

JOINT REGIONAL PLANNING PANEL

(Northern Region)

JRPP No	2017NTH011
DA Number	DA15/1026.01
Local Government Area	Tweed Shire Council
Proposed Development	Amendment of a Staged Development Application under Section 83B of the EP&A Act 1979 development of Precincts 6, 7, 8, 9, 10, 11 & 12 – Cobaki Lakes (JRPP), Stage 1 – staged bulk earthworks. The proposed modification is to incorporate blasting into the Stage 1 works.
Street Address	Lots 46, 54, 55, 200, 201, 202, 205, 206, 209, 199, 228, 305 DP 755740; Lot 1 DP 823679; Lot 1 DP 570077; Lot 1 DP 562222; Lot 2 DP 566529; Lot 1 DP 570076; Sandy Lane and Piggabeen Road, Cobaki Lakes
Applicant	LEDA Manorstead Pty Ltd C/- DAC Planning Pty Ltd
Owner	LEDA Manorstead Pty Ltd
Number of Submissions	Nil submissions were received from the general public. A submission was received from/on behalf of Essential Energy.
Recommendation	Approval with conditions
Regional Development Criteria (Schedule 4A of the Act)	<i>Development with a capital investment value (CIV) over \$20 million.</i> The original staged development application had CIV of \$105,395,000 over 8 stages, which triggered determination by the JRPP. The proposed amendment is a S96(2) application, which must also be determined by the JRPP.
List of All Relevant s79C(1)(a) Matters	<ul style="list-style-type: none"> • <u>List all of the relevant environmental planning instruments: s79C(1)(a)(i)</u> State Environmental Planning Policy (SEPP) No. 14 – Coastal Wetlands State Environmental Planning Policy (SEPP) No. 55 - Remediation of Land State Environmental Planning Policy (SEPP) No 71 – Coastal

	<p>Protection</p> <p>State Environmental Planning Policy (SEPP) (Infrastructure) 2007</p> <p>Tweed Local Environmental Plan 2014</p> <ul style="list-style-type: none"> • <u>List any relevant development control plan: s79C(1)(a)(iii)</u> <p>Tweed DCP Section A2 – Site Access & Parking Code</p> <p>Tweed DCP Section A3 - Development of Flood Liable Land</p> <p>Tweed DCP Section A11 - Public Notification of Development Proposals</p> <ul style="list-style-type: none"> • <u>List any coastal zone management plan: s79C(1)(a)(v)</u> <p>Tweed Shire Coastline Management Plan 2005</p> <p>Coastal zone Management Plan for Cobaki and Terranora Broadwater</p> <ul style="list-style-type: none"> • <u>List any relevant regulations: s79C(1)(a)(iv) eg. Regs 92, 93, 94, 94A, 288</u> <p>Clause 92(a) Government Coastal Policy</p>
List all planning legislation requirements that the consent authority <u>must</u> consider	<ul style="list-style-type: none"> • Clause 7 of SEPP 55 – Remediation of Land; and • Clauses 2.3 (2), 5.5 (2), 5.5(3), 5.10 (8), 7.2(3), 7.3 and 7.10 of the Tweed LEP 2014. <p>All of the applicable consent considerations associated with the abovementioned SEPP / LEP have been addressed within the body of this report.</p>
List all documents submitted with this report for the panel's consideration	Section 79C Assessment Report including proposed amended/new conditions of consent to be applied to the original consent.
Report by	Colleen Forbes (Team Leader Development Assessment)
Report date	4 August 2017

Summary of s79C matters

Have all recommendations in relation to relevant s79C matters been summarised

Yes

in the Executive Summary of the assessment report?

Legislative clauses requiring consent authority satisfaction

Have relevant clauses in all applicable environmental planning instruments where the consent authority must be satisfied about a particular matter been listed, and relevant recommendations summarised, in the Executive Summary of the assessment report?

Yes

e.g. Clause 7 of SEPP55 - Remediation of Land, Clause 4.6(4) of the relevant LEP

Clause 4.6 Exceptions to development standards

If a written request for a contravention to a development standard (clause 4.6 of the LEP) has been received, has it been attached to the assessment report?

Not Applicable

Special Infrastructure Contributions

Does the DA require Special Infrastructure Contributions conditions (S94EF)?

Not Applicable

Note: Certain DAs in the Western Sydney Growth Areas Special Contributions Areas may require specific Special Infrastructure Contributions (SIC) conditions

Conditions

Have draft conditions been provided to the applicant for comment?

Note: in order to reduce delays in determinations, the Panel prefer that draft conditions, notwithstanding Council's recommendation, be provided to the applicant to enable any comments to be considered as part of the assessment report

Yes

Assessment Report and Recommendation

FILE NO: DA15/1026.01

REPORT TITLE:

Development Application DA15/1026 for a Staged Development Application under Section 83B of the EP&A Act 1979 development of Precincts 6, 7, 8, 9, 10, 11 & 12 – Cobaki Lakes (JRPP), Stage 1 – staged bulk earthworks at Lot's 46, 54, 55, 200, 201, 202, 205, 206, 209, 199, 228, 305 DP 755740; Lot 1 DP 823679; Lot 1 DP 570077; Lot 1 DP 562222; Lot 2 DP 566529; Lot 1 DP 570076; Sandy Lane and Piggabeen Road, Cobaki Lakes

SUMMARY OF REPORT:

The original application for DA15/1026 was granted conditional approval on 22 June 2016. The application was a Staged Development Application under Section 83B of the Environmental Planning and Assessment (EP&A) Act 1979. The approval incorporated a conceptual Masterplan for the future subdivision of Precincts 6, 7, 8, 9, 10, 11 and 12 of the Cobaki Lakes development site. The approval also incorporates Stage 1 bulk earthworks across Precincts 6 to 12. The JRPP was the determining authority, in accordance with Schedule 4A of the EP&A Act.

On 26 April 2017, Tweed Shire Council received a S96(2) application to allow blasting in association with the approved Stage 1 works. The proposed blasting is considered necessary to remove approximately 40,000m³ of hard rock material within Precinct 9 for fill purposes within Precincts 6 and 7 of the development site. It has been estimated that there will be approximately 10 blasts over a 12 month period.

Whilst Council officers are responsible for the assessment of the proposed amendments to DA15/1026, the State Environmental Planning Policy (State and Regional Development) 2011 requires that S96(2) applications must be reported to the Panel for determination.

The proposed blasting amendments were advertised and notified to adjoining and nearby properties between 24 May and 7 June 2017. No submissions were received from the general public.

The proposed blasting is considered to be ancillary to the Stage 1 bulk earthworks approved under DA15/1026. A detailed assessment has been undertaken against all relevant legislation, including the Tweed LEP 2014 and the Tweed Development Control Plan 2008. This report has been broken up into four main sections:

A - Site Context and Previous Approvals

B – Concept Plan Assessment

C – Proposed Amendments

D - Main Assessment

Potential impacts arising from the proposed blasting include: vibration; air blast over pressure (noise); and fly rock impacts. The proposal was supported by Blast Management Plans and a Safety Work Method Statement. A detailed assessment is at Section D of this report.

Council's Environmental Health Unit has assessed the proposed amendments with regard to potential impacts to neighbouring properties. The management plans associated with this application are not considered to be adequate in terms of:

- addressing the effects of blast induced vibrations, as required by applicable guidelines;
- proposed blasting hours;
- addressing monitoring requirements for the use of explosives as per Australian Standards; and
- SafeWork NSW requirements for contingencies to address different environmental conditions and weather patterns.

Applicable conditions of consent have been recommended to address the concerns raised by Council's Environmental Health Unit.

In light of verbal complaints from surrounding residents following previous blasting sessions (approved under separate consent), Council's Development Engineer has recommended conditions of consent in terms of dilapidation reports for surrounding properties prior and post blasting.

There are a number of planning legislation requirements that the consent authority must consider. A detailed assessment of the relevant clauses is noted within the report. A summary is noted below:

- **Clause 7 of SEPP No 55 – Remediation of Land.** The original assessment of DA15/1026 identified two areas of potential contamination within Precinct 10 and 17 of the development site and appropriate conditions of consent were applied to satisfy the provisions of SEPP 55. The proposed blasting within Precinct 9 is not considered to trigger any further assessment under SEPP 55 and no amendments were required to the existing conditions of consent for DA15/1026. As such, Council officers are satisfied that the proposed amendments meet the provisions of clause 7 of SEPP 55;
- **Clause 2.3 (2) of the Tweed Local Environmental Plan 2014** – Clause 2.3 (2) states that the consent authority must have regard to have to the objectives for development in a zone

when determining a development application in respect of land within the zone. The proposed blasting amendments are considered to satisfy the zone objectives.

- **Clause 5.5(2) of the Tweed Local Environmental Plan 2014** – Clause 5.5 (2) states development consent must not be granted to development on land that is wholly partly within the coastal zone unless the consent authority has considered: (a) public access along the foreshore; (b) suitability of the proposed development its relationship with the surrounding area and its impact on the natural scenic quality, taking into account type of development, location, bulk, scale size; (c) the impact of the proposed development on the amenity of the coastal foreshore including; (d) how the visual amenity and scenic qualities of the coast, including coastal headlands, can be protected; and (e) how biodiversity and ecosystems, can be conserved. The subject site is not located on the foreshore and the proposed blasting amendments are not considered to have any impact upon the coastal zone overall.
- **Clause 5.5 (3) of the Tweed Local Environmental Plan 2014** – Clause 5.5 (3) states development consent must not be granted to development on land that is wholly partly within the coastal zone unless the consent authority is satisfied that: (a) the proposed development will not impede or diminish land-based right of access of the public to or along the coastal foreshore; (b) if effluent from the development is disposed of by a non-reticulated system, it will not have a negative effect on waterways; (c) the proposed development will not discharge untreated stormwater into the sea, or any beach, estuary, coastal lake, coastal creek or other similar body of water, or a rock platform; and (d) the proposed development will not affect or be affected by coastal hazards. The original application for DA15/1026 was considered to be acceptable having regard to coastal hazards. The proposed blasting amendments remain consistent with the original assessment.
- **Clause 5.10(8) of the Tweed Local Environmental Plan 2014 – *Heritage Conservation*.** Clause 5.10(8) requires the consent authority to consider the effects of the proposed development on the heritage significance. As a result of the proposed blasting being entirely within Precinct 9, with no areas of significance identified, the proposed blasting amendments are considered to be consistent with clause 5.10(8);
- **Clause 7.2(3) of the Tweed LEP 2014 – *Earthworks*.** Clause 7.2(3) requires the consent authority to consider effects and potential impacts on the site and surrounding locality as a result of the proposed earthworks. Subject to conditions of consent, Council officers are satisfied that the proposed blasting amendments meets the provisions of clause 7.2(3) of the Tweed LEP 2014;
- **Clause 7.3 of the Tweed LEP 2014 – *Flood Planning*.** The provisions of clause 7.3 require the consent authority to consider potential impacts and compatibility of the proposed development in terms flooding. The proposed blasting within Precinct 9 is considered be consistent with the provisions of clause 7.3 of the Tweed LEP 2014; and
- **Clause 7.10 of the Tweed LEP 2014 – *Essential Services*.** Clause 7.10 requires the consent authority to consider essential services for the proposed development. The proposed blasting within Precinct 9 is considered be consistent with the provisions of clause 7.10 of the Tweed LEP 2014;

In summary, the development is considered satisfactory, subject to the imposition of suitable conditions of consent to address and mitigate key issues relating to potential impacts arising from the proposed blasting. The proposed development has been assessed against the relevant matters for consideration

pursuant to Section 96(2) and Section 79C of the *Environmental Planning and Assessment Act 1979*, including impact assessment, suitability of the site and public interest, and is considered satisfactory.

It is recommended that the proposed blasting amendments to DA15/1026 be approved, subject to conditions documented in the recommendation at the end of this report.

REPORT:

Applicant: Leda Manorstead Pty Ltd C/- DAC Planning Pty Ltd

Owner: Leda Manorstead Pty Ltd

Location: Lot's 46, 54, 55, 200, 201, 202, 205, 206, 209, 199, 228, 305 DP 755740; Lot 1 DP 823679; Lot 1 DP 570077; Lot 1 DP 562222; Lot 2 DP 566529; Lot 1 DP 570076; Sandy Lane and Piggabeen Road, Cobaki Lakes

Zoning: R1 - General Residential RE2 - Private Recreation 7(l) Environmental Protection (Habitat) 7(d) Environmental Protection (Scenic/Escarpment) B2 - Local Centre 7(a) Environmental Protection (Wetlands and Littoral Rainforests)

SECTION A - SITE CONTEXT AND PREVIOUS APPROVALS

SITE AND SURROUNDS:

The site is known as Cobaki Estate and is comprised of 17 precincts. It has a total area of 593.5ha. Precincts 6 to 12 are approximately 150ha in area.

The site is situated approximately 6km west of Tweed Heads. It is within close proximity to the Queensland border and the Gold Coast International Airport, situated a short distance to the north-east.

Existing on-site vegetation includes dry sclerophyll forest, rainforest, woodland, heathland, mangrove forest, grassland and rushland/sedgeland and saltmarsh.

Topography on the site varies significantly including relatively steep slopes and ridges to the north and west and low lying flood planes in the centre of the site. The topography of the site could best be described as a 'basin'.

Residential development is located to the north of the site in Queensland, but physically separated from the site by topography and a linear corridor of existing bushland.

Land to the west and southwest of the site is predominately rural in character and includes adjoining bushland as well as Cobaki Creek. The area east of the site is characterised by remnant bushland and Cobaki Broadwater.

BACKGROUND:

Old Development Consents

Several development consents have been issued over the subject site between 1993 and 2002 for bulk earthworks and residential subdivision.

A summary of existing consents is outlined in the table below. The majority of the bulk earthwork consents have commenced and works have been undertaken.

Consents		
Reference	Description	Date of Consent
D92/315	Boyd Street Extensions	5 January 1993
D94/438	Bulk Earthworks	27 January 1995
S94/194	730 Lot Urban Subdivision Parcels 1 to 5 and 13 Englobo Parcels (The Entrance, The Sand Ridge)	19 September 1995
D96/271	Bridge over Cobaki Creek	8 April 1997
S97/54	430 lot residential subdivision – parcel 7 to 10 (The Knoll, Piggabeen)	21 October 1997
K99/1124	560 Lot Urban Subdivision (The Foothills, The Plateau, Valley East, Valley West, East Ridge)	21 July 2000
1162/2001DA	8 Management Lots and Bulk Earthworks (town centre)	8 October 2002

A number of Construction Certificates (CCs) have also been issued for bulk earthworks and other civil engineering works including construction of Cobaki Parkway.

