Hastings Point Community Submissions

Residential and Tourist Development Subdivision
Lot 156, Hastings Point
(MP06_0154) – Environmental Assessment Exhibition

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INTRODUCTION

This development proposal is inappropriate because of its failure to adequately address the following issues:

- Flooding, stormwater and drainage.
- Environment – marine and wetland ecology.
- Flora and Fauna
- Visual Impact & Amenity
- Social Impact & Amenity
- Roads & Access
- Geotechnical & Engineering
- Contamination & Remediation of Site

Before embarking on the assessment of the development proposed against these categories, it is important to initially address the history of the site and in particular, the illegal damage and infractions to legal rights and amenity caused by past and current owners. An understanding of this will give a proper and real appreciation of:

1. the current impacts experienced by the community and environment as a result of these activities and

2. the additional impacts that the community and environment will face should the proposed development or similar be approved.

There are significant omissions and inaccuracies of fact and law in the Environmental Assessment ("EA") and referred reports which will be addressed.

Following a consideration of these issues, this assessment will wrap up with an appraisal of the relevant statutory and policy provisions that this development proposal offends supported by evidence-based fact, accurate expert reports and specific local evidence.

1. HISTORY

As Tweed Shire Council ("TSC") states in its Council Report ("Report")(20 July 2010 – p 126, Tab 9):

> *Tweed Shire Council was first asked to review an application on this site by the Department of Planning (DoP) in September 2006.*
>
> *On 20 October 2006 Council provided the Department of Planning with information to assist in the formation of the Director General Requirements. Part of this submission stated:*
>
> > *"By way of background you should be aware that this property has had a long history of unauthorised work, particularly the western part of Lot 156 with the construction of the existing artificial waterway as well as in more recent times clearing within the 7(a) Environmental Protection (Wetlands and Littoral Rainforest) parts of the property. These activities have generated a considerable number of submissions from the local community both to Council and the NSW Ombudsman. Given this history an important part of processing this application will be extensive consultation with the local community."*

Consistent with this advice, the following sets out the history of degradation to the subject land and estuarine tributaries caused by both the former and current owners which must be considered seriously for the reasons outlined in introduction.

Prior to the purchase of this property by the current owner, Walter Elliot Holdings ("WE"), in 2001, the land was owned by Neville Wintour.

1.1 Wintour Illegal Activities

1.1.1 Fraudlent Survey

In 1981/82, Mr Wintour commissioned a private surveyor to conduct a survey on Lot 156. This survey incorrectly recorded the mean high water mark (MHWM) – it adjusted the boundary of Lot 156 into land below the real MHWM.

In 1981/82, Mr Wintour lodged this survey with a primary application to the Department of Lands for re-determination of his title boundaries. This application was approved in 1982 on registration of the plan of survey DP 620715. (See Tab 2, p 30)

This adjustment effectively extended Mr Wintour's land rights into the crown estuary contrary to law (no natural recession as claimed had occurred). (See Tab 1, pp 3-20 evidence/assessment of a fraudulent grab of 7.5 hectares of crown land). This fraud is clear today as parts of the boundary – albeit part filled - are well below the current real MHWM (colour aerial photos and pending site inspection)

The approval of this fraudulent adjustment allowed Mr Wintour to start his development plans on a low lying, highly vegetated and environmentally sensitive floodplain which had little or no development potential. This floodplain had served its naturally created purpose effectively - as the only gateway to drain and filter the flood and storm water from the western and northern catchments of the subject locality – now, less so.

1.1.2 Dredging and Clearing

Around the time of the boundary adjustment approval, Mr Wintour commenced dredging without development consent. This included the illegal clearing of trees, significant mature mangroves and wetland vegetation from previously owned crown land. He also proceeded to clear the middle portions of the block of mature trees and vegetation.

Mr Wintour dredged the south eastern parts of the estuary to fill behind homes in Creek Street where sea grasses and low lying estuary/wetland vegetation lay closely adjacent to their rear boundaries. (See photo, Tab 2, p 3) This was a serious illegal infraction that adversely affected their property and amenity rights.

This is currently best evidenced behind the properties of 6 and part 8 Creek Street/adjacent to the sewerage pump station where it was only minimally filled and so still comprises part low lying estuarine wetland. Half of this land is owned by Council which incidentally must be filled to provide for the proposed emergency access road. Consent from Council is required.

After dredging and clearing the south eastern side of Lot 156, Wintour then proceeded to dredge and clear the western side of the property. (See photos, Tab 2 pp 1, 2)

He dredged the western tributary and rare mangroves/wetland to fill the tributary that ran across Lot 156 immediately in front of the existing dwelling. He then filled to either side of this established tributary - east to Christies Creek and west toward Creek Street. The extent/height of the fill can be currently viewed at various parts of Christies Creek banks east of the current house – where the filled land drops between 1-2 m. (See photos, Tab 2, 31 onwards)

In doing so, Wintour effectively filled a large portion of Lot 156 which comprised the flood plain and tributaries which drained the western and northern catchments which surround the northern side of Hastings Point.

Neither the claimed current “lake” nor the tributaries that run north from it – even that which branches across to North Star on the back north western part of lot 156 - are “man-made drains” or “artificial waterways” as labeled by the developers, their consultants and TSC. They are the former established northern tributaries of Christies Creek which are clearly evidenced in the pre-1981 photos. (See Tab 1, pp 10-14)

They were the long established natural tributaries carrying water from the Northern and Western Catchments. They are tidal and contain significant marine life including fish breeding habitat. These areas are mapped as EECs and as Key Fish Habitats (TSC Key Fish Habitat Mapping, 2009 - See Australian Wetlands (“AusWetlands”) submissions at p 13, Tab 10).

After this filling, Wintour soon discovered that water draining from the western and northern catchments had nowhere to go. He had filled the floodplain and tributaries that carried the water to Christies Creek.

Locals claim that the water then would back up across Lot 156 as it still does today. (See photos 2009; Tab 6, pp 1, 2) He relieved it somewhat by removing a large portion of land between the “lake” and Christies Creek at the lake’s south western end (again illegally).

Unfortunately, water passing through the lake now converges at the sharp turn in Christies Creek from its higher south western catchment. This causes considerable backup in rain events and while serves some purpose is ineffective in heavy conditions. (See photos as referred in above paragraph)

Therefore, Wintour while filling one tributary created another. In this sense, the “lake” area while marked as Wintour’s land is actually a Christies Creek tributary which operates tidally and lies below the mean high water mark. By definition, it is crown land and needs to be reclaimed. If land rights are to be measured on their current status and the Government must ignore the illegal history of this theft, then it must be consistent. That is; if the tributaries that Wintour filled are property of Wintour/now WE, then it follows that the land he extracted to link Christies Creek again to the “Lake” and tributaries must all remain crown land. At the very least, the boundary needs to be adjusted to reflect the current mean high water mark running through the tributaries from Christies Creek.

Wintour’s excavation and clearing damage is best evidenced by the photos which depict the fraudulent survey and land grab, particularly comparing photos pre July1981 with those to 1989 (See tab 1 at pp 10-14). The difference is stark. This confirms the above claims.

Further, the proponent’s Heritage Report compiled by Erick Heritage Consultants (see pages 16-19;Tab 1, pp 38-41) - with the aid of historical photographs also confirms the above claims. It states:

1. *The ephemeral creek system in the north west of the property evidenced in the 1962 photograph has been filled and now only consists of a series of small drainage lines.*
2. *A large pond from which sand has been extracted to fill the Subject Lands can be seen on the western edge.*
3. *The 1993 aerial shows that most if not all the development area within the Subject Lands has been impacted by extensive clearing (Figure 13).*
4. *Artificial mounds of sand have been placed between the adjoining residences (Lots 39-45) in Creek Street and the tidal flats of Cudgera Creek and also on the southern boundary of the proposed resort development on the margins of the tidal mud flats.*
5. *Prior to the infilling that has taken place the Subject Lands, or a significant proportion of it, was inundated during high tides and periodic flood events.*
6. *It appears doubtful if any of the land proposed for residential/tourist development is original surface.”*

The “before and after” photos produced by Erick Heritage are compelling.

The Department of Planning (“DoP”) and the Department of Lands have an obligation to address the MHWM issue as a long outstanding issue. TSC confirms this need. (See TSC submission, p 2, Tab 8).

The EA inaccurately plays down these facts when it states (p12):

> *At some period in the 1980’s, a portion of the site was cleared of vegetation and dredged for the use of local sand.*

1.1.3 Community Complaints/Impact Damage/Local Hazard & Amenity

The community has continually reported the issues and impacts to government authorities. Yet no action has been taken to address the impacts. (See photos of damage, sample complaints and responses; Tab 2)

An example of a local community complaint in 1983 (Tab 2, p 5):

> *November 30, 1983*
>
> *Dear Sir*
>
> *I wish to complain strongly about the lack of drainage of storm water from my property at 28 Creek Street, Hastings Point.*
>
> *There was never any trouble with the drainage during weather similar to that which are have now, until the developer Mr Wintour was permitted to interfere with the natural drainage of the land.*
>
> *He has in certain places dug up the area that were once tributaries of Christies Creek. He is now filling in other areas of his land and the barge has pumped thousands of metres of sand into it.*
>
> *As I said, this has stopped the natural drainage, storm water from the drain is flowing onto my block of land and my house is sitting in a moat. …… etc*

And another example in 1987 (Tab 2, p 28):

> *Drainage: Heavy rains from the residential areas of Creek St. flowed into the mangroves and Christies Creek prior to the filling of lot 156. Now the water in and around the homes lies for days. The situation would become worse if further filling were allowed.”*

(More examples and government inaction – See Tab 2 various).

The EA (pp 85-86) confirms the results of the *Tweed Byron Coastal Creeks Study* that the area is now subject of flood inundation up to 1.0 m.

These results and community anecdotal evidence of the changes to drainage/flooding from the filling suggests that the illegal dredging and fill has contributed significantly to the current projections and the conditions experienced in the 2005 flood. (See photos of flood impact - 2005, Tab 5) and regular heavy rain events – 2009, Tab 6)(See also MWA Environmental’s (“MWA”) conclusion 18 confirming same, Tab 7, p 15)

It is logical and reasonable to conclude that a lower lying floodplain and larger tributary system would drain higher adjoining land and its surrounding catchment better – as it previously did.

Conversely, raising that floodplain and reducing that tributary system has, and will have, the opposite effect.

As MWA recommends (conclusion 25, p 16, Tab 7):

> *Consideration might be given to a flood management option which provides for the resumption of the subject site to allow for fill to be removed from the site and that a flood channel/levee system be constructed to not only improve the flood immunity of the existing Creek Street development but to restore the ecological value of this part of the estuary.*

It is submitted that this is the responsible approach as opposed to that recommended by the EA; that is, to proceed with this development whilst admitting the hazard is significant on the premise that it will not be made significantly worse (albeit inaccurate claim – based on flawed modeling).

This approach is completely contrary to the recommendations in the *NSW Flood Prone Land Policy,* the recent DoP *Draft Sea Level Rise Planning Guidelines, NSW Coastal Policy* and climate change policies.

1.1.4 Protracted/Mimimal Government Action

Although TSC took action in relation to this illegal dredging, it was significantly protracted. This is likely explained by the fact that no department would act on the MHWM adjustment error. So, rather than prosecute Wintour on the basis of conducting illegal activity on crown land, TSC was restricted to suing Wintour for acting without development consent.

TSC was finally successful in its legal action. Disappointingly, when given the opportunity to provide the Court with submissions to seek restoration of the land to address the many complaints regarding the impact this activity had on amenity, drainage, flooding and safety of residents, TSC did nothing.

The community is equally disappointed to now learn the DoP actually exhibited this development without receiving TSC's submissions on adequacy (yet knowing they were on their way), particularly in light of previous advices and TSC's subsequent rejection of the proposal on adequacy grounds and now merit.

The community expects that a more responsible approach will be taken in considering these submissions (including reliable expert reports and independent report by TSC) – particularly in light of the inequitable statutory time frame required of community to respond to such a significant, extensive and hazardous proposal.

This submission puts all relevant government departments on notice that there is a clear duty of care owed toward property owners in this locality – particularly given that the current hazard exposure the community faces has stemmed from extensive and repeated illegal activity originating from the approval of a fraudulent boundary adjustment. Continuing government inaction is neither responsible nor a reasonable exercise of due care.

1.2 WE Illegal Activities

1.2.1 WE illegal clearing/earthmoving/unlawful use of site

WE purchased Lot 156 from Wintour in 2001 for slightly in excess of $1million.

It is expected this price for such a large parcel of coastal real estate reflected its unlawful history and environmental and flooding constraints.

Following purchase, WE proceeded to fence the entire property with barbwire, including the waterways, and proceeded to conduct clearing activites. (See Tab 3 – sample complaints, responses, and photos)

In October 2001, WE leashed 30 to 40 goats and 6 horses loose onto Lot 156 – which were prohibited uses for the lots' various zones. These animals ate and roamed in protected vegetation including endangered ecological communities (EECs), waterways, saltmarsh and other wetlands. (See Tab 3, pp 4-6, photos and complaints)

Their purpose one could fairly assume was to destroy land with strong conservation value and keep illegally degraded land in a degraded state.

Unfortunately, Council's action to remove the animals was again protracted.

During this time, *large swathes of mangroves were beginning to die in Cudgera/Christies Creek*. (See photos and complaints – Tab 3, p 35)

Locals report that WE proceeded to continue with Wintour's annual slashing/clearing programme at a considerably increased rate. Every week, a new area was targeted in both 2E and 7A zones which consisted of "*ring barking trees, slashing smaller trees and slashing into areas further into the creeks and waterways".*

A tractor was purchased for the caretaker who with hired help assisted in clearing these slashed areas around the waterways (See photos, Tab 3, pp 10, 11). *Mangroves were consistently disappearing around the waterways. Evidence was continually taken away by trailers* (as was done recently – see below). Complaints were continually made and largely ignored until persistence resulted in a rezoning of part of the 2E zoned land (albeit in error in part – see Section 4).

However, this was not before WE undertook its largest illegal clearing activity. This occurred on Australia day weekend January 2002, just prior to an environmental assessment for the purpose of considering rezoning Lot 156. WE retained slashers, dozers and mulchers to clear in 3 major areas on Lot 156:

1. the north western portion of the 2E zoned land. Clearing this land required development consent since it was considered by previous environmental studies as ecologically significant EECs. (See photos; Tab 3, pp 7, 7A)
2. the now 7A protected zone behind Creek Street houses, including earth moving activities in this area to extend the width of this area. (See photos, Tab 3, p 9) - location of proposed emergency access road.
3. the protected 7A wetland vegetation on the western side of the "lake".

In this total clearing activity, all trees, roots, vegetation and all undergrowth were removed by truck as evidenced by the photos.

Unfortunately, slashing and clearing continues today.

Only during the exhibition period of this proposal (including World Conservation Day), WE had a team of approximately 10 workers arrive with whippersnappers and chainsaws. They worked around the property, over boundary fences and in 7A zones. They cut major branches, smaller trees and the understorey of protected 7A zoned land. They sprayed poison on Saltmarsh EEC in the 7A zone.(See photos, Tab 3, pp 43-45).

WE was fined the maximum $3,000.

It is a well known developer practice to clear – particularly before environmental assessment as WE did in 2002 and now pending a DoP visit.

