

Request for Further Information Response Table	
BCC Details Requested	Applicant's Response
<b>Flooding</b>	
<p><b>1. The site is impacted by a significant and hazardous overland flow path and further reporting is required to demonstrate how the development meets the relevant benchmarks of the Flood overlay code and Stormwater code.</b></p> <p>A Flood Impact Assessment and Flood Study certified by an RPEQ engineer is required to assess in detail the flood impacts and overland flow path on the site in the context of the proposed development.</p> <p>The report must address the following items:</p> <ol style="list-style-type: none"> <li>Existing flooding conditions, based on existing upslope catchment flows (approved and constructed developments) and existing manning's values, and</li> <li>Developed conditions, based on existing flows, site filling/excavation, and developed manning's values, and</li> <li>A sensitivity analysis that is used for setting lot and road levels, using fully developed ultimate upslope catchment flows, and a manning's of 0.10 in any vegetated/open space area.</li> <li>Flood depth, flood contour level, flood hazard and flood impact maps.</li> <li>A flood impact analysis as part of a flood study.</li> </ol>	<p>Refer to the detailed engineering modelling and report from Oska Consultants.</p>
<p><b>2. The channel located at the rear of the western lots and through freehold lots will result in fencing obstructions on each lot that would impact on flows.</b></p> <p>Provide amended plans / further information to demonstrate the following:</p> <ol style="list-style-type: none"> <li>No part of any lot shall experience flood hazard that is &gt;0.4m<sup>2</sup>/s and or any depth 600mm or greater, nor subject to frequent/nuisance flows. Dedicate any required flood channel mitigation works to Council as land for drainage purposes.</li> <li>All parts of proposed lots have flood immunity to fully developed upslope catchment conditions with consideration to flows both in Cloverdale Road and the existing drain.</li> <li>An easement through Lot 41 for the overland flow flooding.</li> <li>Safe access to the rear of Lot 41 to allow for maintenance, being a culvert with driveway crossing.</li> <li>An easement over creek/waterway flooding at the rear of Lot 41.</li> </ol>	<p>Refer to the RAL Concept Plan prepared by Intrax Surveyors.</p>

### Biodiversity areas and waterway corridor

**3. The drainage corridor proposed running from the north of the site, down the western boundary and out towards the proposed bio-basin to the east will encroach significantly into a mapped local waterway corridor.**

Additionally, it has been noted that a portion of this corridor has been located within the rear of some of the proposed lots.

The proposal is required to demonstrate that the corridor is located completely outside of the rear of private lots and that the extent of earthworks (i.e., cut required to establish the drainage corridor/bio-basin) has been minimised as much as possible without compromising its stormwater conveyance /stormwater quality function.

Note: The location of the stormwater corridor is to not intrude any further into mapped HES and HESS areas.

Further to this, Council requires an easement within Lot 41 to allow for stormwater infrastructure and access to the creek at the rear of the site. This must be clearly indicated on the proposed plans and the tree retention plan is required to be updated to include any trees with a DBH of 100mm or greater within and out to 6m from the proposed easement.

The location of the easement must be sited in a practical location from an engineering perspective whilst also minimising impacts to native vegetation.

The proposal also needs to demonstrate that the degree of native vegetation clearing as a whole on the site will not exceed that which is considered exempt under Schedule 24, Section 3 of the Planning Regulation (2017).

The following amendments are required:

- a. A Development Footprint Plan (DFP) for the 'environmental house location' on Lot 41.
- b. Remove elements of the drainage corridor from private lots. The stormwater corridor is not to extend any further south.
- c. Demonstration that the extent of earthworks associated with the stormwater corridor and bio-basin have been minimised.

a. A DFP has been provided for the 'Environmental house location'. The lot number has been updated from Lot 41 to Lot 99. Refer to updated layout, shown in Vegetation Retention Plan (refer to Appendix A).

b. The western boundary lots have been redesigned to no longer include the drainage corridor (reserve land), with the corridor not extending any further south. Refer to updated layout, shown in Vegetation Retention Plan (refer to Appendix A).

c. Upon discussion with the assessment officer at BCC, S5 Environmental understand that council are generally supportive of the proposed encroachment into HES and HESS to the south, though will not be supportive of encroachment any further south. S5 Environmental believe that no additional tree surveying is required unless plans significantly change. S5 Environmental ecologists have worked closely with project engineers to

d. Location and extent of any stormwater drainage easements required through Lot 41 down to the creek at the rear. The proposed tree retention plan must be updated to include all vegetation with a diameter of 100mm or greater within the impact area and out to 6m. This easement must be sited and designed to minimise the amount of native vegetation being impacted.