Concept Plan Approval (MP06_0316)

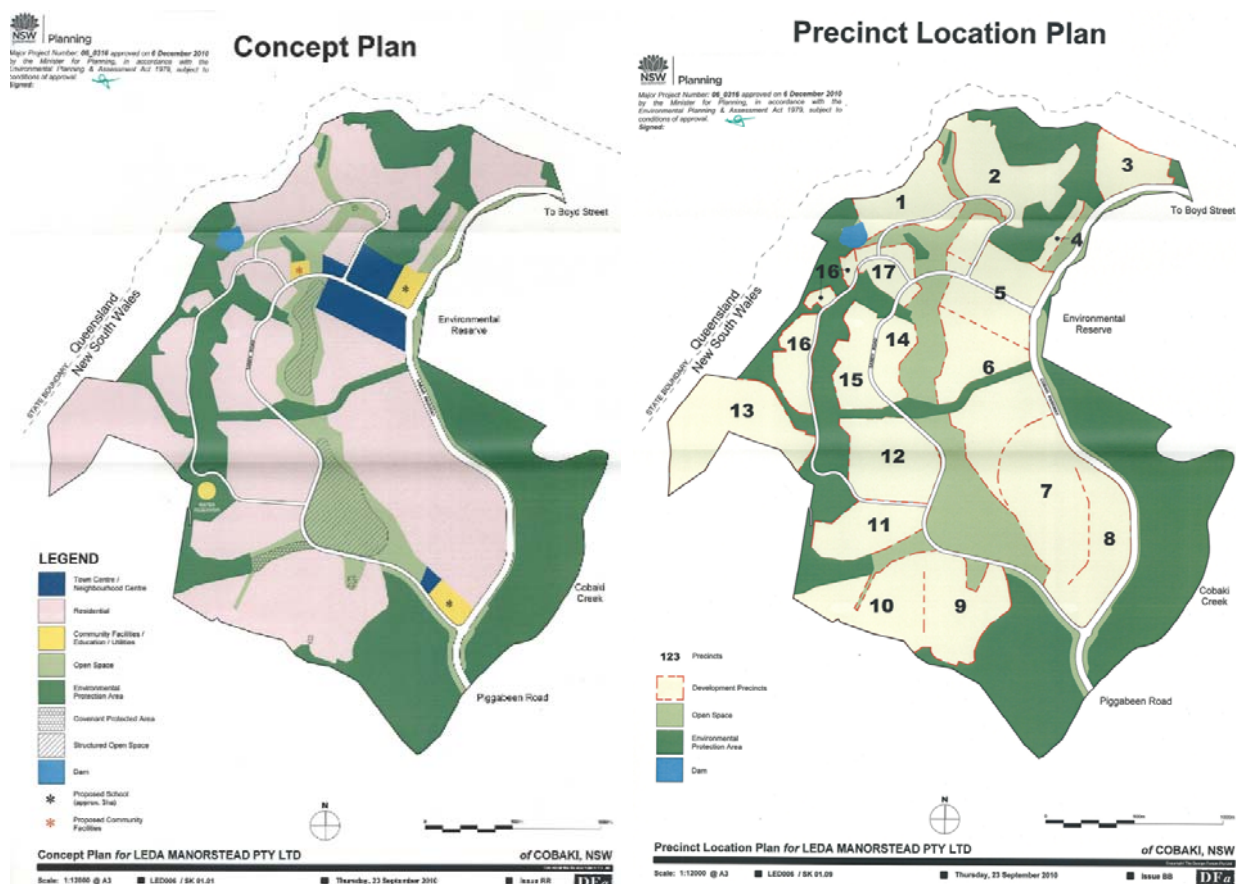
The Minister for Planning issued a Concept Approval for the site on 6 December 2010 and an amendment (Mod 1) was issued on 29 May 2013. The approval was for the following:

- Residential development for approximately 5,500 dwellings
- Town Centre and neighbourhood centre for future retail and commercial uses
- Community facilities and school sites
- Open space
- Wildlife corridors
- Protection and rehabilitation of environmentally sensitive land
- Road corridors and utility services infrastructure
- Water management areas
- Roads and pedestrian and bicycle network

The Minister stipulated that approval to carry out the project, other than the central open space and Precinct 5, be subject to Part 4 or 5 of the Act, as relevant.

Schedule 2 of the Concept Approval contains modifications to the concept plan and requirements for future applications.

An assessment of the proposed amendments to DA15/1026 against the relevant provisions of the Concept Plan approval and Statement of Commitments is noted later in this report.



Figures 1 & 2 – Approved Concept Plan and Precinct plan

Project Approval (MP08_0200)

The Deputy Director-General of Development Assessment & Systems Performance issued a Project Approval for the site on 28 February 2011. Amendments have been issued on 29 May 2013 (Mod 1), 3 April 2014 (Mod 2) and 13 February 2015 (Mod 3). The approval was for the following:

Part One - Subdivision

- Subdivision of the entire Cobaki Estate site into seven (7) lots (including one residue lot for future urban development – Lot 807);

Part Two – Bulk Earthworks and Civil Works

- Staged bulk earthworks to create the central open space, riparian corridor, structured open space, and future stormwater drainage area;
- Road forming works and culverts crossing the central open space (including Lot 802); Road forming works across saltmarsh areas, including culverts and temporary trunk; and
- sewer and water services (Lot 804);

Part Three – Environmental Enhancement Works

- Revegetation and rehabilitation of environmental protection areas for coastal Saltmarsh (Lots 805 and 806); and
- Establishment of freshwater wetland and fauna corridors.

The bulk earthworks associated with the approved Central Open Space drainage corridor (refer to Figure 3 below) have largely been completed.

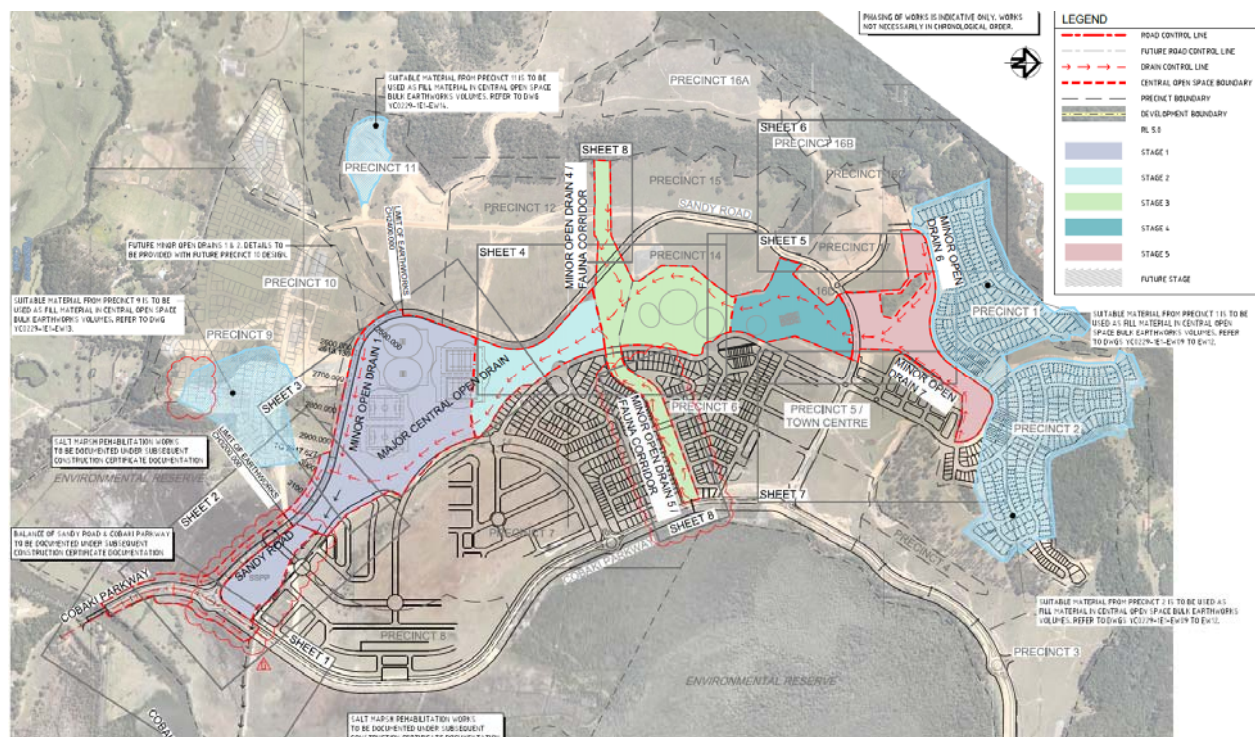


Figure 3 – Approved Project Approval (Mod 3) for the Central Open Space

More recently, approvals over the site include:

- DA10/0800 - Subdivision of Precincts 1&2, comprising of 475 residential lots, lots for drainage, open space and urban infrastructure. Approved by JRPP in May 2011 and amended by Council in March 2014.
- DA10/0801 - Subdivision of Precinct 6, comprising of 442 residential lots, lots for drainage, open space and urban infrastructure. Approved by JRPP in May 2011 and amended by Council in June 2014. This approval has since lapsed.
- DA15/0916 - Precinct 6 fauna corridor and culvert crossings. Approved by Council in February 2016.
- DA15/1026 – This approval incorporates the overall Masterplan of the future subdivision of Precincts 6, 7, 8, 9, 10, 11 & 12. Stage 1 (staged bulk earthworks) of the proposal is also part of this development application. The future subdivision of Precincts 6 to 12 will be subject to future applications, with the applicant acknowledging that the development is to be consistent with the concept approved under MP06_0316. The following staging is proposed for the development:
 - Stage 2 & 3 – Subdivision of part Precinct 6 and part Precinct 7 (currently being assessed separately – DA16/0056);
 - Stage 4 – Subdivision of Precinct 8 (subject of future application);
 - Stage 5 – Subdivision of Precinct 9 (subject of future application);
 - Stage 6 – Subdivision of Precinct 10 (subject of future application);
 - Stage 7 – Subdivision of Precinct 11 (subject of future application); and
 - Stage 8 – Subdivision of Precinct 12 (subject of future application).

The approved Masterplan for DA15/1026 is noted below in Figure 4:

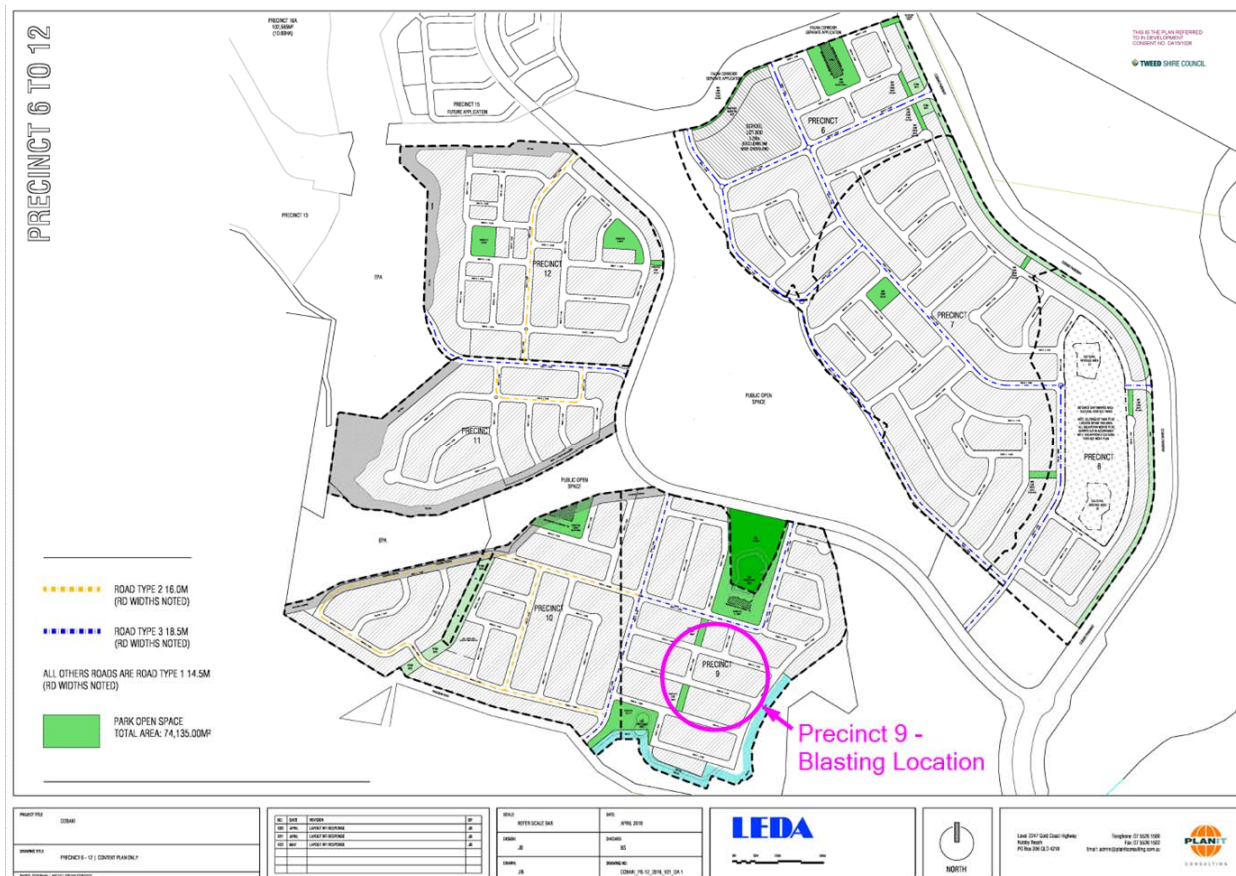


Figure 4 – Masterplan for Precincts 6 to 12, with blasting area identified

The approved Stage 1 bulk earthworks across Precincts 6 to 12 incorporates 31 stages to ensure that each stage complies with the minimum 5ha of exposed areas (as required by the Concept Plan approval). The bulk earthworks will utilise the majority of material from Precincts 9 and 11 for the purposes of fill across the seven precincts, as required.

An amendment to the Stage 1 bulk earthworks, to incorporate blasting of hard rock from Precinct 9, is the subject of this amendment to DA15/1026.

- **DA17/0017** – Crushing and blending of approximately 40,000m³ of hard rock material from Precinct 9 in association with the earthworks approved under DA15/1026. Approved by Council in April 2017.

SECTION B – CONCEPT PLAN ASSESSMENT

Concept Approval

An assessment has been undertaken against the various conditions of the Concept Approval that are considered applicable to the proposed blasting amendments. All other conditions are considered to be unaffected by the proposed amendments and remain the same as that assessed under the original approval for DA15/1026.

