

27 September 2018

Customer Service | 1300 292 872 | (02) 6670 2400

Attention Emma Butcher
NSW Department of EPlanning & Environment
GPO Box 39
SYDNEY NSW 2001

tsc@tweed.nsw.gov.au
www.tweed.nsw.gov.au

Fax (02) 6670 2429
PO Box 816
Murwillumbah NSW 2484

Please address all communications
to the General Manager

ABN: 90 178 732 496

E-mail: Emma.Butcher@planning.nsw.gov.au

Dear Sir/Madam

**Development Application DA09/0701.03 - amendment to
Development Consent DA09/0701 for a 256 lot residential
subdivision (Department of Planning Application MP09_0166
MOD 3) at Lot 1 DP 169490 & Lot 1 DP 175235 & Lot 1 DP
304649 & Lot 1 DP 781687 & Lot 1 DP 781697 & Lot 40 DP
254416 & Lot 43 DP 254416; No. 37 Fraser Drive TERRANORA;
Lot 2 DP 778727; Parkes Lane TERRANORA**

I refer to your email of 6 August 2018 in which you notify Tweed Shire Council of the Proponents' Response to Submissions regarding the subject Modification.

The Response has been reviewed by Council Officers and the following comments are provided for your consideration during assessment of the application.

Schedule 1 and Specific Consent Conditions

The following comments refer to the proposed amendment of specific Conditions of Consent as referenced in the 'Response to Submissions Report' by DAC Planning Pty Ltd:

Schedule 1: It is at the DPE's discretion whether or not to allow the extra adjoining lot to be nominated in Schedule 1.

It is noted that the inconsistencies with original Bradlees plans (ie - lot boundary not being shown on the bulk earthworks plans and only shown on road cross-sections) probably aided with this matter being overlooked originally.

A1: No objections are raised to the proposed amendment of this condition.

(Referenced in Item 2.1 of the DAC Report.)

A2: The proposed amendment (referenced in Item 2.1 of the DAC Report) requires alteration:

- To reference 15 (not 14) Stages.
- To correct the lot description under 7B to nominate Lot 712, not 713, as a medium density lot.

A3: The proposed amendment of this condition (referenced in Item 2.1 of the DAC Report) is not supported as submitted, with the following matters noted:

- Amended plans SK3591 – 3594, and SK3609 – 3611 are still referenced under the second 'Drawing No.' item in the 'Engineering Drawings' table. Appropriate amendment is required to avoid referencing two different versions of any approved plan.
- Amended plan SK3626 still retains its original reference in the 'Engineering Drawings' table. Deletion of the original plan reference is required to avoid nomination of two different versions of the same plan.
- SK3617: the inclusion of this plan is not supported.

This plan depicts retaining walls being constructed along property boundaries, which conflicts with the requirements of Condition B18.

It is further noted that this plan was not part of the original approval, but was however alternatively referenced in Condition A10 to disapprove retaining walls in the eastern portion of the development site. In the absence of any mention of lots in the western portion of the development site within Condition A10 to alternatively allow retaining walls along boundaries, the terms of Condition B18 are considered to take priority.

- SK0002: no objections are raised with the amendment of this plan.

In this regard it is noted that Lot 1008 has changed colour to represent a slighter flatter gradient for that lot.

This matter was raised under Item 2.2 of the DAC Report.

- SK0009: no objections are raised with nominating this plan for inclusion.

This plan was previously submitted with MOD1 and stamped as approved but not formally nominated in this table.

This matter was raised under Item 2.2 of the DAC Report.

- Otherwise the inclusion of various other plans is generally supported, subject to possible variations by specific conditions of approval, with this proviso already stated within this condition.

Such possible variations could affect the Engineering plans, Landscaping plans, 'Biome' Report, Bushfire Hazard Assessment, and possibly others, as addressed later in this letter.

A4: Three matters for attention:

- Item (10): Due to concerns with the 'Bushfire Hazard Assessment Lot 610 Drainage Reserve' (as per further comments hereunder), the inclusion of this document in its current form is not supported.
- Item (25): Due to concerns raised regarding the 'Bioretention Basin and Drainage Design Report' and the uncertainty whether or not these concerns can be alternatively addressed via a separate Condition that could be imposed, the inclusion of this document in its current form is not supported.
- The *Macadamia tetraphylla* Translocation Plan prepared by JWA should be included in this list of documents.

