

Council Reference: DA18/0685 LN40120  
Your Reference: SSD 9575



7 December 2018

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**Attention: Aditi Coomar**

Dear Sir/Madam

**State Significant Development SSD 9575 (Council Reference DA18/0685) - Concept Application, Stage 1 works and SEPP to Amend Tweed LEP 2014 for new Tweed Valley Hospital (NSW Planning & Environment App No. SSD 9575) at Lot 11 DP 1246853; No. 771 Cudgen Road CUDGEN**

Thank you for the opportunity to comment on the new Tweed Valley Hospital. The hospital is critical infrastructure and Council welcomes the large investment to the Local Government Area.

The application has generated an enormous amount of public interest. Local opposition to the project has been centred on the site selection specifically having regard to the lands classification as prime agricultural land and the existing character of the Kingscliff/Cudgen area.

The matter was reported to the Planning Committee Meeting on 6 December 2018 where it was resolved as follows:

*"That Council objects to the SEPP application and State Significant Development Application and opposes the destruction of State Significant Farmland for hospital purposes on the grounds including but not limited to, that such development is prohibited when other feasible options exist (NCRP). Comments on the EIS by our professional staff are attached. Due to the very short exhibition period to examine such a complex 3000 page document, Council reserves the right to submit a supplementary report prior to the closing date for submissions should other issues subsequently emerge."*

A technical review of the application has not revealed any major impediments to the development as proposed (noting that later stages will contain the detailed assessment provisions) however Council would welcome more discussion on the following matters with both the Department and Health Infrastructure (HI) as the applicant.

Further details of these matters can be found in **Annexure 1**:

1. Water & Sewer Infrastructure Arrangements – an agreement regarding the connection obligations should be reached between HI and Tweed Shire Council before any approvals are issued;
2. Road Connections – A Section 138 Application will need to be lodged with Council and discussion between HI and Council needs to continue to ensure any hospital is serviced by a suitable road network with an urban kerb and gutter format suitable for accessible public access opportunities via public transport and good pedestrian paths;
3. Urban Design – The Master Plan process should adopt the provisions of the State Design Review Panel having regard to the character of the area;
4. Scenic Landscape – The site is highly visible and needs a broader assessment. Council can assist with GIS data;
5. Agricultural Value – additional information is needed on soil classification;
6. Sustainable Agriculture – Council is requesting that the state government develop and fund an agricultural support program to offset the impacts of the development including the loss of 14ha of State Significant Farmland and the associated socio-economic impacts. The support program could identify current farming issues that impact on viability and help local farmers to overcome existing production and market access issues, create pathways for farmers to supply the new hospital with fresh food, and support the use of currently underutilised state significant farmland using mechanisms not limited to incentives, education and technical support.
7. Community Services – The application is lacking in detail in regards to accessibility, transport, public safety, onsite linkages, external, accommodation and housing, the relationship with other ancillary social service providers in the area and whether existing State social providers will relocate from Council's assets.
8. Ecology – the current proposal indicates three large sediment basins hard up against the significant land to the north. A 50m buffer is normally required with the outer edge having some infrastructure.
9. Aboriginal Heritage – The application incorporates referencing of some outdated plans and does not take a wide enough view of the landscape (1km required)
10. European Heritage – A more technical evaluation of the area is required
11. Site Contamination – Additional work required to confirm the site is suitable for the intended purpose as required by legislation.
12. General Engineering Matters – more detail is needed on the sedimentation pond design and the lawful point of discharge for the development.
13. Other Miscellaneous – additional items for consideration

A possible list of conditions that the Department may like to include could be provided upon request.

For further information regarding this matter please contact the undersigned on (02) 6670 2423.

Yours faithfully

**Vince Connell**  
Director Planning & Regulation

**Enc** – Attachment 1

**Annexure 1**  
**MATTERS FOR CONSIDERATION BY THE DETERMINING AUTHORITY**

1. **Water & Sewer Infrastructure Arrangements – an agreement regarding the connection obligations should be reached between HI and Tweed Shire Council before any approvals are issued;**

The following comments are based on Appendix U Infrastructure Management Plan which outlines that the Stage 1 Early and Enabling Works proposal includes connection of water and sewer.

Representatives from Council's Water and Wastewater Unit have had several phone discussions and meetings with ACOR Consultants Pty Ltd since mid 2018 to confirm the requirements for the hospital with respect to Water and Wastewater. Assessments undertaken by Council show that using the information provided by Robert Gruber from ACOR Consultants Pty Ltd to date, the hospital would be able to connect to the water supply system and discharge from a private pump station to the sewerage system, without requiring any upgrades to Council's existing systems. All that will be required by the hospital for water supply is a connection under Turnock Street and installation of water meters, and a connection under Cudgen Road for sewerage. Therefore, minimal works are required by the hospital to connect to Council's systems. The design details for these connections would need to be addressed as part of an application for Water and Sewerage Works.

It is noted also that there may be works on the surrounding road reserves as part of the proposed development that are in proximity and/or may impact any existing water and sewerage assets (e.g. extending, relocating or lowering). Where these works may impact the water and sewerage assets, this will also need to be addressed in an application to Council (as the Water Authority).

As a Crown Development, the Hospital is not obligated to pay headworks charges for the additional load that they will be placing on Council infrastructure as a result of the development. This is because usual provisions under the Water Management Act relating to developer contributions (Section 305/306/307) do not relate to Crown Developments. There are other avenues that Council may seek to require payment of headwork's charges from the Hospital, such as Section 608 in the Local Government Act. It is proposed to pursue the requirement to pay headwork's charges or part thereof for the additional load that the development will place on Council infrastructure and the requirement to bring forward significant infrastructure works. Historically Council has not pursued these charges given the State Governments contribution to Water Supply and Sewerage projects. Over the last 10 years the State Government has had a far lesser role in funding Council water supply and sewerage capital projects. Additionally the State Government financial guidelines for the operation of Water Utilities are based on a self-funding model. Given the impact of this development in bringing forward the upgrade of major capital it is considered appropriate that the development pay headwork's charges.

Prior to Council approval of any water and sewer related applications, an agreement regarding water and sewer headwork's financial contributions shall be reached between HI and Tweed Shire Council.

### ***Recommendations***

- A. An agreement regarding water and sewer headworks financial contributions should be reached between HI and Tweed Shire Council before any water and sewer related approvals are issued;***
  - B. A certificate of compliance under Chapter 6, Part 2, Division 5 of the Water Management Act 2000 is to be obtained from Council to verify that the necessary requirements for the supply of water and sewerage to the development have been made with the Tweed Shire Council.***
  - C. An application will need to be lodged with Council for any works required to connect to Councils water and sewerage systems (as the Water Authority), or where development is likely to disturb or impact upon existing water or sewer infrastructure.***
  - D. An application will need to be lodged with Council (as the Water Authority) for a bulk water meter.***
  - E. An application will need to be lodged with Council (as the Water Authority) will need to be lodged with Council to install/operate an onsite sewerage management system (private pump station). A condition of the application would include a requirement for pumps to be limited to a maximum discharge of 36 L/s to Council's sewerage system.***
  - F. An application will need to be lodged with Council (as the Water Authority) for approval to discharge Liquid Trade Waste to Council's sewerage system.***
- 2. Road Connections– A Section 138 Application will need to be lodged with Council and discussion between Health Infrastructure as the applicant and Council needs to continue to ensure any hospital is serviced by a suitable road network with kerb and gutter and good public access opportunities;**

### **Traffic and Access**

Appendix L provides a Traffic Impact Assessment (TIA) by Bitzios Consulting. This describes the existing and proposed road access for the site, and potential impacts of the development on traffic volumes and intersection capacity in the vicinity of the site.

The site will be serviced by four formal road accesses, 3 from Cudgen Road, and 1 from Turnock St, shown below. The TIA confirms that the design of the four accesses is adequate in terms of traffic capacity and general location. No objections are raised in this regard. The main concern is the configuration of Accesses A and C as slip roads rather than driveway accesses, and related issues with vehicle speeds as they intersect the cycleway along Cudgen Road. These matters have been raised with Health Infrastructure, as detailed below (noting that Access C is not part of the current application).



**Figure 4.3: Site Access Locations**

Accesses A and D have also been proposed as “preliminary works”, to be undertaken under Part 5 of the EP&A Act and SEPP (Infrastructure). Council has received initial correspondence in the form of a Notification of Activity seeking consultation on these preliminary works and Council’s requirements. Health Infrastructure will also make application under s138 of the Roads Act seeking approval to undertake works in the road reserve. Refer to specific comments at the end of this assessment report.

Access D works will also include extension of a water connection to the site across Turnock Street. Refer to Water and Sewer comments.

The consultants have estimated a daily trip assignment of 5,078, based on 11.81 trips per bed.

Peak hour in

- Morning Commuter Peak hour (8am-9am) is estimated 255 trips,
- Evening Commuter Peak (5pm -6pm) is estimated at 525 trips
- Peak Vehicle Trips (3-4pm) is estimated at 608 trips.

