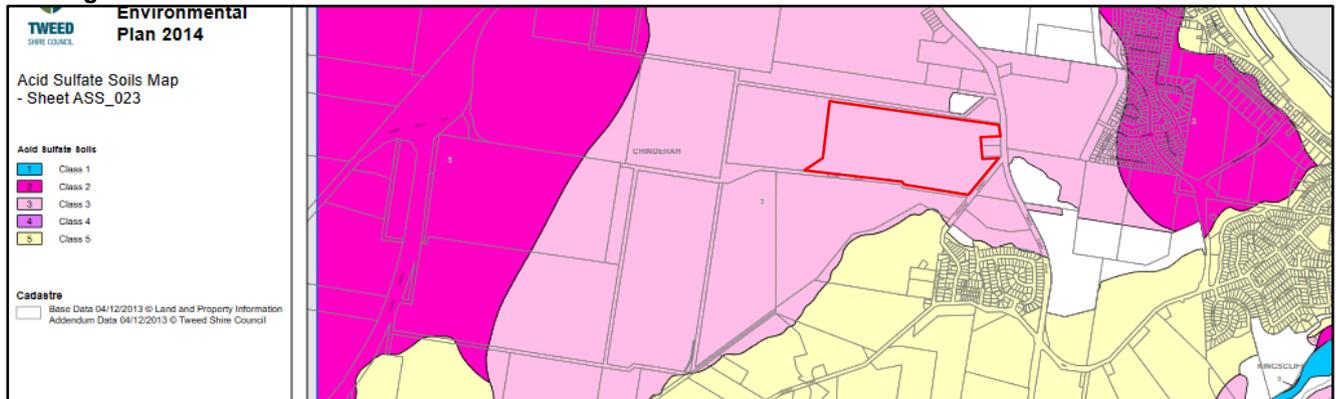
The Subject Site is nominated as Class 3 ASS on the Tweed LEP 2014 Acid Sulfate Soils Map (refer to **Figure 8**). Within the Class 3 ASS designation, development consent is required where works are proposed below the natural ground surface. This application proposes minor excavation works below natural ground level, limited to scraping the existing topsoil prior to filling.

In support of the application an Acid Sulfate Soil Management Plan (ASSMP) has been prepared by HMC Environmental Consulting Pty Ltd (refer to **Appendix D**).

The ASSMP recommends that all material excavated below 0.5m depth be managed to minimise and ameliorate any acid generation/export from the excavated material. The existing and potential acidity should be treated with alkaline soil amendments (agricultural lime). Appendix 1 of the ASSMP includes a number of management strategies that would ensure that the excavation works do not cause environmental damage in accordance with the objective of Clause 7.1. The ASS

management strategies are also carried over into the Environmental Management Plan (refer to **Appendix C**).

Figure 8 – Acid Sulfate Soils



Source: Tweed LEP 2014

3.1.3 7.2 Earthworks

The objective of this clause is to ensure that earthworks for which development consent is required will not have a detrimental impact on environmental functions and processes, neighbouring uses, cultural or heritage items or features of the surrounding land.

In considering development involving earthworks the Council is required to consider the matters stated in clause 7.2(3). These matters are considered below:

Requirement	Response
Clause 7.2(3)	
<p><i>(a) the likely disruption of, or any detrimental effect on, drainage patterns and soil stability in the locality of the development,</i></p>	<p>In support of the development application a flood impact assessment was undertaken by Venant Solutions (refer to Appendix E).</p> <p>The analysis conducted by Venant Solutions concludes that hydraulic impacts generated by the proposed works would be within limits acceptable to Council.</p> <p>An Environmental Management Plan prepared by HMC Environmental Consulting Pty Ltd (refer to Appendix C) and a Conceptual Erosion and Sediment Control Plan prepared by Biome Consulting (Appendix H) details management strategies that would minimise erosion on site and the movement of sediment from the site.</p>
<p><i>(b) the effect of the development on the likely future use or redevelopment of the land,</i></p>	<p>The proposed filling works are proposed to:</p> <ul style="list-style-type: none"> • enhance existing grazing activities by raising the land to improve drainage and reduce water ponding, thereby improving pasture • provide a readily available source of VENM for uses associated with the approved extraction activities • provide suitable flood immunity for the lands potential use as sports fields as contemplated by the Kingscliff DCP and Gales Master Plan.

<p><i>(c) the quality of the fill or the soil to be excavated, or both,</i></p>	<p>Fill to be imported to the site would likely be ENM and VENM. Appropriate testing to confirm its compatibility for its intended use would be carried out prior to delivery.</p> <p>Stripping and stockpiling of vegetation and topsoil with high levels of organic matter would occur prior to filling works. Where suitable the stripped material would be reused on site. Excess or unsuitable material would be removed to a facility approved to accept material. Gales-Kingscliff sand extraction processing area is approved to accept VENM.</p>
<p><i>(d) the effect of the development on the existing and likely amenity of adjoining properties,</i></p>	<p>Cardno have prepared a Construction Noise Assessment (refer to Appendix F). The report includes a range of management recommendations intended to minimise impacts to nearby noise sensitive uses. Key components of the proposed management strategies will be at source noise reduction eg. Mufflers, and limiting the hours with which construction works occur.</p> <p>Air quality is considered by HMC Environmental Consulting Pty Ltd in the Environmental Management Plan (refer to Appendix C) and in the Dust Management Plan (Appendix G). A range of dust control strategies are recommended as well as monitoring and corrective actions.</p> <p>Compliance with the recommendations of these reports is likely to ensure that the development does not unreasonably affect the amenity of existing development in the locality.</p>
<p><i>(e) the source of any fill material and the destination of any excavated material,</i></p>	<p>Refer to the response to item (c) in this table and part 4.8 of this report.</p> <p>The source of material is likely to be motorway works if approval of this DA occurs expeditiously.</p>
<p><i>(f) the likelihood of disturbing relics,</i></p>	<p>An Aboriginal Cultural Heritage Assessment was conducted on this site by Everick Heritage (Appendix I). This assessment indicates that it is unlikely that matters of aboriginal cultural heritage significance will be present due to past activities and disturbance on the site. A strategy for the management of any items of cultural heritage significance encountered during construction activities has been proposed and incorporated into the Environmental Management Plan (refer to Appendix C) and Construction Management Plan (refer to Appendix F)</p>
<p><i>(g) the proximity to, and potential for adverse impacts on, any waterway, drinking water catchment or environmentally sensitive area,</i></p>	<p>The proposed filling has been located a minimum of 40m from existing drains located to the north and south of Lot 21. Further, sediment and erosion control is proposed in accordance with the recommendations of the Environmental Management Plan included in Appendix C and the Conceptual Erosion and Sediment Control Plan included in Appendix H.</p> <p>No areas of environmental sensitivity have been identified within the proposed fill area. A part of the proposed fill area is approved for sand extraction.</p>
<p><i>(h) any appropriate measures proposed to avoid, minimise or mitigate the impacts of the development,</i></p>	<p>A range of management measures have been recommended by the consultants working on this project. The majority of the measures are intended to avoid, minimise or mitigate the impacts of the development are included within the Environmental Management Plan (refer to Appendix C).</p>

<i>(i) the proximity to, and potential for adverse impacts on, any heritage item, archaeological site, or heritage conservation area</i>	Refer to the response to item (f) in this table.
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3.1.4 7.3 Flood Planning

The objectives of this clause are as follows:

- a) to minimise the flood risk to life and property associated with the use of land,
- b) 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,
- c) to avoid significant adverse impacts on flood behaviour and the environment.