1.2.2 Minimal Government Intervention

Complaints to various local and state authorities, particularly TSC, were ignored on all occasions (except the recent one) until the NSW Ombudsman decided to take action in respect of the major clearance in 2002. (See letters, Tab 3, pp 1, 2, 12-42)

Only following this intervention did TSC in 2003 finally take legal action against WE. However, this was restricted to the damage in the 7A zone on the western side of the "lake". TSC and WE agreed to court filed consent orders in May 2003 without community consultation.

No remediation was sought or required of the environmentally significant vegetation incorporating EECs which were cleared and removed from the North West portion of the 2E zoned land or behind Creek Street homes where the current access road is proposed.

Unfortunately, the Council & WE agreed on a poor fencing option to protect 7A zoned land and EECs. This has left considerable portions of 7A land subject of continued degradation by WE (See horses roaming in front of fence - Tab 3, pp 4-6; mowers – Tab 3, pp 43-46, whipper snippers etc).

WE continues to mow down 7A land, including EECs so preventing any natural re-growth – as confirmed by TSC in its submission – p 11; Tab 8).

1.2.3 Unlawful/Inequitable Practices

The EA describes this continually cleared land as "degraded land" – incidentally degraded by WE and Wintour.

The EA proposes to rejuvenate land degraded by WE as an offset to degrade further EECs for the purpose of increasing density and building a road that, in all instances, impinge on required 50m buffers (See Australian Wetlands submission, pp 12-18, Tab 10; TSC submission, p 13, Tab 8).

When offsets are used in this way, one can see why developers are so keen to ensure that land is illegally cleared and regularly degraded on a proposed development site and around it.

Community members have continually complained to TSC about these activities.

To allow a developer to continue mowing down 7A zoned land or protected EECs which were illegally cleared and refused natural regeneration under the guise of maintenance is contrary to law. Such activity does not protect the environment consistent with the objective of the 7A protection zone. It also fails in equity because it actually rewards the developer for its illegal activity. This applies to the whole of Lot 156 given Wintour's activities outlined above. Claiming offsets in these circumstances is not providing any real compensation. (See TSC Report p 147, Tab 9; Henry James ("James") Submission ("Sub"), Tab 11, p 3)

It is a concept often referred to by legal practitioners as "going to Court with dirty hands expecting a favour." Equity prevents law breakers from profiting from their breaches.

This continued practice by owners of Lot 156 offends basic legal and ethical principles and should not be accepted.

2. FLOODING/STORMWATER/DRAINAGE

Having established the historical context of the site, it sets the platform for considering the effects of flooding, stormwater and drainage in respect of this proposal.

These have been considered independently by three parties: MWA, TSC and Australian Wetlands ("AusWetlands").

MWA's Submission ("Sub") is at Tab 7.
AusWetland Submission ("Sub") is at Tab 10.
TSC's Submission ("Sub") and Report are at Tab 8 and 9 respectively.

2.1 – MWA Assessment

MWA has summarised these issues in conclusion in its Sub (See Tab 7). An extract of the conclusions appears below. You are referred to MWA's Sub for detailed comment, support and justification:

1. *The flood study carried out to support the development proposal showed that the extent of filling required to meet the design flood levels is likely to cause a 6 cm increase in peak flood levels in a community which is inundated during a nominal Q 20 surge/Q100 flow flood scenario and where one metre depths of inundation might be expected.*

2. *There are general concerns about the reliability that can be placed upon the conclusions reached in this study, as the flood modelling can be shown to be inadequate in that*

    - *it has under-estimated the flood flows in the area in which the filling is proposed;*
    - *that the flood modelling has not been validated against the worst recorded flood event (June 2005);*
    - *that no account has been taken of the impact upon existing flood levels of the previous filling of the site – for which there appears to have been no prior approval granted; and*
    - *the extent of the flood model used for the flood study is insufficient to properly represent the flood flow patterns in the vicinity of the site.*

3 *Failure to examine the impact of the proposed development under a June 2005 situation and a revised June 2005 scenario with Q100 design flows down Christie's Creek in an upgraded hydraulic model, is a serious omission from the flood impact investigation and which is believed to have caused the above flood impacts to be under-stated.*

4 *Using the limited amount of quantitative information provided in the flood report, it may be seen that a more significant impact of the development is an increase in the modelled peak flood level of 8 cm in a location where the impact of the proposed filling is likely to be greatest and to have the most significance as far as existing residential and resort development is concerned.*

5 *This unstated increase in peak flood levels indicates that the proposed filling extends much too far southwards towards the channel of Christie Creek.*

6 *This impact probably understates what a more-accurate assessment would indicate and the impact is likely to be much higher if the hydrology of Christies Creek is*

upgraded after calibration against the June 2005 flood event – an event which caused significant inundation and flood damage in the Creek Street locality.

7 *Analysis of the results of the flood study also indicates that the existing filling of Lot 156 probably caused increased flood levels in the Creek Street locality during the June 2005 flood event and that removal of much of the southern section of the existing filling might be one option of reducing flood risk in the locality.*

8 *Dismissal in the flood report of the modelled 60 mm increase in flood level "on the northern side of the caravan park" and a similar increase "in the northern drainage channel" as being "mathematically insignificant" is quite misleading for the following reasons:*

- *linking the proposed filling for the development via filling to create an emergency access road to the eastern end of Creek Street impedes the overland flow paths southwards to the estuary, through the caravan park and from the extensive lowland area to the north of the caravan park;*

- *further filling of the site for development, as proposed, impedes flood flows in Christies Creek, increasing the volume of water entering the inundation areas to the north of the caravan park and hence the water levels and durations of flood flows southwards through the caravan park.*

9 *These significant impacts upon the flood risks in the caravan park would also be expected to be carried through to existing residential allotments along Creek Street and to the street itself.*

10 *Thus the proposed development is likely to increase the real flood risk and real flood damage potential in the Creek Street locality to a far greater extent than has been indicated in the flood report.*

11 *The flood modelling of the Cudgen/Cudgera Creek system carried out for the Tweed Byron Coastal Creeks Study demonstrated that the existing residential development which adjoins the proposed development is flood prone and is subject to significant flood risk and that a Flood Risk Management Study should be undertaken to assess flood management options and a Flood Risk Management Plan should be adopted.*

12 *Because of the complexity of flood behaviour in the downstream reaches of Christies Creek near the flood prone area it would appear that the Cudgen/Cudgera Creek flood modelling needs to be upgraded in this section of the model so that flood risk management options and development proposals can be adequately tested.*

13 *As further filling of the site, as proposed, would increase flood risk and damage in a flood prone area, it is suggested that further consideration of the development proposal be deferred until the flood model has been upgraded, the Flood Risk Management Study has been completed and its results have been considered by government and the community.*

14 *Consideration might be given to a flood management option which provides for resumption of the subject site to allow for fill to be removed from the site and for a flood channel/levee system to be constructed to improve the flood immunity of the existing Creek Street development and restore the ecological values of the estuary.*

15 *The stormwater drainage system proposed for the development, because of its obstruction of stormwater and flood water runoff from the Creek Street locality, will*

increase the depth and duration of inundation of Creek Street properties during major storms.

16 *As a result, it is unlikely that the Stormwater Management Plan would be acceptable to local residents or to Council and it is recommended that the Stormwater Management Plan should be completely revised to accept the existing stormwater runoff from the north of the site in a sustainable manner.*

17 *The Water Cycle Management Plan, by not providing on-site detention and replacing natural grassed drainage swales with a concrete drain and piped drainage beneath the proposed emergency access road, will increase and concentrate stormwater flow rates into the estuary at two significant locations, as well as at minor outfalls from the development.*

18 *It would be expected that the current design of the Water Cycle Management Plan would not be acceptable to the NSW Government or the Tweed Shire Council, nor residents, because it adversely affects the drainage of stormwater runoff from urban development into a SEPP14 wetland.*

2.2 Tweed Shire Council Assessment

TSC and its engineers are also very critical of the flood model relied on by the applicant. They express significant concern about the flooding and stormwater impacts of the proposal.

We are disappointed to learn that DoP exhibited this proposal despite its recognition of these problems. As TSC states:

> *In previous communication to the Department of Planning it was concluded that the subject application did not adequately address the flooding and stormwater issues affecting the site. Despite these comments, the Department of Planning (DoP) have publicly exhibited the Environmental Assessment (EA) of the Major Project Application.*

This is a distressing contradiction of action by DoP.

In terms of the adequacy of modeling, TSC requires the proposal be revised given the results of the *Tweed Byron Coastal Creeks Study*. We submit that this is just one further additional reason for adopting the recommendations of MWA above.

TSC states (Sub p 3, Tab 8)

> *The EA adopts a design flood level (DFL) for the site of RL 2.4m AHD, and intends to fill the site to this level as a minimum, with an average of RL 2.8m AHD. Minimum habitable floor level for subsequent residential development is specified as RL 3.1m AHD. Since the project was initiated with DoP, Council has revised DCP Section A3 – Development of Flood Liable Land (Version 1.3), in consideration of the results of the Coastal Creeks Flood Study. Under DCP-A3 Version 1.3, Greenfield residential subdivision of this kind must adopt a climate change DFL, in accordance with maps in Appendix D of the plan. As such, the subdivision requires a minimum fill level of RL 2.8m AHD, and a 0.5m freeboard to habitable floor levels, to RL 3.3m AHD. Due to proximity of the site to the creek mouth, this increase in peak flood levels is primarily due to sea level rise predictions in accordance with the adopted benchmark from the NSW Government. As a result of the DCP-A3 amendments, additional fill will be required across the site, and this must be incorporated into the post-development scenarios for the proponents' flood impact assessment. The "Summary of Commitments and Mitigation Measures" (7.14) also needs to be updated with regard to the DFL.*

This means that the development will require 0.4 m more fill than proposed and that which Opus considered in its flood modeling. Hence, the request by TSC that the applicant renew its flood impact assessment is appropriate.

Like MWA, TSC is also critical of the EA's underestimation of the current extent of flood liable land in the locality. Both MWA and TSC independently remark on the extraordinary statement of Planit in Section 2.7 of the EA which states:

> *Areas of the site are currently below the Q100 flood level, including area proposed to be contained within the developable area of the proposal.....*
>
> *Preliminary hydraulic modeling shows that the site can be filled to the design flood level of 2.4m AHD as required by the Tweed DCP and to an average fill height of 2.8m AHD (for the purpose of achieving adequate drainage), with no detrimental impacts or cumulative impacts on surrounding properties (see Section EA3 and Section 6 of the Engineering Impact Assessment Report for further detail in this regard…*
>
> *It has been shown that an area toward the eastern end of Creek Street, equating to that area opposite Lot 10 Creek Street has the potential to be flood prone as it is located slightly below the 1 in 100 year flood level. This constraint has been taken into consideration and an emergency road is provided for vehicular access in such a flood event."*

TSC responds:

> "*Considering the DFLs adopted in DCP-A3, the entire site and all existing residential properties fronting Creek St are liable to some degree of flooding in the 100 ARI event. Further, the impact modeling shows that the filling will have impacts on the local area. Flooding is a significant constraint, as the DCP requirement to fill the site results in some degree of obstruction and constriction of existing flood flow paths from the west and the north to Christies Creek."*

Further, the last sentence of the EA quoted above is inaccurate. The lot opposite 10 Creek Street sits on the northern side of Creek Street and so has no access to the proposed evacuation road. Therefore, the evacuation road does not address the constraint to which the EA refers.

TSC also provides similar bases of objection to MWA with respect to the applicant's stormwater management plans which can be summarised as follows:

(1) The applicant's stormwater catchment assessment has inaccurately restricted itself to "catchment c" when flows from dwellings on the north side of Creek St, the street itself and the adjacent caravan park will all be blocked by the fill on Lot 156 and the evacuation road.

(2) The external catchments E3, E4 and E5 to the north of the site and caravan park have been considered in calculations but are inaccurately assumed to discharge solely to the existing open drains at the western end of Creek St. It is likely that in the pre-development case these flows arrive at the site as channel and sheet flow and disperse across the site towards Christies Creek. (MWA notes *"It would also appear that no provision has been made to accept overland flows from the caravan park to the north of Creek Street near the eastern end of the street – which is also an overland flow path for floodwaters from the north"*). (There is also clear evidence of a significant further catchment east of Coast Road, west of the sand dunes. It has only one available route – blocked by the dunes east and the hill south - and that is down through North Star and the eastern end of Creek Street as evidenced by significant flood inundation and flows in the 2005 flood event – see photos, Tab 5. Stormwater flows from the North Eastern Hill development into Northstar also need to be assessed)

(3) Given the lack of existing drainage infrastructure in the locality, the predicted increases in stormwater runoff from the site are not properly addressed – including volume and duration on adjoining land and receiving waterbodies.

(4) There is no design for culverts under the emergency access road or a system to ensure that no blockage in major storm events occurs which is essential to protect existing low set dwellings in Creek St to avoid damage and nuisance. If the evacuation road cannot be feasibly installed without significant impact, the development fails to satisfy the emergency response criteria in the DCP, and therefore cannot be supported by Council.

(5) The flooding diversion at Kanes Road as claimed by Opus cannot be so simply assumed. (There is no evidence to support Opus' conclusion in this respect which justifies TSC's claim that it should be tested in a model. Local inspection of this claim concludes it is false)

(6) Alternative stormwater quality control devices should be considered to adopt Water Sensitive Urban Design given the sensitivity of the surrounding ecology.

TSC concludes that the subject Major Project Application is not supported because it fails to adequately address flooding and stormwater issues in the locality.

TSC further claims in relation to "Altered Hydrology" (Sub, p 17, Tab 8)

> *Council's Planning and Infrastructure Engineer supports claims of altered hydrology, noting that filling of the site will have impacts on the local area, with flooding a significant constraint. Danny Rose notes that requirements to fill the site would result in some degree of obstruction and constriction of existing flood flow paths from the west and the north to Christies Creek. Cudgen Nature Reserve adjoins the development site to the west. The EA and Flora and Fauna Assessment fails to consider what impacts altered local hydrology will have on the significant conservation attributes of Cudgen Nature Reserve. In the absence of sound evidence demonstrated there will be negligible impact to the four floodplain EECs occurring on site and conservation attributes of Cudgen Nature Reserve, the precautionary principle should apply and site filling to the extent proposed in the project application should not be approved.*

2.3 Australian Wetlands Assessment

Auswetlands also comments significantly on the Applicant's proposed stormwater/drainage plans and practices which we ask you to consider carefully (Sub, pp 2-6, Tab 10). There is some obvious overlap with issues in Section 3, given that poor stormwater/drainage plans and practices together with flooding related hydrology issues have an impact on the environment – marine & wetland ecology.

3. ENVIRONMENT – MARINE & WETLAND ECOLOGY

In summary, AusWetlands have reported on aspects relevant to the wetland ecology, water quality and stormwater management.

AusWetlands is familiar with the site and Tweed coast region having written a number of key documents related to the applicant's proposal:

- *Tweed Coast Estuaries Management Plan 2004-2008: Cudgen, Cudgera andMooball Creeks*. Australian Wetlands (2005)
- *Baseline Ecological Assessment Report: Cudgera Creek and Kerosene Inlet, TweedCoast*. Australian Wetlands (2010)

- *Draft Coastal Zone Management Plan for Cobaki Broadwater and Terranora Broadwater* (Australian Wetlands, 2010)

AusWetlands has a good working understanding of the area. So much so that its *Baseline Ecological Assessment Report 2010* followed studies conducted in Cudgera and Christies Creeks. Its assessment was requested by Tweed Shire Council following recommendation from the Tweed Coastal Committee and Hastings Point's community reports of ongoing contamination supported by physical, photographic and scientific evidence. (See TSC letter, SCU test results and photos Tab 12).