Concept Plan Approval Requirements for Future Applications	Council Comments
<p><i>C4 Management and Restoration Plans</i></p> <p>(1) All future applications are to include, where relevant, draft stage specific management plan updates to the Site Regeneration and Revegetation Plan, Freshwater Wetland Rehabilitation Plan, Fauna Management Plan, Vegetation Management Plan, Scribbly Gum Management Plan, Principal Buffer Management Plan, Landscape Concept Plan, Stormwater Concept Plan, Cultural Heritage Management Plan, Preliminary Acid Sulfate Soils Management Plan providing, where relevant, details on timelines for implementation of recommended works including maintenance periods, funding arrangements and measurable performance and completion criteria.</p> <p>Each plan is to consider all other existing plans for the site to ensure management strategies do not conflict and each plan can be implemented without negatively impacting on the objectives of another.</p>	<p>The applicant provided numerous management plans for the approved Stage 1 bulk earthworks. The proposed works associated with the blasting will be subject to these plans. No amendments required to the existing conditions of consent relating to the various management plans.</p>
<p>(2) Construction Environmental Management Plan (CEMP)</p> <p>All future applications are to include draft stage specific CEMPs that detail measures to address the impacts of construction including, but not limited to: erosion and sediment control (in accordance with Managing Urban Stormwater- Soils & Construction Version 4, Landcom 2004,</p>	<p>The applicant provided a CEMP for the proposed Stage 1 bulk earthworks. A condition of consent has been recommended requiring</p>

Concept Plan Approval Requirements for Future Applications	Council Comments
<p>or the latest version); protection of fauna (generally in accordance with the Fauna Management Plan - Cobaki Lakes PPR 2009); groundwater and acid sulfate soils; and, protection of trees and vegetation to be retained (generally in accordance with the Vegetation Management Plan, Cobaki Lakes PPR 2009).</p>	<p>the inclusion of all approved blasting management plans into the CEMP.</p>
<p>C5 Groundwater and Acid Sulfate Soils Assessment</p> <p>(1) In order to ensure the protection of groundwater quality and the water quality of Cobaki Creek and Broadwater, a detailed Acid Sulfate Soils (ASS) assessment and ASS Management Plan (ASSMP), if required, addressing groundwater and acid sulfate soils must be submitted prior to issue of the construction certificate for the central open space and prior to issue of future precinct earthworks construction certificates. The ASS assessment report must be carried out generally in accordance with the ASSMAC Guidelines (1988) by a suitably qualified person and must contain the following information, as a minimum:</p> <ul style="list-style-type: none"> a. A plan showing the locations of all monitoring and test points (boreholes, test pits, wells/groundwater sampling, soils sampling, surface water sampling, monosulfides sampling etc); b. Plots of water level and quality with time; c. Spatial and depth distribution of ASS soils, corrected to include TAA plus oxidisable sulphur, and using the ASSMAC recommended action level (>18 mols H⁺/t) for the site. This should also address the inferred soft ASS marine clays present beneath the sand ridge; d. Typical treatment levels/distribution of AASS and PASS soils on site (where 	<p>As noted above, the applicant provided numerous management plans with the original application for Stage 1 bulk earthworks. The proposed blasting amendments do not trigger any modification to the management plans for groundwater and acid sulfate soils.</p>

Concept Plan Approval Requirements for Future Applications	Council Comments
<p>investigated), to current/correct standards;</p> <p>e. A detailed ASSMP with actions for determining ASS conditions ahead of excavation, handling of groundwater levels and quality, detailed management procedures for surface waters and flood routing, interaction (short and long term) of the groundwater with surface water in order to prevent the formation of monosulfides, materials evaluation and handling, materials balance, stockpile treatment, validation testing, monitoring systems with trigger levels, contingency actions, protection for structural elements, evaluation of off-site impacts etc.</p> <p>(2) All future applications where the use of groundwater or the interception of the groundwater table is proposed, the proponent, after consulting with the NSW Office of Water, is to submit detailed Site Water and Groundwater Management and Monitoring Plans, supported by baseline groundwater monitoring conducted for an appropriate period, for the approval of the relevant consent authority prior to the issue of a construction certificate.</p>	
<p>C6 Stormwater Management</p> <p>(1) A detailed stormwater management plan must be submitted with each project/development application for subdivision of each precinct in the concept plan generally in accordance with the Stormwater Quality Concept Plan - Cobaki Lakes Development- September 2010 Revision 02- Yeats. The Stormwater Management Plan must address and outline measures, based on Water Sensitive Urban Design Principles which address impacts on the surrounding environment, drainage and water quality controls for the catchment at construction, maintenance and operational stages. The stormwater management plans are to be</p>	<p>The proposed blasting is ancillary and integral to the approved Stage 1 earthworks. The blasting amendments will be subject to compliance with the approved stormwater management plan. No amendments to existing conditions of consent are required in this regard.</p>

Concept Plan Approval Requirements for Future Applications	Council Comments
<p>submitted to the satisfaction of the Council following consultation with the DECCW, NSW Office of Water and Industry and Investment (Fisheries).</p> <p>(2) Each stormwater management plan is to include groundwater considerations, a detailed design layout plan for the preferred stormwater treatment train showing location, size and key functional elements of each part of the system. MUSIC modelling, or equivalent, must be undertaken to demonstrate appropriate water quality objectives are being achieved.</p> <p>(3) All future project/development applications for subdivision of each precinct in the concept plan are to demonstrate, through the provision of monitoring and adaptive management plans and commitments, that any proposed surface water/stormwater pollution reduction devices will be monitored to determine their pollutant removal efficiencies and the need for further treatment of drainage to ensure the preservation of water quality in Cobaki Creek and Cobaki Broadwater.</p>	
<p>C7 <i>Geotechnical Assessments</i></p> <p>(1) In order to ensure the stability of development lots, a detailed geotechnical assessment preliminary geotechnical assessment prepared by a suitably qualified person must be submitted with each future development application for subdivision. The assessments must, at a minimum, include the following:</p> <p>a. A geotechnical map of the site clearly showing ground surface contours, geotechnical engineering soil types and geotechnical hazards. The delineation of hazards should include hazard locations and possible hazard impact areas. That map should be occupied by an explanatory text describing the nature and delineation of soil types and hazard types. The map and text should be prepared by a suitably</p>	<p>An assessment of the geotechnical stability of the site was undertaken by the applicant for the original application, with the assessment indicating a low likelihood for instability. It has been identified that hard rock is located within Precinct 9, requiring drilling and blasting to occur to allow the material to be won for filling purposes. No amendments are considered warranted by the proposed blasting with regard to Condition C7 of the Concept Approval.</p>

Concept Plan Approval Requirements for Future Applications	Council Comments
<p>experienced geotechnical practitioner; and</p> <p>b. A synthesis site plan clearly showing ground surface contours and the locations of all test pits, boreholes and monitoring wells drilled on the site to date.</p> <p>(2) Any hillside construction must be in accordance with 'Some Guidelines for Hillside Construction and Practice', Appendix G of Landside Risk Management by Australian Geomechanics 2002.</p>	

Statement of Commitments

The applicant has not proposed any amendments to the Statement of Commitments associated with the Concept Approval. The original application noted that “*...this staged application is consistent with the approved Statement of Commitments*”, providing a list of the supporting documents. The proposed amendments to incorporate blasting are considered to remain consistent with the approved Statement of Commitments.

Development Code

As noted in the original assessment, the Concept Plan approval requires that all future project / development applications for residential subdivision or the construction of dwellings / commercial premises must demonstrate consistency with Part B of the Cobaki Development Code. Appropriate conditions of consent were applied to DA15/1026. The proposed blasting amendments are not considered to warrant any changes to conditions of consent in this regard.

SECTION C – PROPOSED AMENDMENTS

The amendments to DA15/1026 relate to the proposed blasting of hard rock material within Precinct 9 of the Cobaki development. The proposed blasting is considered to be ancillary and integral to the approved bulk earthworks associated with Stage 1 of DA15/1026.

The original application for DA15/1026 did not incorporate any proposed blasting for the winning of material from Precinct 9, nor did it propose any rock crushing. A condition of consent was applied with regard to the separate approval for any proposed rock crushing, and the applicant has since lodged and been granted approval (under DA17/0017) for the crushing of rock from Precinct 9, to provide suitable material for the bulk earthworks associated with the filling of Precinct 6 and Precinct 7 of the development.

During the assessment of DA17/0017, it was identified that blasting was needed and the applicant was advised that a S96(2) application would be required, given that blasting was not considered to result in a 'minor environmental impact' (as per the provisions of S96(1a) of the EP&A Act).

As a result, this S96(2) application to modify DA15/1026 for the purposes of blasting has been submitted. The applicant has noted that *"...to enable the hard rock material to be effectively won, drilling and blasting will be required. It is estimated that there will be approximately 10 blasts over a 12 month period. The material can then be processed in accordance with Development Consent No. DA17/0017"*.

It has been estimated that approximately 40,000m³ of rock material will require blasting. The applicant has provided a number of supporting documents in terms of blast management and control, as well as safe work methods. The applicant has proposed the following new Condition:

1A – Blasting

Blasting may be undertaken in Precinct 9 in accordance with the following documents:

- *Blast Management Plan & Control – Cobaki Lakes – Precinct 9, Heilig & Partners Pty Ltd, 13 April 2017*
- *Blast Management Plan for Precinct 9, Version 3 – Donnelly Blasting Services, March 2017*
- *Safety Work Method Statement – Donnelly Blasting Services, March 2017.*

The applicant has identified a number of potential impacts associated with the proposed blasting (vibration, airblast overpressure and flyrock). These matters are addressed later in this report.

SECTION D – MAIN ASSESSMENT

CONSIDERATIONS UNDER SECTION 83B OF THE ENVIRONMENTAL PLANNING AND ASSESSMENT ACT 1979:

83B Staged development applications

The provisions of Clause 83B of the EP&A Act are as follows:

- (1) *For the purposes of this Act, a **staged development application** is a development application that sets out concept proposals for the development of a site, and for which detailed proposals for separate parts of the site are to be the subject of subsequent development applications. The application may set out detailed proposals for the first stage of development.*

The original application for DA15/1026 incorporated the conceptual design of the Masterplan for the subdivision of Precincts 6 to 12 and provided details for Stage 1 of the development – staged bulk earthworks across Precincts 6 to 12. The proposed blasting makes no changes to the staging of the approval, but will simply be incorporated as part of Stage 1 of the development.

- (2) *A development application is not to be treated as a staged development application unless the applicant requests it to be treated as a staged development application.*

The original development application was specifically lodged as a staged development application.

- (3) *If consent is granted on the determination of a staged development application, the consent does not authorise the carrying out of development on any part of the site concerned unless:*
- (a) *consent is subsequently granted to carry out development on that part of the site following a further development application in respect of that part of the site, or*
 - (b) *the staged development application also provided the requisite details of the development on that part of the site and consent is granted for that first stage of development without the need for further consent.*

The original approval granted consent to the conceptual design of the Masterplan and provide detailed conditions of consent for Stage 1 of the development – staged bulk earthworks across Precincts 6 – 12. The original approval requires future subdivision stages of the development to have separate consent, consistent with the approved Masterplan. The proposed blasting amendments make no changes to this requirement.

- (4) *The terms of a consent granted on the determination of a staged development application are to reflect the operation of subsection (3).*

As noted above, the development consent approves the conceptual design of the Masterplan and provides detailed conditions of consent for Stage 1 of the development, with future subdivision stages of

the development requiring separate development consent. The proposed blasting amendments will be incorporated as part of Stage 1 works.

CONSIDERATIONS UNDER SECTION 96(2) OF THE ENVIRONMENTAL PLANNING AND ASSESSMENT ACT 1979:

96 Modification of consents—generally

(2) Other modifications

A consent authority may, on application being made by the applicant or any other person entitled to act on a consent granted by the consent authority and subject to and in accordance with the regulations, modify the consent if:

- (a) it is satisfied that the development to which the consent as modified relates is substantially the same development as the development for which consent was originally granted and before that consent as originally granted was modified (if at all), and*

The proposed blasting is considered to be ancillary and integral to the approved Stage 1 bulk earthworks. The proposed blasting will enable the hard rock material identified in the original assessment as fill material to be extracted for the purposes of fill in Precincts 6 and 7. As such, the proposed blasting amendments are considered to be substantially the same development as the development for which consent was originally granted.

- (b) it has consulted with the relevant Minister, public authority or approval body (within the meaning of Division 5) in respect of a condition imposed as a requirement of a concurrence to the consent or in accordance with the general terms of an approval proposed to be granted by the approval body and that Minister, authority or body has not, within 21 days after being consulted, objected to the modification of that consent, and*

Not applicable as concurrence was not required for the original approval.

- (c) it has notified the application in accordance with:*

- (i) the regulations, if the regulations so require, or*
 - (ii) a development control plan, if the consent authority is a council that has made a development control plan that requires the notification or advertising of applications for modification of a development consent, and*

The proposed blasting amendments were notified to adjoining residents and advertised, as per the original application.

- (d) it has considered any submissions made concerning the proposed modification within the period prescribed by the regulations or provided by the development control plan, as the case may be.*

There were no submissions made by the general public during the exhibition period. Essential Energy made a submission, which is discussed later in this report.

Subsections (1) and (1A) do not apply to such a modification.

(3) In determining an application for modification of a consent under this section, the consent authority must take into consideration such of the matters referred to in section 79C (1) as are of relevance to the development the subject of the application.

A detailed 79C assessment against all relevant legislation relating to the proposed blasting amendments has been provided later in this report.

CONSIDERATIONS UNDER SECTION 79C OF THE ENVIRONMENTAL PLANNING AND ASSESSMENT ACT 1979:

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

The subject site incorporates a number of zonings under two LEP's. The original assessment undertook a dual assessment to incorporate the Environmental Protection Areas adjoining each of the precincts associated with the application, which are zoned under TLEP 2000. The proposed blasting in Precinct 9 is wholly within land zoned R1 General Residential (LEP 2014). Given that there are no changes to the proposed development in terms of the Environmental Protection Areas, an assessment under LEP 2000 is not considered necessary for the proposed amendments.

Tweed Local Environmental Plan 2014

Part 1 Preliminary

1.2 Aims of Plan

The proposed amendments are considered to be generally in accordance with the aims of this plan, subject to conditions of consent. The Cobaki site has been identified for a new community for many years. The proposed development is considered to be consistent with State Government and Council strategic planning.

1.4 Definitions

Under this Plan, the original application for Stage 1 Bulk Earthworks was considered to be 'earthworks', defined as follows;

earthworks means excavation or filling.

The proposed amendments for blasting are considered to be directly associated with the approved bulk earthworks which were originally approved within the R1 General Residential zone and the B2 Local Centre zone. Earthworks are permitted with consent in both of these zones.

Part 2 Permitted or prohibited development

2.1 Land use zones

As noted above, the proposed blasting area within Precinct 9 is zoned R1 General Residential.

2.3 Zone objectives and Land Use Table

The objectives of the **R1 General Residential** zone are:

- *To provide for the housing needs of the community.*
- *To provide for a variety of housing types and densities.*
- *To enable other land uses that provide facilities or services to meet the day to day needs of residents.*
- *To encourage the provision of tourist accommodation and related facilities and services in association with residential development where it is unlikely to significantly impact on amenity or place demands on services beyond the level reasonably required for residential use.*

The proposed blasting is considered to be generally consistent with the above objectives, by virtue of providing allowing bulk earthworks to be undertaken and ultimately provide for additional housing for the community. Overall, the proposed amendments are considered to be consistent with the R1 zone objectives.

Part 5 Miscellaneous provisions

5.5 Development within the coastal zone

The original assessment for DA15/1026 considered that the proposed Masterplan and Stage 1 bulk earthworks were consistent with the provisions of Clause 5.5, being acceptable development within the Coastal Zone.

This clause states that development consent **must** not be granted to development on land that is wholly or partly within the coastal zone unless the consent authority has considered the following;

- (a) *existing public access to and along the coastal foreshore for pedestrians (including persons with a disability) with a view to:*
 - (i) *maintaining existing public access and, where possible, improving that access, and*
 - (ii) *identifying opportunities for new public access, and*

The proposed blasting amendments are not considered to have any impact on public access to foreshore areas.

- (b) *the suitability of the proposed development, its relationship with the surrounding area and its impact on the natural scenic quality, taking into account:*
 - (i) *the type of the proposed development and any associated land uses or activities (including compatibility of any land-based and water-based coastal activities), and*
 - (ii) *the location, and*
 - (iii) *the bulk, scale, size and overall built form design of any building or work involved, and*

The proposed development is permissible on the subject site, with appropriate conditions of consent being recommended to minimise / mitigate any potential impacts resulting from the proposed blasting amendments.

- (c) *the impact of the proposed development on the amenity of the coastal foreshore including:*
 - (i) *any significant overshadowing of the coastal foreshore, and*
 - (ii) *any loss of views from a public place to the coastal foreshore,*

The proposed blasting amendments are not considered to impact on the amenity of the foreshore by virtue of overshadowing or a loss of views. The subject application is considered to be acceptable having regard to the above considerations.

- (d) *how the visual amenity and scenic qualities of the coast, including coastal headlands, can be protected, and*

The proposed blasting amendments are not considered to compromise the scenic qualities of the coast as it represents an acceptable development on appropriately zoned land.