In considering development at or below the flood level the Council is required to be satisfied with respect to matters stated in clause 7.3(3). These matters are considered below:

Requirement	Response
Clause 7.3(3)	
<i>(a) is compatible with the flood hazard of the land, and</i>	A Flood Impact Assessment prepared by Venant Solutions (refer to Appendix E) has found that the proposal is compatible with Tweed Shire Councils flood planning for this area and will not result in any adverse flooding impacts.
<i>(b) will not significantly adversely affect flood behaviour resulting in detrimental increases in the potential flood affectation of other development or properties, and</i>	Modelling carried out by Venant Solutions (refer to Appendix E) and described in their Flood Impact Assessment shows all regional flood events meet the Council criteria as they are within the 0.1m afflux limit for rural land. Local catchment modelling shows that whilst there are very localised increases exceeding the 0.1m criteria, the increases would not materially impact the use of the land and that the area is more frequently flooded to greater depths during regional flood events.
<i>(c) incorporates appropriate measures to manage risk to life from flood, and</i>	The proposal does not present potential risk to life. Filling works would not take place during a flood event.
<i>(d) will not significantly adversely affect the environment or cause avoidable erosion, siltation, destruction of riparian vegetation or a reduction in the stability of river banks or watercourses, and</i>	The Flora and Fauna Assessment included in Appendix B confirms that the proposal will not affect any significant vegetation. The land is currently dominated by exotic grass species. A 40m setback to existing mapped drains has been proposed. Potential environmental impacts have been considered in the Environmental Management Plan prepared by HMC Environmental Consulting Pty Ltd (refer to Appendix C). A Conceptual Erosion and Sediment Control Plan incorporating erosion and sediment control measures has been included in the Biome report included in Appendix H . Implementing the management measures proposed by these technical reports will ensure that environmental impacts are not significant.

(e) is not likely to result in unsustainable social and economic costs to the community as a consequence of flooding.	The potential impacts on flooding have been assessed by Venant Solutions (refer to Appendix E) and no potential impacts that would give rise to social or economic costs have been identified.
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3.1.5 7.6 Stormwater Management

The objective of this clause is to minimise the impacts of urban stormwater on land in residential, business and industrial zones and on adjoining properties, native bushland and receiving waters.

The Council is required to be satisfied with respect to matters stated in clause 7.6(3). These matters are considered below:

Requirement	Response
Clause 7.6(3)	
(a) is designed to maximise the use of water permeable surfaces on the land having regard to the soil characteristics affecting on-site infiltration of water, and	N/A No impermeable surfaces are proposed by this application.
(b) includes, if practicable, on-site stormwater retention for use as an alternative supply to mains water, groundwater or river water, and	N/A
(c) avoids any significant adverse impacts of stormwater runoff on adjoining properties, native bushland and receiving waters, or if that impact cannot be reasonably avoided, minimises and mitigates the impact.	As no impermeable surfaces are required there will be no additional run off generated from the site. A Flood Impact Assessment prepared by Venant Solutions (refer to Appendix E) has not identified any adverse significant hydraulic impacts from the proposed works. Erosion and sediment control measures will be implemented to avoid and minimise the potential impact to receiving waters from runoff – refer to the Biome Conceptual Erosion and Sediment Control Plan included in Appendix H .

3.1.6 7.10 Essential Services

The proposed works do not generate the need for essential services.

3.2 State Environmental Planning Policies (SEPP)

3.2.1 SEPP 55 – Remediation of Land

This policy requires an assessment of the likelihood of the land being contaminated as a result of past or present activities or uses. To satisfy the provisions of SEPP 55 Remediation of Land a Preliminary Site Investigation was prepared by HMC Environmental Consulting (refer to **Appendix K**). The site has previously been assessed and much of the site is approved for an extraction lake.

Evidence and records have been reviewed and indicate that the Subject Site has been generally used for agricultural practices with cropping visible prior to 1970. A review of available information including a detailed site inspection did not record any potentially contaminating activities. Previous site sampling reveal that OC's/OP's, and metals lead, arsenic and mercury were all below the investigation criteria for residential land use.

Material used for fill will be obtained from a suitably approved source – likely associated with the upgrade of the M1 in South East Queensland. Refer to section 4.8 of the SEE for a more detailed discussion on the source of fill.

On this evidence, the risk of contamination is considered very low and no further investigations are warranted.

3.2.2 SEPP (Coastal Management) 2018

This Policy applies to land the whole or any part of which is within the coastal zone.

Figure 9: SEPP Coastal Management Wetland Mapping



Source: MUS and NSW Department of Planning and Environment online mapping

As illustrated in Figure 9 the proposed filling does not impact on land mapped as Coastal Wetland (these areas are located outside of Lot 21), but land mapped as Proximity Area for Coastal Wetlands do occur on the subject land and in an area proposed to be filled.

Clause 11 of the SEPP states:

Development consent must not be granted to development on land identified as “proximity area for coastal wetlands” or “proximity area for littoral rainforest” on the

Coastal Wetlands and Littoral Rainforests Area Map unless the consent authority is satisfied that the proposed development will not significantly impact on—

- a) the biophysical, hydrological or ecological integrity of the adjacent coastal wetland or littoral rainforest, or*
- b) the quantity and quality of surface and ground water flows to and from the adjacent coastal wetland or littoral rainforest.*

In support of this application the following reports have been prepared that investigate potential impacts on the proximity area for coastal wetlands:

- Flora and Fauna Assessment prepared by Ecoplaning dated November 2020 – **Appendix B**
- Flood Impact Assessment prepared by Venant Solutions dated November 2020 – **Appendix E**
- Conceptual Erosion and Sediment Control Plan prepared by Biome dated November 2020 – **Appendix H**
- Acid Sulfate Management Plan prepared by HMC Environmental dated November 2020 – **Appendix D**

Each of these assessments consider potential impacts and where relevant recommend management measures to mitigate any adverse impacts.

A specific ground water assessment has not been carried out because the proposal will not reduce permeability. Further the proposed filling does not alter the dominant drainage features in the locality. Mapped wetland areas will be separated from the works by an east west running drain.