B22(j): Although this Condition has not been nominated for amendment, as a consequence of the newly submitted Aboriginal Cultural Heritage Report it is recommended that this Condition be amended to reference this Report and its Recommendations, which include a requirement for ACH Inductions.

B39: As previously requested, an addition to this condition is requested as follows (per comments later in this letter):

- (3) All roundabouts are to comply with the requirements of Austroads Part 4B, which will need to be demonstrated with the relevant construction certificate application.

B49: Due to concerns with the 'Bushfire Hazard Assessment Lot 610 Drainage Reserve', the inclusion of this document in its current form is not supported.

Also – the lot number references in this Condition require amendment to accord with the amended lot renumbering.

E13: It must be noted that this specific Condition was nominated by Council as an example of the Conditions needing to be amended, with the onus being on the applicant to review all DA Conditions. This aspect remains outstanding.

Any DA Conditions that reference specific Stage numbers, lot numbers or approved plans that are being altered by this amendment proposal should be amended to correlate accordingly.

Nevertheless, two amendments are nominated for Condition E13, however only one is supported:

- Deletion of E13 (e) is not supported and conversely requires amendment to nominate Lot 1106.

The proponent has not considered the amended lot numbering, as the originally nominated Lot 811 is now Lot 1106, and its dimensions have remained unchanged.

- E13(f) and (g) reference the version of the Landscape Master Plan that is being amended, and should be amended accordingly.
- Amendment of E13 (h) as nominated, is supported.
- Furthermore, an extra item is recommended for inclusion: the nominated boundary setback for Lot 701 as referenced in the 'Bushfire Hazard Assessment Lot 610 Drainage Reserve'. Council has however raised objections to some of the recommendations within this document, therefore the currently nominated 4m setback has not been assented to at this time.

There is also opportunity to delete conditions that have become irrelevant as a consequence of the proposed amendments.

For example:

- **B10** can be deleted as the amended plans now delete the road connection to Market Parade.
- **B15** has Staging and plan references that require checking.
- **B35** Staging reference could be clarified.
- **B38** can be deleted as the 'rounded corners' are no longer shown and the amended plans have corrected this matter.

- **B46** has lot number references that should be corrected.

E6: This is recommended for deletion as Council no longer imposes or collects the Section 94 Heavy Haulage contribution.

E14: The referenced Bushfire Hazard Assessment is not supported in its current form: see further comments hereunder.

E32: Both references to “12 months” are to be amended, not just one.

E34: The proposed amendment is accepted as nominated. This was previously suggested by Council.

E35: The proposed amendment is accepted as nominated. This was previously suggested by Council.

The following comments and recommended actions are provided for your consideration, support and referral on to the proponent for attention as deemed necessary.

The comments refer to five specific documents, being:

- Engineering submission by Meinhardt Urban: letter dated 26.7.2018 and amended engineering plans
- Bioretention Basin and Drainage Reserve Design Report by Biome
- Landscape Master Plan and covering letter by Form
- Bushfire Hazard Assessment Lot 610 Drainage Reserve by Bushfire Certifiers
- ‘*Macadamia Tetraphylla* Translocation Plan by JWA, as well as the Revised Ecological Assessment by Burchills

Engineering submission & amended engineering plans by Meinhardt Urban (MU)

Re: DAC Report Appendix 5

This submission comprises a covering letter and amended engineering plans. The covering letter follows the same numbering as per Council's prior RFI 'Conclusion' comments, and assessment comments also follow the same numbering. Matters that remain unsatisfactorily resolved are discussed:

Central Drainage Corridor redesign:

- e) Maintenance vehicle turnaround capability will need to be demonstrated via superimposed turning arcs, however this can be addressed at CC stage and no concerns are raised in this regard.

Maintenance access for the main drainage channel is stated to be carried out on foot, over “*flat berm sections*” either side of the channel – however these “*flat berm sections*” appear to be part of the overall central drainage channel and would therefore be comprised of “*poorly graded rock rip-rap*” as further stated in the response comments.

In that form it is not considered safe for Council maintenance staff to traverse on foot and would not comply with the safety in design requirements of the WHS Act 2011. Further comments in this regard are provided under later comments specifically relating to the Biome Drainage Reserve Design Report.

