

# CITY OF ARMADALE

## MINUTES

OF DEVELOPMENT SERVICES COMMITTEE HELD IN THE COMMITTEE ROOM, ADMINISTRATION CENTRE, 7 ORCHARD AVENUE, ARMADALE ON TUESDAY, 16 OCTOBER 2018 AT 7PM.

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**PRESENT:**

Cr D M Shaw (Chair)  
Cr C M Wielinga (Deputy Chair)  
Cr K Busby  
Cr L Sargeson  
Cr H A Zelones OAM JP  
Cr J H Munn CMC (Deputy to Cr Geary)

**APOLOGIES:**

Cr M Silver  
Cr M Geary (Conference Attendance)  
Cr C Frost (Deputy to Cr Silver)

**OBSERVERS:**

Nil

**IN ATTENDANCE:**

Mr P Sanders A/Chief Executive Officer  
Mr G Windass A/Executive Director Development Services  
Mr J Lyon Executive Director Corporate Services  
Ms S Hillel Building Services Manager  
Mr G Dine Health Services Manager  
Mrs N Cranfield Executive Assistant Development Services

**PUBLIC:**

5

*“For details of Councillor Membership on this Committee, please refer to the City’s website – [www.armadale.wa.gov.au/your council/councillors](http://www.armadale.wa.gov.au/your_council/councillors).”*

## **DISCLAIMER**

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The Disclaimer for protecting Councillors and staff from liability of information and advice given at Committee meetings was read.

## **DECLARATION OF MEMBERS' INTERESTS**

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### ***Cr Shaw***

- Proposed Single House - Lot 103 (5) Turner Road, Kelmscott
- Proposed Metropolitan Region Scheme Amendment 1343/57 - Omnibus 3

### ***Cr Busby***

- State Administrative Tribunal Mediation - Direction Notice – Lot 26 (34) Rails Crescent, Wungong

## **CONFIRMATION OF MINUTES**

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## **RECOMMEND**

**Minutes of the Development Services Committee Meeting held on 18 September 2018 be confirmed.**

**Moved Cr Sargeson**

**MOTION CARRIED**

**(6/0)**

## **ITEMS REFERRED FROM INFORMATION BULLETIN - ISSUE 17 - SEPT 2018**

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### **Outstanding Matters & Information Items**

Report on Outstanding Matters - Development Services Committee  
Reviews before the State Administrative Tribunal (SAT)

#### **Health**

Health Services Manager's Report - September 2018

#### **Planning**

Planning Applications Report - September 2018

Town Planning Scheme No.4 - Amendment Action Table

Subdivision Applications - WAPC Approvals/Refusals - September 2018

Subdivision Applications - Report on Lots Registered for 2018/2019

PAW Closure Report - Significant Actions during September 2018

Compliance Officer's Report - September 2018

#### **Building**

Building Services Manager's Report - September 2018

Building Health/Compliance Officer's Report - September 2018

Building Applications Monthly Statistics - September 2018

*Committee noted the information and no further items were raised for discussion and/or further report purposes.*

**PUBLIC QUESTION TIME – 7.05 PM**

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**Ms S Sneyd – 90 Gardener Road, Karragullen**

1. In regards to the report on the proposed Dam construction, Ms Sneyd stated that in regards to comments in the report “*It is noted that the dam is located to the east of where the proposed Restaurant is intended to be located in the separate development application. The Restaurant would then theoretically look out across the site with the dam in the foreground. Given this siting of the proposed building, it is reasonable to conclude that the dam construction works also serve a visual purpose within the context of the site*” why is the ground water being added to the dam during the dry months rather than being added directly to the irrigation system as its been done in the past? The report also states “*The site manager tops up the improved dam with bore water between November and April. This practice did not occur at predevelopment, where bores directly fed the irrigation system*”, how is the quality of water going through to Stinton Creek going to be managed, monitored and recorded in regards to the amount of water, insecticides, pesticides, other sprays that are used extensively on the orchard and to the potential damage to flora and fauna in the area?

*Chair agreed that the dam construction works could also serve as a visual purpose within the context of the site and that it could also have dual purpose from the applicant’s perspective.*

*Chair further advised of the Department of Water approval processes and also that the City’s Compliance officers act in accordance of the conditions of planning approval, but other than that there would be no further monitoring by the City and the Department of Water are responsible for any water extraction license for the creek .*

*The A/Chief Executive Officer advised that the Department of Water deal with the extraction of water from the stream and that there is no requirement for the dam water to be monitored by the City.*

**Ms S Sneyd – 980 Brookton Highway, Karragullen**

2. In regards to the report on the proposed Dam construction, Ms Sneyd referred to the Compliance officers monitoring the planning application approval conditions, this is a retrospective application, how do you monitor a retrospective planning application given that most of the dam construction is completed? How does the Council look at setting precedent when it continues to approve variations to retrospective planning applications?

*Chair advised that in terms of the precedent that potentially could be set, applications are assessed on a case by case basis and would be subject to the same processes of assessment by the City’s officers. This application came about as a result of compliance action by the City and once the City was made aware that there was an illegal structure, the applicant was required to submit a development application which is before Committee tonight and to be considered when Committee deliberated on item.*

**PUBLIC QUESTION TIME CLOSED AT 7.10 PM**

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## DEPUTATION

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### 1. Proposed Change of Use to Recreation-Private Lot 1 Cross Rd, Bedfordale

- Suzanne Strickland (landowner)

*Ms Strickland (landowner of Lot 1 Cross Road, Bedfordale and the operator of the Bedfordale Child Care Centre) addressed the Committee at 7.11pm and provided the following comments in regard to the application -*

- *Essentially, the application would allow for children's parties, games and activities, including mini golf, archery, rock climbing or laser tag, as well as the existing after school care building as an event space, to be used for organised events on weekday early evenings and Saturdays only. The children's games and activities, and as shown on the site plan, will be implemented as part of the child care centre function of the land and is not a factor in this application.*
- *This application relates to extending the operation of the child care centre to allow for the weekday early evening, and Saturday only use of this infrastructure.*
- *This development application has been triggered by a shift in the child care industry, where there is a greater expectation of the level of care and services provided. In order to stay competitive in the industry, there is a requirement for services to be available to a range of different users.*
- *We have significantly reduced the planned activities; proposing that a maximum of just four separated events be held on Saturdays only, between 9.00am and 6.30pm at two and a half hour intervals, catering for a maximum of 30 children each. Half of the two-hour event time would be spent inside the existing after school care facility for eating, gift giving and other indoor party activities, which would mean that only about one hour of each party would be outside, which would equate to a maximum of only four hours on a Saturday of outside activities. The new scheduling of these events would allow for complete cleaning of the activity areas and removes any risk of attendee overlap.*
- *The report in the agenda suggests the absolute maximum of 30 vehicles attending per party, which translates to 120 vehicles per day. The report also suggests that 4 vehicle movements per vehicle would be required per party, relating to an absolute maximum of 480 vehicle movements per weekend day.*
- *The absolute maximum number of children attending each event is 30, however it is anticipated that groups of 15-20 children would be the average booking size. The proposed events are organised by invitation and are generally attended by groups of friends travelling to the site from similar locations.*
- *The noise subject to this application is that of child's play only.*
- *All organised activities on site will be monitored and supervised by members of my staff.*
- *The closest neighbour is located more than 50 metres west of the laser tag zone. While I maintain that the children will not emit excessive noise, the equipment is not fixed and can be relocated to a separate section of the site.*
- *In summary, I am requesting that the Committee assesses the application on the basis of the likely and practical attendance at the proposed party events, rather than assuming every child has 29 friends who will arrive in separate cars.*
- *I believe that the proposed extension to operating hours, as proposed here, can seamlessly coexist with the surrounding environment, as the child care centre has done for more than 25 years. I have listened to the concerns from my neighbours and have scaled the proposal back in response. I am prepared to ensure that these activities have a limited impact on my neighbours.*

*Chair thanked Ms Strickland for her attendance.*

*Deputation retired at 7.21pm.*

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## DEVELOPMENT SERVICES COMMITTEE

16 OCTOBER 2018

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***1.1 - RECOMMITTAL - PROPOSED CHANGE OF USE TO RECREATION - PRIVATE LOT 1 (75) CROSS ROAD, BEDFORDALE***

WARD : HILLS  
FILE No. : - M/631/18  
APPLN NO. : 10.2017.168.1  
DATE : 8 October 2018  
REF : CV  
RESPONSIBLE MANAGER : EDDS  
APPLICANT : Harley Dykstra Pty Ltd  
LANDOWNER : Bedfordale Child Care Centre  
SUBJECT LAND : Property size 1.7496ha  
ZONING MRS / TPS No.4 : Rural  
Rural Living 2

**In Brief: Recommended Item**

- The City received an application for a change of use to Recreation – Private on 08/06/2018. The use is proposed to be carried out alongside the existing Child Care Premises use that has been operating from the property since 1990.
- The applicant is proposing to install recreational play equipment (e.g. laser tag, indoor rock climbing and outdoor chess equipment) for children’s party bookings. The applicant is proposing to maintain the existing approved capacity of the Child Care Premises at 87 children and 12 staff. The applicant is also requesting consideration to keep a sea container onsite.
- The Development Committee considered this application for a Recreation – Private use at Lot 1, No.75 Cross Road Bedfordale at its meeting of 18/09/2018 and did not modify the officer’s recommendation for refusal.
- At its meeting of 23/09/2018 Council resolved to recommit the item.
- The City has assessed the revised proposal and recommends that Council refuse the application.

**Tabled Items**

Nil.

**Officer Interest Declaration**

Nil.

**Strategic Implications**

2.1 Long term planning and development that is guided by a balance between economic, social and environmental objectives.

2.1.1 Review, update and implement the City’s Town Planning Scheme, taking into account social, economic and environmental considerations.

**Legislation Implications**

Planning and Development Act 2005

Town Planning Scheme No.4 (TPS No.4)

Local Planning Strategy 2016

Metropolitan Region Scheme

State Planning Policy 3.7 – Planning in Bushfire Prone Areas



**AERIAL PLAN**  
Lot 1 (No. 75) Cross Road, Bedfordale

50 0 50 100m  SCALE 1 : 5000

DATE 4 September 2018 - REVISION 1801  
p:\autocad\agenda\_drawings\2018\9\_september\75\_cross\75\_cross\_road.dwg

Based on information provided by and with the permission of the  
Western Australian Land Information Authority trading as Landgate (2012).  
Aerial photograph supplied by Landgate. Photography by Neotopia.

### **Council Policy/Local Law Implications**

PLN 3.5 - Setbacks in Rural Living and General Rural Zones

PLN 5.1 - Highway Development Policy

PLN 5.4 - Sea Containers, Railway Carriages and Other Decommissioned Transport Conveyances

### **Budget/Financial Implications**

Nil.

### **Consultation**

1. City of Armadale Development Control Unit (DCU)
2. Nearby landowners; and
3. Main Roads Western Australia (MRWA)

## **BACKGROUND**

The subject site is a triangular shaped lot located at the eastern end of Cross Road Bedforddale. The lot is bordered by another lot to the west, Cross Road to the south and Albany Highway to the north. Cross Road used to connect to Albany Highway until MRWA undertook road widening of the Highway in 1999. After this the eastern end of Cross Road was closed to become a cul de sac and the connection to Albany Highway was terminated. Cross Road can only be accessed from the west via Admiral Road.

The City's records indicate that in 1990 an approval was granted under Town Planning Scheme No.2 for a Child Care Centre at Lot 1, No.75 Cross Road. Further minor additions to the Centre were approved in 1991, 1993, 1994 and 1995. In 2004 the City granted approval for an increase to the number of children the use could host to 57. In 2014 the City approved the incorporation of an out of business hours care element which increased the number of children being cared for to 87.

### *2014 Development Approval*

The City received a development application to amend the existing Child Care Premises use on 17/06/2014. The proposal contained the following elements:

- Modifications including a verandah addition to an existing steel framed outbuilding and an associated internal fit out to create an after school care facility; and
- An increase of capacity for the number of children being cared for onsite from 50 to 87.

The City undertook consultation with nearby landowners as part of the assessment process. Two objections were received.

The City conditionally approved the development application on 17/09/2014. Conditions were applied that limited outdoor activities from 7am to 6pm and limited the number of children to be accommodated in the Child Care Premises to no more than 87. Modifications to the parking area, a Management Plan and Bushfire Management Plan were required by condition also.

*Current Application*

The scope of the application as originally presented to the City and advertised to the surrounding community was as follows:

Extended operating hours:

- Monday to Friday 7.00am to 8.00pm (currently 7.00am to 6.00pm)
- Saturday and Sunday 9.00am to 5.00pm

The applicant had indicated that party bookings would mainly occur during summer months and would be structured in the following manner:

*Two parties of a maximum 30 children at one time for a length of 2 hours each. The applicant has advised that the intention is for children and staff attendees to be onsite only and that parents and other adults will not attend parties as visitors.*

*These would be scheduled intermittently (i.e. one at 10.00am and the other at 10.30am).*

*The available scheduling for weekends would be something like as follows, although it is unlikely that all timeslots would be filled on any given day:*

<b>Booking 1</b>	<b>Booking 2</b>
10.00am – 12.00pm	10.30am – 12.30pm
12.00pm – 2.00pm	12.30pm – 2.30pm
2.00pm – 4.00pm	2.30pm – 4.30pm
4.00pm – 6.00pm	4.30pm – 6.30pm

In light of the officer recommendation to the Development Committee to refuse the application, the applicant reduced the scope of the operating hours to be as follows:

*Weekday evening use will be limited to one party per evening (4.30pm – 6.30pm) generally only when daylight hours permit (summer/autumn months). There would be a maximum of 30 children per party.*

*Weekend use would be as per the following schedule. This capacity has been reduced by 50% from the original application. Each party would have a maximum capacity of 30 children per party.*

<b>Party time</b>	<b>Capacity</b>
9.00am – 11.00am	30 children per party
11.30am – 1.30pm	
2.00pm – 4.00pm	
4.30pm – 6.30pm	

The City did not consider that the revised proposal had sufficiently addressed its concerns relating proposed use. The proposal for regular children’s parties has the capacity to result in an undue negative impact upon the amenity of nearby residential properties during weekend periods by way of noise and traffic. Accordingly the City maintained its recommendation to the Development Services Committee at its meeting of 18/09/2018 to refuse the application. The Development Services Committee did not amend the officer recommendation.

The landowner/operator asked a question during public question time at Council’s meeting on 25/09/2018 whether a further reduction in the number of parties would be considered. Council resolved to recommit the report item pending a revised proposal being submitted to the City for further consideration by the City’s officers and resubmission to the Development Services Committee, then Council. Council did not discuss the merits of the application or a revised application at its meeting on 25/09/2018.

### **DETAILS OF THE REVISED PROPOSAL**

The subject application is to incorporate additional equipment and fixtures to allow group activity bookings for children’s parties and to extend the existing operating hours. The applicant has indicated that they intend to remain within the approved occupancy limit of 87 children onsite. The applicant has indicated that staffing levels will remain at 12 persons.

The revised operating times submitted to the City on 28/09/2018 (following Council’s decision to recommit consideration of the item) are as follows:

- *One (1) event per weekday evening accommodating a maximum of 30 children, as originally proposed.*
- *Four (4) events per Saturday, as per the following schedule:*

Event time	Capacity
9.00am – 11.00am	30 children per party
11.30am – 1.30pm	
2.00pm – 4.00pm	
4.30pm – 6.30pm	

- *No Sunday operation.*

The proposal incorporates the adaptation of the existing out of school hours care building to include an indoor rock climbing wall and event space. Two outdoor chess boards, a laser tag area, a mini golf and archery areas are proposed also.

The proposal is being assessed as a Recreation – Private land use. This land use is defined as:

**“recreation - private”** means premises used for indoor or outdoor leisure, recreation or sport which are not usually open to the public without charge;

Whilst there are a few similarities with the proposed change of use and the existing Child Care Premises, the above use class is considered to most accurately define the proposed party booking business that is proposed.

The applicant is requesting consideration of keeping a sea container in association with the laser tag activity area. It is understood that the sea container is already located on the property. The City does not have evidence of a prior development approval for the sea container.

## COMMENT

### Development Control Unit (DCU)

The original proposal was referred to the City's DCU as part of the assessment process. The following comments were provided by the respective divisions of the City:

#### *Health Services*

- In 2014 Effluent Disposal system was approved for 30 children according to our records. For 87 children and possible parents in case of a party may overload the existing system.

*Applicant Response: The event (party) space will be used by a single party at one time (approximately 25 to 30 children). There are two additional effluent disposal on site relating to the other child care buildings. These systems will be available for use whilst children are utilising the outdoor activities, as they are within easier proximity.*

- Should any part of the buildings be utilised as party rooms it may be considered as a *Public Building and to comply with the Health (Public Building) Regulations 1992*. More information required for number of toilets available, which building will be available, emergency evacuation, exit signs etc.

*Applicant Response: The proposed event space has three toilets including two universal toilets, as noted on the submitted floor plan. Additional amenities are located within the two additional child care buildings on site, which will be available for use by children using the outdoor activity equipment.*

Health Services have advised that this is potentially acceptable, although standard conditions requiring compliance with the *Health Act 1911* would be necessary.

- No scheme water available to the site. More information is required to advise if potable water is available

*Applicant Response: The subject site currently has two water tanks on site which are connected to on-site bores and UV systems for drinking water. A 90,000 litre water tank is located to the rear of the proposed event space and a 45,000 litre tank is located behind the existing child care centre.*

- Operating times on weekdays will be 7am to 8pm to include children's parties. Compliance with the *Environmental Protection (Noise) Regulations 1997* will be required.

- Food for the parties provided by parents not to interfere with food prepared under strict requirements of a Food Safety Plan for the Child Care Premises or the use of the kitchen during operating hours of the child care centre.

The above matters can be addressed via the application of conditions should Council decide to approve the proposal.

#### *Environmental Services*

- More information is needed to clarify whether the proposed outdoor activity areas will impact upon existing vegetation.

*Applicant Response: There is no clearing of vegetation required as part of this application. Activities on site, particularly the mini golf course, are proposed to be located in naturally cleared areas on the site and covered by existing tree canopies.*

#### *Building Services*

- No comments.

#### *Engineering Services*

- No comments.

#### *Main Roads Western Australia*

As the Albany Highway Primary Regional Road (Category 3 PRR) reservation under the Metropolitan Region Scheme (MRS) incurs into the property the original proposal was referred to MRWA for comment. The site plan provided indicates that some the recreational activity areas such as the archery range may overlap with the MRS road reservation.

MRWA provided comments to the City on 08/08/2018 advising that it had no objections to the proposal and that the PRR reservation was no longer required over the lot and would be amended at some point in the future.

#### **Public Advertising**

The application was advertised for two weeks, closing on 30 July 2018. Advertising was carried out by way of letters to affected and nearby landowners.

Total No. of letters sent to residents/owners	: 8
Total No. of submissions received	: 8
No. of submissions of conditional support/no objection	: 0
No. of submissions of objection	: 8
No. of submissions of general advice by Service Agencies	: 1 (MRWA)

The application was advertised to nearby landowners in accordance with original proposal that was submitted to the City. The initial scope of the application is described in the Background section of this report. The main issues raised in submissions, together with a comment on each issue are outlined below.

## Key Issues

*Issue 1 - The extension of operating hours into weekends is undesirable. Additional noise and traffic on weekends will undermine the level of residential amenity of the locality.*

### Comment

#### *Applicant Response:*

*It is acknowledged that the proposed activity will increase the amount of traffic experienced on weekends. The existing planning approval allows for the use of the child care centre for indoor activities after 6.00pm on weekdays and on weekends in any case. Organised activity parties of no more than 30 children for periods of two hours each, will occur on weekends.*

*No more than two parties (60 children\*) will occur at one time. It is anticipated that carpooling will occur in many instances. Internal management procedures relating to the scheduling of organised activities have been formulated to minimise the impact of traffic.*

*The extension of operating hours on weekdays is only marginal (1 additional hour) and relates only to the organised activities as part of the Recreation – Private use; and only occurs by appointment, and during the summer months when daylight permits. It is also acknowledged that the current planning approval for the Child Care Centre permits the use of the site for indoor activities after 6pm on weekdays and on weekends.*

Whilst the proposed Recreation – Private use has similarities with the existing Child Care Premises use in that it involves children and does not propose an increase of the number of children or staff onsite from the existing approval. There are however large differences in the activities involved and the expected behaviour of children attending. It is therefore significant that an extension of outdoor activities is proposed into weeknight and weekend operating hours. Children's parties are celebrations and are normally very noisy for their duration, whereas Child Care Premises will involve a variety of activities of different intensities during the day. When viewed from this angle it is difficult to justify the proposal. While Child Care Premises are not necessarily uncommon in Residential or Rural Living zones it is uncommon that outdoor activities would be permitted by the City to occur on weekends where they impact significantly on neighbours. It is evident on the basis of the response of nearby landowners during the City's consultation period that whilst there is general acceptance of the Child Care Premises operating during weekdays there is no support for a Recreation – Private use extending into weekend operating hours. Whilst in other contexts this proposal may be considered acceptable it is not recommended for support in this instance.

With regard to the applicant's above comment that the Child Care Premises are permitted to operate on weekends under the City's 2014 approval. This assertion is not supported by the City as the applicant advised the City in the application that the operating hours were proposed to be 7am to 6pm Monday to Friday. The approval included a condition that limited outdoor activities to 7am to 6pm, but was composed on the basis of the operating hours that were proposed.

The revised proposal submitted to the City on 28/09/2018 removes Sundays from the proposed operating hours. The proposal maintains the same operating hours for Saturdays and weeknights as per the second proposal submitted to the City on 10/09/2018. While the removal of Sunday operating hours is noted, the City maintains its position regarding the impacts of the use upon local amenity stemming from the scope of the Saturday operating hours. As such, the City's response to this issue is unchanged.

\* No more than 30 children at a time under the revised proposal.

#### Recommendation

That the issue is supported.

*Issue 2 - An amusement facility would not be in keeping with the scope of a Child Care Premises which should be only for minding children for temporary periods.*

#### Comment

*Applicant Response: The activities proposed would be considered appropriate for a Child Care Centre and may be found in any standard backyard. They are not of a commercial scale to be considered an amusement facility. The proposed activities might already be implemented as part of the Bedforddale CCC school holiday program under the existing approval.*

It is acknowledged that some of the proposed recreational fixtures and equipment such as the mini golf course, archery range, outdoor chess sets and laser tag equipment could be installed and utilized in association with the Child Care Premises use. Notwithstanding this the cumulative impact of such activities occurring effectively on a seven days per week basis should be considered closely. The City does not agree with the applicant's comment that the uses "may be found in any standard backyard". The City's officers are not aware of any such example or the number of visitors for parties at a comparable property.

The City's response to this issue is unchanged in light of the revised proposal submitted on 28/09/2018.

#### Recommendation

That the issue is supported in part.

*Issue 3 - The proposal would result in excessive traffic congestion and will result in unsafe traffic movements.*

*Applicant Response: Cross Road is an Access Road under the Main Roads WA hierarchy with an indicative volume of 3000 vpd. This proposal does not relate to an intensification of the activities already permitted and offered on site and is therefore appropriate.*

*Event bookings are managed on an internal schedule that operates on a staggered schedule to ensure that drop off pick up times are managed appropriately.*

Comment

While the applicant may argue that the proposal does not represent an intensification of the existing Child Care Premises use on account of existing occupancy and staffing levels being maintained there are likely to be significant differences in visitor behaviour arising from the group booking nature of the proposed use of children's parties in comparison to the weekday operation of the Child Care Premises. For example parents may not attend and will therefore may undertake four trips per child in a relatively short period. Given the proposal to accommodate bookings of children in groups of up to 30 it is likely that parents will generally arrive drop off and to collect children en masse. Child Care Premises use tend to have a more staggered pick up and drop cycle. Coupled with the matters discussed under Issue 1 this would be undesirable during weekends from the viewpoint of nearby residents and impacts on their amenity. While it is likely that overall traffic volumes would be within the technical capacity of Cross Road it is also acknowledged that the eastern end of the road has narrow carriageway with a gravel shoulder that may not be suitable for vehicle queuing while awaiting children to exit the site. At a minimum it would be a requirement of any approval that all collections and drop offs are contained to within the property, which may be difficult given there are only 23 onsite parking bays.