In order to ensure that any potential impacts to the surface water quality flowing to the adjacent coastal wetland communities is minimised, a Conceptual Erosion and Sediment Control Plan has been prepared (refer to **Appendix H**). The management plan has been prepared in accordance with the following documents and guidelines:

- *Tweed Shire Council (2020), Development Design Specification – D7, Annexure A;*
- *Landcom (2004), Managing Urban Stormwater, Soils and Construction (4th Edition); and*
- *IECA (2008) Best-Practice Erosion and Sediment Control (BPESC) guideline*

To minimise the impact of construction phase activities, a set of site-specific best practice management procedures have been specified. These measures have been designed to control the severity and extent of soil erosion and pollutant transport from construction areas into the adjacent environment. Measures have been included to control drainage, minimise soil exposure and erosion and limit suspended solid concentration within discharge.

The investigations undertaken indicate that with the implementation of appropriate management measures, the proposed earthworks will not have an adverse impact on the mapped wetland.

3.2.3 North Coast Regional Environmental Plan 2036

The NSW Government has recently released the North Coast Regional Plan 2036 (the Plan). The document is a high level strategy that focuses on 4 main goals for the region that relate to preserving its stunning environment, facilitating a thriving

interconnected community, facilitating vibrant and engaged communities, and offering great housing choice and lifestyle options.

Figure 5 of the Plan includes a map that identifies the key features of the “Tweed Regional City”. On this plan the subject site is shown as being within a non-urban area.

The initial purpose of the application is to raise the level of the land to improve pasture for the existing cattle grazing use. Such a proposal would be consistent with Direction 11 of the Plan which concerns the protection and enhancement of productive agricultural lands.

The fill is likely to be used in association with the approved sand extraction on the site. The extraction approval allows for the mixing of the sand resource with VENM to produce a range of products that may be used in the agriculture and the construction industry. Direction 13 of the Plan encourages the sustainable management of natural resources and recognises the need to productively use regionally significant construction material resources. The Gales sand extraction facility is located in an area recognised as containing significant quantities of high quality sand resource.

In the longer term the land has been identified by Council’s planning as potentially being suitable for a range of uses including sports fields, parklands, tourist facilities and potentially urban development. The fill proposed would be compatible with these potential future uses and therefore be consistent with a range of goals and directions in the Plan concerning urban growth.

3.3 Development Control Plans (DCP)

The Tweed Development Control Plan 2008 (DCP) contains detailed guidelines that apply to particular types of development or to particular areas. The DCP supplements the Tweed LEP 2014 and is made in accordance with the *Environmental Planning and Assessment Act 1979*. Applicable sections of the DCP are considered below.

3.2.1 Section A3 – Development of Flood Liable Land

The Subject Site is flood liable per the following maps:

- Design Flood Level Map - Sheet 028 identifies the Subject Site as having a design flood level of 3.0m to 3.5m.
- Climate Change Map – Sheet 028 identifies the Subject Site as having a design flood level of 3.5m to 4.0m AHD (including climate change).

The proposed filling works will involve the import of approximately 337,060m³ of uncompacted fill material to raise the existing surface level by approximately 1 to 1.5m. Refer to engineering plans included in **Appendix 2**.

A Flood Impact Assessment prepared by Venant Solutions (refer to **Appendix E**) states that localised increases in flood level were assessed against the criteria set by Council and found to meet the criteria in all regional flood events. That is levels of afflux were limited to 0.1m or less for rural land. Impacts on non-rural land were minor and confined to the margins of the Kingscliff Wastewater Treatment Plant.

Modelling of local flooding events indicated a number of areas impacted by increases over the 0.1m criteria, however these would not impact on the use of the land and the relevant areas were more frequently flooded to greater depths in regional flooding events.

3.2.2 Section B9 – Tweed Coast Strategy

The Subject Site is shown on Map 2 Structure Plan as Agricultural Land with this designation discussed in part B9.7.8 of the DCP.

The intent of the designation is to protect agricultural land from non-agricultural forms of development that conflict with agriculture. The initial purpose of the fill is for pasture improvement which would be consistent with the DCP objectives. It is noted however that a Project Approval has been issued to permit sand extraction on the land. Further, longer term use of the land for sports fields and potentially urban purposes has been contemplated by DCP Section B26 – Kingscliff (discussed below). DCP Section B26 is considered to be a more up to date reflection of the Council policy for this part of the Tweed Coast. The filling works would be consistent with the sand extraction activities and future sports fields and other urban purposes.

3.2.3 Section B26 - Kingscliff

The objectives of the DCP are stated as:

- 1. Provide a strategic planning and development control framework for the Kingscliff locality that details land use strategies, development and design principles and development controls relating to existing precincts as well as greenfield development sites.*
- 2. Ensure protection, enhancement and ongoing management of natural bushland areas, waterways and land of high ecological value.*
- 3. Facilitate increased opportunity for employment generating land uses.*
- 4. Facilitate increased opportunity for housing diversity to meet Kingscliff's demographic and socio-economic profile including an increase of density around centres.*
- 5. Provide quality open space and public domain areas that meet the needs of the local and regional community.*
- 6. Co-ordinate and facilitate infrastructure provision including community and service infrastructure to ensure efficient use of the land and efficient infrastructure supply and provision.*

