TITLE: [PR-CM] Development Application DA13/0175 for an 83 Lot Residential Subdivision in Four Stages Comprising 79 Residential Lots with Dedication of Two Lots as Drainage Reserves, One Lot as Public Reserve and One Lot as Sewer Pump Station Site at Lot 332 DP 1158142 Silkpod Avenue, Murwillumbah

SUBMITTED BY: Development Assessment

FILE REFERENCE: DA13/0175 Pt3



LINKAGE TO INTEGRATED PLANNING AND REPORTING FRAMEWORK:

1	Civic Leadership
1.1	Ensure actions taken and decisions reached are based on the principles of sustainability
1.1.1	Establish sustainability as a basis of shire planning and Council's own business operations

SUMMARY OF REPORT:

This development application is being reported to Council as it is a subdivision that creates more than 50 lots. The development application was lodged on 17 April 2013.

A number of formal and informal amendments to the application have been made during the assessment process in response to Council's consolidated requests for further information. Council officers have provided ongoing, detailed advice (prior to lodgement and during assessment), extensions for the provision of further information and have met with the applicant when requested for discussions in an attempt to resolve matters of concern. However, subsequent modifications to the proposal have consistently failed to adequately address outstanding issues to Council's satisfaction.

The applicant has been given the option to withdraw the application and re-lodge an amended proposal once acceptable design solutions have been identified. This process is expected to be lengthy in consideration of the constraints of the land. The applicant has opted not to withdraw the application. As such, given lengthy delays in the submission of further information and the sub-standard content of the applicant's final submission on 21 November 2013, the application is now recommended for refusal.

Main areas of concern (and grounds for refusal) relate to:

- Failure of the applicant to satisfactorily resolve stormwater drainage issues for the outlet from Frangella Park (within proposed Lot 604);
- Inability for Council to accept dedication of Lot 604 without appropriate drainage improvements;
- An unacceptable impact on, and unwarranted risk to an identified threatened species (Grey-headed Flying Fox colony and associated habitat); and
- The cumulative effect of Council accepting multiple less-than-ideal elements of the proposal that result in substantial financial and maintenance responsibilities into the future.

Elements of the proposal that remain less than satisfactory include:

- Open drainage channel design, grades, construction materials and revegetation;
- Bio-retention basin design;
- MUSIC modelling: pollution reduction target;
- Sewer design: minimum grades/self cleansing velocity requirements;
- Pedestrian access to Frangella Park;
- Upgrade/embellishment of Frangella Park;
- Revegetation plant species/design for Rous River riparian buffer; and
- Impact of construction noise/haul routes.

It is intended that infrastructure will be handed over to Council once the subdivision is created which will be Council's responsibility to maintain into the future. Should the development application be approved in its current form, the ongoing cost of maintaining this infrastructure will be prohibitive and a burden to ratepayers. This is clearly not in the public interest.

The proposal was required to be notified to adjoining owners for a period of 30 days. One submission was received during the notification period objecting to the proposal. Issues raised have been resolved.

Having regard to relevant statutory controls and an assessment against Clauses 4, 5 and 8 in particular, of the Tweed Local Environmental Plan 2000, the proposed 83 lot residential subdivision in four stages with dedication of two lots as drainage reserves, one lot as public reserve and one lot as sewer pump station site is not considered suitable for the subject site and therefore the proposed development is recommended for refusal.

RECOMMENDATION:

That Development Application DA13/0175 for an 83 lot residential subdivision in four stages with dedication of two lots as drainage reserves, one lot as public reserve and one lot as sewer pump station site at Lot 332 DP 1158142 Silkpod Avenue, Murwillumbah be refused for the following reasons:

1. Pursuant to Section 5 Objects of the Environmental Planning & Assessment Act 1979 (as amended), the proposed development cannot be determined to satisfy sub section (a)(i), the orderly and economic use and development of the land.

It is Council's view that the proposal has the ability to impact negatively upon the subject site and adjacent land; accordingly the proposal is not identified as satisfying the Objects of the Environmental Planning & Assessment Act 1979.

2. Pursuant to Section 5 Objects of the Environmental Planning & Assessment Act 1979 (as amended), the proposed development cannot be determined to satisfy sub section (a)(vi), the protection of the environment, including the protection and conservation of native animals and plants, including threatened species, populations and ecological communities, and their habitats.

It is Council's view that the proposal has the ability to impact upon the protection and conservation of native animals and plants; accordingly the proposal is not identified as satisfying the Objects of the Environmental Planning & Assessment Act 1979.

3. In accordance with Section 79C(1)(a)(i) of the Environmental Planning & Assessment Act 1979 (as amended) the proposed development is not considered to be compliant with Environmental Planning Instruments.

It is Council's view that the proposed development is inconsistent with the aims of:

State Environmental Planning Policies:

• North Coast Regional Environmental Plan: Clauses 15 and 43

It is Council's view that the proposed development does not satisfy the provisions contained within:

The Tweed Local Environmental Plan 2000:

- Clause 4: Aims of this plan
- Clause 5: Ecologically sustainable development
- Clause 8(1): Consent Considerations
- Clause 31: Development adjoining waterbodies
- 5. Pursuant to Section 79C (1) (c) of the Environmental Planning & Assessment Act 1979 (as amended) the proposed site is not considered suitable for the proposed development.

It is Council's view that the design and proximity of the residential development to Frangella Park is considered unacceptable due to its impact upon the habitat of a threatened species, in particular that of the grey headed flying fox.

6. In accordance with Section 79C (1) (e) of the Environmental Planning & Assessment Act 1979 (as amended) the proposed development is not considered to be in the public interest.

It is Council's view that it is in the broader general public interest to enforce the standards contained within the Tweed Local Environmental Plan 2000 specifically as it relates to the aims of the plan, unacceptable cumulative impact and the ongoing economic burden on the Shire as a whole.

REPORT:

Applicant:Barnby Developments Pty LtdOwner:Ms Catharina LA BaylissLocation:Lot 332 DP 1158142 Silkpod Avenue, MurwillumbahZoning:2(c) Urban Expansion; 2(a) Low Density ResidentialCost:\$5,000,000

Background:

<u>History</u>

On 10 August 2012, Tweed Local Environmental Plan Amendment No. 90 rezoned the subject land to 2(a) Low Density Residential in preparation for further stages of the Riva Vue residential development.

Council's Development Assessment Panel met with the applicant to discuss the future subdivision proposal on 22 August 2012. Council officers provided formal advice with regard to the concept plan. Stormwater Management requirements were highlighted. In particular, the applicant was advised as follows:

"Proposed dedication of lot 501 to Council will not be supported by Council unless significant drainage improvements are undertaken to the site (including an investigation of the current leaching problem). This area will not meet the Casual Open Space requirements for this site and alternative arrangements for Open Space will need to be negotiated (embellishment of and connectivity to existing facilities may be considered or a contribution under Section 94). Verification of appropriate compaction and filling will be required."

The Subject Site

The subject site (as amended) is composed of one parcel of land. The residential subdivision and drainage channel will be contained on Lot 332 DP 1158142 which has an area of approximately 9.948 hectares. The site has been partly filled.