The City's response to this issue is unchanged in light of the amended proposed received on 28/09/2018 as the Saturday operating hours remain the same as before.

Recommendation

That the issue is supported in part.

*Issue 4 - The proposal could result in excessive noise during weekend periods.*

*Applicant Response: The closest noise sensitive site from any outdoor activity is 53 meters (laser tag and the dwelling to the west). All children's activities will be supervised and no more than 30 children per event will be permitted (a total of 60 children onsite at any one time).*

Comment

While outdoor noise from children playing during weekday operating hours may be able to be justified on the grounds that many nearby residents are likely to be occupied at work or with other pursuits during these hours it is harder to justify the extension of such activities into weekend hours when residents are more likely to be at home. The cumulative impact of the proposed Recreation-Private weekend operating hours is likely to have a negative impact upon the amenity of the locality. The applicant does not seem to acknowledge the cumulative effect of 30 children each at four consecutive party bookings on Saturdays and potential noise generated. Parties are generally noisy in their nature as expected given they are a celebration.

The reduction of total numbers of children onsite for party attendance at any given time from 60 to 30 on Saturdays and weeknights only is noted. However, this change is not considered substantive enough to resolve the City's above concerns outlined in relation to this matter.

Recommendation

That the issue is supported.

*Issue 5 - Cross Road is a no through road in event of an emergency.*

*Applicant Response: The applicant is submitting a BMP and Emergency Evacuation Plan (EEP) as part of this proposal. The BMP demonstrates that emergency evacuation of the site is not compromised as a result of this application.*

#### Comment

From the standpoint of bushfire safety the proposal does not represent an increase in the proposed maximum occupancy of children and staff as this remains unchanged from the existing 2014 development approval. The impacts are likely to be in relation to potential differences in the nature of attendees for the Recreation Private use and their resulting expected behaviour. For example, attendees for parties may be less familiar with the location or with rehearsed emergency procedures as regular attendees to the Child Care Premises. It noted that the applicant has provided a Bushfire Management Plan and Evacuation Plan prepared by Envision Bushfire Protection dated August 2018 in support of the application. This report is discussed in further detail in the Analysis section of this item.

The revised proposal submitted on 28/09/2018 does not alter the City's response to this issue.

#### Recommendation

That the issue is supported in part.

#### **Petition**

Concurrent with the assessment of this application the City advertised its proposed Scheme Amendment No.97 to the public. Amendment No.97 proposes to amend the land use permissions in the Rural Living zone and to rezone some areas to the Special Rural zone, including Lot 1. The amendment also proposes to include Recreation – Private and Child Care premises as non-permitted (X) uses in the Special Rural zone.

A petition with 149 signatories coordinated by the Bedforddale Child Care Centre was tabled at the August 2018 Council meeting, the prayer of which reads as follows:

*“Currently proposed Amendment 97 to the City's Town Planning Scheme No.4 does not protect the long term future of Lot 1 Albany Highway, Bedforddale; which is at 67-75 Cross Road, Bedforddale, which is also known to everyone as Bedforddale Child Care Centre.*

*We, the undersigned people and families, are asking that in their final considerations of Amendment 97, the Council ensures the long term future of Bedforddale Child Care Centre is protected by allowing 'Child Care Premises', 'Educational Establishment' and 'Private – Recreation' to either stay as 'A' (discretionary) instead of becoming 'X' (not permitted), or if the City remains determined in its resolve to progress with this Amendment 97, that as an alternative the above mentioned property be included as an 'Additional Use' site under Schedule 2 of the Scheme as part of Scheme Amendment 97 and the three above 'Additional Uses' be applied to it.”*

The petition does not appear to contain any signatures from persons who provided submissions to the City in relation to this development application.

The development application does not affect the current Child Care Premises approvals and this use will still have non-conforming use rights if Amendment No.97 is adopted.

## **ANALYSIS**

### *Part 3 of Town Planning Scheme No.4*

The zone objectives for the Rural Living zone under Part 3 of TPS No.4 are as follows:

- a) *To provide for a variety of rural living environments based on defined lot sizes, land form and natural environmental characteristics.*
- b) *To provide for a range of associated compatible development, consistent with the environmental opportunities and constraints applicable to individual sites.*
- c) *To ensure development is sited, designed and managed in harmony with the natural environment and so as to protect the rural landscape and amenity.*

It is considered that the proposal generally accords with the objectives outlined under point a); the applicant is not proposed further subdivision or significant land clearing or re-contouring of the site.

In relation to the remaining zone objectives the suitability of the proposal is less certain. With regard to points b) and c) it is questionable that the extension of operating hours into the weekend is compatible with the prevailing immediate context which is characterized by low density rural residential development, without other significant non-residential land uses in evidence.

### *Part 4B Town Planning Scheme No.4*

#### Setbacks, Building Height and Building Coverage

The proposal does not incorporate any new buildings, but relates to the installation of outdoor recreational zones and equipment and the reuse of internal spaces within existing buildings.

#### Car Parking and Vehicular Access.

The site presently contains 23 onsite parking bays serviced in two separate car park areas that are connected to Cross Road via three existing crossovers. The car park adjacent to the before and after school care building has two crossovers and the easternmost car park is serviced by one crossover. As the proposed maximum occupancy (87 Children and 12 staff) is proposed to remain unchanged the applicant has not proposed any modifications to the existing car park or an increase of parking bays. The proposed use may contain variations in visitor behaviour in comparison to the Child Care Premises use as parent or other adults might be more likely to stay at the site for parties. The applicant has advised the City that this is not ostensibly how the use is intended to operate.

The applicant has not provided a detailed methodology on how collection times will be managed when party bookings commence and finish. Without appropriate management vehicles may queue within Cross Road. If Council decides to approve the proposal then a condition requiring all collection of children to be contained onsite is considered to be appropriate. However, it would be difficult to comply, due to there being irregular timing of visitors arriving and departing, such as parents returning at different times to collect children. Overall, insufficient justification has been provided by the applicant regarding the potential traffic impacts of the proposal.

### Water Supply (domestic)

The site and surrounding locality is not served by mains water supply. Water for usage in association with the proposal must be collected onsite. The applicant is not proposing an increase of the overall onsite capacity of the site from the 2014 development approval. The applicant has advised that the site “currently has two water tanks on site which are connected to on-site bores and UV systems for drinking water. A 90,000 litre water tank is located to the rear of the proposed event space and a 45,000 litre tank is located behind the existing child care centre.” It is noted that the 2014 approval did not incorporate a condition or advice note relating to potable water supplies, although to date no issues have been raised with regard to water supply on the property. If Council decides to approve the application it could apply a standard condition or advice note with regard to water supply.

### Remnant Native Vegetation

The subject site contains numerous remnant native trees. It generally presents as tidy and managed, although more intensive appearance than most Rural Living properties at ground level. The applicant has advised that no clearing of vegetation is proposed as part of the application.

It is noted that the applicant has provided a Bushfire Management Plan that indicates that a Building Protection Zone should be implemented within 35m of buildings. This would require remnant native vegetation in these areas to be removed within 6m of buildings and otherwise pruned and managed accordingly. The applicant has not identified trees which may be affected by the 6m separation threshold.

### *State Planning Policy 3.7 – Planning in Bushfire Prone Areas*

The subject site is identified as bushfire prone in accordance with SPP 3.7. The most recent previous development approval for (before and after school hours care) was granted in 2014 and as such predated the implementation of SPP 3.7. A Fire Management Plan (FMP) incorporating a Bushfire Attack Level (BAL) assessment was prepared as a condition of the 2014 application. The FMP prepared by Fireplan was received in 2015. The key recommendations and findings of the FMP were:

- *A 35 metre Building Protection Zone (BPZ) shall be implemented around all existing buildings;*
- *The existing shed, to be converted into an after school hours care building is to be constructed to AS 3959-2009 BAL 19.*
- *All dry grass within the site is to be maintained to a height of 50mm from 1<sup>st</sup> November to 30<sup>th</sup> April dates are to comply with the City of Armadale firebreak notice.*
- *All fuels outside the BPZ are not to exceed the Hazard Separation Zone standard.*

The City is in agreement with the applicant that the proposal does not incorporate an element of intensification of the existing development. This conclusion is based on the following aspects of the proposal:

- The application does not include new habitable structures; and
- The application does not include a proposal to increase capacity of children or staff above the 2014 approval

A new Recreation – Private land use is proposed it contains some similarities with the existing Child Care Premises land use, with the exception of the proposed operating hours and that there may be parent on site for parties (not usually the case for Child Care Premises) and that party attendees may be new or irregular visitors. While operating hours are relevant from a planning perspective in terms of potential impacts upon local amenity, they do not directly link to matters of bushfire risk. In light of this the City did not see adequate grounds to request an entirely new BMP; instead the City requested the demonstration of an approved Emergency Evacuation Plan (EEP). It is noted that the operator of the Child Care Premises had an existing EEP prepared to meet state government certification requirements, although this is not prepared in accordance with the typical structure of a BMP that has been informed by SPP 3.7.

Notwithstanding the above the applicant has provided to the City a new BMP and EEP prepared by Envision Bushfire Protection dated August 2018. The combined BMP and EEP contain the following key cumulative recommendations:

- *Recommendation 1*  
*The Asset Protection Zone be established to afford a BAL-19 at the After School Care building, north, south and east and maintained at all times and the Asset Protection Zone be established to afford BAL 29 at the western face of the Childcare building.*
- *Recommendation 2*  
*The (After School Care) building is to be constructed to comparable level of BAL-29. This is to include fire shutters as described in AS 3959 -2009 at s.7.6a. (given the Building will be made comparable to BAL 29, the extra distance to afford a lower radiant heat at the face of the building (BAL-19) where this can be readily achieved is prudent.*
- *Recommendation 3*  
*The absence of a secondary access is addressed by restricting the operation of the Childcare facility in high risk conditions. Operation should be avoided on declared Extreme Catastrophic FDR days. And, whilst a secondary vehicular access is not provided, there is potential for collection of people from Albany Highway should evacuation by Cross Road and Admiral Road not be possible.*  
*The overall grounds will be maintained as a Hazard Separation Zone, maintained reduction of surface and elevated fuels, reducing the intensity at the site, and the site is surrounded by moderate broken fuel conditions reducing the expected intensity at the site.*  
*If evacuation is not safe, the applicable BAL construction is intended to provide sufficient time to shelter until tenable conditions outside are established after the fire front has passed.*
- *Recommendation 4*  
*The building is to be provided with its own static water supply capable of supplying water to and around the building during a fire event (in advance, during, and after the fire front). Hoses capable of supplying water over all external surfaces of the building are to be provided and shielded from the fire.*

### *Conclusion*

*The proposal is seeking to extend the hours of operation of an existing approved land use. The investigations undertaken in this report have identified works are required to comply with the approved land use, and it has identified practical solutions can be undertaken to achieve the purpose and conditions of the initial approval.*

*The qualitative assessment, comparing bushfire threat with the Bushfire Protection Criteria has identified that practical solutions are available to achieve occupant life safety and minimise the damage to buildings. This justification is based upon:*

*The resistance of the building improved by adopting comparable measures with Part 3 and 7 AS 3959-2009), itemised in Appendix 1 under Construction Requirements, the identified Responsibilities for Implementation and Management, and the Bushfire Emergency Evacuation Plan.*

Should Council decide to approve the application it is recommended that a condition requiring the implementation of the BMP/EEP is applied.

### *PLN 5.4 - Sea Containers, Railway Carriages and Other Decommissioned Transport Conveyances*

As part of the proposal the applicant is also seeking consideration to keep a sea container on the property in association with the proposed laser tag activity area. The applicant has advised that the sea container is already present on the property. The sea container was not shown on the most recently approved development application dating from 2014. It is likely that it was installed onsite sometime in the intervening period.

The applicant has advised that the sea container is intended to be used as a base area for the laser tag activity and will otherwise be used for storage purposes as well. The applicant has indicated that the dimensions of the sea container are 2.4m by 12.2m and it is located to the north of the out of school hours care building.

The City requested additional information on how the sea container was proposed to be screened from view. The applicant provided the following information:

*The operator intends to retain all existing vegetation, and apply a camouflage paint treatment to the sea container to further reduce its visibility. Additionally, this treatment would be highly suited to its proposed use and in the context of a laser tag zone.*

Photographs provided by the applicant suggest that the sea container is at least partially screened from view from adjacent streets by vegetation within the site.

PLN 5.4 states the following with regard to sea containers in the Rural Living zone:

*Sea containers, railway carriages and other decommissioned transport conveyances are **not acceptable** in the Residential, Special Residential, Mixed Business/Residential, Rural Living & Urban Development zones.*

Exemptions are applied only for building and subdivisional works, delivery of goods or in cases where the City has exercised an exemption through a development application determination.

In this case it is not considered that the need for the sea container has been adequately justified. The purposes cited by the applicant could be fulfilled by an outbuilding that is more typical of the zone, subject to approval.

If Council accepts the officer recommendation in relation to this matter it will be referred to the City's Planning compliance team to request removal of the sea container from the property.

#### *Proposed Scheme Amendment No.97*

Concurrent with this application the City has been advertising the proposed Scheme Amendment No.97 to the TPS No.4. The area where the subject site is located is proposed to be rezoned from Rural Living to Special Rural zone. Within the proposed Special Rural zone both Child Care Premises and Recreation- Private are proposed to be changed from discretionary 'A' uses to non-permitted (X) land uses.

If Amendment No.97 was approved with the above changes to TPS No.4, the existing Child Care Premises use would be eligible for non-conforming use rights under TPS No.4. The proposal Recreation – Private use would also be eligible for non-conforming use rights if it was approved by Council prior to the Amendment being finalized and constructed within the two year development approval period. Alternatively Child Care Premises might be incorporated as designated Additional Uses (AU) applying only to Lot 1 under the amendment given the longstanding presence of this use on the site.

While Amendment No.97 is considered to be seriously entertained at this stage the City has received approximately 270 submissions during the public consultation period on Amendment No.97. The number of submissions received and the complexity of the issues raised means that the City will require sufficient time to analyse and respond fully.

#### *Comparable Recent Approvals*

Council has recently considered two comparable development applications in Rural Living zones:

- 10.2017.365.1 – Recreation Private, Holiday Accommodation, Consulting Rooms and Incidental Development (Forrestdale Meditation Centre) Lot 256 No, 180 Oxley Road Forrestdale

The above application was considered by Council at its meeting of 27/08/2018 and is located in a Rural Living 2 zone. The application was approved by Council subject to conditions.

The proposal involved the following level of attendance and outside visits to the property:

<i>Daily (Residents, Retreatants and Staff daily).</i>	<i>Maximum 8 -10 persons.</i>
<i>Monday - Friday (9:00am-6:00pm).</i>	<i>Primarily individual (one-on-one) appointments or groups of 10-15 persons.</i>
<i>Monday - Friday (7:00pm-9:00pm). Evening Meditation.</i>	<i>Medium groups 10-20 persons.</i>
<i>Saturday (9:00am - 6:00pm). Silent Meditation</i>	<i>Individual visitors or small groups not greater than 10-15 persons twice per month.</i>
<i>Sunday (Normally closed for activities).</i>	<i>Residents and Retreatants only.</i>
<i>Saturday (6:00pm - 9:00pm). Special Events</i>	<i>Up to 30 visitors (including residents and retreatants) once per quarter.</i>
<i>Sunday (9.00am - 6:00pm). Special Events</i>	<i>Up to 30 visitors (including residents and retreatants) once per quarter.</i>

A comparison to the intensity of the proposed combined Child Care Premises and Recreation Private uses at Lot 1, No.75 Cross Road suggests that the proposed number of visitors and hours of operation are more intensive in the subject application. For example, the maximum of number of visitors for special events is no more than 30 at a ratio of four times per year. The subject application proposes potentially two simultaneous bookings of up to 60 children in total (plus staff), on a perpetual basis during evenings and weekends. It is also of note that meditation sessions attended by adults are a very different activity from children's parties in their nature.

- 10.2018.108.1 – Place of Worship, Lot 8, No.14 McKenzie Grove Kelmscott.

The above application was considered by Council at its 27/08/2018 meeting and approved subject to conditions. The subject site is located in a Rural Living 2 zone, although in this example it was acknowledged that the area is identified as a future urban investigation location by the WAPC and that the area will change to residential in the future.

In this example the operating hours and number of visitors were limited by condition. The hours of operation were limited to 9am to 5pm Sundays and Christmas and Easter holidays. Sunday attendance was limited to no more than 50 persons and Christmas and Easter attendance to no more than the approved capacity of the car park (69 bays). In this scenario the intensity of this approved use was evidently below that of the subject application as the use would not be in operation for the majority of the time.

**Revised Details Submitted 10/09/2018**

The applicant provided the following revised details to the City via email on the afternoon of 10/09/2018:

*In response to the amenity issues raised during public advertising, we have agreed that scaling back the proposal will provide for a better outcome. The following are the details of the revised proposal.*

*The Bedfordale Child Care Centre proposes to use existing and future play infrastructure (as detailed on the development site plan) to cater for children’s organised activities (parties) on both weekday evenings and weekends, as detailed below.*

*Weekday evening use will be limited to one party per evening (4.30pm – 6.30pm) generally only when daylight hours permit (summer/autumn months). There would be a maximum of 30 children per party.*

*Weekend use would be as per the following schedule. This capacity has been reduced by 50% from the original application. Each party would have a maximum capacity of 30 children per party.*

Party time	Capacity
9.00am – 11.00am	30 children per party
11.30am – 1.30pm	
2.00pm – 4.00pm	
4.30pm – 6.30pm	

*The proponent anticipates (and will encourage) carpooling and ‘kiss and drive’ arrangements for guests. As discussed, we are happy to have some kind of operational management plan implemented which would outline this.*

*In terms of traffic, we would anticipate that ~20 vehicle movements (in and out) would be expected per party (at full capacity), and therefore 80 vehicle movements per day (in and out). The 30 minute intervals in between each scheduled time slot allows for the elimination of any potential traffic conflicts/attendance overlap that may occur between each of the scheduled events. The previous application had not catered for this.*

The City’s Officers provide the following comments in relation to the revised proposal:

- The proposed weekday operating hours would conclude earlier than the initially proposed 8pm, but would overlap with the operation of the Child Care Premises use, which concludes at 6pm. The potential impacts upon local traffic have not been discussed by the applicant.
- The City does not agree that 20 total vehicle movements in and out would be generated by each party booking. Based on the operational description provided by the applicant (no parents attending) and the duration of bookings (two hours) it would be unlikely that all parents would wait at the site until the end of the booking. It is considered to be more likely that parents will drop children off, then leave and come back to collect children and then leave again. This scenario results in four trips per vehicle. The City expects that the number of trips generated by party bookings would therefore be significantly higher and be up to 120 (*calculation based on parents dropping, leaving returning then leaving 4 x30*) trips per party booking in the worst case scenario, plus staff vehicles.

- The halving of the number of daily party bookings on weekends is an improvement but would not sufficiently overcome the cumulative amenity impacts upon nearby residents during weekend hours that have been raised by the City in the Issue and Analysis sections of this report.

### Further Revised Details Submitted 28/09/2018

Following Council’s decision to recommit consideration of the item at its meeting of 25/09/2018 the applicant provided the following revised details to the City via email on 28/09/2018:

*As discussed, we wish to revise the operating details of the Development application at Lot 1 Cross Road, Bedforddale. Details of the revised proposal are as follows:*

- *One (1) event per weekday evening accommodating a maximum of 30 children, a originally proposed.*
- *Four (4) events per Saturday, as per the following schedule:*

Event time	Capacity
9.00am – 11.00am	30 children per party
11.30am – 1.30pm	
2.00pm – 4.00pm	
4.30pm – 6.30pm	

- *No Sunday operation.*

*Event bookings will be open to children of all ages, for all purposes. While some events will be booked for celebrations, there will be a portion of the bookings that will be for team building/leadership building. The landowner has some concept ideas to incorporate a nature based obstacle course activity on the site, should this application progress to an approval.*

*We are committed to arriving at an outcome that is considered appropriate to the City. We would consider further reducing the intensity of the Saturday operation if required, in discussion with the City.*

The City’s Officers provide the following comments in relation to the revised proposal:

- The proposal reduces the overall scale and negative impacts upon the amenity of residents during the entirety of weekend daytime periods by removing Sunday operations altogether from the proposal. Saturday operating hours however are proposed to remain the same as before.
- The scope of weekday operating hours remains consistent with that put forward by the applicant on 10/09/2018, being no more than one party booking per weeknight.
- The applicant has referred to team building and leadership exercises being incorporated into the proposal. The City would not consider any such activities that include adult aged participants as part of this application as this is outside the description of the application as it was advertised to nearby landowners.

- However, the concerns raised by the City's officers in relation to impacts upon neighbouring properties that are likely to arise noise and additional traffic generated by the proposed during Saturday's remain as the Saturday operating hours remain. In relation to traffic the applicant has not addressed the City's previous comments in relation to its concerns regarding the accuracy of the trip generation calculations.
- Given the above the City's officers are not in a position to recommend approval to the application.

## **OPTIONS**

1. Council could approve the application for a Recreation Private Use at Lot 1 No.75 Cross Road, Bedfordale subject to appropriate conditions.
2. Council could refuse the application for a Recreation Private Use at Lot 1 No.75 Cross Road, Bedfordale and state the reasons for doing so.

## **CONCLUSION**

It is noted that the City has approved various improvements and increases to the capacity of the Child Care Premises since circa 1990. The current extent of the Child Care Premises use is that operates from 7am to 6pm Monday to Friday with a maximum capacity of 87 children and 12 staff. This is considered to be reasonable given the nature of the broader Rural Living zone area. It is acknowledged that the applicant is proposing to operate the Recreation Private use in accordance with these attendance limits. The applicant does not propose significant new structures beyond the installation and use of recreational equipment. The City undertook consultation with nearby landowners as part of the assessment process. Eight objections were received.

The key issue from a Planning perspective is considered to be the extension of the operating hours to 6:30pm on weeknights weeknights and from 9am to 5pm on Saturdays and the resultant impacts upon the amenity of the immediate locality. It is considered that even the revised proposal with the operation of up to four party bookings with 30 children per booking would elevate the intensity of the non-residential uses of the site to a level that would not be suitable for surrounding predominately residential context and would not be in line with comparable developments approved by Council. The applicant has not satisfactorily addressed concerns about traffic amenity impacts and noise arising from multiple children's parties during these periods.

The proposal also proposes the keeping of a sea container on the property. This aspect of the proposal is not compliant with the City's PLN 5.4 and is not supported.

The proposal is not consistent with the proposed Amendment No.97 to TPS No.4, which in this context proposes to amend the area's zoning from Rural Living to Special Rural and to make the proposed Recreation – Private use a non-permitted (X) use in the new zone. On its own this is not considered to constitute a primary reason for recommending refusal. However when viewed in light of the City's overall recommendations on the application, inconsistency with the proposed amendment is considered to be congruent with these other reasons.

In light of the above it is recommended that the proposal be refused by Council.