The proposed concept design appears commensurate with the expected traffic generation of the development. The TIA has assessed road intersections external to the site. The only location where upgrade works have been identified is the Tweed Coast Road / Cudgen Road signalised intersection. These works are also proposed to be approved under Part 5 and a concurrent s138 application. Bitzios has been in consultation with Council around the proposed configuration of this intersection, to deal with existing capacity, upgrades due to hospital traffic, and the future four-laning of Tweed Coast Road, as identified in the recent update to the Tweed Road Development Strategy. The design of the

intersection is generally acceptable, requiring some significant upgrades. Refer to specific comments at the end of this assessment report.

It is our understanding that the recommended intersection upgrade will be completed in its entirety in conjunction with the hospital development, paid for by the State.

This commitment recognises:

- That the development will not pay developer contributions normally attributed to traffic generating development
- That the hospital brings forward the need to upgrade the intersection above background traffic growth, and
- General community perceptions / expectations.

However the EIS does not specifically state this commitment.

The TIA and concept plans show various pedestrian connections for the site. A shared user path exists along the Cudgen Road frontage. Provided the proposed road access works can maintain pedestrian and cyclist safety on this facility, the development will enhance active transport movements with the addition of signals on Cudgen Road with pedestrian phases. The assessment of Access D identifies some disconnection of pathways near the roundabout. These have been raised with HI and can be readily corrected. Consideration in the site design and facilities should also be given to mobility aides such as scooters.

Cudgen Road currently has a largely rural cross section. The formalisation of the hospital frontage with various accesses necessitates the upgrade of the full frontage of the site to an urban road cross section – that is installation of kerb and gutter, piping of open drainage, street lighting, signage and linemarking etc. The application does not include any detail on the final configuration of Cudgen Road, perhaps as it will be the subject to the Stage 2 SSD. Further information should be requested, with these works also being subject to a s138 application.

The hospital development provides a large amount of at grade parking for staff and customers. Ultimate parking provision (700) is commensurate with council's DCP A2 which would require 688 spaces. Year of opening parking requires 652 spaces for 407 beds. This can be sufficiently accommodated on site. The TIA foreshadows paid parking arrangements, similar to Lismore Base Hospital. The TIA does not assess the impacts of paid parking on parking demand in the locality, or measures necessary for the paid parking system to work without adversely impacting on local amenity. This should include an economic demand analysis be conducted to determine the optimum charge to ensure Hospital parking does not impact on adjacent residents or businesses. Further information should be requested.

Council's DCP A2 specifies bicycle parking facilities for employees should be to a Class 1 level. The traffic report calls up Class 3 facilities and this should be reviewed. Further information should be requested.

Internal road geometry has been designed to the appropriate standards.

On-site servicing arrangements appear adequate.



### Public Transport

It is noted that consultations have taken place with the bus service provider. There is proposed rationalisation between the existing on road TAFE facilities and the Hospital facilities by removing the east bound bus bay and forming two new indented bus bays adjacent to the east of the proposed signals

### Comments provided to Health Infrastructure in response to Notification of Activity for Road Access Works (as of 22/11/18):

#### Access A

Left in only from Cudgen Rd at eastern boundary. The applicant has advised that the western access was designed for use by authorised vehicles only accessing the site via Tweed Coast Road (West). This was used to justify the design of the access to a “higher order treatment” “in accordance with Austroads design and turn warrants.” However, it is noted in the concept design that direct access from this access is provided to the Staff Carpark and this is acknowledged in the Traffic Report on page 45. The report does not identify that the access bisects a shared user path and the potential risks for the existing users of this facility.

It is recommended that should the higher speed access design be pursued then internal access to the Staff and Public Carpark should be removed from this entrance.

Below is a picture of the newly constructed access to the Byron Bay Hospital and whilst this access allows right turns in, the access is constructed to a driveway configuration at right angles to the road and the shared user path.





### ***Recommendation***

- G. Access A off Cudgen Road is to be modified to reflect the requirements of Council's Driveway Access Specifications and connect orthogonal to Cudgen Road in a similar configuration to the Byron Bay Hospital access from Ewingsdale Road.***

#### **Access D**

All movement access to Cudgen Road/Turnock St by constructing a fourth leg to the existing roundabout.

The concept design did not indicate a continuous path of travel for pedestrians at its north west corner.

### ***Recommendation***

- H. Access D - The design is to be updated to show a continuous connecting path of travel for pedestrians at the north/west leg of the roundabout on Cudgen Rd.***

#### **Cudgen Road/Tweed Coast Road Intersection**

The report identifies that by 2023 without the impacts of the Hospital traffic that the intersection would operate outside acceptable performance limits. A series of upgrades referred to as Upgrade 1 were modelled at the intersection. The upgrades improved the intersection's operation at peak hour to a practical capacity Degree of Saturation. This modelling did not include the traffic impacts from the Hospital.

Further upgrades are identified as being required at the intersection at the year of opening labelled as Upgrade 2 shown in section 5.3.3.

Therefore, before opening of the Hospital the intersection needs to be upgraded as follows

- Addition of a 100m southbound left-turn lane on Tweed Coast Road;
- Phase sequence change to allow the southbound left-turn to overlap with the westbound right-turn (i.e. possible with the provision of dedicated southbound left-turn lane);
- Lane discipline change for the two approach lanes on the south-eastern approach:
  - Change of the left through lane to a through and right lane;
  - Change of the right through and right lane to a right only lane;
- Extension of the south-eastern short departure lane from approximately 75m to approximately 150m;
- and
- Extension of the northbound departure lane from approximately 85m to approximately 100m; and
- Conversion of the north-western leg departure to a single lane (no physical changes. i.e. through provision of chevron line marking). With the lane discipline changes on the south-eastern approach, there is only one lane travelling through to the north-western departure lane.

- Further upgrades are required to cater for the additional Project traffic in Year 2023, including:
- Extension of the northbound departure lane to approximately 200m; and
- Extension of the southbound departure lane to approximately 150m.

Any works associated with the Tweed Coast Road / Cudgen Road intersection should be commensurate with Council's ultimate plans for Tweed Coast Road

### ***Recommendation***

#### ***I. Before opening of the Hospital the intersection of Tweed Coast Road and Cudgen Road needs to be upgraded as follows***

- ***Addition of a 100m southbound left-turn lane on Tweed Coast Road;***
- ***Phase sequence change to allow the southbound left-turn to overlap with the westbound right-turn (i.e. possible with the provision of dedicated southbound left-turn lane);***
- ***Lane discipline change for the two approach lanes on the south-eastern approach:***
  - ***Change of the left through lane to a through and right lane;***
  - ***Change of the right through and right lane to a right only lane;***
- ***Extension of the south-eastern short departure lane from approximately 75m to approximately 150m;***
- ***Extension of the northbound departure lane from approximately 85m to approximately 200m; and***
- ***Conversion of the north-western leg departure to a single lane (no physical changes. i.e. through provision of chevron line marking). With the lane discipline changes on the south-eastern approach, there is only one lane travelling through to the north-western departure lane.***
- ***Extension of the southbound departure lane to approximately 150m***

#### ***J. Any works associated with the Tweed Coast Road / Cudgen Road intersection should be commensurate with Council's ultimate plans for Tweed Coast Road***

### **Developer Contributions**

The EIS provides advice from the Department of Planning and Environment that Crown developments for community services, including health, are exempt from general developer contributions. While the development will significantly add to demand for infrastructure, such as road capacity, the Crown is not obligated to pay Section 94 Developer Contributions. On the basis that the existing Tweed Heads Hospital will not retain all of development credits and that the State Government continues to provide funding towards section 94 projects Council's standard conditions relating to developer contributions need not be applied.

**3. Urban Design – The Master Plan process should adopt the provisions of the State Design Review Panel having regard to the character of the area.**

The following comments are based on a review of the concept proposal drawings, section 5.3 SEAR 3 – Built Form and Urban Design section of the EIA and submitted the submitted Built Form and Urban Design Report dated 19 October 2018 as prepared by STH and Bates Smart. Reference is also made to comments made by the State Design Review Panel by way of Government Architects correspondence dated 23rd October 2018. The key recommendations of the SDRP are also supported which include:

1. Further consideration of the visibility and urban impact of the hospital precinct at both local and regional level.
2. Prepare landscape strategies that connect the ground floor to the rest of the site, including a ground level plan that identifies and prioritises a hierarchy of open space.
3. Review vehicle and pedestrian circulation and access to address considerations outlined above.
4. Provide further demonstration of options and options assessment, including elevations and site sections.
5. Actively engagement with the local community as the design develops, utilising concept options to assist in engagement.

***Recommendation***

***K. It is recommended that the findings of the SDRP are considered in the context of the sites master planning and to inform subsequent stages of the hospitals design and procurement.***

***Design Principles and design response***

***Recommendation***

***L. It is recommended that the master plan respond more closely respond to the locality character and the subtropical climatic context by:***

- a. Devising a suite of site specific urban design principles to inform subsequent stages of the hospital and sites design including principles of sustainable design;
- b. Addressing the sites threshold position between the localities rural hinterland and urban settlement through site landscape, appropriate setbacks, building form, building materiality and visual analysis;
- c. Address the sites edge fronting Cudgen Road in terms of landscape, pedestrian access and visual amenity;
- d. Address the building envelope, height, form, mass and scale in the broader topographic context; and
- e. Address the sites interface with the low density urban interface to the east in terms of land use, site access, building form and visual impact.