It is unclear what the required extent of *“poorly graded rock rip-rap”* actually is. Although the response comments state it is required *“within areas of concentrated flows”* and accordingly would seem to be for the main high flow channel only, the nature of the response comments and lack of any reno mattresses being depicted (as previously requested by Council) indicate that all areas shown to be rock-lined will have the rock rip-rap treatment. This would cover the entire channel from Ch.00 to ch.149, the main channel as it progressively widens through to Broadwater Parkway, and the central weir. If so, this is not supported by Council.

If there is actual capability for “flat berm sections” and other areas of non-concentrated flows, then Council reiterates the request for these areas to be constructed with ‘reno mattresses’ to enable satisfactory accessibility, with all such areas clearly depicted on the plans.

Otherwise improved accessibility provisions are to be installed / incorporated generally as referenced under the Biome Report comments.

Dual-use access, being for maintenance as well as public pedestrian access in general is desirably separated, however such shared access is practically unavoidable for part of the perimeter of Basin A. However all other locations of possible shared access are to be discouraged. There are extensive public liability issues if pedestrians are invited to use grass-cell paved areas or easily misdirected on to rock grouted weir overflows. Response comments referencing the maintenance tracks to *“also “double” as pedestrian access throughout the Central Drainage Reserve”* are not supported.

Further on this point, the concrete footpath that links the main central path with the maintenance track for Basin B is to be deleted: dwg SK3618/2 refers.

- o) The proponents comments have been noted and are not concurred with.

The culvert headwall will be approximately 6m high and up to 25m wide, making it an unmissable and visually dominant feature of the Drainage Reserve.

The Landscape Master Plan makes specific references to ‘aesthetics’ and states that *“an aesthetically pleasing.....environment”* is one of the key statements that encompass the landscape design philosophy for the Estate.

The LMP goes further and under ‘Drainage Corridor’ it states that *“various viewing experiences are available”* and that the sheltered viewing area on the raised boardwalk across the central weir will be a *“focal point”*. All views to the south from this focal point, as well as from many other places within the Drainage Reserve, will have the Market Parade culvert as an unmissable feature.

The proponent has not offered any visual enhancement for this large concrete façade to soften its appearance, and therefore it is requested that some sort of decorative finish be provided to this headwall that is also graffiti-proof. This would not require amendment of the current plans but implementation via a specific condition of consent.

Extra Earthworks

- (f) The proponent’s response comments are noted and accepted, as roundabout designs are checked for compliance with Austroads Part 4B usually as a part of standard CC checking procedure. However as this matter has drawn the

attention of RMS, the prior request to insert an additional requirement in Condition B39 will be reiterated.

‘Bioretention Basin and Drainage Reserve Design Report’ by Biome – July 2018

Re: DAC Report Appendix 7

This report has been amended in an attempt to address issues previously raised by Council, but still has matters of concern requiring further attention.

- **Maintainability of rock lined channel**

In its current form, the rock lined channel is not considered safe for Council maintenance staff to enter and would not comply with the safety in design requirements of the WHS Act 2011.

It is understood that the **full** “reno mattresses” previously suggested are not suitable due to the roughness requirements required to keep flow velocities within certain a certain range. Therefore, it is suggested that regularly spaced transverse ‘accessible’ areas (i.e. reno mattress or concrete) be integrated into the wider sections of the rock lined channel to allow safe access. It should be noted that Council’s ability to access and maintain (weed spray) such rocky areas is limited to the reach of ‘knapsack spraying’, with the maximum reach being approx. 4m.

An alternative to this would be to introduce cascading rock mattresses and integrated gabions (that blend into small weir-type retaining walls) into the design to create a ‘stepped channel’. If this was the direction taken the height of the retaining walls would need to be kept below the height which triggers the need for handrails.

- **Reintroduction of a fourth bioretention basin: Basin D**

Basin D has been introduced, adjacent to the western side of the existing Sewer Pump Station, in response to Council comments querying the feasibility of previously proposed grass swales on the batters of Broadwater Parkway and/or within the recently dedicated Lot 146 DP 1233026, which is an Environmental Protection area.

