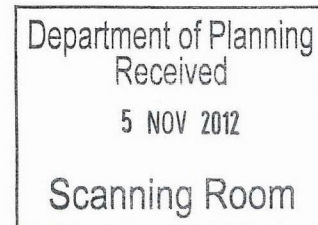




Telephone Inquiries:
MS P EMMETT
File No: 25-2010-8-1
Parcel No: 43644
Your Ref: MP 10_0153

30 October 2012

Mr Chris Ritchie
Manager - Industry
Mining and Industry Projects
Department of Planning and Infrastructure
GPO Box 39
SYDNEY NSW 2001



Attention: Ms Emma Barnet

Dear Sir/Madam

Re: **Proposed: Northbank Enterprise Hub MP 10_0153**
Property: LOT: 1001 DP: 1127780
365 Tomago Road TOMAGO

Reference is made to the Department's letter dated 10 September 2011 requesting comments on the Environmental Assessment (EA) of the above project. Council has previously provided comments on the proposal in letter's dated 4 February 2011, 22 March 2011 and 2 February 2012. Council has significant concerns with the application which are discussed in detail below.

Appendix D – Flora and Fauna Report

Council strongly recommends the redesign of the subdivision layout to give at least a 50m buffer from SEPP 14 wetlands (to the south east), Ramsar Wetlands (to the east) and any areas of Saltmarsh on the site. This buffer is the minimum Council would accept, because a 100 metre buffer is the normal requirement for Ramsar wetlands (p.151 of the new Ecobiological report, Appendix D).

Due to no variations being made to the layout, Council requires that an 88E Restriction as to User areas is incorporated into any approval. These areas are those which Council has labelled the 'Conservation Area' and 'Rehabilitation Area'. Please see marked up plan, and conditions in Attachment 1 which relate to the protection of the SEPP14 Wetlands and a 50 metre buffer and creation of a riparian corridor along the Hunter River.

Appendix F – Flooding

The following concerns have been raised regarding the report.

1. The flood study has determined that the flood impacts will be up to 0.18 m adjacent to the development. This is an impact that needs to be investigated further rather than be covered by a statement that individual bunding will protect dwellings. Properties in this area are currently rural and the impact of increased flooding frequency on adjacent land may have an impact on the viability of the properties. The other issue is that the report does not indicate what bunding is proposed to protect properties and whether it is to be located on development land or private land. Therefore the flood impact assessment should provide more specific details of proposed bunding and assess the impact of the flooding on likely affected properties such as 139, 159 & 175 Cabbage Tree Road from a land use viability perspective as well as the flood risk to buildings.
2. The other issue that occurs with the extensive filling of property is that we must be careful to ensure that the filling does not impede or direct storm flows onto adjacent properties. The recent adjoining Westrac development has resulted in more frequent flooding of properties 139, 159 & 175 Cabbage Tree Road as drainage lines from these properties have been impeded by the Westrac development (Stage 1). This development will make things even worse for these properties unless the current problems are resolved. Therefore not only should this development seek to resolve the existing flooding issues for 139, 159 & 175 Cabbage Tree Road resulting from the Westrac development (Stage 1) but ensure they do not re occur.

Regional flooding

3. The report identified that the proposed development would increase the peak flood level of up to 0.18m adjacent to the development footprint. It is not clear that the area of development footprint has included the existing Westrac development or not. If it is not, it must be included in the modelling and cumulative increase of water level must be simulated immediately adjacent to the development area. This level may be more than 0.18m.
4. The report does not nominate a fill level for the development. The development must consider the minimum fill level for this area as 2.8m AHD plus increase of flood level due to Northbank and Westrac developments.
5. The report recommended some local works (bunding or filling) is required to effectively manage the flood level increase due to the proposed development but it does not specify how and where these local works is required to reduce the impact.

Flooding and Drainage Assessment

6. The report specifies that the flow from the catchment is controlled by the levee and floodgates. That means, outflow from the catchment is currently controlled by the floodgates which has very limited discharge capacity. The report does not specify the capacity of the existing floodgates and operation of the floodgates. Also, it doesn't address how this massive increase of volume of water to be discharged to the Hunter River without impacting adjacent properties.
7. Massive increase of impervious area and filling of the low lying land would impact adjoining properties. The development would displace the existing storage

- capacity of the site and push the water onto adjacent properties. It will also increase the volume of stormwater discharging onto the external drainage system.
8. The proposed drainage system is designed at a higher level and connected with existing low level channels external to the proposed development area. The external channels and floodgates have very limited capacity to discharge the water onto the Hunter River. This would allow the stormwater to backup and flow overbank in regular events (3months, 6months, one year, 2 year, 5 year ARI etc). Most of the private properties are located at 0.5m AHD levels. Day to day usage of these properties for farming activities must be addressed in detail in this report.
 9. Regular overbank flooding is not addressed in this report. The proposed high efficiency channels are located at higher level than the existing external channels. A proper assessment should be carried for nuisance flooding on adjacent properties. There are two ways properties can be affected.
 - o The massive increase in the volume of water and high efficiency channel discharges would deliver water as quick as possible to the external channel. As there is no mechanism (other than the floodgates) to remove the water from downstream drainage system, water will back to the low lying properties and impact the properties.
 - o The massive increase in the volume of water and high efficiency channel discharges would prevent the water flow from low lying properties. This would also affect the day to day activities of the low lying private properties.
 10. The nuisance flooding on the private properties must be properly assessed and an improvement strategy to eliminate the impact must be addressed.

Maintenance

11. The proposed channels are very wide (25-40m wide) and it is very difficult to carry out future maintenance on these drains with the existing Council resources. Reaching 25-40m from the access road with the backhoe excavator is almost impossible. A maintenance procedure should be developed and approved prior to any development in this area. Council's existing equipment resources must be used to design the drainage channels and to develop a maintenance plan.

Appendix G - Stormwater

Council objects to accepting the drainage system as proposed due to a number of factors. These include, but are not limited to:

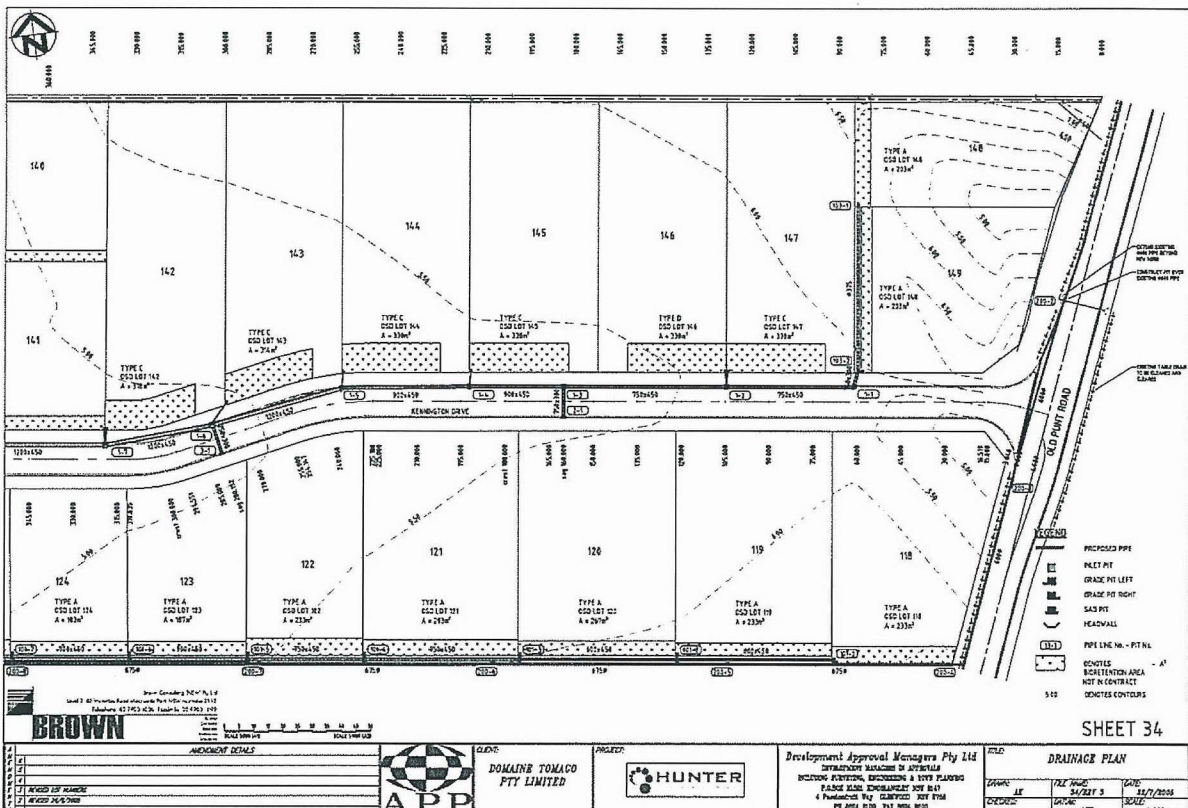
1. The system is not economically maintainable due to the excessive number of small drainage structures required of a flat site.
2. Insufficient preliminary engineering plans provided to assess what structures are proposed. i.e. what is the 'above ground GPT' constructed of and what does it look like? How can Council consider the safety and risk associated with a structure where there is insufficient detail?
3. Some proposed design features such as placing water quality (3 month flow treatment) within the high flow (100yr) channels make the system susceptible to damage and increased maintenance costs

Lot and subdivision scale system

Normally subdivisions have enough fall that they can grade stormwater systems to centralised locations to optimise the number of systems to be serviced. This site is so flat that this is unable to be designed and thus drainage structures are fragmented into dozens of small systems that become uneconomical to maintain. An example of this is the number of GPT's (32 are proposed) whilst the same scale development on a 3-4% slope would have 8 or less. The same can be said for the 8km of biofiltration swales that are shown in Fig6-6.