### Building form

The preferred 'compact' building form and resultant nomination of a 'maximum planning envelope' is considered limiting in terms of exploring alternative built form configurations within subsequent design stages. Similarly these envelopes do not identify or include future stages or other allied health services to be located.

### **Recommendation**

- M. It is recommended that the master plan explore additional building envelope typology configurations which represents a stronger landscape / linear rather than compact tower response. This could include distributing the buildings bulk across the site reducing the overall height, mass and scale by stepping the building forms aimed at reducing building height at both the rural (western) and urban (eastern) thresholds and interfaces (see indicative diagrams).**

### Circulation and Movement

Site vehicular circulation is centred on a main entry point and secondary car park entry further east, an additional entry point off Turnock St roundabout to the east and a dedicated emergency / service entry to the west. There are two at grade car parks to the east (staff and public) and two at grade car parks (staff and public) to the west both presenting significant uncovered/shaded walking distances to the hospital building envelope. Within this internal circulation arrangement there is currently little consideration on how future allied health stages building envelopes would relate to the internal vehicular circulation diagrams.

### **Recommendation**

- N. It is recommended that the master plan more clearly articulate internal roads and streets which organise and structure the sites future building envelopes, vehicular circulation, car parking as well as clearly delineated pedestrian (shaded) and cycle movements across the site, open space and public domain areas. Similarly a location for public transport access (bus stop) should be nominated and relate to the surrounding context (residential and TAFE). It is further noted that the location of the car parking areas, which dominate a substantial portion of the sites area are a substantial uncovered walking distance from the main hospital access points. Given the sites slope, there is good opportunity to locate car parking in building envelopes under croft areas and provide vertical circulation to access different hospital and health services.**

### Future Stages

#### **Recommendation**

- O. It is recommended that the master plan more closely address future stages of the development and recognise the potential for a substantial mix of land uses including health and allied health services as well as a range of retail, community, and public domain which would also be used and relevant to the existing surrounding community.**

### Community consultation

#### **Recommendation**

- P. It is recommended that consultation on the sites master plan and building envelope / design options be undertaken with the local community prior to the submission of subsequent development applications.**

**4. Scenic Landscape – The site is highly visible and needs a broader assessment. Council can assist with GIS data.**

The Visual Impact Assessment Report (VIA) prepared by Geolink (Appendix K) finds the potential visual impacts of the proposed development will result in “an obvious change to the site and local landscape...and a reduction in visual quality of various view frames would be experienced, including impact to the scenic qualities of the Cudgen District. However, all view frames would maintain a reasonable visual amenity standard and measures have been and would be considered to minimise visual impact.”

### View Shed Analysis: Broader View Sheds

The assessment of affected views and viewers (visually sensitive receivers) is limited to locations within a local fore-ground viewing catchment of 650m from the development site. The assessment does not consider affected views from or viewers of more distant, elevated or highly accessible viewing locations with mid-ground or background views of the site. These locations include highly trafficked tourist lookouts and destinations; and places of interest that are identified as having significance to the local community, or to the regional tourism economy as assets promoted as part of “Australia’s Green Cauldron” within the National Landscapes Program. Reference may be made to the Tweed Scenic Landscape Evaluation, prepared by Catherine Brouwer (1995) and draft Tweed Scenic Landscape Strategy which identifies and maps priority viewing locations.

#### **Recommendation**

- Q. It is recommended that the VIA include impact assessment of affected views from highly trafficked and accessible public viewing locations with more distant, elevated or panoramic views, where the subject site falls within and impacts on the midground or background. TSC can provide GIS mapping information relating to key view sheds.**

### Visual Quality Assessment: Affected viewers

The visual quality assessment of both the existing views and those impacted by the proposed development have been derived based on a consultant's subjective assessment of change impacts on visual elements, but do not factor affected viewers' perceptions or preferences. Best practice Visual Impact Assessment of proposed developments of this scale and potential visual alteration typically include early consultation with affected viewers on their likes and dislikes to ensure visual impact mitigation and management options effectively respond to community and viewer priorities in the early concept design stages.

### **Recommendation**

***R. It is recommended that as part of the VIA the assessment that there is evidenced engagement with affected viewers of revised viewing locations, to consult on their visual quality values, and identify their preferences for specific visual elements as seen in the existing view and the conceptual view including the proposed development. This should comprise the following matters:***

- a. Information and discussion of the development site / area and the nature of the proposal with affected landholders and community;
- b. Confirmation of which viewpoints are considered important and validation of their view sheds;
- c. Capture community values about scenic qualities – that is, the landscape features and visual elements that viewers prefer (like / dislike);
- d. Provision of photomontages generated from each viewing point to facilitate an understanding and discussion of potential visual impacts of the proposed development; and
- e. Scope alternative designs and listen to and report on viewers concerns about visual impact and the extent to which they perceive the proposed mitigation measures will achieve their scenic quality objectives.

## **5. Agricultural Value – additional information is needed on soil classification**

### Impact on Agricultural Land

The proposed development suggests that the site area is very small, the soils are not of high quality, and that a loss of the site from productive agricultural purposes will not result in fragmentation or impact on the value and investment in agricultural productivity of neighbouring farming land.

### Soil quality

While the quality of the soil has been questioned, no evidence has been provided to justify these comments.

### ***Recommendation***

- S. It is recommended that a soil assessment including soil samples and classification against a recognised soil classification system to assess the value of soils across the site be required. In addition, any such assessment should validate the distinction that might exist between the soils on the top of the plateau and those on the surrounding escarpment.***

### ***Fragmentation and setbacks***

The Assessment states that the site is located on the north eastern margin of the Cudgen Plateau, and as such removal of the site from productive agricultural will not result in fragmentation; however, the ability of adjoining agricultural land to operate without restriction should be clearly established prior to finalising layout of development on the site. The agricultural impact assessment does not provide any guidance on the standard setback requirements for separation from agricultural land.

### ***Recommendation***

- T. It is recommended that an assessment into appropriate setbacks and buffers between the site and surrounding agricultural uses be undertaken referencing the publication 'Living and Working in Rural Areas' 2007. The Assessment should clearly define setback requirements to ensure that legitimate agricultural activities are not impacted by construction of the hospital or ancillary development on the site, or future expansion of Kingscliff TAFE.***

### ***Suggested Agricultural Land Conditions***

If the Department of Planning and Environment are of a mind to approve the application as proposed then the following Condition of consent would be necessary:

### ***Recommendation***

- U. It is recommended that setbacks be imposed on the site to ensure that adjoining agricultural land will not be impacted by development of the site.***

- 6. Sustainable Agriculture –Council is requesting State funded offsets for the loss of any agricultural land and meaningful consultation with the local farmers in relation to the possible impacts with active farming pursuits and the setback requirements to avoid land use conflicts.***

The following comments relate primarily to Appendix F – Agricultural Impact Statement, but also Appendix Z – Social and Economic Impact and the EIS. These comments relate to the adequacy of the assessment not the feasibility or statutory ability to construct on this site.



### Agricultural impacts

The EIS has not adequately assessed the impact of the development on agriculture. The EIS should:

- Accurately quantify the loss of arable land, the associated loss of food production over the life of the project and detail how these figures were determined;
- Consult local growers to assist in determining the likely impacts of the proposal and potential mitigation options for offsetting the loss of 14ha of State Significant Farmland and associated socio-economic impacts; and
- Address the requirements of the SEARs including *identifying options to minimise and mitigate adverse impacts on agricultural resources, including agricultural lands, enterprises and infrastructure at the local and regional level.*

### **Recommendation**

- V. *The state government develop and fund an agricultural support program to offset the impacts of the development including the loss of 14ha of State Significant Farmland and the associated socio-economic impacts.***

***The support program could identify current farming issues that impact on viability and help local farmers to overcome existing production and market access issues, create pathways for farmers to supply the new hospital with fresh food, and support the use of currently underutilised state significant farmland using mechanisms not limited to incentives, education and technical support.***

- 7. Community Services – The application is lacking in detail in regards to accessibility, transport, public safety, onsite linkages and linkages external to the site, accommodation and housing, the relationship with other ancillary social service providers in the area and whether existing State social providers will relocate form Council's assets.**

### Accessibility, transport and Public safety

The proposed development rates the impact on physical accessibility as low.

Best practice would consider the demographics of the community who are likely to access the hospital and those living in the surrounding Tweed Hospital. We were unable to find evidence of this being considered. Best practice would also consider the benefits of improved pedestrian paths, cycle paths and public transport for patients and the future workforce and well located short term parking for people with limited mobility and their carer's.

### **Recommendation**

- W. *It is recommended that the Department of Planning request additional information to clarify the considerations used in determining the impact as "low" and include demographic considerations, benefits to active and public transport linkages, accessible parking options for people with limited mobility.***

### Public safety

The proposed development suggests there will be minimal negative impact on community safety at both Tweed Heads town centre and the new location, due to:

- a. reduction in activity and associated perceptions of safety while the site transitions from current use to yet unidentified future use and the hospital relocation will have a positive impact on the Tweed Heads town centre through the reduction of hospital related violence and anti-social behaviour
- b. a broader and marginally positive impact on the local catchment due to separation of the hospital and surrounding areas.
- c. potential for some low negative impact on community safety at the new hospital, however these will be mitigated through CPTED and other hospital design principles. Including Territorial reinforcement, Surveillance, Access Control, Space activity Management.