e. An arborist report prepared by a minimum AQF Level 5 qualified arborist that assesses any impacts within the tree protection zones of trees proposed for retention including within the drainage easement.

f. An impact area assessment in relation to the loss of native vegetation from mapped state core koala habitat areas including within the drainage easement that is required through Lot 41. Provide confirmation of any exemptions that the development may achieve under Schedule 24, Section 3 of the Planning Regulation (2017); and

g. A revised conceptual rehabilitation area for areas south of the area already subject to rehabilitation under Council enforcement notice except for the drainage corridor that is to be rehabilitated following natural channel design principals.

reduce impact to ecological features while maintaining necessary drainage functionality.  
d. All necessary trees are tagged in this area as currently shown. Refer to **Appendix A**.

d. Refer to new concept plans.

e. An Arborist Assessment has been provided. Refer to **Appendix B**.

f. Refer to Figure 1 for removal of native vegetation within mapped KHA. The Arborist has recommended removing trees 103 and 104 (both located within KHA), as impacts to the trees are expected to be major. Loss of trees will be mitigated through onsite rehabilitation (refer below). The encroachment into State mapped KHA has been calculated to be approx. 145.2 m<sup>2</sup> and hence is considered exempt development under Schedule 24 of the Planning Regulation 2017.



Figure 1. Removal of Native Vegetation within KHA

g. A Concept Rehabilitation Plan has been provided. Refer to **Appendix C**.

**In summary**, S5 Environmental have provided the above response to Item 3 and have updated the Vegetation Retention Plan (refer to Appendix A), provided an Arborist Assessment (refer to Appendix B), and prepared a Concept Rehabilitation Plan (refer to Appendix C). We trust this adequately address the additional information required by Council.

<b>Bushfire overlay</b>	
<p><b>4. The proposed development is located within both local and state bushfire mapping. A bushfire hazard assessment has been provided with the development proposal which assesses the level of hazard and determines the bushfire management measures required to ensure that people and property are not exposed to an unacceptable level of bushfire hazard.</b></p> <p>The bushfire report identifies that a minimum 12m bushfire management set-back will be required from hazardous vegetation to ensure that the development is not exposed to a radiant exposure of greater than 29kw/m<sup>2</sup>. It is unclear from the information submitted as to how vegetation will be managed within a 'low hazard state' as identified within the report.</p> <p>Additionally, the report includes several incorrect inputs including the vegetation fuel load and flame temperature values. In accordance with Council's latest Bushfire hazard assessment guidelines, when applying a Method 2 calculation, the flame temperature must be set at 1200k. Note that the understorey fuel load associated with VHC9.2 is 17.2kw/m<sup>2</sup>. The overall fuel load is to remain at 17.2kw/m<sup>2</sup>. Based on these inputs, a 17m bushfire management zone set-back would be required and is to be located north of the proposed drainage easement.</p> <p>Provide the following revisions to the Bushfire Report to demonstrate compliance with the Bushfire overlay code:</p> <ul style="list-style-type: none"> <li>a. A revised bushfire management plan that includes the aforementioned inputs as part of a Method 2 calculation.</li> <li>b. Revised setbacks to be indicated on the proposed plan and are to be located north of the proposed drainage channel; and</li> <li>c. A clear description of how vegetation located within the bushfire management zone is to be managed within a 'low hazard state'.</li> </ul>	<p>Refer to the S5 Environmental Report on Bushfire.</p>
<b>Stormwater quantity and quality</b>	
<p><b>5. The Conceptual Stormwater Management Plan has been reviewed and the following amendments are required to demonstrate compliance with Section A of the Stormwater code.</b></p> <ul style="list-style-type: none"> <li>a. The existing half cul-de-sac to the east is serviced by a gully that has only allowed for a 0.205ha catchment from this site. The proposal significantly exceeds this allowance. Therefore, any new gullies and proposed lots 9 to 12 must drain to the bioretention basin via a new pipeline to the bioretention basin.</li> <li>b. Provide a major flow path (5m wide pedestrian pathway) from the cul-de-sac to the waterway. This pathway is to contain stormwater infrastructure and be set 300mm lower than adjacent proposed lots and existing units to ensure major flows can be safely conveyed.</li> <li>c. Works within the Cloverdale Road frontage are to pipe flows to the existing culvert.</li> </ul>	<p>Refer to the detailed engineering modelling and report from Oska Consultants.</p>
<p><b>6. The Conceptual Stormwater Management Plan has been reviewed and the following amendments are required to demonstrate compliance with Section B of the Stormwater code.</b></p>	<p>Refer to the detailed engineering modelling and report from Oska Consultants.</p>