## ATTACHMENTS

1. Site Plan - Lot 1 &75) Cross Road, Bedforddale
2. Floor Plan - Lot 1 &75) Cross Road, Bedforddale
3. Confidential - Submitter Plan - Lot 1 &75) Cross Road, Bedforddale - *This matter is considered to be confidential under Section 5.23(2) (b) of the Local Government Act, as it deals with the matter relating to the personal affairs of a person/s.*

## *Committee Discussion*

*Committee discussed Amendment No.97, water tanks, hours of operation, bushfire management, number of vehicles and impact on neighbours. Accordingly, the Committee recommended refusal of the application.*

## RECOMMEND

D66/10/18

## That Council:

- A) Refuse the application for Planning Approval for a change of use to Recreation - Private on Lot 1, No.75 Cross Road, Bedforddale for the following reasons:**
- 1. The proposed land use is not considered to be consistent with the intent and objectives of the “Rural Living Zone” of the Town Planning Scheme No.4 Clause 3.2.3 (b) and (c) which aim:**
    - a. To provide for a range of associated compatible development, consistent with the environmental opportunities and constraints applicable to individual sites.**
    - b. To ensure development is sited, designed and managed in harmony with the natural environment and so as to protect the rural landscape and amenity."**
  - 2. The proposal is inconsistent with Schedule 2 Part 9 Clause 67 (n) and (m) of the Planning and Development (Local Planning Schemes) Regulations 2015, as the proposal will adversely impact on the character and amenity of the area due to adverse impacts upon traffic, noise and general amenity.**
  - 3. The subject land is proposed to be rezoned to the “Special Rural” zone as part of Amendment No.97, which also proposes that the land uses of ‘Private Recreation’ as an 'X' Use (not permitted) under the City’s Town Planning Scheme No.4. The proposed land use will not be consistent with the future intent and objectives of the “Special Rural” zone in this regard. The proposal is contrary to orderly and proper planning principles proposed by Amendment No.97 (as advertised).**
  - 4. The proposal has the capacity to significantly increase traffic movements in Cross Road during weekday evening and weekend periods and impact on the amenity of residents.**
  - 5. The proposal does not comply with the City’s Local Planning Policy 5.3 – Sea Containers, Railway Carriages and Other Decommissioned Transport Conveyances**

6. The applicant has not demonstrated that the proposed change of use to Recreation-Private will not impact on nearby residents and their amenity.
- B) That the submitters and organiser of the petition be advised of the Council decision in this regard.

**Moved Cr C M Wielinga**  
**Seconded Cr H A Zelones**  
**Opposed Cr K Busby**  
**Vote Equally Divided (3/3)**

*As per Section 5.21(3) of the Local Government Act 1995 there being an equality of votes the Chair exercised a casting vote in favour of the officer Recommendation.*

**MOTION CARRIED (4/3)**

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*Cr Shaw declared a non-financial interest in this item on the basis that she has publicly declared her bias towards the application. As a consequence her impartiality on the matter will be affected.*

*Cr Shaw also declared an interest in the next report Item 2.1 - Proposed MRS Amendment 1343/57 - Omnibus 3. Cr Shaw vacated the Chair and left the meeting at 7.35pm. Deputy Chair, Cr Wielinga assumed the Chair.*

## **1.2 - PROPOSED SINGLE HOUSE - LOT 103 (5) TURNER ROAD, KELMSCOTT**

WARD : RIVER  
FILE No. : M/565/18  
APPLN NO. : 27.2018.103  
DATE : 9 October 2018  
REF : BH  
RESPONSIBLE MANAGER : A/EDDS  
APPLICANT : SSB Pty T/A Momu  
LANDOWNER : J & R Smeulders  
SUBJECT LAND : Property size 559m<sup>2</sup>  
ZONING  
MRS / : Urban  
TPS No.4 : Residential R15/25

### **In Brief:**

- The City received an application for a Single House on 05/06/2018.
- The proposal is seeking variations to the Deemed-to-Comply provisions of the Residential Design Codes: including western side setback, boundary wall maximum height and average height, fill and retaining greater than 0.5metres and visual privacy cone of vision setbacks.
- The application was advertised for a period of 2 weeks. Two submission were received, one objecting to the proposal and one in support of the proposal.
- Recommend that the Council approve the application unconditionally.

### **Tabled Items**

Nil.

### **Officer Interest Declaration**

Nil.

### **Strategic Implications**

2.5.1 Implement and administer the City's Town Planning Scheme and Local Planning Strategy to deliver quality development outcomes

### **Legislation Implications**

Planning and Development Act 2005  
Town Planning Scheme (TPS) No.4  
Local Planning Strategy 2016  
Metropolitan Region Scheme 2014  
State Planning Policy 3.1 Residential Design Codes

### **Council Policy/Local Law Implications**

PLN 3.10 - Residential Design Codes Variations

### **Budget/Financial Implications**

Nil.

### **Consultation**

Advertised for Public Comment for 14 days.



## **BACKGROUND**

### **Site Description**

The subject lot is a vacant site zoned Residential R15/25, has an area of 559m<sup>2</sup> and is of a regular shape. The lot features significant topographical variation in the form of a 4 metre slope from the north eastern lot corner, down to the south western lot corner. The lot is constrained along the rear lot boundary by a 2.4 metre wide sewerage easement, and a 3 metre wide drainage easement.

The properties within the immediate vicinity of the subject lot contain similar topography.

The lot is part of a subdivision approved in 2001 (WAPC reference 113801). The subdivider did not construct any retaining walls nor establish any new levels, which is now common practice.

## **DETAILS OF PROPOSAL**

The subject application, proposes a single storey dwelling and associated site works. The proposal is seeking the following variations to the Deemed-to-Comply provisions of the Residential Design Codes:

- Western side setback 1.84m in lieu 2.2m;
- Lot boundary wall height 3.64m in lieu 3.5m;
- Fill up to 1.9m in lieu 0.5m;
- Eastern elevation cone of vision setback nil in lieu 7.5m;
- Western elevation cone of vision setback 5.4m in lieu 7.5m;
- Southern elevation cone of vision setback 6.44m in lieu 7.5m.

Given the topographical constraints of the site, the proposed finished floor level of the dwelling has been determined to ensure compliance with Australian Standards for driveway gradients (1:6), to ensure safe entry and exit to the subject site. As a result, the proposal requires retaining along the western boundary.

## **COMMENT**

### **Applicant Justification for Variations**

The applicant submitted a comprehensive report which included written justification for the variations being sought.

*A summary of the written justification is as follows:*

#### *Clause 5.1.3 Lot Boundary Setbacks*

- *The design was undertaken with functional purpose in mind. The garage is along the western lot boundary to facilitate a usable area of open space at the rear of the dwelling. The positioning of the dwelling creates a large area of private open space and enabling it to access direct northern sunlight.*

- *Without the ability to construct the garage boundary wall, a 1m wide of ineffective open space would be created.*
- *Given the north-south lot orientation, the boundary wall is not considered to affect solar access to adjoining property.*

#### *Clause 5.3.7 Site Works and Clause 5.3.8 Retaining Wall*

- *The proposal has been designed according to the need to establish level pads for the dwelling. The proposed site works are designed to facilitate useable floor areas and safe vehicle access.*
- *The natural topography is respected as the natural ground levels along the front and rear lot boundaries are effectively maintained. The proposed site cut and fill is also congruent with existing approved retaining wall along the adjoining lot boundary to the western neighbouring lot.*
- *The proposed site works variations will not represent a dramatic change to the natural topographical features of the site as viewed from Turner Road given that the dwelling will still be located lower than the street level.*
- *Nevertheless, the streetscape already features an existing and recently built dwelling at 7D Turner Road, Kelmscott, supported by site fill and retaining wall significantly more visible from the street.*

#### **Public Advertising**

The variations were advertised for two weeks, closing on 28 September 2018. Advertising was carried out by way of letters to affected and nearby landowners.

Total No. of letters sent to residents/owners	: 4
Total No. of submissions received	: 2
No. of submissions of conditional support/no objection	: 1
No. of submissions of objection	: 1

The main issues raised in the submission of objection, together with a comment on each issue are outlined below.

#### **Key Issues**

Key points raised within the submission were:

- *The development does not demonstrate compliance with the Residential Design Codes Clauses 5.3.7 Site Works and Clause 5.3.8 Retaining Walls.*
- *Submitter considers their development took into consideration the requirements of the Residential Design Codes in relation site works and retaining walls.*
- *Proposes the relocation of the steps to be brought forward into the alfresco area.*
- *Objection to the cone of vision setback on the western elevation of 3.2m in lieu 7.5m.*

## ANALYSIS

### Residential Design Codes

#### *Clause 5.1.3 Lot Boundary Setback*

##### *Deemed-to-comply*

*C3.1 i. Buildings set back from lot boundaries in accordance with Table 1, Tables 2a and 2b (refer to Figure Series 3 and 4);*

*C3.2 iii. in areas coded R20 and R25, wall not higher than 3.5m with an average of 3m or less, up to a maximum length of the greater of 9m or one-third the length of the balance of the lot boundary behind the front setback, to one side boundary only.*

##### *Design Principles 3.1*

- *Reduce impacts of building bulk on adjoining properties;*
- *Provide adequate direct sun and ventilation to the building and open spaces on the site and adjoining properties; and*
- *Minimise the extent of overlooking and resultant loss of privacy on adjoining properties.*

##### *Design Principles P3.2*

*Buildings built up to boundaries (other than the street boundary) where this:*

- *Makes more effective use of space for enhanced privacy for the occupant/s or outdoor living areas;*
- *Does not compromise the design principle contained in clause 5.1.3 P3.1;*
- *Does not have any adverse impact on the amenity of the adjoining property;*
- *Ensures direct sun to major openings to habitable rooms and outdoor living areas for adjoining properties is not restricted; and*
- *Positively contributes to the prevailing development context and streetscape.”*

##### *Western Side Setback - Dwelling*

The proposal seeks a western side setback variation (adjoining Lot 102 Turner Road) to the meals/living area of 1.84 metres in lieu of 2.2 metres.

The variation to the side setback has occurred primarily due to the topography of the land and the requirement to assess wall height (4.2 metres) for the purpose of setbacks from the existing natural ground level of the subject site. It should be noted that the wall height when assessed against the existing finished floor level of the adjoining Lot 102 Turner Road is reduced to 3.3 metres, which would result in a complying setback.

The proposal is a single storey dwelling and the proposed wall height at a setback of 1.84 metres is not considered to have an adverse impact of bulk and scale on the adjoining property. Given the north-south orientation of the lot, the proposed setback is considered sufficient to still provide adequate direct sun and ventilation to the dwelling and open spaces on the site and adjoining properties. The major openings will be sufficiently screened by boundary fencing and as such there will be no issue with overlooking or any resultant loss of privacy on adjoining properties.

*Boundary Wall - Garage*

The boundary wall to the garage on the western elevation seeks a maximum height of 3.3 metres in lieu of 3 metres and an average height of 3.64 metres in lieu of 3.5 metres.

The variations to the boundary wall have occurred primarily due to the topography of the land. The variations sought are considered to be minor in nature. The boundary wall makes more effective use of space for the occupants. The minor variations have no adverse impact of building bulk on adjoining property. Given the north-south orientation of the lot, the boundary wall height still provides adequate direct sun and ventilation to the building and open spaces on both on both the subject site and adjoining property. There is no impact of overlooking or resultant loss of privacy to the adjoining property. Given the complying front setback of the boundary wall there is no adverse impact on the existing or prevailing streetscape.

The proposed variations have been assessed against the Residential Design Codes and are considered to meet the outlined design principles and as such are supported.

***Clause 5.1.4 Open Space***

The application proposes an open space provision of 55.68% of the site, which complies and is within the Residential Design Codes required open space of 55%.

***Clause 5.3.7 Site Works***

*Deemed-to-comply*

*C7.1 Excavation or filling between the street and building, or within 3m of the street alignment, whichever is the lesser, shall not exceed 0.5m, except where necessary to provide for pedestrian or vehicle access, drainage works or natural light for a dwelling.*

*C7.2 Excavation or filling within a site and behind a street setback line limited by compliance with building height limits and setback requirements.*

*C7.3 Subject to subclause C7.2 above, all excavation or filling behind a street setback line and within 1m of a lot boundary, not more than 0.5m above the natural ground level at the lot boundary except where otherwise stated in the scheme, local planning policy, local structure plan or local development plan.*

*Design Principles*

*P7.1 Development that considers and responds to the natural features of the site and requires minimal excavation/fill.*

*P7.2 Where excavation/fill is necessary, all finished levels respecting the natural ground level at the lot boundary of the site and as viewed from the street.”*

*Fill*

Due to the topography of the site, the proposed fill is in excess of 0.5 meters, up to 1.9m metres and has occurred as a result of the development to be functional as a single level dwelling, while ensuring compliance with Australian Standards for driveway gradients to ensure safe entry and exit into the lot.

The proposal has been designed with the objectives of establishing a level pad for the dwelling as well as the requirement for a complying driveway gradient.

The finished floor level of the dwelling (FFL 36.64) will result in fill of up to 1.9 metres. It should be noted that the neighbouring property to the west (Lot 102 Turner Road) was faced with similar circumstances, with considerable fill required, resulting in a finished floor level of the dwelling (FFL 35.83) due to similar topography.

Given the above constraints, the development has aimed to propose the minimal amount of fill while meeting requirements to comply with Australian Standards for driveway gradients.

The proposed fill has respected the natural ground level at the street boundary. When viewed from the street, the proposed level at the street boundary remains below the natural ground level.

All of the existing dwellings within the subdivision as well as proposed dwellings have respected the natural ground level within the front setback area. When viewed from the street all development is at street level or marginally below street level. The existing streetscape will not be compromised or adversely affected by this proposal.

The proposed variations have been assessed against the Residential Design Codes and are considered to meet the outlined Design Principles and as such are supported.

### ***Clause 5.3.8 Retaining Walls***

#### *Deemed-to-comply*

*C8.1 Retaining wall set back from lot boundaries in accordance with the setback provisions of Table 1.*

*C8.2 Where a retaining wall less than 0.5m high is required on a lot boundary, it may be located up to the lot boundary or within 1m of the lot boundary to allow for an area assigned to landscaping, subject to the provisions of clause 5.3.7.*

#### *Design Principles*

*P8 Retaining wall that result in land which can be effectively used for the benefit of residents and do not detrimentally affect adjoining properties and are designed, engineered and landscaped having due regard to Clauses 5.3.7 and 5.4.1 (Visual Privacy)."*

#### *Retaining*

Due to the topography of the site, the proposed retaining is in excess of 0.5 metres, up to 2.15 metres. The proposed retaining wall heights have arisen due to the topography of the site, sloping 4 metres from the street lot boundary to the rear boundary. The lots within this subdivision all have similar topographical constraints.

The adjacent property to the west (Lot 102 Turner Road) also required retaining. On the common boundary with the subject site, retaining is up to 1.48 metres in height. On the common boundary with Lot 101 Connell Avenue, retaining is up to 2.15 metres.

Development of a single house on Lot 105 Turner Road, also required retaining of up to 2.8 metres in height.

The City is also currently assessing a Residential Design Code variation application for the lot to the east of the subject site (Lot 104 Turner Road) which is also similarly constrained by topography. The application is also proposing retaining of up to 2 metres to accommodate the necessary driveway gradients.

The subject site proposes a dwelling with a larger footprint than the dwelling to the west, resulting in retaining extending a further 3.5 metres to the end of the proposed alfresco, with an additional 2 metres of retaining to assist in privacy mitigation measures from the alfresco to the outdoor living area of the neighbouring dwelling on Lot 102 Turner Road. The attached Elevation Plan (Elevation 2) visually demonstrates the extent of the proposed retaining in comparison to the existing retaining on Lot 102 Turner Road.

Relocation of the stairs (as suggested by the complainant) to the alfresco potentially involves a new range of issues. Moving the stairs forward into the alfresco area would reduce the usability of the alfresco on a site already constrained with a sewerage easement to the rear of the property. Moving the stairs off the western boundary to a compliant 1 metre setback would still require screening mitigation measures which would not reduce bulk of the development as fencing would still be required for screening. The relocation of the stairs to a compliant 1 metre setback would also create an undesirable unusable space between the properties which would be difficult to access and maintain, and result in a poor amenity outcome by creating a staggered appearance and duplicate fencing at various heights.

It is noted that while the proposed retaining extends further than the dwelling footprint of Lot 102 Turner Road, the extent of retaining is not considered to detrimentally affect the adjoining property in terms of solar access, overshadowing, bulk or scale.

The retaining is considered to meet the outlined design principles and as such is supported.

**Clause 5.4.1 Visual Privacy**

*Deemed-to-comply*

*C1.1 Major openings and unenclosed outdoor active habitable spaces, which have a floor level of more than 0.5m above natural ground level and overlook any part of any other residential property behind its street setback are:*

- i. Set back, in direct line of sight within cone of vision, from the lot boundary, a minimum distance as prescribed in the table below (refer Figure Series 10)*

<b><i>Types of habitable room/active habitable spaces</i></b>	<b><i>Setback for areas coded R50 or lower</i></b>
<i>Major openings to bedrooms and studies</i>	<i>4.5m</i>
<i>Major openings to habitable rooms other than bedrooms and studies</i>	<i>6.0m</i>
<i>Unenclosed outdoor active habitable spaces</i>	<i>7.5m</i>

*Or;*

- ii. Are provided with permanent screening to restrict views within the cone of vision from any major opening or an unenclosed outdoor active habitable space.*

*Design Principles*

*P1.1 Minimal direct overlooking of active habitable spaces and outdoor living areas of adjacent dwellings achieved through:*

- *Building layout and location;*
- *Design of major openings;*
- *Landscape screening of outdoor active habitable spaces; and/or*
- *Location of screening devices.*

*P1.2 Maximum visual privacy to side and rear boundaries through measures such as:*

- *Offsetting the location of ground and first floor windows so that viewing is oblique rather than direct;*
- *Building to the boundary where appropriate;*
- *Providing higher or opaque and fixed windows; and/or*  
*Screen devices (including landscaping, fencing, obscure glazing, timber screens, external blinds, window hoods and shutters).”*

Visual Privacy

Due to the design of the proposal, and the topography of the land there are cone of vision privacy setbacks relating to the finished floor level of the alfresco area to the rear of the dwelling.

The cone of vision setbacks are relatively minor. To the south west, the cone of vision arc encroaches into a shed located in the corner of Lot 107 Connell Avenue Kelmscott as well as a very small portion of the rear corner of Lot 102 Turner Road. The subject area contains a garden bed and is vegetated. Due to the proposed fencing, there will be no overlooking into the active outdoor habitable areas, including the pool. To the south, the cone of vision arc does not encroach into active habitable outdoor areas. To the east, the cone of vision arc encroaches into the sewerage easement area which will not be able to be utilised for development. Given the above, screening is not considered to be required in this instance.

The cone of vision setback variations are considered to meet the outlined design principles and as such no objection is raised.

**OPTIONS**

1. Council could resolve to approve the development application for a single house with or without conditions.
2. Council could resolve to approve the development application for a single house subject to the condition that amended plans are submitted depicting the portion of the retaining accommodating the stairs to the alfresco being setback 1 metre from the western boundary, if Council is of the view to amend the proposal.
3. Council resolve to refuse the development application for a single house and provide appropriate reasons.

## CONCLUSION

The proposed single house has been designed to accommodate the constraints of the lot topography while still ensuring adequate and compliant vehicle access gradients to enter and exit the property and meets Design Principles of Residential Design Codes. It is therefore recommended that Council approve the application as per Option 1.

## ATTACHMENTS

1. Site Plan - Lot 103 (5)Turner Road, Kelmscott
2. Floor Plan - Lot 103 (5)Turner Road, Kelmscott
3. Elevation Plan 1 - Lot 103 (5)Turner Road, Kelmscott
4. Additional Elevation Plan 2 - Lot 103 (5)Turner Road, Kelmscott
5. Confidential Submitter Plan - Lot 103 (5)Turner Road, Kelmscott - *This matter is considered to be confidential under Section 5.23(2) (b) of the Local Government Act, as it deals with the matter relating to the personal affairs of a person/s.*

### *Committee Discussion*

*The A/Chief Executive Officer and the A/Executive Director Development Services tabled an additional A3 Elevation plan which included measurements in colour to more clearly identify the proposed heights and lengths. Committee discussed the retaining wall, fencing, proposed finished levels, matters raised by the objector, existing retaining walls in the area, previous subdivision of the land, applications nearby, garage and street, the cone of vision and amenity matters. Committee resolved to approve the application.*

*A copy of the additional Elevation Plan is included in the Attachments to this report.*

## RECOMMEND

D67/10/18

**That Council approves the application for development approval for a Single House on Lot 103 (5) Turner Road, Kelmscott, unconditionally.**

**Moved Cr H A Zelones**

**Seconded Cr K Busby**

**Opposed Cr C M Wielinga**

**MOTION CARRIED**

**(4/1)**

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**LOCATION PLAN**

Proposal 4 MRS Amendment  
Portion Lot 801 Corfield Street, Champion Lakes



DATE 5 January 2018 - REVISION 1801  
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*Cr Shaw declared a financial interest in this item on the basis that her employer has a financial interest in this item and may lodge a development application over the land.*

## **2.1 - PROPOSED METROPOLITAN REGION SCHEME AMENDMENT 1343/57 - OMNIBUS 3**

WARD : ALL  
FILE No. : M/619/18  
DATE : 9 October 2018  
REF : JR  
RESPONSIBLE : A/EDDS  
MANAGER

### **In Brief:**

- The Western Australian Planning Commission (WAPC) is advertising MRS Amendment 1343/57 for public review and submissions until closing date of 23 November 2018.
- Five proposed changes to the MRS are within the Armadale municipality with Proposal 4 of particular significance in the Champion Lakes locality which involves:
  - transferring a 7.5 hectare portion of Lot 801 Corfield Street and the Koorden Close road reserve from the Parks and Recreation reservation to the Public Purposes - Special Uses reservation which the City of Gosnells intends to develop for a Municipal Operations Centre - Works Depot.

### Recommend that:

- The City advise the WAPC it has no objections to MRS proposals 1 - 5 within the City of Armadale.

### **Tabled Items**

Nil.

### **Officer Interest Declaration**

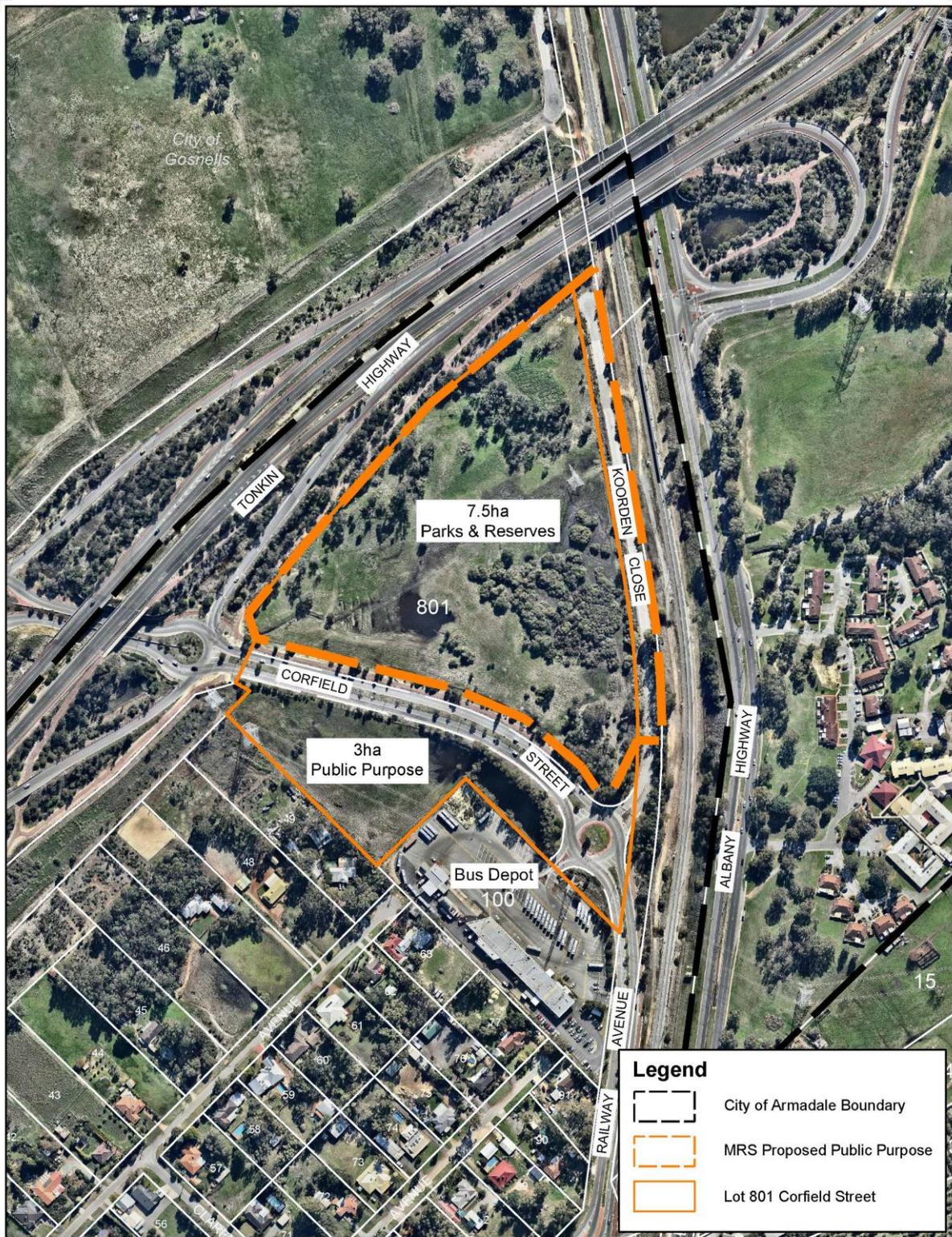
Nil.