Best practice would look to balance the use of these CPTED principles with the integration of hospital and neighbouring facilities e.g. TAFE and Kingscliff Aquatic Centre particularly relating to the transport nodes and connectivity.

### ***Recommendation***

- X. It is recommended that the Department of Planning request additional information to clarify how hospital related violence and anti-social behaviour associated with hospitals will be mitigated in relation to surrounding facilities.***

### Accommodation and Housing

The proposed development suggests that accommodation for key workers will be provided.

Best practice would suggest consideration of the changing demographics which occur around key health infrastructure with special consideration for the accommodation needs associated with hospitals for staff, patients, students and visitors, especially in areas with high rates of tourism and affordable housing issues.

- Y. It is recommended that the Department of Planning request additional information regarding the consideration for accommodation provisions on site or linkages to affordable accommodation options for staff, patients, students and visitors in a high tourism zone.***

### Ancillary Health and Social Services

The proposed development considers child care and retail space.

Best practice would suggest consideration of the changing demographics which occur around key health infrastructure and the provision on site or linkages to ancillary health and Social services.

### ***Recommendation***

***Z. It is recommended that the Department of Planning request additional information regarding the consideration of ancillary health and social services on site or linkages to these services in the vicinity.***

**8. Ecology – the current proposal indicates three large sediment ponds hard up against the significant land to the north. A 50m buffer is normally required with the outer edge having some infrastructure.**

The recommendations herein are based on, and reference Council's DCP A19 Biodiversity and Habitat Management, which has been prepared based on current best practice ecological management, and provides guidance on acceptable measures to avoid or minimise the impact of development on biodiversity, as required under the Biodiversity Conservation Act 2016.

It is however recognised that development control plans do not apply to State significant development. It is recommended that further information be requested in order to satisfy the main issues identified below:

- Amendment of the current proposed development footprint is required in order to achieve adequate setback from significant vegetation and mitigate the impact of the development.
- Preparation, approval and implementation of a Habitat Management Plan prior to commencement of works on the site in order to direct habitat restoration, enhancement and ongoing management in order to mitigate ongoing development impacts.
- Appropriate environmental zoning of the retained vegetation in order to ensure ongoing protection.

### ***Recommendation***

***AA. It is recommended that further information is requested, or conditions of consent are applied, to achieve consistency with Tweed DCP A19 as follows:***

- a. An amended development footprint that achieves a 50m ecological setback, to be managed as an ecological buffer, from the significant vegetation.***
  - i. Overlap of APZ and sediment basin location with the ecological buffer may be acceptable if it can be demonstrated that the management requirements and design are compatible with ecological buffer management***
  - ii. No more than the outer half of the ecological buffer is to be used for the above purpose.***
- b. Preparation and approval of a Habitat Management Plan for retained vegetation and ecological buffer.***
- c. Implementation of the Habitat Management Plan should commence prior to commencement of any physical works on the site.***

***BB. That the department be satisfied that the information supplied adequately addresses the requirements of development in the Coastal Wetland Proximity Area prior to approval.***

**CC. That the Biodiversity Management Plan and incorporated Water Quality Management Plan be prepared and approved prior to work commencing on site.**

**DD. That the proposal seek to zone the area of retained vegetation and ecological buffer to E2 under TLEP 2014.**

**EE. Restoration under the Habitat Management Plan described above, and landscaping in the vicinity of the wetland should consider incorporating preferred koala food trees where appropriate.**

**FF. Any fencing should not limit connectivity through and within the site for koala and other fauna.**

#### Flying-fox

The BDAR identifies two known flying-fox camps within 1km of the proposed development. While the development is not expected to impact on the flying-fox camps, it should be noted that the Tweed Flying-fox Camp Management Plan identifies hospitals and helipads as *sensitive receptors*, and the applicant and the department should be cognisant of the associated risk.

**9. Aboriginal Heritage – The application incorporates referencing of some outdated plans and does not take a wide enough view of the landscape (1km required)**

An Aboriginal Cultural Heritage and Archaeological Report (ACHAR) (October 2018) has been prepared by Niche Environment and Heritage. It is noted this is not a comprehensive Aboriginal cultural heritage assessment. The site is largely mapped as Predictive Aboriginal Cultural Heritage under the Tweed Shire Council Aboriginal Cultural heritage Management Plan 2018 and is in close proximity to a known and registered site.

#### Guidance for the assessment (Section 1.2 and other)

The ACHAR refers to the draft Guidelines for Aboriginal Cultural Heritage Impact Assessment and Community Consultation (DEC 2005). It is noted that this is superseded by the Aboriginal Cultural Heritage Consultation Requirements for Proponents 2010 guideline.

#### **Recommendation**

**GG. It is recommended that the Department of Planning and Environment (DP&E) require that references should be updated to reference Aboriginal Cultural Heritage Consultation Requirements for Proponents 2010 guideline rather than the superseded draft Guidelines for Aboriginal Cultural Heritage Impact Assessment and Community Consultation (DEC 2005) within the ACHAR and the assessment report be updated to ensure the current requirements have been met.**

### Heritage register searches (Section 6.0)

It is recommended that the Department of Planning and Environment (DP&E) require that the ACHAR acknowledge that the existing land use would be “moderately altered” and the risk of disturbance would be “significant” based on the matrix for understanding risk within the Tweed Shire Council Aboriginal Cultural heritage Management Plan (ACHMP). This then places the site into the “Medium / High” category and strongly recommends an Aboriginal Cultural Heritage Assessment and Consultation in accordance with the National Parks and Wildlife Act 1974 (NPWA) legislation and the ACHMP.

With specific reference to Section 6.2.3 AHIMS there are at least three known and registered sites within 1 kilometre of the site and it is a high probability coastal landscape.

### **Recommendation**

**HH. It is recommended that the Department of Planning and Environment (DP&E) require that the search area be expanded to a minimum 1km radius from the site.**

### The Burra Charter (Section 12)

The significance assessment under the Burra Charter is a suitable inclusion. Notwithstanding, the Statement of Significance (section 12.4) should be from the perspective of Aboriginal people rather than current use (ie in section 12.4.3). By way of example, the aesthetic significant should related to the use of the landscape and context by Aboriginal people, be that an elevated position, suitable for campsite with good contextual visibility, along a pathway route and in close proximity to coastal resources.

### **Recommendation**

**II. It is recommended that the Department of Planning and Environment (DP&E) require that the Section 12.4 be updated to reflect the significance from the perspective of Aboriginal people.**

### Suggest Aboriginal Conditions

If the Department of Planning and Environment (DP&E) are of a mind to approve the application as proposed then the following condition of consent would be necessary:

### **Recommendation**

#### **JJ. Possible conditions - Aboriginal Precautionary Approach**

- a. **Should any Aboriginal object or cultural heritage (including human remains) be discovered all site works must cease immediately and the Tweed Byron Local Aboriginal Land Council (TBLALC) Aboriginal Sites Officer are to be notified (on 07 5536 1763). The find is to be reported to the Office of Environment and Heritage. No works or development may be undertaken until the required investigations have been completed and any permits or approvals obtained, where**

required, in accordance with the National Parks and Wildlife Act, 1974.

- b. Any actions or recommendations of the Aboriginal cultural heritage assessment undertaken in support of the application are to be followed and implemented.

#### 10. European Heritage – A more technical evaluation of the area is required

##### ***Recommendation***

***KK. It is recommended that the Department of Planning and Environment (DP&E) require that the Historical Heritage Assessment report provide conclusions and recommendations on whether the heritage listing of the identified dry stone walls is appropriate and to be pursued. Should the listing be found to be appropriate, it should be identified as an action within the HHA.***

##### *Suggested European Heritage Conditions*

If the Department of Planning and Environment (DP&E) are of a mind to approve the application as proposed then the following conditions of consent would be necessary:

##### ***Recommendation***

***LL. Possible Condition: Supporting heritage assessment***

***Any actions or recommendations of the Historical Heritage assessment (Niche October 2018) undertaken in support of the application are to be followed and implemented.***

***MM. Possible Condition: Conservation and protection of dry stone walls***

***A Conservation Management Plan be prepared to protect and conserve the dry stone walls identified outside of the area of impact (walls 1, 2 and 5).***

***NN. Possible Condition: Archival record***

***An archival record, consistent with the Office of Environment and Heritage requirements, is to be undertaken for dry stone walls subject to damage or removal, as identified in the Historical Heritage Assessment (Niche October 2018).***

#### 11. Site Contamination – additional work required

Council's records reveal a contaminated land search dated 6/7/18 confirming no known cattle dip within 200m, no potentially contaminating activities noted on the topographic map, and no known potentially contaminating activity in data records. It advises historical photography from 1944 indicates areas of agricultural activity on the site. Agricultural/horticultural activities have been listed as a potentially contaminating activity due to the association of the activity with chemical usage.