Auswetlands' submission addresses the EA's numerous generalizations and omissions of key studies, quantifiable data, hydrological and ecological impacts. These flaws are detailed systematically throughout Auswetlands' Sub which outlines how the principles of Ecologically Sustainable Development (ESD) have not been adequately considered by the applicant.

It outlines how potential impacts associated with the proposal require further attention, including: inadequate stormwater treatment measures, hydrological impacts, inadequate use of buffers and lack of consideration of impacts to local wetland ecosystem function, threatened communities, cumulative impacts and climate change.

To avoid repetition and for purposes of brevity, you are referred to Auswetlands' Sub (Tab 10). It provides specific assessment of all issues pertaining to wetland ecology against relevant statutory and policy instruments and concludes as follows:

> ***Conclusion /Summary***
>
> *The principles of Ecologically Sustainable Development have not been adequately considered as the requirements to limit cumulative impacts, the precautionary principle, social and intergenerational equity and the conservation of biological diversity and ecological integrity have not been adequately addressed. A summary of the key points relating to inconsistency with ESD are provided below:*

- *Inadequate WSUD measures that will not treat stormwater to a level suitable for discharge, and may actually concentrate and increase the quantity and quality of pollutants entering the estuary and wetlands.*
- *Inadequate consideration of the effects, some cumulative, that changed hydrology and decreases/changes in water quality may have, on local ecology including impacts to Cudgen Nature Reserve, Saltmarsh and Swamp Oak Floodplain Forest (EECs), seagrass (Key Fish Habitat), acid frogs (threatened species) and associated ecological flow-on impacts.*
- *Failure to ensure a riparian buffer of at least 50m along Christies Creek.*
- *The inclusion of park, road or housing areas within a buffer zone is considered inconsistent with the definition of a buffer.*
- *Failure to ensure a minimum buffer of 50m to EEC's and proper consideration of the importance of buffers with respect to ecology and mitigating the impacts of climate change.*
- *Failure to consider the impacts on seagrass, key fish habitat and aquatic fauna species.*
- *Failure to consider the cumulative impacts on EECs, and the ecology of this tidal environment, in association with predicted impacts from climate change, specifically on Saltmarsh.*
- *Failure to adequately compensate for loss of Saltmarsh and to detail the methods of translocation and its suitability and likelihood of success.*

4. FLORA AND FAUNA

4.1 - General

To avoid repetition, we refer to TSC's Sub and Report relating to the ecology (See Sub pp 11-17; Tab 8; Report pp 148-149,Tab 9) which deal with endangered ecological communities, threatened species, fauna compensation, ecological buffers, ecological restoration, creek access, stormwater pollution, altered hydrology, erosion, sediment control, roads and driveways

TSC is critical of the proposed development in respect of all these areas to such an extent that it concludes in its assessment as follows:

> *Ecology Conclusion:*
>
> *The proposal as presented in the Major Project Application is not supported due to the real and potential negative impacts it will have on significant conservation and recreational values of Cudgera and Christies Creeks. Council's NRM will not accept future land dedication for conservation purpose until the issues outlined in this memo are addressed.*

TSC makes further comment in its Report (p 141, Tab 9):

> *The Department of Planning have not paid for Council to undertake any detailed planning, ecological and engineering assessment. Accordingly in accordance with Council's adopted policy on the processing of Major Projects this assessment has only looked at matters that may affect Council in the long term for example major flood implications and maintenance as the future asset owner of public land.*
>
> *Council has not undertaken a detailed ecological assessment and this should be undertaken by the Department of Planning as part of their assessment role as the consent authority.*

Given the seriousness of the impacts noted by TSC and its inability to do a thorough and more comprehensive ecological critique of the proposed development and given the need to ensure that developments in such a unique and precious coastal area satisfy all ESD principles and environmental protection law, the community expects that the DoP as the consent authority will avail itself of the appropriate experts to thoroughly inspect and assess the site in detail (not one visit) so that all ecological and other pertinent issues are satisfactorily addressed.

If not, the DoP could not equitably approve this proposal. It is unrealistic given the statutory timeframe within which the community is required to respond given its resources for it to be expected to provide the type of expert assessment to ensure the protection of the environment, its properties and its welfare consistent with law. Nevertheless, the community has endeavoured to provide you with three assessments of major issues by independent experts in MWA, AusWetlands and James.

The understatements, inaccuracies and omissions of fact and poor interpretations of law as exposed in this brief by MWA, TSC, AusWetlands, James and ourselves is symptomatic of an approach and a proposal which cannot be positively recognized, relied on or supported.

4.2 - Buffers

Given AusWetlands' comprehensive assessment of buffer requirements in environments such as the subject site, one comment in the EA (p 58) did not escape attention:

> *Should greater buffer distances be provided recommended by some guidelines, the area of the site within the 2(e) zone available for development would be unusable for any*

development that would achieve the objectives of the 2(e) zoning in accordance with the Tweed LEP. This would essentially require the proponent to adopt the "Do Nothing Alternative" as presented in Table in Section EA6 ……

Firstly, the pursuit of environmental protection is the aim of legal requirements in relation to buffers. The reasoning is explained comprehensively by AusWetlands (See AusWetlands' Sub pp 13-16, Tab 10) The fact that development potential may be reduced in this pursuit is an understood expectation in planning and development. The current owner was aware of these constraints when he purchased the land – particularly for this block.

Secondly, the recommendation in respect of buffers in the 2003 LES to which the EA refers was that buffers be flexible in the sense that they be assessed on their merits with individual development applications - not as the EA infers - that they be flexible only downward because the degraded state of the site warrants it.

The EA's proposition plainly put is as follows: *Buffers should be reduced and further environmentally sensitive land degraded because the land around it is degraded.*

This has the same basic legal and ethical flaws as the other proposition which consistently appears throughout the EA; that is, the proponent should be allowed to degrade further environmentally sensitive land (including EECs) if it rejuvenates land it degraded (even today) Or put more crudely, "*If we offer to rejuvenate some of the environmentally sensitive land we degraded, can you please let us degrade some more?"*

This is even more inappropriate when the rehabilitation plan is so poorly explained/supported and the offsets proposed so low and inadequate (See AusWetlands Sub pp, 16-18; Tab 10; TSC Sub pp 14-19, Tab 8)

See also, TSC conclusion regarding ecological restoration (TSC Report, p 149; Tab 9):

Ecological Restoration

Ecological restoration generally is inadequate, ill-defined and conflicting with various parts of the documents. It also appears to be only replacing that zone that has been cleared or modified without consent. Therefore, compensation is essentially lacking. The plan is highly deficient in its methodology. Council will not accept dedication of land unless restoration meets agreed performance criteria.

Further, James (Sub, p 3, Tab 11) states:

Rehabilitation of illegally cleared areas should not be counted as Compensation

A significant part of the area proposed to be rehabilitated and counted as mitigation was illegally cleared in the 1980s by previous owners and more recently by current owners.

The value of the mitigation package should be discounted accordingly.

Thirdly, the current 2E zoned boundaries are questionable in respect of the need to protect required wetlands. They were recommended subject of an environmental assessment by James Warren which has been severely negatively critiqued by James (Sub p 1, Tab 11 – critique documents available on request). This rezoning was approved by TSC Councillors – many of whom were related to or comprised the pro-development balance team which was later sacked. It is clear that this zoning boundary for development is no longer supported by experienced hands in the current TSC Planning, Environmental and Engineering Departments. An accurate assessment of more recent local studies, laws and policies also support greater buffers. (AusWetlands Sub pp 12-18, Tab 10; TSC Sub p 13, Tab 8; James Sub pp 1,2, Tab 11)

It should be note that the current buffers were a result of the James Warren assessment coupled with advice from the existing TSC entomologist regarding midge protection. The entomologist argued and it was accepted that the buffer should be reduced because it would encourage midges. There is no legal support for such a position.

The size of buffers is not determined by the affect midges have on a development i.e. reduce buffers close to proposed developments if they house midges. That is considering the issues back to front. Rather, the primary consideration is the protection of the environment. The secondary consideration once that is established is then: What affect will midges have on development to determine whether that development should be further from the buffer or there at all?

Protecting the development from midges is a separate and secondary issue.

Consistent with the position of AusWetlands, TSC also independently correctly notes that the vegetated buffers should not incorporate development, nor be used for public open space – such as the public parks proposed. "*Formal public open space areas (i.e. parkland) and informal public open space are not supported in vegetated riparian buffer zones."* (TSC Sub p 13; Tab 8). Both defeat the purpose for having buffers adjoining estuaries and SEPP 14 Wetlands.

Having parks, roads or houses within a buffer is contrary to its definition (Auswetlands Sub p 13, Tab 10):

> The definition of a 'buffer area' in A5.E.2 Definitions is: '*an area of prescribed width and treatment created between two or more landuses (including environmentally sensitive areas)for the purpose of mitigating the impacts of one or more of those landuses'*. The inclusion of park areas or roads within a buffer zone is considered inconsistent with the definition of a buffer.
>
> A park area is not likely to mitigate the impacts of a residential area on a sensitive wetland so should not constitute part of the buffer area. A buffer area of 50m from all EECs should be provided within environmental protection areas and not include parklands.

It is submitted that buffer issues need to be tested applying current and accurate environmental protection laws, policies and studies and not relaxed because of a "Do Nothing" development scenario might arise.

4.3 Threatened Species

TSC Subs (pp11 and 12, Tab 8) stress the importance for protecting ecological communities which are vital habitat. For example,

> "*Saltmarsh is vital habitat for fish (particularly crab larvae release at king tides which form an important part of the food chain for commercial fish species) and for shorebird roosts. Again, David Rohweder's (Sandpiper Ecological Surveys 2009) research has shown the roost sites are the limiting factor for shorebird recovery in the Tweed….*
>
> *"Nesting and foraging habitat for the Bush-stone Curlew and Beach-stone Curlew occurs on the site and both species are known from the mediate area. The Bush-stone curlew is likely to utilize cleared areas within the development footprint and the Beach-stone Curlew may potentially forage and/or nest in the estuarine fringe."*

The EA does not address the impact the proposed development may have on these species and how such impact may be addressed.

Auswetlands Sub states in respect of the same issue (pp 15,16, Tab 10):

The combination of inadequate buffers and inappropriate stormwater treatment measures could lead to changes in hydrology and water quality. This suggests that important foraging areas for this threatened bird species may become polluted and/or damaged and is a known threatening impact to the survival of this species.

In assessing the EA's claims of protecting fauna, Auswetlands refers to comments received by TSC from NPWS relating to Draft Tweed LEP 2000 Amendment No. 44 for part of this Lot/DP (2003):

- … *the NPWS' position is that a 50m buffer should be provided between wetlands and any form of development. It is recommended that an appropriate buffer be included in the Environmental Protection zone to ensure the integrity of the wetland ecosystem in the long term* (Diacono, 2003, recommendations for Draft Tweed LEP 2000 Amendment 44).

- *As an example of the value of a buffer, bird species protected under the Japanese-Australia Migratory Bird Agreement have been recorded from the estuary in close proximity of the subject site. Mangroves and/or saltmarsh provide feeding and roosting habitat for these species as well as other resident shorebirds. However they are shy and are quickly stressed by human disturbance, or disturbance by domestic animals. Other rare or threatened species also regard mangroves as important habitat. An appropriate buffer would assist in maintaining the usefulness of this habitat to significant species* (Diacono, 2003, recommendations for Draft Tweed LEP 2000 Amendment 44).

Without appropriate buffers they cannot claim to be protecting fisheries resources, migratory bird habitat, significant vegetation communities, other recorded and potentially occuring fauna and as a water based fauna linkage between the Cudgen Reserve and Cudgera Creek estuary.

AusWetlands explores in detail how different impacts on the wetlands then impact on wetland systems, EECs marine life and threatened species including the impacts of changed hydrology (Subs, pp 6,7, Tab 10), changed physical and chemical water quality (Sub, pp 8-11), smaller buffer zones (Sub, pp 11-16) and climate change.

These submissions require careful examination because as TSC notes (Report, p 148, Tab)(our bold):

Threatened fauna species and their habitat have been poorly considered and are very likely to be adversely impacted by the proposed development. The site is adjacent to Cudgen Nature Reserve and adjoins a tidal estuary with records of significant species within and adjacent to the site. No significant assessment has been provided for the critically endangered Beach Stone Curlew (photographs supplied by residents show the species roosting at the estuary on the edge of the development site – ***video footage available****) or the Bush Stone Curlew (record adjacent the site). Koala records exist all around the site yet key tree species are proposed for removal and road works are proposed through this corridor* ***(the 7L Environmental Protection (habitat) Zone at the end of Creek Street).*** *All three species are highly impacted by domestic pets which are regarded as key threats as to the species' survival yet no restrictions on dog or cat ownership are considered, habitat is to be adversely impacted and inadequately compensated. Large old growth trees are proposed for removal without a thorough analysis of their ecological role. The use of nest boxes and artificial raptor poles to replace valuable resources is ill-considered and inadequate to avoid immediate impacts.*

Finally, a statement by AusWetlands (Sub p 11, Tab 10) is worth repeating here:

Protecting the health of aquatic habitat is imperative for the survival of the whole system and preservation of the significant biodiversity and recreational values of the Creek. Without appropriate WSUD measures that ensure protection of water quality and hydrologic regimes, the applicant cannot claim to be protecting aquatic habitat. Without appropriate buffers and/or site specific data the applicant cannot claim to be protecting fisheries resources, migratory bird habitat, significant vegetation communities, other recorded and potentially occurring fauna and as a water based fauna linkage between the Cudgen Reserve and Cudgera Creek estuary.

Please see TSC's comments on the impacts on EECs and threatened species (Sub pp 11-16, Tab 8) and James Sub re impact on EECs (Tab 11)

4.4 Emergency Access Road

The buffer requirement should equally apply to the narrow strip of 7A zoned land where the emergency access road is proposed. If it is not appropriate to put a park or a house in such a riparian zone (as noted by AusWetlands and TSC above), then as confirmed by AusWetland it is certainly not appropriate to build a road – particularly given its sealed and gravel top with batters and retaining wall (stormwater impact), concrete swale and stormwater piping culverts (stormwater impact - see MWA report, Section 2 above) and excavation – cut and fill (acid sulphate soil implications). This will all adversely affect the adjoining wetland and estuary.

As stressed by Auswetlands, such is contrary to the definition of a buffer.

The existing buffer between 6 and 8 Creek Street to the estuary and trees and vegetation within this zone needs to be removed for such proposal which will leave no buffer at all to the estuary. This would seem to breach the expert advice, policies and laws referred above.

Additionally, from a basic planning perspective, this hardly satisfies the environmental protection objectives of the 7A zone.

These are further reasons in addition to the drainage, flooding and amenity impacts (see Section 5 below) for refusing this road.

Furthermore, as noted by TSC (Sub p 2, Tab 8):

The proposed road within the 7(a) zone needs assessment against Clause 8(2) of the Tweed LEP 2000. The applicant has provided limited justification in this regard is weak and only establishes that if <u>this</u> subdivision patter were to be approved then the emergency road need to be in the locality. The Clause 8(2) assessment does not consider alternative allotment configurations that would avoid the need for any road in 7(a) zone.

TSC also remarks that the proponent has also failed to show that the proposed road is on its land. There are issues regarding the MHWM at the back of 6 and 8 Creek Street but also issues relating to the requirement to fill part of this estuarine environment which is on land owned by Council. Council's land (marked as road reserve) is not filled up to the boundary of Lot 156.