- (e) *how biodiversity and ecosystems, including:*
 - (i) *native coastal vegetation and existing wildlife corridors, and*
 - (ii) *rock platforms, and*
 - (iii) *water quality of coastal waterbodies, and*

(iv) native fauna and native flora, and their habitats, can be conserved, and

The original application was reviewed in detail by Councils' Natural Resource Management Unit, with appropriate conditions of consent applied. The proposed blasting amendments are not considered to result in additional impact from that originally assessed.

(f) the cumulative impacts of the proposed development and other development on the coastal catchment.

Subject to the imposition of the recommended conditions of consent, the proposed blasting amendments are not considered to result in an unacceptable cumulative impact on the coastal catchment.

This clause goes on to further state;

(3) Development consent must not be granted to development on land that is wholly or partly within the coastal zone unless the consent authority is satisfied that:

(a) the proposed development will not impede or diminish, where practicable, the physical, land-based right of access of the public to or along the coastal foreshore, and

The proposed blasting amendments are not considered to impede or diminish the right of access of the public either to or along the public foreshore.

(b) if effluent from the development is disposed of by a non-reticulated system, it will not have a negative effect on the water quality of the sea, or any beach, estuary, coastal lake, coastal creek or other similar body of water, or a rock platform, and

Stage 1 bulk earthworks do not incorporate any provision of sewer reticulation.

(c) the proposed development will not discharge untreated stormwater into the sea, or any beach, estuary, coastal lake, coastal creek or other similar body of water, or a rock platform, and

Stormwater management was addressed in the original assessment of DA15/1026, with applicable conditions of consent applied in order to comply with the provisions of this clause. The proposed blasting amendments will have no impact upon the stormwater requirements already applied to the development consent for Stage 1 bulk earthworks.

(d) the proposed development will not:

(i) be significantly affected by coastal hazards, or

- (ii) have a significant impact on coastal hazards, or*
- (iii) increase the risk of coastal hazards in relation to any other land.*

The original application was considered to be acceptable having regard to coastal hazards as outlined above due to its nature, permissibility and the spatial separation between the site and coastal hazards at this location. The proposed blasting amendments remain consistent with the original assessment.

5.9 - Preservation of Trees or Vegetation

The objective of this clause is to preserve the amenity of the area, including biodiversity values, through the preservation of trees and other vegetation. The proposed blasting within Precinct 9 is within the area originally nominated for earthworks and as such, no further assessment in terms of impact upon vegetation is considered necessary. Applicable conditions of consent were applied in the original consent with regard to ecological impact. Therefore, the proposed blasting amendment is considered to comply with this clause.

5.10 – Heritage conservation

The objectives of this clause are as follows:

- (a) to conserve the environmental heritage of Tweed,*
- (b) to conserve the heritage significance of heritage items and heritage conservation areas, including associated fabric, settings and views,*
- (c) to conserve archaeological sites,*
- (d) to conserve Aboriginal objects and Aboriginal places of heritage significance.*

The subject site incorporates Cultural Heritage Parks (CHP's) within Precinct 8. Any development within these CHP's must comply with the Cultural Heritage Management Plan (CHMP) approved under the Concept Plan approval. The approved Stage 1 bulk earthworks do not propose any fill within the CHP's.

The provisions of Clause 5.10(8) require the consent authority to:

- (a) consider the effect of the proposed development on the heritage significance of the place and any Aboriginal object known or reasonably likely to be located at the place by means of an adequate investigation and assessment (which may involve consideration of a heritage impact statement), and*
- (b) notify the local Aboriginal communities, in writing or in such other manner as may be appropriate, about the application and take into consideration any response received within 28 days after the notice is sent.*

Given that the proposed development does not incorporate any bulk earthworks within the immediate area of the CHP's, the provisions of Clause 5.10(8) were not considered to be applicable to DA15/1026.

As a result of the proposed blasting being entirely within Precinct 9, with no areas of significance identified, the proposed blasting amendments are considered to be consistent with this clause.

Part 7 Additional local provisions

7.1 Acid sulfate soils

The subject site demonstrates Class 2, 3 and 5 Acid Sulfate Soils (ASS) in accordance with the provisions of this clause. The objective of this clause is to ensure that development does not disturb, expose or drain acid sulfate soils and cause environmental damage.

The original assessment of DA15/1026 incorporated a detailed assessment of the proposal in terms of Acid Sulfate Soils and applicable conditions of consent were applied. The proposed blasting amendments will not result in any necessary changes to conditions of consent and the overall proposal is considered to remain consistent with the provisions of Clause 7.1.

7.2 Earthworks

The objective of this clause is to ensure that earthworks for which development consent is required will not have a detrimental impact on environmental functions and processes, neighbouring uses, cultural or heritage items or features of the surrounding land.

The provisions of Clause 7.2(3) require the consent authority to consider the following matters:

- (a) the likely disruption of, or any detrimental effect on, drainage patterns and soil stability in the locality of the development,*
- (b) the effect of the development on the likely future use or redevelopment of the land,*
- (c) the quality of the fill or the soil to be excavated, or both,*
- (d) the effect of the development on the existing and likely amenity of adjoining properties,*
- (e) the source of any fill material and the destination of any excavated material,*
- (f) the likelihood of disturbing relics,*
- (g) the proximity to, and potential for adverse impacts on, any waterway, drinking water catchment or environmentally sensitive area,*
- (h) any appropriate measures proposed to avoid, minimise or mitigate the impacts of the development,*
- (i) the proximity to, and potential for adverse impacts on, any heritage item, archaeological site, or heritage conservation area.*

A thorough assessment of the proposed Stage 1 bulk earthworks was undertaken during the original application. As noted elsewhere, the proposed blasting amendments are considered to be ancillary to the Stage 1 works.

Accordingly, the proposed blasting is not considered to have an impact upon the drainage patterns / soil stability of the locality. It is not considered likely to effect the future development of the site or the quality of fill to be excavated. Appropriate conditions of consent have been applied to minimise any impact of the proposed blasting upon adjoining properties. It is not considered likely that relics will be disturbed. Existing conditions and any proposed new conditions of consent are considered to protect nearby waterways and environmentally sensitive areas, as well as mitigate any potential impact of the development.

As such, the proposed blasting amendments are considered to be in accordance with the provisions of Clause 7.2, subject to conditions of consent.

7.3 Flood planning

The objectives of this clause are as follows:

- (a) to minimise the flood risk to life and property associated with the use of land,*
- (b) to allow development on land that is compatible with the land's flood hazard, taking into account projected changes as a result of climate change,*
- (c) to avoid significant adverse impacts on flood behaviour and the environment.*

This clause goes on to further state that development consent must not be granted to development on land to which this clause applies unless the consent authority is satisfied that the development:

- (a) is compatible with the flood hazard of the land, and*
- (b) will not significantly adversely affect flood behaviour resulting in detrimental increases in the potential flood affectation of other development or properties, and*
- (c) incorporates appropriate measures to manage risk to life from flood, and*
- (d) will not significantly adversely affect the environment or cause avoidable erosion, siltation, destruction of riparian vegetation or a reduction in the stability of river banks or watercourses, and*
- (e) is not likely to result in unsustainable social and economic costs to the community as a consequence of flooding.*

The original assessment of DA15/1026 was satisfied that the proposed Stage 1 bulk earthwork was satisfactory in terms of the Flood Planning provisions of Clause 7.3, subject to conditions of consent.

The proposed blasting amendments are not considered to result in any changes to the original assessment with respect to flood management. No amendments to conditions of consent are proposed in this regard.

Clause 7.6 - Stormwater Management

The objective of this clause is to minimise the impacts of urban stormwater on land to which this clause applies and on adjoining properties, native bushland and receiving waters.

A detailed assessment of the original proposal for DA15/1026 was undertaken with regard to stormwater management, with appropriate conditions of consent being applied to the consent to ensure compliance with Clause 7.6.

The proposed blasting amendments are not considered to result in any changes to the existing conditions of consent. As such, the proposal is considered to be acceptable with respect to the requirements of this clause.

7.10 - Essential Services

This clause outlines that consent must not be granted to development unless the consent authority is satisfied that essential services such as water, electricity, sewerage, stormwater drainage and vehicular access are available or that adequate arrangements have been made to make them available when required.

The original application for DA15/1026 recognised that the proposed Masterplan and Stage 1 bulk earthworks did not specifically apply to Clause 7.10 and that future subdivision stages will need to address the provisions of this clause, including water / sewer, electricity and access. The proposed blasting amendments to Stage 1 bulk earthworks do not trigger any further assessment in this regard

Having regard to the above assessment, the proposed blasting amendments are considered to be generally in accordance with the provisions of the Tweed Local Environmental Plan 2014.

State Environmental Planning Policies

SEPP No. 14 - Coastal Wetlands

SEPP 14 Wetlands exist adjacent to the overall Cobaki site. The provisions of the SEPP were not triggered by the originally proposed Stage 1 bulk earthworks as there is no clearing, draining, filling or levee construction in the mapped SEPP 14 wetland. The proposed blasting amendments are consistent with the original assessment and no further assessment is considered warranted with regard to SEPP 14.

SEPP No. 44 - Koala Habitat Protection

The potential impact of the overall development upon the subject site (with regard to SEPP 44) was addressed at the Concept Plan approval stage, with a Commitment that threatened fauna species be appropriately managed via the implementation of the approved SEPP 44 Assessment and Fauna Management Plan. Appropriate conditions of consent were applied

in original assessment of DA15/1026. No further assessment is considered necessary in relation to the proposed blasting within Precinct 9.

SEPP No. 55 - Remediation of Land

The original assessment of DA15/1026 identified two areas area of potential contamination in Precinct 17 and Precinct 10, with further contamination assessment required. Appropriate conditions of consent were applied with regard to Precinct 10, which is within the Masterplan area and Stage 1 bulk earthworks area, resulting in the proposed development being considered to meet the provisions of SEPP 55.

The proposed blasting amendments within Precinct 9 are not within the potential contamination areas identified in the original assessment. As such, the proposed amendments are considered to be consistent with the provisions of clause 7 of SEPP and no amendments to conditions of consent are considered warranted in this regard.

SEPP No 71 – Coastal Protection

The matters for consideration are the following:

- (a) *The aims of this Policy set out in Clause 2:*

The proposed blasting amendments are considered to be consistent with the aims of the policy as set out in clause 2.

- (b) *Existing public access to and along the coastal foreshore for pedestrians or persons with a disability should be retained and, where possible, public access to and along the coastal foreshore for pedestrians or persons with a disability should be improved*

The proposed blasting amendments will not alter or restrict the public's access to the foreshore reserve areas.

- (c) *Opportunities to provide new public access to and along the coastal foreshore for pedestrians or persons with a disability*

The proposed blasting amendments will not generate any additional opportunities to improve public access to foreshore reserve areas and the like.

- (d) *The suitability of the development given its type, location and design and its relationship with the surrounding area*

The proposed blasting site (Precinct 9) is sited and designed in general accord with the relevant Council controls and is considered unlikely to create any form of adverse imposition upon the immediate area in terms of size, scale or design.

- (e) *any detrimental impact that 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 proposed blasting amendments are not considered impact on the amenity of the coastal foreshore. In particular there is considered to be no loss of views or overshadowing associated with this application.

- (f) *the scenic qualities of the New South Wales coast, and means to protect and improve these qualities*

The proposed blasting amendments are unlikely to impact upon the scenic quality of the NSW coast.

- (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;*

Appropriate conditions of consent with respect to ecological matters were applied during the assessment of the original application. The proposed blasting will be subject to the same conditions of consent, with no further amendments considered necessary in this regard.

- (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 Par), and their habitats*

The proposed blasting amendments are considered unlikely to have an adverse impact upon marine environments or habitats. No additional conditions of consent are considered warranted in this regard.

- (i) *existing wildlife corridors and the impact of development on these corridors,*

Appropriate conditions of consent were applied to the original consent for DA15/1026. The proposed blasting will be subject to the same conditions of consent, with no further amendments considered necessary in this regard.

- (j) *the likely impact of coastal process and coastal hazards on development and any likely impacts of development on coastal processes and coastal hazards;*

The subject site is not located within an area affected by Coastal Erosion and is landward of the defined Coastal Erosion Zones. The proposed blasting amendments are unlikely to have an adverse impact upon coastal processes or be affected by coastal processes.

- (k) *measures to reduce the potential for conflict between land-based and water-based coastal activities;*

The proposed blasting amendments are not considered to cause any conflict between land-based and water-based activities.

- (l) *measures to protect the cultural places, values, customs, beliefs and traditional knowledge of Aboriginals;*

The subject site does have an identified cultural place within Precinct 8. As discussed earlier in this report, the proposed blasting will be undertaken within Precinct 9. No further assessment in this regard is considered warranted.

- (m) *likely impacts of development on the water quality of coastal waterbodies,*

The proposed blasting amendments are not considered to have any significant impact upon the water quality of coastal waterbodies.

- (n) *the conservation and preservation of items of heritage, archaeological or historic significance,*

As noted above, no works are proposed within or immediately adjacent to the known CHP's.

- (o) *only in cases in which a council prepares a draft local environmental plan that applies to land to which this Policy applies, the means to encourage compact towns and cities;*

Not applicable to the subject application.

- (p) *only in cases in which a development application in relation to proposed development is determined:*

- (i) *the cumulative impacts of the proposed development on the environment;*
and

The proposed blasting amendments are not considered to have a negative cumulative impact on the environment, subject to the imposition of recommended conditions of consent.

- (ii) *measures to ensure that water and energy usage by the proposed development is efficient.*

Not applicable to the subject application.

The proposed blasting amendments are generally consistent with the matters for consideration as they do not impede public access to the foreshore nor result in any unacceptable loss of view or overshadowing. The proposal has a minimal impact on flora or fauna and the proposed amendments will not impact upon known areas of Aboriginal significance. As such, the provisions of SEPP 71 are considered satisfied.

SEPP (Infrastructure) 2007

Clause 104 of this SEPP relating to Traffic Generating Development outlines that this clause applies to development specified in Column 1 to the Table of Schedule 3 that involves the subdivision of land incorporating 200 or more allotments where the subdivision includes the opening of a public road.

As the original Stage 1 bulk earthworks did not incorporate any subdivision, nor does it involve 200 or more motor vehicles for “any other purpose”, referral to the Roads and Maritime Services (RMS) was not required. Future subdivision stages will trigger referral to the RMS.

The proposed blasting amendments are considered to be acceptable having regard to the provisions of this SEPP.

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

Draft State Environmental Planning Policy (Coastal Management) 2016

The draft Coastal Management SEPP relates to areas of land comprised of the following coastal management areas:

- (a) *the coastal wetlands and littoral rainforests area,*
- (b) *the coastal vulnerability area,*
- (c) *the coastal environment area,*
- (d) *the coastal use area.*

Part of the subject site being utilised for the proposed blasting (Precinct 9) is located within the *Coastal Use Area* map associated with the draft SEPP. As such, the SEPP applies and the consent authority is required to have regard for the proposed development against the provisions of clause 15 and 16 of the draft SEPP.

15 Development on land within the coastal use area

Development consent must not be granted to development on land that is wholly or partly within the coastal use area unless the consent authority:

- (a) *is satisfied that the proposed development:*
 - (i) *if near a foreshore, beach, headland or rock platform—maintains or, where practicable, improves existing, safe public access to and along the foreshore, beach, headland or rock platform, and*

The subject site is located approximately 8kms from the beaches and foreshore areas to the east.

- (ii) *minimises overshadowing, wind funnelling and the loss of views from public places to foreshores, and*

The proposed blasting amendments will have no impact upon existing views from public places to the foreshore.