Where sufficient slope exists to minimise the number of maintainable drainage structures it is standard practice that the public system address 100% of both quantity and quality. A site like this development site, with the limited slope, needs to consider an alternate drainage scheme to balance the maintenance costs. It is noted that no at-lot treatment is proposed other than a potential rainwater tank. Other subdivisions within the Port Stephens LGA with similar site characteristics have split the stormwater systems such that lot scaled treatment addresses water quality and pre to post detention. An example of this is the Westrac Development where water quality, etc, is provided on-site. Given the lack of slope and the large lot sizes it is appropriate to provide such a system at this site.

Council considers that the proposed system does not meet the objectives of Section 4.3.1 which state 'to provide a system which can be maintained economically'. Each individual lot should have the water quality and detention system pre-sized and constructed (see Diagram below from Hunter Industrial Park Tomago) as part of the subdivision approval.



Minor/Major System Requirements

Council's Infrastructure Specification requires a minor/major stormwater system for Industrial development to design a 10yr minor and 100yr major. The consultants (Section 4.3.1 and other) have wrongly suggested the residential standard of a 5 year minor system is appropriate. Please amend the system to a 10 year ARI minor system in line with Council's Infrastructure Specification.

GPT Detail (Section 5.3)

No detail has been provided in relation to the proposed 'above ground GPT'. Council is unable to consider what the structure is constructed of, and looks like. Without this detail Council is unable to consider any public safety and servicing requirements and therefore cannot support such a vague submission being dedicated to the public.

Paved Area assumptions (Section 6.3)

The assumption was made that 50% of road reserve would be vegetated. This is wrong if the 26m road reserve comprises a 15m road pavement, shared paths/footpaths, driveways, etc. The impervious area needs to be increased.

Water Quality Offline to major system (Section 6.4)

All water quality structures should be taken off-line from the major system flows. In this regard the biofiltration systems are not supported to be under the major channel as shown in Figures 6-2 to 6-4. The System shown in Figure 6-5 show the acceptable method of having the water quality (biofiltration) beside the open channel. The system should be redesigned to incorporate these requirements.

The proposal to rehabilitate the wetland in the lower reaches of the catchment is supported however Council does not accept that these natural wetlands should be part of the water quality treatment train. In fact, water quality should be achieved prior to discharging to a natural wetland. A natural wetland is not able to be maintained as a water quality asset due to the environmental issues associated with it thus Council does not support its use as part of the treatment train. Drainage and water quality structures shall be designed for the operational purpose they are required for and thus be able to be maintained as an operational structure. Please provide an amended treatment train strategy.

General note: all water quality structures such as swales, biotrenches and GPT's shall not be located within the road reserve in front of private properties. They shall be located in drainage reserves out of the way of accidental harm from the general public and construction operations that will ultimately occur on the lots.

Practical Maintenance

All stormwater structures shall be practically maintainable. In this regard gravel access tracks are required to be provided to gain access to allow servicing of all stormwater structures. Sufficient land has not been provided and thus the subdivision should be reconfigured to accurately portray the land needed to achieve access along both sides of the channels, etc.

Water Quantity (7.2.1)

The mention of a bunded floodplain area of storage volume 100ML has no detail provided within the Stormwater Assessment for detailed assessment of the impacts, risks and maintenance. Further more the flooding report and stormwater reports both suggest to go and look at the other report however neither of them give any detail of why the bund is needed, what surface area is effected, typical section, how does the area release the stored volume etc. Council is unable to support this feature without further detail being provided. Please provide an amended report, plans of impacted ponding areas and typical sections, and a concept for consideration.

Open Channels

Please note the comments in the acid sulphate section.

Access track are required along biofiltraton and open channels to allow maintenance. Landscaping with trees shall not occur within the maintenance access areas.

Appendix M - Landscaping

Entrances

The proposal suggests entrance *trees will have supplementary planting of Gynea Lily and Mat Rush* however insufficient detail is provided to assess the maintenance impact on the community ratepayers. Council does not support over embellishment of road reserves and maintenance funds cannot sustain the maintenance. Developers are encouraged to place an entry feature and landscaping within the frontage of the corner lots.

Street trees

Port Stephens Development Control Plan 2007 does not specifically require street trees to go into Industrial Subdivisions. Council prefers no street trees in these subdivisions for a number of reasons including; trees often overhang the road to a sufficient degree to impede large vehicles; given the low visual surveillance specifically at night the trees are vandalised well before the development is established within the subdivision. To compensate for a lack of street trees Council concentrates on getting individual sites to provide landscaping within the front setback areas. Whilst Council does not support the provision of street trees, if the assessment authority was going to continue the requirement to install street trees then the following advice is provided:

- All of the tree species proposed are unsuitable for street trees and not supported by Council for reasons including their extreme size, the likelihood to drop large limbs, the chance of overhang onto roads, the likelihood to establish shallow roots and blow over due to unnatural watering regime of the unnatural humanised landscape.
- All of the proposed trees are on Council's banded list for implementation into road reserves. The following trees would be considered more appropriate as street trees noting the soil type cannot be assessed due to unknown fill materials:

Acmena smithii	(Lilli Pilli)	Evergreen 16m x 8m	
Cupaniopsis anacardioides	(Tuckeroo)	Evergreen 15m x 5m	
Elaeocarpus Reticularis	(Blueberry Ash)	10m	
Flindersia australis	(Crows Ash)	Evergreen 18m x 10m	
Harpullia pendula	(Tulipwood)	Evergreen 8m x 4m	ideal coastal planting
Syzygium australa	(Brush Cherry)	Evergreen 5m x 2m	
Syzygium Paniculatum	(Magenta Cherry)	Evergreen 5-8m x 4-8m	ideal coastal planting
Tristaniopsis laurina	(Water Gum)	Evergreen 16m x 6m	
Waterhousia floribunda	(Weeping Lilli Pilli)	Evergreen 8m x 4m	
Acmena hemilampra	(Broad leafed lilli pilli)	8-15m	

Northbank Riverside Park and Gunner Heritage Park

Council does not agree to the ownership of either of these two parks, it should remain in private ownership. Council is not willing to own and maintain an open space area embellished to this high standard within the Tomago area. Council already owns land to the west which comprises a public boat ramp. If the development wishes to embellish an open space area for the betterment of the Tomago area then Council encourages the developer to discuss with Council the option to embellish the boat ramp area through the potential use of a Voluntary Planning Agreement or other mechanism.

NOTE: see the notes in the stormwater section in relation to dedication of drainage structures and building for operational purposes.

Drainage corridors

The drainage corridor landscaping that is proposed has placed the importance on the visual appearance and little to no importance on the sustainable maintenance of the drainage system. The proposal provided comments like '*wetland species will be planted in the base of each corridor using rocks to create a creek-like appearance*' and '*Tree planting will be incorporated into the upper embankments*' these will result in significantly increased maintenance costs as only hand weeding can occur due to the rocky base and no maintenance machinery will be able to traverse the banks due to the tree planting. Council requires no rocks in the base of the drains, provision of gravel maintenance tracks along the sides of the drains and lockable removable bollards to keep the public out to ensure the long term performance of water quality, drainage and flooding can be economically and sustainably provided.

Appendix N – DCP for Future Development

Appendix N of the Environmental Assessment provides a draft Development Control Plan (DCP) for the Northbank Site as required by the Director General. Council notes that *Port Stephens Development Control Plan 2007 - Chapter B5 Industrial Development* applies to developments on Industrial zoned land within the Port Stephens LGA, and therefore will also apply to the Northbank site. As a result, any DCP for the Northbank site should support the general Industrial chapter by only including controls that are site specific.

Council is currently reviewing Port Stephens DCP 2007 so as to align with *draft Port Stephens Local Environmental Plan (LEP) 2012* and the State Governments Standard Instrument. It is noted the draft document contains the same controls as DCP 2007 but

does have changes regarding document structure which will be referred to below. A copy of the draft is available from Council.

