



MEMORANDUM

Subject	Bright Tank Brewing Serpentine – Response to Shire & Referral Agency Feedback
Date	2 August 2022
Reference	22/014
To	Ashwin Nair, Shire of Serpentine Jarrahdale
From	Jesse Dunbar, Taylor Burrell Barnett Kelly Lavell, WaterInsight

Following the Shire's initial assessment of the development application for the proposed Restaurant and Brewery at 1248 Karnup Road, Serpentine, the Shire issued a further information request on 27 May 2022, with various referral agency comments provided subsequently. The following tables set out the various comments received, and the applicant responses to enable the Shire's assessment of the proposal.

Ref	Shire of Serpentine Jarrahdale Feedback	Applicant Response
Planning		
1.	The documentation submitted references a 'Aquaponics' use occurring on the portion of land to the north of the development which will supply food to the proposed restaurant. There is no information in the application relating to this component. Can you please confirm if this use falls part of the application	<p>The aquaponics systems outlined in the DA demonstrate one way in which the site intends to operate with environmental sustainability at the forefront.</p> <p>The proposal does not include any commercial aquaculture activities associated with the aquaponics, which would necessitate further approvals. Should such systems/operations expand or become commercial in nature in the future, separate approvals will be sought.</p> <p>The existing rural-residential use of the property will continue, which includes the growing of vegetables and fruit for domestic purposes.</p>



<p>2. The application also refers to food trucks, however, there is no information in relation to it how many operation times, likely traffic generation. Can you please advise if this falls within the scope of the proposed development</p>	<p>This does not fall within the scope of the application.</p>
<p>3. The proposed Brewery component of the development seeks to produce 1,000,000 litres of beer in the first year and 5,000,000 in year 5. Can you please advise how much beer will be used to supply the proposed Restaurant and will be packaged for supply offsite? Also, frequency of beer to be taken offsite for distribution.</p>	<p>The brewery will produce 200,000L for the Serpentine venue, a further 30,000L for the East Perth venue, with the remaining being wholesale.</p> <p>The brewery is proposed to grow to 1,000,000L total production in the first two years, with maximum production likely to occur between 5-10 years from commencement, depending on market conditions.</p> <p>Outgoing brewery distribution will occur once a week.</p>
<p>4. The site plans in the various documents shows various alignments of the driveway. Can you please confirm the final alignment for consideration as part of this process?</p>	<p>Refer to the alignment depicted on the submitted development plans and transport impact assessment.</p>
<p>5. In terms of the submitted Bushfire Management Plan (BMP) the Shire will forward comments received from the Department of Fire Emergency Services once received</p>	<p>BMP updated to address DFES comments.</p>
<p>6. In terms of design, the planning report references that the brew shed will reflect a similar style warehouse-style appearance of the proposed restaurant development. It is visible that there has been an attempt to connect the two structures by use of recycled brick on the southern and northern elevation of the brew shed, however, as captured below the brew shed still reflects a development commonplace within an industrial area.</p>	<p>The style of the brewery structure is entirely appropriate for the rural setting of the property, and is commonplace for rural properties, with numerous examples of similar style structures in the surrounding area.</p>
<p>7. In terms of the northern elevation of the brew shed, treatments should be considered to the visible portions of the shed which project east and west of the restaurant building to elevate the rural characteristics of the locality. There is also an opportunity here to improve the relationship between the two buildings. The brew shed due to its size appears to dominate the restaurant building. Treatments should be considered to reduce the perception of bulk and scale of the building when viewed.</p>	<p>The use of steel/Colorbond materials is commonplace in rural areas, with dairy sheds, machinery sheds, hay sheds, farm sheds, shearing sheds and livestock sheds all typically comprising of a similar appearance to the proposed brewery.</p> <p>The enhancement of this structure through the inclusion of decorative recycled brickwork provides an entirely appropriate built form outcome for the site and its surrounds.</p>



With respect to the bulk of the brewery which extends beyond the restaurant building, this will be minimised through the use of landscaping, including mature trees, north of the venue. Furthermore, the structure will be obscured from view by the playground equipment proposed on the western side of the restaurant.

In terms of the south elevation as seen below, the application report references the distance to neighbouring properties and setback of development area from Karnup Road. The development itself however, is to be sited on an elevated position on the property. The development as a result will be a prominent feature in the landscape. The southern elevation of the brew shed strongly holds characteristics associated with industrial type development in an industrial area. Treatments should be considered to reduce the scale of the building and also additional treatments to elevate the characteristics of the rural locality. As proposed, the form of development poses a concern due to its compatibility with its rural surroundings and existing smaller developments within the immediate locality

8.



In terms of parking requirements under the draft Shire of Serpentine Jarrahdale Local Planning Scheme No.3, the submitted application is silent on providing an assessment against the parking requirements listed within the documents.

9.