- (iii) *will not adversely impact on the visual amenity and scenic qualities of the coast, including coastal headlands, and*

The proposed blasting is not considered to have any adverse impact upon the visual amenity and scenic qualities of the coast.

- (iv) *will not adversely impact on Aboriginal cultural heritage and places, and*

Cultural Heritage matters have been addressed elsewhere in this report.

- (v) *will not adversely impact on use of the surf zone, and*

Being located approximately 8kms from the coast, it is not considered that the proposed blasting will have any impact upon the surf zone.

- (b) *has taken into account the type and location of the proposed development, and the bulk, scale and size of the proposed development.*

Appropriate conditions of consent have been applied to mitigate any potential impacts on the surrounding environment arising from the proposed blasting. The type, location, bulk, size and scale of the proposed amendments are considered to be suitable for the subject site.

16 Development in coastal zone generally—development not to increase risk of coastal hazards

- (1) *Development consent must not be granted to development on land within the coastal zone (other than land to which clause 13 applies) unless the consent authority is satisfied that the proposed development is not likely to cause increased risk of coastal hazards on that land or other land.*

Council officers are satisfied that appropriate conditions of consent have been applied to ensure that the proposed blasting amendments are not likely to cause an increased risk of coastal hazards on the subject site or surrounding locality.

Although the draft SEPP is not imminent or certain of being adopted in the very near future, Council officers are satisfied the proposed development meets the provisions of the SEPP.

Draft Amendments to State Environmental Planning Policy (Infrastructure) 2007

The draft amendments to the Infrastructure SEPP include:

- *Supporting health infrastructure to allow delivery of hospital beds more quickly*
- *Changes to correctional facilities and police services to provide for a safer and more secure community*
- *Optimising the use of commuter hubs by providing more services and conveniences at transport interchanges*
- *Enabling councils to manage and maintain their lands better, including their operational lands*

The draft amendments to the ISEPP are not considered relevant to the proposed blasting amendments.

Draft State Environmental Planning Policy (Educational Establishments and Child Care Facilities) 2017

The draft SEPP proposes to streamline the planning process for education establishments (schools, TAFEs and universities) and child care facilities, focussing on good design.

The draft SEPP is not considered to be relevant to the proposed blasting amendments.

Draft Amendments to State Environmental Planning Policy 44(Koala Habitat Protection) 2007

The draft amendments to SEPP44 include:

- *definitions of koala habitat;*
- *list of tree species;*
- *list of councils; and*
- *development assessment process.*

The draft amendments to SEPP44 are not considered relevant to the proposed blasting amendments, given that the removal of vegetation is not proposed.

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

Tweed Development Control Plan

The Cobaki Estate Development Code is to be read in conjunction with the following parts of the Tweed DCP.

A2 - Site Access and Parking Code

The original assessment of DA15/1026 identified that access to the site will initially be from the north via Boyd Street in Tugun and that parking requirements relating to DCP Section A2 are not applicable to the proposed Masterplan and Stage 1 Bulk Earthworks. The proposed blasting amendments are not considered to result in any changes to parking or access provisions. As such, the proposal is considered to be acceptable with respect to DCP Section A2.

A3 - Development of Flood Liable Land

As noted elsewhere within this report, Council officers are satisfied that the proposed blasting amendments will not result in any changes to the original assessment with respect to flood management. No amendments to conditions of consent are proposed in this regard.

A5 - Subdivision Manual

No subdivision works are proposed as part of this application. As such, the provisions of DCP Section A5 are not triggered by the proposed blasting amendments.

A11 - Public Notification of Development Proposals

Exhibition of the proposed blasting amendments was undertaken in accordance with the DCP. No submissions were received from the general public.

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

Clause 92(a) Government Coastal Policy

The proposed development is located within the area covered by the Government Coastal Policy, and has been assessed with regard to the objectives of this policy. The Government Coastal Policy contains a strategic approach to help, amongst other goals, protect, rehabilitate and improve the natural environment covered by the Coastal Policy. It is not considered that the proposed blasting amendments contradict the objectives of the Government Coastal Policy, given its permissible nature on a site identified for development works.

Clause 92(b) Applications for demolition

There is no demolition proposed as part of this application.

Clause 93 Fire Safety Considerations

Clause 93 is not applicable to the proposed development.

Clause 94 Buildings to be upgraded

Clause 94 is not applicable to the proposed development.

(a) (v) Any coastal zone management plan (within the meaning of the *Coastal Protection Act 1979*)

Tweed Shire Coastline Management Plan 2005

This Plan applies to the Shire's 37 kilometre coastline and has a landward boundary that includes all lands likely to be impacted by coastline hazards plus relevant Crown lands. The primary objectives of the Coastal Management Plan are to protect development; to secure persons and property; and to provide, maintain and replace infrastructure.

The proposed blasting amendments are not considered to impact upon that coastline with regard to demands and issues identified within the Plan for the whole of the Tweed coastline.

Tweed Coast Estuaries Management Plan 2004

This Plan applies to the Cudgen Creek and Cudgen Lake, Cudgera Creek and Mooball Creek systems and does not apply to the subject site.

Coastal zone Management Plan for Cobaki and Terranora Broadwater (adopted by Council at the 15 February 2011 meeting)

The subject site is located within the Cobaki Broadwater Catchment under this Management Plan. Specifically the site is located within the Estuarine zone of this catchment.

The Cobaki Broadwater has high conservation, cultural, tourism and economic values and provides habitat for a variety of threatened species including migratory birds and endangered ecological communities. The area contains pristine bushland, rainforest communities and wetland areas including endangered ecological communities and forms part of important regional fauna corridors. The waters provide valuable nursery and breeding grounds for fisheries.

The subject site is located directly adjacent to Cobaki Creek, which discharges into Cobaki Broadwater to which this management plan relates. Subject to conditions of consent specifically relating to erosion and sedimentation control and stormwater management, the original proposal for DA15/1026 was considered to be consistent with the objectives of the Plan. The proposed blasting amendments will be subject to the same conditions of consent applied to the original consent.

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

Potential impacts arising from the proposed blasting include:

- vibration;
- air blast over pressure (noise); and
- fly rock impacts.

The applicant has submitted a number of management plans to support the proposed blasting including: an overarching Blasting Management Plan and Control Plan; a specific Blasting Management Plan for Precinct 9; and Safety Work Method Statement. The management plans provide mitigation measures to minimise the potential of any of the abovementioned impacts.

Council's Environmental Health Unit has undertaken an assessment against each of these documents, with comments provided below.

It is also noted that discussion were held with SafeWork NSW, whom advised that *"...SafeWork NSW administers licence specific activities related to explosives. The Explosive Act 2003 and Explosives Regulation 2013 govern the use of explosives in NSW. The Explosives Regulation 2013 requires all activities involving the handling of explosives and fireworks be carried out in accordance with AS2187 – Explosives: Storage, Transport and Use"*.

Blasting Management Plan and Control Plan – Cobaki Lakes – Precinct 9 (prepared by Heilig & Partners and dated April 2017)

The Management Plan identifies the Precinct 9 blasting area and surrounding receivers in Figure 5 below.



Figure 5 – Precinct 9 blasting area (shown in red) & surrounding receivers

Modelling was undertaken in relation to vibration contours for blasting with explosive quantities to comply at the nearest sensitive receiver, with a 5mm/s vibration limit on 95% of occasions. Refer to Figure 6 below.

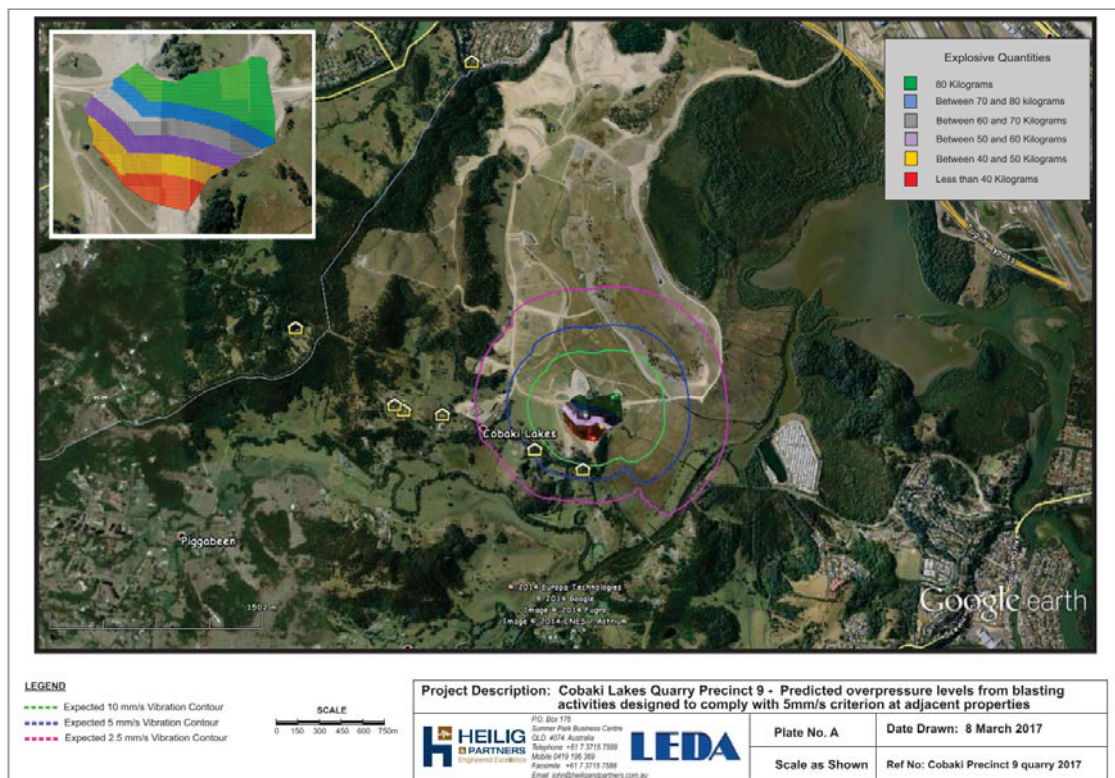


Figure 6 – Predicted compliant vibration levels at adjacent properties

Modelling was also taken in relation to air overpressure (noise) contours for blasting which is compliant with 115dBL at adjacent properties. Refer to Figure 7 below. The Management

Plan identified that compliance with noise criterion will be more challenging than ground vibration limits, dependent upon site conditions such as wind direction, wind speed and direction of the blast.

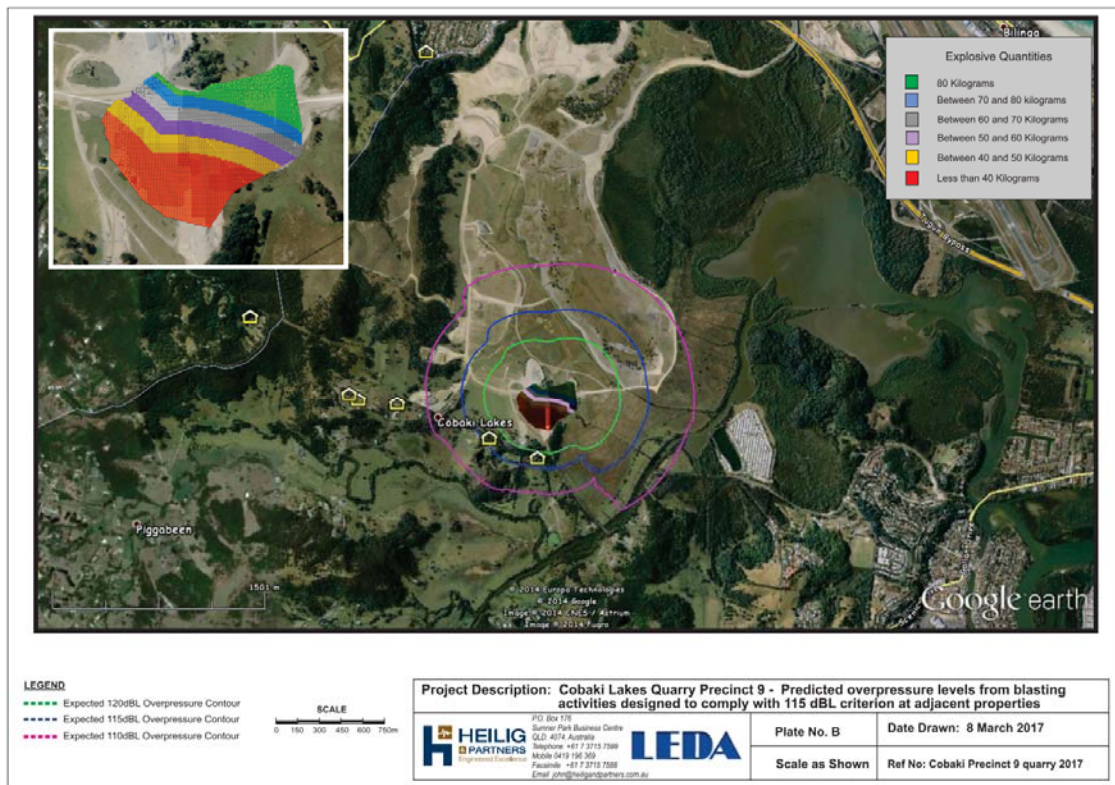


Figure 7 – Predicted compliant air overpressure levels at adjacent properties

Council’s Environmental Health Unit assessed the proposal, with specific focus on the management of vibration, air blast overpressure (noise) and fly rock. The assessment identified that the management plan has not adequately addressed the **effects of blast induced vibrations**, which is a requirement of the Australian and New Zealand Environment Council (ANZEC) guideline, to minimise annoyance due to blasting overpressure and ground vibration. An applicable condition of consent has been applied in this regard.

The assessment also identified that the proposed **blasting hours** (proposed as 7.30am to 4.30pm Monday to Saturday) do not comply with ANZEC guidelines. Although the management plan notes that blasting will typically be undertaken during the middle of the day and will be no more than one blast per day, a condition of consent has been applied restricting the time and frequency, compliant with ANZEC guidelines (i.e. 9am to 5pm Monday to Saturday and no more than once a day).

It is noted that the management plan incorporates appropriate pre-blast activities, including (but not limited to): advice to neighbours of the impending blast; notification to SafeWork NSW (which is required at least 7 days prior); any required condition reports of adjacent infrastructure; and review of expected maximum explosives quantities for control of vibration.

The assessment noted that the proposed **monitoring of blasting activities** in the event of a concern or complaints being received from adjacent residents is not considered acceptable.

In this regard, SafeWork NSW have advised that the Blasting Management Plan must be prepared in accordance with AS2187.2 - Explosives - Storage and use - Appendix A Blasting Management Plan and Records. It was also advised that the applicant should take a proactive approach and set up environmental monitoring to determine the actual overpressure and noise experienced by the sensitive receivers for each blasting event.

In addition, SafeWork NSW advised that environmental conditions and weather patterns control the blast noise generated, therefore monitoring should continue throughout the blasting operations as there can be significant variability experienced by these receivers on different days. Contingencies should also be included in the management plan in the event that performance limits are not met. Appropriate conditions have been applied in this regard.

With regard to pre blasting activities, the modelling has identified the vibration levels to be “*easily noticeable*” rather than “*distinctly noticeable*”, and as such the management plan considers that there is “*...limited requirement to undertake condition surveys of adjacent infrastructure unless concern has been expressed by the property owner*”.