The majority of the site is managed grassland. However, there is a small stand of remnant vegetation to the west of Rous River Way. The site has historically been utilised for the production of sugar cane.

The Proposed Development

The application has been amended three times during the course of assessment. The proposal is identified as integrated development as it is located within 40m of a waterbody. Accordingly, this necessitated an integrated referral to the NSW Office of Water.

Original proposal (88 lot subdivision in two stages – 4 & 5)

- Creation of 85 residential lots with areas ranging from 569m² to 966m² Lots 401 to 437 (37 lots) and Lots 502 to 549 (48 lots)
- Dedication of proposed Lot 550 as a drainage reserve
- Dedication of proposed Lot 501 as a drainage reserve
- Construction and dedication of the proposed streets
- Construction of stormwater drainage infrastructure including water quality infrastructure and a stormwater drainage channel outfall to the Rous River within Lot 22 DP 1080322
- Provision of an underground water supply, reticulated sewer, power and telephone including NBN compatible services; and

 Creation of proposed Lot 551 on the western side of the site. This lot will be consolidated with Lot 22 DP 1080322 to provide improved access to that lot from the proposed extension of Joshua Street.



Figure 1: excerpt of original subdivision plan 19291 B Sheet 1 (14 August 2012)

Amendment 1 (received as informal modification on 6 June 2013)

The revised plan introduces additional staging (Stages 6 and 7) in order to reduce the amount of contributions payable at the time of release of the Subdivision Certificate for each relevant stage.

It also amends the subdivision layout at the western end of the site adjacent to Joshua Street.

The amended layout was intended to resolve issues raised by the Lessee of the Child Care Centre on adjacent Lot 22 DP 1080322 with regard to car park access.

The applicant also considered it "*uneconomic*" to pipe overland flow from the intersection of Joshua Street and Rous River Way to Lot 545 (Lot 713 on the amended Layout Plan), to the extent that it would "*render the project commercially unviable*".



Figure 2: excerpt of amended subdivision plan 19291 B Sheet 1 Revision A (31 May 2013)

Amendment 2 (received 27 September 2013)

The formal amendment reduces the number of residential lots from 85 to 80 and increases the number of drainage reserves from two to four – Lots 627, 628, 629 and 630.

Amended drainage deleted the requirement for a new outfall to the Rous River adjacent to Lot 630. As such, drainage works on Lot 22 DP 1080322 are no longer included in the application and the application is contained wholly within Lot 332 DP 1158142.

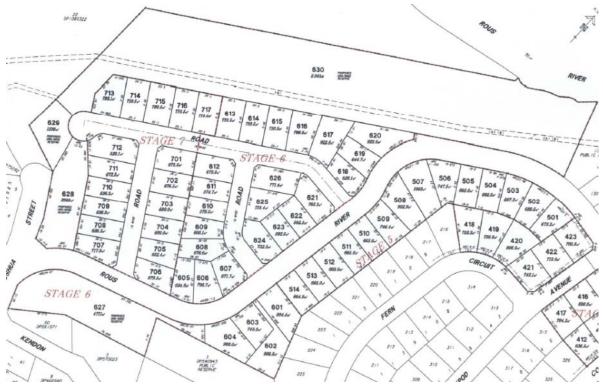


Figure 3: excerpt of amended subdivision plan 19291 B Sheet 1 Revision D (26 September 2013) Amendment 3 (received 21 November 2013)

The final amendment is an 83 lot residential subdivision over four stages with (residential) lot areas ranging from 574.7m² to 1157m²:

- Stage 4 contains Lots 401 to 423 (23 lots);
- Stage 5 contains Lots 501 to 514 (14 lots);
- Stage 6 contains Lots 601 to 629 (29 lots); and
- Stage 7 contains Lots 701 to 717 (17 lots).

It includes a total of 79 residential lots, two drainage reserves, one public reserve (riparian buffer) and one sewer pump station site along with:

- Dedication of drainage reserves (Lots 604 and 627);
- Dedication of public reserve (Lot 628);
- Dedication of sewer pump station site (Lot 629);
- Construction and dedication of the proposed streets;
- Construction of stormwater drainage infrastructure including water quality infrastructure and a stormwater drainage channel outfall to the Rous River within Lot 332 DP 11158142; and
- Provision of an underground water supply, reticulated sewer, power and telephone including NBN compatible services.

The amended proposal incorporates a revised layout adjacent to Frangella Park (Lots 601, 602 and 603), renumbering of allotments and other consequential amendments.

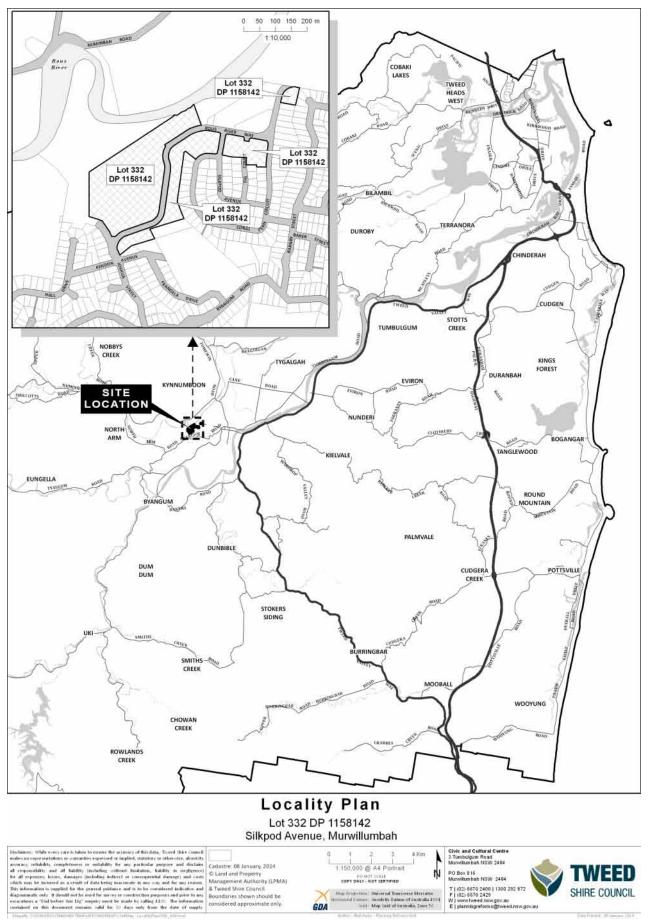


Figure 4: excerpt of final subdivision plan 19291 B Sheet 1 Revision E (19 November 2013)