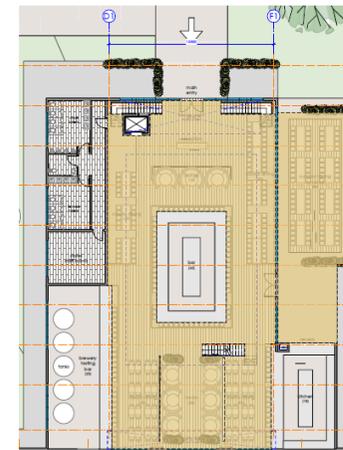
restaurant/café	1 bay per 4m ² of dining, drinking and/or lounge areas and 1 bay per 4m ² of public assembly areas.
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The Shire requires the assessment to be included in the planning report. The information must include the areas designated for dining, drinking and/or lounge areas and assembly areas so the Shire can confirm the parking requirements under draft LPS 3.

The proposed restaurant includes approximately 983.5m² of dining, drinking and/or lounge areas (as depicted on the plans below), with no public assembly areas.

This equates to a parking requirement of 246 bays under draft LPS3.

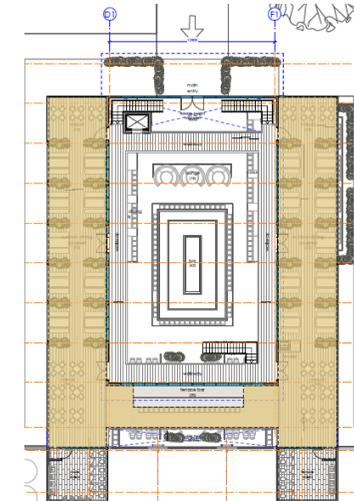
A total of 251 parking bays are provided on site, compliant with the requirements of draft LPS3.



venue // entry level plan proposed
1:400 1:125

plan reference key:
 gross floor area restaurant

AREA SCHEDULE:	
GROUND FLOOR RESTAURANT AREA	569.5 sq m
FIRST FLOOR RESTAURANT AREA	414 sq m
TOTAL:	983.5 sq m



venue // first floor plan proposed
1:400 1:125

Engineering

10. The basis of vehicle trip generation assumed in the submitted Traffic Impact Assessment (TIA) appears to be unrealistic. Can you please provide the rationale behind using the WAPC trip generation rate for restaurants of 10 trips per 100 seats? This rate would appear to be more commonly used for urban areas where public transport is available and mode share of private car is less than in rural areas. Subject to this being amended to reflect a higher trip generation during peak periods, the TIA would have to be amended to reflect accordingly

As outlined in the development application and TIA, the proponent intends on providing shuttle bus services to surrounding hubs including Rockingham, Byford and Armadale, providing patrons with alternative transportation options to the venue. Further, it is anticipated a proportion of patrons will visit the venue via private or commercial charters, with appropriate parking provided for such vehicles. This reduces the quantum of trip generation during the peak hour. The average peak hour rate as set out under the WAPC Guidelines/RTA Guide is therefore considered appropriate for the basis of the trip generation for the proposal.

11. Based on the submitted TIS, the document recommends a BAL and BAR treatments as a result of the existing road network and distribution of traffic. Concept plans of the site access intersection with Karnup Road showing the BAL and BAR treatments to demonstrate that the

An initial review of the potential treatments to the site entry indicate sufficient width in the road reserve adjacent to the property to accommodate the necessary treatments. It is anticipated an appropriate condition would be placed on the development approval requiring



development will provide for a safe intersection. In addition, the concept plans must show all swept path movements for 19m semi vehicles and B99 cars to illustrate that a 19-metre vehicle turning into and out of the site will be able to stay lane-correct without significantly impeding through movements

engineering drawings and specifications being submitted for the Shire's approval of the necessary turning facilities. The detailed design of such facilities would ensure vehicles accessing the site are able to stay lane-correct.

12. Confirmation that BAL and BAR treatment will result in a safe intersection layout with regards to Heavy Vehicle classification of Karnup Road (i.e. significant amount of commercial vehicle activity during the week with nearby extractive industry sites);

The amount of heavy vehicle traffic accessing the site is minimal, estimated at 1-3 trips on weekdays. The BAR treatment can be at designed with a queue length to accommodate a semi-trailer and a light vehicle, which has a queue length of 30.5m (19.5m + 3m + 5.5m + 3m). This provides sufficient room for a following heavy vehicle to pass the queued vehicles on Karnup Road, albeit at lower speed with the widened sealed shoulder.

13. The TIA at 6.4.3 references 'localised widening at intersections traversed by the service vehicles and busses will be provided. this will be shown in the detailed design stage'. The Shire as part of its merits-based assessment is required to review the intersections proposed to be taken by the service vehicles/busses within the locality to assess the capacity and existing configurations (geometry) to ensure the vehicles can safely pass through without impacting upon the road network

The localised widening referred to in the TIA relates to intersections within the property only, as opposed to the surrounding road network.

It is anticipated an appropriate condition would be placed on the development approval requiring parking areas to be designed and constructed in accordance with the relevant Australian Standards, with crossovers designed and constructed to the specification and satisfaction of the Shire of Serpentine Jarrahdale. This requires the necessary localised widening at the site's internal intersections is appropriately considered at the detailed design stage.

