Government of Western Australia
Department of Water and Environmental Regulation

Your ref:

File ref: DWERT952

PA ref: 032396

Enquiries: Jim Mackintosh, 6250 8043

City of Kalamunda
PO Box 42
KALAMUNDA WA 6926

Via Email: katelyn.roddydixon@kalamunda.wa.gov.au

Attention: Regan Travers – A/Manager Approval Services

Dear Sir/Madam,

Re: Proposed Amendment to Existing Restaurant (Capacity Increase from 80 to 480) – Lot 3 (No. 415) Mundaring Weir Road, Piesse Brook

Thank you for the above referral dated 12 February 2020. The Department of Water and Environmental Regulation (DWER) has considered the proposal and cannot support the proposal for the following reasons:

DWER's previous advice

The DWER has previously provided advice on this proposal on numerous occasions, as recently as 10 September 2020. The reasons previously provided that prohibited the DWER from supporting the proposal are still relevant and are reiterated below:

Middle Helena Public Drinking Water Source Area

The proposed development is situated within the Middle Helena Public Drinking Water Source Area (PDWSA) and is managed for Priority 2 (P2) source protection. P2 areas are defined and managed to maintain or improve the quality of the drinking water source with the objective of risk minimisation. P2 areas occur within PDWSAs where the land is zoned rural and the risks need to be minimised. Low levels of development consistent with the rural zoning are considered appropriate (generally with conditions) in P2 areas. Land use compatibility in PDWSA's is guided by *State Planning Policy 2.7 Public Drinking Water Source* (WAPC, June 2003), the *Middle Helena Catchment Area Land Use and Water Management Strategy (Middle Helena LUWMS)* (WAPC, June 2010) and *Water quality protection note no. 25 - Land use compatibility tables for public drinking water source areas (LUCT)* (DWER, April 2016).

Proposed land use compatibility in P2 areas

In accordance with the *LUCT,* restaurants (including cafés and tea-rooms) are normally 'incompatible' in P2 areas, but an exception has been made for the Middle Helena Catchment in acknowledgement of the City of Kalamunda's desire to promote tourism in the area. As part of developing the *Middle Helena LUWMS*, it was agreed to allow these land uses subject to limitations on the scale of the proposed developments and best environmental management practices conditions, particularly with respect to the on-site wastewater disposal system, use of grease traps, appropriate stormwater management and consideration of possible water quality impacts to local waterways

(which feeds into the Middle Helena Dam and is then pumped into the Mundaring dam which services the Perth integrated water supply scheme and Goldfields water supply scheme).

In accordance with the recommendations in the *Middle Helena LUWMS*, the DWER has recommended to limit the size of restaurants in the Middle Helena Catchment to a maximum capacity of 50 people. In previous discussions for Chalet Rigi this number was raised to 80 people. This outcome is consistent with discussions through consultation of the *Middle Helena* LUWMS and provides a balance between the community and City of Kalamunda's desire for more tourism, and the need to protect this drinking water source.

Proposed number of patrons

The proposed increase in patron numbers to 480 is considered be an intensification of land use which would pose an unacceptable contamination risk to water quality. This is because there is an increased loading of contamination associated with the land use (i.e. more people, cars, wastewater, fuel storage, etc). Even if best management practices were applied the proposed land use and associated activities would still pose a maximum (or inherent) risk to the water resource, because best management practices can fail resulting in contaminants being released onsite and offsite.

It is also understood that the applicant intends to use the proposed restaurant as a reception centre when the restaurant is not in operation. In accordance with the *LUCT*, reception centres are considered to be an 'incompatible' land use in a P2 area. The *Middle Helena LUWMS* also does not allow for the establishment of reception centres in the water source protection area. The DWER is unable to provide further advice on the impacts of the proposal as there is very limited information on water management and specifically wastewater management.

New information submitted with the latest proposal

The DWER notes that additional information has been provided with the latest proposal, including:

- *Water and Stormwater Management Plan (Evergreen Consultancy, Dec 2019).*

The DWER has undertaken a preliminary review of this additional information and, while the proposal is not supported, we would like to provide the following additional advice:

Protection of Hacketts Gully

The latest proposal has again changed the location of the effluent disposal to the original area which was conditionally supported by the DWER in 2012. However, the proposal also includes a secondary treatment area in close proximity to Hacketts Gully and the effluent treatment system itself is still located in close proximity to Hackett Gully, a tributary of Piesse Brook.