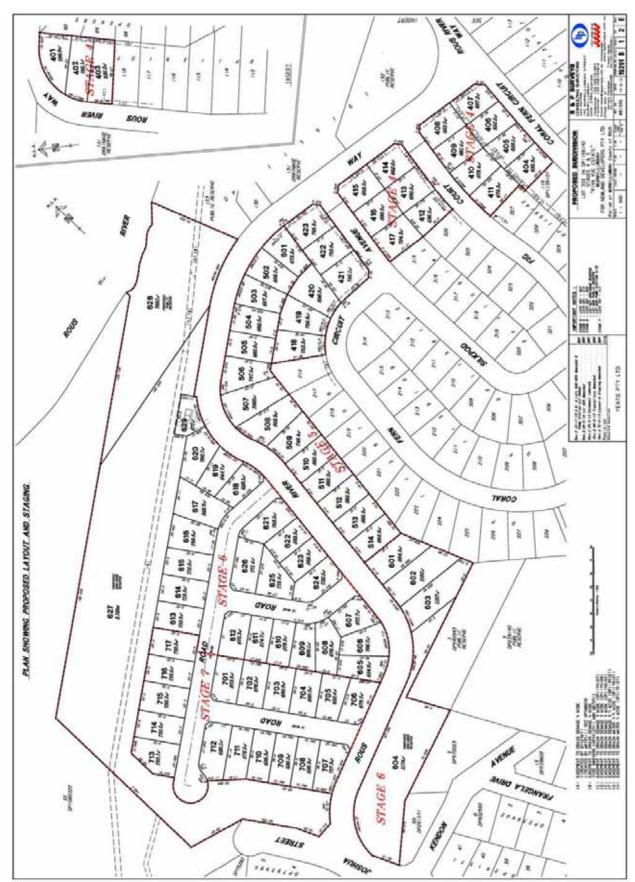
Summary

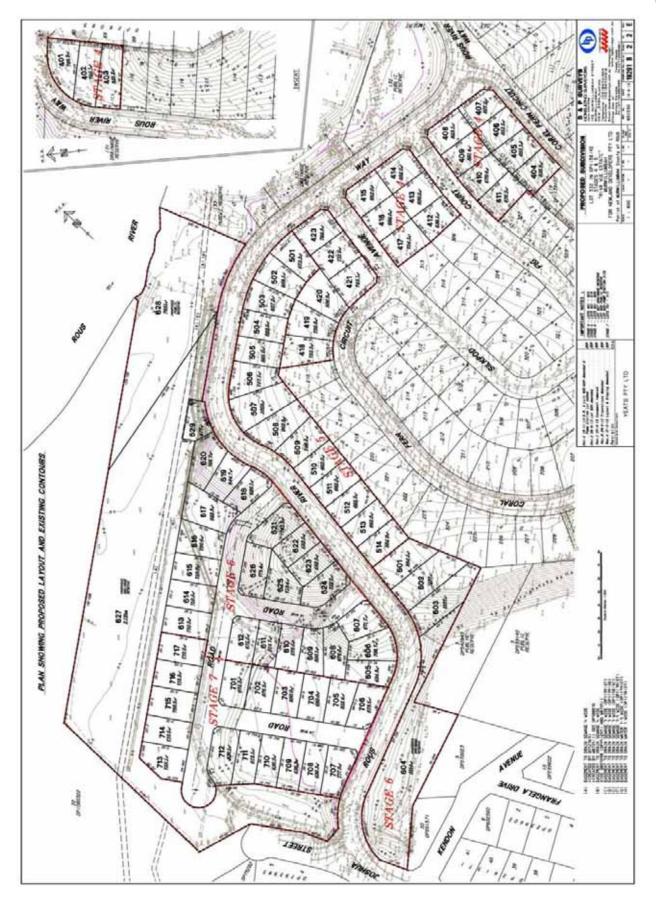
Having regard to relevant statutory controls and an assessment against Clauses 4, 5 and 8 in particular, of the Tweed Local Environmental Plan 2000, the proposed 83 lot residential subdivision in four stages with dedication of two lots as drainage reserves, one lot as public reserve and one lot as sewer pump station site is not considered suitable for the subject site and therefore the proposed development is recommended for refusal.

SITE DIAGRAM:



DEVELOPMENT/ELEVATION PLANS:





Considerations under Section 79c of the Environmental Planning and Assessment Act 1979:

(a) (i) The provisions of any environmental planning instrument

Tweed Local Environmental Plan 2000 (TLEP 2000)

Clause 4 - Aims of the Plan

One of the aims of the plan is:

(d) to encourage sustainable economic development of the area of Tweed compatible with the area's environmental and residential amenity qualities.

The provision of infrastructure and open space in association with the current subdivision plan is not economically viable, nor sustainable. The applicant has opted for a reduced functionality of stormwater drainage/infrastructure possibly due to economic constraints. The current design differs considerably from the original (and satisfactory) master plan presented during the rezoning process. In addition, design solutions do not cater for the retention and protection of a key habitat for a threatened species located in Frangella Park.

As such, it is put forth that the proposed development does not sustain economic development of the area and indeed, compromises the area's environmental qualities. Residential amenity in general will suffer as a consequence and Council will need to maintain a less than adequate system at an unknown cost into the future.

As such, the proposed development does not meet the objectives of Clause 4.

Clause 5 - Ecologically Sustainable Development

Clause 5 aims to promote development that is consistent with the four principles of ecologically sustainable development, being the precautionary principle, intergenerational equity, conservation of biological diversity and ecological integrity and improved valuation, pricing and incentive mechanisms.

As stated previously, the provision of less than adequate infrastructure to a large subdivision will result in expensive and ongoing maintenance costs, problematic operational/functional anomalies and potentially serious impacts upon the environmental features upon and adjacent to the site, inclusive of the Rous River which in itself is a key fish habitat and the colony of grey headed flying fox within Frangella Park, a threatened species community.

The precautionary principle should be activated in this case. There is a threat of irreversible environmental damage should Council's expectations for this residential subdivision not be met. As such, impacts upon inter-generational equity, conservation of biological diversity and ecological integrity have not been resolved.

The proposed development does not meet the objectives of Clause 5.

Clause 8 - Consent Considerations

This clause specifies that the consent authority may grant consent to development (other than development specified in Item 3 of the table to clause 11) only if:

- (a) it is satisfied that the development is consistent with the primary objective of the zone within which it is located, and
- (b) it has considered that those other aims and objectives of this plan (the TLEP) that are relevant to the development, and

(c) it is satisfied that the development would not have an unacceptable cumulative impact on the community, locality or catchment that will be affected by its being carried out or on the area of Tweed as a whole.

Although consistent with the relevant 2(a) zone, the cumulative impact of residential development serviced by the proposed infrastructure is of concern.

The applicant has reduced functionality of the provision of services, the negative impact of which is difficult to predict but may place a significant financial burden on Council and ratepayers. It is also not certain at this stage whether the applicant can comply with the required standard for the provision of reticulated sewer.

In this instance, it is imperative that hand over of infrastructure to Council from the developer will not result in the handing over of problematic services and substantial future maintenance and corrective costs.

In addition, drainage solutions need to be in place that preserve and support the established ecological community within Frangella Park. This has not been demonstrated.

Loss of important biodiversity in this locality and financial responsibility for less than adequate infrastructure constitutes an unacceptable cumulative impact on the community.

As such, the proposed development does not meet the provisions of Clause 8.