14. Frequency of service vehicles attending to site for both components of the proposal.

Service vehicles will typically attend the site as follows:

- Grain delivery once a fortnight
- Hops delivery once a fortnight
- Restaurant kitchen delivery maximum 2-3 times per day during the week, only when the venue is closed
- Outgoing brewery distribution once a week

Health

15. The submitted ENA does not model noise, gaseous or odour emissions associated with the brewing process or odour. The EPA document Guidance for the Assessment of Environmental factors Document lists 'Beverage Manufacturing' as an Industry with Odour, Dust, Gaseous and Noise as likely emission resulting from such industry. To this end, there is one sensitive receptor located within the 500m radius listed within the EPA document. The

A 24 HL Steam Fired Automatic Four Vessel Brewhouse is proposed for the onsite brewery. This is a closed boiler system, which condenses the steam back to water to go to drain. The equipment and brewing process is highly efficient and creates minimal (if any) noise, odour, gaseous or dust emissions.



Shire notes there are a number of other sensitive receptors located approx. 650m from the proposed brewery. Due to the volume of beer proposed to be produced, the Shire is taking a precautionary approach and seeks more information surrounding these emissions to ensure the development ('Brewery' component) does not lead to adverse amenity impacts upon the locality.

The brewhouse proposed to be utilised is the same as the equipment used at Bright Tank's East Perth venue, which (albeit a smaller operation) is located a much denser urban area, with sensitive receptors located immediately adjoining the facility. No issues relating to odour, dust, gaseous or noise emissions have been raised since it commenced operation in July 2018.

All other equipment utilised in the brewery will not produce any adverse amenity impacts on the locality, especially when compared to existing rural activities in the Serpentine local area. Detailed specifications of the brewery equipment can be provided to the Shire upon request.

Environment

16.

The proposed driveway traverses the Water Corporation Drain which runs west to east on the property. What treatments are proposed to ensure the flow of water in this drain is not impeded upon

The Water Corporation drain is located outside the sites western boundary and runs south to north. The drain through the centre of the site which runs east to west is a modified phemeral creek line. It is not a Water Corporation drain. Previous landowners have modified the waterway which now resembles a relatively straight drain to connect to the Water Corporation drain located along the site's western boundary.

The alignment of the entrance road was modified to prevent clearing of trees. The drain/waterway is currently vegetated as seen in the photo below. Culverts will be placed in the drain/waterway to provide a crossing and ensure flow is not impeded.



17.

The Shire are awaiting the Department of Primary Industries and Regional Development (DPIRD) and the Department of Water Environment regulation (DWER) which will be

Refer tables below responding to DPIRD/DWER feedback.



important to establish suitability/ computability of development in relation to proximity to the existing wetlands. Furthermore, as the development is located within the Peel Harvey Catchment.

18.	The Nutrient Management Plan (NIMP) submitted for the proposal relies on approximately 10ha of land for the irrigation of treated wastewaters from the brewing process. The NIMP does not provide the separation of groundwater within this area of the site. The NIMP should be updated to include this information	Clarity around the depth to groundwater at the irrigation areas will be included in the NIMP. The NIMP does however include an assessment of the maximum groundwater level using a DWER monitoring bore with 46 years of monitoring data and discusses the groundwater levels encountered at the site during the Geotechnical Investigation on 23 August 2021.
19.	In terms of the wetlands, I will provide you with the Department of Biodiversity, Conservation and Attractions (DBCA) comments once we receive their comments	Refer table below responding to DBCA feedback.
20.	The proposed Brewery component of the development seeks to produce 1 million litres of beer in the first year and 5m litres in year 5. How will the fivefold increase in production be managed through ramping up waste management? Is the current wastewater system sized upon maximum production and maximum occupancy? Has this received endorsement from Dept of Health noting there is no ability to secure reticulated sewer services, and thus is a matter that cannot be conditioned given its relevance to the merits of the application.	This matter is addressed in the NIMP, which has been submitted to DWER. It includes a water balance and nutrient balance for both Year 1 and Year 5 of operation to demonstrate all issues have been considered up front. It confirms the site is able to comply with current DWER requirements.

Ref	Department of Water and Environmental Regulation Feedback	Applicant Response
Environmental Noise		
1.	ENB agrees that noise emissions from the proposed development will be able to be managed to comply with the Noise Regulations.	No further action required.
2.	Although it may be reasonable to assume that there will not be much activity and hence limited noise emissions in the period before 9:00am on Sunday, the proponent may need to be made aware that they are required to manage their noise emissions before 9:00am on Sunday morning.	Noted, and to be managed during the operational phase of development. No further action required.
Issue: Industry Regulation		



The following matters require further clarification:

- Details on the 1 MW steam boiler including the fuel source and potential air emissions.
- Details of the reverse osmosis system including its maximum daily design capacity and management of the saline waste generated.
- Detail of any other beverage products produced e.g. cider, fruit juice products and where the juices will be processed or sourced.
- Details of the expected maximum daily volumes of wastewater produced from the brewery and the restaurant.
- Minimal detail is provided on the proposed brewery AND restaurant wastewater treatment and/or disposal systems. It is unclear whether the two waste streams will be mixed for the purposes of treatment and/or disposal. The Department would not support the mixing of the blackwater and the brewhouse waste streams.
- Whether the site is adequately sized and suitable for on-site wastewater disposal given the large daily wastewater volumes requiring disposal even during the wet winter months i.e up to 678kL/day of blackwater and up to 678kL/day of brewery wastewater has been proposed as needing disposal.
- Depth to the highest winter water table in the irrigation areas, given that a 1.5m separation distance is required.