It is important the draft North Bank Industrial Chapter aligns with these documents and therefore the following amendments are recommended:

1. *Draft Port Stephens DCP 2012* structure provides for objectives and controls. Council is no longer including principles. The objectives should directly relate to the controls.
2. *Section 4 Development guidelines*. This section should be removed as it will be determined by SEPP Exempt and Complying if a development should comply with the DCP or not.
3. *Section 4.1 Site Analysis*. This section is now provided within Council's draft Development Application guide which currently being prepared to align with *draft DCP 2012*. All references to information requests will no longer sit within the DCP. Please remove this section.
4. *Section 4.2 Boundary Setbacks*. This section restates what is already included within *chapter B5 Industrial development*. Please remove these controls as there is no need to provide them twice.
5. *Section 4.3 Activation of Tomago Road*:
 - *Control 4.3.1* requires development fronting Tomago Road to provide 5m of landscaping within the setback. Council would like this control to include a requirement for a minimum of three trees to be included from the following list (refer to condition 27 in Attachment 1). This is to ensure street trees are not placed within the road reserve so as to avoid issues with large trucks and heavy transport along Tomago Road.
 - *Control 4.3.2*. Is site specific and supported by Council. No need for further amendment.
 - *Control 4.3.3*. Supported. No need for further amendment.
6. *Section 4.4 Street Character*. This section is a repeat of Section B5.3 of Council's *B5 Industrial Chapter*. Please remove.
7. *Section 4.5 Site Coverage*. This section is a repeat of section B5.5 of Council's *B5 Industrial Chapter*. Please remove.
8. *Section 4.6 Building Height*. This section is a repeat of section B5.6 of Council's *B5 Industrial Chapter*. Please remove.
9. *Section 4.7 Building Design Elements*. This section is a repeat of section B5.8 of Council's *B5 Industrial Chapter*. Please remove.
10. *Section 4.8 Vehicle and Access Parking*. This section should mention that a driveway application is required from the Roads Authority (under section 138 of the Roads Act).
 - No maximum site coverage mentioned. Council's Infrastructure Specification requires subdivision drainage to consider each site has 90% site coverage for industrial development. This should be listed in the DCP and cross referenced with landscaping requirements. I.e. is says a

- minimum 5% requirement for landscaping but would be helpful to state the 10% requirement for combined landscaping and turfed surfaces.
 - Landscaping controls – need to require trees of a scale equal to the height of the building(s). Noting large trees should be in the front setback to cater for no street trees (as per council's requirements/request discussed in Appendix M).
- 11. Section 4.9 Heritage. Heritage controls across the LGA will be identified within one central Heritage chapter within the emerging draft PS DCP 2012. This includes the requirement for all development impacting on a heritage items curtilage to provide a Statement of Heritage Impact. Please remove this section.
- 12. Section 4.10 Landscaping:
 - Control 4.10.1. This control will be covered in draft PS DCP 2012. Note that the requirement to landscape 20% of industrial sites is currently under review. Please remove this control.
 - Control 4.10.2. Councils existing control B5.C28 requires all areas within setbacks to be landscaped. This control is proposed to remain within draft PS DCP2012 with an amendment to reduce the setback to 3m instead of 5m. Please remove this control.
- 13. Controls: 4.10.3 through to 4.10.9 is a repeat of section B5.10 of Councils *B5 Industrial Chapter*. Please remove.
- 14. Section 4.11 Flooding, Drainage, Water Quality, Erosion and sediment control.
 - 4.8.4 L4.11.8 and 4.11.9 mention minor drainage system of 5% AEP events. Council's requirements are that all public systems for industrial/commercial land have a minor/major system of 10%/1% (10yr minor/100yr major).
 - 4.11.15 – Should state: There is no requirement for stormwater detention providing the maximum 90% site coverage is not exceeded.
 - 4.11.19 – should include the requirement for a report and philosophy of the proposed water quality system
 - 4.11.21 – this draft DCP relates to development on the lots, so why is this control included which talks about 'street based' design principles. Suggest it be deleted or reworded to talk about within the sites driveways, etc
- 15. Section 4.12 Safer by Design. This requirement will be in a central location within Councils emerging DCP 2012. Please remove this section.
- 16. Section 4.13 Fencing. Controls 4.13.1 through to 4.13.7 no amendments required. Please retain.
- 17. Section 4.14 Open Storage and Work Areas. Controls 4.14.1 through to 4.14.5 no amendments required. Please retain.

Given the Strategic Planning Section is currently working through a revised LGA wide DCP it would be beneficial for the Strategic Planning Section to review the amended proposed DCP Chapter in the near future. Therefore it is requested the proponent consult with the Strategic Planning Section prior to finalisation of the draft chapter so as to ensure consistency of controls and chapters.

Integration with surrounding development

The proposal is located within the proximity of the Tomago industrial area of which has generally larger scale lots and development than other areas such as Heatherbrae which provides for smaller scale development. The larger lot sizes are therefore supported as they are seen as reinforcing the desired future development of the Tomago Industrial area.

Appendix R – Public Consultation

It is noted that a pre lodgement meeting was not booked with Port Stephens Council. This is regrettable given the significant assets that are proposed to be dedicated to Council. Had the proponent booked such a meeting then some of the ownership and maintenance issues for open space, drainage and streetscape could have been addressed.

Appendix V - Acid Sulphate

The report states drainage is likely to impact on Acid Sulphate. The proposal to leave open drains at natural ground levels to avoid acid sulphates will potentially transfer the problem and costs from the developer onto the owner of the drains. The acid sulphate soils will likely be impacted on whenever machinery does routine maintenance on the drains and when noxious weeds, etc are removed. Council does not accept ownership of these open channels unless all soil within 1metre of the finished surface level of the drains is tested and treated. Additionally, Council requires that all culverts are to be marine class pipes/culverts.

Environmental pre-construction hold point:

Given the environmental sensitivities, high environmental value and vast broad scale construction of fill, roads, drainage and other infrastructure for this development it is requested that the consent authority make provision within the consent for an environmental hold point(s) prior to the issue of any Construction Certificate that has a suitably qualified person(s) who has thoroughly considered all the environmental matters up to the immediate point in time where construction activities are able to commence, this person is to certify that all the relevant environmental matters have been dealt with and are acceptable to proceed with construction.

The reason for the request is, typically Construction Certificates for subdivisions like this are signed and issued by civil engineers with only a very basic knowledge of general environmental issues and requirements. The benefits in having the hold point in place is that when engineers are assessing construction plans they don't encounter delays and place significant resources to understanding that the environmental requirements have been met. Having the hold point in place allows the environmental authority and the issuing engineer to have certainty that it is ok to proceed given each others extent of understanding their reciprocal fields of expertise.

Maintenance Periods for Bio-retention facilities, Vegetated Trunk Drainage and Landscaping

Again, given the environmental sensitivities and the high environmental value of the downstream wetlands and estuarine system it is requested that the developer maintain all Bio-retention facilities, Vegetated Trunk Drainage and Landscaping for a minimum period of 5 years to ensure full establishment of the vegetation within these facilities. A further reason to implement this 5 year period is because of the non-standard drainage system that has been proposed and the high maintenance cost especially through the first 5 years of establishment.

Tomago Aluminium Smelter

The subject site falls within the designated buffer zone for the Tomago Aluminium Smelter. Tomago Aluminium has expressed concern over new industries in the area emitting additional fluoride or sulphur dioxide into the airshed. The EA states that future development within the subdivision will be subject to future project/development applications. Council would like this issue to be further investigated and considered at the EA stage rather than at the individual development application stage. It is preferred if a plan is prepared in consultation with the Department of Planning, Council and Tomago Aluminium Smelter (and any other relevant agencies) outlining the buffer zone and stating what type of uses would be suitable within this buffer zone. Council is concerned about the cumulative impact of such industries in close proximity to the Smelter and would prefer if such issues were investigated at the EA stage rather than rely on individual development applications at a later date. No comment has been made in the EA relating to the cumulative impacts of industrial development in this location, which was a requirement of the EA.

Traffic and Pedestrian Access

The further information provided with regard to transport and traffic issues is required to be referred to the Roads & Maritime Services (RMS). RMS will need to consider the impacts of the proposed development on Tomago Road and any proposed staging of development.

- Several of the internal intersections are shown as 4-way intersections. These require roundabouts to be constructed to ensure safe operation and compliance with relevant Austroads standards.
- Provision of public transport facilities, either along the property frontage on Tomago Road or within the subdivision is required. The facilities will include bus bays, bus shelters and connecting footpaths and pedestrian facilities as required, to encourage use of alternative transport. The scale of this development lends itself to allowing a diversion of bus services from Tomago Road along an internal bus route. These requirements will satisfy NSW State Plan - NSW 2021 – Goal 8 'Grow patronage on public transport by making it a more attractive choice'
- The proposed internal roads system shows block lengths well in excess of Council DCP requirements. These long blocks will require some form of speed management to ensure a suitable speed environment for safe access to properties within the subdivision and safe operation of the intersections.
- Pedestrian linkages are required throughout the site to facilitate and encourage walking.
- Provision for cyclists is required as marked on-road facilities either in the parking lane or in the kerbside lane where parking is not proposed.

Contamination

The finding of the Stage 2 Contamination Assessment by Douglas Partners stated that 'localised remediation of soils will be required to address the localised presence of hydrocarbon and asbestos contamination, including removal of remnant effluent disposal systems and structures. A Remediation Action Plan for the site should be submitted prior to any approval being issued.

Conditions of Consent

Council raises significant concerns over the development, particularly relating to the flooding, drainage and environmental impacts of the development. It is requested that these issues be addressed to minimise the impact on adjacent properties and the environment.

However, if the application is to be approved, it is critical that Council has the opportunity to comment on any draft conditions of consent, as the development of the site will have a significant impact on the local government area. Attachment 1 includes conditions that should be included as part of any consent granted for the development.