On Planit's own admission, the sewerage pump station road is below the 2.4 m RL level (see Planit email at Tab 14, p 1) and would need to be filled further. This, like the 7L zoned wildlife corridor and Creek Street would require Council consent as the owner of this land to approve a road or do works on a road.

TSC does not support either road in environmentally protected land (7A or 7L) or required buffer zone (Report, p 149, Tab 9)

It is unclear as to whether the current sewerage pump station road will be widened further and trees removed.

There is also the issue of the appropriateness of including a public foot and cycle path through a sewerage pump station area. The road reserve was designed to access the sewerage pump station – evidenced by the fact that it ends at this point. This clearly indicates it was not intended to serve as a public access point or path. This would conflict with the regular works which are required in that whole area to maintain the systems. Council trucks regularly visit this site dumping and moving the necessary large volumes of mulch to service the works on the surface proposed to be the foot/cycle path. There are considerable OH&S issues which have not been addressed by the applicant nor considered by TSC which are of concern.

Finally, it is not clear as to whether in fact, the emergency access road would also have to be raised a further 0.4 metres to RL 2.8 m AHD following the Coastal Creeks Flood Study (as with the houses) because of the requirement to adopt a climate change design flood level given the proximity of the road to the creek mouth and the increase in peak flood level due to the sea level rise predictions in accordance with the adopted benchmarks from the NSW Government.

Logic would dictate that this would be necessary.

This further requirement would exacerbate an already problematic height design for the emergency access road as noted by TSC and MWA.

4.5 Inadequate and Inaccurate Vegetation Mapping/Quantification/Rehabilitation

James explores these issues in detail because they are essential when assessing what the appropriate buffers should be from the estuaries, its tributaries, wetlands and certain vegetation types (particularly EECs) to ensure their protection and compliance with law and policy.

James' Sub (Tab 11) provides a detailed review of the inadequate and inaccurate mapping by the EA in relation to vegetation. He also reviews carefully the EA's claimed quantity removal and transplantation/compensation of vegetation against accurate geo-referenced calculations. He detects considerable inaccuracies and inconsistencies in the EA's assessment which he exposes.

This submission must be carefully reviewed so that buffers are correct, zoning reflects what it should and any removal of vegetation is appropriate and not inadequately compensated.

5. VISUAL IMPACT & AMENITY

5.1 – General

Contrary to claims in the EA, this development will have a significant visual impact.

The development site will be significantly different from the Creek Street streetscape as proposed in the Draft DCP B23 - which is the result of extensive consideration, planning and community consultation as part of the drafting of a new locality plan for Hastings Point.

The size, density, fill, height and location of the proposal will adversely impact on the natural attributes of the area and its high environmental amenity.

The proposed raised development will have an adverse visual impact from Coast Road, the headland, Bridge and in the Creek Street precinct. It will impinge on the height view field guidelines proposed by Draft DCP B23 given that houses will effectively be built from a habitable floor level of 3.3 m RL.

It will have medium density components contrary to those requirements proposed in the Draft DCP B23.

Section 3.3.2 of Draft DCP23 lists the potential adverse impacts that might be considered in respect of filling of land. We submit that the DoP address these and ask itself the following questions when considering the impacts of the proposed development on the community and environment as outlined in 3.3.2:

- Whether it changes the existing quality of the landscape and visual setting to this precinct?
- whether considerable vegetation will be (has been) removed. (i.e. trees along Creek St and proposed extension)?
- whether the proposed development, including the filled evacuation road creates a loss of privacy and amenity?
- whether, there will be unsightly batters at boundaries?
- whether the fill, stormwater and drainage will have adverse impacts on the estuary?
- whether there will be adverse impacts on ground water conditions – including filtering of water?
- whether this obstructs stormwater and flood flow paths and affects the safety and amenity of affected neighbours?
- Whether the filling proposed will cause cumulative impacts?

As with any fill proposed in this precinct, it is submitted that it would be difficult not to answer yes to each and every proposition.

Certainly, if the environment, including the marine and wetland areas were damaged, this would have a significant impact on the visual amenity of the area. This has already occurred in Hastings Point which resulted in significant controversy and prompted Council requesting a baseline study for the estuary (granted) – as existing impacts caused red staining to the banks of the creeks, acid sulphate flocks and significant water contamination. (See Contamination photos, scientific testing done by SCU laboratories at Tab 12)

5.2 – The Emergency Access Road

The emergency access road proposed at the rear of southern side Creek Street homes would have significant adverse visual impact and amenity

In addition to being an emergency access road, it is proposed to serve as a cycle path and footpath for the public, including the residents of 70 dwellings from the proposed development. That is upwards of 200 people that may regularly access this road which is raised as the effective back fence of existing properties. Therefore anyone that uses it - public or otherwise - is effectively walking, riding or driving along a raised filled fence looking down into all the local's yards and homes.

This is not only a significant adverse impact on privacy and amenity but is particularly inappropriate when this land was illegally dredged/cleared (first owner) and further cleared/earth moved (current owner) to create this opportunity. This occurred at a time when current residents complained to government authorities. No action was taken when it should and could have been taken to order remediation. This offends basic legal and ethical principles.

Rather than approve this request, TSC should be preventing the mowing of this 7A buffer area consistent with the environmental protective objective of the zone (vegetated buffers as opposed to parkland) so that it can regenerate as it has done in 4 years behind 8 Creek Street where mowing has ceased.

6. SOCIAL IMPACT & AMENITY

The EA states that the major socio-economic justification for the proposal is its capacity to generate jobs.

However, given that the majority of the jobs will be created in the construction phase and any jobs associated with the tourist element will be small given that component's size, it is submitted that any positive socio-economic benefit will be short term.

In any case, with construction, the employment generated is likely to be largely from the Gold Coast Region, particularly since the Gold Coast applicant and its building company, Palm Lakes, are likely to do the construction – as they have with their other developments in the locality.

Although the project may increase housing for a growing population, it will have a tiny impact at a shire or regional level compared to the large negative impacts it will cause the locality.

In short, the more immediate adverse social implications for the local community far outweigh any positive social contributions. These include:

1. increased flood hazard resulting in increased insurance costs (Section 2);
2. increase inundation of water on properties resulting from poor stormwater and drainage systems (Section 2 and 3);
3. reduced amenity resulting from damage to the environment – estuary, flora and fauna (Sections 1, 2, 3, and 4);
4. reduced amenity of the area with the loss of environmentally sensitive lands (Section 3 and 4);
5. adverse impacts on visual amenity of the area (Section 5);
6. adverse impacts on recreational activities in the locality from damage to estuary/water quality;
7. significant loss of amenity/basic privacy for those properties that abut the development site, particularly those that have a raised public road as a back fence (Section 5 also);
8. reduction in safe traffic movement (See Section 7 below)
9. increased noise/traffic movement during the construction phase
10. decrease in property values as a result of all the above.
11. a serious injustice to adjoining properties owners whose rights and amenities to create this opportunity were breached through illegal activity and government inaction. This would have a serious compounding effect. (Section 1)

Therefore, contrary to the EA's claim (p118) that *the potential socio economic impacts arising from the proposal are of a positive nature and provide strong justification for the proposed development to proceed*, it is submitted that the proposal has such unacceptable negative social impacts of a cumulative nature that the proposal warrants refusal.

7. ROADS & ACCESS

7.1 General

TSC's Sub (pp 5-9, 19, Tab 8) refers to the different road and access issues that are relevant.

Those of concern are in summary (our additional comments in brackets):

1. Loss of pedestrian refuge at Creek Street/Coast Road intersection is an extremely important and serious satefy issue. There appears to be no suitable replacement location for this refuge. Appropriate resolution is necessary prior to any consent.

2. Creek Street would require a wider sealed carriageway to address the increased traffic volumes. (This could conflict with the character retention of streets in Draft DCP B23 – Hastings Point Locality Plan and destroy tree species of significance – see below)

3. Tweed Coast Road would have to be widened to accommodate a turning lane into Creek Street with the removal of the pedestrian refuge. TSC notes the discrepancy in channelization line marking on Tweed Coast Road and those presented by Opus.

4. The Emergency Access Road is proposed to be a 6m wide carriageway with a 4 m wide clear trail which also doubles as a 2.5m wide cycleway. (This seems to conflict with the advice by WE/Planit seeking approval for WE's current house DA at 4 Creek St where Planit claims that the emergency access road will only be 3m wide to justify retention of trees in the gully next to the current sewerage pump station road and so relax the rear setbacks for no. 4. There is considerable issue with the removal of these trees given such will conflict with the character retention in Draft DCP B23 – Hastings Point Locality Plan. In June 2010, WE illegally removed certain species of trees of significance on this block contrary to its development consent)

5. Construction traffic carrying fill to the construction site down Creek Street will be approximately 50 trucks per day for a period of 7-8 weeks. This is based on 37,000 m3 of exported fill material with a truck and trailer capacity of 20m3 and a 20% builking factor on the material. 100 truck movements (accounting for two way traffic movements, including the empty truck returning to the fill source) will occur every day throughout the estate to fill the site as per the development application. This equates to one truck every 12.5 minutes. This will create amenity and noise issues for the existing residents in Creek Street. (This assessment does not include the extra fill now required because of the height amendment by 0.4 m nor the fill required for the emergency access road.)

TSC notes that if the above engineering standards were enforced, they could conflict with Draft DCP B23 – Hastings Point Locality Plan in terms of maintaining the character of existing streets like Creek Street.

7.2 Roadwork Proposed - Creek Street and Environmental Protection Zones

TSC, importantly, has ecological concerns with the removal of trees along Creek Street, the current northern property boundary of Lot 156, the Creek Street Road Reserve and the 7L Environmental Protection Habitat zone.

Some of the trees may comprise protected EEC's even if their numbers have been reduced by previous disturbance (i.e. clearing of the north western zone by WE in 2002)

TSC notes (Sub p 18; Tab 8):

> *Due to the location of numerous trees on the property boundary or with the Creek Street road reserve, it would appear difficult for additional trees to be avoided, or if they are avoided, their root health compromised, for proposed water main construction, subsequent connection of services from allotments to mains, and driveway construction for individual allotments. This cumulative impact should be considered in the flora and fauna assessment. The applicant must also demonstrate that the vegetation along the northern property boundary within the Creek Street road reserve is not Swamp Sclerophyll EEC or Coastal Subtropical Floodplain Forest EEC.*

TSC concludes (Report p 149; Tab 9)(bolded ours)

> *<u>Roads</u> – the main access road, the emergency evacuation road and individual driveways are proposed to be formed within land zoned for environmental protection and are not*

supported. The emergency evacuation route within the buffer of Cudgera Creek, is ill-considered and described and is not supported – it appears an area previously supporting wetlands has been filled and will require further fill leading to a permanent change to existing residential amenity and will alter flooding behaviour with detrimental impacts on residential amenity and ecological regimes, adapted to particular site regime.

Creek Street itself contains tree species of significance due to their age and fauna habitat values and their retention must be the starting point from which minor variation may be sought, rather than an assumption that all may be removed. Road access into the site should be gained from Creek Street road reserve only and not encroach into the environmental protection zoned section. **(i.e. 7L – Environmental Protection (Habitat) Zone – wildlife corridor)**

The 7L zone appears at the end of the Creek Street Road Reserve.

The EA states (p 56)(bolded ours):

*"(a)pproximately 150m of this 7(l) zoned section of Creek Street (**albeit not Creek Street, not road reserve**) is proposed to be constructed ending approximately 10m to the east of the connect of the table drain in Creek Street and the drain (**historical tributary**) that runs through the site."*

It is easy to understand why this area was zoned 7(l), when one appreciates as noted by TSC that it and the adjacent land (albeit incorrectly zoned 2E and significantly illegally cleared by WE in 2002) contain EECs. It is known locally as a wildlife corridor.

As noted above by TSC many of the trees in this zone will have to be removed for drainage, services and driveway access for the dwelling if approved as proposed.

The EA states (p 57):

It is noted under the Draft Tweed LEP recently placed on public exhibition the section of the Creek Street Road Reserve that is proposed to be extended and is zoned as 7(l) is to be zoned as R1, as is the 2(e) component of the site. This would indicate that there is recognition by the TSC that the Road Reserve, as it adjoins the area of the site zoned for residential/tourist development, should be covered by this more appropriate zoning of R1 to reasonably allow as extension of Creek Street for vehicular access to this site.

It is submitted that this proposed zoning adjustment in the draft Tweed LEP is an oversight likely occurring from TSC failing to consider prior to the time of exhibition of the draft, the important aspects of this area which have now been considered following an ecological assessment of this specific location.

Submissions by the community have been put to Council in respect of the Draft covering these issues.

It would seem that TSC has now adopted a different position taking into account a proper ecological assessment of the specific area. Given its consideration of the proximity of EECs and the requirement of buffers, it is clear that it does not support development on the adjacent 2E zoned land or this land zoned 7L Environmental Protection (Habitat).

As concluded it its Report to Council, TSC states (bolded ours; Report p 148; Tab 9):

Major ecological concerns are raised in relation to this development. Overall the Major Project as exhibited cannot be supported from an ecological viewpoint because the level of information provided is insufficient to determine impacts both on and off the site in an

ecologically sensitive area, and the potential for a significant impact on threatened species, ecological communities and the ecological functioning of the estuarine system is high. Ecological comments originally and subsequently submitted still apply as matters previously raised have generally not been satisfactorily addressed.

*From an ecological viewpoint, it is considered the site is much better suited to single residential allotments along Creek Street and would be happy to support the same density of development as currently exists on the southern side of creek Street between the unnamed road reserve and the property, i.e. allotments of around 700m2 with a single access off Creek Street prior to the start of Environmental Protection zoning (**i.e. the 7L zone**)*

It is clear then that TSC does not endorse or recognize as the EA suggests that the current 7L zone is intended to be a road to service a residential development in the adjacent 2E zone.

See Section 4.4 for submissions on Emergency Access Road.

8 GEOTECHNICAL & ENGINEERING

The following have been determined to be poorly conceived and inadequate from an engineering and design perspective:

- The Emergency Access Road – See Sections 2, 4.4 and 7; MWA Sub pp 8, 10, 13, 14, Tab 7; TSC Report p 149, Tab 9);
- Stormwater Management Plan – See MWA, p 13, 14, Tab 7; TSC Sub p 4, Tab 8; AusWetlands Subs pp 2-11, Tab 10
- Watercycle Management Plan – See MWA p ; AusWetlands Subs 11
- Soil & Water Management Plan – AusWetlands p 11; TSC Submission p 17
- Engineering Impact Assessment – See Section 2 above;
- Water and Sewer Infrastructure – See TSC Report, p 146, Tab 9.
- Traffic & Roads – See Section 6 above.

Please refer to Sections and Submissions referred above in detail.

9 REMEDIATION & CONTAMINATION

TSC in Report (p 149; Tab 9)

Acid Sulfate Soils are insufficiently considered. Council's experience in undertaking pipeline upgrades to the Hastings Point sewerage treatment was that pockets of very high acidity were found along Creek Street. Disturbance of these soils close to the creek is to be avoided. Dewatering is likely to be required to service provision, yet has not been addressed.

The cut and fill requirement for building the emergency access road within and just above the estuary/wetland would have significant negative impact.

Building of the current house on Lot 156 by WA resulted in dewatering on site with water pumped around the surrounding land. The area where digging took place was simply covered with hydrated lime. – see photos Tab 15.

10 STATUTORY ASSESSMENT

These submissions will focus on those provisions that this development proposal offends.