Preliminary and Detailed Site Investigation for 771 Cudgen Road, Cudgen NSW 2487 prepared by Occupational Hygiene & Environmental Consulting (OCTIEF) Pty Ltd dated 17 October 2018 (File Reference: J8961) advises:

- Current use is agricultural production including a residential dwelling, chemical storage/equipment shed, cultivated paddocks (16ha), and undeveloped wetland.
- Aerial photographs from 1944 indicate ground disturbance associated with agricultural activities.
- A preliminary contamination land assessment (HMC, 2017) indicated broadacre intensive cropping subject to agrichemical applications, structures that may have been used for storage/mixing of chemicals and storage of fuel, and potential hot spots that may require remediation.
- Chemicals of potential concern include: heavy metals (arsenic, cadmium, chromium, copper, lead, mercury, nickel, and zinc), BTEX (benzene, toluene, ethylbenzene and xylene), TRH (total recoverable hydrocarbons), volatile organic compounds (VOCs), semi-volatile organic compounds (SVOCs), polycyclic aromatic hydrocarbons (PAHs), organophosphorous (OP) and organochlorine (OC) pesticides, and asbestos.
- No fill material, hydrocarbon staining, or odours were observed.
- Asbestos containing material was detected on the western side of the site shed. Confirmation of classification in accordance with the NSW EPA Waste Classification Guidelines prior to disposal off-site to an appropriately licenced facility.
- No exceedances of health investigation levels (HILs) for chemical contaminants identified.
- Anthropogenic wastes noted in a small farm dump in the north western corner. Note some portions of the dump could not be accessed due to vegetation overgrowth.
- Sampling densities recommended in the NSW EPA Guidelines for Assessing Banana Plantations and Guidelines for Assessing Former Orchards and Market Gardens used for the cultivated areas of the site.
- Sampling for cultivated areas within and outside the project footprint are 2 and 4 per ha respectively. Note EPA Sampling Guideline (referenced in Guideline for Assessing Former Orchards and Market Gardens) recommends 21 sample points per ha (with a 25.7m radius) and in the Banana guidelines for sites over 2 ha is 16 sample points per hectare of area (equivalent to a 25m square grid pattern). Clarification of sampling required.
- Surface water sampling carried out at onsite dam.
- As a conservative measure, health screening guidelines for residential land use (sensitive receptors) have been adopted.
- OCTIEF considers that the works undertaken at the site have sufficiently characterised the site to enable assessment as suitable for the SSD application subject to implementation of a Remediation Action Plan (RAP) for the area of asbestos impacted soil on the western side of the main site shed. The RAP will address SEPP 55, NSW guidelines and legislation, and include protocols for removal and appropriate disposal of all remaining asbestos containing material associated with the main shed. OCTIEF have advised that a RAP has been prepared however this has not been provided for review.





The Historical Heritage Assessment for Tweed Valley Hospital prepared by Niche Environment and Heritage dated 19 October 2018 (Rev03 Project No: 4380) revealed the following:

In relation to former potentially contaminating activities the consultant advises that *“the Project Site was once part of the early sugar plantation of Henry Robert Cazala, established in 1875 and one of the first land grants and sugar mills in the area, and then from 1893-1916 the*

*important dairy farm run by the Cornwell family. It has been used for agricultural purposes since”.*

*Further, “across the site three rubbish deposits were identified. A small scatter of fragmented ceramics were identified amongst the volcanic cobbles of Wall 3. These ceramics were utilitarian 19th century or early 20th century domestic-ware. Two other, larger rubbished deposits were identified in the north-west corner of the site. These two rubbish deposits contained a range of material including evidence of the old tramway in the form of rail track, as well as other cast-iron, a Schultz Engineering and Manufacturing Co. ferrous metal container (post-1961) and demolition debris. Initial inspection indicated some of the material may be 19th or early 20th century, while other material is more recent”.*

This information should be used in any contaminated land assessment and remediation works for the site.

The Preliminary Construction Environmental Management Plan (CEMP) for Tweed Valley Hospital Project prepared by TSA Management dated October 2018 (Rev 03) includes a provision for unexpected finds identified during works.

The applicant considers demolition of existing onsite buildings and structures including remediation of contaminated land to be exempt and complying development stating that *“Under the requirements of SEPP 55 – Remediation of Land, the remediation work identified in the contamination assessment is considered to be Category 2 remediation work (i.e. not needing consent). A Remediation Action Plan (RAP) would be implemented, and remediation work undertaken as Preliminary Works in accordance with the RAP and SEPP 55”.*

As per SEPP 55, a consent authority must not consent to the carrying out of any development on land unless it has considered whether the land is contaminated.

### ***Recommendation***

***OO. The Historical Heritage Assessment (Niche, 2018) identified past land uses for the site and potentially contaminating activities in the vicinity of the farm dump that should be considered in the detailed site contamination investigation.***

***PP. Some areas in the vicinity of the farm dump were not accessible due to vegetation overgrowth. These areas should be made accessible to enable a thorough assessment and sampling by the environmental consultant and where required, remediation of these areas should be included in any Remediation Action Plan for the site.***

***QQ. Confirmation that the sampling regime used meets the minimum recommendations of the NSW EPA contaminated land guidelines including NSW EPA Guidelines for Assessing Former Orchards and Market Gardens, Guidelines for Assessing Banana Plantations, and Sampling Design Guidelines.***

***RR. Provide the site Remediation Action Plan for review.***

**SS. Possible Conditions Contamination:**

- a. All works shall comply with the Remediation Action Plan and the requirements of SEPP 55 – Remediation of Land. Following remediation of the site, a validation report to the satisfaction of NSW Health Infrastructure shall be submitted confirming the subject site is suitable for the proposed use.
- b. In the event that potentially contaminating material or activities are discovered during demolition, excavation, or construction works, works shall cease immediately and a detailed contaminated site investigation and Remediation Action Plan be carried out by a suitably qualified environmental consultant in accordance with the NSW EPA contaminated land guidelines and the requirements of SEPP 55 – Contamination of Land to the satisfaction of NSW Health Infrastructure.

**12. General Engineering Matters – more detail is needed on the sedimentation pond design and the lawful point of discharge for the development.**

Stormwater

Items 16 of the SEARs (Concept Proposal section) relates to stormwater management in the operational phase. Items 5 and 11 (Stage 1 Works section) relate to the construction phase of the development.

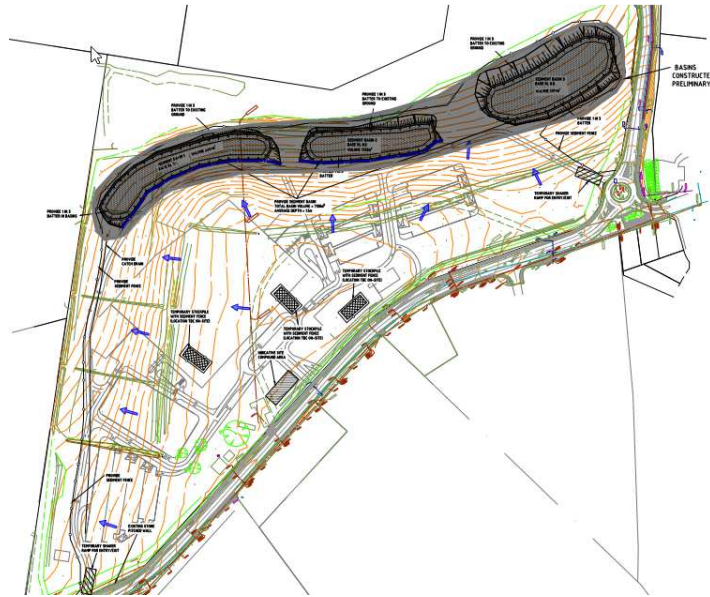
The site grades towards a sensitive receiving environment being the wetland to the north of the site. For this reason, careful consideration of stormwater quality and hydrology from the site is required.

The applicants engineering consultant has provided a “Civil and Structural Design Report”. Section 4.4 and 4.5 of this report addresses stormwater related matters. A “Water Sources – SEARs report” is also provided which provides similar detail, including stormwater related matters.

*Stage 1 Works*

Section 4.5 of the Civil and Structural Design Report outlines the applicant strategy for soil and water management during construction. Key to the strategy are 3 x large sediment basins located towards the north of the site. The report states that: The design of these measures is in accordance with the Landcom “Blue Book”. Refer to drawings C0005, C0006 and C0007 for the Soil and Water Management plan, Typical Detailing and sediment basin volume calculation sheets. However, drawings C0006 and C0007 are not included in the appendices, nor are any sediment basin calculation sheets.





Whilst the proposed erosion and sediment control strategy is acceptable, little detail of the proposed measures is provided. For example, no details of the basin sizing calculations and basin outlet configurations are provided.

As these works are now to be completed under exempt development provisions it is unlikely that Council will see these details through the SSD or ISEPP process. Also, the Crown is exempt from section 68 of the Local Government Act 1993 by way of section 69 of the same Act. Therefore, it appears Council will have no opportunity to review and approve the detailed design of the early works.

The site has been farmed for crops for many years which involves exposed, un-stabilised soils subject to rainfall on the sloping site. The proposed erosion and sediment control strategy is generally in accordance with Council's requirements (Development Design Specification D7 – Stormwater Quality) and likely to improve the quality of runoff to the receiving wetland (relative to farming).

The proposed access works on Cudgen Road and Turnock Street cross roadside table drains. No details of the proposed crossing infrastructure have been provided. Presumably, this infrastructure will become a Council asset.

The early establishment stormwater works and erosion and sediment control strategy outlined can generally be supported in principle. However, further detail design documentation of the proposed works would usually be required to confirm the acceptability of detailed design. It appears that this opportunity will not be available under the proposed approval pathway.