The site and soil evaluation report concludes “there are no site constraints to an on-site wwtp”, despite very shallow groundwater (<1m) and very permeable Bassendean sands (>4.5 m/d) with next to no ability to retain phosphorus. It is proposed to store some wastewater over winter, however no detail of winter storage or off-site disposal is proposed.

Notwithstanding that construction and operation of the development is to occur in accordance with a works approval and licence requirements under the EP Act, the following response is provided:

A Site and Soil Evaluation has been prepared to discuss in detail the restaurant wastewater treatment system and the Works Approval discusses in detail the brewery wastewater treatment system.

The Site and Soil Evaluation explains that the restaurant/brewery will be licensed to seat a maximum of 2000 guests per day. The restaurant wastewater treatment system however was initially designed for 4000 guests and 30 support staff a day to allow Bright Tank to hold a special event, such as a beer festival.

It's acknowledged in the SSE that such as event would require Council approval.

For simplicity however, Bright Tank will now instal a restaurant wastewater treatment system for 2000 guests and 30 support staff a day to match the development application. The volumes of wastewater produced by 2000 guests per day and 30 support staff will be approximately 70.1 m3/day (approximately half of what was originally proposed). This falls under the licencing limit for Category 54 Sewage Premise of 100m3/day. This will remove the need to include Category 54 in the Works Approval.

Transportable toilets will be hired for any special events, as required.

The Geotechnical Investigation was completed in August 2021, groundwater was encountered at two locations only at 1.2 m bgl and 1.7 m bgl. The proposed restaurant wastewater disposal areas are located in close proximity to these sampling locations. The flat bed leach drains are required to achieve a clearance to groundwater of 1.5 m.

2021 recorded above average rainfall, the groundwater levels recorded in August 2021 are an accurate representation of the likely maximum groundwater levels on site. Worst case, the site may require approximately 0.5 m of fill for the leach drain areas to achieve a clearance to maximum groundwater.

The Department of Primary Industries and Regional Development (Rob Summers) has been contacted to discuss the use of soil amendments. DPIRD publications recommend a Spearwood Sand be used as a measure to reduce the risk of nutrient leaching to groundwater. This commitment has been included in the SSE.

6 groundwater monitoring bores will be installed prior to the 2022 groundwater peak occurring. This will assist with confirming the required depth of fill and soil amendment required.

The required technology is available to treat the restaurant (sewage) wastewater to a secondary standard.

The proposed land application area achieves a minimum 100m buffer to all drains, dams, waterways.



4. The Department has concerns that the site may not be suitable for a brewery of this size given the volumes of wastewater that will be produced requiring on-site disposal.

The proponent acknowledges that best practice water and nutrient management will need to be incorporated at the site and are willing to do what is required to obtain planning and licencing approvals.

Measures to reduce the hydraulic loading from both the brewery and the sewage/restaurant have been made. The brewery wastewater will be used for toilet flushing in the restaurant and recycled in the brewery where possible for wash down and in the brewing cooling and process.

Wastewater from the brewery will be recycled, as a minimum during the months of April to September. The volume of wastewater produced in the brewery during these months will be reduced by at least 50%. No wastewater will be irrigated to land in June and July. Wastewater will be stored on site in enclosed tanks where required, to prevent mosquito breeding.

Efforts to reduce the hydraulic and nutrient loading to land have been made, the water and nutrient balance have been revised and management actions put in place where potential issues could occur, the revised water and nutrient balances are included in the NIMP.

5. The Department's concerns with hydraulic loading and capacity, proposed wastewater treatment and disposal technology, and combined volumes of wastewater requiring on-site disposal throughout the year, were raised with the applicant and consultant during a meeting in July 2021, and further detailed provided within correspondence dated 3 August 2021. Without predetermining any application which may be submitted, if the above matters are not resolved, it is unclear whether the Department would be able to grant a works approval for the proposal as articulated in the scoping meeting and correspondence.

Efforts to reduce the hydraulic loading are detailed above.

The proponent has sought advice from several wastewater treatment manufacturers and independent advice from an expert wastewater consultant. We believe the wastewater treatment system originally proposed was superior to any other brewery, or prescribed premise in the Peel Harvey, and complied with the required water quality targets.

Based on their experience at other prescribed premises and breweries in the south west, it appears DWER assumed from the start that the brewery would be high risk without looking at the details and facts of the project and the wastewater management systems proposed.

Genuine efforts to comply with the required policies were made and the proponent has made further advances in water and nutrient management to appease DWER's concerns. This brewery will be an example of best practice water and nutrient management once developed.

With the proposed water recycling, the revised nutrient budget demonstrates that the nutrient loading will certainly comply with the nutrient application targets of the Peel Harvey EPP in the first few years of operation when using the treatment system that was originally proposed (P Precipitation and DAF). It isn't until Year 5 and at max production that the EPP nutrient application targets have the potential to be exceeded.

DWER needs to understand that the site already proposed to meet the nutrient loading targets for Risk Category A sites (the highest risk category) which potentially have a significant eutrophication risk to surface



water within 500m of the irrigation area (from Water Quality Protection Note – Nutrient Irrigation Management Plans. Department of Water (DoW 2010) – which all prescribed premises in the Peel Harvey are required to comply with.