The location of the secondary effluent disposal field and the effluent treatment system is approximately 35 metres from Hacketts Gully. This setback is insufficient, in accordance with the *Draft Government Sewerage Policy* (State Government, Nov 2016) and the DWER's *Water Quality Protection Note No. 70: Wastewater treatment and disposal – domestic systems* (DWER, March 2016), which both require a minimum 100 metre setback to waterways for the effluent treatment system and any effluent disposal area. The DWER has recently provided informal advice to the City of

Kalamunda that there are serious concerns over the proximity of the effluent disposal field and effluent treatment system to Hacketts Gully.

Nutrient budget

Any proposal for a reduced setback of the effluent disposal field from Hacketts Gully should be supported by a nutrient budget/balance. The details provided on the BioMAX Model C80 Wastewater Treatment System detail that the level of Total Nitrogen in the effluent is equal to (or less than) 10 mg/L. This level of Total Nitrogen is of concern to the DWER as it is significantly higher than *ANZECC Guidelines for Fresh and Marine Water Quality* (Oct 2000) for South-west Australia upland rivers, and is higher than background water quality in Hacketts Gully. The nutrient budget needs to demonstrate that the application/irrigation rate of effluent (particularly nitrogen) can be sufficiently removed via vegetation, before there is potential surface runoff or subsurface lateral runoff towards Hacketts Gully, or infiltration to the regional groundwater. This information was recommended by DWER in our previous response to the City in September 2019. However, this level of technical information has again not been provided.

Stormwater Management

The latest proposal again proposes a significant area for car parking. Again, very little detail has been provided on the stormwater management for the carpark. Further information on the stormwater management for the carpark was requested in previous correspondence to the City. However this information has still not been provided. The DWER has concerns regarding:

- Stormwater modelling and storage calculations;
- Treatment and conveyance mechanisms for large carpark;
- Extent of stormwater events being discharged off site (over property boundary);
- Interaction of carpark stormwater and the proposed primary effluent disposal field.

Conclusion

The DWER cannot support the proposal for the reasons stated above. However, should the decision making authority resolve to approve the proposal, contrary to the DWER's advice, then the following conditions of approval are recommended:

Water Management Plan

- Prior to the commencement of site works, a Water Management Plan is to be prepared and approved, to the satisfaction of the Department of Water and Environmental Regulation and the City of Kalamunda.
- The approved Water Management Plan shall be implemented to the satisfaction of the City of Kalamunda.

The Water Management Plan should identify and address all potential risks to water quality from the existing land uses and proposed development, including but not limited to:

- wastewater loadings and management;
- nutrient budget and effluent disposal field details;
- management of stormwater from carparks and roads;
- management of irrigation and nutrients from landscaped areas;
- potential impacts and mitigation measures for onsite and offsite water quality if proposed management systems fail

The Water Management Plan should be prepared in accordance with relevant Water Quality Protection Notes (WQPN) and guidelines including:

- *WQPN 25: Land use compatibility tables for public drinking water source areas;*
- *WQPN 70: Wastewater treatment and disposal – domestic systems;*
- *WQPN 79: Rural restaurants, cafés and taverns near sensitive water resources;*
- *WQPN 88: Rural tourist accommodation;*
- *Middle Helena Catchment Area Land Use and Water Management Strategy.*

Please also note that this response is the advice of the DWER to the City of Kalamunda, as the decision making authority, based on the information provided in the referral from the City. No portion of this advice should be provided to the proponent or the general public without the prior approval of the DWER. In addition, queries from the proponent or the general public in relation to the proposal and the DWER's advice will be directed to the City as the decision making authority, until it can be confirmed that the City has accepted and applied the advice of the DWER.

If you wish to discuss the matter further, please contact myself on 6250 8043 or via email – jim.mackintosh@dwer.wa.gov.au .

Yours sincerely,

Jim Mackintosh
Program Manager
Planning Advice Section
Swan Avon Region

26 February 2020