To avoid repetition, reference will be made to facts, information and documents from earlier submissions and tabbed reports/photos in this brief.

We have followed in most instances the order of the legal assessment in the EA (pp 61-99) for ease of reference. We have added consideration of further important provisions which have been omitted by the EA.

Commonwealth Legislation

10.1 Environmental Protection and Biodiversity Conservation Act 1999 (EPBC)

This legislation needs to be considered in light of the many recorded threatened species in and around the vicinity of the subject site – specifically the beach stone curlew. (TSC Sub, p 12, Tab 8; TSC Report, p 148, Tab 9; Auswetlands, pp 6-10, Tab 10)

State Legislation

10.2 Environmental Planning & Assessment Act 1979 (EP&A Act 1979)

The EA lists the relevant objectives of the Act – i.e.

- *the proper management, development and conservation of natural and artificial resources, including agricultural land, natural areas, forests, minerals, water, cities, towns and villages for the purpose of promoting the social and economic welfare of the community and a better environment;*
- *The promotion and co-ordination of the orderly and economic use and*
- *development of land;*
- *Ecologically Sustainable Development; and*
- *The protection of the environment, including the protection and conservation of native animals and plants, including threatened species, populations and ecological communities, and their habitats*

The EA states: "*The above objectives have been used to guide the development of the concept plan and all supporting documentation as included within this EA."*

This is inaccurate as these objectives are not met by the concept plan.

The concept plan does not adequately address (or at all) a range of issues which results in the proposal failing to properly manage, develop or conserve the surrounding environment and locality to promote the social and economic welfare of the community and environment.

Rather, as outlined in these Submissions, the proposal adversely affects the social and economic welfare of local residents by subjecting them to significant flood and stormwater hazard which will cause significant damage to the environment, their visual and social amenity and their economic welfare.

In this sense, the proposed development is not an orderly use of the land nor is it ecologically sustainable. (See AusWetlands' conclusions, Subs p 19 – See Section 3)

Its adverse affect on the environment and community is covered thoroughly in Sections 2, 3, 4, 5 and 6 above. The DoP is referred to the Subs of MWA, TSC and AusWetlands in this regard.

10.3 State Environmental Planning Policy – Infrastructure

See Section 8 above regarding the engineering and infrastructure concerns and issues.

It is submitted that these have not been adequately addressed to avoid adverse impact.

10.4 State Environmental Planning Policy No. 14 – Coastal Wetlands (SEPP 14)

The EA refers to section 7(2) which states that consideration is to be given to:

1. *the environmental effects of the proposed development, including the effect of the proposed development on:*
    - *(i) the growth of native plant communities,*
    - *(ii) the survival of native wildlife populations,*
    - *(iii) the provision and quality of habitats for both indigenous and migratory species,*
    - *(iv) the surface and groundwater characteristics of the site on which the development is proposed to be carried out and of the surrounding area, including salinity and water quality,*
2. *whether adequate safeguards and rehabilitation measures have been, or will be, made to protect the environment,*
3. *whether carrying out the development would be consistent with the aim of this policy,*
4. *the objectives and major goals of the "National Conservation Strategy for Australia" (as set forth in the second edition of a paper prepared by the Commonwealth Department of Home Affairs and Environment for comment at the National Conference on Conservation held in June, 1983, and published in 1984 by the Australian Government Publishing Service) in so far as they relate to wetlands and the conservation of "living resources" generally, copies of which are deposited in the office of the Department,*
5. *whether consideration has been given to establish whether any feasible alternatives exist to the carrying out of the proposed development (either on other land or by other methods) and if so, the reasons given for choosing the proposed development,*
6. *any representations made by the Director of National Parks and Wildlife in relation to the development application, and*
7. *any wetlands surrounding the land to which the development application relates and appropriateness of imposing conditions requiring the carrying out of works to preserve or enhance the value of those surrounding wetlands.*

The EA states: "*It is considered that all of the above elements have been satisfactorily addressed within this Environmental Assessment and supporting documentation."*

This is a self serving statement that is inaccurate. The AusWetlands' and TSC Subs establish unequivocally that the proposed development will have significant detrimental effects on the environmental qualities listed in this provision and that inadequate measures/safeguards exist to protect the environment from displacement of water through flooding and stormwater flows.

It should be noted that the rehabilitation measures proposed are in large part the remediation of lands illegally degraded by the applicant as outlined in Section 1 above. History shows that if the applicant was prevented from continual degradation of the land in protected zones, the land would remediate itself – as it has done in significant parts of Lot 156 (South Eastern Wetlands, Wetlands west of the lake, land behind 8 Creek Street and other 7A zoned areas that have not been continually mowed).

Furthermore, the rehabilitation proposed by way of offset is completely insufficient and inappropriate given the request to remove a large section of endangered ecological communities in various areas of the site. (See TSC Sub pp 11-19, Tab 8; AusWetlands' Sub pp 13-18, Tab 10; James Sub, Tab 11.

Contrary to EA's claim, the proposal does not include appropriate buffers and relies on a misinterpretation of outdated justifications by James Warren and an entomologist to suggest smaller buffers of 10 m and like may be sufficient. This is rejected by TSC, AusWetlands and James by reference to evidence-based fact, policy and law.

The EA's statement that the applicant commits to undertake site rehabilitation and general regeneration within the degraded wetland areas on site is in reality a "nothing" offer and zero offset. The wetland areas have already been regenerated from Wintour's destruction in the 80's and WE's destruction in 2002 and ongoing. In fact, WE was ordered to regenerate the 7A wetland area west of the "lake" as part of Court consent orders when it was sued for illegal clearing.

The EA relies on old photography which misrepresents the current condition of Lot 156 and its 7A zoned land. It uses an aerial photo in most instances which is labeled "Google 2008" which suggests it is a current photo (See Tab 4). In this photo, the old house at 14 Creek Street that was replaced years ago can be seen. In an aerial photograph of Tweed Shire Council taken June 2004 (See Tab 4), 14 Creek Street is actually a vacant block; that is, the old house had been removed and the current new house not yet built.

This means that the many aerial photographs relied on by the EA throughout its assessment predate June 2004. This is a period shortly following the significant clearance and continued clearance performed by WE in 2002 referred in Section 1.2.1 above. .

There are questions of reliability. Issues of mapping are more formally addressed by the James Sub (See Tab 11)

The aerial photographs at low tide can be misleading and suggest the MHWM is that which Wintour claims and is still recorded. The real MHWM is actually only changed where the actual filled occurred. (See Section 1.1.1 above re same).

James' Sub (Tab 11) notes the failure of the EA to assess impacts on Coastal Saltmarsh EEC, failure to provide adequate compensation and failure to accurately record and map vegetation communities.

10.5 State Environmental Planning Policy No. 44 – Koala Habitat Protection (SEPP 44)

Refer to TSC Report p 148, Tab 9.

10.6 State Environmental Planning Policy No. 55 – Remediation of Land

Refer to TSC current and past Submissions in relation to same. (See Tab 8)

10.7 State Environmental Planning Policy No. 71 – Coastal Protection (SEPP 71)

The subject site is located within the coastal zone and therefore relevant provisions of this policy apply. The matters for consideration under Clause 8 of the Policy are addressed below:

(a) The aims of this policy set out in Clause 2

Clause 2 – Aim of Policy

(1) This Policy aims:

(a) to protect and manage the natural, cultural, recreational and economic attributes of the New South Wales coast, and
(b) to protect and improve existing public access to and along coastal foreshores to the extent that this is compatible with the natural attributes of the coastal foreshore, and
(c) to ensure that new opportunities for public access to and along coastal foreshores are identified and realised to the extent that this is compatible with the natural attributes of the coastal foreshore, and
(d) to protect and preserve Aboriginal cultural heritage, and Aboriginal places, values, customs, beliefs and traditional knowledge, and
(e) to ensure that the visual amenity of the coast is protected, and
(f) to protect and preserve beach environments and beach amenity, and
(g) to protect and preserve native coastal vegetation, and
(h) to protect and preserve the marine environment of New South Wales, and
(i) to protect and preserve rock platforms, and
(j) to manage the coastal zone in accordance with the principles of ecologically sustainable development (within the meaning of section 6 (2) of the Protection of the Environment Administration Act 1991), and
(k) to ensure that the type, bulk, scale and size of development is appropriate for the location and protects and improves the natural scenic quality of the surrounding area, and
(l) to encourage a strategic approach to coastal management.

(2) This Policy:

(a) identifies State significant development in the coastal zone, and
(b) requires certain development applications to carry out development in sensitive coastal locations to be referred to the Director-General for comment, and
(c) identifies master plan requirements for certain development in the coastal zone.

(3) This Policy aims to further the implementation of the Government's coastal policy.

Contrary to the EA's claim, this development is not consistent with the aims of the policy. The proposal will adversely impact on the natural attributes of the area, amenity and cause potential economic hardship to neighbouring residents as a result of poor drainage and increased flood hazard.

This will devalue existing residents' property values – particularly those with properties on the southern side of Creek Street which will now abut a raised road as a back fence instead of a low lying wetland which existed prior to illegal activities.

The proposed raised development will have an adverse visual impact from Coast Road, the Bridge and in the Creek Street precinct. It will impinge on the height view field guidelines proposed by Draft DCP B23 – which is the result of extensive consideration, planning and consultation as part of the drafting of a new locality plan for Hastings Point.

See Sections 5 and 6 above for visual and social impacts of the proposal.

For the significant reasons outlined in Sections 1, 2, 3 and 4 above, the proposed development will damage not protect and preserve native coastal vegetation (particularly EECs). It will damage and not protect and preserve the marine environment of the area. It will damage and not protect and preserve the protected rocky platform of Hastings Point headland. (See McGrath Report – cumulative effects of population inundation on the environment of Hastings Point, Tab 13)

It is not consistent with NSW Coastal Policy 1997 which extends to the protection of coastal estuaries (See Section 10.13 for submissions on NSW Coastal Policy).

d) The suitability of development and its type, location and design and its relationship with the surrounding area.

The proposed development is unsuitable because it increases flood hazard to the surrounding area, will damage the surrounding environment and is of a density and height that is not consistent with adjoining properties or its natural surrounds. The medium density aspects of the development are contrary to draft DCP B23.

See Section 5 - Visual Impact and Amenity.

e) Any detrimental impact that the development may have on the amenity of the coastal foreshore, including any significant overshadowing of the coastal foreshore and any significant loss of views from a public place to the coastal foreshore.

The filled nature of the development with retaining walls in a range of areas will detract from the natural amenity of the foreshore, limit access to the foreshore and contribute to environmental damage to the foreshore and many protected EECs, flora and fauna which create the natural amenity of that area.

f) The scenic qualities of the NSW coast, and means to protect and improve these qualities.

The density of proposed development, its filled character, and its height which impinges on proposed legal viewing lines and treelines will detract from the natural amenity of the area.

See Section 5 – Visual Impact and Amenity above.

g) Measures to conserve animals (within the meaning of the Threatened Species Conservation Act, 1995) and plants (within the meaning of that Act) and their habitats.

The proponent fails to consider what effect this significant development and its built density and human population will have on the local fauna and flora. To state that it is unlikely that threatened fauna lives on a cleared site when this area is visited and surrounded by protected environment is blinkered.

See Section 3 and 4 above which outlines the impact on endangered and threatened species.

h) Measures to conserve fish (within the meaning of Part 7A of the Fisheries Management Act, 1994 and marine vegetation within the meaning of that part)and their habitats.

The inadequate buffers, drainage and stormwater systems of the proposed development will cause the adjacent wetlands, local estuarine system and its marine environment (including fish habitat) to be adversely affected.

See Section 3 above which explores the impacts on Marine and Wetland Ecology.

A statement by AusWetlands (p 11, Tab 10) is worth repeating here:

> *Protecting the health of aquatic habitat is imperative for the survival of the whole system and preservation of the significant biodiversity and recreational values of the Creek. Without appropriate WSUD measures that ensure protection of water quality and hydrologic regimes, the applicant cannot claim to be protecting aquatic habitat. Without appropriate buffers and/or site specific data the applicant cannot claim to be protecting fisheries resources, migratory bird habitat, significant vegetation communities, other recorded and potentially occurring fauna and as a water based fauna linkage between the Cudgen Reserve and Cudgera Creek estuary.*

i) Existing wildlife corridors and the impact of development on these corridors.

Again, the inadequate buffers, significant density of the development and negative impact on the marine environment will adversely impact on the current wildlife corridor which exists through this site as noted above. Claims that the wetlands will be rejuvenated to improve this corridor is unsupported as they are already regenerated.

Further, regeneration of areas degraded by the proponent are minimal and inadequate in comparison to the impact of the proposed development. It is an improper form of compensation to gain offsets for land the applicant degraded. There will be a significantly unacceptable net adverse impact as a result of the proposed development on the existing wildlife corridor.

Changing the current 7L Environmental Protection (Habitat) Zone from a wildlife corridor into a road removes and destroys a vital link for wildlife in their surrounds and no compensation is offered. It is rejected by TSC as the consent authority and owner of the land.

j) The likely impact of coastal processes and coastal hazards on development and any likely impacts of development on coastal processes and coastal hazards.

See Sections 2 and 3 above regarding the impacts of flooding, stormwater and drainage from the proposed development.

Rather than having a net minimal affect on coastal hazards as the proponent claims, established flood studies (*Tweed Byron Coastal Creeks Study*) and accurate flood and environmental assessments (TSC, MWA and AusWetlands) indicate that this development will have a significant impact on coastal process and hazards.

In fact, the recent flood modeling of the Cudgen/Cudgera Creek systems carried out for the *Tweed Byron Coastal Creeks Study* demonstrated that the existing residential development which adjoins the proposed development is flood prone and is subject to significant flood risk and that a Flood Risk Management Study should be undertaken to assess flood management options and a Flood Risk Management Plan should be adopted.

The EA's claims are false and not supported by accurate evidenced-based studies, reports or facts.

Further, its claims that the minimal rehabilitation proposed will assist this hazard and damage is unsupported and unrealistic.

k) Measures to reduce the potential for conflict between land based and water based coastal activities.

Immediately eastward of the development site is the central point of the estuary, bridge and Hastings Point which is very popular for local and tourist recreation. It has already been subjected to significant contamination through other surrounding developments and other impacts upstream.

So much so, baseline studies were ordered by TSC in 2009. The outcome of those studies revealed that the estuaries – Cudgera and Christies Creek are adversely impacted (AusWetlands p 9, Tab 10). Water based activities have been affected in the past. (See SCU test results and photos Tab 12).

The propensity for this development to have an adverse effect on the local marine environment directly impacts on the popular water based activities in Hastings Point.

As TSC states (Sub, p 17, Tab 8):

> *The proposed method of stormwater treatment on site prior to discharge into Christies Creek is also considered inadequate. … given the sensitivity and high conservation value of the estuarine environment, existing stressors on Cudgera and Christies Creek, and very high level of recreational usage of the creek environment in the immediate vicinity of the proposed development.*

The estuary outlet/rocky foreshore area is also of state protected significance. It and the estuary are very important for educational purposes. Students from schools, colleges and universities throughout NSW and Queensland attend Hastings Point to be educated on the diverse marine environment it houses. Adverse impacts on this environment conflicts with these activities. Thousands of students are educated through the Hastings Point Marine & Environmental Education Centre at Northstar each year.

m) Likely impacts of development on the water quality of coastal water bodies.

As noted, the proposed development will have significant adverse impacts on the water quality of the estuary. See Section 3 above – impacts on Marine and Wetland Ecology.