The Risk Category A nutrient application rates are based on a maintenance level of nutrient application only, so that nutrient inputs match nutrient outputs and no loss to the environment is expected. Perhaps DWER (Planning Advice) is not aware of this?

The Peel Harvey EPP recommended nutrient application rates for broadacre farming are less than DoW 2010, however with the proposed water recycling, the conservative nutrient balance completed demonstrates the site is able to also comply with the EPP targets.

By Year 5, when the Peel Harvey EPP nutrient application targets have the potential to be exceeded, further water recycling and water efficiency measures can be introduced into the brewery to reduce the wastewater loading and subsequent nutrient loading to land.

Mak Water were however consulted following the meeting on the 29th June 2022 to provide further advice. The brewery wastewater can be treated to a higher standard using a membrane bioreactor, however DWER needs to understand that the irrigation areas will contain improved pastures and crops which require nutrients to grow productively. The proponent has every intention of maximising the productivity of the irrigation areas and has already arranged for another farmer to take the valuable feed source which will be harvested from the irrigation areas.

The higher the standard the brewery wastewater is treated; the more commercial grade fertilisers will need to be applied to the irrigation paddocks to maintain healthy pastures and crops on these areas and ensure the maximum nutrient removal from the property. DPIRD is not supportive of the site being required to meet the EPP nutrient application targets for this reason and should be contacted for expert advice on this topic.

The water consumption will be reduced from 1:6 to 1:3 (1 litre of beer will use 3 litres of water) which is best practice.

The hydraulic loading of the restaurant (sewage) treatment system will be designed to match the development application (max 2000 people/day), rather than designing a system for larger events which will reduce the hydraulic loading and required land disposal area by approximately 50%.

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6. Preliminary assessment of the application has found that the detail contained within the works approval application differs to that within this development application, as well as issues with brewery and sewage wastewater treatment and disposal.

The information contained within the DA Report and associated NIMP is consistent, there was confusion from the referral agencies between the brewery and sewage treatments systems. Further work has been undertaken with regards to wastewater treatment and loading to address DWER's concerns as raised



through review of the works approval application. The Works Approval application and supporting documents have been revised to reflect the modified proposal.

7. The Department has written to the applicant on 3 June 2022 detailing concerns with unacceptable risk of harm to the environment as well as inconsistencies between the works approval application and this development application. The Department has stopped the clock on this works approval application pending a response from the applicant. Further communications are to be held between the applicant and the Department.

A meeting with the applicant, DWER, Shire of Serpentine Jarrahdale and consultant team was held on 29 June 2022. The relevant documents have been updated and resubmitted as discussed at this meeting.

Issue: Nutrient Export Risk – Peel-Harvey Catchment

- The detail contained within the NIMP provides no information on nutrient removal and does not demonstrate that the input and export target rates with management practices can be met for nitrogen and phosphorus:
8.
 - 0.29kg/ha/year, as specified within the Department's report Hydrological and nutrient modelling of the Peel-Harvey catchmentThe Department's modelling report states necessary nutrient export loads to be less than 6.5 kg/ha/year for phosphorous and less than 45 kg/ha/year for nitrogen

As mentioned above, the brewery wastewater management system was originally designed to comply with DWER's Water Quality Protection Note 22 (DoW, 2008) to achieve a nutrient loading target of 140 kg/ha/yr of TN, 9 kg/ha/yr TP and 30 kg/ha/day of BOD. Which is consistent with all other prescribed premises, including those in the Peel Harvey.

All information submitted has included details of the brewery's nutrient and hydraulic loading expected when they initial opening to max production in 5+ years. With the water recycling, it has been demonstrated that the site will also comply with the lower rates of 6.5 kg/ha/year for phosphorous and less than 45 kg/ha/year for nitrogen (Peel Harvey EPP).

As mentioned in emails sent following the meeting on the 29th June 2022 however, the Peel Harvey EPP was gazetted in 1992 (30 years ago). Broadacre nutrient application targets were established. The Department's report Hydrological and nutrient modelling of the Peel-Harvey catchment, Section 5.1 pg 79 of this report however specifically states

"In 2004 the Department of Environment (now Department of Environment and Conservation (DEC)) set an interim load limit of 1 kg/ha/year for phosphorus from licensed premises, based on EPA Bulletin 363 (EPA 1988) (EPA 2008). This load limit was used to establish licence conditions for intensive agricultural and horticultural sites in the catchment. Given there are not many licensed premises in the catchment, they contribute small nutrient loads to the estuary compared with the total load. Zammit et al. (2006) demonstrated that removal of 44 licensed agricultural premises would reduce the phosphorus load to the estuary by 1.4%. Thus, contributions from licensed premises have been ignored in the following target-setting discussion.

For this reason, the scenario modelling in this report and the Peel Harvey Water Quality Improvement Plan both concentrate on nutrient targets and practices to reduce nutrient loads from the main sources of nutrient including urban and broadacre farming. There are no nutrient load targets or recommended best



management practices for licenced premises other than stating that intensive agriculture (feedlots, piggeries and stock holding yards) should be on hardstand and aim for net zero nutrient loss.