In addition, conditions of consent should also be prepared to address such issues as:

- Contamination/remediation works
- Noise – conditions in relation to setting acoustic parameters and operating times during the construction phase and the operational phase of the development
- Acid Sulphate soils
- Heritage/Archaeological
- Ecological - Aquatic
- Landscaping
- Construction management plan
- Environmental Management Plan
- Air quality – monitoring should occur prior to and during the construction phase
- The requirement for a subdivision certificate
- Subdivision conditions, including any 88B instruments
- Hunter Water conditions – water and sewer requirements
- Utility connections
- Staging conditions
- Advertising – separate development applications are required for any future advertising signs (for sale of the lots) to be placed on site
- Transport Management Plan – in relation to haulage and traffic used for construction. This plan should be endorsed by the Roads and Maritime Service and Council
- Fill material
- Fencing
- Waste management
- Pre operation compliance audit

Conclusion

Council raises significant concerns over the impact of the development on flooding, drainage and environmental issues as discussed above. It is requested that the applicant

address these issues and Council be further consulted on any amendments to the proposal and on the proposed timeframe for the determination of the application. Should you have any further inquiries or wish to discuss the above issues please do not hesitate to contact the undersigned.

Yours faithfully



Priscilla Emmett
Senior Development Planner
Phone: 4980 0263 Fax 4987 3612
priscilla.emmett@portstephens.nsw.gov.au

ATTACHMENT 1 CONDITIONS OF CONSENT

GENERAL CONDITIONS

1. A Subdivision Certificate for the development site shall not be released until a site specific chapter in Council's Development Control Plan has been adopted by Port Stephens Council.
2. All adjustments to existing utility services made necessary by the development are to be undertaken by the developer at no cost to Port Stephens Council.
3. The development is to be conducted in a manner so as not to interfere with the amenity of the area by reason of noise, vibration, transmission, smell, fumes, smoke, vapour, steam, soot, ash, dust, grit, oil, waste water, waste products or otherwise.

BUILDING ISSUES

4. Each of the proposed allotments are to be provided with a geotechnical assessment report which provides sufficient site specific information to allow the design of building structures to proceed in conformity with the requirements of Part B of the Building Code of Australia. Section 88B instrument is to be used to give effect to this requirement.
5. A report which identifies the satisfactory remediation of all identified site contamination is to be provided **prior to the issue of a Subdivision Certificate**.
6. Building demolition to be done in accordance with AS2601-2001 - *The Demolition of Structures and Workcover Authority Guidelines*.

SECTION 94A CONTRIBUTIONS

7. Pursuant to section 80A(1) of the Environmental Planning and Assessment Act 1979 and the Port Stephens Section 94A Development Contributions Plan, a contribution of the cost of development shall be paid to Council, as determined in accordance with clause 25j of the Environmental Planning and Assessment Regulation 2000 and as outlined in Table 1 below.

Table 1

Development Cost and Levy Rate

Proposed cost of carrying out the development is up to and including \$100,000 - Nil
Proposed cost of carrying out the development is more than \$100,000 and up to and including \$200,000 - 0.5% of that cost
Proposed cost of carrying out the development is more than \$200,000 - 1% of that cost

A Cost Summary Report Form setting out an estimate of the proposed cost of carrying out the development in accordance with Schedule 1 of the Port Stephens

Section 94A Development Contributions Plan, must be approved by Council **prior to issue of the Construction Certificate**. Where the estimated cost of carrying out the whole of the development is more than \$1,000,000, the Cost Summary Report Form must be completed by a Quantity Surveyor who is a registered Associate member or above, of the Australian Institute of Quantity Surveyors.

ENVIRONMENTAL

8. Future development of the subdivision and of individual lots should be subject to separate environmental impact assessments. Assessment of future development should determine appropriate land uses and require Dust Suppression, Water Quality devices, a Lighting Management Plan and Acoustic assessment. Developments should employ barriers between noise sources and bird breeding habitat (eg. solid barrier close to the noise source and vegetation screening). Grass Owls and roost sites shall be surveyed as part of separate environmental impact assessments for individual lots.
9. The subject land may be partially affected by Alligator Weed. The site needs to be inspected by Council's Weed or Vegetation Officer **prior to the commencement of work**. A Plan of Management for the control of noxious weeds shall be submitted and approved by Council's Pest & Weed Management Officer **prior to the commencement of work**.
10. It is an offence under the Noxious Weeds Act 1993 to spread Alligator Weed. All machinery and equipment that has operated in affected areas is considered contaminated and must be cleaned thoroughly before leaving the site. An agreed wash down area must be established, and monitored continuously for the presence of Alligator Weed. Cleaning must include the removal of all mud and plant matter, followed by washing down with high pressure water.
11. **Prior to the issue of any Construction Certificate or commencement works or Subdivision Certificate** a positive covenant shall be created under Section 88E of The Conveyancing Act 1919 on the title of the land.

The public positive covenant shall give effect to the following:

For the areas marked "Conservation Area" and "Rehabilitation Area" as shown on approved plans, the area shall be managed in strict accordance with the approved Vegetation Management Plans.

The "Conservation Area" is in the south of the site where it provides a buffer to the SEPP 14 Wetland and incorporates a section of Swamp Oak Floodplain Forest EEC which must not be cleared or impacted upon. The "Rehabilitation Area" is in the western part of the subject site, directly adjacent to the Hunter River. This area shall not be subject to industrial allotments but shall be revegetated to create a riparian corridor along the Hunter River.

The "Conservation Area" and "Rehabilitation Area" as marked on approved plans shall at all times remain free from:

- o all stockpiles,
- o importation of fill,
- o parking or movement of vehicles/machinery,
- o disposal, mixing or spillage of building waste or materials,
- o placement of temporary buildings,
- o grazing of livestock,
- o building work (paving, excavation or construction),
- o clearing or trenching for services,
- o drainage works,
- o onsite sewage system or stormwater infrastructure,
- o planting of non-indigenous plants, and
- o asset protection zones.

Within the "Conservation Area" and "Rehabilitation Area" all native vegetation (trees, shrubs and groundcovers) shall be retained. This includes regeneration/re-growth.

Note, the requirements of the Section 88E Instrument do not apply to the works that are required to be undertaken by the Hunter Valley Flood Mitigation Scheme/ OEH.

12. A Vegetation Management Plan (VMP) for the area on the subject site (Lot 1001) designated as the "**Conservation Area**" shall be prepared by a suitably qualified and experienced bush regeneration company or equivalent. A second Vegetation Management Plan for the area on the subject site (Lot 1001) designated as the "**Rehabilitation Area**" shall be prepared by a suitably qualified and experienced bush regeneration company or equivalent. These are to be submitted and deemed satisfactory by Port Stephens Council **prior to issue of the Subdivision Certificate**.
13. The Plans should cover a timeframe of at least 7 years from the commencement of construction. If commencement of construction is delayed, the start date for the weed management and restoration activities within the VMPs shall be no later than 6 months from the date of subdivision DA approval. The covenants and the content of the VMPs shall ensure areas are restored and maintained for the life of the development.
14. The VMPs are to be divided into stages and Stage 1 should be implemented in full **prior to release of the occupation certificate** relating to any part of the first stage of the development. Stage 1 for the Conservation Area should at a minimum be site fencing and signage, primary and secondary weed management and progress reporting. Stage 1 for the Rehabilitation Area should at a minimum include site delineation and signage, primary weed management, tubestock planting throughout the site, initial stages of weed and plant maintenance and progress reporting.

The VMPs shall include the following:

- a. A map with different treatment zones defined;

- b. Strategies for preservation, protection and restoration of vegetation and for staged weed management using bush regeneration techniques and encouragement of natural regeneration from the soil seed bank;
- c. For any zone where planting is required, include a Plant Schedule table detailing species, identify planting densities, source of planting stock and mulch, and any use of tree guards, jute matting, water crystals;
- d. A Schedule of Works (preferably table format or similar) which aligns the actions for each zone into stages, assigns responsibility for the actions, defines a method and schedule of monitoring and reporting;
- e. Details of the work within each zone, the proposed weed control methods and seasonal timing of works;
- f. Detail of any on-site protection measures (any fencing or barriers with signage);
- g. Detailed costings of work associated with zones and stages;
- h. Proposed disposal method for weed propagules and green waste;
- i. Incorporate the requirements of the consent conditions, 88E instruments, landscape plans, tree protection plans, clearing method statements, or bushfire mitigation measures which may apply to the property;
- j. Landscaping requirements for future landowners/leasees including a list of indigenous and non-invasive species that can be planted on the allotments; and
- k. Details of erosion, sediment and stormwater runoff controls.

15. A Soil and Water Management Plan is to be submitted **prior to the issue of subdivision certificate** and shall ensure no impacts occur on the SEPP 14 wetland or Ramsar wetland.
16. Erosion and sediment controls are required to be maintained at all times during construction around all fill and stockpile areas.
17. Services including water and sewer are to be laid with appropriate measures in place to prevent and/or manage by best practice any acid sulphate soil disturbance.
18. Implement Pre-clearing fauna surveys as per page 149 of Ecobiological report, Appendix D) and any directions contained in Vegetation Management Plans applying to the site.
19. 40 suitable sized nest boxes for micro-chiropteran (small insectivorous) bats and 20 medium sized nest boxes shall be attached to trees on Lot 1001 DP 1127780 or Lot 1002 DP 1127780 and positioned at a suitable height off the ground. The boxes shall be installed and certified by a fauna ecologist. Harvesting of existing hollows can be undertaken where possible in lieu of using nest boxes, but a total of 60 harvested hollows or nest boxes are required to be installed into trees. A copy of the certification must be submitted to the Principle Certifying Authority (PCA) **prior to issue of the Construction Certificate**.
20. Weeds present on site include, but are not limited to, Alligator Weed, Bitou Bush, Mother of Millions, Groundsel Bush, Lantana, Blackberry, Castor Oil, Camphor Laurel,

Crofton Weed, Lacy Ragweed, Pampas Grass, Prickly Pear, Moth Vine, Dock, Fennel and Weeping Willow. During the construction phase development must provide:

- o Controls to prevent the spread of weeds on machinery including a disposal and wash down area;
- o An area for storage of contaminated spoil that is separate from clean material;
- o Certification that any fill, soil, mulch and plants brought onto the site is free of weeds and weed seeds; and
- o Site inductions for all personnel and visitors that includes weed management practices including signs placed at the site entry.