Whilst the notification process for this application to include blasting has not resulted in any submissions from surrounding residents, Council is aware of informal concerns from a limited number of adjacent residents from previous blasting within Precinct 11 (approved under separate consent). As such, Council Development Engineer has recommended that pre and post **dilapidation reports** be undertaken for properties within 850m of the proposed blast location. Appropriate conditions of consent have been applied in this regard.

Blasting Management Plan (prepared by Donnelly Blasting Services Pty Ltd and dated March 2017)

Council’s Environmental Health Unit assessed the Blast Management Plan prepared by Donnelly Blasting Services, with particular regard to the proposed **blast monitoring** regime. It was noted that although blast impacts at the two nearest dwellings are predicted to be well below relevant levels, no detail has been provided as to how the monitoring will be undertaken at receiver sites. An applicable condition of consent has been applied in this regard.

Safety Work Method Statement (prepared by Donnelly Blasting Services Pty Ltd and dated March 2017)

Council’s Environmental Health Unit undertook an assessment of the Statement, noting no objections and identifying that the document is a generic site statement.

(c) Suitability of the site for the development

The site has been zoned for urban purposes for at least twenty years with current development consents and construction certificates for subdivision in operation. The site is bounded by rural, rural residential, sensitive wetlands, the Cobaki Broadwater, Crown Land and residential development across the Queensland NSW State border.

The proposed blasting is ancillary to the approved bulk earthworks associated with Stage 1 of DA15/1026.

Appropriate conditions of consent have been applied to ensure compliance with all relevant legislation and the provisions of the approved Concept Plan.

The site is considered to be suitable for the proposed development.

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

The application was placed on public exhibition (advertised) for a 14 day exhibition period. During this period Council did not received any public submissions.

Public Authority Submissions

Essential Energy

Essential Energy provided comment on the proposed blasting amendment associated with the approved Stage 1 Bulk Earthworks. Essential Energy noted no objection to the proposed development, subject to a number of recommended conditions. The recommended conditions are the same as those applied to the original consent. As such no amendments are required with regard to the Essential Energy submission.

(e) Public interest

The subject site has been identified as a Greenfield development site for over twenty years. The proposed blasting amendments did not raise any submissions from surrounding residents. Although some impacts may arise from the proposed blasting, it is considered that such impacts can be mitigated, subject to conditions of consent, such that the development can proceed and public interest issues are balanced.

PROPOSED NEW CONDITIONS OF CONSENT

Following a detailed assessment of the proposed blasting amendments, the following new conditions are recommended for approval:

- ***Proposed new GEN Condition***
 - 1.1 Blasting may be undertaken in Precinct 9 to a maximum of 10 blasts over 12 months from the date of the first blast, extracting a maximum of 40,000m³ of blasted material from Precinct 9 (unless agreed otherwise by Council).

- ***Proposed new PCC Conditions***

- 36.1 Prior to the Construction Certificate being issued, a detailed Blasting Monitoring Program prepared by a suitably qualified person in accordance with AS2187.2 - Explosives - Storage and use - Appendix A Blasting Management Plan and Records shall be submitted to the satisfaction of Council's General Manager or delegate. The program must include how vibration and air overpressure levels will be measured at sensitive receivers throughout the blasting activity period and include contingencies in the event that performance limits are not met.
- 36.2 Prior to the issue of a Construction Certificate, the Construction Environmental Management Plan (CEMP) is to be amended to the satisfaction of Council to incorporate the approved blasting management plans and monitoring program for Precinct 9.

- ***Proposed new PCW Condition***

- 45.1 A Dilapidation Report detailing the current general condition of all improvements on neighbouring allotments within a 850m of the proposed blast location is to be prepared and certified by a suitably qualified and experienced structural engineer.

The Report (supported by recent photos) is to be submitted to and accepted by the Principle Certifying Authority prior to commencement of the first blast occurring under this consent.

- ***Proposed new DUR Conditions***

- 73.1 Blasting operations shall be carried out in accordance with the following documents:
- *Blast Management Plan & Control for Cobaki Lakes - Precinct 9 prepared by Heilig & Partners Pty Ltd dated April 2017 (Project Number HP1703-02);*
 - *Blast Management Plan for Leda Developments, Piggabeen Rd, Piggabeen prepared by Donnelly Blasting Services – Total Safety Management Services dated March 2017 (Version 3);*
 - *Safety Work Method Statement prepared by Donnelly Blasting dated March 2017 (Version 3); and*
 - *approved Blasting Monitoring Program,*
- except where varied by Council's General Manager or delegate or conditions of consent.
- 73.2 Blasting operations shall comply with the Australian and New Zealand Environment Council (ANZEC) guideline Technical basis for guidelines to minimise annoyance due to blasting overpressure and ground vibration (September 1990), AS2187.2 - Explosives - Storage and use, and the requirements of SafeWork NSW and NSW Environmental Protection Authority.

- 73.3 The use of explosives shall be in strict accordance with the requirements of SafeWork NSW and the blasting explosives user must hold a valid NSW Blasting Explosives User Licence.
- 73.4 Blasting measurement reports shall be provided to Council's General Manager or delegate upon request.
- 73.5 Hours of operation for blasting activities are limited to the following unless otherwise permitted by Council's General Manager or delegate:
- *9.00am to 5.00pm Monday to Saturday*
 - *No blasting shall take place on Sunday or public holidays.*
 - *Blasting is limited to no more than one blast per day, with a maximum of 10 blasts within a 12 month period.*
- 73.6 Upon completion of all blasting approved under this consent, a second Dilapidation Report is to be prepared by a suitably qualified engineer to ascertain if any structural damage has occurred to property, the subject of the original Dilapidation Report.

The Report is to be compared against the original Dilapidation Report (supported by photos cross referenced to the original Dilapidation Report) and recommend a course of action to carry out repairs, if required. The Report is to be submitted to the Principle Certifying Authority, within 3 months of the last blast occurring for the extraction of 40,000m³ of blasted material from Precinct 9.

The above recommended new conditions have been incorporated into the existing consent conditions, as noted in the recommendation at the end of this report.

OPTIONS:

1. Approved the proposed blasting amendments in accordance with the recommendation; or
2. Refuse the proposed amendments with reasons for refusal.

Option 1 is recommended.

LEGAL/RESOURCE/FINANCIAL IMPLICATIONS:

The applicant has the right of appeal in the NSW Land Environment Court if dissatisfied with the determination of this application.

POLICY IMPLICATIONS:

Nil

CONCLUSION:

The proposed blasting amendments are considered to be ancillary and integral to the Stage 1 bulk earthworks approved under DA15/1026. It is considered that the proposal is substantially the same development as that originally approved, it accords with the Concept Plan approval and incorporates appropriate measures to mitigate any potential adverse impacts arising from the proposal.

UNDER SEPARATE COVER:

Nil

RECOMMENDATION:

That Development Application DA15/1026.01 for an amendment to Development Consent DA15/1026 for a staged development application under Section 83B of the EP&A Act 1979 development of precincts 6, 7, 8, 9, 10, 11 & 12 – Cobaki Lakes (JRPP), stage 1 – staged bulk earthworks at Lots 46, 54, 55, 200, 201, 202, 205, 206, 209, 199, 228, 305 DP 755740; Lot 1 DP 823679; Lot 1 DP 570077; Lot 1 DP 562222; Lot 2 DP 566529; Lot 1 DP 570076; Sandy Lane and Piggabeen Road, Cobaki Lakes, be approved subject to the following conditions: -

GENERAL

1. The development shall be carried out and completed in accordance with the following Plans and Reports listed below, except where varied by the conditions of this consent.

PLANS

- **Master Plan for Precinct 6 to 12 - Context Plan**, Dwg No: Cobaki_P6-12_2016_V21_DA1, prepared by Planit Consulting and dated May 2016;
- **Master Plan for Part Precinct 6, 7 and 8**, Dwg No: Cobaki_P678_2016_V21_DA1 prepared by Planit Consulting and dated May 2016;
- **Master Plan for Precinct 9 and 10**, Dwg No: Cobaki_P9_10_2016_V21_DA1 prepared by Planit Consulting and dated May 2016;

- **Master Plan for Precinct 11 and 12**, Dwg No: Cobaki_P11_12_2016_V21_DA1 prepared by Planit Consulting and dated May 2016;
- **Bulk Earthworks Staging Plan (Sheet 1 of 3)**, Dwg No. A443-BE-0-0101 Rev C, prepared by Sedgman and dated 24 May 2016;
- **Bulk Earthworks Staging Plan (Sheet 2 of 3)**, Dwg No. A443-BE-0-0102 Rev C, prepared by Sedgman and dated 24 May 2016;
- **Bulk Earthworks Staging Plan (Sheet 3 of 3)**, Dwg No. A443-BE-0-0103 Rev C, prepared by Sedgman and dated 24 May 2016;

[GEN0005]

- 1.1. Blasting may be undertaken in Precinct 9 to a maximum of 10 blasts over 12 months from the date of the first blast, extracting a maximum of 40,000m³ of blasted material from Precinct 9 (unless agreed otherwise by Council).
2. The use of crushing plant machinery, mechanical screening or mechanical blending of materials is subject to separate development application.

[GEN0045]

3. Approval is given subject to the location of, protection of, and/or any necessary approved modifications to any existing public utilities situated within or adjacent to the subject property.

[GEN0135]

4. Council advises that the site is flood liable pre bulk earthworks, with Design Flood Levels as illustrated on the 0.1m contour "Q100 - Extent of Flooding" Drawing A443-BE7-SK01 Rev B (prepared by Sedgman) intended post bulk earthworks.

The "Q100 - Extent of Flooding" Drawing (also referred to as the Design Flood Level Map) shall be updated to include Works As Executed levels for bulk earthworks and any other works that may affect flood behaviour and submitted to Council for endorsement at the completion of each bulk earthworks phase and prior to issue of any future Subdivision Certificate.

[GEN0195]

5. The development is to be carried out in accordance with Council's relevant Development Design and Construction Specifications unless otherwise altered by the provisions of the Cobaki Estate Development Code.

[GEN0265]

6. This consent is subject to the fulfilment of all relevant, existing Deed obligations.

[GENNS01]

7. Prior to the issuing of a Construction Certificate under DA15/1026, all existing approvals over the Cobaki Development applicable to Precincts 6, 7, 8, 9, 10, 11 & 12, must to be amended, pursuant to Section 80A(1) of the EP&A Act 1979 (as amended), to delete any inconsistency with DA15/1026.

[GENNS02]

8. All approvals, licenses and consents from applicable Government Agencies and Authorities are to be obtained, where required.

[GENNS03]

9. Works for future residential subdivisions over Precincts 6, 7, 8, 9, 10, 11 & 12 cannot commence until the bulk earthworks associated with the footprint of the residential subdivision has been completed and accepted by the PCA.

Numerous Construction Certificates for staged Bulk Earthworks may be issued over Precincts 6, 7, 8, 9, 10, 11 & 12 under this consent, provided each of the Construction Certificates are compatible and each application addresses all relevant consent conditions.

[GENNS04]

10. This development consent approves the Masterplan and Stage 1 only of the development, being staged bulk earthworks across Precincts 6 - 12. Future subdivision stages of the development require separate development consent, consistent with the approved Masterplan.
11. The approved Masterplan is conceptual only. Subject to further detail design at Construction Certificate stage for bulk earthworks and future subdivision stages, the overall concept may require amendment.
12. Bulk Earthworks will be required to be modified where detailed design requirements for infrastructure (including water supply and sewerage) cannot be met.
13. No works may be undertaken within areas adjacent to Precincts 6 to 12 that will result in removal of native vegetation from Environmental Protection zoned land.
14. Development must be undertaken in accordance with the requirements of any approved Site Regeneration and Restoration Plans, Habitat Restoration Plans, Threatened Species Management plans and all other approved management plans relevant to the Precinct 6 to 12 development.
15. Any existing encumbrances in favour of Essential Energy (or its predecessors) noted on the title of the subject site to be complied with.

[GENNS05]

PRIOR TO ISSUE OF CONSTRUCTION CERTIFICATE

16. Each Construction Certificate Application for Bulk Earthworks shall include a detailed Stormwater Management Plan (SWMP) complimentary to the SWMP endorsed under the Concept Plan for the construction and post construction phase of the Bulk Earthworks, prepared in accordance with Section D7.B2 of Council's *Development Design Specification D7 - Stormwater Quality*. Such plans are to include measures, monitoring and adaptive management actions to ensure appropriate stormwater quality outcomes are achieved.

Stormwater quality treatment shall comply with the *Tweed Urban Stormwater Quality Management Plan* and Council's *Development Design Specification D7 - Stormwater Quality and Code of Practice for Soil and Water Management on Construction Works*.

Treatment basins must be provided with a facility to bypass major stormwater flow events (greater than the Q3 month storm event), or otherwise cater for major storm flows without disturbing captured pollutants or damaging the structure.

Proposed treatment measures must be supported by engineering calculations, to confirm that acceptable capacity and efficiency is achieved, and water quality objectives are achieved.

Shake down area/s are to be installed within the property, immediately prior to any vehicle entering or exiting the site, prior to any earthworks being undertaken.

[PCC0165]

17. Prior to the issue of a Construction Certificate for Bulk Earthworks, a Cash Bond or Bank Guarantee (unlimited in time) shall be lodged with Council for an amount based on 1% of the value of the works associated with the Construction Certificate, as set out in Council's fees and charges at the time of payment.

The bond may be called up at any time and the funds used to rectify any non-compliance with the conditions of this consent which are not being addressed to the satisfaction of the General Manager or his delegate.

The bond will be refunded, if not expended, when a Final Practical Inspection is undertaken by the PCA and the works associated with the bond are accepted by Council.

[PCC0275]

18. In accordance with Section 109F(i) of the Environmental Planning and Assessment Act 1979 (as amended), a Construction Certificate for SUBDIVISION WORKS OR BUILDING WORKS shall NOT be issued until any Long Service Levy payable under Section 34 of the Building and Construction Industry Long Service Payments Act, 1986 (or where such levy is payable by instalments, the first instalment of the levy) has been paid (as applicable). Council is authorised to accept payment. Where payment has been made elsewhere, proof of payment is to be provided.

[PCC0285]

19. Where earthworks result in the creation of batters and/or cuttings greater than 1m high and/or slopes within allotments 17^O (1:3.27) or steeper, such slopes shall be stabilised accordingly with permanent steep batters densely planted in accordance with a detailed Landscaping Plan endorsed by Council. This Plan shall accompany the Construction Certificate application and shall be consistent with all other Management Plans.

Such plans shall generally incorporate the following and preferably be prepared by a landscape architect:

- (a) Contours and terraces where the height exceeds 1m.
- (b) Cover with topsoil and large rocks/dry stone walls in terraces as necessary.
- (c) Densely plant with appropriate native species to suit the aspect/micro climate. Emphasis to be on trees and ground covers which require minimal maintenance. Undergrowth should be weed suppressant.
- (d) Mulch heavily (minimum 300mm thick) preferably with unwanted growth cleared from the estate and chipped. All unwanted vegetation is to be chipped and retained on the subdivision.

[PCC0455]

20. All earthworks shall be graded at a minimum of 1% so that it drains to approved, permanent drainage systems. The works must at no time result in additional runoff or ponding occurring within neighbouring properties.

All earthworks shall be contained wholly within the subject land. Detailed engineering plans of cut/fill levels and perimeter drainage shall be submitted with the applicable Construction Certificate application for approval by the Principal Certifying Authority (PCA).

[PCC0485]

21. Prior to the issue of a Construction Certificate, documentary evidence shall be submitted to the PCA demonstrating that a Controlled Activity Approval (CAA) under the Water Management Act

2000 has been obtained for any works within 40m of waterfront land (as defined under the Water Management Act 2000) or any works that involve an aquifer interference activity as defined under the Water Management Act 2000.