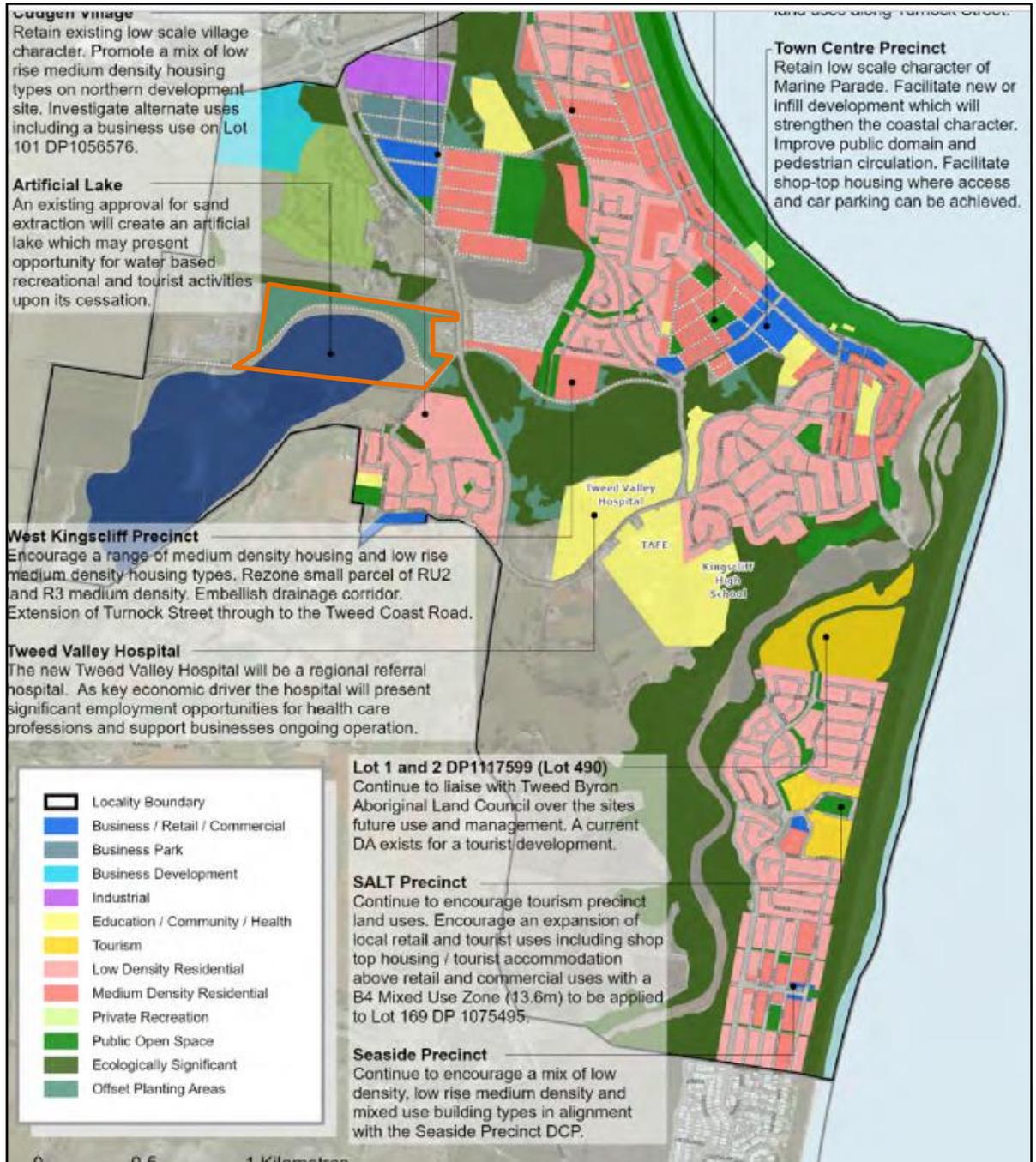
The DCP includes a series of plans and maps that illustrate the range of constraints affecting the area. The Indicative Kingscliff Urban Structure Plan shown in figure 10 illustrates a potential development pattern that responds to these constraints.

The land proposed to be filled has not been identified as ecologically significant, comprising of predominantly exotic grassland. Adjacent areas to the north east that are shown as ecologically significant are separated from the fill area by a minimum 40m. This minimum setback is also provided to the drainage lines to the north and south of the fill area. The Indicative Kingscliff Urban Structure Plan illustrates the approximate extent of the approved extraction lake. As noted earlier in this report,

some of the fill may be utilised for mixing with the sand product to provide construction and/or agricultural products.

A large portion of the land to the north of the extraction lake is identified as an offset planting area. As part of a Planning Proposal being prepared for submission to Council, Gales has prepared an Ecological Constraints Assessment. Gales also prepared a draft Biodiversity Certification Assessment Report (BCAR) which was reviewed by BCD, and a BCAR is expected to be prepared over coming months. This will identify offset areas consistent with the States Biodiversity Assessment Method, taking account of the development proposed by the Gales Masterplan. This process will more accurately identify required offset areas.

Figure 10: Indicative Kingscliff Urban Structure Plan



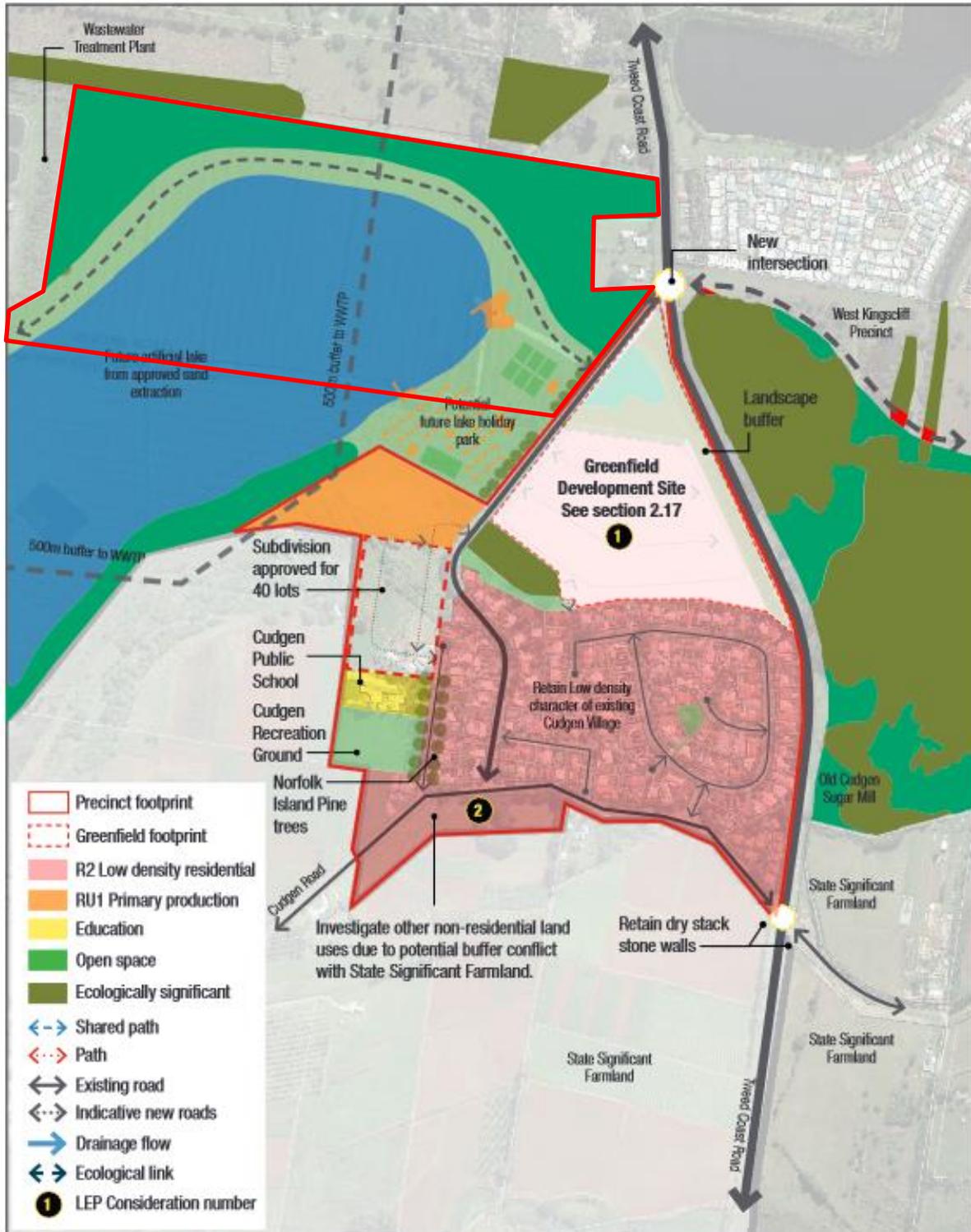
Source: Tweed Shire Council DCP 26

The DCP divides Kingscliff into precincts with the subject site being located within the Cudgen Village Precinct. Refer to figure 11 for the Indicative Structure Plan for the precinct.