Written confirmation that the above has been undertaken must be submitted to the Principal Certifying Authority **prior to issue of the Occupation Certificate**.

21. A 'Wetland Management and Monitoring Plan' is required **prior to issue of the subdivision certificate**. This WMMP should protect and monitor all sensitive areas downslope from the development for 10 years from commencement of construction on site. A bond of \$80,000 shall be submitted to DoPI or OEH and tied to appropriate implementation of the Wetland Management and Monitoring Plan. Reports interpreting the water quality results should be submitted regularly to the DoPI and OEH.
22. A Vegetation Management Plan for the **Offset Area** on Lot 1002 shall be prepared and a \$200,000 bond lodged with DoPI or OEH to ensure restoration in accordance with the Offset Area VMP. The VMP setting out the designated zones, implementation stages with detailed schedule of works and costing for each zone is required **prior to issue of the Subdivision Certificate**. The Schedule of Works should describe bush regeneration work on the site commencing within 6 months from the date of subdivision DA approval and continuing for at least a 5 year period. It is paramount that Alligator Weed and Pampas Grass are regularly controlled on site. Evidence that the cover of these weeds and other weeds is steadily reduced is required and must be demonstrated within periodic reports. The bond will provide security of \$200,000 for the on-ground works to achieve weed management and restoration of the offset area. The VMP should be prepared by a suitably qualified and experienced bush regeneration company or equivalent. (This VMP requires active onground work, above and beyond that which may be set out in the proposed 'Wetland Management and Monitoring Report' described in the Ecobiological report p. 150-151).
23. Preparation of a Vegetation Management Plan for the Landscaped Watercourses and Riverside Park in the southern section of the development is required **prior to issue of the subdivision certificate**. This should be prepared by a bush regeneration company with expertise in environmental restoration. It should detail the revegetation and vegetation management, and provide further detail than the Landscape Plan. The VMP should be divided into stages. Stage 1 and 2 (initial weed management, soil stockpiling, site clearing protocols, planting of the Landscaped Watercourses, Pocket Parks, Riverside Park and the Floodplain/Ponding Zone with endemic native species, and initial maintenance) should be implemented in full **prior**

to issue of the occupation certificate relating to any part of the first stage of the industrial development.

24. Development shall be prohibited within:
- a. all areas identified as Saltmarsh,
 - o the 50 metre buffer area surrounding the mapped SEPP 14 wetland
 - o the 50 metre buffer area surrounding the mapped Ramsar wetland
 - o the riparian buffer along the Hunter River (excluding the Hunter Flood Mitigation Scheme infrastructure/ levee banks)

Within these areas, there will be no clearing, trenching for services, importation of fill, stockpiling, storage of any materials, mixing of materials, disposal of liquids, vehicle/machinery parking, positioning of offices or sheds, asset protection zones nor planting of non-indigenous vegetation without prior written agreement from Council.

25. Rabbit and fox control must be undertaken across the subject property **prior to issue of Occupation Certificate**, in co-ordination with OEH, HCRCMA and/or Livestock Health and Pest Authority.

TREES

The following are recommended conditions of consent on the chance the consent authority may decide to not support Council's position on street trees .

26. The location of street trees must be no closer than 50 metres apart and shown on the construction certificate plans and demonstrated to have sufficient clearance from services, light poles and the preferred location of driveway crossings to not impede their functioning. Supply and installation of street trees must comply with Council's Infrastructure Specification – Design. Details shall be approved by Council **prior to issue of the Construction Certificate**.
27. Street trees shall be of a species as nominated in the following list, and certified by a qualified landscape architect to be suitable for the soil (fill) materials on the site. *Acmena smithii, Cupaniopsis anacardioides, Elaeocarpus Reticularis, Flindersia australis, Harpullia pendula, Syzygium australa, Syzygium Paniculatum, Tristaniopsis laurina, Waterhousia floribunda, Acmena hemilampra.* Details shall be approved by Council **prior to issue of the Construction Certificate**.
28. The landscaping with native grasses within the road reserve shall be located within the first two metres immediately adjacent to the private property frontages. No landscaping shall occur against the kerb as shown in the concept landscaping plans. Details shall be approved by Council **prior to issue of the Construction Certificate**.
29. No street trees or landscaping is to occur within the proposed road reserves. Construction plans shall specify turf verges. Details shall be approved by Council **prior to issue of the Construction Certificate**.

PUBLIC STORMWATER

30. An application shall be submitted to and approved by Port Stephens Council for any works within public drainage systems and/or easements, pursuant to section Part B, Section 68 of the Local Government Act 1993. This shall include connection of new subdivision stages back into previously stages now dedicated as public systems and/or easements

A **Construction Certificate cannot be issued** until this application is submitted to and approved for construction by Port Stephens Council.

An **Occupation Certificate cannot be issued** until Port Stephens Council has determined that the development has been completed and issued a Certificate of Completion for works approved under the Local Government Act.

FILLING

31. **Prior to the issue of Construction Certificate** details are to be submitted to Council showing all finished lots surfaces shall be graded towards the internal roads, this shall be at a min 1% to the road boundary. Details shall be approved by Council **prior to the issue of Subdivision Certificate**.
32. Where depth of filling exceeds 300mm it is to be constructed in horizontal layers not exceeding 150 mm compacted thickness. Each layer shall be compacted to at least 95% of the maximum dry density, when tested, in accordance with AS 1289 - 1993 Clauses 5.1.1 and 5.3.1. Verification of the compaction is to be provided to Council by a Certificate from a Geotechnical Engineer, incorporating a location plan indicating filled areas in relation to road and lot boundaries, from a registered N.A.T.A. testing laboratory **prior to the issue of Subdivision Certificate**.
33. Where retaining walls are required, they shall be designed, supervised and certified by a qualified structural or civil engineer in accordance with AS 4678 Earth Retaining Structures code of Australia. The retaining walls shall be located fully within the boundaries of the subject property (private lots). Design certification shall be submitted for approval to Council **prior to the issue of Construction Certificate** and construction certification shall be provided to Council **prior to the issue of Subdivision Certificate**.
34. The top of fill level within the developable area of the property is to be not less than RL 2.8 m AHD. Certification of the fill levels within the developable areas are to be provided by a suitably qualified and experienced surveyor with appropriate professional indemnity insurance to the requirements of the PCA **prior to the release of the Subdivision Certificate**.

UTILITIES CONDITIONS

35. **Prior to approval of the Subdivision Certificate** written evidence must be submitted from the Hunter Water Corporation, Telstra Australia and Energy Australia that satisfactory

arrangements have been made for the provision of their respective services to all lots in the proposed subdivision.

36. All utility structures other than conveyance conduits shall be constructed on land outside the road reserve and dedicated to its relevant authority ie: sewer pump stations, electrical substations and transformers and the like. Positions shall be shown on the construction plans **prior to the issue of Construction Certificate.**

Details of the lots shall be included in the linen plan **prior to issue of the subdivision certificate.**

ROADS

37. A Roads Act approval from Port Stephens Council is required for all necessary road, drainage and other works including maintenance required during the maintenance period **prior to any works occurring within Council road reserves.**
38. The applicant is to restore, replace or reconstruct any damage caused to road pavements, surfaces or street furniture on existing roads used for the construction of the subdivision.
39. Haulage routes for the importing of fill over Council roads for the construction of the subdivision are to be as approved by the Manager Civil Assets Port Stephens Council **prior to the issue of a Construction Certificate.**
40. Engineering plans for the following subdivision works within the private property must be designed by a suitably qualified professional, in accordance with Council's 'Infrastructure Design Specification – AUS Spec', and RMS Specifications **prior to the issue of a Construction Certificate:**
- a. Internal roads, drainage and pathways.
 - b. Footpaths and shared paths
 - c. Roadside furniture and safety devices including fencing, signage, guide posts, chevrons, directional arrows and guard rail in accordance with RTA and Australian Standards.
 - d. Pedestrian facilities including footpaths, kerb ramps, pedestrian refuges, linkages from external and internal bus stops, lighting and the requirements for disabled access in accordance with Disability Discrimination Act requirements.
 - e. Concrete access ways across the verge for all access points to public infrastructure comprising a minimum 4 metres full width reinforced concrete pavement (SL72 steel fabric, 150mm thick).
 - f. Signage and line marking. - all regulatory signage and line marking plan must be approved by the Port Stephens Council Traffic Committee in accordance with the delegations from Roads and Maritime Services.
 - g. Traffic control plans in accordance with the Roads and Traffic Authority – Traffic Control at Worksites Manual;
 - h. Contractor's public liability insurances to a minimum value of \$10 million dollars.
 - i. All works shall be at no cost to Council

