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Date: 15 March 2018 at 1:06:27 PM NZDT

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Cc: Dale Meredith <[Dale.Meredith@orc.govt.nz](mailto:Dale.Meredith@orc.govt.nz)>

Subject: SHA proposal for Hawea (Cemetery Road) - ORC response

Hi Lane, Blair

Thank you both for approaching ORC early in the planning process for this proposed SHA development. ORC appreciates being able to contribute with input at an early stage and we hope you likewise find our response useful for any further planning, and a robust process.

Rainfall in the wider Hawea area contributes to the recharge of its local aquifers, particularly the Hawea Flat aquifer which is located south of the Hawea township (see attachment map image for general indication of area). An increase in hard surfaces (roofs, paved areas, roading) can reduce natural recharge of groundwater aquifers. ORC provides information on this issue in its report titled 'Rainfall recharge assessment for Otago groundwater basins' – this can be downloaded at <https://www.orc.govt.nz/plans-policies-reports/reports-and-publications/groundwater>

### **ORC expectations**

For this proposal, ORC will be interested in the approach to the 3 waters services, Potable water, wastewater and storm water.

ORC's expectation is that drinking water supply and wastewater will be serviced by reticulated communal services (not 'on-site' services such as septic tanks). For wastewater, a high quality of treatment will be necessary to protect the groundwater resource, particularly as the development grows.

The management of stormwater will also be an issue of high interest to ORC, particularly the treatment method before disposal to ensure it avoids contamination of groundwater.

Also please note that the disposal of stormwater and wastewater from the development, if not to reticulated network systems (i.e. council managed), will need to comply with the rules of the ORC water plan - and possibly require ORC consent. Lane, when you have a bit more detail, I'd suggest you contact us to arrange a meeting with some ORC staff, including our consents team. If possible Blair, it would be good to have someone from QLDC attend as well. We may be able to arrange to hold this on site.

## Recommendations

ORC would recommend the following:

1. QLDC confirm to ORC/developers as soon as possible any updates on its future development plans (incl. infrastructure upgrades etc) for Hawea - including this proposal. This will help with work ORC will be undertaking later this year to update its groundwater flow modelling for water allocation purposes;
2. When the proposal is progressed with further information available, additional input (including consenting advice) is sought from ORC; and
3. That an assessment of environmental effects for the proposed development includes:
  - assessing the effects of the development on the wider recharge for Hawea's aquifers and groundwater levels
  - confirmation, including details of treatment, as to how drinking water and wastewater will be managed
  - confirmation, including details of treatment, as to how stormwater will be managed

If you have any questions or points in this email you'd like to discuss further, please feel welcome to contact me.

Warren.



**Warren Hanley**  
Senior Resource Planner Liaison

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