[PCC0575]

22. Site regrading and associated drainage is to be designed to address internal drainage on the site, as well as the conveyance of external catchments up to the Q100 storm event through the site, in a manner that does not adversely impact on upstream or downstream watercourses, ~~or~~ property or stormwater treatment management.

[PCC0675]

23. A Traffic Control Plan in accordance with AS1742 and the latest version of the RTA publication "Traffic Control at Work Sites" shall be prepared by an RTA accredited person and shall be submitted to the PCA prior to issue of the Construction Certificate (as applicable). Safe public access shall be provided at all times.

[PCC0865]

24. Prior to the issue of a Construction Certificate for Bulk Earthworks, the following detail in accordance with Council's Development Design and Construction Specifications shall be submitted to the Principal Certifying Authority for approval.

- (a) copies of compliance certificates relied upon
- (b) Detailed engineering plans and specifications, *prepared in accordance with Development Design Specification D13 - particularly Section D13.09*. The detailed plans shall include (but are not limited to) the following, unless approved otherwise by the PCA:
 - Earthworks
 - Clearly showing pre and post development levels (spot levels and contours) at a legible scale.
 - Compliance with the provisions of Council's Design Specification D6 - Site Regrading.
 - Batter slopes on drain cross sections and in public open space areas shall not exceed 1:4 (v:h), unless otherwise endorsed by Council.
 - Compliance with the provisions of NSW RFS Planning for Bushfire Protection Guidelines 2006.
 - The maximum disturbed area (that has not been permanently vegetated) at any time shall not exceed 5ha, unless otherwise approved by the General Manager or his delegate.
 - Detailing how the Cultural Heritage Parks permanently free drain and will not be subject to flooding inundation.
 - Cross sections provided through each proposed sedimentation basin to confirm suitable free drainage and capacity.
 - Details confirming the permanent drainage of Rehabilitation / Management Area 8 (applicable to Construction Certificate for Precinct 9).

- Including supporting calculations of proposed drainage swales to confirm compliance with the provisions of Council's Design Specification D5 - Stormwater Drainage Design (unless provided within the required SWMP)
- Stormwater drainage
- Landscaping works (as applicable)
- Sedimentation and erosion management plans
- Location of all service conduits (water, sewer, electricity supply and telecommunication infrastructure), as well as details and locations of any significant electrical servicing infrastructure - such as transformers and substations

The Environmental Planning and Assessment Act, 1979 (as amended) makes no provision for works under the Water Management Act 2000 and Section 138 of the Roads Act to be certified by an Accredited Certifier.

[PCC0985]

25. Each Construction Certificate application for Bulk Earthworks shall include a detailed Erosion and Sediment Control Plan (ESCP), complimentary to the ESCP endorsed under the Concept Plan for the construction phase of the Bulk Earthworks, prepared in accordance with Section D7.07 of *Development Design Specification D7 - Stormwater Quality*.

Construction phase erosion and sediment control shall be designed, constructed and operated in accordance with *Tweed Shire Council Development Design Specification D7 - Stormwater Quality* and its Annexure A - "Code of Practice for Soil and Water Management on Construction Works". All sedimentation basins are to be located offline of major storm event flowpaths, unless approved otherwise by the PCA.

[PCC1155]

26. An application shall be lodged together with any prescribed fees including inspection fees and approved by Tweed Shire Council under Section 68 of the Local Government Act for the installation of any permanent stormwater quality control devices (including bio-filtration basins), prior to the issue of any associated Construction Certificate.

Where Council is requested to issue a Construction Certificate for subdivision ~~and~~ works associated with this consent, the abovementioned works can be incorporated as part of the Construction Certificate application, to enable one single approval to be issued. Separate approval under section 68 of the LG Act will then NOT be required.

[PCC1195]

27. Prior to the issue of a Construction Certificate for Bulk Earthworks, all applicable Geotechnical Investigation Reports (prepared by registered Geotechnical Engineers) are to be consolidated into one single document and submitted to the PCA for endorsement.

In the absence of any compaction control documentation, any existing fill encountered on site over the Precincts applicable to this application shall be deemed "uncontrolled". Where Level 1 certification of these areas cannot be provided, the Proponent will be required to carry out rectification works by way of removal of the existing fill, back to a competent natural strata and re-compaction or replacement with a select fill, in accordance with Section 7.4 of the *Report On Geotechnical Investigation* Report, prepared by Douglas Partners, dated August 2015.

[PCCNS02]

28. Prior to the issue of a Construction Certificate for Stages 22 and 23 of the proposed bulk earthworks, the Stage 2 Contamination Assessment for Precinct 10 is to be submitted to Council. The Assessment must identify any contamination on site and provide for the completion of appropriate mitigation measures, as required by Condition C17 of the Concept Plan approval MP06_0316.

[PCCNS03]

29. The Site Regeneration and Revegetation Plan (SRRP), Vegetation management Plan (VMP) and Earthworks Plans are to be revised, to the satisfaction of Council, to address the requirements of the approved Overview Buffer Management Plan, including, but not limited to:
- Identification and retention of areas of existing vegetation, compatible with APZ requirements and consistent with Planning for Bushfire Protection guidelines.
 - Detailed provisions for management of these areas during earthworks and on an ongoing basis.
30. The Vegetation Management Plan and Fauna Management Plan are to be revised, to the satisfaction of Council, to include detailed, precinct-scale maps at minimum 1:2000 scale at A4 size. Maps are to clearly identify:
- the boundaries of earthworks in relation to existing vegetation
 - vegetation to be retained
 - vegetation (including hollow-bearing trees) to be removed
 - location of fencing in relation to existing vegetation
31. A site-wide review of onsite Endangered Ecological Community offset commitments is to be prepared to the satisfaction of Council, along with a revised offset package if the approved offsets are no longer able to be met.
32. The following management plans require amendment to the satisfaction of Council prior to the issue of a Construction Certificate:

Fauna Management Plan

- Revise Figure 7 Potential Habitat Trees to clearly distinguish between habitat trees to be retained and those to be removed.

Currently two habitat trees that are protected by a covenant area are identified as trees to be removed. This figure and any associated earthworks plans require revision to identify these as trees to be retained.
- Update the Plan to reflect the outcome of the Modification to the EPBC approval relating to offsets for Grey-headed Flying Fox habitat removal.
- Table 6 management measures - Nest boxes to be installed for microbats (n = 4-5) and owls (n = at least 3). The plan currently states that the number and location of these nest boxes will be determined after baseline survey. Table 8 states that baseline survey has been completed. Therefore, the number of boxes and suitable locations for these boxes should be identified within this plan. Installation of these boxes is to be included as a “prior to construction” action in Table 7 Implementation Table.

- Salvage of hollows is to be identified as a management measure.
- Proposed suitable locations for installation of salvaged hollows and compensatory nest boxes are to be provided in the plan. The plan is to provide guidance in terms of recipient tree selection. The plan is to provide an indication of the likely quantity of salvaged hollows and nest boxes so that timing and resources for relocation, nest box construction and monitoring can be estimated. The plan should detail the minimum compensatory requirements for each Precinct, to assist with monitoring and reporting.
- List installation of osprey nest poles in Table 7 - implementation table. Revise the plan to indicate which pole has been installed, and detail timing for installation of the other.
- Revise the corrective actions/responses table to reflect performance criteria and include actions or a commitment to undertaking action to rectify identified failures.
- Incorporate the provisions of the approved Fauna Management Plan for Precinct 6.

Vegetation Management Plan

- The action that is currently provided for situations where “sufficient area is not available to provide a buffer” (p16). Is to be removed.
- Mapping of the boundaries of Precinct 9 and the covenant area within Management Area 8 requires revision to remove overlap.
- Actions in the VMP are to be presented as precinct-specific. It should be made clear in the plan which actions relate to each precinct. For example, the plan should detail where hollow-bearing trees to be removed are located and where associated hollows and/or nest boxes are to be installed.
- The amount of fencing and number of nest boxes required are to be included in the plan.
- “As required” is stated as a frequency for a number of monitoring actions. More specific timing is requested for each action, and a reference to the location of further detail, if directed by another plan.
- Incorporate the provisions of the approved Vegetation Management Plan for Precinct 6.

Site Regeneration and Revegetation Plan

- The following detail is required: area measurements of buffer plantings, transparent overlays for APZ area and buffer polygons in Rehabilitation Areas 8 and 9, covenant area and associated planting buffer in the south of Precinct 9.
- Amend the plan to clearly identify areas that will not respond to assisted regeneration and schedule planting to occur as an initial action rather than after 12 months of assisted regeneration in these areas.
- Area 7 - The eastern portion of Rehabilitation Area 7 currently contains a road, sediment basin, and has been subject to significant modification. Engineering drawings depict drainage infrastructure overlapping the covenant protected area in the south. Figure 9 identifies this area as part of Rehabilitation Zone 7b. Figure 6 indicates intent to plant Swamp Sclerophyll Forest in the area currently occupied by a road, while Figure 9 does not include the road in

any Rehabilitation Zone. The Plan requires amendment to clarify the intent of this Rehabilitation Area, including the covenant area, providing information regarding timing of works in this area and identify and justify any inconsistencies with the restoration intent as approved by the Concept Plan. Maps are to be updated accordingly.

- Area 8 - Text requires amendment to reference the appropriate planting list for the target community. An additional planting list may be required for Freshwater Wetland planting.
- Incorporate the provisions of the approved Site Regeneration and Revegetation Plan for Precinct 6.

Construction Environmental Management Plan

- The CEMP will require amendment to reflect changes in all other management plans.
33. Prior to the issue of a Construction Certificate the Acid Sulfate Soils Management Plan (ASSMP) is to be amended to the satisfaction of Council to incorporate the provisions of the approved ASSMP for Precinct 6.
34. Prior to the issue of a Construction Certificate the Groundwater Management Plan (GWMP) is to be amended to the satisfaction of Council to incorporate the provisions of the approved GWMP for Precinct 6.
35. In accordance with Condition C18 of Concept Plan MP06_0316, a detailed description is to be provided to the satisfaction of the General Manager or delegate demonstrating compliance with previous Tweed Shire Council consent conditions intended to preserve wildlife corridors and protect and offset threatened species, populations and ecological communities and their habitats outside of the Concept Plan habitat requirements, or relevant reasons (such as subsequent amendments) as to why compliance was not required or may be transferred to current DAs. Such description is to include extracts of all relevant plans referred to in the conditions listed below sufficient to understand the land areas of relevance to the conditions and any overlap with current applications. Additional offset must be proposed if clearing of native vegetation has been undertaken not in accordance with the below development consents. Conditions to be addressed are as follows:
- (a) D94/0438.04 Conditions 23, 24, 34a, 35, 36a, 37 and 38.
 - (b) K99/1124.06 Conditions 10, 15A, 30, 31, 41, 81, 83A, 90, 91, 92A, 93, 94A, 95A, 96, 97, 98, 99, 100, 101, 102A, 103, 104, 105, 106, 107, 108, 109 and Schedule B (National Parks imposed conditions via concurrence for Species Impact Statement).
 - (c) S94/0194 (as amended 29/08/2003) Conditions 42, 43, 45, 48, 50, 106, 110, 116, 162, 168, 211, 260, 310, 358 and 365.
 - (d) S97/0054.02 Conditions 19, 21, 26, 74, 80 and 82.

Where required the development consents are to be modified in accordance with Section 80A(1) of the Environmental Planning and Assessment Act and Regulations to be consistent with this consent.

[PCCNS04]

36. A Voluntary Planning Agreement between the applicant and OEH is to be approved prior to the issue of a Construction Certificate for bulk earthworks associated with stages immediately adjacent to the existing Scribbly Gum Reserve (Stages 9, 10, 11, 12 and 13).

[PCCNS05]

- 36.1 Prior to the Construction Certificate being issued, a detailed Blasting Monitoring Program prepared by a suitably qualified person in accordance with AS2187.2 - Explosives - Storage and use - Appendix A Blasting Management Plan and Records shall be submitted to the satisfaction of Council's General Manager or delegate. The program must include how vibration and air overpressure levels will be measured at sensitive receivers throughout the blasting activity period and include contingencies in the event that performance limits are not met.

- 36.2 Prior to the issue of a Construction Certificate, the Construction Environmental Management Plan (CEMP) is to be amended to the satisfaction of Council to incorporate the approved blasting management plans and monitoring program for Precinct 9.

PRIOR TO COMMENCEMENT OF WORK

37. The proponent shall accurately locate and identify any existing sewer main, stormwater line or other underground infrastructure within or adjacent to the site and advise the Principal Certifying Authority of its location and depth prior to commencing works and ensure there shall be no conflict between the proposed development and existing infrastructure prior to start of any works.

[PCW0005]

38. Prior to commencement of work all actions or prerequisite works required at that stage, as required by other conditions or approved management plans or the like under this development application, shall be installed/operated in accordance with those conditions or plans.

[PCW0015]

39. **Prior** to the commencement of works, the applicant shall ensure that a Site-Specific Safety Management Plan and Safe Work Methods for the subject site have been prepared and put in place in accordance with either:-

- (a) Occupation Health and Safety and Rehabilitation Management Systems Guidelines, 3rd Edition, NSW Government, or
- (b) AS4804 Occupation Health and Safety Management Systems - General Guidelines on Principles Systems and Supporting Techniques.
- (c) WorkCover Regulations 2000

[PCW0025]

40. Where any pumps used for dewatering operations are proposed to be operated on a 24-hour basis, the owners of adjoining premises shall be notified accordingly prior to commencement of such operations.

[PCW0125]

41. Prior to work commencing, a "Notice of Commencement of Building or Subdivision Work and Appointment of Principal Certifying Authority" shall be submitted to Council at least **2 days** prior to work commencing.

42. Bulk Earthworks in accordance with the development consent must not be commenced until:
- (a) a Construction Certificate for the Bulk Earthworks has been issued in accordance with Council's Development Construction Specification C101 by:
 - (i) the Consent Authority, or
 - (ii) an Accredited Certifier, and
 - (b) the person having the benefit of the development consent:
 - (i) has appointed a Principal Certifying Authority,
 - (ii) has appointed a Certifying Engineer to certify the compliance of the completed works.
 The Certifying Engineer shall be a Professional Engineer (Civil) with National Engineering Register (NER) or a Registered Surveyor. Documentary evidence is to be provided to Council demonstrating currency of the above accreditation, and
 - (iii) has notified the Consent Authority and the Council (if the Council is not the Consent Authority) of the appointment,
 - (iv) a sign detailing the project and containing the names and contact numbers of the Developer, Contractor and Certifying Engineer is erected and maintained in a prominent position at the entry to the site in accordance with Councils Development Design and Construction Specifications. The sign is to remain in place until the Subdivision Certificate is issued, and
 - (c) the person having the benefit of the development consent has given at least 2 days' notice to the Council of the person's intention to commence the work.

[PCW0815]

43. The proponent shall provide to the PCA copies of Public Risk Liability Insurance to a minimum value of \$10 Million for the period of commencement of works until a Final Practical Inspection has been undertaken by the PCA and the works accepted.

[PCW0835]

44. Prior to commencement of work on the site, all erosion and sedimentation control measures are to be installed and operational including the provision of a "shake down" area (where required) to the satisfaction of the Principal Certifying Authority. These measures are to be in accordance with the approved Erosion and Sedimentation Control Plan and adequately maintained throughout the duration of the approved works.