Clause 11 - Zone Objectives

Subdivision (and associated earthworks) within the 2(a) and 2(c) zones is permissible with consent with a minimum allotment size of $450m^2$. The location of future dwellings is permissible with consent on a minimum lot size of $450m^2$.

Clause 15 - Essential Services

Council's reticulated potable water supply and piped effluent disposal infrastructure is available within the area for connection. Electricity services are currently provided to the area via Country Energy infrastructure. Telecommunications services are currently provided to the area via Telstra infrastructure.

Clause 16 - Height of Building

There are no buildings proposed.

Clause 17 - Social Impact Assessment

As the subdivision entails creation of 50 or more lots, a socio-economic impact statement in accordance with Development Control Plan A13 is required. The applicant has provided such a statement.

It is agreed that the development represents a positive social and economic outcome by creating employment, providing new housing options and creating public space adjacent to the Rous River. However, the negative economic impacts on the locality and the Shire as a whole resulting from unsatisfactory drainage design on the site has not been addressed.

It is considered that the subdivision, as finally amended, is contrary to Council's expectations for the site and will represent an unacceptable financial burden to ratepayers and the Shire in general. Approval cannot be recommended on this basis.

Clause 35 - Acid Sulfate Soils

An Acid Sulfate Soils Assessment and Management Plan was submitted for Stages 1 to 3 dated October 2004. The applicant submits that the existing assessment accurately reflects the soil conditions in the vicinity of Stages 4 to 7

of the proposed development and excavation, treatment and storage of these materials should be conducted in accordance with the approved Management Plan dated October 2004. This Management Plan was not approved.

Whilst it is accepted that the applicant could reasonably draw conclusions based on the investigations carried out to date, a number of variations have been introduced into the design since the 2004 report. These include a bio-retention basin and drainage channel to the north of the development within the lower areas of the allotment and in close proximity to the Rous River.

It is therefore considered that a further site specific Management Plan is required for Stages 4 to 7 to ensure the adequate management of any Acid Sulfate Soils encountered and protection of the environment.

Whilst Council's Environmental Health Unit has been able to condition provision of a Management Plan prior to the issue of a construction certificate, it is clear that the applicant had not supplied sufficient information upon lodgement with regard to the presence and adequate management of Acid Sulfate Soils over the site.

Other Specific Clauses

Clause 19 – Subdivision (General)

This clause allows subdivision to take place on the subject land with development consent.

Clause 31: Development Adjoining Waterbodies

The clause applies to land that adjoins the Mean High Water Mark of a waterbody.

The objectives of this clause include:

- Protection and enhancement of scenic quality, water quality, aquatic ecosystems, bio-diversity and wildlife habitat and corridors;
- Provision of adequate public access to waterways, and
- Minimisation of the impact on development from known biting midge and mosquito breeding areas.

Acceptance of the infrastructure proposed in association with the subdivision development does not preclude negative impact upon the Rous River, the waterbody located adjacent to proposed Lot 628.

As such, the proposed development does not meet the objectives of Clause 31.

Clause 34 – Flooding

Clause 34 of the TLEP refers to flood liable land and requires Council to ensure that appropriate development occurs in order to minimise future flood damage on the local community.

The design flood level for this area is RL 4.7m AHD to RL 4.9m AHD with a probable maximum flood level of RL 9.2m AHD. Part of the site is located below the design flood level. As such, part of the site is proposed to be filled to RL 5.03m AHD which has been accepted by Council's flooding engineers.

Clause 39 – Remediation of Contaminated Land

This clause requires contaminated land to be remediated adequately prior to development occurring in accordance with SEPP 55.

A Preliminary Contamination Assessment has been submitted.

The report concluded "based on the available historical site information it is concluded that no potentially contaminating activities are apparent, except for cropping of sugar cane..." and further "on the basis of our historical desktop review and subsequent site investigations, no contamination has been identified within the investigation area. The historical land use and recent site activity associated with residential development has not resulted in any detectable contamination of the site. As such, the area investigated is considered suitable for the proposed residential land use."

The report was prepared by a suitably qualified person and appears to have been prepared in accordance with the NSW EPA Contaminated Sites: Guidelines for Consultants Reporting on Contaminated Sites, Nov 1997. As such, no further action is warranted.

Clause 54 – Tree Preservation Order

The objective of this clause is to enable the protection of vegetation for reasons of amenity or ecology. In effect, the TPO's prohibit clearing of vegetation without development consent.

The subject site is affected by the 1990 Tree Preservation Order (TPO). The 1990 TPO affects a small portion of existing Lot 332. No vegetation is proposed to be removed within this portion. As such, the proposal is consistent with this clause.

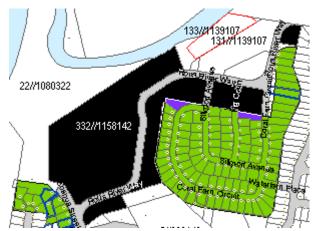


Figure 5: land affected by 1990 TPO (purple area denotes TPO within Lot 332)

State Environmental Planning Policies

SEPP (North Coast Regional Environmental Plan) 1988

Clause 15: Wetlands or Fishery Habitats

The area of land adjacent to the Rous River (where the drainage channel is to be located) and the river itself is considered to contain key fish habitat.

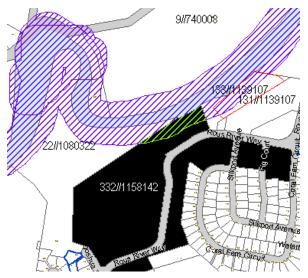


Figure 6: land/waterbody affected by Key Fish Habitat

Unsatisfactory provision of drainage management within this area is likely to reduce the quality of the existing habitat. At the very least, Council must ensure that native vegetation surrounding the fishery habitat area is conserved.

With regard to the interface between the proposed constructed drainage channel and the existing channel, the applicant has not given consideration to existing conditions such as bed or bank profile/hydraulic capacity, nor the occurrence and likely impact on a copse of riparian vegetation associated with the existing channel.

As such, the proposed development does not meet the objectives of Clause 15.

Clause 43: Residential development

The issue here is whether the proposed development (and density) upon Lots 601, 602 and 603 adversely affects 'the environmental features of the land' via the lack of required separation distances between the Grey Headed Flying Fox camp and proposed residential lots to the north east.

In order to meet the required separation distances from the camp (taken from the line of existing vegetation and between 35 and 50m to any proposed lot boundary), Lot 603 requires deletion. Lots 601 and 602 require reconfiguration/amalgamation in order to achieve adequate setbacks.

An unacceptable negative ecological impact will result should the current layout of the residential development proceed without regard for required setbacks from the threatened species and its habitat.

As such, the proposed development does not meet the objectives of Clause 43.

Clause 81: Development adjacent to the ocean or a waterway

Proposed Lot 628 is adjacent to Rous River and is a proposed public reserve.

The proposal does not contradict the objectives of this Clause as there is nominated foreshore open space that is accessible and open to the public within the vicinity of the proposed residential subdivision.

SEPP (Rural Lands) 2008

This SEPP introduces rural planning principles to facilitate the orderly and economic use and development of rural lands for rural and related purposes. It provides controls for rural subdivisions and identifies State significant agricultural land. It also implements measures designed to reduce land use conflicts.