The engineering plans and any associated reports for the above requirements **must form part of the Construction Certificate.**

41. Where roads cross boundaries of future stages, a temporary cul-de-sac head of the same radius as the permanent cul-de-sacs shall be designed and approved by Council **prior to the issue of Construction Certificate** and constructed **prior to the issue of the Subdivision Certificate**. The cul-de-sac is to include 2 coat bitumen seal, pipes and pits to drain surface water directly to Council's system along with appropriate rights of access and legal points of discharge for stormwater as necessary.
42. Bus Route Plan and design details for the entire subdivision is to be submitted to Port Stephens Council for approval **prior to the issue of a Construction Certificate**. The Bus Route Plan and design details shall be based upon the criteria of "no more than 5% of employees to the lots being further than 400mm walk to bus facilities". The applicant shall consult with Port Stephens Council and the relevant bus companies to determine routes which are acceptable. The plan, the design and construction of bus stops details to be submitted to Port Stephens Council for approval **prior to the issue of a Construction Certificate**.
43. All internal 4 way intersections shall be controlled by roundabouts, details shall be submitted to Council for approval **prior to the issue of Construction Certificate**.
44. All proposed roundabouts and cul-de-sacs shall be constructed from reinforced concrete, designs are to be prepared in accordance with Austroads Guides, RMS Concrete Roundabout Pavements: A Guide to their Design and Construction as well as Council's Infrastructure Specification. Details shall be submitted to Council for approval **prior to the issue of Construction Certificate**.
45. Roads approaching roundabouts shall be median separated and designed in manner that the entry geometry actively slows vehicles prior to engaging the roundabout proper in accordance with Austroads. Details shall be submitted to Council for approval **prior to the issue of Construction Certificate**.
46. All internal roads shall have cross sections that show a 2 way cross fall with the road's crown on the centreline with standard SA kerb on both sides, roads (1 way cross fall are not acceptable). Details shall be submitted to Council for approval **prior to the issue of Construction Certificate**.
47. Street lighting shall be designed and constructed in accordance with Australian Standards to the satisfaction of Port Stephens Council, design details shall be submitted to Port Stephens Council **prior to the issue of Construction Certificate**.
48. Where roads cross trunk drainage channels, reinforced concrete box culverts with appropriate wing walls, embankment/erosion protection and safety barriers shall designed and certified by a suitably qualified Chartered Professional Structural or Civil Engineer, all materials specified in the design shall be sulphate resistant, details are to be submitted to Council for approval **prior to the issue of Construction Certificate**. Bridges of any kind are not acceptable.

49. Proposed Roads 1 and 2 function as internal collector roads, these shall have:

- 2.5m parking lane
- 1.0m safety strip
- 1.5m cycle lane
- 3.5m traffic lane

for both sides of the centreline resulting in a 17m carriage way.

All other proposed internal roads shall have:

- 2.5m parking lane
- 1.5m cycle lane
- 3.5m traffic lane

for both sides of the centreline resulting in a 15m carriage way.

Details shall be submitted to Council for approval **prior to the issue of Construction Certificate.**

50. Line marking of cycle lanes shall be in accordance with Austroads guides, where cycle lanes conflict with intersections the cycle lane surface shall be coloured green, works are to be complete. Details shall be submitted to Council for approval **prior to the issue of Construction Certificate.**

51. All portions of roads that are not of reinforced concrete construction shall be Asphalt sealed 100mm thick minimum, where heavily bound base is to be used for pavement material the Asphalt thickness shall be minimum 175mm thick, details are to submitted to Council **prior to the issue of Construction Certificate.**

52. A Geotechnical Report for pavement design of the proposed roadworks prepared by a duly qualified and experienced Geotechnical Engineer shall be submitted for approval **prior to the issue of a Construction Certificate.**

STORMWATER AND WATER QUALITY

53. No rocks shall be provided within the open channel minor flowpath unless as rock check dams at spacing of no less than 30m minimum spacing. Any rock check dams shall have controlled weir. Details are to submitted to Council **prior to the issue of Construction Certificate.**

54. All road surface drainage throughout the proposed development shall be conveyed from the road surface via conventional pit and pipe system, roadside swales within the road reserve are unacceptable. Details are to submitted to Council **prior to the issue of Construction Certificate.**

55. All stormwater drainage pipes within the road reserve shall be minimum Class 4 steel reinforced concrete with rubber ring joints. Details are to submitted to Council **prior to the issue of Construction Certificate.**

56. Pits required for pipes of 600mm diameter or larger shall be cast in-situ steel reinforced concrete. No portion of any pit shall extend under or beyond the vertical extension of

the lip of kerb. Details are to be submitted to Council **prior to the issue of Construction Certificate.**

57. **Prior to the issue of Practical Completion Certificate** a video condition analysis or CCTV analysis shall be undertaken on all drainage infrastructure for the proposed development and submitted to Port Stephens Council for approval. Where it is found that infrastructure or works are defective, non-compliant or not to the satisfaction of Port Stephens Council the applicant shall reinstall, reconstruct or remediate the unacceptable item to the satisfaction of Port Stephens Council **prior to the issue of Practical Completion or Subdivision Certificate.**
58. All trunk drainage shall be fenced and sign posted to ensure public safety in the event of minor and major storm events, details are to be submitted to Port Stephens Council for approval **prior to the issue of Construction Certificate.** All fencing and sign posting shall be completed **prior to the issue of Subdivision Certificate.**
59. 4 metre wide minimum 200mm thick all-weather access track are required to provide maintenance access along drainage and water quality structures and devices including biofiltration and open channels. Landscaping with trees and other vegetation shall not occur within the maintenance access areas or other adjoining areas that will impede maintenance.
60. Proposed filling should not impede or direct storm flows onto any adjoining properties. Suitable drainage should be provided to capture, transport and discharge storm flows into suitable receiving waters to ensure the filling does not create nuisance flooding of adjoining properties. Full details are to be provided and approved by the PCA prior to issue of a Construction Certificate.
61. All adjoining properties shall be protected from the impacts of increased flood levels as a result of the development through the construction and maintenance of appropriate bund walls. These walls are to be located within the development property and full details are to be provided to the PCA prior to issue of a Construction Certificate.
62. The Stormwater Drainage Report and Design by a suitably qualified and experienced Chartered Professional Engineer is to be submitted to Council for approval **prior to the issue of a Construction Certificate.**

The report shall determine the:

- (1) extent of the 1% ARI event(s) affecting the proposed development including both localized and river flooding;
- (2) affects that the proposed development has on the lands and drainage systems within the upstream catchment developed to its full potential;
- (3) affects that the proposed development has on the lands and drainage systems within the downstream catchment;
- (4) sizing and volumes of water detention facilities within the development based on the principle of creating a "neutral or beneficial affect". Note: a beneficial affect may be required to ensure the long term protection and sustainability of the nearby RAMSAR and SEPP 14 Wetlands.

63. All soil within 1 metre of the finished surface level of the drains is tested and treated for acid sulphate. All culverts are to be marine class pipes/culverts.

STORMWATER QUALITY IMPROVEMENT DEVICES

64. Stormwater Quality Improvement Devices (SQID's) such as bio-swales, bio-retention systems and constructed wetlands are to be incorporated into the drainage design to treat minor events up to the 0.5 year ARI event. In this regard, provision is to be made for best practice Stormwater Quality Improvement Devices (SQIDs) as a treatment train(s) to collect sediment, hydrocarbons, nutrients, pathogens etc. The treatment train(s) is to be designed and constructed offline from the minor and major drainage system and the construction shall be conducted generally in accordance in with Water By Design's "Construction and Establishment Guidelines: Swales, Bio-retention Systems and Wetlands".

The design shall be capable of retaining pollutants in accordance with the requirements of Council's Urban Stormwater and Rural Water Quality Management Plan, Australian Runoff Quality (ARQ) and ANZECC guidelines. Details shall be submitted (along with accompanying MUSIC model) to Port Stephens Council for approval with the engineering drawings **prior to the issue of a Construction Certificate**.

In addition, a site specific "Operation and Maintenance Manual" is to be prepared for the system and submitted to Port Stephens Council for approval **prior to the issue of a Construction Certificate**.

ROADS ACT CONDITIONS

65. All work required to be carried out within a public road reserve must be separately approved by Port Stephens Council, under Section 138 of the Roads Act 1993.

Engineering plans for the required work within a public road must be prepared and designed by a suitably qualified professional, in accordance with Council's 'Infrastructure Design Specification – AUS Spec', and Section B of Development Control Plan 2007.

These works and requirements include:

- a) Connection of roads and drainage to existing public assets including connection to earlier subdivision stages
- b) Traffic control plans in accordance with the Roads and Traffic Authority – Traffic Control at Worksites Manual;
- c) Payment of applicable fees and bonds in accordance with Council adopted fees and charges policy; and
- d) Contractor's public liability insurances to a minimum value of \$10 million dollars.
- e) All works shall be at no cost to Council

The engineering plans must be approved by Council **prior to the issue of a Construction Certificate** required under this consent.

66. Works associated with the approved plans and specifications located within the existing Road Reserve shall not commence until:

- a. a Roads Act Approval has been issued; and
- b. all conditions of the Roads Act Approval have been complied with to Council's satisfaction.

67. All civil engineering works associated with the Roads Act Approval shall be carried out to the satisfaction of Port Stephens Council (with a letter of practical completion issued) **prior to issue of the Subdivision Certificate or Occupation Certificate**.