The EA's claims that the applicant proposes water sensitive urban design used throughout with all storm water runoff treated to a high quality prior to discharge is inaccurate. These are self serving, unsupported claims. (See Sections 2, 3 and 4 above, MWA, TSC and AusWetlands Subs regarding stormwater/drainage/buffer inadequacies of the proposed development)

Again, EA's claim that rehabilitation in 7A zoned areas will support its water sensitive urban design stormwater systems is not supported by the evidence but rather inaccurate and inconsistent mapping and quantification for vegetation types, vegetation removal and rehabilitation of same. (See James, Tab 11) The 7A zoned land, other than those fringes mowed down regularly, is regenerated and within the wetland. Claims that rehabilitation of areas that don't require it contribute to the stormwater impact are therefore false.

Further, rehabilitating the recipient area of stormwater rather than rehabilitating the recommended sized buffer that proceeds it, does nothing significant to reduce the impact <u>on</u> the receiving area from the stormwater. The solution must be to ensure that the buffers are sufficient to protect the receiving wetland/estuarine system.

The proposed rehabilitation of 7A zoned land is inadequate and insignificant in comparison to the impact that this dense development will have on the environment – particularly given the inadequate sized buffers.

There has been no satisfactory assessment of the acid sulfate soil disturbance and impact on the estuary, particularly for the emergency access road. (See TSC Report p 149, Tab 9)

p) Only in cases in which development application in relation to proposed development is determined;
i) The cumulative impacts of the proposed development on the environment;
ii) Measures to ensure that water and energy usage by the proposed development is efficient.

Cumulative impacts of this development on the environment are threefold.

(1) The cumulative impact of further proposed fill on existing fill which already causes residents to flood to 1m.
(2) The cumulative impacts of poor/changed hydrology, poor water quality, inadequate buffers and climate change on the water ecology and its subsequent impact on the local

flora and fauna – See AusWetlands quote in response to subpart h above – also AusWetlands Sub pp 8-16, Tab 10)

(3) The cumulative impact of further impacts on a marine ecology (outlined in Sections 1, 2, 3 and 4 above) suffering existing impacts (AusWetland Baseline Study 2010 – AusWetlands Sub p 9; Tab 10)

These are all cumulative impacts which are likely to be significant with the proposed development and unacceptable as AusWetlands notes (p 11, Tab 10) "*protecting the health of aquatic habitat is imperative for the survival of the whole system and preservation of the significant biodiversity and recreational values of the Creek."*

10.8 NORTH COAST REGIONAL ENVIRONMENTAL PLAN 1988 (NCREP)

The North Coast Regional Environmental Plan encompasses all of the North Coast Local Government areas, inclusive of the Tweed Shire LGA and its relevant clauses are considered below.

- Clause 15 – Wetland or Fisheries Habitats
- Clause 29 A - Natural Areas and Water Catchment
- Clause 32B – Coastal Lands
- Clause 33 – Coastal Hazard Areas
- Clause 43 – Residential Development
- Clause 66 – Adequacy of Community and Welfare Services
- Clause 75 – Tourism Development
- Clause 81 – Development Adjacent to Ocean or a Waterway

10.8.1 Clause 15 – Wetland or Fisheries Habitats

Clause 15 states;

The council shall not consent to an application to carry out development for any purpose within, adjoining or upstream of a river or stream, coastal or inland wetland or fishery habitat area or within the drainage catchment of a river or stream, coastal or inland wetland or fishery habitat area unless it has considered the following matters:

(a) the need to maintain or improve the quality or quantity of flows of water to the wetland or habitat,

The EA has not proven that the proposed development can maintain or improve the quality or quantity of flows of water to the wetlands. This is clearly established in Sections 2 and 3 above which deal with the flooding, stormwater and drainage systems proposed by the applicant and their impacts on adjoining properties, the community, the receiving waterway and total environments.

AusWetlands, MWA and TSC all come to the same conclusions and provide detailed reasoning in their submissions. In fact, AusWetlands (p 3, Tab 10) indicates that

> *Based on the estimates found within the Tweed Shire Council (TSC) Urban Stormwater Quality Management Plan (USQMP)(2000) the sub-division will increase nutrient loads by 650% - 110% from the pre-development condition……*
>
> *The proposed stormwater strategy in the form of end of pipe GPT's will not reduce nutrients at all (Water by Design, 2009) and actually concentrate and increase the quantity of nutrients and heavy metals entering the estuary (Australian Wetlands, 2009 and 2005)*

The proposal is in direct conflict with the objectives of the Tweed Coast Estuaries Management Plan (Australian Wetlands, 2004) and TSC USQMP (2000) since it will not only fail to achieve the water quality objectives adopted with these plans, but also concentrate pollutants to toxic levels and discharge them as pulses into the environment.

These submissions are all fairly comprehensive in their assessment of the proposed systems and should be reviewed carefully.

They are also critical of the proposed Water Cycle Management Plan and bunds during the construction phase which are regarded problematic and inadequate.

"*No attempt is made within the application to understand water quality requirements of adjoining wetlands, in fact no water quality targets have been proposed at all.*" (AusWetlands Sub p 5, Tab 10)

As previously indicated, the buffers are too small and the rejuvenation of land not compensatory or adequate. (See also James, TSC and AusWetlands)

(b) the need to conserve the existing amateur and commercial fisheries,

The impacts of increased flooding and stormwater with poor buffers will ensure the ecology of the estuaries and wetland and fish habitat will not be conserved.

The applicant has provided no adequate mitigation measure to prevent this from occurring.

(c) any loss of habitat which will or is likely to be caused by the carrying out of the development,

See Sections 2, 3 and 4 above. There will be a loss of habitat for marine life, local flora and fauna including threatened species and EEC's (See 4.3 especially)

Regeneration of vegetation offered is either unreal, inadequate or not compensatory.

(d) whether an adequate public foreshore reserve is available and whether there is adequate public access to that reserve,

TSC comments that the proposed parks are too small and inappropriately placed (i.e. in vegetation buffer zones). (Sub pp 10, 11 and 13, Tab 8) In this sense no adequate public foreshore reserve is available.

(e) whether the development would result in pollution of the wetland or estuary and any measures to eliminate pollution,

Refer to sub-clause (a) above.

(f) the proximity of aquatic reserves dedicated under the Fisheries Management Act 1994 and the effect the development will have on these reserves,

The existing wetland vegetation and tributaries are mapped as EEC's and Key Fish Habitats (TSC Key Fish Habitat Mapping 2009).

(h) the need to ensure that native vegetation surrounding the wetland or fishery habitat area is conserved, and

The proposed development will not conserve protected native vegetation surrounding the wetland and fishery habitat areas with inadequate buffers and changed hydrology and yet additionally seeks to remove significant EECs with inadequate compensatory or rehabilitative return.

(i) the recommendations of any environmental audit or water quality study prepared by the Department of Water Resources or the Environment Protection Authority and relating to the river, stream, wetland, area or catchment.

As noted by AusWetlands, the proposed designs for water control in no way reflect best practice in *Water Sensitive Urban Design* (WSUD). The stormwater strategy is at odds with best practice in WSUD.

The proposal is at odds with the Principles Three and Four of the *NSW Wetland Management Policy* (See AusWetlands at pp 4 and 5, Tab 10).

Please refer to sub-paragraph (a) above for further failures in relation to relevant plans and studies.

10.8.2 Clause 29A – Natural Areas and Water Catchment

Clause 29A

The EA's claim that no clearing of vegetation is proposed in Environmental Protection Zoning is incorrect.

The proposal requires that trees and EECs be removed in the 7L zone at the end of the Creek Street and in the 7A zone behind 6, 8 and 22 Creek Street to make way for the emergency evacuation road. It may also include the removal of significant trees between the current Sewerage Pump station and the rear of 4 and 6 Creek Street. This would add to the impact of WE's illegal removal of certain trees in June contrary to its development consent conditions at 4 and 6 Creek Street.

10.8.3 Clause 32B –Coastal Lands & Clause 33 – Coastal Hazard Areas

Clause 32B states as follows:

In determining an application for consent to carry out development on such land, the council must take into account:

(a) the NSW Coastal Policy 1997,
(b) the Coastline Management Manual, and
(c) the North Coast: Design Guidelines.

Clause 33 states as follows:

Before granting consent to development on land affected or likely to be affected by coastal processes, the council shall:

(a) take into account the Coastline Management Manual,
(b) require as a condition of development consent that disturbed foreshore areas be rehabilitated, and
(c) require as a condition of development consent that access across foredune areas be confined to specified points

See Sections 10.12 for submissions on the Coastal Design Guidelines for NSW and 10.13/Conclusion for submissions on the NSW Coastal Policy.

It is submitted that development consent should be refused because of the serious impacts likely to occur to the natural and built environment adjoining the site.

If the current development proposal was approved, no condition of consent could prevent the adverse impacts which are outlined in this submission.

10.8.4 Clause 43 – Residential Development

(1) The council shall not grant consent to development for residential purposes unless:

(a) it is satisfied that the density of the dwellings have been maximised without adversely affecting the environmental features of the land,

The density of the development requires removal of EECs, inadequate buffers and the filling of land all of which will cause the impacts outlined in Sections 2, 3, 4 and 5 which will cause real environmental damage to the marine and wetland ecology, its inhabitants and the flora and fauna that surround it.

The density is inappropriate for the environmental sensitive nature of the site.

The proposal seeks to maximize the development potential of the land with no proper regard for real mitigation or rehabilitative measures to prevent or reduce environmental damage.

(b) it is satisfied that the proposed road widths are not excessive for the function of the road,

The proposed road widths are not compliant with TSC development design specification.

However, extra width will have a detrimental effect on retention of mature trees and streetscape as proposed in the Draft DCP B23 – Locality Plan. It is clear that the excessive traffic generated by an overly dense site causes the required design specification to conflict with the objectives of the draft DCP 23. – See Section 7 above.

This occurs because the proposed development is inappropriate for the location, local infrastructure, character and environment of this precinct of Hastings Point.

(e) it is satisfied that site erosion will be minimised in accordance with sedimentation and erosion management plans.

The Soil and Water Management Plan (SWMP) is regarded inadequate and poorly conceived. See both TSC (Subs p 17, Tab 8) and Australian Wetlands (Subs pp 9 and 11, Tab 10).

10.8.5 Clause 75- Tourism Development

This clause applies to the proposed development as two lots are proposed for resort development.

(1) The council must not grant consent to tourism development unless it is satisfied that:

(c) the development will not be detrimental to the scenery or other significant features of the natural environment, and

This development will detrimentally impact the scenery and significant features of the natural environment as outlined in Section 5 - Visual Impact and Amenity.

The EA inadequately responds to this provision by stating that the applicant will rehabilitate certain areas (albeit unsatisfactorily). As stated above, the proposed measures are either unreal, inadequate or non compensatory.

10.8.6 Clause 81 – Development Adjacent to the Ocean or a Waterway

(1) The council shall not consent to a development application for development on land within 100 metres of the ocean or any substantial waterway unless it is satisfied that:

(a) there is a sufficient foreshore open space which is accessible and open to the public within the vicinity of the proposed development,

The proposed development encroaches unacceptably into recommended buffer areas so that it provides no acceptable or appropriate location for public open space which is accessible without damaging the environment. See Sections 3 and 4 in relation to buffers. For this reason it is not supported by TSC, AusWetlands or James.

TSC has rejected any proposal for land dedication for conservation purposes until the issues it outlines in relation to the proposal relating to unacceptable ecological impact and inadequate mitigation/compensatory measures for damage to EECs have been properly addressed. (See TSC Sub, pp 11-19, Tab 8).

AusWetlands is very critical of the inadequacy of the rehabilitation plan – particularly the size of the buffers (p 13 -16, Tab 10) and poor compensation and relocation proposals for removed/damaged EECs (pp 16-18, Tab 10). James' Sub also provides an assessment of the adequacy and accuracy of the proposal's buffers and rehabilitation plan. (Tab 11)

(b) buildings to be erected as part of the development will not detract from the amenity of the waterway, and

The estuary and Christies Creek fronting the development site are used by tourists and for educational purposes – canoes and fishing regularly.

The proposed density of the development on raised allotments too close to the estuary with inadequate buffers and open visual to the epicenter of Hastings Point will have an adverse visual impact on the natural amenity from the waterways.

For the reasons outlined in Section 5 – Visual Impact and Amenity - it is considered that the location of the proposed allotments will detract from the amenity of the nearby Cudgera and Christies Creeks and the associated riparian zone.

(c) The development is consistent with the principles of any foreshore management plan applying to the area

.

AusWetlands lists in its submission the relevant management plans, best practice and policies that this proposal breaches as follows:

- Tweed Shire Council (TSC) Urban Stormwater quality Management Plan (2000)
- Best practice Water Sensitive Urban Design
- Tweed Coast Estuaries Management Plan (2004)
- NSW Wetland Management Policy, 1996.
- NSW Fisheries Policy (1999)
- Guidelines Aquatic Habitat Management and Fish Conservation (2005)
- NSW Coastal Policy
- Coastal Design Guidelines for NSW.

10.9 TWEED LOCAL ENVIRONMENTAL PLAN 2000 (TLEP 2000)

10.9.1 Clause 4 - Aims of this plan

The aims of this plan are:

(a) to give effect to the desired outcomes, strategic principles, policies and actions of the Tweed Shire 2000+ Strategic Plan which was adopted, after extensive community consultation, by the Council on 17 December 1996, the vision of which is:

"The management of growth so that the unique natural and developed character of the Tweed Shire is retained, and its economic vitality, ecological integrity and cultural fabric is enhanced",
…
(d) to encourage sustainable economic development of the area of Tweed compatible with the area's environmental and residential amenity qualities.

The proposed development does not respond positively to either aim as it increases flood hazard, nuisance and resulting costs for local residents at the same time as also reducing their amenity, property values and the ecological integrity of the area.

10.9.2 Clause 5 - Ecologically Sustainable Development

An objective of this plan is to promote development that is consistent with the four principles of ecologically sustainable development. These are:

(a) namely, that if there are threats of serious or irreversible environmental damage, lack of full scientific certainty should not be used as a reason for postponing measures to prevent environmental degradation.
In the application of the precautionary principle, public and private decisions should be guided by:
(i) careful evaluation to avoid, wherever practicable, serious or irreversible damage to the environment, and
(ii) an assessment of the risk-weighted consequences of various options, and
(b) namely, that the present generation should ensure that the health, diversity and productivity of the environment are maintained or enhanced for the benefit of future generations, and
(c) namely, that conservation of biological diversity and ecological integrity should be a fundamental consideration, and
(d) namely, that environmental factors should be included in the valuation of assets and services, such as:
(i) polluter pays-that is, those who generate pollution and waste should bear the cost of containment, avoidance or abatement, and
(ii) the users of goods and services should pay prices based on the full life cycle of costs of providing goods and services, including the use of natural resources and assets and the ultimate disposal of any waste, and
(iii) environmental goals, having been established, should be pursued in the most cost effective way, by establishing incentive structures, including market mechanisms, that enable those best placed to maximise benefits or minimise costs to develop their own solutions and responses to environmental problems.