<p>a. Show the proposed bioretention basin with a minimum filter depth of 500mm, in lieu of the 400mm currently shown.</p> <p>b. Show the proposed streetscape bioretention in the cul-de-sac with a maximum ponding depth of 100mm. The current 300mm ponding depth shown is not supported. Additionally, the surface area of filter for each device would only be 1.5sqm, as per BSD9034. Remove these treatments and pipe stormwater to the proposed bioretention basin.</p> <p>c. A high flow bypass is to be provided so only 3mnth flows are directed to the basin.</p> <p>d. Provide additional sections of the basin with levels.</p> <p>e. Ensure the waterway is designed as per natural channel design and rehabilitated.</p>	
<p><b>Traffic and refuse collection</b></p>	
<p><b>7. The development proposes more than 10 Lots, a new road reserve and an active transport link. Given this, a Traffic report (prepared by a Registered Professional Engineer of Queensland – RPEQ) is required to address section B of the Subdivision code and to demonstrate compliance with the benchmarks of the Transport, access parking and servicing code.</b></p> <p>The report should include the following:</p> <p>a. The RPEQ signed traffic report needs to demonstrate compliant sight distance and this new intersection and demonstrate that the proposed intersection with Cloverdale Rd complies with the Austroads Standards.</p> <p>b. Amended plans showing that all lot driveways are from the internal roads only, with no direct access to Cloverdale Road.</p> <p><b>8. A concept plan showing the location of refuse bin presentation areas on the frontage of the proposed lots is required to address AO19.3 / PO19 of the Subdivision code.</b></p> <p>This plan must include the following:</p> <p>a. The location and width of all driveways and their wings along the kerb for the refuse bin presentation area on the frontage of every lot.</p> <p>b. The location of power poles, light poles, street sign poles – proposed and existing, street trees, power buoys and any other street furniture that may prevent the presentation of refuse bins on any Lot’s frontage, preventing the efficient collection of refuse from the development.</p> <p><i>Note: Location where presentation areas are not to be located are identified in Section 4.1(5) of the Refuse Planning Scheme Policy.</i></p>	<p>Refer to the detailed traffic engineering report from Oska Consultants.</p>
<p><b>Earthworks</b></p>	
<p>9. Further information is required to fully assess the proposed earthworks against the Filling and excavation code.</p> <p>a. Provide additional sections on the concept earthworks plans to demonstrate and show how walls interface with neighbouring properties, detailing heights, and configuration of retaining walls at the boundary of site to demonstrate compliance with AO1 / PO1 and AO2 / PO2 of the Filling and excavation code</p> <p>b. Complete and submit an Erosion Hazard Assessment form</p>	<p>Refer to the detailed engineering report from Oska Consultants.</p>

## Development Layout and Design

**10. Notwithstanding amendments made to the proposed layout to respond to the items in this information request, further information regarding the proposed layout and design is required to address the Subdivision code:**

a. The proposal plans shows Lots 1 – 8, 27 – 29 and 36 – 39 (15 of 44 lots or 34%) fail to meet the minimum average dimensions stated under AO1 / PO1 / Table 9.4.10.3.B. of the Subdivision code.

The development is to achieve an arrangement that complies with the standards of the Planning Scheme and complements the prevailing pattern of development in the area.

i. Demonstrate on the revised plans that all proposed lots are a suitable size (m2) and dimension to accommodate future Dwelling houses and comply with PO1 of the Subdivision code.

b. The layout as currently proposed results in 8 contiguous small lots (lots 9 – 16 and lots 17 to 24) which are not separated by a minimum of two standard lots, conflicting with AO22.2 / PO22 and AO24.2 / PO24 of the Subdivision code which expects a maximum of 6 contiguous small lots, especially when those lots are less than 350m2.

i. Provide amended plans showing a lot layout with a maximum of 6 contiguous small lots in accordance with AO22.2 / PO22 of the Subdivision code.

c. It is noted that no DFPs have been shown on the residential lots impacted by overlay mapping to ensure that future house applications do not trigger the need for a development application.

i. Provide a DFP for all residential lots impacted by overlay mapping that has the potential to trigger future domestic development applications in accordance with AO1.2 / PO1 of the Subdivision code.

d. Limited information has been provided to demonstrate compliance with Section C2 of the Subdivision code.

a. The plans have been amended to achieve the dimensions sought in the Subdivision code.