All works associated with the Roads Act Approval shall be at no cost to Council.

68. Works associated with the Roads Act Approval are subject to:

1. inspection by Council,
2. testing by a registered NATA Laboratory and
3. approval by Council at each construction stage as determined by Council.

69. Prior to any road opening work, a Road Opening Application and accompanying fee must be submitted to and approved by Port Stephens Council's Civil Assets Department.

PRIOR TO SUBDIVISION CERTIFICATE

70. All stormwater and water quality structures shall be dedicated to Council (excluding the natural rehabilitated wetland in the lower portion of the site) as drainage reserve. Details shall be approved by Council **prior to issue of the Subdivision Certificate**.

71. **Prior to the issue of a Subdivision Certificate** a Works Maintenance Bond(s) shall be deposited with Port Stephens Council (or a Bank Guarantee) for a minimum period of twelve months from the issue of Subdivision Certificate of a sum equal to 5% of the contract values of the civil and landscaping works. Verification of the contract values by Council will be required to determine this bond value. Note: (1) Bond administration fees apply in accordance with Council's adopted fees and charges. (2) Rolling bonds will not be accepted.

72. **Prior to the issue of a Subdivision Certificate** a Works Maintenance Bond(s) shall be deposited with Port Stephens Council (or a Bank Guarantee) for a minimum period of five years from the issue of subdivision certificate of a sum equal to 10% of the contract values of the water quality improvement devices and landscaping works.

Verification of the contract values by Council will be required to determine this bond value. Note: (1) Bond administration fees apply in accordance with Council's adopted fees and charges. (2) Rolling bonds will not be accepted.

73. The developer is to provide the following plans, documentation and / or CAD files to Port Stephens Council:

1. Road construction plans in CAD and hard copy format **prior to commencement of road works;**
2. Works-as-executed drawings and CAD files of all engineering works **prior to the issue of any Subdivision Certificate(s);** and
3. CAD files which include all lot and road boundaries, lot numbers and easements, **prior to the issue of the Subdivision Certificate.**
4. Road and filling geotechnical testing and all other documentation in accordance with Council's infrastructure specification **prior to the issue of the Subdivision Certificate.**

All CAD files shall be supplied in AutoCAD or compatible format in a known coordinate system (preferably GDA94 or MGA56).

74. Where new lots, new public and/or new private roads are created the street address numbers and road names(where relevant) shall be approved by Port Stephens Council in accordance with Council's Road Naming policy and application form. Road names shall be included on the final plan of subdivision.

Details of proposed numbering shall be submitted to Council's GIS Services Team and approved **prior to application for Subdivision Certificate.**

75. The applicant shall restore, replace or reconstruct any sections of footpath, cycleway, kerb and guttering, road pavement, stormwater, or any other public infrastructure located within the Road Reserve that occur as a result of construction activities, as determined by Council's Development Engineers or Civil Assets Engineer. The applicant shall bear all associated costs with restoring the public infrastructure to satisfaction of the Certifying Authority.

A **Subdivision Certificate shall not be issued** by the certifying authority until confirmation from the Roads Authority has confirmed that rectification works are to the satisfaction of the Roads authority.

76. A dilapidation report shall be provide and accepted by Port Stephens Council **prior to issue of a Construction Certificate,** for each stage of construction, for any public roads the Council has approved as haulage routines.

77. **Prior to the issue of Practical Completion Certificate and Subdivision Certificate** for each stage of construction a **"Works As Executed"** detail survey shall be submitted to

Port Stephens Council for approval in accordance with Council's requirements, this shall include but not be limited to:

- Confirmation of lot grading at a min 1% towards the road boundary
- Confirmation of each box culvert crossing trunk drainage channels
- Pit and Pipe drainage infrastructure
- Line marking
- Road Centreline
- Top and Invert of kerb
- Signs

78. **Prior to the issue of Practical Completion** construction of each box culvert crossing trunk drainage channels shall be certified by a suitably qualified Structural or Civil Engineer and submitted to Port Stephens Council.

CONSTRUCTION IMPACTS

Whilst the consent authority is generally responsible for the consideration of Erosion and sedimentation conditions, the following has been provided for your consideration:

79. **Prior to the issue of Construction Certificate** a Soil & Water Management Plan for use during and after construction in accordance with 'Managing Urban Stormwater - Soils & Construction', Department of Housing, 2004 Manual is to be prepared by a suitably qualified Chartered Professional Civil or Environmental Engineer submitted to Port Stephens Council for approval detailing temporary and permanent measures proposed to be installed. The plan is to include an analysis of :

- Rainfall erosivity
- Soil erodability
- The erosion and sediment hazard and necessary environmental targets and limits to be met
- The runoff coefficient
- Soil contamination (if any)
- Water tables
- Ground water movements
- Period of the year in which construction is expected to be undertaken
- Sediment basin(s) and correct sizing, along with flocculation regimes
- Diversion drain size capacity

to determine the design and performance criteria for the preparation of site specific Erosion and Sediment Controls Plan(s).

Control measures and treatment trains are to be thoroughly discussed for the site and its construction staging. The plan shall clearly illustrate and clearly define no go zones, timing and staging earthworks with regard to limiting exposure to rainfall events, stabilisation of erosion hazard. The plans must determine and recommend performance criteria and acceptable measures.

In addition the Soil and Water Management Plan must clearly display acceptable discharge limits as per the following:

- not exceed Total Suspended Solids of 50mg/L
- not exceed Turbidity of 50 NTU
- range within pH value of 6 to 8
- be < 80% and > 20% saturation dissolved oxygen
- have no odour or visible petro-chemical sheen
- have no visible litter or waste matter
- not contain any other contaminant, chemical or biological condition which causes any measurable adverse affect

Finally the plan must thoroughly discuss appropriate corrective and monitoring actions which are detailed for the strict purpose of construction, all details are to be submitted to Council for approval **prior to the issue of Construction Certificate.**

80. **Prior to the issue of Construction Certificate** for each stage of construction an Erosion and Sediment Control Plan prepared by a suitably qualified Civil or Environmental Engineer shall be submitted to Council for approval. The Erosion and Sediment Control Plan shall be prepared strictly in accordance with the required Soil and Water Management Plan and with 'Managing Urban Stormwater - Soils & Construction', Department of Housing, 2004 Manual.
81. No release, or flow is permitted from the site, throughout the earthworks and construction period, to any waterway, or stormwater drain or drainage line leading to a waterway or area of native vegetation, unless the quality of the water:
 - does not exceed Total Suspended Solids of 50mg/L
 - does not exceed Turbidity of 50 NTU
 - range falls within pH value of 6 to 8
 - falls within < 80% and > 20% saturation dissolved oxygen
 - has no odour or visible petro-chemical sheen
 - has no visible litter or waste matter
82. does not contain any other contaminant, chemical or biological condition which causes any measurable adverse affect
83. All measures of the approved Sediment and Erosion Control Plan, except as otherwise required in this approval, shall be adopted and implemented.
84. The Sediment and Erosion Control Plan must be updated as required to reflect construction activities, which vary site conditions and/or where objectives/targets are not being met. The Sediment and Erosion Control Plan must also be updated as required to reflect current standards, best practices, and plant modifications,

however any modifications with the potential to result in increased environmental impacts must be approved in advance in writing by Council.

85. There must at all times be a nominated person responsible (the 'responsible person') for day to day supervision of erosion and sediment control measures, the name and available telephone number of such person is to be visible and securely maintained on, or affixed to, the site office, or if this is inaccessible after-hours, adjacent to the main site entrance.
86. All reasonable and practicable measures must be taken which are appropriate to ensure that the activities of all persons working on the site, including employees, agents and contractors, conform to the requirements of this consent and their general environmental duty as required under the POEO Act 1997.
87. There must be no site disturbance, including vegetation clearing, other than for the approved site office and store, and to enable compliance with this condition, until the following measures are implemented:
 - (a) Areas to be disturbed marked out
 - (b) Vehicle barriers around areas to be protected
 - (c) Vehicle site access point(s)
 - (d) Vehicle wash facilities
 - (e) Clean runoff diversion drain(s) installed and stabilised
 - (f) Any required sedimentation pond(s) installed and stabilised
- 88. Sufficient stockpiles of mulch and/or other similar required erosion and sediment control materials and stores must be maintained on site at all times to enable ongoing erosion control, as well as site contingencies eg imminent wet weather, to be dealt with, **until issue of Practical Completion Certificate.****
89. All erosion and sediment control measures must be properly and effectively maintained, and must be in good working order and condition at the completion of each days work.
90. The maintenance of erosion and sediment control measures must continue until the site has been stabilised and further disturbance of soil by erosion is prevented.
91. An effective water quality self-monitoring program, including at least one representative measurement of the total suspended solids quality of any flow or release from the site on each day runoff to waters occurs, must be implemented continuously throughout the life of the works which are the subject of this consent.
92. Where the findings of the required performance self-monitoring program indicate that the compliance limit is being or is likely to be exceeded, remedial action must be taken without delay to ensure ongoing compliance.
93. No vegetation is to be removed or soil disturbed except where expressly indicated on the approved plan.