### **Strategic Implications**

- 2.1.3 Ensure that developments are sensitive to pre-existing environmental values
- 2.5.1 Implement and administer the City's Town Planning Scheme and Local Planning Strategy to deliver quality development outcomes.
- 3.1.2 Investigate public and private capital opportunities in the South East Metropolitan Region.
- 3.1.3 Develop, maintain and foster relationships with local and target industries.
- 4.1.1 Foster and advocate strategic alliances that promote local and regional development.
- 4.1.2 Make decisions that are sound, transparent and strategic.

### **Legislation Implications**

Local Government Act 1996  
Land Administration Act 1997  
Environmental Protection Act 1986  
Environment Protection & Biodiversity Conservation Act  
Planning and Development Act 2005  
Planning and Development (Local Planning Schemes) Regulations 2015  
Town Planning Scheme (TPS) No.4  
Metropolitan Region Scheme



**AERIAL PLAN**  
Proposal 4 MRS Amendment  
Portion Lot 801 Corfield Street, Champion Lakes



SCALE 1 : 5000

DATE 28 September 2018 - REVISION 1801  
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Based on information provided by and with the permission of the Western Australian Land Information Authority (LIDAR 2012). Aerial photograph supplied by Landsat. Photograph by Nearmap.



### **Council Policy/Local Law Implications**

Local Planning Strategy 2016  
Biodiversity Strategy  
Urban Forrest Strategy 2014  
Economic Development Strategy 2018-2022

### **Budget/Financial Implications**

Nil.

### **Consultation**

1. The Western Australian Planning Commission (WAPC) is advertising MRS Amendment 1343/57 for public review and submissions due by 5pm Friday 23 November 2018.
2. City of Armadale Internal Business Units (DCU).

### **BACKGROUND**

Prior to January 2005 Lot 801 Corfield Street/Koorden Close was located within the City of Gosnells jurisdiction. It only became part of the City of Armadale when a municipal boundary realignment was gazetted corresponding to the Tonkin Highway that had recently been constructed (the new LGA boundary at centre-line of Tonkin Highway). Previously the land had been owned by the Della Vedova family before its resumption by WAPC for Primary Regional Road purposes for the Tonkin Highway (constructed in 2001).

In June 2006 the City of Armadale considered a report that identified Lot 801 Corfield Street, Champion Lakes (“the site”) as being a new northern ‘gateway’ to the City of Armadale and considered options for its future use, including the potential for the site to be retained and enhanced as a parkland reserve. It was also identified that the site contained remnant vegetation which could be enhanced to create a native parkland setting and entry statement for the City. The 2006 report considered the land also had some potential to accommodate overflow car parking from public events at the Champion Lakes Aquatic Recreation Facility located approximately 850 metres to the south-west of Lot 801.

### **2011 Transfer to the MRS Reservation for ‘Parks and Recreation’**

Council previously resolved (D64/6/06) to request the WAPC to transfer (rezone) the subject portion of Lot 801 Corfield Street north of Corfield Road from ‘Public Purpose’ Reserve to ‘Parks and Recreation’ Reserve. The resolution also requested the WAPC to transfer management of the site (vesting) to the City of Armadale. The WAPC subsequently included the portion of Lot 801 Corfield Street north of Corfield Street in MRS Amendment MRS/1161/41 which transferred the land from ‘Public Purpose’ Reserve to ‘Parks and Recreation’ Reserve (Gazetted in June 2011).

In 2012 the City of Armadale declined to accept the Management Order/Vesting offered by the WAPC for Lot 801 under the (current) MRS Parks and Recreation reservation, the concerns expressed by the Parks Department were primarily that the land: *“not being suitable for POS as there was no close local community who would patronize POS and in addition the site was a known dump site for rubbish and it had only limited access and significant power lines going through it”*. The City’s officers have also investigated whether the land is suitable for a sporting field, however, the land was too small and constrained.

**2016 City of Gosnells Preliminary Consultation with the City of Armadale on development project for construction of the City of Gosnells Works Operations Centre on portion of Lot 801 Corfield Street**

In July 2016 the City of Gosnells formally wrote to the City of Armadale requesting that the City consider its proposal to develop the majority of Lot 801 Corfield Street, Champion Lakes to accommodate its Works Operations Centre (further discussed below).

**2017 WAPC Preliminary Consultation with the City of Armadale MRS Omnibus Amendment No. 3**

In October 2017 the WAPC undertook preliminary consultation with the City of Armadale on the forthcoming MRS Omnibus Amendment proposal for Lot 801. The City advised that it was not able to support inclusion of the Public Purpose reservation in a formal MRS Amendment until further site investigations due diligence environmental, planning and servicing studies needed to prove-up the site for development of the new City of Gosnells Municipal Works Depot being commissioned by the City of Gosnells had been completed satisfactorily. The City of Armadale also agreed in-principal that the current Reservation for Parks and Recreation classification would not be a suitable classification to retain if a Municipal Works Depot, which is a light industrial type use, was developed on Lot 801.

**DETAILS OF PROPOSAL**

The Western Australian Planning Commission (WAPC) recently resolved to amend the Metropolitan Region Scheme by Omnibus Amendment MRS/1343/57 which has five proposed MRS changes to land within the Armadale municipality.

Proposals 1-3 and 5 are minor corrections and/or rationalizations of MRS zonings/reservations, which the City has no objection to. Proposals 1-3 and 5 are described as follows:

**Proposal 1** - transfer the Rural zoned battle-axe access leg of Lot 8 to the Parks and Recreation reservation consistent with the existing reservation of the remainder of Lot 8 (Alfred Skeet Oval is vested in the City of Armadale for recreation purposes) (no change is needed to TPS No.4).

**Proposal 2** - transfer anomalous the State Forest reservation portion of the road reserve for Convine Road Roleystone / Karragullen to the Rural zone consistent with surrounding road reserves in the MRS (no change is needed to TPS No.4).

**Proposal 3** - transfer a portion of Lot 820 Old Coach Place Roleystone to the Urban zone to reflect the incorporation of the land into the balance portion of Lot 820 which is Urban zoned. It is recommended that the TPS No.4 unzoned portion of Lot 820 Old Coach Place be included in the next Omnibus Scheme Amendment initiated for TPS No.4 to be rezoned to Residential R5 zone consistent with the balance of Lot 820.

**Proposal 5** - transfer Lot 11 Godwit Retreat Bedfordale aims to correct a MRS drafting error as Lot 11 was not intended to be reserved and proposal 5 will return the lot to its original Rural zoning. It is recommended that the TPS No.4 rezoning of Lot 11 Godwit Retreat to Rural Living 10 zone consistent with adjacent lots, be included in the next Omnibus Scheme Amendment initiated for TPS No.4.

## **Proposal 4**

**Proposal 4** affects Lot 801 Corfield Street and the Koorden Close road reserve in Champion Lakes is a change that requires Council consideration as the intent of the Public Purposes - Special Uses reservation proposed for Lot 801 Corfield Street Champion Lakes is to facilitate future development of the land by the City of Gosnells.

In effect, the advertised MRS/1343/57 proposal 4 aims to restore the Public Purposes reservation over Lot 801 which had applied before the MRS changes in 2011 and prior to the 2005 Municipal boundary realignment between the Cities of Armadale and Gosnells.

## **COMMENT**

Proposals 1-3 and 5 are minor corrections and/or rationalizations of MRS zonings/reservations. It is noted that only Proposals 3 and 5 will require subsequent Amendments to TPS No.4 once the MRS reservation is lifted from the land (if gazetted in the MRS as Public Purposes – Special Use reservation Proposal 4 would be automatically reflected in the City of Armadale TPS No.4 as would the Parks and Recreation reservation in Proposal 1).

### **Proposal 4 – MRS Public Purposes - Special Uses reservation**

The City of Gosnells has advised the City by separate correspondence that it is currently completing site and due diligence investigations to develop a portion of Lot 801 Corfield Street and Koorden Close for its Municipal Operations Centre – Works Depot. Gosnells has also liaised with the WAPC on this proposal and the WAPC has advised both local governments of its support for the City of Gosnells project.

The City of Armadale understands that the existing Gosnells Municipal Works Depot facility needs to expand having outgrown its current location which is located in a railway precinct earmarked for future urban redevelopment. The City of Gosnells has been unable to find a suitable site within the City Gosnells and it considers the Lot 801 Corfield Street and Koorden Close Champion Lakes site the most suitable site it has been able to identify.

The City of Gosnells has indicated its intention for ongoing consultation with the City of Armadale regarding its development plans and intentions for the site should the new Public Purpose reservation be gazetted and the City of Gosnells be granted the Management Order (Vesting) for the land (It is noted that local governments are exempt from development approval under any TPS and the MRS where the ‘Public Works’ exemption applies).

The City of Gosnells has commissioned ongoing studies on critical servicing issues including environmental, servicing, drainage and water management studies that will address any issues relating to using Lot 801 for a Municipal Operations Centre - Works Depot development. The City of Armadale has requested completion of the ongoing studies consistent with the requirements applied to any prospective developer seeking to amend the MRS. Once completed, the site investigations should indicate the viability of a Works Depot development on the land.

Potential matters to be investigated for future development of a City of Gosnells Depot identified by the City of Armadale Business Units include: mosquito management; noise management (affecting the residents  $\approx$  140m away); sewage connection to the Water Corporation network; environmental and pollution control management; and stormwater management especially flows from Tonkin Highway and adjoining roads into the land and ultimately to Canning River.

The City has recently undertaken an analysis of the environmental significance of the land and whilst the land has some remnant vegetation that should be considered for protection and possible damp area that could be restored, the site was not considered to be a priority or regionally significant.

### **Current MRS Reservation for 'Parks and Recreation'**

In 2012 the City's Parks Department noted the site was a known (unauthorized) refuse dumping area, was not sufficiently close to a local resident community that would use parkland if provided on the site and that it would be of limited potential use, due to the presence of HV power lines and limited road access. There was no funding budgeted for its management and there were higher budget priorities. The City accordingly declined to take on the land vesting at the time.

The reversion of Lot 801 Corfield Street to the former MRS Public Purpose reservation and anticipated vesting in the City of Gosnells proposed under the MRS Amendment 1343/57 can provide potentially beneficial outcomes for the land:

- a. the City of Gosnells is a responsible local land manager which could maintain the site and prevent dumping;
- b. under the City of Gosnells vesting the site would likely be well maintained in a tidy state thereby precluding "blighting" of the area by unsuitable public works uses or infrastructure/development;
- c. the City of Gosnells intends to build a landmark modern building that would be attractive; and
- d. the City could require the City of Gosnells to maintain the closed portion of Koorden Close for its operations and require rehabilitation of any vegetation areas that are surplus to the main development.

If the City of Gosnells completes site studies and investigations and proceeds to construct its Municipal Works Depot, the facility could also be a potentially significant local employer of benefit to the City of Armadale and wider community.

The City of Gosnells advises that initial investigations indicate that identified site issues can be addressed, subject to due diligence, including for example the High Voltage Power line easements, high water table (potentially affects fuel storage options), stormwater flow from the adjacent Tonkin Highway and native trees/vegetation issues. The City of Gosnells has prepared a draft Environmental Assessment by Eco Logical (dated February 2017). This assessment identified no listed threatened Priority or flora species of conservation significance within the subject site. The report concludes that the current management category of 'Multiple Use' as mapped in the Geomorphic Wetlands Swan Coastal Plan dataset, is appropriate for the wetland located within the site. The existence of breeding trees for Black Cockatoo has been deemed by the assessment as potentially significant (against the

current Commonwealth Guidelines) and referral through the EPBC Act is considered 'may be necessary'. The assessment recommends to retain the relevant part of the wetland which includes the breeding trees of the Black Cockatoo as a way to possibly mitigate the impact of future development on Black Cockatoo habitat.

The City of Gosnells proposes to prepare a masterplan supported by technical studies and the City has suggested that a Memorandum of Understanding (MOU) between the Cities of Gosnells and Armadale could outline the necessary steps from masterplan to development phases and ensuring that pathways and outcomes are clearly understood by all stakeholders.

In addition to undertaking technical development investigations the MOU could explore requirements for improvements and maintenance of the surrounding road reservations as part of any future development, including landscape enhancement to Corfield Street (the City of Gosnells has advised it has an aspiration for an environmentally significant Works Depot facility).

## **OPTIONS**

Council could:

1. Lodge a submission to the WAPC that the City has no objection to the MRS Amendment.
2. Lodge a submission to the WAPC recommend to the WAPC that the City does not object to MRS Proposals 1-3 and 5 and raise any concerns regarding the proposed reservation for Public Purposes - Special Uses in Proposal 4 and providing its reasons to the WAPC.

## **CONCLUSION**

Option 1 is recommended. Proposals 1-3 and 5 are minor corrections and/or rationalizations of MRS zonings/reservations and do not raise any concerns or objections. The City of Gosnells is undertaking due diligence investigations for the Proposal 4 transfer of a 7.5 hectare portion of Lot 801 Corfield Street and the Koorden Close road reserve from the Parks and Recreation reservation to the Public Purposes - Special Uses reservation. The City supports these studies being completed and going forward will work in cooperation with the City of Gosnells and the WAPC on an appropriate outcome.

## **ATTACHMENTS**

1. MRS Proposal 4 Current and Proposed MRS Amendment
2. MRS Proposal 4 Proposed MRS Amendment Plan 1
3. MRS Proposal 4 Proposed MRS Amendment Plan 2
4. Proposal 1 MRS Report Extract
5. Proposal 2 MRS Report Extract
6. Proposal 3 MRS Report Extract
7. Proposal 4 MRS Report Extract
8. Proposal 5 MRS Report Extract

### *Committee Discussion*

*The A/Chief Executive Officer provided advice on the Draft Environmental Report provided by the City of Gosnells consultants that had not been finalised. This draft assessment identified no listed threatened Priority or flora species of conservation significance within the subject site and concludes that the current management category of 'Multiple Use' is appropriate for the wetland located within the site. Some possible breeding trees for Black Cockatoo have been identified which would require further assessment and possible referral through the EPBC Act. Further work is required. The draft assessment recommends to retain the relevant part of the wetland which includes the breeding trees of the Black Cockatoos as a way to possibly mitigate the impact of future development on Black Cockatoo habitat.*

*Committee discussed Proposal 4 in terms of the need to protect vegetation onsite, traffic movements, alternative uses, history of the land, illegal dumping activities, current location of the depot, and the WAPC involvement. Committee supported the Recommendation.*

### **RECOMMEND**

**D68/10/18**

### **That Council:**

- ~~1. Endorse the City lodging a submission prepared in accordance with the above report advising the WAPC that the City has no objections to Proposals 1 – 5 noting points a. and b. below:~~
  - ~~a. Proposal 3 – transfer of a portion of Lot 820 Old Coach Place Roleystone to the Urban zone will need a corresponding amendment to TPS No.4 once the MRS reservation is lifted. It is recommended that the TPS No.4 unzoned portion of Lot 820 Old Coach Place be included in the next Omnibus Scheme Amendment initiated for TPS No.4 to be rezoned to Residential R5 zone consistent with the balance of Lot 820.~~
  - ~~b. Proposal 5 – transfer of Lot 11 Godwit Retreat Bedfordale to its original Rural zoning will need a corresponding amendment to TPS No.4 once the MRS reservation is lifted. It is recommended that the TPS No.4 unzoned Lot 11 Godwit Retreat be included in the next Omnibus Scheme Amendment initiated for TPS No.4 to be rezoned to Rural Living 10 zone consistent with adjacent lots.~~
- ~~2. Advise the City Gosnells proponent for Proposal 4 and the potential future development of a portion of Lot 801 Corfield Street and Koorden Close for its Municipal Operations Centre – Works Depot, that the City of Armadale supports its completing of the site and due diligence investigations to prove up the viability of the project and will continue to work cooperatively with the proponent to complete masterplanning and a Memorandum of Understanding between the two local government authorities.~~

**MOVED Cr K Busby SECONDED Cr J H Munn  
OPPOSED Cr C M Wielinga  
MOTION CARRIED**

**(4/1)**

*Cr Wielinga vacated the Chair.*

*Cr Shaw returned to the meeting at 8.14pm and resumed the Chair.*

*Council resolved at its Ordinary Meeting on 22 October 2018 that Recommendation D62/10/18 be not adopted and be replaced with:*

**That Council:**

- 1. Endorse the City lodging a submission advising the WAPC that the Council:**
  - A) Strongly objects to Proposal 4 for the following reasons:**
    - i. The site is the northern gateway site to the City of Armadale and as such is of significant value to the City of Armadale to remain as a landmark Park & Recreation Reserve.**
    - ii. The site has a multi purpose wetland and some remnant vegetation that Officer's report could be enhanced to a parkland setting of high amenity that would benefit the future residents of the areas north and south where urbanisation is planned.**
    - iii. The site is highly accessible to the public for use as a Park & Recreation Reserve being on the major cycle route of the se corridor (Tonkin Hwy) it has numerous under and over passes already constructed for safe pedestrian/cycle access.**
    - iv. The site contains a multi purpose wetland and remnant vegetation that is significant for the Commonwealth 'Endangered' (*Environment Protection and Biodiversity Conservation Act 1999*) and Western Australian 'Specially Protected Fauna' (*Western Australian Wildlife Conservation Act 1950*) the black cockatoo.**
  - B) Seeks vesting of the 7.5ha Reserve to the City of Armadale**
  - C) Advise the WAPC that the City has no objection to proposals 1, 2, 3 and 5 noting points a. and b. below:**
    - a. Proposal 3 - transfer of a portion of Lot 820 Old Coach Place Roleystone to the Urban zone will need a corresponding amendment to TPS No.4 once the MRS reservation is lifted. It is recommended that the TPS No.4 unzoned portion of Lot 820 Old Coach Place be included in the next Omnibus Scheme Amendment initiated for TPS No.4 to be rezoned to Residential R5 zone consistent with the balance of Lot 820.**
    - b. Proposal 5 - transfer of Lot 11 Godwit Retreat Bedfordale to its original Rural zoning will need a corresponding amendment to TPS No.4 once the MRS reservation is lifted. It is recommended that the TPS No.4 unzoned Lot 11 Godwit Retreat be included in the next Omnibus Scheme Amendment initiated for TPS No.4 to be rezoned to Rural Living 10 zone consistent with adjacent lots.**
- 2. Advise the City of Gosnells, proponent for Proposal 4, of its objection to the proposal for the abovementioned reasons.**
- 3. Prepare a Management Plan for the Reserve if vestings approved.**



**LOCATION PLAN**  
Lot 9000 Brookton Highway, Karragullen



SCALE 1 : 10000

DATE 4 September 2018 - REVISION 1801  
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Aerial photographs supplied by Landspace, reproduced by permission.



***1.3 - DAM CONSTRUCTION - LOT 9000 BROOKTON HWY, KARRAGULLEN***

WARD : HILLS  
FILE No. : M/616/18  
APPLN NO. : 10.2017.481  
DATE : 10 October 2018  
REF : CV  
RESPONSIBLE : EDDS  
MANAGER  
APPLICANT : Harley Dykstra Pty Ltd  
LANDOWNER : Vilma Civa  
SUBJECT LAND : Property size 16.1ha  
ZONING  
MRS / : Rural  
TPS No.4 : General Rural

**In Brief:**

- The City received an application for Dam Construction (retrospective) and an outbuilding at Lot 9000 Brookton Highway, Karragullen on 22/12/2017.
- Dam Construction is a discretionary (D) use in the General Rural.
- The dam was constructed during 2017 and was the subject of a Planning compliance investigation. The owner was advised that they could submit a development application for retrospective consideration of the completed dam works to determine whether the works should be approved.
- The Dam Construction works involved the merging and enlargement to two smaller existing on line dams located on the Stinton Creek.
- The applicant wishes to obtain approval for the completed dam works and additional pumping infrastructure associated with it.
- This application is separate from the current pending application for a Restaurant, Rural Industry (Cidery) and Use Not Listed that is proposed for the same property.
- The proposal has been reviewed by the Department of Environment (DWER) who have indicated that they are generally satisfied with the documentation provided.
- Recommend that the Council approve the application subject to appropriate conditions.

**Tabled Items**

Nil.

**Officer Interest Declaration**

Nil.

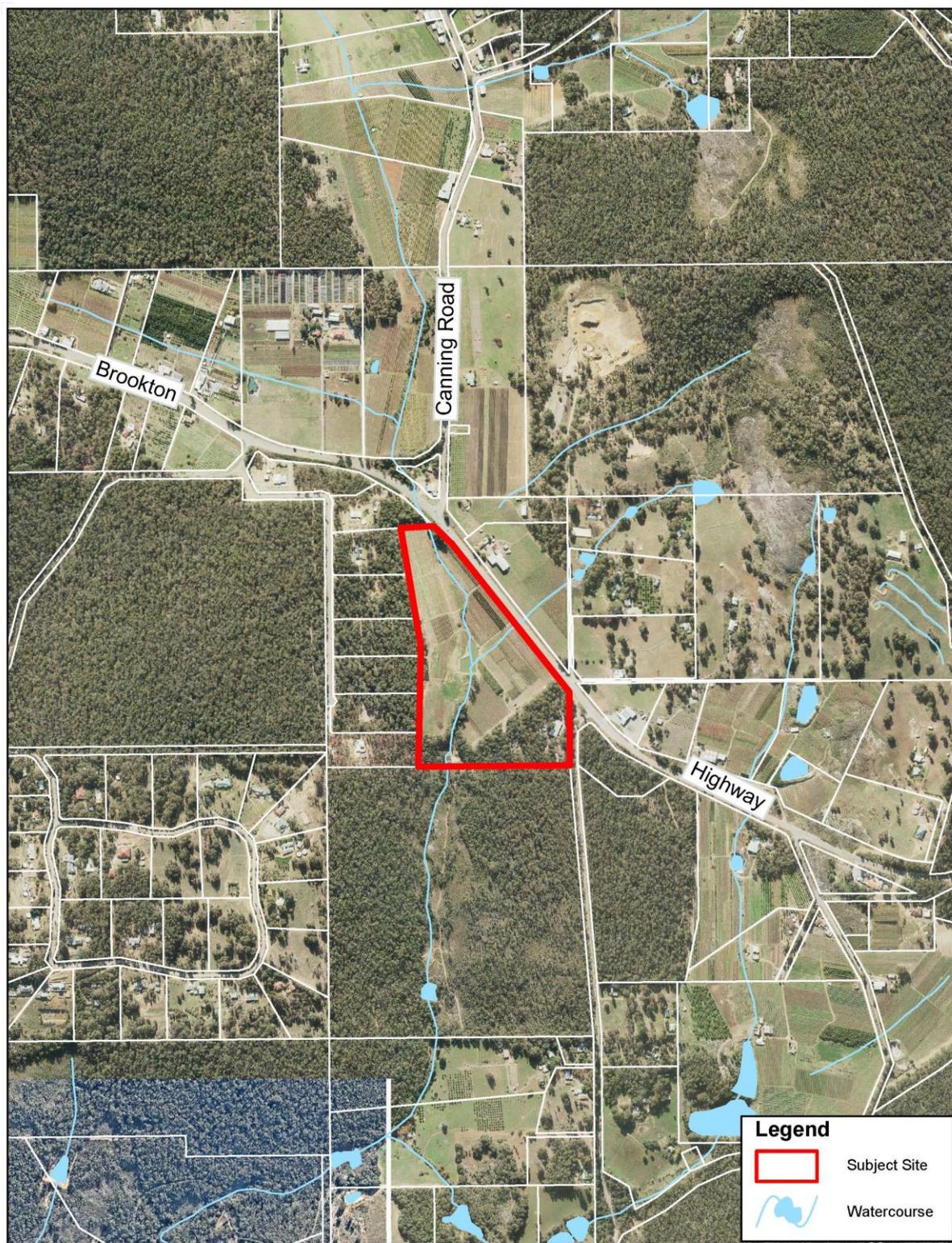
**Strategic Implications**

2.1 Long term planning and development that is guided by a balance between economic, social and economic objectives.

2.1.1 Review, update and implement the City's Town Planning Scheme, taking into account social, economic and environmental considerations.