A Rural Land Assessment Report has been submitted.

The assessment has addressed requirements of, and criteria within the SEPP (Rural Lands) 2008, Living and working in rural areas: a handbook for managing land use conflict issues on the NSW North Coast, NSW DPI as well as Development Control Plan (DCP) Section A5.

The assessment concludes that land use conflicts are considered minimal and will be managed by an average width buffer of 150m (125m at minimum point) in accordance with Council's DCP Section A5 which requires incorporation of a riparian buffer of 50m width, including a 'biological buffer' with a minimum width of 30m.

The report advises that a detailed plan showing the biological buffer will be prepared and submitted to Council prior to the issuing of a construction certificate for the relevant stage of the subdivision.

Whilst the Environmental Health Unit has considered the report acceptable with the outcomes of the report to be incorporated into any consent issued, Council's Natural Resource Management Unit has requested these details in advance of determination. Assessment in this regard is discussed elsewhere in this report.

(a) (ii) The Provisions of any Draft Environmental Planning Instruments

The Draft Tweed Local Environmental Plan 2012 (draft LEP) was placed on exhibition in late 2012/early 2013. The post exhibition version of the draft LEP with amendments as resolved by Council on 31 May 2013 has been forwarded to Parliamentary Counsel via the Department of Planning and Infrastructure.

As such, the draft LEP is considered to be "certain and imminent" in terms of previous legal precedent and as such has determining weight.

Current Zone	Min. Lot Size	Draft Zone	Min. Lot Size
2(a)	450m ²	R2	450m ²
2(c)	450m ²	R2	450m ²

Current and draft zoning for the subject site is as follows:

None of the proposed allotments are less than 450m² which is consistent with the draft zoning.

(a) (iii) Development Control Plan (DCP)

Tweed Development Control Plan

A3 - Development of Flood Liable Land

The design flood level for this area is RL 4.7m AHD to RL 4.9m AHD with a probable maximum flood level of RL 9.2m AHD. Part of the site is located below the design flood level. As such, part of the site is proposed to be filled to RL 5.03m AHD which has been accepted by Council's flooding engineers.

A5 - Subdivision Manual

Part A5 of the Tweed Consolidated DCP provides various guidelines for the subdivision of land and aims to facilitate "best practice" subdivision development in line with the policies of Council and the State.

The application generally complies with the provisions of the DCP with regard to general lot layout. However, it is uncertain whether adequate infrastructure can be provided to satisfy sewer and drainage requirements.

A13-Socio-Economic Impact Assessment

As the subdivision entails creation of 50 or more lots, a socio-economic impact statement in accordance with Development Control Plan A13 is required. The applicant has provided such a statement.

It is agreed that the development represents a positive social and economic outcome by creating employment, providing new housing options and creating public space adjacent to the Rous River. However, the negative economic impacts on the locality and the Shire as a whole resulting from unsatisfactory drainage design on the site has not been addressed.

It is considered that the subdivision, as finally amended, is contrary to Council's expectations for the site and will represent an unacceptable financial burden to ratepayers and the Shire in general. Approval cannot be recommended on this basis.

A15 – Waste Minimisation and Management

A Waste Management Plan has been submitted and is considered acceptable.

(a) (iv) Any Matters Prescribed by the Regulations

Clause 92(a) Government Coastal Policy

The subject land is not located within the coastal policy area affected by the NSW Coastal Policy 1997: A Sustainable Future for the New South Wales Coast.

(a) (v) Any coastal zone management plan (within the meaning of the <u>Coastal</u> <u>Protection Act 1979</u>),

Tweed Shire Coastline Management Plan 2005

This Plan applies to the Shire's 37 kilometre coastline and has a landward boundary that includes all lands likely to be impacted by coastline hazards plus relevant Crown lands. The subject site is not located on the coastal foreshore and is not affected by coastal hazards.

Tweed Coast Estuaries Management Plan 2004

The proposed development is not within Cudgen, Cudgera or Mooball Creeks. This Plan is therefore not relevant to the application.

<u>Coastal Zone Management Plan for Cobaki and Terranora Broadwater</u> (adopted by Council at the 15 February 2011 meeting)

The subject site is not located within the Cobaki or Terranorra Broadwater (within the Tweed Estuary), with this Plan therefore not relevant to the proposed development.

(b) The likely impacts of the development and the environmental impacts on both the natural and built environments and social and economic impacts in the locality

Surrounding Land Uses/Development

Stages 1 to 3 of Riva Vue Estate comprising low density residential development lay to the east of the subject site and existing similar residential development lay to the south west.

The Murwillumbah Sewerage Treatment Plan is located to the north east and to the north lay rural properties separated from the subject land by the Rous River.

To the west of the site on a small portion of Lot 22 DP 1080322 (otherwise vacant grazing land) is a child care centre.

Contamination

A Preliminary Contamination Assessment has been submitted.

The report concluded "based on the available historical site information it is concluded that no potentially contaminating activities are apparent, except for cropping of sugar cane..." and further "on the basis of our historical desktop review and subsequent site investigations, no contamination has been identified within the investigation area. The historical land use and recent site activity associated with residential development has not resulted in any detectable contamination of the site. As such, the area investigated is considered suitable for the proposed residential land use."

The report was prepared by a suitably qualified person and appears to have been prepared in accordance with the NSW EPA Contaminated Sites: Guidelines for Consultants Reporting on Contaminated Sites, Nov 1997. As such, no further action is warranted.

Odour Issues (proximity to Sewage Treatment Plant)

An Odour Assessment Report has been submitted with regard to the Sewage Treatment Plant (STP).

The report presented findings of odour dispersion modelling from potential odour sources within the STP. These results were compared to the criteria within the *Approved Methods for the Modelling and Assessment of Air Pollutants in NSW* (NSW Office of Environment and Heritage, 2005). It concluded that "*the results of the modelling indicate that the plant is likely to comply with the relevant NSW odour criteria (C99 1sec = 2 ou) on the northern most edges of the proposed development site. This does not mean that no odour will be detected, but during most of the year odour levels will be low under normal operating conditions."*

DCP Section A5 provides guidance for buffers to STPs: 400 metres between any current or proposed primary and secondary process units of any Sewerage Treatment Plan and the nearest boundary of any allotment created for tourism, rural housing, urban housing (including caravan parks) and community facilities (eg, halls, schools etc).

There are three proposed allotments within a small separate area (Lots 401, 402 and 403) of Stage 4 that adjoins land zoned 5(a) Sewerage Treatment, the current location of the Murwillumbah STP.

The nearest proposed allotment is approximately 80m to the western effluent storage pond, 190m to the extended aeration area, 270m to the sludge drying area and 265m to the sludge lagoons. There are also a further 22 allotments within the 400m buffer guideline.

Based on the information provided within the Odour Assessment Report it should be considered that as these three allotments will likely experience some odour emissions during the year that a Section 88B restriction be placed over them.

As the DCP buffer is a guiding criteria only further comment was sought from the Water Unit.