94. Effective access barriers must be maintained in position at all times to protect areas not to be disturbed by works.
95. Exposed areas such as embankments, cleared and filled areas subject to erosive forces not being actively worked must be fenced off to plant and vehicular traffic, stabilised and protected by the application of seeded mulch and/or turf, (not grass seeding alone) to ensure that the area exposed and time that areas are exposed is minimised as far as practicable.
96. Concentrated flows of stormwater must not be directed to mulched areas until a full grass cover is established.
97. There must be properly constructed and stable check banks or drains maintained along the contour-line across any area of bare soil which is not being actively worked, constructed at adequate intervals and gradients to ensure runoff flows at non-erosive velocities depending on the slope gradient, but in no case at intervals greater than 90 metres. The concentrated flow from the outlet of such banks or drains must be to drains or areas which are suitably protected.
98. The ground surface within all concentrated flow paths must be protected with turf, jute matting or similar effective protection consistent with design flow velocity.
99. Stockpiles must be shaped to stable batters, effectively protected by sediment control fencing, not be located within flow paths, and those which are not being actively worked must be provided with effective temporary surface protection without delay but in any case within 24 hours.
100. Turf must be provided for the width of the verge and 80% grass coverage must be achieved on all exposed lot areas **prior to issue of Certificate Practical Completion.**
101. Any required sediment flocculation basin shall, as far as practical, be maintained at a low water level in readiness for treatment and discharge of further runoff. All sediment captured in basins must be treated and lawfully disposed of within two to seven days of the cessation of a rainfall event.
102. A minimum stockpile of required flocculating agents, where appropriate, must be retained onsite to provide for at least three complete treatments. It must be stored in a secure undercover location.
103. Where works are to be conducted near or within waterways, water course, flood ways, flood storage areas and stormwater drainage, the works must be timed to minimise the potential for exposure to flood events, having regard for the three day weather forecast, as far as practicable.
104. If environmental harm including sediment build up in a waterway, water course, flood way, flood storage areas and stormwater drainage has occurred, or the external drainage system has been silted as consequence of this development, the applicant shall be responsible for the full restoration to preconstruction conditions.

Such restoration must be completed in an expeditious manner and in a reasonable time as directed by Council and or other relevant authorities' officers. Should the applicant fail to complete the necessary restoration works, Council and or other relevant authorities shall complete the works and recover all associated costs from the applicant.

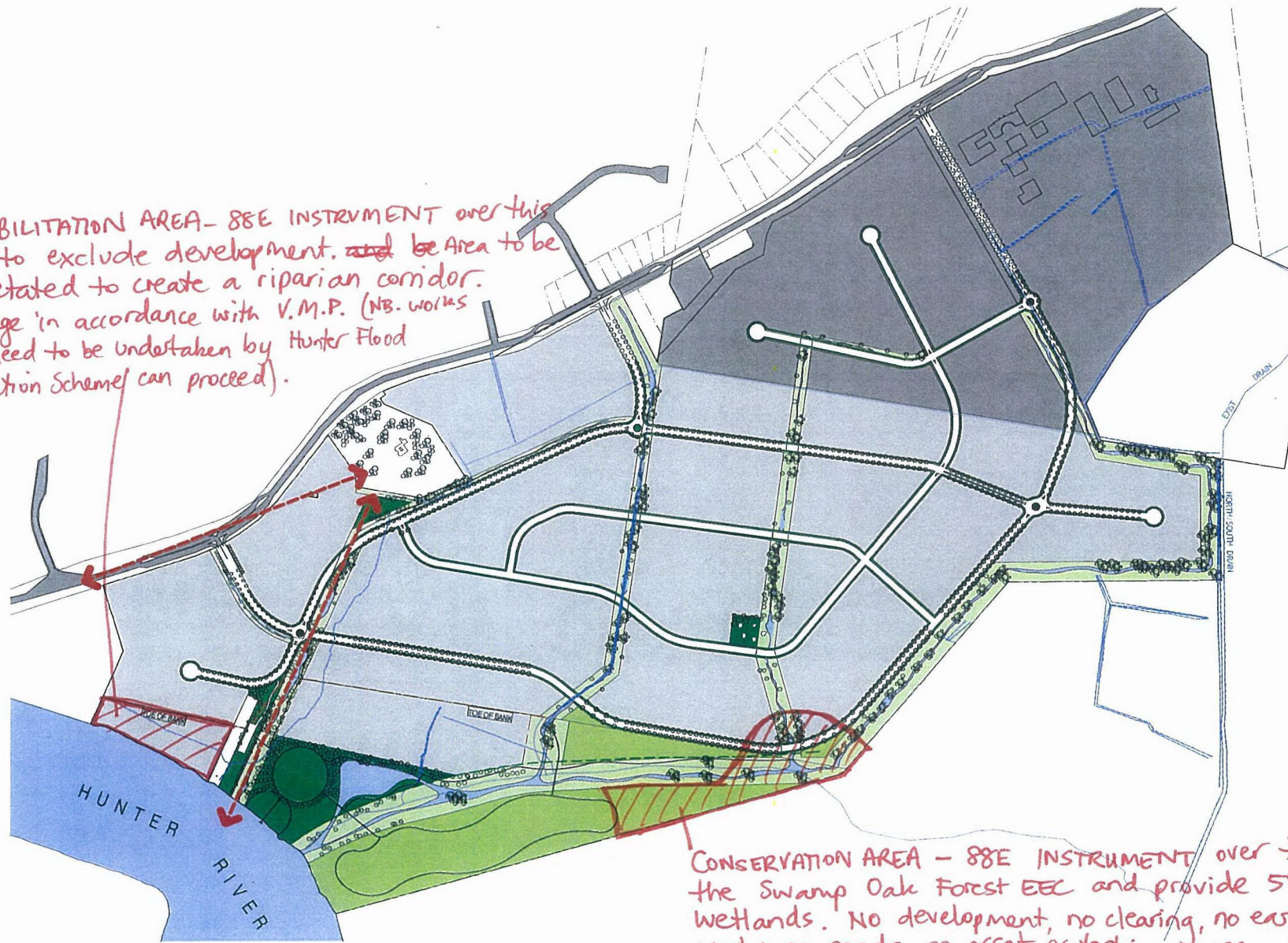
REHABILITATION AREA- 88E INSTRUMENT over this area to exclude development, and be Area to be revegetated to create a riparian corridor. Manage in accordance with V.M.P. (NB. works that need to be undertaken by Hunter Flood Mitigation Scheme can proceed).

CONSERVATION AREA - 88E INSTRUMENT over this area to protect the Swamp Oak Forest EEC and provide 50m buffer to SEPP14 wetlands. No development, no clearing, no earthworks, no drainage works, no roads, no asset protection zones. Manage in accordance with V.M.P.

- LEGEND**
- LAND WITH EXISTING PART 3A APPROVAL (07 0086)
 - SUBJECT SITE
 - LANDSCAPED WATERCOURSES
 - POCKET PARKS AND FEATURE LANDSCAPING
 - FLOOD PLAIN / PONDING ZONE
 - - - EXISTING DRAIN / WATERWAY RETAINED OR ADAPTED
 - - - EXISTING DRAIN / WATERWAY FILLED IN
 - ↔ SIGHT LINES

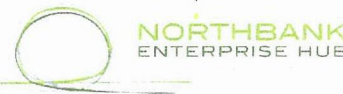
Parks, Landscape Amenity and View Analysis:
 The framework for these elements has been developed in close consultation with heritage and landscape disciplines. The inclusion and collection of heritage features, the landscape treatments to infrastructure corridors (road and drainage), the visual linkages to important areas of the site, both built and natural, are all key elements of the design. Other aspects of the landscape strategy (which can be read in conjunction with the landscape architect's design documents) are:

- Clearly define the entries to the site and provide a sense of uniformity.
- Enhance vistas to the sprawling wetlands and river beyond.
- Identify places of interest and public interaction.
- Create a precinct with a robust, homogeneous landscape strategy.



● PARKS AND AMENITY
 1:1000 @ A3

SUTERS ARCHITECTS PTY LTD 15/155 STATION ST SYDNEY NSW 2008				
Notes: For the purposes of this instrument, the instrument is deemed to be a public instrument. This instrument is subject to the provisions of the Environmental Planning and Assessment Act 1979. This instrument is subject to the provisions of the Environmental Planning and Assessment Act 1979. This instrument is subject to the provisions of the Environmental Planning and Assessment Act 1979. This instrument is subject to the provisions of the Environmental Planning and Assessment Act 1979. This instrument is subject to the provisions of the Environmental Planning and Assessment Act 1979.				
1	PRELIMINARY AND CONSULTATION	2009/01	MT	MM
2	DEVELOPMENT APPLICATION	2009/01	MT	MM
3	CONSENT	2009/01	MT	MM
4	CONSENT	2009/01	MT	MM
5	CONSENT	2009/01	MT	MM
6	CONSENT	2009/01	MT	MM
7	CONSENT	2009/01	MT	MM
8	CONSENT	2009/01	MT	MM
9	CONSENT	2009/01	MT	MM
10	CONSENT	2009/01	MT	MM



suters

Project NORTHBANK ENTERPRISE HUB MASTERPLAN TOMAGO RD TOMAGO	Drawn by PARKS, AMENITY & VIEW ANALYSIS
C 011 NORTHBANK ENTERPRISE HUB Pty Ltd	Scale Date 2009/01/22 10:58 AM Drawn by MM
	Project Number N21618
	Drawn by DA05
	Map C