#### *Operational Stormwater Management*

Section 4.4 of the applicants "Civil and Structural Design Report" (Appendix X) outlines the proposed operational phase stormwater management for the hospital. The strategy incorporates pit baskets, bio-retention, swales, and retention basins. The "Integrated Water Management Plan Report" (Appendix T) section 4.1.3 also notes the possibility of including rain water retention tanks for

irrigation on the site. However, this suggestion does not appear to be included in the design drawings.

### *Quantity*

The proposal has adopted the 200L/s/ha permissible site discharge requirement from Development Design Specification D5 – Stormwater Drainage Design section D5.16. This control is generally reserved for sites where the downstream stormwater infrastructure is under capacity or there is a risk of local stormwater flooding. In my opinion the 200L/s/ha is not necessary on this site as there is no infrastructure or risk of flooding in the downstream area. Simply limiting post-development discharge to pre-development levels would be appropriate. Equally, I do not object to the proposal complying with the 200L/s/ha PSD, but it is worth noting as the detention requirements are quite high (6000m<sup>3</sup>) and would be a significant burden/cost to the project.

### *Quality*

The Civil and Structural Design Report outlines a stormwater treatment train and provides a summary of the supporting MUSIC model (screenshots). The results and parameters used appear to demonstrate compliance. However, this cannot be verified without the MUSIC model file to enable a proper assessment. As noted above, it appears Council will not be given the opportunity for review/approval of detailed design documentation under the proposed approval pathway.

The inclusion of bio-retention basins meets the D7 requirements for ecological/waterway stability targets associated with low-flow hydrology.

### *LPOD*

No details of stormwater discharge from the site to the adjacent land is provided. The drainage design ends at the sediment/detention basins. The site is not equipped with an obvious, formalised lawful point of discharge. Historically, the land has drained by sheet flow to the wetland to the north which is in private land.

DCP-A5 defines a “lawful point of discharge” as:

- A natural watercourse or waterway to which the development site naturally drains;
- A “lawful point of discharge” agreed to by Council (ie an existing constructed public drain).

It is unclear if a wetland falls within the definition of a “natural watercourse or waterway”.

QUDM (2017) provide more detailed guidance as to the lawful discharge of stormwater. QUDM states that it is not always essential for a regulator to require that a developer demonstrate a lawful discharge for stormwater. For example when changes to stormwater drainage within a site do not change the flow characteristics leaving the site, then the discharge will be lawful. The developer should provide the regulatory authority with sufficient information about the

stormwater discharge for the regulatory authority to assess the development application against the relevant development codes, which will ordinarily involve information about the likely flow characteristics and impacts arising from the stormwater works (see also Chapter 6 – Computer Models). The regulatory authority may issue an information request in order to properly assess the development application, and impose lawful conditions.

The applicant's stormwater management proposal has demonstrated that peak flow rates from the site can be managed and remain unchanged or improved (reduced). However, the development concentrates stormwater into pits, pipes and basins where it was previously well distributed sheet flow. The development could potentially alter flow characteristics by concentrating the discharge (i.e. pipe outlet) to the adjacent lot causing nuisance. The applicant has failed to provide detail of how stormwater will be physically discharged from the site in a way that avoids nuisance.

The west Kingscliff wetlands are sensitive to changes in volumetric inflows. Accepting the LPOD under QUDM guidance requires that the development not change the flow characteristics leaving the site. The applicant has not provided any assessment of the proposed stormwater management from a volumetric perspective (i.e. water balance).

Discharge to the adjacent land can be accepted if the development does not change the flow characteristics leaving the site. However, the applicant has failed to detail how stormwater will be physically discharged from the site and how the volumetric flow regime to the wetland will be mimic existing conditions

### *Modelling*

The "Civil and Structural Design Report" (Appendix X) references DRAINS and MUSIC stormwater modelling. Usually, these would be requested from the applicant for detailed review and confirmation of the designs acceptability. It is unclear if Council is capable of requesting this under the proposed approval pathway.

### *Infrastructure*

Cudgen Road currently has a largely rural cross section. The formalisation of the hospital frontage with various accesses necessitates the upgrade of the full frontage of the site to an urban road cross section – that is installation of kerb and gutter, piping of open drainage, street lighting, signage and linemarking etc, which would become Council assets. This should be conditioned, with these works also being subject to a s138 application (If Crown is not exempt).

It is recommended that the following information be provided or clarified:

### ***Recommendation***

***TT. Details of the sediment basins and sizing calculations (drawings C0006 and C0007) are missing from the Civil and Structural Design Report (Appendix X) and should be provided.***

***UU. The "Integrated Water Management Plan Report" (Appendix T) section 4.1.3 notes the possibility of including rain water retention***

***tank(s) for irrigation on the site. However, it is not clear if this is to be included in the Hospital design. This should be clarified.***

***VV. The proposal has adopted the 200L/s/ha permissible site discharge requirement from Development Design Specification D5 – Stormwater Drainage Design section D5.16. This control is generally only applied to constrained sites where the downstream stormwater infrastructure is under capacity or there is a risk of local stormwater flooding. No objection to adopting the 200L/s/ha target is raised however, in this case, Council Officers would support simply limiting post-development discharge to pre-development levels (note only).***

***WW. Council would like to request copies of the applicant's computer stormwater modelling (DRAINS and MUSIC) for verification of the concept design***

***XX. Further detail is required of how stormwater is to be physically discharged from the site. No details downstream of the proposed basins has been provided.***

***YY. It is unclear if stormwater discharge to the neighbouring private land can be considered a 'lawful point of discharge'. Discussion and justification of the sites Lawful Point of Discharge should be added to the stormwater management plan (or similar document).***

***ZZ. Further assessment of the proposed stormwater management is required from a volumetric perspective to confirm that the post-development flow regime mimics pre-development (i.e. water balance)***

***AAA. Further detail of the proposed upgrade of Cudgen Road frontage of the site, including storm water infrastructure, is required. This can be made the subject of a future application under section 138 of the Roads Act 1993.***

### ***Flooding***

Item 17 of the SEARs requires the applicant to address flooding issues associated with the development

Appendix W of the EIS addresses flooding. The applicants consultant (BMT) concludes that: The Stage 1 (Concept Proposal and Early and Enabling Works) and future Stage 2 (Detailed Design, Construction and Operation) development presents a minimal flood risk as all development is proposed above the regional Tweed River probable maximum flood (PMF) level.





As the proposed hospital (critical infrastructure) is located above PMF it is also consistent with DCP-A3.2.6 and therefore no objections to the proposal are raised with regards to flooding.

#### *Internal Works*

Key Issues Requiring further clarification are below

#### ***Recommendation***

***BBB. The geotechnical report by Morrison Geotechnic dated September 2018 indicates that the site may require blasting. Concerns are raised regarding noise and vibration on neighboring properties and should be addressed.***

***CCC. The Civil structural report by Bonacci Group (NSW) Pty Ltd specifies that the excavated rock is proposed to be crushed on site. Concerns are raised regarding noise for neighboring properties and should be addressed.***

***DDD. The Civil structural report by Bonacci Group (NSW) Pty Ltd specifies that the proposed stormwater drainage system will be designed to mimic natural flows to minimise future impact to the endangered ecological community in the receiving wetland. Concerns are raised that there are no details on the proposed discharge characteristics and supporting confirmation from a qualified ecologist to indicate that there will be no impact on the existing environmental wetland area downstream.***

***EEE. The Water Sources report by Bonacci Group (NSW) Pty Ltd specifies that to comply with Councils permissible site discharge requirements approximately 6000m<sup>3</sup> of onsite detention will be required. Concerns are raised that discharge from the onsite detention will concentrate***

*stormwater flow and impact on downstream properties, this requires review.*

**FFF. The Water Sources report by Bonacci Group (NSW) Pty Ltd specifies that the site is transversed by an intermittent watercourse (defined as a wetland area) at the north east portion of the site. It is unclear if stormwater discharge to the neighbouring private land can be considered a lawful point of discharge as it is a wetland rather than a natural water course. NSW Health Infrastructure seek further clarification regarding if in fact this is a lawful point of discharge.**

#### **14. Other Miscellaneous – additional items for consideration**

##### **Landscaping in Public Areas**

Council would ultimately need to maintain landscaping in the road reserve.