**Legislation Implications**

Planning and Development Act 2005  
Town Planning Scheme No.4 (TPS No.4)  
Local Planning Strategy 2015  
Metropolitan Region Scheme



**AERIAL PLAN**  
Lot 9000 Brookton Highway, Karragullen



DATE 5 January 2018 - REVISION 1801  
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### **Council Policy/Local Law Implications**

- PLN 2.5 Erosion Preventions & Sediment Control
- PLN 2.6 Water Sensitive Design
- PLN 3.5 Outbuildings

### **Budget/Financial Implications**

Nil.

### **Consultation**

1. Department of Water and Environmental Regulation
2. Department of Biodiversity, Conservation and Attractions.

## **BACKGROUND**

The broader locality of the part of Karragullen north of the Canning River, on either side of the Brookton Highway has been characterised by orchard land uses for over a century. The Stinton Creek and other watercourses flow south through this area to the Canning River. Given the age of orchard activity in this area it is likely that natural water courses such as the Stinton Creek have been altered in areas and subject to extraction for irrigation purposes for some time. This is likely to be the case at various points both north and south of Lot 9000 where Stinton Creek flows through privately owned land. It is therefore difficult to find reliable information about pre-existing streamflow levels, original watercourse routes and general water resource management in some areas.

Lot 9000 is located on the south eastern corner of the junction of Brookton Highway and Gardiner Road. The site contains an orchard which has been in longstanding use. The earliest available aerial photographic records that the City possesses from 1965 indicate that the orchard was well established by then and was likely operating for several decades prior, possibly from the early twentieth century. The Water Resource Investigation (WRI) prepared by Bioscience in support of the application indicates that much of the pre 2017 dam works, creek crossings and spillways were likely created by simple means in the early twentieth century. Based on the evidence available, this conclusion is considered to be plausible. Aerial photographs from 1981 suggest that clearing of vegetation from in and around the dams was undertaken at this time. Their appearance changed little from this time until 2017.

The City's first Town Planning Scheme No.1 came into effect in 1973. Dam Construction as a land use class appeared with Town Planning Scheme No.4 in 2005. On this basis the pre-existing dams would have been eligible for non-conforming use rights under TPS No.4; however this does not apply to the subject works.

The gradual subdivision of land on the western side of the site was approved by the Western Australian Planning Commission from 2002 onwards to create eight smaller Rural Living lots. Civa Heights was constructed to service these lots via Irymple Road. The rear aspects of these lots abut Lot 9000 and their general layout is defined under Structure Plan No.17, which was endorsed by the City on 24 November 2006. Four of the eight lots contain single houses as of July 2018. Lot 9000 has continued to operate as an orchard.

The City received a complaint regarding reduced flow in Stinton Creek in January 2014. Investigations by the City at that stage indicated that the work in question related to site maintenance and fire breaks. There was deemed to be no evidence of a Planning breach and no further action was taken.

The City is currently assessing a development application for a Restaurant, Rural Industry (Cidery) and Use Not Listed (Cellar Door Sales) for Lot 9000 under the reference 10.2017.397.1. This development application will be presented to Council for consideration in due course, but does not form part of the subject application.

#### *Planning Compliance Investigation*

A complaint regarding unauthorised works occurring on the property was received by the City's Environmental Services on 11/07/2017. On this occasion the investigation by the City's Planning Compliance and Environmental Services officers confirmed that significant works had been undertaken to enlarge the two small existing dams into one larger dam. According to the City's available aerial photography records it is likely the works took place between March and July 2017. These completed works essentially correspond with the Dam Construction works encompassed as part of this application, minus the completion of the proposed pump house exterior and installation of pumping equipment.

The City wrote to the owner of Lot 9000 on 25/07/2017 advising them as a development approval was not present for Dam Construction that all works must cease immediately and that plans and supporting environmental information must be provided within 30 days so that City could then advise whether development and building applications could be considered by the City or further compliance investigation/action would occur.

The applicant responded to the City on behalf of the landowner on 24/08/2017 providing a plan of the completed works and supporting information. The applicant advised that they considered the works to constitute maintenance and repair of the existing dams only. The City wrote to the applicant on 31/08/2017 advising that it did not consider the works to be within the scope of simple repair and maintenance.

The City wrote to the applicant again on 01/11/2017 that on the basis of the information provided the applicant could now proceed to submit a development application to the City for Dam Construction for formal consideration. The City outlined issues that would need to be addressed in the development application, including maintaining appropriate outflow into the Stinton Creek and addressing all relevant environmental issues.

#### **DETAILS OF PROPOSAL**

The development application for Dam Construction at Lot 9000 Brookton Highway was received by the City on 22 December 2017.

Dam Construction is a discretionary (D) use in the General Rural zone. Development approval must be obtained, however local consultation is not required as a matter of course during the assessment process. Dam Construction is defined under TPS No.4 as:

*“dam construction” means any works involving construction of an on-stream or off-stream basin and/or constriction of flow associated with a water course, but excludes any drainage work undertaken as part of an approved subdivision of land, or public works undertaken by the authority responsible for the management or maintenance of the particular water course;*

The applicant has advised that the proposal consists of the following elements:

- *Removal of tea trees from around the edges of the main existing dam on the property (tea trees were leaning extensively over the edges of the banks and causing safety concerns);*
- *Making safe the existing edges of the main dam with the installation of an approximately 1.2m high rock pitched batter (no changes to the dam depth and margins around the bank);*
- *Reinstatement of existing dam wall with rock pitch batter;*
- *Removal of dangerous vertical dam edge in one part (western edge) and establishment of a more gradual graded batter slope with rock pitching to the top margin;*
- *Clean out and rock pitch the existing "pond" immediately south of the dam wall, and establish rock pitched spillway to maintain connection of main dam to the pond and creek line;*
- *Remove old creek crossing, downstream from the "pond";*
- *Replace old spillway wall downstream of old creek crossing with new rock pitching to the same extent; and*
- *Remove two old pump sheds from adjacent to the main dam, and commence replacement with single pump shed of approximately 19m<sup>2</sup> on the east side of the "pond" (concrete pad and pylons in place).*

The enlargement and combination of the two existing dams into one larger dam on the Stinton Creek proper. The volume of the former dams is thereby increased from 2223m<sup>2</sup> to 5476m<sup>2</sup> according to the applicant's hydrology consultant. The dam is located on-stream, meaning that it is on the course of the Stinton Creek itself and is not separate from the watercourse.

The applicant has advised the City verbally that the intent of the dam primarily is to provide irrigation to the existing orchard. It is proposed that creek inflow from the dam will be supplemented by artesian bore water that will be pumped into the dam during summer periods when inflow ceases.

It is noted that the dam is located to the east of where the proposed Restaurant is intended to be located in the separate development application. The Restaurant would then theoretically look out across the site with the dam in the foreground. Given this siting of the proposed building, it is reasonable to conclude that the dam construction works also serve a visual purpose within the context of the site.

The applicant provided a Hydrological Assessment prepared by Bioscience with the initial submission of the application in late December 2017. This documentation was forwarded to DWER for comment on 08/02/2018. Comments from DWER were received on 20/04/2018 advising that the Assessment was not sufficient in addressing low stream flow rates and advising that a Water Resource Investigation (WRI) was recommended. Bioscience prepared a WRI which was referred to DWER on 15/06/2018. DWER responded on 16/08/2018 advising that the WRI was supported. The WRI is the key supporting technical documentation for the application. It is discussed further in this report.

The applicant did not provide a Structural Certification for the dam as part of the application.

## COMMENT

### **Development Control Unit (DCU)**

The proposal was referred to the DCU for comment. The following comments were received

#### *Environmental Services:*

- The intent of the dam was queried; insofar whether it was primarily for irrigation purposes associated with the orchard or an aesthetic landscaping feature.
- The increased outflow calculations from the dam appeared inconsistent with the increased holding capacity of the new dam in comparison to the previous dams.

#### *Applicant's Response:*

The landowner/operator of the existing orchard has advised the City that the primary purpose of the dam is for irrigation of the orchard.

The WRI provided by Bioscience advises that Stinton Creek is not considered to be a perennial water course and that the volume of the dam will be supplemented by bore water being pumped into the dam during non-flowing periods (November to April). The WRI advises that this increase in outflow downstream into the Stinton Creek is calculated on a year round basis, although at times outflow from May onwards when the Creek begins to flow again will be less initially less than the pre development equivalent (due to the larger capacity of the dam requiring filling) the outflow will continue longer into the dryer period.

### **Department of Water and Environmental Regulation (DWER)**

The proposal was referred to the DWER on account of the significance of the Stinton Creek from three angles:

- Providing a water resource for agricultural uses in the City's General Rural zone;
- Providing water to the Stinton Cascades Nature Reserve located immediately south of Lot 9000; and
- Stinton Creek acts as a tributary of the Canning River.

The application was referred to the DWER for its comment on 08/02/2018. The DWER provided comments to the City on 20/04/2018 advising that Hydrological Assessment prepared by Bioscience was insufficient as it did not fully address the implications of potential low flow rate into the Stinton Creek. DWER recommended that a Water Resource Investigation (WRI) be prepared.

A meeting with DWER, the City's Planning and Environmental Officers and the applicant was held at the City's offices on 15/5/2018 to discuss the application and DWER's advice. DWER advised that very little overarching data on the Stinton Creek was available to assess the overall impacts of the on-stream dam with the information presented initially and that it would be advisable for the WRI to be informed by *Water quality protection note 53 – Dam construction and operation in rural areas* (May 2014) to demonstrate that the new dam does not detrimentally impact on the downstream flows allowed by the previous (historical) dams.

The applicant submitted the WRI to the City on 15/06/2018 and it was referred to DWER for comment on the same day. The DWER advised the City on 16/08/2018 that it was satisfied with the WRI and that it requested that final engineering drawings for the dam be provided. The DWER also advised that the landowner should apply to DWER for a surface water licence.

The DWER's comments are expanded upon in the Analysis section of this report.

### **Department of Biodiversity Conservation and Attractions (DBCA)**

The application was also forwarded to the DBCA on 08/02/2018 on account of potential impacts upon the immediately adjoining Stinton Creek Nature Reserve. The DBCA advised the City on 07/03/2018 that it had no comments to provide on the application.

### **Public Consultation**

The City was not required to undertake mandatory public consultation in relation to the application for Dam Construction as it is a discretionary (D) land use in the General Rural zone under TPS No.4. The City determined that as the key issues relating to the dam were based in environmental and water resource matters it would be appropriate for external consultation that it undertook to be focused upon expert consultants and the DWER, rather than broader public advertising of the proposal.

The City did undertake public consultation in relation to the concurrent development application (10.2017.397.1) for Lot 9000 Brookton Highway Karragullen for a Restaurant, Rural Industry (Cidery) and Use Not Listed (Cellar Door Sales). This was undertaken in March and April 2018. Due to local knowledge of the Dam Construction works some submitters raised the potential for impacts upon the Stinton Creek in their submissions. Issues such as effluent disposal and water supply impacts that are relevant to the other development application for the site will be dealt with in a separate report at a later date. Notwithstanding this, the following issues relevant to the Dam Construction application were raised by members of the community:

*Issue 1: The dam constricts water flow downstream into the Stinton Creek and limits supply to those who rely on the water course.*

This matter is dealt with under the WRI prepared by Bioscience Pty Ltd on behalf of the applicant and that has been supported by the DWER. The WRI is discussed in more detail in the Analysis section of this report.

*Issue 2: In early 2018 the dam wall collapsed during a severe rain storm causing significant damage to the downstream banks of the creek. The dam appeared to suffer catastrophic damage, resulting in a discharge of white clay and gravel into Stinton Creek downstream of Lot 9000.*

This issue was raised in two submissions received during the public advertising period for 10.2017.397.1. One submission provides a date of January and the other of February 2018 for this event. The Bureau of Meteorology rain gauge records for Karragullen indicates that 147.6mm of rainfall was recorded on 16/01/2018, so this is considered the period most likely to correspond with the alleged occurrence.

The applicant has advised the City that they have no knowledge of the collapse of any dam walls during this as described and they consider these assertions to be factually incorrect.

The City has no other records such as aerial photographs or correspondence from other persons or agencies dating from January/February 2018 that could be used to cross verify the allegation. Nonetheless, should Council decide to approve the application it is recommended that a condition be applied requiring a certification of the dam works by a qualified engineer to be provided to the City.

## ANALYSIS

### **Town Planning Scheme No.4**

The City's TPS No.4 does not contain specific development standards for the Dam Construction land use. The use class definition does include both on-stream or off-stream basins and any construction that constricts water flow. The proposal in this case incorporates a basin constructed on-stream with a spillway into the Stinton Creek.

### **Hydrological Assessment**

The applicant provided a hydrological assessment prepared by Bioscience Pty Ltd and dated November 2017. The assessment is a brief document that provides a series of tables with pre development (i.e. pre early 2017) outflow estimates and post development (i.e. present day) outflow calculations. The key conclusions of the assessment were:

- *Stinton Creek: Volume of flow input by the creek could not be sourced. For this reason, the rational method to estimate peak flow rate was used to estimate input by the creek..*
- *Subsoil drainage: we assumed than 10% of both the rainfall and irrigation water reaching the irrigation area will discharge into the dam through the subsoil drainage (Table 3).*
- *Bore water: The site manager tops up the improved dam with bore water between November and April. This practice did not occur at predevelopment, where bores directly fed the irrigation system.*
- *When comparing the Pre-Development Modelling and the Post-Development Modelling (Comparison) scenarios, both the pre-dev. dam and the post-dev. dam discharge water downstream within the same month. Time wise, on a monthly basis, there is therefore no lag in discharge time between the pre- and post-dev dam. However and as expected, the pre-dev. dam discharges more water within the first month than the post-dev. dam. Discharge during the following months tends to be similar in rate. As expected, total volume of flow on a yearly basis is higher for the pre-dev. dam compared to the post-dev dam.*
- *It is noted nonetheless that the addition of groundwater to the post-dev. dam (Post-Development (Actual) scenario) changes the trends described above. Discharge from the dam occurs one to two month earlier, the monthly flow rate is similar to the monthly- flow rate of the pre-dev dam, but the total volume discharged through the year is higher; and as opposed to the pre-dev dam, some discharge might occur during the summer months. As such, the improvement of the dam and the subsequent management practices seem to increase the volume of the downstream flow both monthly and yearly, reduce the dry out time, and have no negative impact on the downstream monthly flow rate.*

The DWER reviewed the assessment and provided the following comments to the City on 20/04/2018.

*The Stinton Creek is a proclaimed watercourse and in accordance with the Rights in Water and Irrigation Act 1914 a permit to interfere with the bed and banks and/or a licence to take water from the DWER may be required. In accordance with Water Quality Protection Note (WQPN) 53: Dam construction and operation in rural areas (DWER, 2014), the DWER recommends that dams are positioned off-stream (away from the main waterway channel) rather than on-stream, which has the potential to impact both upstream and downstream users and the environment. However, historically constructed on-stream dams require special consideration. Therefore, if a permit or licence was to be issued, it may contain conditions to manage potential impacts to downstream flows.*

*On-stream dams should have a provision to maintain low stream flows and Environmental Water Provisions. These can be in the form of spillways and/or bypass channels with flow gates or stop boards. Under-wall outlet pipes with stop valves may also be used for occasional wet season scouring of residues accumulated in the dam.*

*The DWER has assessed the Hydrological Assessment prepared by Bioscience (dated 11 November 2017) and considers it to be insufficient as it does not address low stream flows, Environmental Water Provisions and other requirements in WQPN 53.*

#### **Water Resource Investigation**

*A Water Resource Investigation is to be prepared and implemented to the satisfaction of the City of Armadale on advice of the Department of Water and Environmental Regulation.*

*The report should be prepared in accordance with Water Quality Protection Note 53: Dam construction and operation in rural areas (DWER, 2014) and include, but not be limited to, the following:*

- *A location plan depicting the dam layout.*
- *Plan and profiles of the water retaining structure, including its dimensions and details on the dam overflow point and low-flow outlet.*
- *The water quality and quantity (water balance).*
- *Prediction of the impacts on waterway flow, other users, the local environment and overall sub-catchment water availability and how these impacts will be managed / mitigated, including;*
- *Rates of flow being maintained in Stinton Creek and how will low stream flows and Environmental Water Provisions be maintained.*
- *Proposed operational strategy, monitoring program, contingency plan and complaints management protocol.*
- *Evaluation of alternative water sources.*

*The information provided indicates that water from the dam will be used to irrigate the existing orchard. As previously advised a licence to take water may therefore be required in accordance with the Rights in Water and Irrigation Act 1914.*

### **Water Resource Investigation (WRI)**

Following the advice from DWER Bioscience Pty Ltd prepared a WRI and provided a copy to the City. The WRI provided the following conclusions:

- *The Stinton Creek is not a perennial waterway;*
- *The volume of downstream flow from the improved dam is higher than the inflow from the Stinton Creek on a monthly basis. The improved dam has therefore no negative impact on waterway flow, other users, and on the local and overall sub catchment water availability;*
- *The infrastructure on site (subsoil drainage) and the subsequent management practices (addition of bore water to improved dam) increase the yearly volume of water discharged downstream by more than 61,000 kL when compared to the predevelopment dam;*
- *The infrastructure on site and the subsequent management practices also increase by twice the volume of water released downstream during the low-flow period (i.e. November to April) when compared to the pre-development dam; while, maintaining the Environmental Water Provisions during low-flow periods.*
- *Note that outflow from the site accumulates in a dam located within the Stinton Cascades Nature Reserve. No outflow was observed from the Stinton Cascades Nature Reserve dam. The dam outlet was deemed to be poorly maintained. This poor maintenance is likely to reduce flow volume downstream during low-flow periods.*

The City's Environmental Services Officer reviewed the WRI and provided the following comments:

- The WRI makes a number of assumptions regarding the catchment input from Stinton Creek into the dam, such as a catchment size of 500 ha (p5) and a runoff co-efficient of 0.6 which DWER will better positioned to verify. The volume of water entering the dam is a constant with both the predevelopment and post development dams.
- The model shows that there is no inflow from Stinton Creek into the dam during December to March (p11).
- 90% of the orchard's subsoil system drains into the dam, with the remaining 10% (one hectare) does not flow into the dam but downstream from the dam. The predevelopment model shows that this generated some flow to the Stinton Cascades Nature Reserve even when Stinton Creek was not flowing into the dam from December to March (Table 7.1). The agreed to low flows to Stinton Cascades Nature Reserve should use these figures. One possibility is the monthly average over these four months which is 467m3.
- A major change in the water input into the dam, which didn't occur prior to the extension of the dam, is topping the dam with bore water from November to April (table 7.3). This is can be used to ensure that the agreed flow to Stinton Cascades Nature Reserve occurs, but enforcement methods need to be considered.

These comments were referred to DWER for consideration alongside the WRI. DWER provided comments to the City on 16/08/2018 indicating that it was supportive of the WRI's conclusions as they stood and recommended that finalized engineering drawings for the dam be provided and that the landowner apply for a surface water license from DWER. It is suggested that these requirements be made conditions and/or advice notes if Council decides to approve the application.

### **DWER Water Licensing**

The WRI advises that the applicant is not currently licensed to extract surface water and intends the WRI to form part of a separate license application to the DWER. The DWER allows licenses for sought for the extraction of surface water from watercourses and artesian bores, as would be the case here. The license application must be made to DWER and considered and decided by them. DWER has an interim compliance and enforcement policy in effect, pending finalization. This allows DWER to enforce the terms of any water license that has been granted.

### **PLN 2.5 – Erosion Prevention and Sediment Control**

The City has a local planning policy PLN 2.5 which outlines objectives in relation to managing sediment inflow into water courses and the Canning River system. The policy applies in relation to structure plans, subdivision and development in all zones. While there have been allegations of clay and gravel entering the Stinton Creek from Lot 9000 during a heavy rain event in early 2018 this City has not been able to confirm whether Lot 9000 was the source of the issue. It is considered that PLN 2.5 could be addressed via the application of conditions to provide drawings showing an engineering certification for the dam construction and a statement confirming the implementation of appropriate erosion and sediment control measures for the section of the Stinton Creek that is located within the lot as described in Section 5.2 of the *Erosion and Sedimentation Control Manual for the Darling Range, Perth Western Australia*.

### **PLN 2.6 - Water Sensitive Design**

The City's PLN 2.6 objectives are based around ensuring the health of watercourses in the City by addressing the issue at the level of structure planning, subdivision and developments. The most common expression of the policy is found in the planning for broader urban structure plans and subdivisions. For example, the creation of 'living streams' in the City's Urban Development Zone to maintain the health of sub catchment systems. In the case of the Stinton Creek, the level of existing alteration to the watercourse and fragmented ownership of the land containing the creek is evident. Nonetheless, the development proposal is supported by a WRI that has been endorsed by the DWER. Conditions can also be applied to mitigate erosion and sediment downstream of the dam.

### **PLN 3.4 - Outbuildings**

The City's outbuilding policy PLN 3.4 applies in the General Rural zone, although the maximum dimension limits for outbuildings do not apply where land is zoned General Rural and where the outbuilding is an approved agricultural activity. This is considered to accord with the description of the subject site which has been longstanding use as an orchard and is proposed to remain so. The proposal incorporates a new pumphouse out building for the dam which is proposed to be located south of the dam wall and spillway. The new pumphouse is proposed to replace the previous pumphouse which serviced the earlier two dams on the property.

The plans provided indicate that the pumphouse will have an internal area of 19.8m<sup>2</sup> and a maximum roof pitch height of 3.4m. The external walls will be cladding in local stone. A timber deck over the dam is proposed also. It is understood that a concrete pad for the pumphouse was constructed but that the remainder of the structure has not been finished.

The outbuilding is considered to be consistent with the use of the site and is of a modest scale and would not contribute to an impression of excessive site coverage. The outbuilding is recommended for approval.

### **OPTIONS**

1. Council could approve the application for Dam Construction and an outbuilding at Lot 9000, Brookton Highway Karragullen subject to appropriate conditions.
2. Council could refuse the application for Dam Construction at Lot 9000, Brookton Highway Karragullen and state the reasons for doing so.

### **CONCLUSION**

The application for Dam Construction has arisen after the City was alerted to unauthorized works taking place on the property at Lot 9000 Brookton Highway Karragullen in 2017. Development approval is required as Dam Construction is a discretionary (D) use class under TPS No.4. In light of preliminary supporting information provided by the applicant the City and DWER has been able to assess a development application that encompasses the existing dam works and the completion of a proposed pumphouse outbuilding to service water extraction from the dam.

The dam is located where there were two smaller dams already in use. These dams were constructed on stream on the Stinton Creek which provides water to other agricultural uses upstream of Lot 9000 and downstream water to the Stinton Cascades Nature Reserve and Canning River. It is likely that the earlier dams that had altered the Stinton Creek had non-conforming use rights under TPS No.4.

The City has been advised that the dam is intended to provide water to service the longstanding orchard that operates on Lot 9000. It is noted that the dam would also serve a visual purpose in the context of being situated below a Restaurant building that is proposed in a separate and as of yet undetermined development application.