The text supporting the Indicative Structure Plan notes that a large artificial lake will be located on the land following cessation of extraction activities. Gales has advised that it might establish the northern and eastern part of the lake and the land external to the lake whilst extraction activities continue to the south and east. This presents opportunities for recreational uses and tourism uses. Gales planning for the area is consistent with the structure plan for the Cudgen Village Precinct with parkland and

sports fields shown on the Gales Master Plan. The potential for tourist related uses outside of the 500m buffer to the sewer treatment plant will be investigated in the future.

Figure 11: Cudgen Precinct Indicative Structure Plan



Source: Tweed Shire Council DCP 26

This SEE and the reports appended to this application demonstrate that the filling works can be carried out to minimise tree removal, will not cause any adverse flooding impacts, will manage stormwater and potential erosion and in general avoids significant environmental impact.

It is considered that the proposal does not present any conflict with DCP26 – Kingscliff.

3.3 Environmental Planning and Assessment Act 1979 (the Act)

In determining an application, the consent authority is to take into consideration the following matters listed in 4.15:

- *The provisions of any environmental planning instrument, public consultation, development control plan, any planning agreement, the regulations.*

Refer to part 3 of this SEE for an assessment against relevant environmental planning instruments and development control plans.

No planning agreements have been entered into with respect to this development or the subject land.

- *The likely impacts of that development, including environmental impacts on both the natural and built environments, and social and economic impacts in the locality*

Refer to Part 3 and 4 of this SEE for discussion in relation to environmental impacts.

No social impacts are expected to arise from the proposed development.

The proposed development will involve positive economic impacts as it will create jobs directly associated with transport and filling works. The use of excess fill associated with a major infrastructure project would be consistent with the principles of sustainability as it avoids this material potentially going into landfill. The material will be used in an economical way as it will improve the viability of grazing land and will be used in association with extraction activities and future land use.

- *The suitability of the site for development*

The suitability of the site for sand extraction has been assessed and confirmed through the issue of a Project Approval. The sand extraction allows for the importation of VENM which can be mixed with the extracted material and beneficially used for construction and agricultural purposes. The importation of VENM to the site is acknowledged in the Project Approval.

- *Any submissions made in accordance with the Act or Regulations*

The application will be notified in accordance with Council's policy. Council will consider any submissions in the assessment of the application.

- *The public interest*

The proposed development will involve delivery of material to the site which is contemplated by the current approved extraction activities on the land. Public consultation occurred with the Project Approval for the sand extraction and any matters raised by the public would have been considered in the States assessment.

The proposal will provide employment and contribute to the local economy. No adverse amenity impacts or environmental impacts were identified in the assessment of the proposal by a range of specialist consultants (refer to appendices).

With respect to this context it is considered that the development is in the public's interest.

3.4 Integrated Development

Proposed filling works have been located to maintain a minimum distance of 40m from mapped hydrolines. The proposal would therefore not involve a controlled activity or trigger integrated development under the Water Management Act.

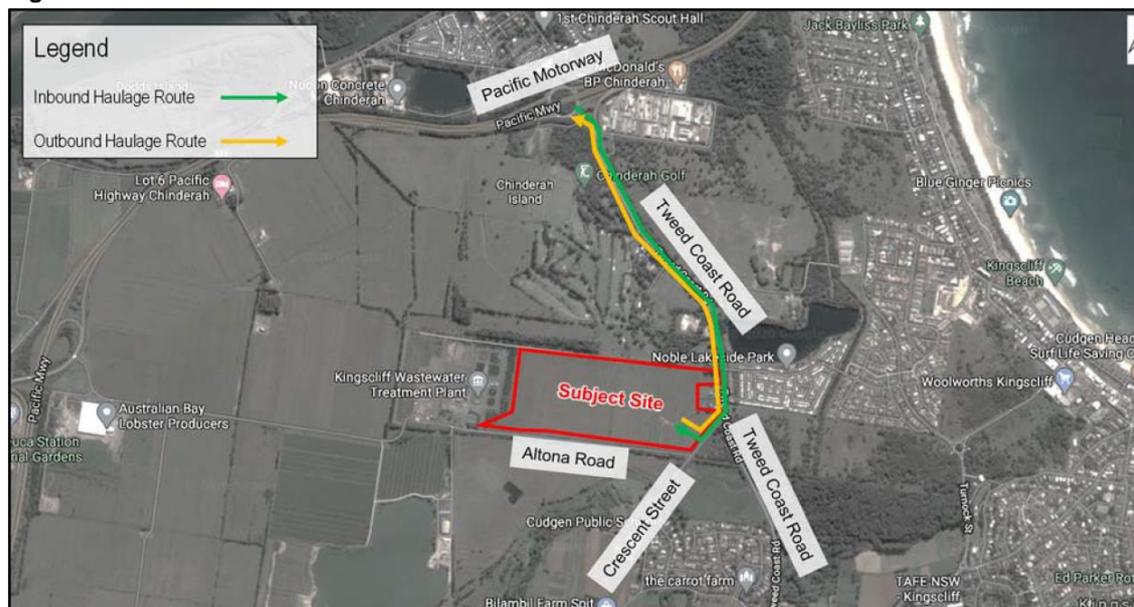
4.0 DEVELOPMENT CONSIDERATIONS

4.1 Traffic

Traffic matters have been considered in detail by Bitzios Consulting in their Traffic Impact Statement: 100 Altona Road Filling Works dated 30 October 2020. Refer to **Appendix M**.

The proposed haul route is illustrated in figure 12.