It appears most of DWER's formal advice to Council has been copied and pasted from advice provided from the planning application for the Peel Food Zone, which is not relevant, a brewery irrigating treated wastewater to improved pastures/crops is very different to intensive horticulture on bare sandy soils.

The revised water and nutrient balance demonstrate the original wastewater treatment system proposed (P precipitation and DAF) is able to treat the water to a standard which has the potential to comply with all required targets.

In setting the sites licenced allowable nutrient loading limits, the proponent should be required to meet the maintenance nutrient application rates specified in DoW, 2008 so that the irrigation areas can be maintained as healthy pasture and crop growing areas.

Issue: Native Vegetation Protection

Under section 51C of the *Environmental Protection Act 1986* (EP Act), clearing of native vegetation is an offence unless:

- 9.
 - it is undertaken under the authority of a clearing permit
 - it is done after the person has received notice under Section 51DA(5) that a clearing permit is not required
 the clearing is subject to an exemption

A Native Vegetation Clearing Referral was submitted to DWER by Coterra Environmental on the 9 June 2022. DWER confirmed on the 11th July 2022 that a clearing permit is not required (DWER referral reference 9767/1).

Following the biological assessment being completed, the site layout was modified to minimise the clearing of vegetation as much as possible.

Ref	Department of Primary Industries and Regional Development Feedback	Applicant Response
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The Department of Primary Industries and Regional Development (DPIRD) objects to the proposal for the following reasons:

State Planning Policy 2.5 - Rural Planning in section 5.5 states the following:

WAPC policy is to:

- 1. *support small scale tourism opportunities, such as bed and breakfast, holiday house, chalet, art gallery, micro-brewery and land uses associated with primary production, within the rural zone;*

The policy provisions of SPP 2.5 do not prevent consideration of non-rural uses within rural zones. As quoted in DPIRD's correspondence, small scale tourism opportunities may be supported within the rural zone. The term 'small scale' is not defined, nor is the term 'micro-brewery' – and there is no formal definition of 'microbrewery' in Australia. However, based on industry experience, the proposed brewery will operate as a small craft brewery,



The proposed restaurant will have a seating capacity of 1000 and the brewery at full production will annually produce 5 million litres of beer for both the Serpentine and East Perth venues of Bright Tank as well as the wholesale market. This is a large development, and it cannot be described as a small-scale tourism opportunity or micro-brewery.

potentially expanding to a larger scale craft brewery in the future. In contrast, Bright Tank's East Perth venue operates as a nano/micro-brewery.

There are numerous other examples of similar businesses operating successfully within rural zones, such as:

- Millbrook Winery (Old Chestnut Lane, Jarrahdale) – Rural zoned property, winery operating in conjunction with an orchard, olive grove and vegetable garden.
- Rocky Ridge Brewing Co. (665 Boallia Road, Jindong) – Rural zoned property, brewery operating in conjunction with a dairy farm.
- Beerfarm (177 Gale Road, Metricup) – Rural zoned property, brewery operating with cattle grazing.

The proposed brewery will operate as a full-circle system, with best-practice sustainable agriculture. Bright Tank already supplies food source to local agribusiness in the area, which is intended to expand as part of this proposal. Spent grain from the East Perth brewery is fed to cattle on the Serpentine property and distributed to other local businesses. On-site vegetable gardens will also be serviced by waste from the brewery. These sustainable agriculture practices are at the core of the proposal, and clearly demonstrate the compatibility of the brewery and restaurant with rural and agricultural uses.

As stated on DPIRD's website, the WA Government is committed to supporting the growth and development of the agriculture, fisheries and food industries for the benefit of the State. The DPIRD's Agribusiness, Food and Trade area works in partnership with government, industry and business to enable growth in the value, competitiveness and diversification of WA's agrifood sector through facilitation of value adding, investment and export. In fact, DPIRD's Value Add Agribusiness Investment Attraction Fund, which is awarded to eligible WA agriculture and food businesses, was received by a number of breweries previously, indicating DPIRD's broader support for such agribusinesses.

The Shire of Serpentine-Jarrahdale Town Planning Scheme No. 2 (TPS2) states in Clause 5.10.1 the following:

2. *The purpose and intent of the Rural zone is to allocate land to accommodate the full range of rural pursuits and associated activities.*

The proposed restaurant and brewery are not rural pursuits and due to their large size, cannot be regarded as associated activities.

Land use permissibility for the proposed uses within the Rural zone under both TPS2 and Draft LPS3 is set out below. The uses are clearly contemplated as being acceptable within the Rural zone from a planning perspective, subject to the zone objectives being achieved (as detailed further below).

Land use	TPS2 Permissibility	Draft LPS3 Permissibility
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Restaurant	Discretionary, subject to advertising	Discretionary, subject to advertising
Brewery	Not listed (discretionary, subject to advertising)	Discretionary, not subject to advertising

The Shire of Serpentine-Jarrahdale Draft Town Planning Scheme No. 3 have the following objectives for the Rural zone:

To provide for the maintenance or enhancement of specific local rural character.

To protect and accommodate broad acre agricultural activities such as cropping and grazing and intensive uses such as horticulture as primary uses, with other rural pursuits and rural industries as secondary uses in circumstances where they demonstrate compatibility with the primary use.