Council's Water Unit advised that they would accept a reduced buffer zone given that odour modelling indicating minimal odour impact had been conducted and agreed that a Section 88B restriction be placed over Lots 401, 402 and 403.

Road Traffic Noise

Based on the information submitted within the Traffic Impact Assessment, it is not considered there will be a potential for a significant increase of road traffic noise due to the proposed development and a traffic noise impact assessment is not required.

Construction Noise

Cut and fill earthworks totalling approximately 48,000 cubic metres and the placement 35,000 cubic metres of imported structural fill material will be required to deliver the necessary finished surface levels of the residential subdivision.

No construction detail was submitted with the application. It is considered the importation of 35,000 cubic metres will significantly impact the amenity of surrounding residents and residents along haul routes.

Construction noise onsite has also not been addressed. Although reasonable to require a construction management plan prior to issue of a construction certificate for bulk earthworks, this is another aspect of the proposal that the applicant has not discussed in application documentation.

Stormwater/Drainage

History

A major issue that has remained outstanding from the original development of the 'Riva Vue' estate has been to rectify and address the drainage problem that exists downstream of Frangella Park.

This problem resulted from altering the previous stormwater regime for this locality by filling in a former 'cane drain' that was located approximately 130m east of the current open drain, re-routing and lengthening the open channel.

The immediate downstream open drain from Frangella Park (with a silted concrete invert) is boggy, overgrown and the source of multiple complaints from the adjoining long-time residents on the south side. Complaints have ranged from the generally swampy nature of the resultant grounds, overgrown vegetation and the vermin it could attract (including snakes), health concerns re: mosquitoes, odour and general lowering of overall amenity due to the unsightly appearance and now non-accessible poorly draining area.

Further downstream of this and the culvert under Rous River Way, the channel beside Joshua Street is continually 'slumping' and unable to retain its formed shape, which creates further problems for this already flatly graded channel. The overall gradient of this open channel, from Frangella Park to Rous River, is extremely flat.

The above-mentioned drainage concerns have been consistently raised with the applicant from the Planning Proposal stage (and all correspondences since) as being a necessity for prompt resolution with any further development of the site. The Planning Proposal provided opportunity to also provide connectivity with Frangella Park as part of the rectification process.

Summary

Council's Planning and Infrastructure Unit reviewed the proposal with regard to stormwater and drainage. In summary, the applicant has failed to address the existing drainage problems in Lot 604 and Frangella Park.

In addition, the cumulative effect of reluctantly accepting multiple less-than-ideal elements makes this proposal a poor overall outcome for Council. It is recommended that the subject application is refused for these reasons.

Existing drainage problem in proposed Lot 604 (formerly Lot 501) and Frangella Park.

Historically, Lot 604 and Frangella Park areas drained via an agricultural drain approximately 125m to the east of the current culverts under Rous River Way. The Stage 6 and 7 area including Rous River Way has been filled by the

applicant in association with works on Stages 1 to 3 of the Riva Vue development.

This filling 'dammed off' the Lot 604/Frangella Park area, changing drainage characteristics and resulting in the wet, boggy, swamp conditions that are currently present.

Council has consistently held the position that the applicant must incorporate a solution to the drainage problem in Frangella Park and Lot 604 into any proposal to develop Stage 6 and 7 areas. This is evident in pre-lodgement documents (DAP minutes of 22 August 2012) and correspondence to the applicant during assessment.

The original Planning Proposal concept provided to Council showed the existing culvert removed and replaced to the east, providing greater opportunity to improve the drainage of upstream areas. Plans submitted with DA13/0175 have changed to a layout utilising existing culverts, thus restricting opportunities to improve upstream drainage.

This issue has been complicated by the presence of a Grey-Headed Flying Fox colony whose habitat is located in the copse of trees at the northern end of Frangella Park. Protection of this vulnerable listed species requires that their habitat is not disturbed, meaning no filling is acceptable in the area closest to the colony.

The solution proposed by the applicant involves some minor filling in Frangella Park and installation of a concrete lined low flow channel in Lot 604. It is highly unlikely that the works proposed will resolve the existing drainage issue. The applicant's solution to the problem in proposed Lot 604 and Frangella Park is not acceptable.

Open channel design

Original plans submitted with the application showed an open drain with 1 in 2 side slopes. Development Design Specification D5 - Stormwater Drainage Design section D5.13.5 states that *maximum side slopes on grass lined open channels shall be 1 in 4, with a preference given to 1 in 6 side slopes.* The purpose of this clause is to allow safe access for maintenance (mowing) and also to provide easy egress for any persons caught in the stormwater drain during a storm event.

Following the first request for further information and a round of informal comments, the applicant supplied a revised set of plans that extensively utilised retaining walls in the formation of the open drainage channel. This was not acceptable to Council due to:

- The maintenance burden of the retaining walls on Council;
- Maintenance plant access restriction;
- Safety issues associated with restricted egress opportunities for any persons caught in the drain during a storm event; and
- Safety concerns related to the layout of channel combined with its proximity to the nearby child care facility and residential areas (existing and proposed).

Following a meeting with the applicant's consultants on 7 November 2013, a further revised set of plans was provided. Use of retaining walls had been reduced and in some cases moved into private land. The current amended plans

are an improvement. However, the design is still unclear and in need of amendment to satisfy Council's requirements.

The current layout of the open drainage channel is not an ideal outcome for Council.

Longitudinal grade of the open drainage channel and proposed concrete-lined low flow channel

The original application plans outlined a trunk drainage system which piped flows from the existing culvert under Rous River Way to adjacent proposed Lot 713 (formerly Lot 545) where flows were then conveyed in an open channel with a gradient of 0.064%. No treatment of the invert was proposed. The channel was to be grassed.

The applicant then amended the staging, lot layout, and trunk drainage to delete the pipe infrastructure and extend the open channel back to the Rous River Way culverts.

Open drains with grassed inverts (or swales) require a certain grade to avoid water ponding in them and creating boggy, undesirable conditions. Water by Design's Technical Design Guidelines recommend a minimum gradient of 1% for swales. Development Design Specification D5 - Stormwater Drainage Design section D5.13.9 states that concrete inverts are required where *channel slope is less than or equal to 0.5%.*

Development Design Specification D5 - Stormwater Drainage Design section D5.13.6 provides further commentary of low flow provisions in open channels.

This was flagged to the applicant in correspondence dated 16 July 2013. Revised plans incorporated a concrete invert in the open drainage channel. Subsoil drainage was represented on the revised drawings. However, it is unclear where it drains to. Transverse subsoil drainage may be more feasible. Some further refining of the concrete invert cross-section may be required to allow maintenance plant to track upon it.

The grade and current invert cross-section of the open drainage channel is not an ideal outcome for Council.

Bio-retention basin design

The original Stormwater Management Plan proposed treatment measures involving rainwater tanks and a large bio-retention basin. The bio-retention basin was 90m long by 7m wide which is outside the recommendations of Water by Design's Bio-retention Technical Design Guidelines (BTDG) which advise a maximum length of 40m to avoid flow distribution and other associated issues.

