



16th July 2015

Douglas Shire Council
PO Box 723
MOSSMAN 4873

Att: Mr Neil Beck

Dear Neil

**Re: MANGO BEACH PORT DOUGLAS P/L
COUNCIL REF: 8/7/1815
7 LOT SUBDIVISION AT SAGIBA AVENUE, PORT DOUGLAS
RESPONSE TO COUNCILS REQUEST FOR FURTHER INFORMATION**

Attached are the following documents

1. Engineering Plan set 1503LUCAS revision C
2. State Government Plan DOS2A
3. Statement of Compliance

I refer to Council letter dated 29 May 2015 and advise as follows on a point for point basis.

1.	A Storm Tide Inundation Study was commissioned by Cairns Regional Council for the preparation of the new Planning Scheme which incorporated Douglas Shire Council at that time. For the area of Port Douglas, the study identifies heights of 3.87m AHD which includes 0.8m for seal level rise and wave setup. The study is dated January 2013. Having regard to the outcomes of this study, lots are to be filled to the height of 3.87m AHD being consistent with these findings. Should you wish to construct lots with lower levels, then supporting information from appropriately qualified persons is required to support the position.
Minimum lot fill excluding building setback area is now 3.87m.	
2.	Please provide further detail why Easements are not shown at the rear of proposed lots 1-7 for drainage purposes and to prevent any future works or filling in the erosion prone area. The erosion prone area is designated as an 80m setback from the high tide mark. The previous setback line for the erosion prone area was incorrectly plotted on the ROL application plan. The correct setback line practically corresponds with the front boundary of the lots. The applicant intends filling the lots so that the toe of the 1 in 4 fill batter corresponds with the erosion prone area setback line. There is no need for any easements for drainage works or to prevent future works or filling of the erosion prone area.
3.	Please provide detail why Easements covering the water and sewer services are not shown over existing lots 1 and 6 on Plan C2253 in favour of the Body Corporate for the Communities Title Scheme. Easements now shown over lots 1 and 6 in favour of the Body Corporate for the Communities Title scheme.
4.	Provide Plan DOS2A – as referred to in the response to Council dated 24 th April 2015. DOS2A attached.



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5. Please provide further detail how legal and practical access to the mouth of the esplanade gully drain outlet is achieved for maintenance purposes.

Please note that this is required to ensure no further land requirements are needed to undertake regular maintenance works as noted as required in the Local Drainage Study, revision B dated 17/4/2015.

The proposed drain discharges to an existing drainage channel which Council already has responsibility to maintain. There is also an existing stormwater pipeline from Sagiba Avenue which council maintains. The headwall of this existing pipe line is within 5m of the proposed drain. Legal and practical access is currently gained by Council to maintain the existing stormwater drains and structures from Sagiba Avenue.

6. Provide further information detailing why two open swale drains are required to manage the stormwater runoff being the proposed drain in Lot 1 and the existing drain in Sagiba Avenue.

The existing table drain in Sagiba Avenue is partly vegetated and has become silted. It would be better for our clients interests for Council to allow the existing table drain in Sagiba Avenue to be excavated at our clients cost and the proposed drain in lot 1 deleted. The attached photo shows the existing stormwater pipe that the minor stormwater flow (Q5) from the development will discharge to. As can be seen the table drain along side the Sagiba Avenue pavement needs de-silting to contain the major flows. The design plans have been amended to include the de-silting of the existing table drain in Sagiba Avenue and the deletion of the open drain proposed in lot 1.



7. The proposed development of the site includes site regrading which changes the pre-existing stormwater drainage regime. Whilst it is noted that the quantity of flow will be reduced towards Esplanade, the locations and types of discharge onto the Esplanade has changed. If these redirected flow cause are any actionable nuisance/ worsening effects¹ –as considered by QUDM, then the applicant shall be required to mitigate them. It is Council's position that it considers that the signature of the RPEQ on the Statement of Compliance check list means that they have considered these factors, are certifying that they believe that it meets the requirements of the FNQROC and the QUDM.

Please confirm.

We refer to the Local Drainage Study that was lodged with the operational works approval. This report has been checked and endorsed by the RPEQ. Referring to the report the major points are summarised below.

- There are no upstream properties affected by this development.
- The only downstream property is the public esplanade. There is no private property downstream of the development.



- The subdivision works and subsequent development of housing will increase the impermeable surface area and reduce the time of concentration. However some of the catchment is being redirected toward the balance area due to filling of the land. All fill lots will discharge stormwater toward the esplanade as the fall of the land currently does now.
- The subdivision works will direct some stormwater flow away from the esplanade and toward Sagiba Avenue. Sagiba Avenue is not designed to convey stormwater drainage as sheet flow as it has only minor capacity due to the use of flush concrete kerbs.
- The Q5 (minor flow) stormwater from the subdivision works can be discharged to the existing 300 RCP under Sagiba Avenue.
- Stormwater flows exceeding Q5 (major flow) are to be contained within the existing table drain in Sagiba Avenue which discharges to the existing esplanade gully.
- The legal point of discharge is the esplanade gully.
- The Q100 flood level is 3.4m AHD.
- There will be no downstream tail water level rise as the esplanade gully discharges to the Pacific Ocean.

The RPEQ having signed the Local Drainage Study and the Statement of Design Compliance shows that the RPEQ considers that the re-directed stormwater flows will not cause any actionable nuisances or worsening effects and no mitigation will be required.

8. The proposed private sewer pump station and rising main shall be certified by an RPEQ as being fully in accordance with the requirements of Section D7 of the FNQROC Development Manual. Please provide.

Section D7.2 of the FNQROC Development Manual details requirements for private pump stations and pressure mains. The design of the private pump station and rising main design complies with these requirements. The design certification provided with the operational works application covers these items. No specific certification by the RPEQ of the private pump station and rising main design is necessary. The pump station design has been changed so as to only have capacity for the 7 residential allotments and none of the balance area. The design criteria for the pump station is included on sheet 8C. There are a number of proprietary package pump stations available that meet the requirements of our design criteria and comply with WSA 04–2005 Sewage Pumping Station Code of Australia as required by section D7.2 of the Development Manual. It will be the contractor's responsibility to submit details of the selected package sewerage pump station for approval by ourselves prior to installation. Instead of a sewage overflow to the esplanade we have provided a storage tank with capacity for 2 days of average dry weather flow. There is a further 1 day of storage within the pump station and sewage manholes. The body corporate will have a service agreement with a local business to maintain the pump station. This will include fitting a portable generator to the pump station within 2 days of an electrical outage. They will also be required to keep a spare pump in stock in the unlikely event that both sewerage pumps break down at the same time.

9. A revised Statement of Compliance for Operational Works Design (refer Appendix 1 of AP1-01/09 , FNQROC) must be completed and signed by a RPEQ to certify that the engineering plans have been designed and prepared in accordance with the requirements of FNQROC Development Manual (Version 6).

With the RPEQ Certification, please advise what the reference to "**except** as noted below" is referring to as there is no specific items or aspects of the engineering plans that are being "noted" or brought to Council's attention.

The most recent version of the Statement of Compliance certificate is attached.

Yours Faithfully

Mark Valmadre
BEng

MANGO BEACH PORT DOUGLAS P/L
7 LOT SUBDIVISION AT SAGIBA AVENUE, PORT DOUGLAS
OPERATIONAL WORKS 2nd SUBMISSION