3. *To maintain and enhance the environmental qualities of the landscape, vegetation, soils and water bodies including groundwater, to protect sensitive areas especially the natural valley and watercourse systems from damage.*

To provide for the operation and development of existing, future and potential rural land uses by limiting the introduction of sensitive land uses in the Rural zone.

To provide for a range of non-rural land uses where they have demonstrated benefit and are compatible with surrounding rural uses.

In the broader context of the site, the proposed restaurant and brewery can quite reasonably be considered as associated activities. Comprising an overall area of 43.2ha, the restaurant and brewery cover approximately 1.6ha (including the development footprint and carparking areas). This equates to a site coverage of less than 4% of the total site area, which does not prevent the ongoing or future use of the remainder of the property for a full range of rural pursuits.

The remainder of the property is intended to be retained for rural-residential purposes, as it is currently being used. The overall future vision for the proposal is to establish a development that exemplifies a sustainable farming and food production model.

The proposal provides for the maintenance of the specific local character, achieved through its placement and orientation within the site, the vintage nature of the restaurant structure and the architectural design of the brewery to present as a rural shed, clearly assimilating with the character of the area. The retention of existing vegetation within the property, together with additional planting surrounding development, ensures the development has minimal impact on the visual amenity of the area.

The development is not defined as a sensitive land use and does not prevent the broader area from being utilised for broad acre agricultural activities, rural pursuits or rural industries.

The development is specifically and sensitively sited to ensure it poses minimal impact on the site's environmental attributes and natural features. Appropriate management measures with respect to the establishment and ongoing operation of the restaurant and brewery will ensure the environmental qualities of the landscape, vegetation, soils and water bodies are maintained.

The proposal is considered to provide a benefit to the local and broader community, providing a local meeting place and social venue in an area which is currently lacking in such venues. The development application and RFI response demonstrate the proposal to be compatible with surrounding rural uses.

As detailed in the submitted Transport Impact Assessment, the surrounding roadway capacity is capable of accommodating the quantum of increased traffic. Further information



regarding the adopted trip generation rate is provided in this document. It is expected a number of visitors to the site will attend in groups via private charters and the shuttle bus service to be provided by Bright Tank.

The proposed restaurant clearly falls within the established definitions under both TPS2 and Draft LPS3.

The use of 'brewery' is not defined under TPS2, and the proposed use does not reasonably fall under any other use defined under TPS2. As a separate use of 'brewery' is defined under Draft LPS3, it is clear this use is differentiated from any other land use definition under the current TPS2.

Based on the above, the suggestion that the use does not demonstrate benefit or compatibility with surrounding rural uses is unsubstantiated.

To properly assess the proposed trade waste irrigation scheme outlined in the Nutrient and Irrigation Management Plan (NIMP), the following points need to be considered:

- | | |
|---|---|
| <p>4. Wastewater irrigation during June – August is not suitable as rainfall exceeds evapotranspiration (DPIRD irrigation calculator) during this period. Insufficient evidence has been provided to demonstrate that groundwater level or quality will not be affected by trade waste leaching, or plant growth by waterlogging during these months. Considering peak trade waste production volumes, winter storage capacity needs to hold 3.51 ML of treated wastewater to store all brewery wastewater produced June – August, inclusive.</p> | <p>Irrigation of treated wastewater will not occur in Winter to prevent the possible leaching of nutrients to groundwater. Waterlogging is not expected to be an issue, although rainfall exceeds evaporation in June to August, the site has a saturated hydraulic conductivity (infiltration rate) of greater than 4m/day.</p> <p>Wastewater will be recycled for toilet flushing and in the brewery to reduce potable water use and the production of treated wastewater.</p> <p>Details of the water recycling will be added to the NIMP.</p> |
| <p>5. Minimum separation to groundwater has not been shown for the proposed trade waste irrigation area. Two meters of separation to groundwater is preferred for the irrigation area, but 1.5m separation is permitted with an adequate groundwater monitoring programme.</p> | <p>The brewery wastewater will be treated to a high standard and an onsite groundwater monitoring program will be implemented.</p> |
| <p>6. A clear nutrient offtake strategy needs to document how the pasture growth matches nutrient input, this should include: all types of crops grown and their respective yields, method of harvest and disposal method, nutrient and water supplementation to achieve target yield, and any specific agronomic practice (i.e. re-sowing, weed suppression).</p> | <p>The NIMP will be revised to include additional cropping details.</p> |