Following a request for further information, the applicant amended the bioretention basin layout to approximately 57m by 10.5m, which was an improvement, but still outside the abovementioned guidelines.

The bio-retention basin layout is not an ideal outcome for Council.

MUSIC modelling

The MUSIC modelling submitted with the application failed to meet the required pollution reduction target and instead stated that a coarse sediment forebay, not included in the model, would make up the difference.

This is not acceptable as a coarse sediment forebay does not provide additional treatment over the bio-retention basin. A coarse sediment forebay only stores

sediment in a maintenance accessible area and avoids clogging of the bioretention filter media. This is not an acceptable outcome for Council.

Sewer

The pipe design provided for sewer lengths 106, 107, 109 & 114 does not meet Sewerage Code of Australia WSA 02-2002 design standards Section 4.5.7:

 Minimum grades for self-cleansing is required as per WSA02-2002 Section 4.5.7.1 "Self cleansing of grit and debris shall be based on achieving a wetted cross section average velocity of 0.7 m/s at PDWF + GWI), and Section 4.5.7.2 "Reticulation sewers shall be graded to achieve self-cleansing at least once per day in accordance with the Water Agency's Requirements".

The applicant was required to submit plans and, if necessary, design calculations that demonstrate that self-cleansing of the sewer can be achieved. However, the applicant was not able to satisfy Council's request.

In addition to self cleansing velocity requirements, the design does not meet the following requirements:

- Table 4.7 regarding permanent upstream ends of sewers in residential area with EP <= 20.
- Table 4.6 regarding absolute minimum grades as constructed (ie: the design grade must meet Table 23.1 construction tolerances of 10%. For example, the minimum grade for a 150mm diameter pipe will be 1:165.)

In order to meet the self cleansing velocities within the design, Council require that Table 1 in Appendix A of the PWD Manual of Practise, Sewer Design, January 1987, is adopted for design in any future amendments.

This manual uses a 4 EP = 1 ET which should be converted to the Council D12 figures of 2.8 EP = 1 ET. This table (below) is included in the Council update of the D12 specification.

Pipe Size(mm)	150	225	300
Grade	Tenements	Tenements	Tenements
k (in mm)	1.5	1.5	1.5
80	1		
90	4		
100	9	16	
110	13	21	
120	19	29	40
130	26	36	47
140	33	44	54
150	43	51	61
160	50	59	70
180	69	74	87
200		94	109
220		119	131
250		161	171
300		266	263
350			384
400			556

 Table 1- Minimum Sewer Grading Table

Although the Water Unit have reluctantly agreed to condition these requirements prior to the issue of a construction certificate, there is no certainty that these criteria will be achieved.

Development Assessment Engineering

In summary, it is recommended that the proposed development not be supported by Council and refusal is recommended.

The applicant has failed to satisfactorily address various stormwater-based issues of concern (refer stormwater comment above).

The prime concern is the inability to satisfactorily resolve the stormwater drainage issue for the outlet from Frangella Park (within Lot 604), rectification of which is unfortunately hindered by the recent habitation of the area by a Flying Fox colony. Dedication of Lot 604 without appropriate drainage improvements cannot be accepted.

Appropriate rectification could likely have been attained by filling and clearing works within the park, which can no longer be undertaken to the extent as proposed, due to the need to avoid disturbance of their habitat (refer flora/fauna comment below). Although given the opportunity, the applicant has not pursued investigation of alternatives.

Public Open Space

In summary, matters regarding the amount of, and access to, embellished casual open space should have been able to be resolved by the applicant during the assessment of the proposal through application of thoughtful design. However, this has not occurred.

A more difficult matter to resolve surrounds drainage issues on Lot 604. This problem has been raised with the developers repeatedly since the problem was created via the construction of Rous River Way. In short, Council cannot accept the maintenance burden this land parcel represents.

Frangella Park

The final lot layout allows an area for an access path from Rous River Way to Frangella Park. The Statement of Landscaping Intent (SLI) indicates an access path.

However, the SLI does not:

- Indicate how the path will deal with slope issues cross sections provided are not adequate;
- Improve the visibility of Frangella Park;
- Address drainage issues on Lot 604 or attempt to utilise this parcel to improve access to, and visibility of Frangella Park; and
- Address the impediment to accessing Frangella Park created by Rous River Way.

Landscaping concepts / detail for upgraded park embellishment

The SLI proposes one shelter shed and an access path as an upgrade to Frangella Park. This is not considered a reasonable level of embellishment.

Council's Subdivision Manual (DCP Section A5) specifies 95% of residents are to be located within 400m walking distance of a local park, with embellishment to include items listed in Table A5-8.2.1. While the embellishment guidelines may

require some sensible interpretation (eg. paving for ball games is not always required), it is reasonable to expect more park embellishment than is proposed.

It appears that significantly less than 95% of residences in Stages 4,5,6 & 7 will be within 400m walking distance of the nearest embellished park, being 'Rous River Way Park' on Lot 132 DP 1139107

Drainage Issues adjacent to Frangella Park

The SLI does not attempt to address this matter. It also confuses a reference to cross sections B-B and C-C.

Council's Biodiversity Planning Officer indicates that filling and vegetation clearing proposed for Council owned Lot 3 cannot be supported due to impacts on flora and fauna.

Council's Infrastructure Engineer and Development Engineer both indicate the civil works proposed within Lot 604 will not address the drainage issues created by previous works, particularly construction of Rous River Way.

The drainage issues are significant and the parcel cannot be accepted by Council without resolution of these significant issues being satisfactorily addressed.

Flora and Fauna

The following comments have been supplied by Council's Natural Resource Management Unit. In short, refusal is recommended.

Based on the current layout and uncertainty regarding the scope of earthworks that may be necessary to satisfy engineering requirements, Council officers cannot be confident that the proposed development could proceed without unacceptable negative ecological impact on the identified Grey-headed Flying Fox colony occupying Frangella Park immediately adjacent to the subject site.

It is not considered that the threat to threatened species could adequately be managed or impacts mitigated through conditions of approval. As such, components of the application that may have an impact on Grey-headed Flying Fox and associated habitat cannot be supported and subsequently it is recommended that the application be refused on this basis.

Council officers strongly advise against any proposal to substantially modify the habitat of this threatened species.

Impact of filling/vegetation removal on Grey-headed Flying Fox (GhFF) occupying Frangella Park and inadequate separation distances between the GhFF camp and proposed lots.

The applicant submitted a Revised Assessment of Significance (7-Part Test) Version 5.0 Lot 332 on DP1158142 Stages 4 and 5 Riva Vue Estate Murwillumbah dated 20 November 2013 and prepared by JWA Ecological Consultants. Of particular interest is the evaluation of the impact of filling within Frangella Park for drainage purposes on a Grey-headed Flying Fox camp.

The filling was previously not shown on the engineering drawings when the 'Version 4.0 7-Part Test report' was prepared, however it was noted that the report included the recommendation 'Filling for the purposes of improved drainage should avoid disturbance to individuals or trees within the camp'.