[PCW0985]

45. All relevant Terms of Approval of the Cobaki Estate Concept Plan (MP06_0316) approved by the Minister on 2 December 2010, and of Approval of the Cobaki Estate Project Application - Open Space (08_0200) approved by the Minister on 28 February 2011 must be satisfactorily completed, as applicable, prior to bulk earthworks commencing within areas of Precincts 6, 7, 8, 9, 10, 11 and 12, as applicable.

[PCWNS01]

- 45.1 A Dilapidation Report detailing the current general condition of all improvements on neighbouring allotments within a 850m of the proposed blast location is to be prepared and certified by a suitably qualified and experienced structural engineer.

The Report (supported by recent photos) is to be submitted to and accepted by the Principle Certifying Authority prior to commencement of the first blast occurring under this consent.

DURING CONSTRUCTION

46. All proposed works are to be carried out in accordance with the conditions of development consent, approved Management Plans, approved Construction Certificates, drawings and specifications.

[DUR0005]

47. During construction, all works required by other conditions or approved management plans or the like shall be installed and operated in accordance with those conditions or plans.

[DUR0015]

48. If during construction works any Aboriginal object or relic is disturbed or uncovered, works are to cease and the Department of Environment, Climate Change and Water are to be notified immediately, in accordance with the provisions of the National Parks and Wildlife Act 1974.

[DUR0025]

49. Construction work including the entering and leaving of vehicles is limited to the following hours, unless otherwise permitted by Council:

Monday to Saturday from 7.00am to 6.00pm

No work to be carried out on Sundays or Public Holidays

The proponent is responsible to instruct and control subcontractors regarding hours of work.

[DUR0205]

50. All reasonable steps shall be taken to muffle and acoustically baffle all plant and equipment. In the event of complaints from the neighbours, which Council deem to be reasonable, the noise from the construction site is not to exceed the following:

- A. Short Term Period - 4 weeks.

$L_{Aeq, 15 \text{ min}}$ noise level measured over a period of not less than 15 minutes when the construction site is in operation, must not exceed the background level by more than 20dB(A) at the boundary of the nearest likely affected residence.

- B. Long term period - the duration.

$L_{Aeq, 15 \text{ min}}$ noise level measured over a period of not less than 15 minutes when the construction site is in operation, must not exceed the background level by more than 15dB(A) at the boundary of the nearest affected residence.

[DUR0215]

51. All pumps used for onsite dewatering operations are to be installed on the site in a location that will minimise any noise disturbance to neighbouring or adjacent premises and be acoustically shielded to the satisfaction of Council's General Manager or his delegate so as to prevent the emission of offensive noise as a result of their operation.

[DUR0225]

52. The Principal Certifying Authority is to be given a minimum of 48 hours notice prior to any critical stage inspection or any other inspection nominated by the Principal Certifying Authority via the notice under Section 81A of the Environmental Planning and Assessment Act 1979.

Failure to comply with this condition may result in a stop work notice being issued and/or rejection of the works undertaken.

[DUR0405]

53. It is the responsibility of the applicant to restrict public access to the construction works site, construction works or materials or equipment on the site when construction work is not in progress or the site is otherwise unoccupied in accordance with WorkCover NSW requirements and Work Health and Safety Regulation 2011.

[DUR0415]

54. All earthworks and filling shall be carried out in accordance with AS 3798 (current version) to a Level 1 inspection regime and testing in accordance with Table 8.1.

The earthworks and filling shall also be undertaken in accordance with the recommendations provided in the consolidated **Geotechnical Investigation** (as required by Consent Condition No. 27) and monitored by a Registered Geotechnical Testing Consultant.

[DUR0795]

55. The use of vibratory compaction equipment (other than hand held devices) within 100m of any dwelling house, building or structure is strictly prohibited.

[DUR0815]

56. No soil, sand, gravel, clay or other material shall be disposed of off the site without the prior written approval of Tweed Shire Council's General Manager or his delegate.

[DUR0985]

57. The surrounding road carriageways are to be kept clean of any material carried onto the roadway by construction vehicles. Any work carried out by Council to remove material deposited on the roadway by construction vehicles will be at the Developers expense and any such costs are payable prior to the PCA undertaking of a Final Practical Inspection of the works.

[DUR0995]

58. All work associated with this approval is to be carried out so as not to impact on the neighbourhood, adjacent premises or the environment. All necessary precautions, covering and protection shall be taken to minimise impact from:

- Noise, water or air pollution.
- Dust during filling operations and also from construction vehicles.
- Material removed from the site by wind.

[DUR1005]

59. All practicable measures must be taken to prevent and minimise harm to the environment as a result of the construction and operation of the development.

[DUR1025]

60. Where the construction work is on or adjacent to public roads, parks or drainage reserves the development shall provide and maintain all warning signs, lights, barriers and fences in accordance with AS 1742 (Manual of Uniform Traffic Control Devices). The contractor or property owner shall

be adequately insured against Public Risk Liability and shall be responsible for any claims arising from these works.

[DUR1795]

61. Any damage caused to public infrastructure (roads, footpaths, services, etc) during construction of the development shall be repaired in accordance with Council's Development Design and Construction Specifications prior to the PCA undertaking of a Final Practical Inspection of the works.

[DUR1875]

62. The PCA shall be given a minimum 24 hours notice to carry out the following compulsory inspections in accordance with the approved Cobaki Estate Development Code, in conjunction with Tweed Shire Council's Development Control Plan, Part A5 - Subdivision Manual, Appendix D. Inspection fees are based on the rates contained in Council's current Fees and Charges:

Stormwater Quality Control Devices (other than proprietary devices)

For detail refer to Water By Design - Technical Guidelines

- (a) Earthworks and filter media
- (b) Structural components
- (c) Operational establishment
- (d) Mechanical/electrical
- (e) Commissioning - On Maintenance
- (f) Off Maintenance

The PCA's role is limited to the above mandatory inspections and does **NOT** include supervision of the works, which is the responsibility of the Developers Supervising Consulting Engineer.

The EP&A Act, 1979 (as amended) makes no provision for works under the Water Management Act 2000 to be certified by an "Accredited Certifier".

The fee for the abovementioned inspections shall be invoiced upon completion of all subdivision works, and subject to the submission of an application for a 'Subdivision Works Compliance Certificate'.

[DUR1895]

63. The developer/contractor is to maintain a copy of the development consent, approved Management Plans and Construction Certificate approvals including plans and specifications on the site at all times.

[DUR2015]

64. Regular inspections shall be carried out by the Supervising Engineer on site to ensure that adequate erosion control measures are in place and in good condition both during and after construction.

Additional inspections are also required by the Supervising Engineer after each storm event to assess the adequacy of the erosion control measures, make good any erosion control devices and clean up any sediment that has left the site or is deposited on public land or in waterways.

This inspection program is to be maintained until the 1% Compliance Bond is released or until Council is satisfied that the site is fully rehabilitated.

[DUR2375]

65. All waters that are to be discharged from the site during dry weather periods and wet weather periods up to the Q3 month rain event (as defined in Council's Design Specification D7 - Stormwater Quality) shall have a pH between 6.5 and 8.5 and suspended solids not greater than 50mg/l. The contractor shall nominate a person responsible for monitoring of the quality of such discharge waters on a daily basis and the results recorded. Such results shall be made available to Council's Environmental Health Officer(s) upon request.

[DUR2435]

66. Dust and Erosion Management

- (a) Site earthworks are to be limited to a 5ha maximum at any time to reduce exposed areas. Completed areas are to be topsoiled and seeded immediately to protect them from water and wind erosion.
- (b) All topsoil stockpiles are to be sprayed with dust suppression material such as "hydromulch", "dustex" or equivalent. All haul roads shall be regularly watered or treated with dust suppression material or as directed on site.
- (c) All construction activities that generate dust shall cease when average wind speeds exceed 15m/s (54 km/h). The applicant shall be responsible for the monitoring of on-site wind speeds and be able to produce this data to the PCA on request.

[DUR2825]

67. The Developer must establish a monitoring program, including reporting to determine the pollutant removal efficiencies of the proposed treatment devices, as per section D7.A12 of the TSC Development Design Specification - D7 Stormwater Quality and if further treatment of the stormwater drainage system is required to ensure the preservation of water quality in Cobaki Creek and Cobaki Broadwater.

Additionally;

- water shall not be released from detention basins until samples have been analysed and shown to meet the criteria outlined in the ESC Program, and.
- regular (three monthly) water quality testing is to be undertaken within the wetland in the vicinity of any discharge points to ensure that acceptable water quality parameters are maintained.

[DURNS01]

68. Erosion and Sediment Control

All erosion and sediment control measures are to be effectively implemented and maintained at or above design capacity for the duration of the construction works, and until such time as all ground disturbed by the works has been stabilised and rehabilitated so that it no longer acts as a source of sediment.

All activities on the site shall be undertaken with the objective of preventing discharge of sediment and other pollutants to lands and/or waters (the receiving environment) during construction activities. In particular the proponent shall ensure all practicable measures are taken to prevent

contaminated stormwater from adversely affecting the water quality of Cobaki Creek and Cobaki Broadwater.

[DURNS02]

69. All land for residential development is to be filled to a level no less than the next highest 0.1m Design Flood Level contour, as determined from the latest, approved Cobaki Design Flood Level Map - "Q100 - Extent of Flooding" Drawing A443-BE7-SK01 Rev B (prepared by Sedgman), unless notified otherwise by Council.

[DURNS03]

70. All works shall be carried out in accordance with the Acid Sulfate Soils Management Plan or amendments to this Plan as prepared by SMEC dated September 2015.
71. Where groundwater is intercepted as a result of earthwork operations, groundwater discharges and or dewatering operations shall be managed in accordance with the Groundwater Management Plan prepared by SMEC dated June 2015.
72. All works shall be carried out in accordance with the provisions of the Construction Environment Management Plan prepared by SMEC dated September 2015.
73. A registered Fauna spotter-catcher is to be present during all vegetation clearing works to ensure safe dispersal of fauna.

[DURNS04]

- 73.1 Blasting operations shall be carried out in accordance with the following documents:

- *Blast Management Plan & Control for Cobaki Lakes - Precinct 9 prepared by Heilig & Partners Pty Ltd dated April 2017 (Project Number HP1703-02);*
- *Blast Management Plan for Leda Developments, Piggabeen Rd, Piggabeen prepared by Donnelly Blasting Services – Total Safety Management Services dated March 2017 (Version 3);*
- *Safety Work Method Statement prepared by Donnelly Blasting dated March 2017 (Version 3); and*
- *approved Blasting Monitoring Program,*

except where varied by Council's General Manager or delegate or conditions of consent.

- 73.2 Blasting operations shall comply with the Australian and New Zealand Environment Council (ANZEC) guideline Technical basis for guidelines to minimise annoyance due to blasting overpressure and ground vibration (September 1990), AS2187.2 - Explosives - Storage and use, and the requirements of SafeWork NSW and NSW Environmental Protection Authority.
- 73.3 The use of explosives shall be in strict accordance with the requirements of SafeWork NSW and the blasting explosives user must hold a valid NSW Blasting Explosives User Licence.
- 73.4 Blasting measurement reports shall be provided to Council's General Manager or delegate upon request.
- 73.5 Hours of operation for blasting activities are limited to the following unless otherwise permitted by Council's General Manager or delegate:
- *9.00am to 5.00pm Monday to Saturday*
 - *No blasting shall take place on Sunday or public holidays.*

- *Blasting is limited to no more than one blast per day, with a maximum of 10 blasts within a 12 month period.*

73.6 Upon completion of all blasting approved under this consent, a second Dilapidation Report is to be prepared by a suitably qualified engineer to ascertain if any structural damage has occurred to property, the subject of the original Dilapidation Report.

The Report is to be compared against the original Dilapidation Report (supported by photos cross referenced to the original Dilapidation Report) and recommend a course of action to carry out repairs, if required. The Report is to be submitted to the Principle Certifying Authority, within 3 months of the last blast occurring for the extraction of 40,000m³ of blasted material from Precinct 9.

PRIOR TO COMMENCEMENT OF FUTURE RESIDENTIAL SUBDIVISIONS OVER PRECINCTS 6, 7, 8, 9, 10 11 & 12

74. Prior to commencement of future residential subdivisions over Precincts 6, 7, 8, 9, 10, 11 & 12, all works/actions/inspections etc required by other conditions or approved Management Plans or the like shall be completed in accordance with those conditions or plans.

75. Prior to commencement of future residential subdivisions over Precincts 6, 7, 8, 9, 10, 11 & 12, Work as Executed Plans of the undertaken Bulk Earthworks shall be submitted in accordance with the provisions of Tweed Shire Council's Development Control Plan Part A5 - Subdivision Manual and Council's Development Design Specification, D13 - Engineering Plans.

The plans are to be endorsed by a Registered Surveyor OR a Consulting Engineer Certifying that:

- (a) undertaken earthworks are consistent with the approved Bulk Earthworks Construction Certificates and are contained wholly within the subject site;
- (b) the plans accurately reflect the Work as Executed.

Note: Where works are carried out by Council on behalf of the developer it is the responsibility of the DEVELOPER to prepare and submit works-as-executed (WAX) plans.

76. Prior to commencement of future residential subdivisions over Precincts 6, 7, 8, 9, 10, 11 & 12 and prior to request for a Final Practical Inspection for each completed portion of Bulk Earthworks, a certificate of compliance, certifying that ;

- the site is stable,
- 100% of primary consolidation settlement (where applicable) is completed / achieved,
- the earthworks and filling have been inspected and compacted to a Level 1 standard in accordance with AS 3798 (current version), and
- the site is considered suitable for its intended use.

The submission shall include copies of all undertaken test results.

77. Prior to commencement of future residential subdivisions over Precincts 6, 7, 8, 9, 10, 11 & 12, the PCA must undertake a Final Practical Inspection of the complete bulk earthworks and be satisfied that all conditions of consent have been complied with.

78. All approved landscaping requirements must be completed to the satisfaction of the PCA prior to request for a Final Practical Inspection of the applicable Bulk Earthworks.
79. Any damage to property (including pavement damage) is to be rectified to the satisfaction of the General Manager or his delegate prior to request for a Final Practical Inspection of the applicable Bulk Earthworks. Any work carried out by Council to remove material from the roadway will be at the Developers expense and any such costs are payable prior to the applicable Final Practical Inspection being undertaken.
80. The applicant must apply to Council (or PCA if applicable) for a Compliance Certificate for Subdivision Works. This may require obtaining individual Compliance Certificates for various civil works components such as (but not limited to) the following:
 - (a) Drainage
 - (b) Bulk Earthworks
 - (c) Retaining Walls

Note:

1. All compliance certificate applications for Subdivision Works must be accompanied by documentary evidence from the developers Certifying Engineer, certifying that the specific work for which a certificate is sought has been completed in accordance with the terms of the development consent, the Construction Certificate, Tweed Shire Council's Development Control Plan Part A5 - Subdivisions Manual and Councils Development Design and Construction Specifications.
 2. The EP&A Act, 1979 (as amended) makes no provision for works under the Water Management Act 2000 to be certified by an "Accredited Certifier".
81. At the completion of each bulk earthworks phase and prior to issue of any future Subdivision Certificate the "Q100 - Extent of Flooding" Drawing (also referred to as the Design Flood Level Map) shall be updated to include Works As Executed levels for bulk earthworks and any other works that may affect flood behaviour and submitted to Council for endorsement.
- The submission shall be certified by a practising Civil Engineer with National Engineers Register (NPER) registration.
82. Bulk Earthworks shall not be accepted by the PCA until all applicable consent conditions have been satisfactorily addressed and the PCA has conducted a Final Practical Inspection and issued a Certificate of Compliance noting no outstanding matters to be addressed.