Ref	Water Corporation Feedback	Applicant Response
1.	<p><u>Servicing</u></p> <p>The subject land is remote from water and wastewater services.</p>	Noted. No further action required.
2.	<p><u>Drainage</u></p> <p>The subject area falls within the Serpentine Drainage Catchment in the Mundijong Drainage District, a rural drainage system. The Serpentine Branch Drain runs along the western boundary of the subject site.</p> <p>Rural drains are not designed to give flood protection at all times and some inundation of land can be expected. Water Corporation maintains its existing drains to ensure they are capable of clearing water from adjacent rural properties within three days of a storm event, where contours and internal drainage make this physically possible.</p> <p>To determine the flood level the developer should contact the Department of Water and Environmental Regulations regarding the Drainage and Water Management Plan which includes the subject area.</p> <p>Developments within this catchment are required to contain the flows from a one in one-hundred-year storm event on site. Discharge to Water Corporation drains must be compensated to pre-development levels. No adverse discharge or runoff from the subject land would be allowed into our drainage system.</p>	Noted. No further action required.
3.	<p><u>Protection of Services</u></p> <p>It should be noted that an existing drainage channel is located in close proximity to the subject land (plan attached). Due consideration will be required when developing in this area. The developer is required to fund the full cost of protecting or modifying any of the existing infrastructure which may be affected by the proposed development. In accordance with Section 90 of the Water Services Act 2012 whenever development is proposed near Water Corporation assets the applicant/developer/owner needs approval prior to construction. This should be done by submitting an Approval of Works application. For information about this application please follow this link:</p> <p>https://www.watercorporation.com.au/home/builders-and-developers/working-near-our-assets/approval-for-works</p>	Noted. No further action required.
4.	<p><u>General</u></p> <p>This proposal will require approval by our Building Services section prior to commencement of works. Infrastructure contributions and fees may be required to be paid prior to approval being issued.</p>	Noted. No further action required.



Ref	Department of Biodiversity, Conservation & Attractions Feedback	Applicant Response
1.	It is DBCA's expectation that the Shire of Serpentine Jarrahdale and DWER will review the Nutrient and Irrigation Management Plan and consider if the separation distance between irrigation area 2 and the portion of the wetland UFI 7551 located to the southeast of the irrigation area is adequate.	Noted. No further action required.
2.	DBCA also expects that the Shire of Serpentine Jarrahdale will consider any other environmental issues associated with the proposal.	Noted. Environmental issues have been adequately addressed through the documentation submitted in support of the development application.

Ref	Department of Health	Applicant Response
Water Supply and Wastewater Disposal		
		<p>The Site and Soil Evaluation has been revised for half the number of patrons originally proposed. Originally the restaurant, bar wastewater treatment system was designed for large events such as a beer festival for 4000 patrons and 30 staff a day.</p> <p>The number of patrons has been halved to match the planning application (max 2000/day and 30 staff). Portable toilets will be hired for events as required. This reduces the hydraulic loading and required land application area by approximately half.</p>
1.	<p>a. The disposal areas appear to be located near potential areas of flooding, onsite dams and winter creek/drain. The disposal area/s need to be designed with a minimum 100 metre setback from sewage sensitive areas including the dams;</p>	<p>The SSE acknowledges the site is in a sewage sensitive area and commits to using a secondary wastewater treatment system. The STS and land application area is to be located on an elevated area of the site. The SSE demonstrates the area is not at risk of flooding and will achieve a minimum 100m buffer to all waterways, dams and drains.</p> <p>Figure 8 of the SSE has been revised to demonstrate a 100m buffer to all dams will also be achieved.</p>
	<p>b. Demonstrate as to whether there is a creek or drain running through the property with appropriate setbacks from the disposal area/s;</p>	<p>As above, the SSE included Figure 8 which shows a 100 m buffer will be achieved to all waterways/drains/dams.</p>



c. Where areas of land become inundated, (if) land fill is used for these areas they should not be used for disposal areas. Where the use of fill is proposed to achieve separation distances, proponents may be required to provide additional information to demonstrate that solutions are effective and do not impact on other lots through water diversion;

Six groundwater monitoring bores will be installed on site prior to the 2022 groundwater peak to accurately confirm the maximum groundwater levels on site and determine the depth of fill required at the land application area. Groundwater levels recorded last year (above rainfall year) indicate the land application area has a clearance to groundwater of between 1 to 1.5 m. At most it is estimated that the land application area may require a maximum of 0.5m of fill to achieve a 1.5 m clearance to groundwater.

DPIRD has been contacted to collect the latest advice on the use of soil amendments to control nutrient leaching. Soil amendments (spearwood sand) will be applied beneath the flat bed leach drains to minimise nutrient loss to the underlying groundwater aquifer).

The site is 43ha, and the land application area is proposed to be located towards the centre of the site, water loss to the surrounding neighbours is not expected.

d. The separation from the base of the irrigation lines or disposal drains require a minimum of 1.5 metres vertical setback from the highest winter water tables;

Refer to above

2. The disposal areas should be dedicated areas that are kept separate and unencumbered by trafficable vehicles, livestock and people;

The indicative land application area complies with all of these requirements. Currently the disposal area is shown to be in a dedicated area south of the brewery, away from vehicles, livestock and people. Appropriate fencing/vegetation/bollards will be used to create a dedicated disposal area.

3. To ensure the onsite wastewater treatment plants accommodates peak daily volumes and non-peak volumes, water quality criteria and life of the system (15 years) as Engineer Certified. It was noted in the report volumes were averaged especially in relation to the brewery process.

Noted. Aquarius are the wastewater consultants/manufacturer who have been involved in the design of the system to date. Once development application has been approved, the proponent will work closely with Aquarius to complete the detailed design of the wastewater system, including the required storage to account for peak and non-peak flows.

Additional Advice Provided

The proponent appreciates the remainder of the advice and recommendations provided by DOH. Where required, appropriate Conditions can be placed on the JDAP approval which ensures the necessary information will be provided in due course.