Figure 12: Haul Route



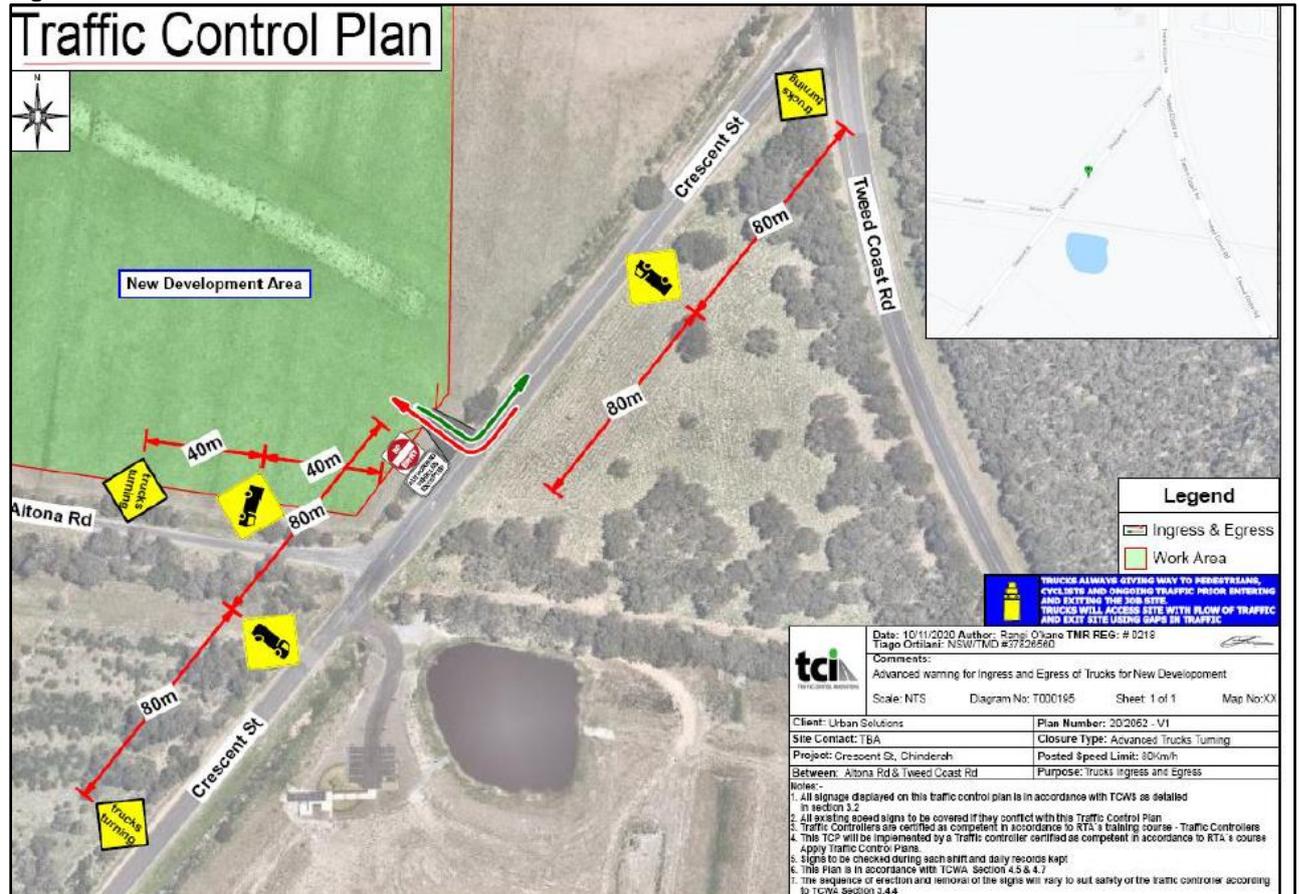
Source: Bitzios Consulting

The Traffic Impact Statement has considered the cumulative impact arising from other developments that generate heavy vehicle movements including the Gales sand extraction facility, the Hanson Tweed Sand Quarry, the Tweed Valley Hospital development traffic and the Turnock Street filling works. A SIDRA assessment was carried out for the intersection of Tweed Coast Road and Crescent Street which confirmed that it would maintain a satisfactory performance as a priority-controlled intersection.

The site access location has been assessed and determined to meet minimum sight line requirements and the requirements of AS2890. It has been appropriately designed to accommodate 2-way heavy vehicle movement.

The Construction Traffic Management Plan included in **Appendix L** details the management measures proposed during the transport of fill to the site. An extract included in figure 13 illustrates the traffic control proposed to be implemented for the delivery of fill.

Figure 13: Traffic Control Plan



Source: TCI Traffic Management Plan

4.2 Noise and Vibration

A detailed assessment of the potential noise and vibration impacts arising for the proposal was conducted by Cardno. Their report is included in **Appendix F**.

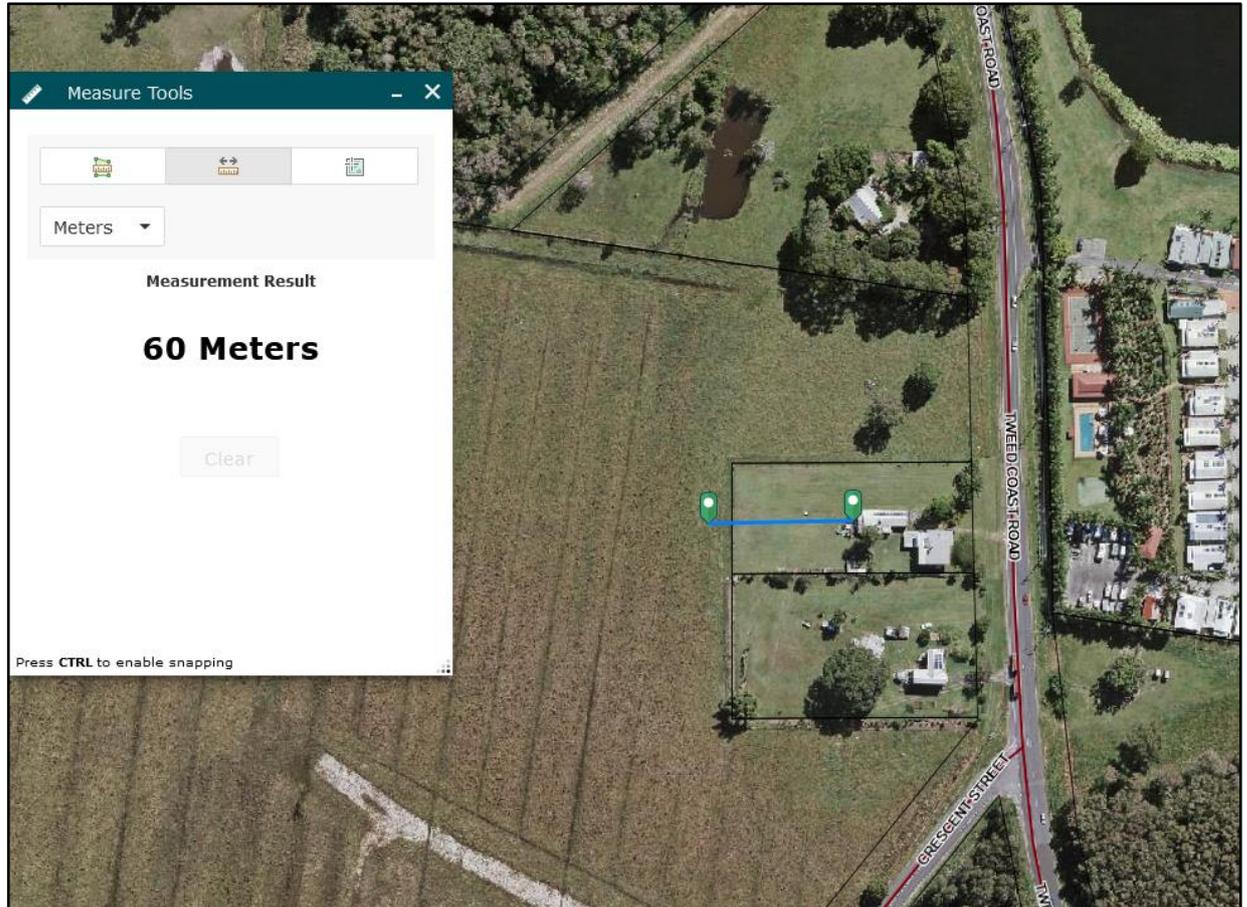
To assess the potential noise impacts, loggers to measure background noise were located to simulate separation distances to existing dwellings from the works area between the dates of 24 June to 2 July 2020.