The proposed development offends ESD principles as outlined in the Conclusion of AusWetlands' Subs (Tab 10). The precautionary principle is also adopted by TSC in relation to the adverse impacts of hydrology on the local ecology to recommend refusal of the extent of site filling (TSC Subs, p 17)

10.9.3 Clause 8 – Consent Considerations – Clause 8(1)(b) - zoning and Clause 8 (2)

Clause 8(1) *The consent authority may grant consent to development (other than development specified in Item 3 of the Table to clause 11) only if:*

(a) it is satisfied that the development is consistent with the primary objective of the zone within which it is located,

See TSC's Sub in relation to non compliance with the objectives of the 2(e), 7(l) and 7(a) zones of the TLEP 2000 and inadequate consideration or satisfaction of clause 8(2) (Sub pp 1, 2, Tab 8). In respect of clause 8(2) and the EA's justification for road accesses in 7A and 7L zones, it is submitted that access in both cases could be gained without breaching the primary objectives of the environmental protection zones with an appropriate development configuration (7A or 7L).

Irrespective, for the reasons outlined in Sections 4.4, 5.2 and 7, it is submitted that since both the emergency access road on 7(a) zoned land and the extension of Creek Street on 7(l) zoned land significantly breach the primary objectives of these zones, they should be refused.

10.9.4 Clause 8 – Consent Considerations – Clause 8(1)(c) Cumulative Impact

Clause 8(1)) The consent authority may grant consent to development(other than development specified in Item 3 of Table to clause 11) only if:
(c) it is satisfied that the development would not have an unacceptable cumulative impact on the community, locality or catchment that will be affected by its being carried out or on the area of Tweed as a whole.

It is submitted that the proposed development would offend Clause 8(1)(c) of the TLEP2000 because of the unacceptable cumulative impact on the community, locality and catchment which comprise:

1. The cumulative impact of further proposed fill on existing fill which already causes residents to flood to 1m.

2. The cumulative impact of poor hydrology, poor water quality, poor buffers and climate change on the marine/wetland ecology and its subsequent adverse impact on the local flora and fauna - including threatened species. (See AusWetlands' Sub p 11, Tab10; quote at end of Section 4.3 – also AusWetlands Sub pages 8-16, Tab 10)

3. The cumulative impact of these additional impacts on already existing impacts on the marine ecology (outlined in Sections 1, 2, 3 and 4 above)(AusWetlands Baseline Study 2010 – AusWetlands Sub p 9; Tab 10)

4. The cumulative impact of further population growth on this ecologically sensitive area (see McGrath Study (2008), Tab 13)

5. The cumulative impact of all these factors on the economic and social welfare of the community – see Section 6 – Social Impacts and Amenity.

10.9.5 Clause 16 – Height of Buildings

The relevant parts of this clause are presented below;

1. Objective

to ensure that the height and scale of development is appropriate to its location, surrounding development and the environmental characteristics of the land.

2. Consent must not be granted to the erection of a building which exceeds the maximum height or number of storeys indicated on the Height of Buildings map in respect of the land to which the application relates.

The proposed raised development will have an adverse visual impact from Coast Road, the headland, Bridge and in the Creek Street precinct. It will impinge on the height view field guidelines proposed by Draft DCP B23 given that houses will effectively be built from a habitable floor level of 3.3 m RL.

See Section 5 – Visual Impact and Amenity.

In this respect, it is submitted that it breaches the objective of Clause 16.

10.9.6 Clause 17 – Social Impact Assessment

1. Objective

 to ensure proper consideration of development that may have a significant social or economic impact.

2. Where the consent authority considers that a proposed development is likely to have a significant social or economic impact in the locality or in the local government area of Tweed, the consent authority may grant consent to the proposed development only if it has considered a socio-economic impact statement in respect of the proposed development.

3. The socio-economic impact statement that the consent authority considers must do at least the following:

(a) identify the likely future impacts of the development on the affected community,
(b) analyse the impacts in terms of magnitude, significance, duration, effect on current and future conditions and community services, and the like,
(c) determine if the impacts will cause a loss of amenity within the locality due to a net reduction in community services and facilities,
(d) determine and assess possible measures for the management or mitigation of likely impacts.

It is submitted that the EA and the applicant's Social Impact Assessment is inadequate and does not address the many various impacts raised in Section 6 – Social Impacts and Amenity - or the management and mitigation measures to address these likely impacts.

10.9.7 Clause 22– Development near Designated Roads

See Section 7 for Roads and Access.

10.9.8 Clause 25 – Development in Zone 7(a) Environmental Protection (Wetlands & Littoral Rainforests) and on Adjacent Lands

As the site contains and is adjacent to land zoned 7(a) Environmental Protection, the provisions of Clause 25 of the TLEP 2000 are applicable.

Clause 25 states, inter alia:

1. Objective

 to ensure that wetlands and littoral rainforests are preserved and protected in the environmental and economic interests of the area of Tweed.

2. Unless it is exempt development, a person must not clear vegetation from, drain, excavate or fill land within Zone 7 (a) except with development consent.

3. Consent must not be granted to the carrying out of development on land within Zone 7 (a) or on land adjacent to land within Zone 7 (a) unless the consent authority has taken into consideration:
(a) the likely effects of the development on the flora and fauna found in the wetlands or littoral rainforest, and
(b) the potential for disturbance of native flora and fauna as a result of intrusion by humans and domestic and feral animals, increased fire risk, rubbish dumping, weed invasion and vegetation clearing, and
(c) a plan of management showing how any adverse effects arising from the development can be mitigated, and
(d) the likely effects of the development on the water table, and
(e) the effect on the wetlands or littoral rainforest of any proposed clearing, draining, excavating or filling.

4. The consent authority must not grant consent to development (other than development for the purpose of agriculture or a home business) on land within Zone 7(a) or on land adjacent to land within Zone 7(a) without taking into consideration any representations made by NSW Fisheries or the Department of Environment and Conservation in respect of the development.

A detailed assessment of the adverse impacts of fill (past and proposed) on the site has been addressed in Sections 1, 2, 3, 4. These assessments conclude that the methods and models outlined in the EA to justify the density and location of the proposed development are incomplete, inaccurate or non-existing.

For this reason, the impacts are understated. The mitigation measures offered to address the impacts are completely inadequate and in many instances not considered.

The already existing impacts of illegal activity (dredging, filling and clearing) are not addressed and are used to justify doing more of the same to the detriment of the surrounding community and environment.

Any regeneration or rehabilitation is unreal, inadequate or non compensatory.

See Section 1, 2, 3, 4 and 8 above.

There is no evidence of contact by the applicant or its representatives with NSW Fisheries or the Department of Environment and Conservation to gain comment on the development.

10.9.9 Clause 28 – Development Adjoining 7(l) Environmental Protection (Habitat) and on Adjacent Land

A parcel of land that adjoins the site to the north is the Creek Street Road Reserve which is zoned 7(l) Environmental Protection - (Habitat).

The land is not within the site, the proposal requires extension and upgrading of the Creek Street Road Reserve and is opposed by TSC – the owner and consent authority for works on this land..

1. Objective

• to protect wildlife habitat from the adverse impacts of development.

2. Unless it is exempt development, a person must not clear vegetation from, drain, excavate or fill land within Zone 7 (l) except with development consent.

3. The consent authority must not grant consent to development (other than for the purpose of agriculture, a dwelling house or a home business) on land within Zone 7 (l) without having regard to any representations made by NSW Fisheries and the National Parks and Wildlife Service.

4. The consent authority must not grant consent to development on or adjacent to land within Zone 7 (l) unless it has taken into consideration:

(a) the likely effects of the development on the flora and fauna found in the locality, and
(b) the potential for disturbance of native flora and fauna as a result of intrusion by humans and domestic and feral animals, increased fire risk, rubbish dumping, weed invasion and vegetation clearing, and
(c) a plan of management showing how any adverse effects arising from the development are to be mitigated.

For the reasons outlined in Section 7 above, it is submitted the proposal fails to respond positively to all parts of this provision.

Again, there is no evidence of contact with the National Parks and Wildlife Service (NPWS).

In fact, NPWS's previous comments in respect of buffers regarding this very development site has not been considered. Adoption of NPWS' recommendations in line with all relevant law and policy would prevent development in the buffer zones including the proposed emergency access road reserve, the foreshore park and also many parts of the 2E zoned land, in particular that adjacent to the 7L zone. The latter would eliminate the need for the road proposed in the 7L zone which would be detrimental to the trees and wildlife that inhabit and use this zone as a wildlife corridor. As TSC notes additionally that the measured offered for fauna compensation is also inadequate and ill conceived. (TSC Sub, p 12, 13, Tab 8; TSC Report, p 149, Tab 9)

It is noted by AusWetlands in relation to its consideration of appropriate buffers (Sub p 15, Tab 10):

> Comments received by TSC from NPWS relating to the Draft Tweed LEP 2000 Amendment No. 44 for part of this Lot/DP (2003) included:
>
> > - …*the NPWS' position is that a 50m buffer should be provided between wetlands and any form of development. It is recommended that an appropriate buffer be included in the Environmental Protection zone to ensure the integrity of the wetland ecosystem in the long term* (Diacono, 2003, recommendations for Draft Tweed LEP 2000 Amendment 44).
> >
> > - *As an example of the value of a buffer, bird species protected under the Japanese-Australia Migratory Bird Agreement have been recorded from the estuary in close proximity of the subject site. Mangroves and/or saltmarsh provide feeding and roosting habitat for these species as well as other resident shorebirds. However they are shy and are quickly stressed by human disturbance, or disturbance by domestic animals. Other rare or threatened species also regard mangroves as important habitat. An appropriate buffer would assist in maintaining the usefulness of this habitat to significant species* (Diacono, 2003, recommendations for Draft Tweed LEP 2000 Amendment 44).
>
> Without appropriate buffers they cannot claim to be protecting *fisheries resources, migratory bird habitat, significant vegetation communities, other recorded and potentially occurring fauna and as a water based fauna linkage between the Cudgen Reserve and Cudgera Creek estuary.*

TSC does not agree with the applicant's dismissive consideration of the ecological qualities of this area given its natural and protected attributes (including potential EECs. One must recognize and take into account the fact that the adjacent 2E zone was illegally cleared by the applicant and is still continually mowed and slashed (June this year by example).

See Section 7 in response to the EA's comments on zoning.

10.9.10 Clause 29 – Development Adjoining 8(a) National Parks & Nature Reserves

Land to the west of the site, is zoned 8(a) National Parks and Nature Reserves (Cudgen Nature Reserve)

The objective of this clause states;

 to ensure that development of land adjacent to Zone 8 (a) does not have a significant impact on wildlife habitat.

Clause 29

Council must not grant consent to development adjoining land zoned 8(a) National Parks and Nature Reserves without first considering the likely effects of the development on flora and fauna found in the locality and the potential for disturbance of native flora and fauna as a result of the intrusion of humans, domestic and feral animals, increased fire risk, rubbish dumping, weed invasion and vegetation clearing.

The proposed development does not respond positively to this clause. The impact on the ecological systems of the adjoining wetlands and Cudgen Nature reserve are thoroughly explored in Sections 1, 2, 3, and 4 which indicate that the development cannot ensure that it will not have a significant impact on wildlife habitat.

In fact, AusWetlands notes that the wetlands surrounding the subject development site and its necessary buffers serve a very important *fauna linkage between the Cudgen Reserve and Cudgera Creek Estuary.* It quotes NPWS observation cited above insofar as the site's buffers are a required habitat area for bird species protected under the Japanese-Australian Migratory Bird Agreement that have been recorded from the estuary in close proximity to the site. The mangroves and saltmarsh around the site provide feeding and roosting habitat for these species as well has other resident shore birds – like the Beach Stone Curlew that frequents the site and which is breeding adjacent to it. As NPWS notes – *However they are shy and quickly stressed by human or domestic animal disturbance. Other raire or threatened species also regard mangroves as important habitat.* This area when buffered appropriately is useful habitat to significant species that live and visit the nature reserve.

TSC, MWA, AusWetlands and James all conclude with detailed reasoning that the proposed development will in fact have a significant adverse impact on the wildlife habitat of Cudgen Nature reserve and that mitigation and rehabilitation measures are inadequate and/or non existent.

10.9.11 Clause 31 – Development Adjoining Waterbodies

Clause 31 of the TLEP 2000 applies to land adjoining the high water mark, or bank, or a waterbody.

The subject site has frontage to Christies and Cudgera Creeks and abuts its tributaries and wetlands.

Clause 31 is applicable to the development.

The objectives of this clause state the following;
 to protect and enhance scenic quality, water quality, aquatic ecosystems, biodiversity and wildlife habitat and corridors.
 to provide adequate public access to waterways.
 to minimise the impact on development from known biting midge and mosquito breeding areas.

Clause 31 requires the following matters to be considered by Council before granting consent to a development:

(*a) the development will not have a significant adverse effect on scenic quality, water quality, marine ecosystems, or the bio-diversity of the riverine or estuarine area or its function as a wildlife corridor or habitat, and*
(b) adequate arrangements for public access to and use of foreshore areas have been made in those cases where the consent authority considers that public access to and use of foreshore areas are appropriate and desirable requirements, and
(c) the development is compatible with any coastal, estuary or river plan of management adopted by the Council under the Local Government Act 1993 that applies to the land or to land that may be affected by the development, and
(d) the development addresses the impact of increased demand from domestic water supply on stream flow; and
(e) the development addresses the likely impact of biting midge and mosquitoes on residents and tourists and the measures to be used to ameliorate the identified impact.

Auswetlands specifically addresses subclause (a) (Sub p 6, Tab 10):

> *The plants and animals living in wetlands are adapted to variable inundation. When hydrologic patterns are disturbed, this affects the range of plant and animal species that wetlands can support.*
>
> *The EA acknowledges that the 'EECs may be impacted by uncontrolled changes to hydraulic regime as a result of modifications to surface and groundwater hydrology, particularly during construction'. In this regard, if the hydraulic and stormwater quality management plan is not adequate (as argued in this submission) then the Endangered Ecological Communities (EECs) are at risk.*
>
> *Alteration to the natural flow regimes of rivers, streams, floodplains and wetlands is considered a key threatening process on Schedule 3 of the Threatened Species Conservation Act 1995. Alteration to natural flow is recognized as a major factor contributing to loss of biological diversity and ecological function in aquatic ecosystems. Examples of potential impacts of altered hydrology at this site include:*
> *- Impact to Saltmarsh EEC. Shoreline development and changes in local hydrology are the biggest threats to saltmarsh (OzCoasts, 2010). Saltmarsh is dependent on very specific hydrology, topography and salinity. Saltmarsh relies on less frequent inundation than mangroves and higher salinity levels. The development may change both the salinity and hydrology of adjacent saltmarsh areas. There is also a potential cumulative impact associated with climate change-related sea level rise. Intertidal vegetation such as saltmarsh may respond to sea-level rise by migrating upslope, however there is little scope for this to occur following development of this area. There is also the potential for loss of saltmarsh due to infilling/sedimentation of this area due to discharge of sediment-laden stormwater directly to the tidal lagoons. Loss of saltmarsh will mean reduced habitat for invertebrates, fish and water birds.*
> *- Riparian zone degradation due to discharge of stormwater which can lead to increased erosion.*
>
> *There are no mitigative measures provided to address the impacts of altered hydrology.*

Impacts of Altered Physical and Chemical Water Quality

Changes to water quality may have numerous impacts, some cumulative, including to Saltmarsh and Swamp Oak Floodplain Forest (EEC), seagrass (Key Fish Habitat), acid frogs (threatened species) and associated ecological flow-on impacts.