The contemporary 'Version 5.0 7-Part Test' report now specifically contemplates filling within the reserve consistent with the updated engineering drawings where an area of approximately 700m² is to be removed and filled to a depth of 300mm. Figure 8 of the report shows the GhFF camp to be outside the immediate

earthworks footprint and as such no further consideration for the management of GhFF has been provided.

Upon review of Figure 8 and recommendations provided in the report, it is not accepted that impact on the colony would be avoided particularly given that the animals are mobile and highly likely to use the entire contiguous unit of vegetation rather than the small area shown as the camp on Figure 8.

The extent of vegetation to be removed is likely to be greater than that shown on the plans provided (access, long term impacts associated with root disturbance), whilst the applicant has made no attempt to consider the impact of filling on the broader unit of vegetation as a result of site conditions being modified (soil moisture levels).

Furthermore no consideration has been given to management of the animals during any such construction activity (spotter catcher, noise, timing etc) or remediation of the site following works. The report is considered to be poorly conceived and has clearly not adequately taken into account both direct and indirect impacts. An assessment cannot provide confidence that the proposed development could proceed without unacceptable negative impact on the local GhFF population and associated wetland area.

The applicant provided an amended layout plan to address separation distance between the GhFF camp and proposed lots to the north-east. The revised layout still does not satisfy setback requirements specifically detailed in the 'Table of Outstanding Matters' and reiterated to the ecological consultant via phone (contrary to the statement detailed on pp.26 Point 2 of the Ver.5, 7 Part Test).

The 'Extent of Grey Headed Flying Fox Camp' as shown on the *Ver. 5.0 7 Part Test Figure 8* and *Dwg. YC0390-SK4-11 Rev. A prepared by Yeats Consulting* is not accepted. Any separation distances shall be taken from the line of existing vegetation and be maximised where possible to between 35m and 50m to any proposed lot boundary. This essentially results in the deletion of Lot 603, potential deletion of Lot 602 or amalgamation/reconfiguration of Lot 601 and part Lot 602 to achieve adequate setbacks.

Design of Constructed Drainage Channel

The applicant was requested to provide further information regarding the design of the constructed channel to enure the function of the corridor/buffer to the Rous River would not be compromised.

Issues with the revised plans include:

- A concrete invert remains as part of the design as shown on *Dwg. No. YC0390-C5-411 Sheet 1 of 2 Rev. C* depicted as Typical Section D -Drainage Channel D where the channel traverses part of the riparian buffer. It would be preferable that alternative 'natural' materials (rip rap) be used in this section of the channel to enable establishment of sedges and improve habitat value during low flow conditions.
- The interface between the constructed channel and the exisiting channel on *Dwg. No. YC0390-C5-411* is shown as 'Join Neatly to Existing Flow Path'. It does not appear consideration has been given to the exisiting conditions such as bed or bank profile/hydraulic capacity, nor the occurrence and likely impact on a copse of riparian vegetation associated with the exisiting channel.
- It is unclear whether future revegetation of the bed and banks of the constructed channel has been factored into the stormwater modelling (i.e.

roughness co-efficient) to ensure revegetation effort would not be restricted in order to satisfactorily convey flows. It is noted that the Statement of Landscape Intent indicates that the drainage channel will be turfed.

• Downstream scour protection/armouring at the confluence point with the Rous River channel is absent from the plans. The necessity for bed/bank protection at this location needs to be further investigated.

These matters remain unresolved.

Statement of Landscape Intent (SLI)

The applicant submitted a revised SLI being Landscape Statement of Intent and Visual Concepts Riva Vue Estate Issue C dated 19 November 2013 prepared by Boyds Bay Landscape Planning whereby the location of the Rous River channel is inacurately depicted in the position of the riparian buffer.

Consequently no treatment is shown for the Rous River buffer, whilst a note is made to an area further landward that appears to align with the existing sewer easement indicating 'Riparian plantings to be as per JWA report'. Any such planting schedule in any of the previously submitted JWA reports for the site could not be located. A number of the plant species that were recommended for revegetation (area not specified) are inappropriate.

The landscape plans showing stages remain inconsistent with the latest subdivision plans. Other issues in respect to landscaping/rehabilitation previously raised have clearly not been addressed.

(c) Suitability of the site for the development

For all of the above reasons, the site is considered unsuitable for the development and should be refused. Apart from the stated planning reasons for refusal, it is considered that insufficient ecological survey and assessment has been provided to support the conclusion that there will not be a significant impact upon threatened species, populations or ecological communities. Given the protected status of the Grey Headed Flying Fox, it is considered that the development represents an unwarranted risk to the species.

(d) Any submissions made in accordance with the Act or Regulations

Public Authority Submissions Comment

The application was referred to the NSW Office of Water (NOW) as the proposed drainage channel works into the Rous River require a Controlled Activity Approval (CAA) under the *Water Management Act 2000*.

A response was received from NOW on 15 May 2013 supplying General Terms of Approval (GTA's) to be placed on any development consent should it be issued. A CAA must be obtained from NOW by the applicant prior to the issue of a construction certificate.

Public Submissions Comment

The proposal was required to be advertised in the Tweed Link and notified to adjoining owners for a period of 30 days from Wednesday 1 May to Friday 31 May 2013. One submission was received during the exhibition period.

The submission raised issues with regard to the impact of the proposed development upon the existing child care centre located on a small portion of Lot 22 DP 1080322.

The original subdivision plan indicated the creation of a roadway and footpath traversing the leased property area for the child care centre negatively impacting upon egress of vehicles from the premises.

The applicant's response to the submission involved deleting works within Lot 22 DP 1080322 and reconfiguring the lot layout to be wholly within Lot 332 DP 1158142.

As such, the matter was resolved satisfactorily.

(e) Public interest

The issues considered in the assessment of the proposal are considered valid and contribute to the reasons for refusal. Approval of the proposed development could potentially set an unwarranted precedent for the location of residential development adjacent to fragile ecosystems and result in hand-over of substandard infrastructure to Council to maintain into the future at an undetermined cost. Therefore it is in the public interest for this application to be refused.

OPTIONS:

- 1. Refuse this application in accordance with the reasons supplied.
- 2. Grant in-principle support for the application and a report to be brought back to a further Council meeting with recommended conditions of consent for Council to determine.

CONCLUSION:

The application submitted is deficient in detail. However, sufficient information has been submitted to determine that the nature of the proposal is unsuitable for the site. This unsuitability is reflected in the proposal's non compliance with the statutory and strategic framework applicable to the application.

Having regard to relevant statutory controls and an assessment against Clauses 4, 5 and 8 in particular, of the TLEP 2000, the proposed 83 lot residential subdivision in four stages with dedication of two lots as drainage reserves, one lot as public reserve and one lot as sewer pump station site is not considered suitable for the intended site and therefore the proposed development is recommended for refusal.

COUNCIL IMPLICATIONS:

a. Policy:

Corporate Policy Not Applicable.

b. Budget/Long Term Financial Plan:

Not Applicable.

c. Legal:

Should the applicant be dissatisfied with the determination they have the right to appeal the decision in the NSW Land & Environment Court.

d. Communication/Engagement:

Not Applicable.

Nil.