It is noted that the original approval for this Drainage Reserve also included a fourth basin, but on the eastern side of the SPS. Proposed Basin D is however much smaller, being only 35m², but meets the stormwater objectives and can therefore be supported. Note there is no forebay or high flow bypass for Basin D either – but this would be acceptable due to the very small catchment.

However it would be preferential to avoid an additional asset of this size and the following factors support this alternative:

- A large proportion of the contributing catchment, as depicted on Dwg 200, could be diverted into Basin B. Minor enlargement of Basin B would then likely be required, and as this has not been constructed to its final formation yet, such modification is considered to be easily implemented.
- This option would necessitate a short section of Broadwater Parkway runoff, which could not be directed to Basin B due to its relatively higher level, to bypass treatment. As there is already a short section (approx.

80m) of Broadwater Parkway runoff that has been excluded from any treatment, a small increase of untreated runoff would be preferential to a fourth basin.

- There is some uncertainty regarding possible conflicts with underground services, particularly sewer, due to the close proximity of Basin D to the existing sewer pump station (SPS). Deleting Basin D would avoid any such conflicts.
- The extended detention level of Basin D would impact on the adjacent SPS site, noting that the top-of-bund level for Basin D is above the ground levels along the western boundary of the SPS site.
- Basin D would be adjacent to future sewer overflow storage facilities that are intended for the SPS site, and accordingly it is desirable to avoid any possible cross-contamination concerns in the event of failure of either of these systems.

In consideration of these factors, Council would be supportive of amending the stormwater design to delete Basin D.

- Further information

Some further explanation of the following points would be beneficial to Council to aid in otherwise endorsing the revised Drainage Reserve Report:

- Item 4.1 dot point 6: how does the flow through the central culvert almost double from 6.5 m³/s in a Q1 event to 12.61 m³/s in a Q100 event – when this culvert is expected to be flowing at capacity during the Q1 event to facilitate flow over the weir in any greater storm event? Also noting the Q1 Peak Flood Depth plot shows the flow depth equating to the culvert obvert level.
- Table 4.2 (p.11) - justify the change in the sub-catchment areas (10%?)
- The Q100 d.V plot nominates 'Dense Planting' in particular areas that appear to be inconsistent with the Landscaping plan – and consequently the Bushfire Hazard Assessment.
- The Q100 PFD plot shows Basin C inundated by up to 0.3m (acceptable), but Basin D is shown inundated by up to 0.6m and overtopping the bund by up to 0.3m – while leaving the adjacent SPS site clear. This is inconsistent with actual site levels, since the SPS site is partly below the top-of-bund level of RL 3.15m AHD.

The existing terrain model used for this Report should utilise Works-as-Executed levels so that the various plotted maps can accurately depict the affectation on the sewer pump station, which is major infrastructure.

- A major base-line design element would appear to be the adoption of the modelled culverts under Broadwater Parkway (6 x 1500 x 1200 RCBC) from the *Hydrologic and Hydraulic Assessment (April 2013)* by Gilbert & Sutherland. However Table 5.2.2 'Note' (p.19) of this G & S Report requires final design verification of this modelled culvert.

The Biome Report does not appear to provide this.

- All of the plots (depth, velocity, d.V) now exclude the small area of the Drainage Reserve upstream of the Market Parade culvert. Reasoning for this exclusion should be provided.
- There is very little difference between the Q5 and Q100 water surface levels on the cross-sections, even at the narrow upstream sections. Some justification is requested to address this perceived anomaly.

‘Landscape Master Plan’ (26.7.2018) & Covering Letter by Form (19.7.2018)

Re: DAC Report Appendix 6

The primary focus of amending the Landscape Master Plan (LMP) has been on the central Drainage Reserve, with two main factors needing to be considered:

1. To ensure the improved stormwater drainage conveyance proposal for this Reserve has a complementary landscaping treatment that complies with the new ‘Biome’ Report that is also compliant with the Bushfire IPA requirements, and ensuring overall consistency with the engineering plans.
2. The need to comply with the original philosophies of the LMP as approved.

The proponent is having difficulties addressing the first factor, and completely overlooking the second factor.

The first factor involves four different fields of expertise that have not been achieving mutually agreeable results and conclusions, without imposing impractical on-going maintenance and enforcement concerns for Council

The need for the LMP to be mutually compliant with the Bushfire IPA requirements and Biome Report, and consistent with the engineering plans, has been a difficult task for the proponent to try and achieve. Although nearing an acceptable outcome, several matters are yet to be resolved.