The overall layout of the proposed subdivision meets the strategic requirements for the locality in that it connects the adjoining townhouse development to the internal road network, and it will divert storm and floodwater received from higher in the catchment to a channelised drainage and swale system on the subject land as proposed by Oska Consulting Engineers. The large residual lot has a DFP north of the waterway and is to be marketed as an 'environmental residential lot'.

Each lot has a DFP dimensioned to ensure that a detached dwelling can be positioned on the lot with adequate setbacks from all boundaries. The garage locations have been designed to ensure an efficient layout of crossovers is achieved to allow maximum opportunity for street trees and lighting poles.

The redesign has addressed the issue of contiguous small lots. In the layout, there are no lots less than 350 sqm, with the rest of the lots being 400 sqm or greater.

The changes to lot dimensions has meant that the lot yield has been reduced from 41 to 36 lots.

b. The revised plan has addressed this problem.

c. Refer to the revised plan.

d. Refer to the revised plan that now has a DFP on each of the 36 lots. The DFPs also attempt to rationalise the location of potential

<p>i. Provide a code assessment against Section C2 of the Subdivision code.</p>	<p>crossovers given the importance of finding sufficient locations for street-trees and lighting poles. (Refer to attached code template)</p> <table border="1" data-bbox="922 311 1385 902"> <thead> <tr> <th colspan="2" data-bbox="922 311 1385 369">Section C2-Detailed performance outcomes and acceptable outcomes for a small lot</th> </tr> </thead> <tbody> <tr> <td data-bbox="922 369 1161 459">PO27/AO27.1</td> <td data-bbox="1161 369 1385 459">All front setbacks are between 4.0 and 6.0 metres.</td> </tr> <tr> <td data-bbox="922 459 1161 638">PO27/AO27.2</td> <td data-bbox="1161 459 1385 638">All rear setbacks range from 4.0 to 5.0 metres. The 16 sqm minimum private space is achieved.</td> </tr> <tr> <td data-bbox="922 638 1161 817">PO27/AO27.3</td> <td data-bbox="1161 638 1385 817">The only parts of dwellings that will adjoin their side boundaries will be the non-habitable garage structures.</td> </tr> <tr> <td data-bbox="922 817 1161 902">PO27/AO27.4</td> <td data-bbox="1161 817 1385 902">No lot frontage dimensions are less than 10.0 m.</td> </tr> </tbody> </table>	Section C2-Detailed performance outcomes and acceptable outcomes for a small lot		PO27/AO27.1	All front setbacks are between 4.0 and 6.0 metres.	PO27/AO27.2	All rear setbacks range from 4.0 to 5.0 metres. The 16 sqm minimum private space is achieved.	PO27/AO27.3	The only parts of dwellings that will adjoin their side boundaries will be the non-habitable garage structures.	PO27/AO27.4	No lot frontage dimensions are less than 10.0 m.
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<p><b>Significant vegetation</b></p>											
<p><b>11. The proposed development, including the new lots and the stormwater infrastructure (e.g. piping, headwall and basin), will result in the removal of a significant amount of vegetation however limited information has been provided as to how the development incorporates significant vegetation as expected by AO19.1 / PO19 of the Subdivision code.</b></p> <p>a. Provide updated reporting that identifies all significant vegetation on the site as defined by the Vegetation PSP and nominates significant vegetation that can be retained.</p>	<p>Refer to S5 Report attached to this RFI material.</p>										
<p><b>Documentation</b></p>											
<p><b>12. Submit amended plans and technical reporting to reflect the amendments to the layout of the proposed development in response to the requests above.</b></p> <p>Urban Utilities (UU) Council does not undertake water and sewer assessment of any planning applications. Contact UU on (07) 3432 2200 to discuss any water and sewer issues and whether you are required to submit an application to UU for assessment.</p>											