The application has been referred to the DWER and DBCA for comment. DBCA has provided no comments. The DWER requested the provision of a WRI to further consider the proposal. The applicant provided this documentation, which was subsequently supported by DWER on the basis that it would not result in a significant detrimental impact upon the downstream flow rates of the Stinton Creek. The proposed pumphouse outbuilding is considered to comply with the City's PLN 3.4.

On the basis of the above it is considered that the proposal is satisfactory and that there are not sufficient compelling reasons to recommended refusal of the application. It is therefore recommended that the application be approved subject to conditions.

## ATTACHMENTS

1. Aerial Plan No.1 - Lot 9000 Brookton Hwy, Karragullen
2. Aerial Plan No.2 - Lot 9000 Brookton Hwy, Karragullen
3. Site Plan - Lot 9000 Brookton Hwy, Karragullen
4. Proposed Pump Station - Lot 9000 Brookton Hwy, Karragullen
5. Photographs 1 - Lot 9000 Brookton Hwy, Karragullen
6. Photographs 2 - Lot 9000 Brookton Hwy, Karragullen
7. Photographs 3 - Lot 9000 Brookton Hwy, Karragullen
8. Photographs 4 - Lot 9000 Brookton Hwy, Karragullen
9. Photographs 5 - Lot 9000 Brookton Hwy, Karragullen
10. Photographs 6 - Lot 9000 Brookton Hwy, Karragullen
11. Photographs 7 - Lot 9000 Brookton Hwy, Karragullen
12. Water Resource Investigation - Lot 9000 Brookton Hwy, Karragullen

### *Committee Discussion*

*Committee discussed groundwater extraction, need for a licence to take water from the creek and Department of Water approval processes, the size of dam, potential impacts, future development application, WRI, historical use of the land and previous dams. Committee resolved to approve the application.*

*Committee discussed corrections to the report including amendment to the Water Resource Investigation Report, Appendix C – Operating Strategy – No.4 Operating Rules – Table 1 - Annual Extraction (kL year) being amended to read “105,000 kL/yr”. Accordingly, the attachment page has been amended.*

## RECOMMEND

D69/10/18

### **That Council:**

- A. Approves the application for Planning Approval for Dam Construction and outbuilding on Lot 9000 Brookton Highway Karragullen Subject to the following conditions:**
  - 1. The landowner/operator is to provide a Structural Certification for the Dam Construction that has been prepared by an appropriately qualified engineering consultant to the City by 31/12/2018, to the satisfaction of the Executive Director Technical Services. All works shall be carried out in accordance with the Structural Certification.**
  - 2. The landowner/operator is to provide a schedule and implementation timetable of erosion and sedimentation control measures for the Stinton Creek watercourse as described in Section 5.2 of the *Erosion and Sedimentation Control Manual for the Darling Range, Perth Western Australia* to the City by 31/12/2018 to the satisfaction of the Executive Director Technical Services.**
  - 3. The site is to be managed in accordance with the Water Resource Investigation (WRI) and appendices prepared by Bioscience Pty Ltd dated June 2018 to the satisfaction of the City.**

4. All conditions are to be complied with prior to exercising the right of this approval, to the satisfaction of the Executive Director Development Services.

Advice Notes –

- A. With regard to Condition 1 requiring Structural Certification, any variation from the works as described in the Structural Certification requires approval from a certified engineer and the City.
- B. The landowner/operator must apply for and obtain the relevant water license(s) as required from the Department of Water and Environmental Regulation.
- C. The applicant and landowner are advised that it is a statutory requirement to comply with all conditions of this approval, and that not complying with any condition is therefore illegal. Failure to comply with any condition of this approval or the approved plans constitutes an offence under the Planning Development Act 2005. The City can issue a Planning Infringement Notice of \$500 (without notice) and/or commence legal action with higher penalties up to \$200,000 for each offence and a daily penalty of \$25,000 per day for the continuation of that offence. It is the responsibility of the applicant and/or landowner to inform Council in writing when they consider the development to be complete and all conditions of this approval have been satisfied.
- D. Compliance with the Building Code of Australia is required. In this regard, a Building / Demolition Permit application is to be submitted to the City's Building Department and approved prior to the erection / demolition of any structure on the subject site.
- E. The developer is reminded of the requirement under the provisions of the Environmental Protection Act that all construction work (which includes earthworks and similar) be managed with due regard for noise control. Works generating noise and rock breaking in particular, are not permitted:-
- Outside the hours of 7:00am to 7:00pm; or
  - On a Sunday or Public Holiday
- F. If the applicant is aggrieved by a Refusal to Approve his/her application, or, where Approved, is aggrieved by any Condition imposed in that Approval he/she may apply for a Review to the State Administrative Tribunal pursuant to the provisions of Part 14 of the Planning and Development Act 2005 against such refusal or imposition of such aggrieved Condition.

Such application for Review must be made not more than twenty eight (28) days after the date of Council's decision via the form available from the State Administrative Tribunal (copies available from the State Administrative Tribunal, Level 4, 12 St Georges Terrace, Perth or GPO Box U1991, Perth, WA, 6845, or [www.sat.justice.wa.gov.au](http://www.sat.justice.wa.gov.au) or from Council's offices), and should be accompanied by the relevant fee detailed in Schedule 18 of the State Administrative Tribunal Regulations 2004).

- G. If the development the subject of this approval is not substantially commenced within a period of 24 months from the date of this letter, the approval shall lapse and be of no further effect.**
  
- H. Where the approval has so lapsed, no development shall be carried out without the further approval of the City having first been sought and obtained.**

**Moved Cr H A Zelones  
Seconded Cr J H Munn  
Opposed Cr C M Wielinga  
MOTION CARRIED**

**(5/1)**



**LOCATION PLAN**  
Lot 26 (No. 34) Rails Crescent, Wungong



SCALE 1 : 7500

DATE 27 September 2018 - REVISION 1801  
p:\autocad\agenda\_drawings\2018\10\_october\34\_rails\34\_rails.dwg

Based on information provided by and with the permission of the Western Australian Land Information Authority being an Integrated Geospatial Information Authority. Aerial photography supplied by Landgate, Armadale by WestMap.



*Cr Busby declared a financial interest in this item on the basis that the applicant is a client of his computer business and left the meeting at 8.37pm.*

**3.1 - STATE ADMINISTRATIVE TRIBUNAL MEDIATION - DIRECTION NOTICE -  
LOT 26 (34) RAILS CRESCENT, WUNGONG**

WARD : HILLS  
FILE No. : M/650/18  
DATE : 10 October 2018  
REF : DC  
RESPONSIBLE : A/EDDS  
MANAGER

**In Brief:**

- The City issued a Directions Notice on 22 May 2018 instructing the owner to remove unauthorised commercial vehicles and a sea container.
- The owner made an application for review to SAT on 25 June 2018 contesting the validity of the Directions Notice.
- Following on-site Mediation on 14 August 2018, the applicant has submitted a proposal for further consideration.
- Recommend that Council not support the applicant's proposal to park additional commercial vehicles and not support the retention of the sea container at the subject property.

**Tabled Items**

Nil.

**Strategic Implications**

2.5.1 Implement and administer the City's Town Planning Scheme and Local Planning Strategy to deliver quality development outcomes.

**Legislation Implications**

Planning and Development Act 2005  
Planning and Development (Local Planning Schemes) Regulations 2015  
Town Planning Scheme (TPS) No.4  
Metropolitan Region Scheme  
State Administrative Tribunal Act 2004

**Council Policy/Local Law Implications**

Nil.

**Budget/Financial Implications**

Legal costs associated with defending the Directions Notice via State Administrative Tribunal can be accommodated within the Planning Services Budget.

**Consultation**

Nil.



**AERIAL PLAN**  
Lot 26 (No. 34) RAILS Crescent, Wungong



SCALE 1 : 2000

DATE 27 September 2018 - REVISION 1801  
p:\autocad\agenda\_drawings\2018\10. october\34\_rails\34\_rails.dwg

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Western Australian Land Information Authority trading as Landgate (2012).  
Aerial photograph supplied by Landgate. Photograph by NearMap



## **BACKGROUND**

### **Current Commercial Vehicle Parking Approval**

Development Approval for the parking of a commercial vehicles (9.7 ton tip truck and attached 2.7 ton trailer) at the property was granted by Council on 27 October 2017 subject to a number of standard conditions. This approval is valid for 1 year and is due to expire on 27 October 2018. No renewal application has been submitted to the City for consideration for approval to date.

The approved commercial vehicle and trailer is used by the owner as part of their earthmoving business (Moles Earthmoving) off-site.

### **Planning Compliance History**

Since granting approval for the truck and trailer, the City has received a number of complaints regarding the parking of additional commercial vehicles at the property that were not subject to the current approval. In response, the City's Planning Compliance carried out a number of site inspections.

During these inspections it was observed that at least an additional five (5) commercial vehicles were being parked at the property and a sea container still being stored at the property. It should be noted that the applicant advises that the sea container was originally being used in conjunction with an approved building permit to construct an ancillary accommodation. The City was aware of the temporary placement of the sea container in accordance with *Planning Policy 3.4 – Outbuildings*, which permits the use of temporary sea containers for building purposes at the City's discretion. The ancillary accommodation was completed in July 2016 and should have been removed by the owner on completion of the building works.

Following a further site visit, the owner requested time to submit an application for a Building Permit to clad the sea container and submit engineering details in order to convert the container into an outbuilding. After no such applications was forthcoming, a further site inspection was undertaken where it was observed that the sea container was still located at the property along with a number of commercial vehicles.

### **Directions Notice**

The City issued a Directions Notice on 22 May 2018 instructing the owner to remove the unauthorised commercial vehicles and sea container. A minimum period of 65 days was given to comply with the notice in accordance with the statutory period required by the Planning and Development Act 2005.

The owner subsequently made an application for review to SAT on 25 June 2018 contesting the validity of the Directions Notice.

A Directions Hearing was held on 20 July 2018 where the matter was scheduled for onsite mediation on 14 August 2018 by SAT.

## **Current Building Permit – Boundary Fencing**

The applicant applied for and the City subsequently approved a Building Permit on 31 July 2018 to erect post and wire boundary fencing around the front and side boundaries, totalling approximately 360m in length. The fence was proposed by the applicant to contain their pet dog and includes a mesh material (which was a variation to the *City's Fence Local Law 2011*).

The applicant is now seeking to retain the sea container for the duration of this current permit (valid for 2 years) to store building/fencing material. It should be noted that the applicant annotated on their Building Permit application form their intention to retain the sea container for building works.

## **COMMENT**

### **Outcome of Mediation**

Mediation was held on 14 August 2018 onsite at 34 Rails Crescent with City officers and the City's solicitor (Kott Gunning Lawyers), the applicant and their solicitor (Lewis Blyth & Hooper) and SAT member in attendance.

SAT ordered that the applicant submit a written submission/proposal (without prejudice) for the City's further consideration. ***A copy the applicant's full submission is presented in the Confidential Attachments in the Agenda.***

A further SAT mediation has been scheduled for Tuesday 30 October 2018.

### *Summary of Applicant's Proposal*

The applicant's proposal argues that all the vehicles located on the property were required for various domestic use purposes on the property including;

1. Small excavator – for maintaining a vegetable garden.
2. Small Blue tip truck – for general property clean-up work.
3. Small Turf roller – for driveway maintenance.
4. Large excavator – for fire breaks and general garden use (kept onsite occasionally).

### ***Refer to photographs presented in the Attachments to this report.***

The applicant advises that all of the above vehicles are to be used in conjunction with a 'Rural Pursuit' to grow shrubs, trees, flowers and food crops. It should be noted that a 'Rural Pursuit' is a "D "(discretionary) use under TPS No.4 requiring development approval, however no such approval exists.

The applicant is also seeking to retain the sea container for the purposes of storing building material associated with an approved Building Permit issued by the City on 31 July 2018 to construct a boundary fence.

The proposal remains unacceptable to the City as outlined further below.

## Summary of Legal Advice

The City's solicitor (Kott Gunning) has provided advice in relation to the applicant's written submission. *A summarised version of the legal advice and relevant Officer comments in relation to the advice is included in the Confidential Attachments in the Agenda.*

*A full copy of Kott Gunning's advice is also included in the Confidential Attachments in the Agenda.*

## ANALYSIS

### Town Planning Scheme No.4 (TPS No.4)

The subject site is zoned Rural Living (1) under Town Planning Scheme No.4.

The objectives of the Rural Living zone are as follows:

#### 3.2.3 Rural Living

- (a) *To provide for a variety of rural living environments based on defined lot sizes, land form and natural environmental characteristics.*
- (b) *To provide for a range of associated compatible development, consistent with the environmental opportunities and constraints applicable to individual sites.*
- (c) *To ensure development is sited, designed and managed in harmony with the natural environment and so as to protect the rural landscape and amenity*

Clause 4B.4.5 relates to the parking of a commercial vehicle as follows:

- 4B.4.5 No person shall park a commercial vehicle except for immediate delivery or loading purposes normally associated with a domestic or rural use, unless approved by the local government except in accordance with the following requirements:*
- (a) *on-site provision for garaging or parking of the vehicle behind the front building setback line, is to be made in a manner satisfactory to the local government; and*
  - (b) *the amenity of the neighbourhood is not to be prejudicially affected by the emission of light, noise, vibration, smell, fumes, smoke or dust.*

Clause 4B.4.5 of the Scheme text relates to the parking of a commercial vehicle, therefore the parking of two or more commercial vehicles would fall within the definition of "transport depot" which was an "X" use under TPS No.4.

*"transport depot" means premises used for the parking or garaging of two or more commercial vehicles, or premises used for the transfer of goods or people from one such vehicle to another and includes the maintenance and repair of such vehicles;*  
TPS4

In light of the above, the applicant's proposal to keep numerous commercial vehicles is considered to be contrary to intent and objections of TPS No.4. The proposed industrial appearance and accumulative number of vehicles on the subject site is not considered to be in keeping with the rural character and amenity of the locality.

### **Planning Policy (PLN 5.3) - Sea Containers, Railway Carriages and Other Decommissioned Transport Conveyances**

The objectives of PLN 5.4 are as follows:

- a) *To ensure sea containers, railway carriages and other decommissioned transport conveyances do not detract from the amenity, character and established or intended streetscape of an area.*
- b) *To provide additional guidance and requirements in addition to those contained in the Town Planning Scheme and other Council policies.*

Clause 4.1 (a) states that sea containers are *not acceptable* within the Rural Living zone.

Clause 4.2.1 provides for the temporary placement of sea containers during approved building/subdivision works at the City's discretion. Whilst the City originally afforded the owners this allowance to complete building works associated with an ancillary accommodation, the sea container has remained well beyond this timeframe. Without a development approval and/or an agreed (reasonable) timeframe within which to remove the container, the applicant's proposal to retain the sea container for a longer period is not supported.

It should be noted that the City would generally not recommend approval for the placement of a permanent sea containers without substantial modifications being made to the external appearance of the container or screening as per Clause 4.3 of the PN 5.3. The applicant is not proposing to make any changes to the sea container and is contrary to the objections of PLN 5.3.

### **OPTIONS**

1. Council could not support the applicant's proposal to park additional commercial vehicle and retain the sea container, and note the matter is likely to proceed to a full hearing at SAT.
2. Council could authorise officers to negotiate and consent to a reduced number of commercial vehicles being stored on site for domestic purposes only and acceptance of the sea container as a builders shed at the next SAT mediation.

## CONCLUSION

The owners operate an earthmoving business and the temptation to bring additional vehicles back to the subject site for security and convenience is probably a contributing factor in this case. The parking of additional commercial vehicles at the subject site and the accumulative number on site at any one time would be difficult to enforce and control if the City conceded to permit such vehicles on the property for domestic purposes as proposed by the applicant.

It is recommended that Council adopt Option 1 above.

## ATTACHMENTS

1. Photographs 1 - Lot 26 Rails Cres, Wungong
2. Photographs 2 - Lot 26 Rails Cres, Wungong
3. Confidential - Applicant's Submission - Lot 26 Rails Cres, Wungong - *This matter is considered to be confidential under Section 5.23(2) (b) of the Local Government Act, as it deals with the matter relating to the personal affairs of a person/s.*
4. Confidential - Legal Advice Kott Gunning - Lot 26 Rails Cres, Wungong - *This matter is considered to be confidential under Section 5.23(2) (b) of the Local Government Act, as it deals with the matter relating to the personal affairs of a person/s.*
5. Confidential - Summary of Legal Advice - Lot 26 Rails Cres, Wungong - *This matter is considered to be confidential under Section 5.23(2) (b) of the Local Government Act, as it deals with the matter relating to the personal affairs of a person/s.*

## RECOMMEND

D70/10/18

### That Council:

- A. Not support the applicant's proposal to park additional commercial vehicles or retain the sea container at the subject property for reasons outlined in this report.**
- B. Authorise the commencement of prosecution proceedings for the sea container for the 12 month period prior to the issuance of the recent Building Permit dated 31 July 2018.**

Moved Cr D M Shaw  
MOTION CARRIED

(5/0)

*Cr Busby returned to the meeting at 8.41pm.*

***COUNCILLORS' ITEMS***

---

Nil.

### ***5.1 - SALE OF LOT 300 (16) NUMULGI STREET, ARMADALE***

---

Council at its meeting of 23 February 2015 (D7/2/15) resolved to support the in-principle disposal of Lot 300 (16) Numulgi Street, Armadale, having prepared and advertised a Business Plan for sale of the lot. An offer was agreed and accepted previously in October 2017. However the offer was subject to a condition requiring that a development approval for a Place of Worship be obtained. After lodging a development application and attempting to amend the design to meet the requirements, the development application and offer to purchase were withdrawn.

Council is advised that a subsequent new offer to purchase Lot 300 (16) Numulgi Street, Armadale was received and accepted on 24 August 2018. That offer was advertised in accordance with the provisions of the Local Government Act.

The details of the disposition are as follows:

- Total Approximate Area 728 m<sup>2</sup>;
- Buyer – Aidan Bryce Sazanov: Offer = \$185,000.00 (Inc. GST);
- Market Value (as determined by City's Panel Valuer on 7 September 2018) = \$185,000.00 (Inc. GST).
- Conditions - standard conditions and that bank finance be obtained within 28 days of the offer being accepted;

The City's consideration of the offer was advertised in the Comment News on 20 October 2018 and submissions were invited until 4 October 2018. No submissions were received.

Lot 300 is a strategic land asset. In accordance with Council's resolution of 20 November 2006 (CS109/11/06), 70% of funds from the sale will be reinvested into Strategic Asset Investments and 30% will be used to fund Freehold Sales Capital Works. This is consistent with the adopted Business Plan.

The CEO accepted the offer under Delegated Authority No.22.

---

**5.2 - PLANNING COMPLIANCE – NON-COMPLIANCE WITH DEVELOPMENT APPROVAL – UNIT 3/13 BRAY STREET, KELMSCOTT**

---

On 6 October 2011 conditional development approval was granted to construct seven grouped dwellings at 13 Bray Street, Kelmscott. A building permit was issued and the units completed.

On 11 April 2016, the City received information that unit 3/13 Bray Street had been modified internally. The effect was to change the approved three bedroom two bathroom unit into two separate units, being a two bedroom one bathroom unit and a one bedroom one bathroom unit.

Internal inspection of Unit three showed that a doorway between the areas shown as “living” and “meals,” had been boarded up and a fully functional kitchen installed into the area shown as “study.” Both sides of the unit were tenanted and discussions with the tenants revealed that unit 3 was leased on two separate tenancy agreements.

The property owner (Fix WA Pty Ltd) was requested on numerous occasions to bring the property into compliance with the development approval and convert Unit 3 back into one unit. Unfortunately, the owner refused to fully comply and continued to dispute the City’s position.

On 21 March 2017, the City commenced legal proceedings against the owner (Fix WA Pty Ltd) and the company’s director (Aman Singh). At the first mention at the Armadale Magistrates Court on 2 May 2017, a plea of “not guilty” was entered into and a two day hearing was adjourned to a trial allocation hearing at the Perth Magistrates Court.

Following adjournments, the case was finally heard on 25-26 July 2018 where City officers provided expert evidence.

On 9 October 2018, the Magistrate found both defendants (Fix WA Pty Ltd and Aman Singh) guilty of all charges, imposed fines and awarded costs to the City. The fines and costs totalled \$101,560.

*The A/Chief Executive Officer tabled photographs of the units.*

*Committee commended the officers for the successful result and their efforts during the legal proceedings.*

**5.3 - DEVELOPMENT STATISTICS 2017/2018**

The City recently submitted its development statistics for the 2017/2018 financial year to WALGA, for inclusion in its Local Government Performance Monitoring Project. This is the second year that the Monitoring Project has been operating and additional Local Governments are now participating. The outcome is likely to be published early in 2019.

The following table contains key extracts from the last two years of the City's data.