Background:

As previously advised to DPE, the proponent previously submitted a Landscaping Plan to Council for approval as part of CC applications covering Stages 4, 5 and pt.6 (northern section of eastern batter only). This is still an on-going unresolved submission, primarily due to two factors:

- Withdrawal of a prior pedestrian ramp proposal for the eastern batter of the Drainage Reserve, and
- Concerns with a Bushfire Hazard Assessment for the Drainage Reserve.

The last major correspondence by Council regarding the Landscaping plans is an RFI letter dated 14.8.2018 (copy attached at the end of this report), although other minor correspondences have since followed:

- TSC advice to ‘Form’ dated 11.9.2018 answering subsequent plant species and Park Shelter queries.

- MU email of 22.8.2018 (reiterated hereunder) regarding Council's request for further detailed consideration of ramped access for the eastern batter of the Drainage Reserve:

"In response to your RFI Letter dated 14th August 2018 in relation to the above, we have been instructed by our Client, Newland Developers Pty Ltd, to advise in response to your item "B, Path for Eastern Batter – Action 5 ", that no further assessment/consideration will be given to the footpath/ramp from Ossa Boulevard to the Central Drainage Reserve Boardwalk.

Newland believes it has given this matter a good deal of consideration to try and accommodate Council's earlier requests for a footpath /ramp, but unfortunately the extensive changes needed to the existing Ossa Boulevard Batter and resulting cost make the suggestion impracticable.

Please find attached a " plot " from our earthworks modelling which was prepared to assess what was required to make such a suggestion work. Clearly the maximum grade at which the ramp/path can be constructed (to suit wheelchair access) is not compatible with the existing batter slopes which results in significant cut/fill along almost the entire length of the ramp, which in turn results in almost continuous retaining walls, both inside and outside the ramp edge, together with pedestrian handrails. In addition, the extensive cut/fill associated with the footpath/ramp requires significant changes to existing drainage along the existing batter and introduces additional drainage measures/solutions.

In summary, we are instructed to advise that Newland is not prepared to give this item any further consideration."

This advice is not considered to have fully addressed the queries raised and options suggested in Council's prior RFI dated 14.8.2018 (relevant section reiterated hereunder) and a response has not yet been provided:

"b. Path requested for eastern batter: Council seeks an option for providing a path rather than (or in addition to) steps for pedestrians and others to access the drainage reserve down the eastern batter. This is highly desirable for equitable access for a range of community members including mothers with prams, people with mobility and vision impairments, cyclists and others. It is not considered reasonable to divert path users some 500m+ (the first path some 300m away still apparently has steps) to enable access.

This reinforces Council's prior advice of 2.8.2018 to the opinions presented in your email of 2.8.2018 that such a path would be "completely excessive and unreasonable". This response does not appear to be based on diligent investigation of the options available.

It is further noted that the approved Landscape Master Plan (Altitude Aspire Terranora Amended Landscape Master Plan 2015) for Mod 1 of MP09-0166 shows a path, not steps, skewing across the batter. The same Master Plan (Page 6, Compliance Areas) shows 1,954 m² of complying public open space in the drainage reserve.

Council's expectation is that every effort should be made in an attempt to comply with and pursue both of these original conceptual factors of the approved Landscape Master Plan. Removing the path from the eastern batter will reduce the number of people who can use this area.

Action 5:

Council requests (if possible) a feasible way to have a path rather than (or in addition to) stairs across & down the slope. This is to allow cyclists, prams, wheel chairs etc to access the paths proposed in the drainage reserve. While your prior concept of 'zig-zag' stairs has apparently been withdrawn due to unsubstantiated difficulties, have all other options been seriously considered? For example:

- ***A longer path running across & down the slope, possibly with only one switchback? It is noted there are rock chutes the path would have to cross.***
- ***The start and finish of the path could be revised to more suit the existing contours.***
- ***A raised walkway made of composite material. See example attached to Council's prior email advice of 19.7.2018. The costs involved with such an option are considered to be reasonable in comparison to full length footings and extensive retaining walls necessarily associated with a concrete path, and should be further investigated.***
- ***There may be other options. Council seeks serious investigation of options available."***

Council will be seeking support from DPE with regard to pursuing the accessible ramp option. In this regard the comments by 'Form' (letter dated 19.7.2018 – responses to Items (d)(iv) and (h)) and prior response comments from Meinhardt Urban (as part of CC applications for Stages 4, 5 and pt.6) are not accepted.