If the Department of Planning and Environment (DP&E) are of a mind to approve the application as proposed then the following conditions of consent would be necessary:

##### ***Recommendation***

##### ***GGG. Conditions: External Site Landscaping***

- a. Prior to issue of any construction certificate covering the upgrade of Cudgen Road and Turnock Street, a landscape plan covering the road reserves adjoining the development must be approved by the General Manager, Tweed Shire Council.**
- b. Prior to the release of the Subdivision Certificate for the development, the landscape works approved for Cudgen Road and Turnock Street must be completed to the satisfaction of the General Manager, Tweed Shire Council**
- c. A Bond to ensure acceptable Plant Establishment and Landscaping Performance at time of handover to Council shall be lodged by the Developer prior to the issue of any Subdivision Certificate. The bond shall be 20% of the estimated cost of the landscaping. The bond shall be held by Council for a period of 12 months from the date of registration of the subdivision with the Lands and Property Information (NSW).**

##### **Air Quality & Dust**

##### ***Recommendation***

**HHH. It is recommended that the Department of Planning and Environment (DP&E) require that the Dust/ Air Quality Management Plan for Stage 1 should consider the impact of localised blasting and heavy ripping that may be required as outlined in the Preliminary Geotechnical Investigation (Morrison Geotechnic, September 2018).**

- III. *It is recommended that the Department of Planning and Environment (DP&E) require that For the Concept proposal and Stage 2 of the development, where hospital site is smoke free, designated onsite smoking areas shall be identified to prevent second-hand exposure to tobacco smoke and potential pollution of neighbouring properties and public areas.***

**JJJ. Conditions: Air Quality & Dust**

- a. *Air quality shall be managed in accordance with a comprehensive Dust/ Air Quality Management Plan based on the proposed plant, equipment, and construction methodology and prepared prior to the commencement of any works to the satisfaction of NSW Health Infrastructure. The Plan shall consider the recommendations of the Preliminary Construction Environmental Management Plan for Tweed Valley Hospital Project prepared by TSA Management dated October 2018 (Rev 03) and Preliminary Geotechnical Investigation for Proposed Tweed Valley Hospital prepared by Morrison Geotechnic dated September 2018 (Job No. GE18/144-Rev2).***

**Groundwater and Dewatering**

The site is identified as having high groundwater vulnerability.

The Preliminary Geotechnical Investigation for Proposed Tweed Valley Hospital prepared by Morrison Geotechnic dated September 2018 (Job No. GE18/144-Rev2) advises:

- a. Groundwater was encountered at depths ranging between 11.2m and 14.4m below ground level.
- b. Groundwater and seepages are likely to be encountered in piles below 11m.
- c. Seepage would require the holes to be controlled by pumping or otherwise requiring the piles to be constructed under water or lined using appropriate materials and methods.
- d. Where groundwater is encountered, the method of construction allows for local management of groundwater without taking water from the aquifer and discharging it off site.
- e. No significant groundwater issues are expected to be encountered in excavations under normal weather conditions in the elevated cut areas of the site.

Sediment control basins are proposed. Council's Engineers are reviewing this with respect to sediment and erosion control however discharge of any waters will require further consideration.

***Recommendations***

- KKK. *A Dewatering Management Plan shall be prepared by a suitably qualified environmental consultant where groundwater will or is likely to be intercepted and/or where the discharge of any waters from sediment control basins is proposed.***

**LLL. The plan shall include but is not limited to: specific details regarding water quality, treatment and monitoring regime, a site plan indicating the position of all treatment tanks and basins on the site including the reserve area to be used for such purpose in the event of the need for additional treatment facilities, predicted flow rates, and management of acid sulfate soil.**

**MMM. The detailed groundwater quality assessment shall include results from a NATA accredited laboratory on the following parameters: pH, electrical conductivity, dissolved oxygen, temperature, dissolved iron, suspended solids, turbidity, chloride, sulfate, chloride:sulfate ratio, dissolved aluminium, and where required TPH, BTEX, PAH, and lead.**

**NNN. Particular consideration shall be given to achieving the necessary detention of waters to enable effective treatment to be carried out prior to discharge in order to achieve the agreed discharge criteria particularly in respect to the management of pH, iron, aluminium and odours. This requirement may cause the need for careful evaluation of existing treatment technologies and consideration of the proposed method of excavation.**

**OOO. The report shall detail the proposed treatment system(s) including its capabilities, how many treatment tanks or basins will be required to satisfy discharge criteria, and include a separate section on dewatering contingencies in the event of adverse impacts to the receiving waters.**

**PPP. Contact should be made with Council's Stormwater Maintenance Engineer regarding Council's stormwater system capacity and current condition where discharge to stormwater is proposed.**

#### Mosquito/Midge

The northern region of NSW is known to be affected by mosquitos, sand flies and midges. The site is on land within proximity to coastal wetlands and floodplain areas and the proposal includes stormwater and wastewater detention areas on-site and potential habitats for supporting biting insect breeding.

Specific detail or measures for mitigating against mosquitos and biting insects have not be detailed at this stage.

#### **Recommendations**

**QQQ. Where required, detailed design and measures to ameliorate the potential impact of these species on staff, patients and visitors will be developed as part of the Stage 2 design. This will include considerations of measures to prevent mosquitos entering hospital buildings, minimising mosquito breeding, and awareness of mosquito risks.**

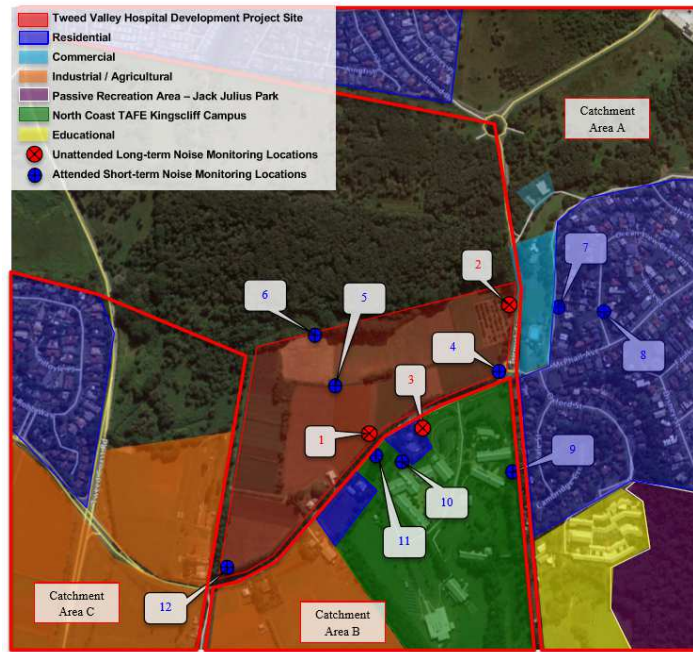
## Noise

Potential noise from excavation and construction stages of the Project including the potential impacts on surrounding precincts specifically the existing residential development and Kingscliff TAFE.

Noise and Vibration Impact Assessment for State Significant Development (SSD) – Tweed Valley Hospital prepared by Acoustic Studio dated 17 October 2018 (Ref: 20181017 SVM.0001.Rep.docx) advises:

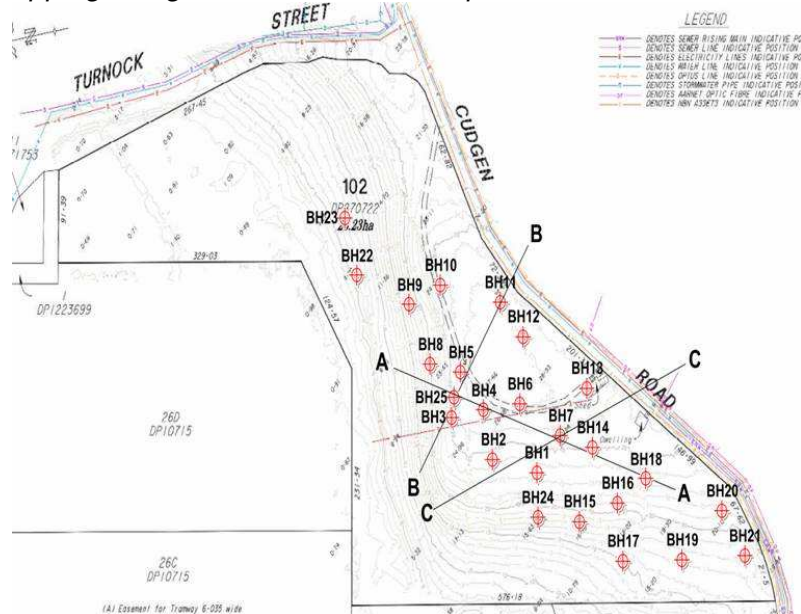
- Proposed Stage 1 Early and Enabling Works (approximately 10 months (excluding shutdown periods):
  - Monday to Friday – 7am to 6pm
  - Saturday – 8am to 4pm (extended)
  - Sunday and Public Holidays – no works
- Use of NSW EPA Road Noise Policy (2009), Noise Policy for Industry (2017), and Assessing Vibration: A Technical Guideline (2006).
- Existing background noise is generally dominated by traffic noise and general urban hum.
- Predict an increase in noise and vibration during Stage 1 from a combination of intermittent and continuous noise from construction and excavation equipment, construction traffic, and plant.
- Construction noise impacts will be greatest at Residential Catchment B (south) and Kingscliff TAFE. Noise from plant and equipment are predicted to be above the noise management levels (NMLs) and the Highly Noise Affected levels due to the proximity particularly for noisier activities including excavators with hammers, wood chipping, and rock crushing.
- For construction works carried out outside standard recommended hours as per NSW EPA Interim Construction Noise Guide (Saturday 1pm – 4pm), some plant/activities may exceed criteria at residential catchments A (east and northeast) and B (south). Noisy activities to be scheduled to less sensitive times to minimise potential noise impacts.
- Stage 1 noise control elements include:
  - Plant and equipment (quieter methods and equipment, limiting operating noise, maintenance of equipment)
  - Onsite noise management (strategic location of plant and equipment, provide alternatives to reversing alarms, maximise shielding, construct barriers and structures as early as possible, brief staff on noise sensitivity of neighbours and be mindful of “toolbox talk”).
  - Consultation, notification, and complaints handling (providing information to neighbours before and during construction, maintain good communication, keep a communication/complaints register, fair consideration of complaints, implement all feasible and reasonable measures to address the complaint, cease activity if the activity is occurring outside normal working hours, 24 hour contact number).
  - Work scheduling (schedule activities to minimise noise impacts, provide respite periods, and keep truck drivers informed of designated routes, parking locations, and delivery hours).
  - Reporting (preparation of a noise monitoring report each month including interpretation of the noise and vibration monitoring carried out in the past month, non-compliance reports).
- For other receivers, the noise generated from the construction works noise generally meets the NMLs when further away from the perimeter boundary.
- Construction traffic along the roads surrounding the site raises no adverse noise impacts on nearby receivers during the day-time period.