<b>Category</b>	<b>2016/17</b>	<b>2017/18</b>
Subdivision application referrals received	85	148
% of subdivision responses within 42 day timeframe	90.5%	91.2%
Lots created (i.e. clearances issued)	1450	1106
Development applications received	583	502*
% of development applications determined within statutory timeframes	84.6%	84.8%
Building permit applications determined	2382	2205
% of building permits determined within statutory timeframes	99.7%	98.8%
Value of building permits issued	\$343m	\$341m

\* Excludes 166 MRA Referrals and 252 R-Code variation applications

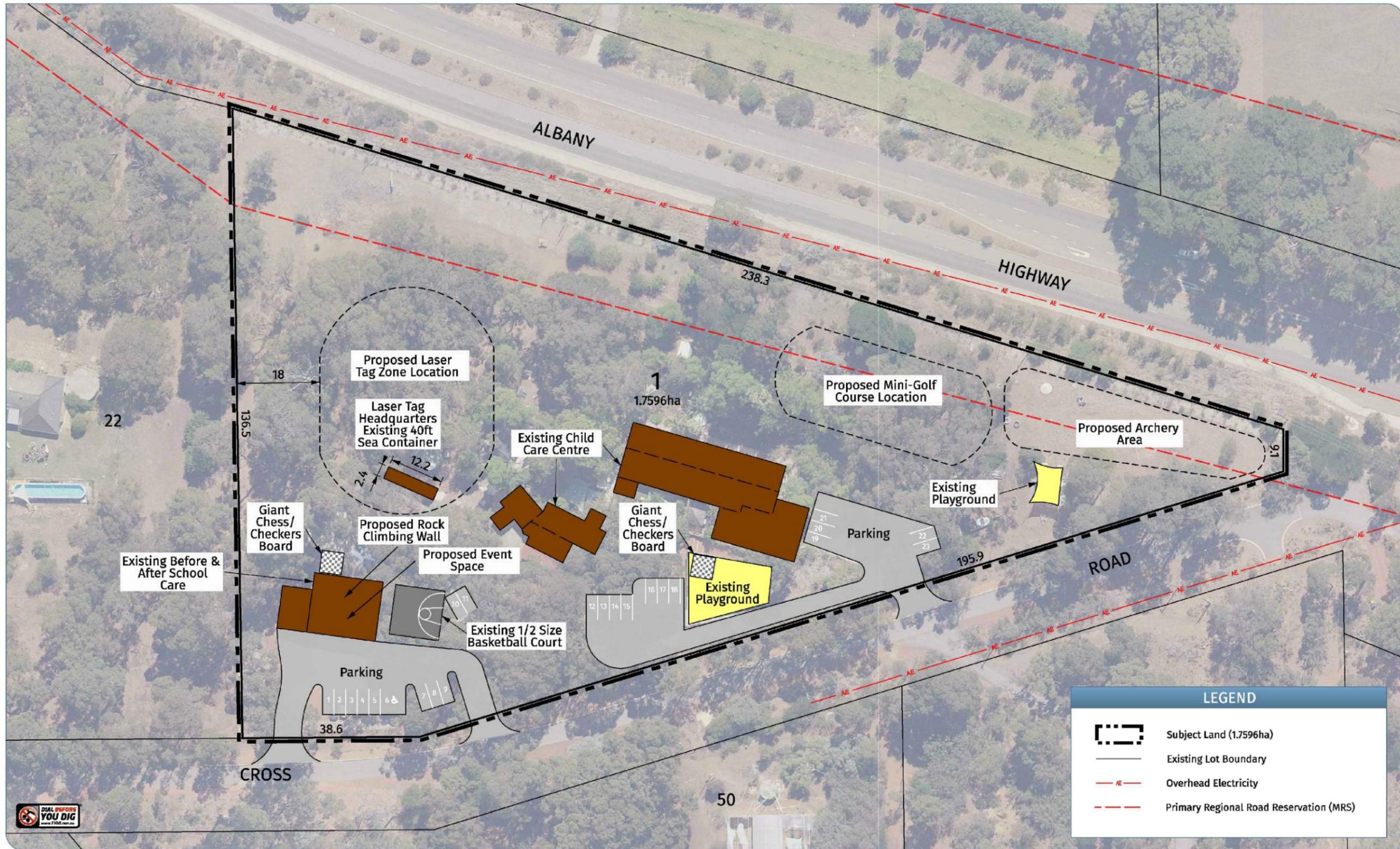
**MEETING DECLARED CLOSED AT 8.48 PM**

<b>DEVELOPMENT SERVICES COMMITTEE</b>		
<b>SUMMARY OF ATTACHMENTS</b>		
<b>16 OCTOBER 2018</b>		
<b>ATT NO.</b>	<b>SUBJECT</b>	<b>PAGE</b>
<b>1.1 RECOMMITTAL - PROPOSED CHANGE OF USE TO RECREATION - PRIVATE LOT 1 NO. 75 CROSS ROAD BEDFORDALE.</b>		
1.1.1	Site Plan - Lot 1 &75) Cross Road, Bedfordale	82
1.1.2	Floor Plan - Lot 1 &75) Cross Road, Bedfordale	83
<b>1.2 PROPOSED SINGLE HOUSE - LOT 103 (5) TURNER ROAD, KELMSCOTT</b>		
1.2.1	Site Plan - Lot 103 (5)Turner Road, Kelmscott	84
1.2.2	Floor Plan - Lot 103 (5)Turner Road, Kelmscott	85
1.2.3	Elevation Plan 1 - Lot 103 (5)Turner Road, Kelmscott	86
1.2.4	Additional Elevation Plan 2 - Lot 103 (5)Turner Road, Kelmscott	87
<b>1.3 DAM CONSTRUCTION - LOT 9000 BROOKTON HWY, KARRAGULLEN</b>		
1.3.1	Aerial Plan No.1 - Lot 9000 Brookton Hwy, Karragullen	88
1.3.2	Aerial Plan No.2 - Lot 9000 Brookton Hwy, Karragullen	89
1.3.3	Site Plan - Lot 9000 Brookton Hwy, Karragullen	90
1.3.4	Proposed Pump Station - Lot 9000 Brookton Hwy, Karragullen	91
1.3.5	Photographs 1 - Lot 9000 Brookton Hwy, Karragullen	92
1.3.6	Photographs 2 - Lot 9000 Brookton Hwy, Karragullen	93
1.3.7	Photographs 3 - Lot 9000 Brookton Hwy, Karragullen	94
1.3.8	Photographs 4 - Lot 9000 Brookton Hwy, Karragullen	95
1.3.9	Photographs 5 - Lot 9000 Brookton Hwy, Karragullen	96
1.3.10	Photographs 6 - Lot 9000 Brookton Hwy, Karragullen	97
1.3.11	Photographs 7 - Lot 9000 Brookton Hwy, Karragullen	98
1.3.12	Water Resource Investigation - Lot 9000 Brookton Hwy, Karragullen	99
<b>2.1 PROPOSED METROPOLITAN REGION SCHEME AMENDMENT 1343/57 - OMNIBUS 3</b>		
2.1.1	MRS Proposal 4 Current and Proposed MRS Amendment	142
2.1.2	MRS Proposal 4 Proposed MRS Amendment Plan 1	143

<b>DEVELOPMENT SERVICES COMMITTEE</b>		
<b>SUMMARY OF ATTACHMENTS</b>		
<b>16 OCTOBER 2018</b>		
2.1.3	MRS Proposal 4 Proposed MRS Amendment Plan 2	144
2.1.4	Proposal 1 MRS Report Extract	145
2.1.5	Proposal 2 MRS Report Extract	146
2.1.6	Proposal 3 MRS Report Extract	147
2.1.7	Proposal 4 MRS Report Extract	148
2.1.8	Proposal 5 MRS Report Extract	149
<b>3.1 STATE ADMINISTRATIVE TRIBUNAL MEDIATION - DIRECTION NOTICE - LOT 26 (34) RAILS CRESCENT, WUNGONG</b>		
3.1.1	Photographs 1 - Lot 26 Rails Cres, Wungong	150
3.1.2	Photographs 2 - Lot 26 Rails Cres, Wungong	151



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Western Australian Government. Aerial photograph supplied by Landmap. Photographs by NetMap.



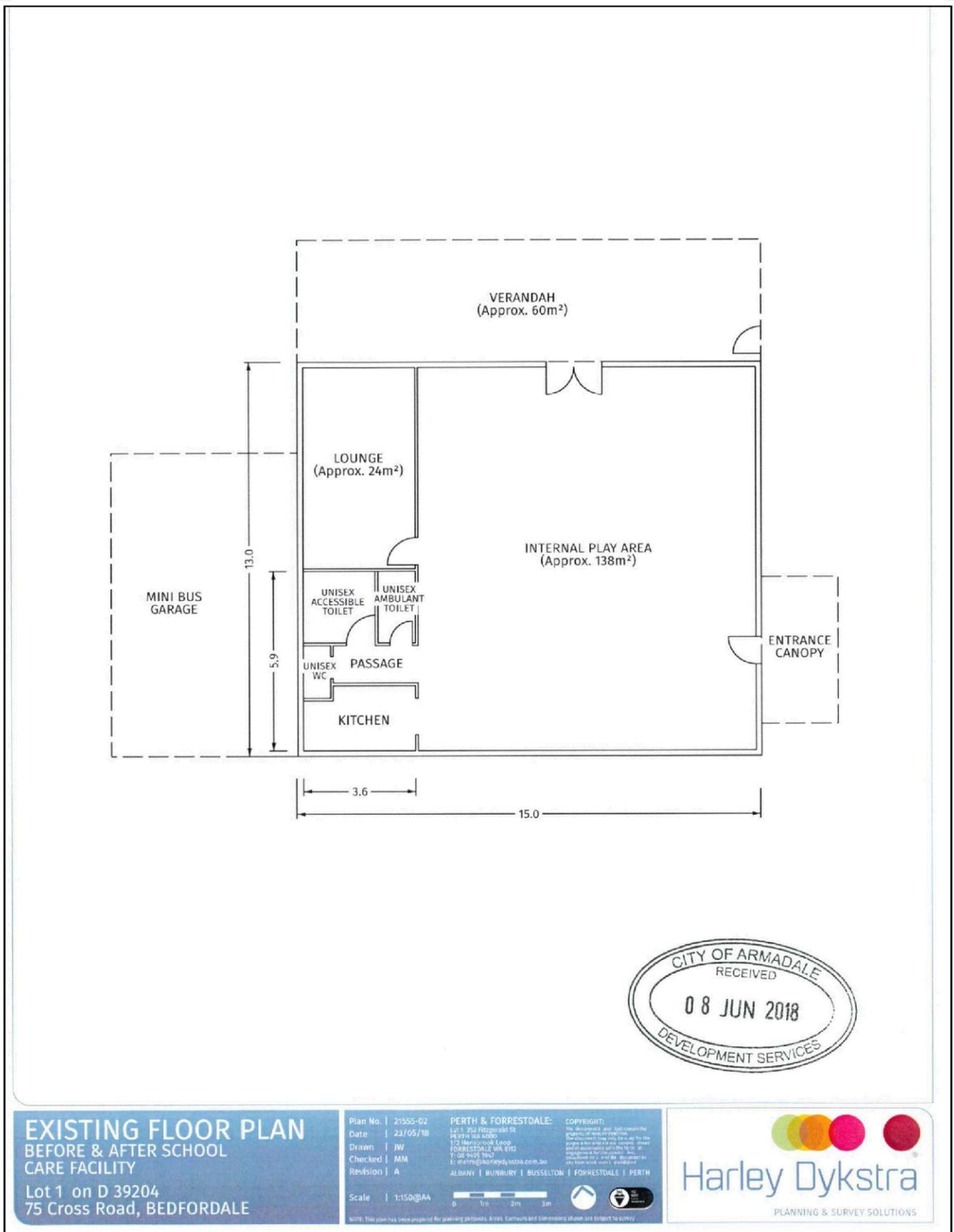
**DEVELOPMENT SITE PLAN**

Lot 1 on D 39204  
75 Cross Road, BEDFORDALE

Plan No.	21555-01	PERTH & FORRESTDALE:	COPYRIGHT:
Date	03/07/18	Lvl 1, 252 Fitzgerald St	This document is the property of HARLEY DYKSTRA. It is to be used for the purpose for which it was commissioned and in accordance with the terms of any agreement for the services. Unauthorised use of this document in any form whatsoever is prohibited.
Drawn	JW	PERTH WA 6000	
Checked	MM	1/2 Hensbrook Loop,	
Revision	A	FORRESTDALE WA 6112	
		T: 08 9495 1947	
		E: metro@harleydykstra.com.au	
		ALBANY   BUNBURY   BUSSELTON   FORRESTDALE   PERTH	
Scale	1:750@A3		

Site Plan  
Lot 1 (No. 75) Cross Road, Bedfordale

DATE: 6 September 2018. REVISED: 18 Oct 2018. Project: 20180906010101 - Development PE\_000175\_Lot1a\_site\_plan.dwg



**Existing Floor Plan**  
 Lot 1 (No. 75) Cross Road, Bedforddale

NOT TO SCALE

DATE 6 September 2018 - REVISION 1801  
 p:\auto\cad\agenda\_drawings\2018\9\_september\75\_cross\75\_cross\_road.dwg

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CITY OF  
NOT TO SCALE

**SITE PLAN**  
Lot 103 (No. 5) Turner Road, Kelmscott

**LOT 103**

Latitude: 32°06'14"3S Longitude 116°01'25"6E



**DISCLAIMER:**  
Lot boundaries drawn on survey are based on landgate plan only. Survey does not include title search and as such may not show easements or other interests not shown on plan. Title should be checked to verify all lot details and for any easements or other interests which may affect building on the property.

**DISCLAIMER:**  
Survey does not include verification of cadastral boundaries. All features and levels shown are based on orientation to existing pegs and fences only which may not be on correct cadastral alignment. Any designs based or dependent on the location of existing features should have those features' location verified in relation to the true boundary.

**DISCLAIMER:**  
Survey shows visible features only and will not show locations of underground pipes or conduits for internal or mains services. Verification of the location of all internal and mains services should be confirmed prior to finalisation of any design work.

**DISCLAIMER:**  
Cottage & Engineering surveys accept no responsibility for any physical on site changes to the parcel or portion of the parcel of land shown on this survey including any adjoining neighbours levels and features that have occurred after the date on this survey. All Sewer details plotted from information supplied by Water Corporation.

<b>ZONING</b>	R15
<b>DAP</b>	NO
<b>STRUCTURE PLAN</b>	NO
<b>BLOCK AREA</b>	560m <sup>2</sup>

TERMITE TREATMENT TO BE CHEMICAL TREATMENT IN ACCORDANCE WITH NATIONAL CONSTRUCTION CODE 2016, PART 3.1.3, PART 2.1.1 & PART 1.0.7 USING THE TERMICO MANAGEMENT PLAN

CLIENT NOTE: BEWARE OF UNDERGROUND SERVICE RUN-INS WHEN DIGGING

CLIENT NOTE: STORMWATER DISPOSAL BY OWNER SHALL BE IN ACCORDANCE WITH THE COUNCIL APPROVED PLANS & CONDITIONS OF APPROVAL AND ANY SPECIFIED STRUCTURAL ENGINEER'S REQUIREMENTS (REFER TO ADDENDA)

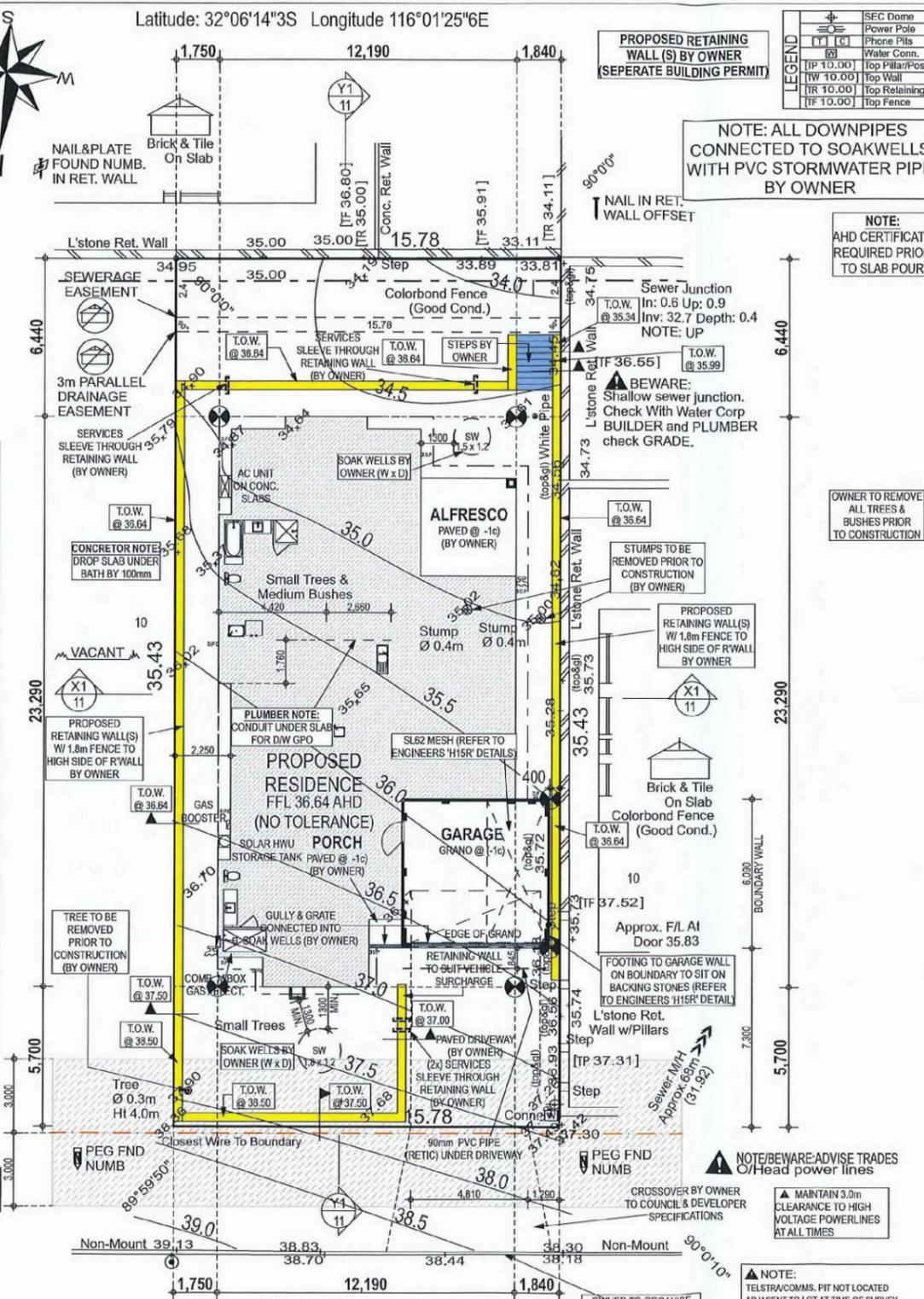
CLIENT NOTE: REMOVAL AND RE-INSTALLMENT OF FENCING AS NECESSARY BY LAND OWNER/S TO BUILDERS SCHEDULE IN ACCORDANCE WITH THE BUILDING ACT (2011) OWNER TO LIAISE & GAIN PERMISSION FROM ADJOINING LAND OWNER/S ACCORDINGLY AND GIVE 24 HOURS NOTICE PRIOR TO THE REMOVAL / RE-INSTALLMENT OF FENCING

NOTE: SOME BUILDING MATERIALS WILL BE PLACED IN THE VERGE RESERVE DURING THE COURSE OF CONSTRUCTION

**-WIND CLASSIFICATION (N1) AS PER AS 4055 EUROPEAN HOUSE BORER ALL ROOF & CEILING TIMBER TO BE H2 TREATED INDICATES SET-OUT PEGS BY LICENCED SURVEYOR (6 OFF)**

Grano / Paving Areas	AREA	Perimeter
GARAGE	36.06	24.36

Scale 1:200  
Date: 27 Apr 17



Ref Nail At Base Of Kerb A.H.D. level 39.02m (Established from S.S.M. KELMSCOTT 44 using data supplied by the Geodetic Section of Landgate)

**Turner Road**  
Bitumen

**PROPOSED RETAINING WALL(S) BY OWNER (SEPERATE BUILDING PERMIT)**

**NOTE: ALL DOWNPIPES CONNECTED TO SOAKWELLS WITH PVC STORMWATER PIPE BY OWNER**

**NOTE: AHD CERTIFICATE REQUIRED PRIOR TO SLAB POUR**

**BEWARE: Shallow sewer junction. Check With Water Corp BUILDER AND PLUMBER check GRADE.**

**OWNER TO REMOVE ALL TREES & BUSHES PRIOR TO CONSTRUCTION**

**NOTE/BEWARE: ADVISE TRADES Of/Head power lines**

**MAINTAIN 3.0m CLEARANCE TO HIGH VOLTAGE POWERLINES AT ALL TIMES**

**NOTE: TELSTRA/COMMS. PIT NOT LOCATED ADJACENT TO LOT AT TIME OF SURVEY. VERIFY AVAILABILITY WITH TELSTRA.**

**SOIL DESCRIPTION**  
Topsoil, Fill Sand, Sand trace clay Light Grass Cover

**LEGEND**

(Symbol)	SEC Dome
(Symbol)	Power Pole
(Symbol)	Phone Pits
(Symbol)	Water Conn.
(Symbol)	Top Pillar/Post
(Symbol)	Top Wall
(Symbol)	Top Retaining
(Symbol)	Top Fence

**MOMU**  
ACN 055 245 308 ~ R-B - 8867  
4 Gould Street  
Osborne Park W.A. 6017  
P.O Box 1309  
Osborne Park W.A. 6916  
PH (08) 6169 0400

CLIENT: **Smeulders**  
CONTRACT / JOB NO. **M01192**  
MAP REF. **466 45/16**  
SITE SURVEY **LOT 103**  
**(#5) Turner Road**  
Suburb **Kelmscott**  
Loc.Auth. **City of Armadale**  
D.Plan **26646** Volume **2506** Folio **775**  
Location **Check Title**

**BUSH FIRE HAZARD AREA BAL 29 REQUIREMENTS: (REFER TO SHEET 8 & 10 FOR DETAILS)**

OWNER TO MAINTAIN PROPERTY IN ACCORDANCE WITH THE BUSHFIRE ASSESSMENT REPORT

- PRO /IDE ALUMINIUM MESH FLYSCREENS TO WINDOW AND EXTERNAL SLIDING DOOR OPENINGS AND PERMANENT VENTED WINDOWS AND LO-LITE SASHES
- SPARK GUARDS TO ALL WEEPHOLES
- ANTICON TO ROOF
- ALL EXTERNAL PENETRATIONS TO BE ENCLOSED WITH SPARK ARREST MESH
- WATER & GAS SUPPLY PIPES WHERE EXPOSED SHALL BE METAL
- GUTTER GUARDS WHERE INSTALLED BY THE OWNER ARE TO HAVE A FLAMMABILITY INDEX OF NO MORE THAN 5
- ADDITIONAL EXTERNAL FIXTURES ADDED BY OWNER (OUTSIDE OF THE BUILDERS CONTRACT) MUST BE COMPLIANT WITH AS3959
- MINIMUM 75mm CLEARANCE FROM TOP OF FINISHED PORTHOLE / ALFRESCO / VERANDAH LEVEL TO UNDERSIDE OF METAL POST SHOE
- GARAGE SECTION DOOR AND OLY ROLLER DOORS TO BE FITTED WITH EMBER SEALS COMPLIANT WITH AS3959

**PROJECT No. M01192 SHEET No. 1 of 11**

**SITE PLAN**  
DRAWN: MF DATE: DEC'17  
SCALE: 1:200 CHK: MH REV # B

VARIATION	DATE	DRAWN
1/RL	05/04/18	MF
2/RL	27/04/18	SA
3/RL	30/04/18	MF
4/SW	02/05/18	MF

These are the plans referred to in the Building Contract

CLIENT: \_\_\_\_\_  
CLIENT: \_\_\_\_\_  
BUILDER: \_\_\_\_\_  
DATE: \_\_\_\_\_  
No further structural changes

© COPYRIGHT  
SEE ENLARGEMENT A

Elev: $\phi$ U/Ground / O/Head	Water	Yes	Sewer	Yes	
Gas	Yes	Phone Comms	Not loc.	Footpath	Nil
Road	Bitumen	Kerb	Non-Mount	Drainage	Good

**STORMWATER DISPOSAL BY OWNER NOTES:**

STORMWATER SYSTEM TO BE INSTALLED BY OWNER DURING CONSTRUCTION, IMMEDIATELY AFTER THE SLAB HAS BEEN POURED & DRAINS HAVE BEEN INSTALLED. REFER TO PLANS & ADDENDA

THE STORMWATER SYSTEM IS TO BE INSTALLED IN ACCORDANCE WITH THE PERMIT AUTHORITY APPROVED PLANS, CONDITIONS OF APPROVAL & ANY SPECIFIED STRUCTURAL ENGINEERS REQUIREMENTS

THE SUPERVISOR IS TO INSPECT THE STORMWATER SYSTEM BEFORE IT IS BACKFILLED TO CONFIRM IT IS AS PER THE SHIRE APPROVED PLANS

THE OWNER IS RESPONSIBLE FOR THE REMOVAL OF ANY EXCESS SAND RESULTING FROM INSTALLATION OF THE STORMWATER SYSTEM

THE OWNER IS RESPONSIBLE FOR CLEARLY MARKING THE LOCATION OF THE TANKS ON THE PROPERTY ONCE INSTALLED. THE BUILDER WILL NOT BE LIABLE FOR ANY DAMAGE TO THE STORMWATER SYSTEM THROUGH OUT THE COURSE OF CONSTRUCTION

**EARTHWORKS BY OWNER**

- OWNER TO ADVISE EARTHWORKER TO CARRY OUT COMPACTION TESTING AND SUPPLY BUILDER WITH ENGINEERS CERTIFICATE OF COMPACTION FROM STRUCTERRE CONSULTING ENGINEERS (ph 9205 4520) PRIOR TO THE COMMENCEMENT OF BUILDING WORKS
- BUILDER TO ORGANIZE BLOCK TO BE RE-PEGGED, SET OUT PEGS TO BE PLACED AS PER PLAN AND CONFIRMATION OF SAND PAD LEVEL ALL BY COTTAGE AND ENGINEERING SURVEYS (ph 9381 6211) PRIOR TO THE COMMENCEMENT OF CONSTRUCTION
- PAVING AND GRANO HARDSTAND PREPARATION (INCLUDING LEVELLING AND COMPACTION) BY OWNER TO BUILDERS SCHEDULE
- SLAB PREP AND REMOVAL OF EXCESS SAND BY OWNER AFTER SLAB POUR & PRIOR TO BRICKLAYER COMMENCEMENT & PRIOR TO PRACTICAL COMPLETION
- BASE INSPECTION AFTER SITE IS CUT AND PRIOR TO SAND FILL (REFER TO ENGINEERS SITE INSPECTION REPORT)

**COTTAGE & ENGINEERING SURVEYS**  
Licensed Surveyors

87-89 Guthrie Street, Osborne Park, Western Australia  
Telephone: (08) 9446 7361 Facsimile: (08) 9445 2998  
Email: perth@cottage.com.au Website: www.cottage.com.au  
J/N: 415751 Drawn: C. Weightman

**NOTE** - EARTHWORKS / SET-OUT DIMENSIONS MAY VARY ON SITE AT BUILDERS DISCRETION. SEWER / DRAINAGE MAY VARY FROM SCHEMATIC PRESENTATION / CHECK MINIMUM CLEARANCES. RETAINING CONTRACT PLANS  
- NOT INCLUDED IN CONTRACT - REMAINS OWNERS RESPONSIBILITY. THIS SURVEY DOES NOT GUARANTEE THE LOCATION OF BOUNDARY PEGS OR FENCES. CHECK TITLE FOR EASEMENTS / COVENANTS ETC.