The following comments are provided to support Council's request for the provision of (or at least the detailed further investigation and costing of) a pedestrian ramp:

- Advisory Note AN8 references the *Disability Discrimination Act 1992* and requires the proponent to ensure compliance with this legislation. DPE will need to consider how much 'weight' this Advisory Note commands and whether the proponent's comments regarding stairs in lieu of a ramped path are appropriate when considered against this Advisory Note.
- There is no mention of stairs in the current approved LMP, either on the 'Introduction' page 2 notes or actual plans.
- Lack of Compensatory measures

The amended LMP has deleted the following components of the current approved LMP without appropriate acknowledgement or alternative provisioning:

- The Drainage Reserve originally included an area of 'Complying Park Area' of 1,954 m² (per sheet 6 of the LMP) that is now deleted. This represents a loss of 24% of the originally nominated 'Complying Park Area'.
- The pathway network within the Drainage Reserve as originally depicted on sheet 5 of the LMP has been significantly reduced.

Furthermore, the amended Landscape Master Plan now also proposes stairs for the southern link to Market Parade as well as the eastern batter. This limits full accessibility to the Drainage Reserve to the north-western corner only. This is not deemed to satisfy the design philosophy nominated in the existing LMP (under 'Drainage Corridor') that *"Pedestrian access will be provided along the length of the gully..."*

In consideration of the above-mentioned factors, it is reasonable for Council to expect, by way of compensatory action, that the proponent make every effort to provide ramped pedestrian access on the eastern batter of the Drainage Reserve.

In due consideration of the proponents response advices to date, an elevated ramp (as per above-referenced Council letter of 14.8.2018) would be deemed to be an acceptable solution.

Minor amendments to the Landscape Master Plan:

- Sheet 1 is to reference the correct Stages.
- Sheet 2: 'The Entry Precinct' comments reference *"parkland to the west"* which no longer exists. This park was relocated to the eastern side as part of 'MOD 1'.
- Sheet 2: 'Drainage Corridor' comments (end of paragraph two) state that *"Informal maintenance tracks provide additional pedestrian connectivity throughout the reserve."* These maintenance tracks are not meant for the general public. They are primarily of grass-cell construction with sections of rock-grouted spillways. While it is not intended to barricade or fence off these tracks, their use by the public is not to be encouraged and the comments should therefore be deleted.

Bushfire Hazard Assessment Lot 610 Drainage Reserve

Re: DAC Report Appendix 8

This document (BHA) is focussed on the Drainage Reserve only, and does not otherwise review or amend the original 'Bushfire Assessment Report' from 2012 as was expected.

The following recommended actions can be addressed by referencing this BHA in consent conditions, so no need for further specific referencing in the Consent:

- Either Bushfire Certifiers or NSW RFS be required to assess the final Landscaping plan for the Drainage Reserve to ensure consistency with the BHA.
- All vegetation is to be high moisture content rainforest species in accordance with Appendix A5 PBP 2006.
- The near surface and elevated fuels are not to exceed a height of 300mm with species selection nominated on the plans.

Matters of concern with this document are:

1. Lot 701 (rear boundary) is required to have 5m separation between landscaping and building envelope, to be comprised of :
 - A 1m wide non-combustible gravel path within the Drainage Reserve adjacent to the common boundary.

This is reliant on Council accepting this otherwise undefined but permanent liability and responsibility for. The engineering plans show a 1m wide flat benched area to facilitate this, however such narrow areas can easily fill with grasses and weeds and be easily lost. A wider path would be easier to maintain but an alternative option to the path would be preferred by Council.
 - A 4m boundary setback requirement to the building envelope: this can be easily facilitated for Lot 701 via 88B Restriction-on-Title, but to safeguard against overlooking this requirement, it is recommended this setback requirement be specifically nominated in Condition E13 (Creation of Easements).
2. Existing Lot 316 DP 1238182 is required to have 5m separation between landscaping and building envelope, to be comprised of:
 - A 1m wide non-combustible gravel path within the Drainage Reserve adjacent to the common boundary.