The nearest noise sensitive properties likely to be affected by the proposed works are residences located at 200, 214 and 216 Tweed Coast Road (see figure 14). Predicted noise levels at these properties did not exceed 62dBA during site works. These noise levels were considered to be within an acceptable range and did not necessitate the implementation of noise barriers.

General recommendations for mitigating noise impacts are proposed. These include the use of mufflers on vehicles, maintaining plant and equipment, preferred use of electrically powered plant, placing plant as far as possible from noise sensitive locations, limiting hours of work, consultation with potentially affected residents and monitoring (refer to **Appendix F** part 7.1 for a full list of recommendations).

With respect to vibration impacts, based on the machinery proposed, no specific safe working distance has been recommended. It is noted that the closest affected residential structures are located approximately 60m from the fill area (refer to figure 14).

Figure 14: Closest Residential Property



Source: Tweed Shire Arcgis

It has been recommended that vibration be considered in the construction management plan and that potential impacts be monitored during works. Out of caution, Gales intend to complete pre and post construction dilapidation reports for the nearest dwellings.

The assessment of noise and vibration has not identified any significant impacts that cannot be managed. Appropriate management measures are included in section 7 of **Appendix F**.

4.3 Flora and Fauna

Ecoplanning Pty Ltd have prepared a Flora and Fauna Assessment for the proposed development. The report is included in **Appendix B**.

Ecoplannings investigations indicated that the earthworks would not impact on any native vegetation. The area proposed to be filled was noted as being cleared with only exotic grassland present. With respect to threatened species or communities it was considered that impacts were unlikely given:

- The current nature of the artificial drainage as a habitat
- The presence of large areas of intact vegetation north and east of the subject site and
- The proposal will not result in any fragmentation of currently connected species.

The following avoidance and mitigation measures were recommended to minimise potential indirect impacts to threatened species and native vegetation:

- areas of native vegetation outside of the subject site will be “No Go-Zones” for people and machinery and will be clearly delineated.
- any exotic biomass cleared within the subject site will be confined to disturbed areas within the subject site or removed and disposed of at an approved facility.
- erosion and sediment control measures will be established before work begins and maintained in effective working order throughout the duration of the works, and until the study area has been stabilised to prevent off-site transport of eroded sediments.
- should fencing be required, it will need to allow safe passage of native wildlife
- removal of priority weeds from the subject site and their ongoing control.

4.4 Hazards

4.4.1 *Flooding/Stormwater*

A Flood Impact Assessment has investigated the potential impacts the filling will have on the locality’s drainage and flooding characteristics. Regional catchment modelling carried out by Venant Solutions and described in their Flood Impact Assessment (refer to **Appendix E**) shows that the degree of impact is within the criteria set by Council for all scale flooding events. Afflux impacts are limited to land owned by Gales or are within the range of 0.035 and 0.1m and located on rural land. The exception is a minor impact on a small area of low-lying land on the eastern boundary of the Kingscliff Wastewater Treatment Plant. The plant itself is elevated above the 1%AEP flood level and therefore not affected.

Local catchment modelling for the 1% AEP flood event shows that the filling works do not exceed the 0.1m afflux criteria for rural land. A small area to the south of the site at the base of Cudgen Hill would experience an increase of 0.102m but it is noted that this is a low-lying area that effectively acts as a drain that conveys runoff from Cudgen Hill. Venant notes that the impacted area would be inundated to far greater depths and more frequently during regional flooding events.

In the 20% AEP flood event, afflux increases in excess of 0.1m are modelled to occur on Gales land, in the low-lying land at the eastern boundary of the Kingscliff Wastewater Treatment Plant and a small section of road reserve in a table drain clear of the carriageway. Similar to the regional events, the impacted areas are significantly more affected by regional flooding events.

The Flood Impact Assessment concludes that the afflux increases modelled in local events will have no material impact, considering the use of the land and the area is more frequently flooded to greater depths in regional flood events.

4.4.2 *Acid Sulphate Soil*

The works area within the Subject Site is identified as Class 3 on the NSW Department of Land and Water Conservation 1:25 000 *Acid Sulfate Soil Planning Maps – Tweed*

Heads as well as the Tweed LEP 2014 Acid Sulfate Soils Map. As this application proposes excavation works below natural ground level it has the potential to disturb soils containing acidity.

In support of the application an Acid Sulfate Soil Management Plan has been prepared by HMC Environmental Consulting Pty Ltd (refer to **Appendix D**). It concludes that excavated material recovered from below 0.5m depth will need to be managed to minimise and ameliorate any acid generation / export from the excavated material. Containment, treatment and management measures have been recommended for soils and water containing acidity or acid products, with the objective of ensuring no discharge occurs off site which does not meet adopted water quality criteria. The management and monitoring protocols proposed will provide for satisfactory management of acid sulphate soil impacts and form part of the Environmental Management Plan (refer to **Appendix 4**) for the development.

4.4.3 Contamination

A Preliminary Site Investigation has been prepared by HMC Environmental Consulting Pty Ltd (refer to **Appendix K**). This has assessed current and former land use on and around the Subject Site for potentially contaminating activities and, based on this information, has assessed the suitability of the site for development.

A review of available information relating to past and present land use as well as a detailed site inspection did not identify any potentially contaminating activities. Previous soil samples reveal that OC's and OP's and metals lead, arsenic and mercury were all below the investigation criteria for residential use. The report concludes that the Subject Site is considered suitable for the proposed earthworks.

No further investigation or remediation is required.