- Noise will vary depending on number of plant and equipment operating simultaneously, location of equipment, shielding of noise provided by structures and hoardings on and around the site, reflections provided by existing structures on and around the site, and meteorological conditions.
- The consultant recommends a comprehensive Early and Enabling Works Construction Noise and Vibration Management Plan (CNVMP) be prepared further to this assessment prior to the commencement of any works.
- Some vibration impacts may occur, particularly from the use of excavators with hammers during excavation near site boundaries along Cudgen Road. Vibration management controls are outlined in the Preliminary Early Enabling Works CNVMP. A detailed assessment of vibration shall be provided by the contractor prior to the commencement of any works based on the proposed plant, equipment and construction methodology.
- Controlling vibration at receivers in Catchment B will ensure vibration criteria at all other receivers will also be satisfied.
- Stage 2 – Preliminary Assessment of Operation has been provided to demonstrate the rezoning and proposed land use for a hospital is capable of achieving the relevant operational criteria at the existing noise sensitive receivers (subject to separate application). The design considers:
  - Setbacks and positioning of service areas, loading docks, ambulance bays away from sensitive receivers.
  - Mechanical plant and equipment – selecting plant and equipment without annoying characteristics. Plant rooms on multiple levels and rooftop with use 24/7. Provision of shielding where required. Detailed assessment will be undertaken upon finalisation of plant proposed.
  - Operational noise – activities associated with the use including increased traffic volumes (public and staff, emergency vehicles, loading dock vehicles), loading dock operations/waste collection, and emergency helicopters and flight paths. Traffic noise has been assessed against the Road Noise Policy (EPA) and based on predictions, traffic generated on Cudgen Rd, Turnock St, and Tweed Coast Rd associated with the hospital will have no adverse noise impacts on surrounding roads. Onsite traffic noise will include emergency vehicle/ambulance bay, service yard and loading dock, emergency department drop off, public set down, taxi set down, transit set down, staff and public carparks. Locations are still being developed. The consultant has advised that at this stage there are no anticipated issues with onsite traffic noise impacting on surrounding receivers.
  - Emergency helicopter operations – the hospital will include a rooftop Helicopter Landing Site (HLS) to the west to provide maximum distance from residences. Anticipated movements will be less than 10 per month with an average of 6. The impact of helicopter noise on the hospital building envelope may require acoustic glazing and wall constructions.



The Preliminary Geotechnical Investigation for Proposed Tweed Valley Hospital prepared by Morrison Geotechnic dated September 2018 (Job No. GE18/144-Rev2) outlines the following that should be included in any noise assessment and management plan for the site.

The consultant advises that “the use of hydraulic rock breakers is likely to be required for confined excavations such as service trenches but also possibly for bulk excavations, particularly at the location of boreholes BH2, BH4 and possibly BH1 and BH5. Some budgeting should be allocated for the possibility of encountering localised zones of SW and Fr basalt rock with minimal defects which may require localised blasting or heavy ripping using a Cat D10/D11. Additional drilling would need to be carried out to more accurately assess if localised blasting or heavy ripping using a Cat D10/D11 is required”.





The proposed hospital building envelope is setback from all property boundaries to mitigate amenity impacts and to accommodate future hospital expansion. The slope of the land will be used to achieve entries at different levels to reduce the overall height and potential amenity impacts.

The concept design outlines that loading dock and service activities would be located to the north western corner at basement level to conceal it from general public view and minimise the visual and acoustic impacts to the proposed hospital public forecourt and to surrounding properties.

Plant and equipment would be located away from the main public entry and/or screened or concealed from general view and surrounding properties.

The anticipated location for the helipad is toward the western rooftop with selected approach and departure paths that avoids overflight of built-up areas whilst conforming with the most likely wind directions expected. An elevated (rooftop) helicopter landing site (HLS) is preferred to on-grade site.

A community liaison officer will be contactable by both a mobile phone and email and the contact details will be clearly advertised on site hoardings, community updates and the like. The Principal Contractor will be required to maintain a register of complaints and to report to the Project Manager and Health Infrastructure the status of complaints on a monthly basis. Complaints that cannot be addressed by the Principal Contractor will be presented to the relevant representative for resolution of the issue.

There will be acoustic impacts associated with the helicopter flight operations to/from the proposed rooftop Helicopter Landing Site (HLS). Suitable design will be required to ensure noise is not transferred into the hospital structures. An assessment has been carried out to understand likely noise levels expected from helicopter movements.

The Aviation SEARS Response : Tweed Valley Hospital prepared by AviPro dated 28 September 2018 advises:

*“The siting of a rooftop Helicopter Landing Site (HLS) with its associated approach and departure path design at the Tweed Valley Hospital has resulted in an acceptable outcome. Approach and departure paths accord well with the surrounding community i.e. to the maximum extent overflight of built-up areas is avoided whilst conforming with the most likely wind directions expected in the area. Primary considerations in selection HLS approach and departure paths included:*

- Direction of prevailing winds,*
- Location of vertical structures and obstacles/hazards,*
- Airspace restrictions and limitations,*
- Avoidance of areas sensitive to noise and vibration, and*
- Availability of emergency landing areas.*

*The selected approach and departure paths align north-north-east and south-west. Areas of overflight currently include predominantly farmland and forest. Whilst the HLS is sited just within the Gold Coast Airport (air traffic) Control Zone, it is far enough away from the aerodrome as to constitute no conflict, under normal circumstances, with arriving and departing aircraft. Likewise, protection of prescribed airspace will not be*

*compromised either during the construction phase (crane erection) or in operation”.*

The HLS will meet the compliance requirements of NSW Health GL2018\_010 Guidelines for NSW Hospital HLS.

Operational Stage 2 will be further developed in future applications.

### ***Recommendation***

***RRR. The Noise and Vibration Impact Assessment shall be amended to consider the impact of localised blasting and heavy ripping that may be required as outlined in the Preliminary Geotechnical Investigation (Morrison Geotechnic, September 2018).***

***SSS. The construction noise particularly hammering, wood chipping, and rock crushing associated with this proposal is substantial and noise above background levels are likely to create amenity impacts to sensitive receivers particularly along Cudgen Rd and Kingscliff TAFE. Highly noise affected levels or where noise is outside recommended standard hours as per Interim Construction Noise Guideline (DECC, 2009) may cause a strong community reaction to noise and negotiation with affected premises is recommended.***

***TTT. An extension to construction noise is proposed to meet the delivery timeframe. It is noted the Interim Construction Noise Guideline (DECC, 2009) recommends Saturday 8am to 1pm. Given the potential disturbance of noise sensitive receivers it is recommended that Saturday hours are kept consistent with the Guideline and limited to 8am to 1pm on Saturdays.***

***UUU. Provision of dilapidation Reports may be required.***

### ***Structural capacity of the site***

The documentation in the SOEE demonstrates with Geotechnical engineering and structural engineering reports the structural capacity of the site to be capable of supporting the future buildings and associated works.

### ***Accessibility***

This is required to and around the site to enable entry to all Tweed Valley Hospital facilities in accordance with AS 1428.1 - 2009 Design for access and mobility, AS 2890.6 - 2009 Parking facilities - Off-street parking for people with disabilities and the BCA. Site plans submitted do not demonstrate compliance with these standards. In particular future finished ground levels, contours and conceptual details of pedestrian access from Cudgen Road and within the site and all accessible parking spaces over the site to enable entry to all facilities within Tweed Valley Hospital site have not been included.

### ***Building Code of Australia Certification***

Section 6.7 of the EP&AA 1979 No 203 requires Crown building work to be certified to comply with the Building Code of Australia and excludes the

requirement for a construction certificate Firefighting services - Details have not been supplied to indicate the location of static water supplies and associated hydraulic services required for future firefighting purposes.

### Plumbing and Drainage

There is an exemption to obtain approval under Section 68 of the Local Government Act 1993 for a responsible person (a licenced plumber or drainer) who is contracted to undertake work on Crown Land. However the responsible person is obligated to satisfy the provisions of the Plumbing and Drainage Act which requires the submission of documents and booking of mandatory inspections.

### **Recommendation**

***vvv. Documentation required to ensure future compliance with AS 1428.1 - 2009 Design for access and mobility, AS 2890.6 - 2009 Parking facilities - Off-street parking for people with disabilities and the BCA site plans inclusive of future finished ground levels, contours and conceptual details of pedestrian access from Cudgen Road and within the site and all accessible parking spaces over the site to enable entry to all facilities within Tweed Valley Hospital.***

***www.Details to be provided of the location of static water supplies and associated hydraulic services required for future firefighting purposes.***