This is reliant on Council accepting this otherwise undefined but permanent liability and responsibility for.

The land is steeply sloping in this location and would have erodability concerns. Such narrow areas can easily fill with grasses and weeds and be easily lost. The responsibility for keeping this area in a non-combustible state suggests a wider path may be more suitable - but preferably an alternative option should be sought.
 - A 4m boundary setback requirement to the building envelope.

This is a major concern: the proponent has not nominated how this requirement is intended to be retrospectively imposed over this existing property.
 - There is an existing pad-mounted transformer already installed within this 5m separation / 4m setback area, within the south-western corner of Lot 316. No mention has been made of this and it is unknown if this raises any safety concerns for either the property owner or infrastructure owner/provider, and whether any retrospective actions need to be taken to address the bushfire hazard.
 - A required component of this 5m separation area appears to be a 1.2m high non-combustible fence on the boundary line.

This needs to be clarified and if it is a necessity the proponent needs to advise how this requirement is to be retrospectively imposed over this existing property.

3. No bushfire modelling was undertaken over the Public Reserve Lot 454, to consider any affectation on adjacent residential Lot 442. Any building envelope boundary setback requirements for bushfire purposes would need to be determined and imposed over Lot 442.

The concerns raised at Items 5 and 6 above, were previously raised with the applicant via the separate Landscaping plan submission for Stages 4, 5 and pt. 6, per Council RFI dated 14.8.2018. No response has been provided at this time.

While the overall intent and purpose of this BHA is supported, the concerns raised under Item 6 in particular, mean that Council cannot endorse acceptance of this document in its present form.

Macadamia tetraphylla Translocation Plan July 2018 and Revised Ecological Assessment July 2018

The following comments are provided for consideration:

- The *Macadamia tetraphylla* Translocation Plan identifies five individual plants that are proposed to be translocated. Only one of the five is shown on the cut and fill plan (Appendix 5, West Boundary Earthworks Extent SK6524 Revision C). The location of all individuals is to be shown, with clear annotation that these are to be translocated in accordance with the Translocation Plan prior to commencement of earthworks.
- *Macadamia tetraphylla* Translocation Plan prepared by JWA should be included in the list of documents at **Condition A4**.
- *Macadamia tetraphylla* Translocation Plan July 2018 requires revision in order to include the following:
 - Timing for translocation of plants is to be included in the plan, clear, and occur prior to any earthworks in the vicinity.
 - Timing, responsibility and proposed source population for propagation of additional individuals. It is noted that the plan identifies that only a few local populations are known, and does not discuss the ability of these to withstand harvest for propagation. Appropriate licenses will be required for any such work.
 - Relocation and subsequent maintenance is the responsibility of the proponent and is to be carried out by a suitably qualified restoration professional under the supervision of the site Environmental Officer.
- The Revised Vegetation Management and Rehabilitation Plan April 2013 will require revision in order to incorporate the ongoing management requirement.
- The Ecological Assessment requires revision in order to reference the updated information on location and number of *Macadamia tetraphylla* individuals as identified in the *Macadamia tetraphylla* Translocation Plan July 2018.
- It is further noted that NSW OEH has indicated in their submission on the proponent's Response to Submissions their preference for a BDAR to be prepared, with any impacts assessed and offset in accordance with the BAM. Should this additional body of work be required, a further opportunity to review any resulting material would be appreciated.

Other Matters requiring attention:

- Updated Sewer layout plans shall be provided where sewerage infrastructure is proposed to be relocated as a result of retaining walls.
- Where the proposed stormwater drainage infrastructure is proposed in the same location as the future sewer trunk main to the west of the sewer pumping station, further information shall be provided to demonstrate that it shall not impact the sewerage infrastructure. Stormwater drainage infrastructure such as bunds and filtration systems shall not be constructed within the 5 metre trunk sewer easement. =

Other conditions required as part of the proposed Modification include:

- Where retaining walls are proposed to be parallel to the sewer and stormwater infrastructure, easements will be required to increase by a meter width. Proposed landscaping in the drainage reserve/ park area such as retaining, rock walls and large tree plantings shall not be located over water or sewer easements.

For further information regarding this matter please contact Denise Galle on (02) 6670 2459.

Yours faithfully

Lindsay McGavin

Manager Development Assessment and Compliance