Changes to acidity (e.g. from greater freshwater discharges) can affect species dependent on acid conditions. For example, the melaleuca wetlands in the adjacent Cudgen Reserve likely provide habitat for the threatened acid frogs Crinia tinnula and Litoria olongburensis. Changes to pH as a response to increased discharge of freshwater may impact the acidity oftheir habitat and affect their local population. This needs further consideration. 'Wetland functions need to be considered up-front in the…formulation of development proposals' (DECCW, 2010). There has been inadequate consideration of cumulative effects on the wetland ecology of the adjacent Cudgen Nature Reserve and instream on Key Fish Habitat. All the local creeks, including Christie's Creek and their intertidal areas, which include areas of mangroves, saltmarsh, swamp oak forest (EECs) are mapped by TSC as Key Fish Habitat (TSC Key Fish Habitat Mapping, 2009). The intertidal areas of Lot 156 are mapped Key Fish Habitat. The impacts of discharge of inadequately treated urban stormwater on these areas needs detailed quantitative consideration. Impacts on local aquatic species and on the recreational fishery need investigation.

The impacts of urban stormwater/changes on water quality (and construction phase sediment) on local seagrass communities needs further consideration. TSC mapping indicates the presence of seagrass directly adjacent to the development in Christies Creek, as well as in Cudgera Creek (TSC Estuary Habitat Mapping, 2006). Seagrass provides important inputs of organic matter to detrital and pelagic foodchains and are habitat/refuge for a wide diversity of crustacean and fish species (Ferguson, 2009).

There is some evidence to suggest that local seagrass communities already have epiphyte growth and/or attached particulate matter on the leaves (Australian Wetlands, 2010). Elevated nutrients and suspended solids have been identified as the leading cause of these two characteristics which are known to impact the growth, survivability and expansion of seagrass in estuaries (Morris et. al, 2007, Frankovich and Zieman 2005, Udy and Dennison 1997, Abal and Dennison 1996). Seagrass beds are susceptible to a number of disturbances, principally reduced light availability (Abal and Dennison 1996) and increased nutrient loading (Morris et. al. 2007, Frankovich and Zieman 2005, Udy and Dennison 1997).

Given there may be issues with existing nutrients in Cudgera and Christies Creek, the impact of further increases in pollutants from the development site should be investigated in the context of the estuary's assimilative capacity.

Failure to provide adequate construction phase erosion and sediment control could see some of the 37,000m3 of fill smothering the seagrass beds. There is also the potential of ongoing cumulative impact from increased sedimentation as a result of inadequate stormwater treatment devices leading to increased nutrient loading and turbidity that may damage the health of seagrass communities.

Saltmarsh is a key structural and functional component of coastal ecosystems. Ecological and economic functions include: providing habitat for fish species, including commercially important species, filtering of freshwater surface flows, stabilisation of substrates, erosion control, provision of nutrients for other estuarine communities, and habitat for a range of other fauna, including migratory birds (Connolly, 1999). Saltmarsh provides a carbon-enriched feeding environment for fish, crustaceans and molluscs at high tide, while at low tide these animals may use other niches in the seagrass/mangrove habitat mosaic (Wilton 2002, Mazumder, 2004).

See AusWetlands further submissions regarding impact on the waterways including buffer assessment.

TSC provides similar assessment and you are referred to Sections 2, 3 and 4 for specific details on the unacceptable impacts of this development on adjoining waterways.

Please note TSC and AusWetland's have concluded with justifiable reasoning that parks, roads and/or houses are not appropriate in recommended vegetated buffer zones. For this reason, TSC has indicated that the open public space and access areas to the waterways as designated by the applicant are not appropriate. This should be considered in DoP's consideration of clause 31(b).

In respect of cl 31(c) and consideration of relevant plans of management that should be considered, AusWetland lists those which the proposal breaches or fails to consider as follows:

- Tweed Shire Council (TSC) Urban Stormwater Quality Management Plan (2000)
- Tweed Coast Estuaries Management Plan (2004)
- NSW Wetland Management Policy (1996)
- NSW Fisheries Policy (1999)
- Guidelines Aquatic Habitat Management and Fish Conservation (2005)
- NSW Coastal Policy (1997)
- Coastal Design Guidelines for NSW (2003)

The scenic qualities of the site and surrounding area will be adversely impacted as outlined in Section 5 – Visual Impact and Amenity.

In short, it is submitted that the proposed development fails to achieve the objectives of Clause 31 of TLEP2000 insofar as it fails to protect and enhance scenic quality, water quality, aquatic ecosystems, biodiversity and wildlife habitat and corridors.

10.9.12 Clause 34 – Flooding

The objectives of this clause state the following;

 to minimise future potential flood damage by ensuring that only appropriate compatible development occurs on flood liable land.
 to minimise the adverse effect of flooding on the community.

Where Council, is of the opinion that a site of a development is affected by flooding, the following matters are required to be addressed prior to development consent being granted:

(a) the extent and nature of the flooding hazard affecting the land, and
(b) whether or not the development would increase the risk or severity of flooding of other land in the vicinity, and
(c) whether the risk or severity of flooding affecting the development could be reasonably mitigated, and
(d) the impact of the development on emergency services, and
(e) the provisions of Tweed Development Control Plan No 5—Development of Flood Liable Land and any other relevant development control plan.

This submission incorporating the assessments and reports of MWA and TSC has clearly demonstrated in Section 2 and elsewhere that the EA has failed to adequately consider the matters set out in subclauses (a) to (e) due to its reliance on inaccurate facts, flawed flood

modeling and poor management plans/practices which will fail to prevent serious adverse stormwater and flooding impacts on the local community and environment.

Accordingly, the objectives of Clause 34 cannot be achieved.

It is submitted that unless the recommendations of MWA (conclusion 25 in particular) are adopted, any filling and development on the proposed site will unlikely satisfy the objectives of Clause 34 of TLEP.

Rather than approve this development, the Government is duty bound to address the previous illegal activities and subsequent hazards which have been allowed to occur under its watch and to diminish flood hazard by seriously considering resumption and remediation of this site:

> *Consideration might be given to a flood management option which provides for resumption of the subject site to allow for fill to be removed from the site and for a flood channel/levee system to be constructed to improve the flood immunity of the existing Creek Street development and restore the ecological values of the estuary. (MWA, Conclusion 25, Tab 7, p 16)*

The existing built and natural environment will be those most impacted by this proposal and therefore the likely emergency services required will not be able to access by road. (See photos of 2005 Flood – Tab 5). This is of particular concern given that there are hundreds of permanent elderly residents in North Star alone.

10.9.13 Clause 35 – Acid Sulfate Soil

The objectives of Clause 35 state the following;

- *to manage disturbance of acid sulfate soils to minimise impacts on water quality, ecosystems, infrastructure and agricultural and urban activities.*
- *to require special consideration and development consent for works, including some agricultural and infrastructure-related works, that would disturb soils or ground water levels in areas identified as having acid sulfate soils.*

The Applicant states: "*The proposal will require some excavation of trenches up to a depth of 2m into the exiting levels for services and footings and as such an acid sulfate soil investigation is required."*

It is submitted that given the ecological sensitivity of the site that any acid sulfate soil assessment (particularly for structures such as the emergency access road given its location) should be considered rigorously with detailed submissions provided by the applicant prior to approval.

"*Acid sulfate soils are insufficiently considered. Council's experience in undertaking pipeline upgrades to the Hastings Point sewerage treatment was that pockets of very high acidity were found along Creek Street. Disturbance of these soils close to the creek is to be avoided. Dewatering is likely to be required for services provision, yet has not been addressed*. (See TSC Report, p 149, Tab)

It is submitted that consistent with this advice, the emergency access road should be refused because of the significant disturbance that would be created so close/on the Creek.

See Section 9.

10.10 TWEED DEVELOPMENT CONTROL PLAN 2008

10.10.1 Section A1 – Site Specific Area Controls

On the 21st April 2009 Council adopted site specific Area Controls that pertain to the entire Hastings Point locality. In addition, a draft DCP-23 - Hastings Point Locality Plan has recently been exhibited. It has tighter controls for the Creek Street Precinct than the interim controls below. It has the same height limit but no medium density option which precludes town houses and smaller areas for dual occupancy that would apply with medium density. This draft has been referred to relevantly throughout this submission.

The relevant Objectives and Controls are as follows:

Objectives
• To implement the recommendations of the Hastings Point "Review of height, FSR and Setback Controls' Report, prepared by Ruker and Associates dated 26 March 2008, as resolved by Council on 22 April 2008.
• To limit the impact of new development on the existing character and amenity of this coastal settlement prior to any further locality based planning by:
o Implementing interim restricting height and density provisions for new development until provisions appropriately tailored to larger and more dense development (where appropriate) is adopted following community consultation, that will;
o Provide greater certainty to the protection and preservation of the areas natural and built environment.
Controls
a. The maximum building height is 2-storeys and 8 metres.
b. The maximum density on any lot or combination of lots comprising a development site is two dwellings (dual occupancy).

The proposed development breaches the density controls in respect of its Tourist element.

Given the degree of fill required for RL floor level of 3.3 m, the height limit of 8 m may be breached.

10.10.2 Section A1 of the DCP.

The proposed Area Specific Development Controls are as follows:

Objectives

To minimise the visual impact of the development on the streetscape of Creek Street through the preservation of existing vegetation.
To provide an appropriate interface between allotments within the development and the adjoining open space foreshore areas.
Maintain a coastal character associated with existing low density development of Creek Street and the riparian vegetation of the site both within Creek Street and between the allotments of the subdivision and adjoining open spaces.
Controls

See Section 5 – Visual Impact and Amenity. It is submitted that the proposed development, including the emergency access road breaches these controls.

10.10.3 Section A2 – Site Access and Parking Code

See TSC Sub – pp 5 - 7 and Section 7 - Roads and Traffic.

10.10.4 Section A3 – Development of Flood Liable Land

See TSC Sub pp 2-5, Tab 8 and Section 2 – Flooding, Stormwater and Drainage

10.10.5 Section A5 – Subdivision Manual

Before addressing certain parts of this section as outlined in the EA, please first refer to AusWetlands Sub (pp 10-18, Tab 10) which deals with specific provisions of Section A5.

These have not been specifically addressed by the EA in respect of Section A5 and deal with water hydrology, inadequate buffers, compensation/translocation and rehabilitation of EECs.

Physical Constraints

Coastal lands

The site falls within that area described as the Coastal Zone under the Coastal Policy 1997 and the following are the provisions of the DCP for urban subdivision on Coastal Lands;

Development of coastal lands needs to:
 be consistent with the Coastal Policy 1997;
 maintain and enhance visual amenity of the coastal zone;
 be sited, designed and managed to avoid risks to environmental assets, people and property and impacts on coastal processes;
 avoid beaches and frontal dunes except for essential public purposes (such as surf clubs); beach management works that do not compromise the natural and cultural values of the area; rehabilitation of disturbed foreshore areas;and rationalisation of beach access ways;
 be consistent with the Coastal Design Guidelines for NSW.

The proposed development is inconsistent with the Coastal Design Guidelines for NSW and NSW Coastal Policy as outlined in Sections 10.12 and 10.13 respectively.

For the reasons outlined in this submission which address Clauses 31 and 34 of Tweed LEP 2000 (Sections 10.9.11 and 10.9.12), it is submitted that the proposed development does not achieve the needs expressed above.

See Sections 2, 3, 4, 5 and 6 which address the risks of adverse impact and damage on the environment and the community.

The rationalisations by the applicant for parks, public access ways, roads and houses in recommended vegetated buffer areas are not supported by policy, law, TSC, AusWetlands, MWA and James as noted in their various submissions and as outlined in this submission.

Threatened species, population or ecological communities or their habitats

See Section 3 and 4 above.

Coastal Wetlands

See Sections 2, 3 and 4 above.

Landscape visual character

See Section 5 - Visual Impact and Amenity above.

Acid Sulfate Soils

See Section 9 above and response to Clause 35 TLEP, Section 10.9.13 above.

Erosion, Sediment Control and Stormwater Management

See Section 8 above.

MWA, TSC and AusWetlands are all critical of the applicant's Erosion and Sediment Control Management Plan, Water Cycle Management Plan and the Flood Risk Assessment which are contained in the Opus Engineering Impact Assessment Report.

Waterways; water bodies; riparian areas and riparian vegetation

See Sections 2, 3 and 4 and response to clause 31 of TLEP above at Section 10.9.11.

Flood Liable Land

See Section 2 and response to clause 34 of TLEP at Section 10.9.12.

Movement Network

See Section 7 above.

Infrastructure

See Section 8 above.

Public Open Space

See Section 4.2 – Buffers above.

10.11 DRAFT TWEED LOCAL ENVIRONMENTAL PLAN 2010

To the extent that the EA has relied on this draft plan in an attempt to justify the proposed road in the current 7L zone, please see Section 7 – Roads and Access – which establishes that such justification has no merit.

10. 12 COASTAL DESIGN GUIDELINES FOR NSW (2003)

It is proposed that the density and height requirements (visual lines) in draft DCP23-Hastings Point Locality Plan in respect of the Creek Street Precinct are more consistent with the Coastal Design Guidelines for NSW ("CDG") for a small village or hamlet in NSW.

For such places, the CDG discourages large developments on the fringes of these localities – particular in the vicinity of this development – abutting Cudgen Nature Reserve, SEPP 14 Wetlands and protected waterways.

As quoted by AusWetlands (Subs p 14):

> *Coastal Design Guidelines for NSW* (Coastal Council of NSW, 2003) '*Setbacks should where possible be increased to 100m or more where they are adjacent to ecologically sensitive areas…."*

The proposed development with its inadequate buffers fails to comply with the CDG.

The CDG and the draft Sea Level Rise Policy both discourage new development in low lying flood plains and in particular, the filling of these areas when they will have significant adverse impacts on the existing natural and built environment.

10.13 THE NSW COASTAL POLICY 1997/CONCLUSION

The Coastal Policy lists key actions it will implement to meet its 9 goals to ultimately achieve its overriding vision of ecological sustainability for the NSW Coast.

It is submitted that the development proposed severely breaches ESD principles and the many legislative provisions referred above to such a degree that it is inconsistent with the overriding vision and goals set forth in the NSW Coastal Policy.

Given the ecological and typographical sensitivity of the site and its surrounds, the approval of this development would conflict with the objectives of the Policy because of the likely adverse impacts on qualities which the "key actions" of the Policy seek to protect (See pp 18-22 of NSW Coastal Policy). These include:

- Damage to water quality.
- Damage to life and property.
- Damage to important fishery habitats and protected sea grasses and mangroves
- Damage to SEPP 14 Coastal Wetlands and adjoining SEPP 26 Littoral Rainforest.
- Damage to endangered and threatened species.
- Damage to EECs with inadequate compensation
- Damage to foreshore areas - including acid sulfate contamination.
- Damage to aesthetc qualities of both the natural and built environments.
- Damage to the natural coastal process with increasing stormwater and flood hazard for the local community and environment.
- Damage arising from failure to account for climate change and sea level rise.

The Policy discourages development on the coast that might cause such impacts.

The Policy also talks of the acquisition of land for both conservation purposes and addressing the impacts of coastal process and hazards that might occur. It requires Local Councils to redraft new local environmental plans consistent with Coastal Policy and to adopt planning and development controls specified in the policy where appropriate.

It stresses the role of the Coastal Council to ensure *all parties responsible for the implementation of the policy perform this role effectively. In particular, the Council will have a review role in ensuring the major rezonings and major new developments in the coastal zone are consistent with ESD principles on which the policy is based.*

In conclusion, it is submitted that rather than approve this development, steps should be taken by State and Local Governments to rezone/resume the property and remediate the site to reduce the current flood hazard risk given the site's unlawful history which caused it and the need to protect and improve the existing natural and built environment.