4.5 Soil and Water Management

A Conceptual Erosion and Sediment Control Plan has been prepared by Biome and an Environmental Management Plan has been prepared by HMC Environmental Consulting Pty Ltd (refer to **Appendices H and C**). These include a range of overarching principles and strategies in respect to sediment and erosion control to minimise the impact of construction activity on surface water quality. Proposed strategies include:

- Provision of a stabilised site access with vehicle shake down and wheel wash
- Clean water diversions
- Sediment basins
- Catch drains to convey water to the sediment basins
- Sediment fencing
- Topsoil stripping and management for reuse
- Staging of the project to minimise disturbed areas
- Progressive revegetation and site stabilisation

In accordance with the Tweed Urban Stormwater Quality Management Plan, the Environmental Management Plan nominates discharge criteria for all surface water discharging to the ASS treatment area during the earthworks phase of the development. A monitoring program for surface water has also been nominated.

The Environmental Management Plan (EMP) brings together all the recommendations from the various consultants reports to formulate a strategy to mitigate identified environmental impacts relevant to soil and water and other matters (refer to **Appendix C**).

The EMP addresses the following matters:

- Waste
- Air Quality
- Noise Control
- Soil and Water
- Acid Sulphate Soil
- Flora and Fauna
- Protection of Cultural Heritage

A geotechnical assessment of the site was undertaken on the site by Geotech Investigations. A copy of their report is included in **Appendix Q**. The report references another development application being prepared over the same site by Gales which involves further filling and the relocation of Altona Road and Crescent Street. The observations and recommendations of this report are considered valid for this application.

It is noted that a compaction standard of 98% has been recommended on the basis of future roads and development. A compaction standard of 96% is however proposed in this instance, which would be a suitable compaction standard considering the purpose of the fill. If roads or buildings are proposed over the filled area in the future a specific geotechnical investigation will be undertaken to determine the suitability of the material for that purpose.

4.6 Air Quality

The Environmental Management Plan (refer to **Appendix C**), Construction Management Plan (refer to **Appendix J**) and Dust Management Plan (refer to **Appendix G**) includes a range of management measures to maintain air quality, some of which include:

- Regular site watering with a water truck being on site and available at all times
- The ceasing of dust creating activities during strong wind events
- The stabilisation of disturbed areas and fill material stockpiles as soon as practicable
- The covering of agricultural lime stockpiles and avoiding lime application during high wind conditions
- No burning of waste

It is also a recommendation of the Noise Report and the Environmental Management Plan that all machinery on site be regularly maintained to ensure efficient operation, which would assist with the quantity and quality of exhaust emissions.

4.7 Cultural Heritage

An Aboriginal Cultural Heritage Desktop Assessment was conducted by Everick Heritage. A copy of their report is included in **Appendix I**. As a result of these investigations Everick Heritage were able to make the following conclusions:

- No Indigenous cultural heritage sites or objects were identified within the Project Area through desktop research.
- The Project Area has been highly disturbed by historical agricultural practice and construction of roadways, as such it has been determined that it is highly likely that the top 500 mm of topsoil in the Project Area has been completely disturbed.
- Everick Heritage has previously conducted Aboriginal cultural heritage assessments on the Project Area and adjacent lands on the Cudgen / Kingscliff coastal plain as part of the Gales Landholding rezoning project. The sugar cane fields of Cudgen were generally identified to have a low potential for harm to Aboriginal Cultural Heritage as part of the Gales Landholdings rezoning project.

No Aboriginal sites or objects were found and no further Aboriginal cultural heritage investigations were recommended.

Recommendations with respect to actions to be undertaken in the event of finding an object of significance or Aboriginal human remains have been provided and are to be included in a construction management plan.

4.8 Source of Fill

The source of fill was unable to be confirmed at the time of preparing this report. It is intended that material associated with the Pacific Motorway M1 upgrade works in South East Queensland be used but this is subject to a future tendering process with confirmation of material availability expected in early 2021.

It is proposed to use VENM or ENM for filling purposes.

VENM is natural material (such as clay, gravel, sand, soil or rock fines) that has been excavated or quarried from areas that are not contaminated with manufactured chemicals, or with process residues as a result of industrial, commercial, mining or agricultural activities, and does not contain any sulfidic ores or soils or any other waste. Generators of VENM will be required to complete the NSW EPA VENM Certificate and provide to Gales / Gales appointed contractor.

ENM that cannot be classified as VENM, may be eligible for reuse under the excavated natural material order and exemption issued by the NSW Environment Protection Authority under Clauses 91 to 93 of the *Protection of the Environment Operations (Waste) Regulation 2014*.

By virtue of complying with the definition of VENM and/or the testing and documentation requirements for ENM specified by the Resources Recovery Order and Exemption, it will be confirmed that contaminated materials will not be received at the fill site. It would be expected that Council condition approval of this development application to specify that only materials that meet the definition of VENM or ENM can be transported to the proposed fill area.

The intended source of fill is located outside of the Interstate Plant Quarantine Zone (Red Imported Fire Ant) South East Queensland (mapping dated 2/10/2020 refer to

www.daf.qld.gov.au/fireants). Accordingly, with respect to fire ant contamination, there would be no restriction on the movement of material from the area of the M1 being upgraded into NSW. If this mapping were to change then management plans would need to be put into place to ensure that fire ants are not imported to the subject site. If alternative sources of fill are identified, the potential for fire ant contamination would be assessed prior to the material being accepted on the fill site.

5.0 CONCLUSION

A detailed assessment of the planning issues relevant to the proposed development has been undertaken and presented in this Statement of Environmental Effects. The assessment has been supported by a range of specialist reports that have considered the potential environmental impacts associated with the proposed works.

In summary, it has been determined that:

- The proposal does not conflict with planning objectives for the locality because it will involve works that will improve pasture quality for existing grazing activities encouraged in the zone. The material placed on site will also be available for uses associated with the approved sand extraction activity occurring on the site. Import of VENM was contemplated by the Project Approval for the sand extraction facility.
- Proposed works are limited to parts of the site where vegetation is predominantly exotic pasture or otherwise highly disturbed. The works area does not impact on vegetation mapped as wetland under the Coastal Management SEPP and achieves a minimum 40m setback to existing drains mapped by the State as hydrolines.
- The proposal does not present any conflict with State planning instruments including the EPA Act, Coastal Management SEPP, SEPP (Koala Habitat Protection) 2019 and SEPP 55.
- The proposal is consistent with Tweed Shire statutory planning instruments including the provisions of the Tweed LEP 2014 and the Tweed DCP 2008.
- Development issues have been addressed in the context of impacts associated with:
 - Traffic
 - Noise
 - Flora and Fauna
 - Hazards – Flooding/Stormwater, Acid Sulphate Soil, Contamination, Soil and Water Management and Air Quality
 - Cultural Heritage

Analysis of these issues indicates that potential impacts are not significant or can be satisfactorily managed.

In light of the above assessment, the application is considered appropriate for conditional approval.