DATE: 6 September 2018. REVISED: 18 Oct 2018  
PROJECT: 466 45/16, Lot 103, Turner Road, Kelmscott







NOT TO SCALE

**ELEVATION PLAN - Including neighbouring property existing retaining**  
Lot 103 (No. 5) Turner Road, Keimscott

DATE: 6 September 2018 - REVISION 1001  
P:\work\2018\_09\103\_Turner\_Road\103\_Turner\_Road.dwg - JMS

<b>REV #</b>	<b>B</b>	DATE	DESCRIPTION
		16/10/2018	ISSUE FOR PERMIT

<b>VAR REF</b>	<b>DATE</b>	<b>DESCRIPTION</b>
1/RU	02/04/18	1/RU
2/RU	27/04/18	2/RU
3/RU	30/04/18	3/RU
4/SW	02/05/18	4/SW

<b>WAVE REF</b>	<b>DATE</b>	<b>DESCRIPTION</b>
466	16/10/2018	466

<b>HOUSE AREAS</b>	<b>CLIENT</b>
HOUSE AREA: 238.27	Smeulders
GARAGE: 38.23	
POORCH: 15.60	
TOTAL AREA: 283.34 m <sup>2</sup>	

<b>CLIENT</b>	<b>PROJECT No.</b>
Smeulders	M01192
<b>ADDRESS</b>	<b>SHEET No.</b>
Lot 103 (No. 5) Turner Road Keimscott	3 of 11

<b>ELEVATIONS</b>	<b>DATE</b>
POP UP ELEVATION	DEC 17
DATE	CHK
DEC 17	JMS

<b>HOUSE AREAS</b>	<b>CLIENT</b>
HOUSE AREA: 238.27	Smeulders
GARAGE: 38.23	
POORCH: 15.60	
TOTAL AREA: 283.34 m <sup>2</sup>	

<b>CLIENT</b>	<b>PROJECT No.</b>
Smeulders	M01192
<b>ADDRESS</b>	<b>SHEET No.</b>
Lot 103 (No. 5) Turner Road Keimscott	3 of 11

<b>ELEVATIONS</b>	<b>DATE</b>
POP UP ELEVATION	DEC 17
DATE	CHK
DEC 17	JMS

<b>HOUSE AREAS</b>	<b>CLIENT</b>
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Smeulders	M01192
<b>ADDRESS</b>	<b>SHEET No.</b>
Lot 103 (No. 5) Turner Road Keimscott	3 of 11

<b>ELEVATIONS</b>	<b>DATE</b>
POP UP ELEVATION	DEC 17
DATE	CHK
DEC 17	JMS

<b>HOUSE AREAS</b>	<b>CLIENT</b>
HOUSE AREA: 238.27	Smeulders
GARAGE: 38.23	
POORCH: 15.60	
TOTAL AREA: 283.34 m <sup>2</sup>	

<b>CLIENT</b>	<b>PROJECT No.</b>
Smeulders	M01192
<b>ADDRESS</b>	<b>SHEET No.</b>
Lot 103 (No. 5) Turner Road Keimscott	3 of 11

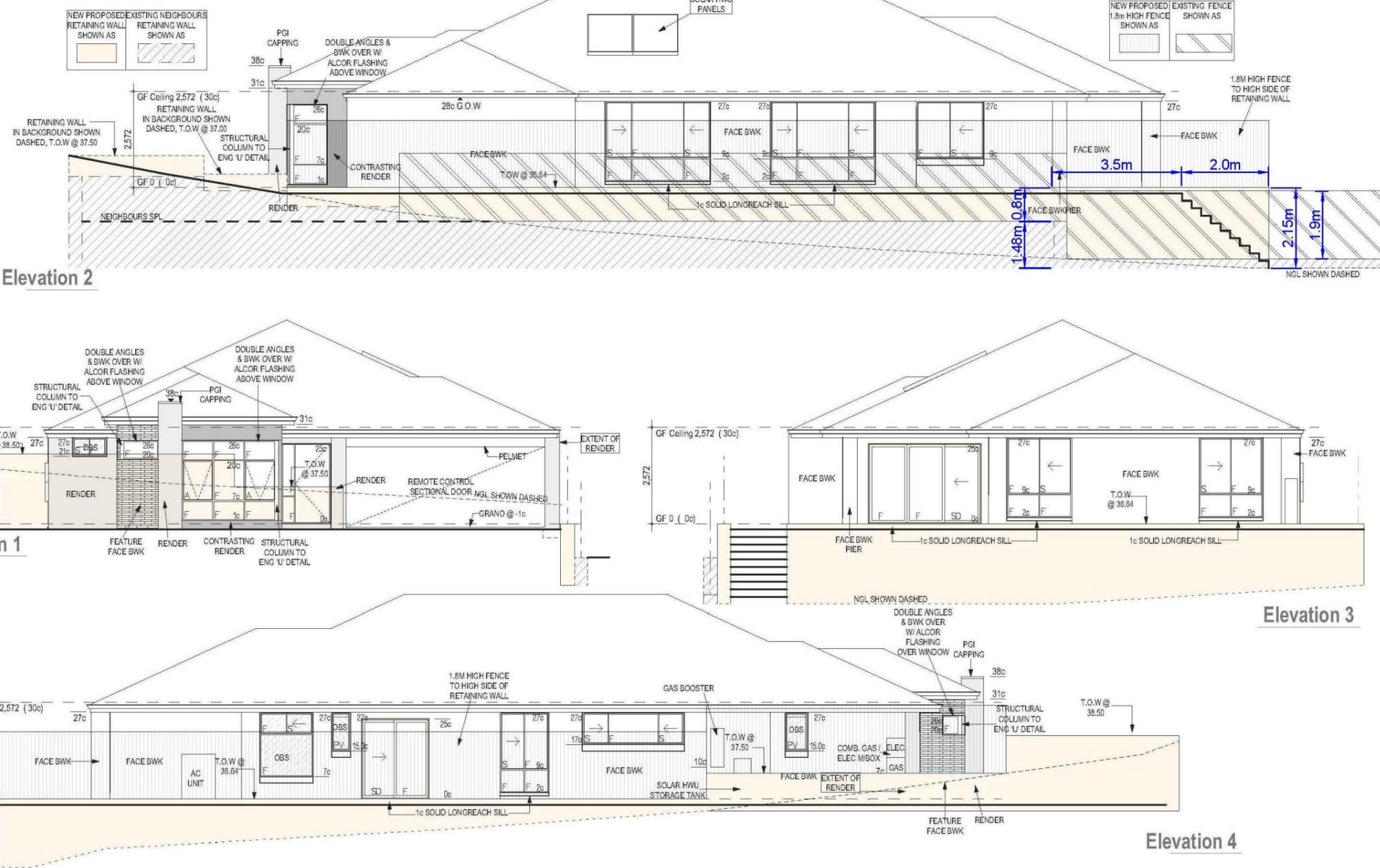
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POP UP ELEVATION	DEC 17
DATE	CHK
DEC 17	JMS

<b>HOUSE AREAS</b>	<b>CLIENT</b>
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<b>CLIENT</b>	<b>PROJECT No.</b>
Smeulders	M01192
<b>ADDRESS</b>	<b>SHEET No.</b>
Lot 103 (No. 5) Turner Road Keimscott	3 of 11

<b>ELEVATIONS</b>	<b>DATE</b>
POP UP ELEVATION	DEC 17
DATE	CHK
DEC 17	JMS

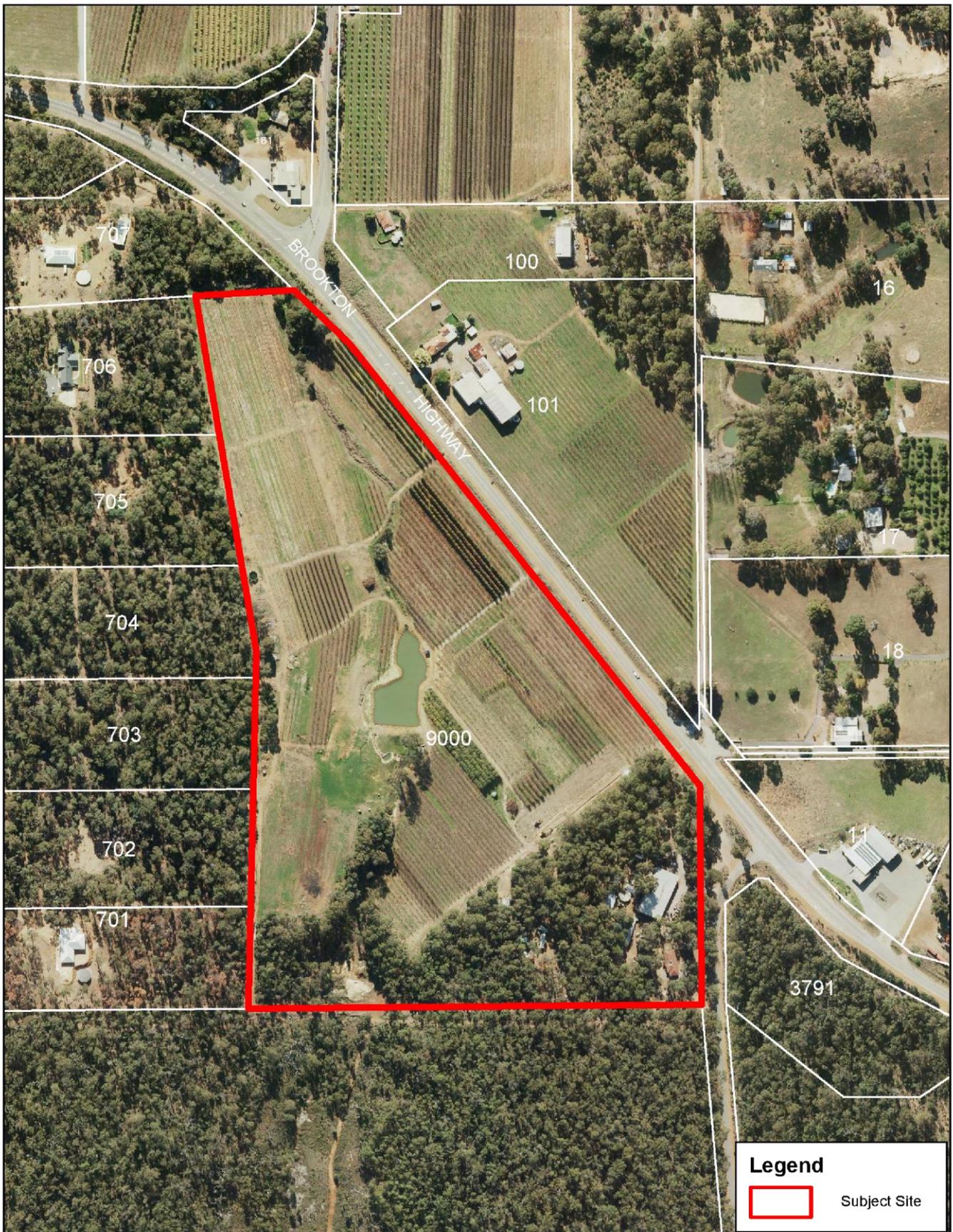
<b>HOUSE AREAS</b>	<b>CLIENT</b>
HOUSE AREA: 238.27	Smeulders
GARAGE: 38.23	
POORCH: 15.60	
TOTAL AREA: 283.34 m <sup>2</sup>	



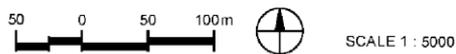
**NOTE:**  
EXTERNAL FACE BRICK SIZE:  
290L x 90W x 162H  
ALL COURSE HEIGHTS SHOWN  
ARE TO STANDARD BRICK COURSING  
EXTERNAL FACE BRICKWORK TO BE  
IN ONE THIRD BOND COURSING

**NOTES:**  
• COLORBOND ROOF @ 24°43 PITCH  
• NON-COASTAL ZONE  
• N1 WIND CLASSIFICATION (AS PER ENGINEERS CERTIFICATION  
OF INSPECTION)  
• 30c HIGH CEILING THROUGHOUT - UNLESS NOTED OTHERWISE  
(NOTE: WINDOW HEADS AT 27c, DOUBLE ANGLES & BWK OVER  
ALL DOORS & SLIDING DOORS)  
• RENDERED BWK TO FRONT ELEVATION - AS INDICATED ON  
ELEVATIONS  
• 2c FACE BRICKWORK TO THE REMAINDER OF RESIDENCE  
• EUROPEAN HOUSE BORER - ALL ROOF & CEILING TIMBER TO BE  
H2 TREATED  
• BUSHFIRE HAZARD AREA - BAL 29 (REFER TO DETAILS SHEET 8  
& 10 & ADDENDA FOR REQUIREMENTS)

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Western Australian Land Information Authority (LIDAR) (2017)  
Aerial photographs supplied by Google Earth (2018)



**AERIAL PLAN**  
Lot 9000 Brookton Highway, Karragullen



DATE 6 January 2015 - REVISION 1801  
p:\auto\cad\agenda\_drawings\2015\9\_september\9000\_brookton\9000\_brookton\_hwy.dwg

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Aerial photograph supplied by Landscape, Photomaps by GeoMap.





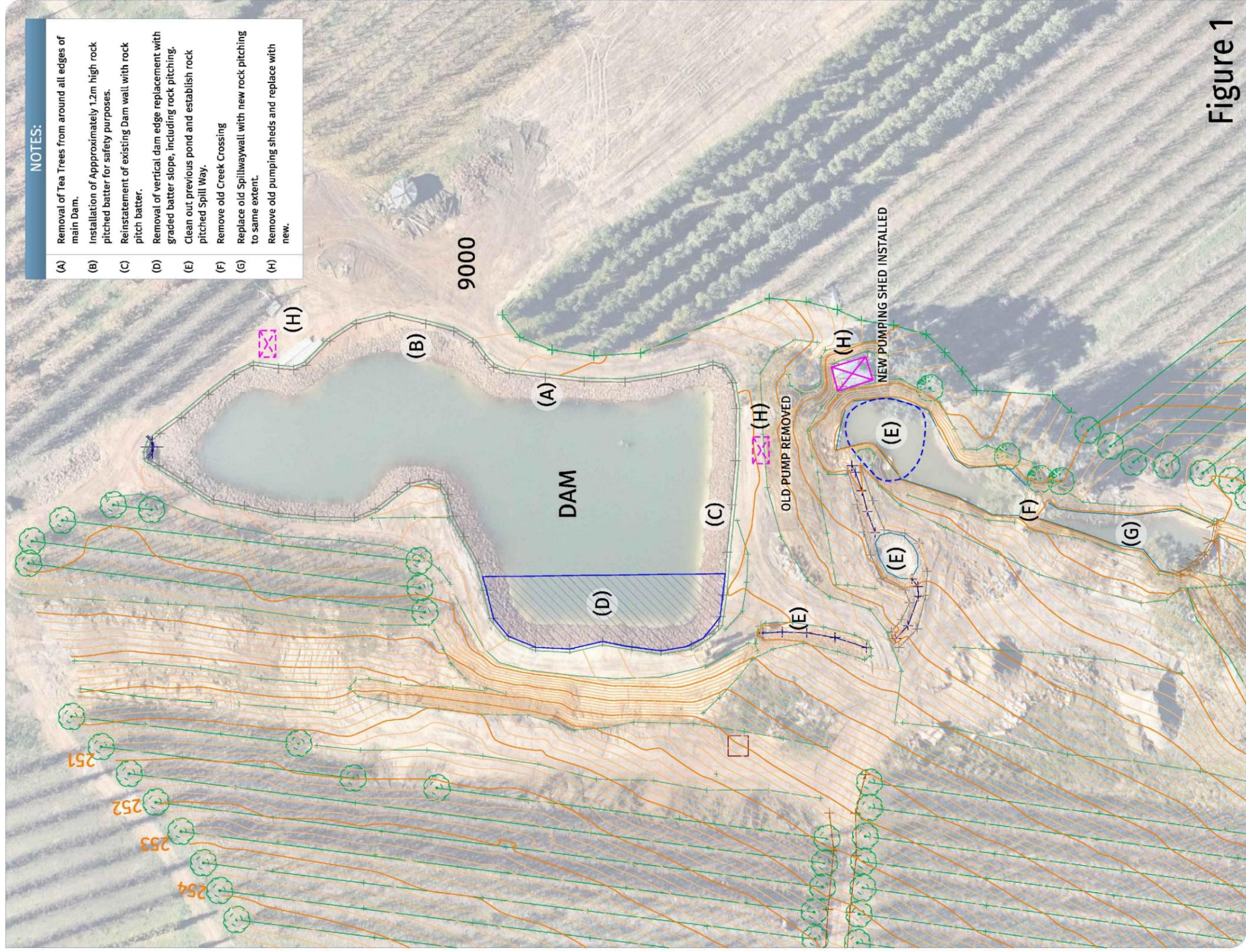
**AERIAL PLAN**  
Lot 9000 Brookton Highway, Karragullen



DATE 6 January 2015 - REVISION 1801  
p:\auto\adv\agenda\_drawings\2015\10\_october\9000\_brookton\9000\_brookton\_hwy.dwg

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Aerial photographs supplied by Landgate, Photomaps by GeoMap.





- NOTES:**
- (A) Removal of Tea Trees from around all edges of main Dam.
  - (B) Installation of Approximately 1.2m high rock pitched batter for safety purposes.
  - (C) Reinstatement of existing Dam wall with rock pitch batter.
  - (D) Removal of vertical dam edge replacement with graded batter slope, including rock pitching.
  - (E) Clean out previous pond and establish rock pitched Spill Way.
  - (F) Remove old Creek Crossing
  - (G) Replace old Spillwaywall with new rock pitching to same extent.
  - (H) Remove old pumping sheds and replace with new.

Figure 1

**Harley Dykstra**  
PLANNING & SURVEY SOLUTIONS

**WATER WAY REPAIRS  
SITE PLAN**  
Lot 9000, Brookton Highway  
KARRAGULLEN

Plan No. | 21282-06A  
Date | 15/08/17  
Drawn | JPW  
Checked | CP  
Revision | A

Scale | 1:500 @A3

NOTE: This plan has been prepared for planning purposes. Areas, Contours and Dimensions shown are subject to survey

**PERTH & FORRESTDALE:**  
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PERTH WA 6000  
T 08 9447 4000  
F 08 9447 4001  
E micro@harleydykstra.com.au

**ALBANY | BUNBURY | BUSSELTON | FORRESTDALE | PERTH**

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**Site Plan**  
Lot 9000 Brookton Highway, Karragullen

NOT TO SCALE



Based on information provided by and with the permission of the City of Armadale. Aerial photography supplied by Langlands. Photographs by Neil Map.

DATE: 2 October 2018 - REVISION: 15/08/17  
PROJECT: Waterway Repairs - Lot 9000, Brookton Highway, Karragullen



NOT TO SCALE  
Based on information provided by and with the permission of the  
Water Authority supplied by Langdon. Photographed by NasaMap

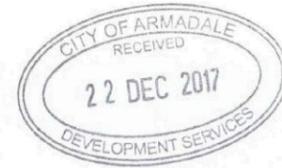
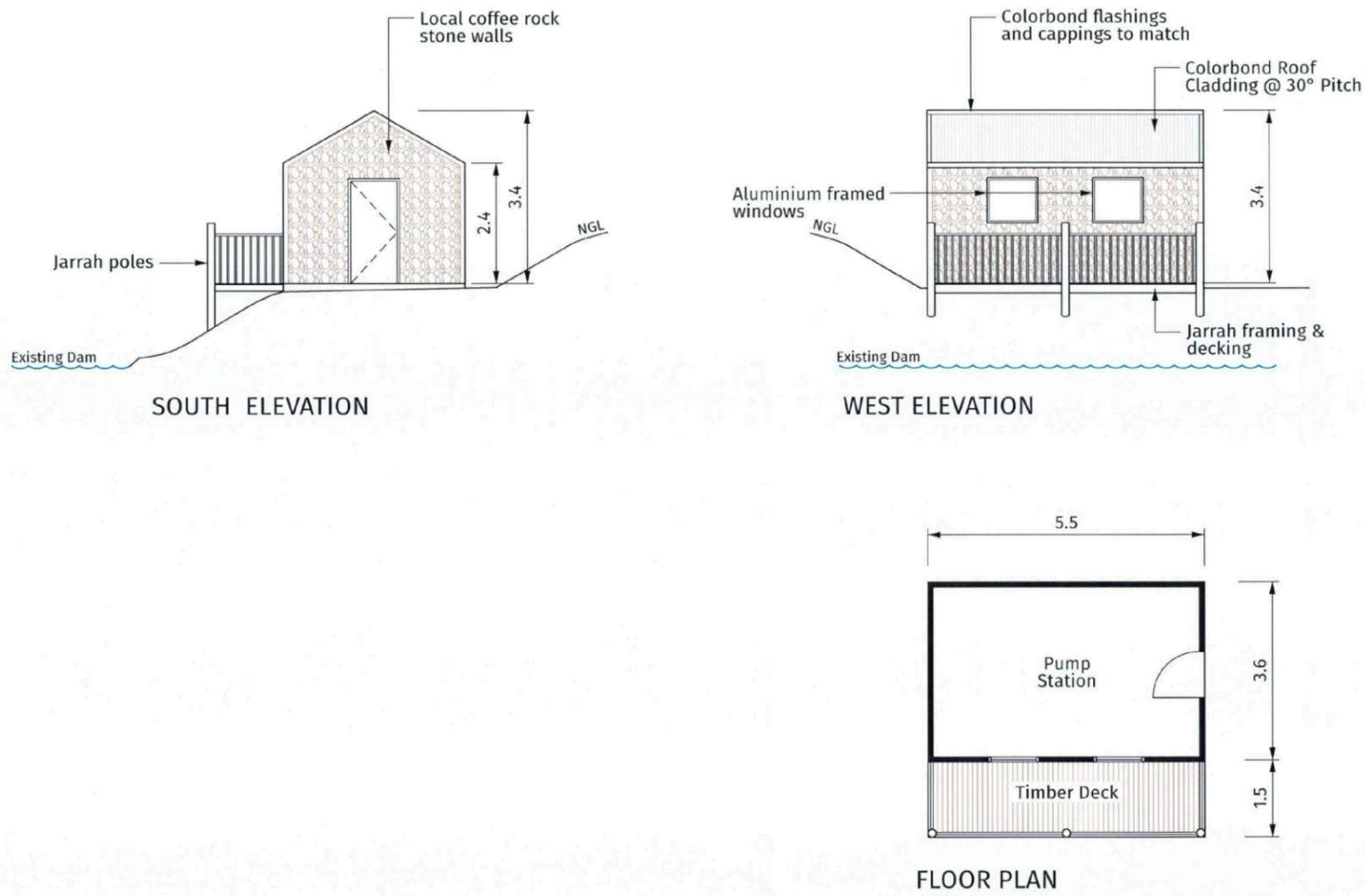


Figure 2

**PROPOSED PUMP STATION**  
Lot 9000 Brookton Highway  
KARRAGULLEN

Plan No. | 21282-06C  
Date | 18/12/17  
Drawn | BdR  
Checked | CP  
Revision | C  
Scale | 1:100 @A3

PERTH & FORRESTDALE:  
Lvl 1, 252 Fitzgerald St  
PERTH WA 6000  
1/2 Hensbrook Loop,  
FORRESTDALE WA 6112  
T: 08 9495 1947  
E: metro@harleydykstra.com.au

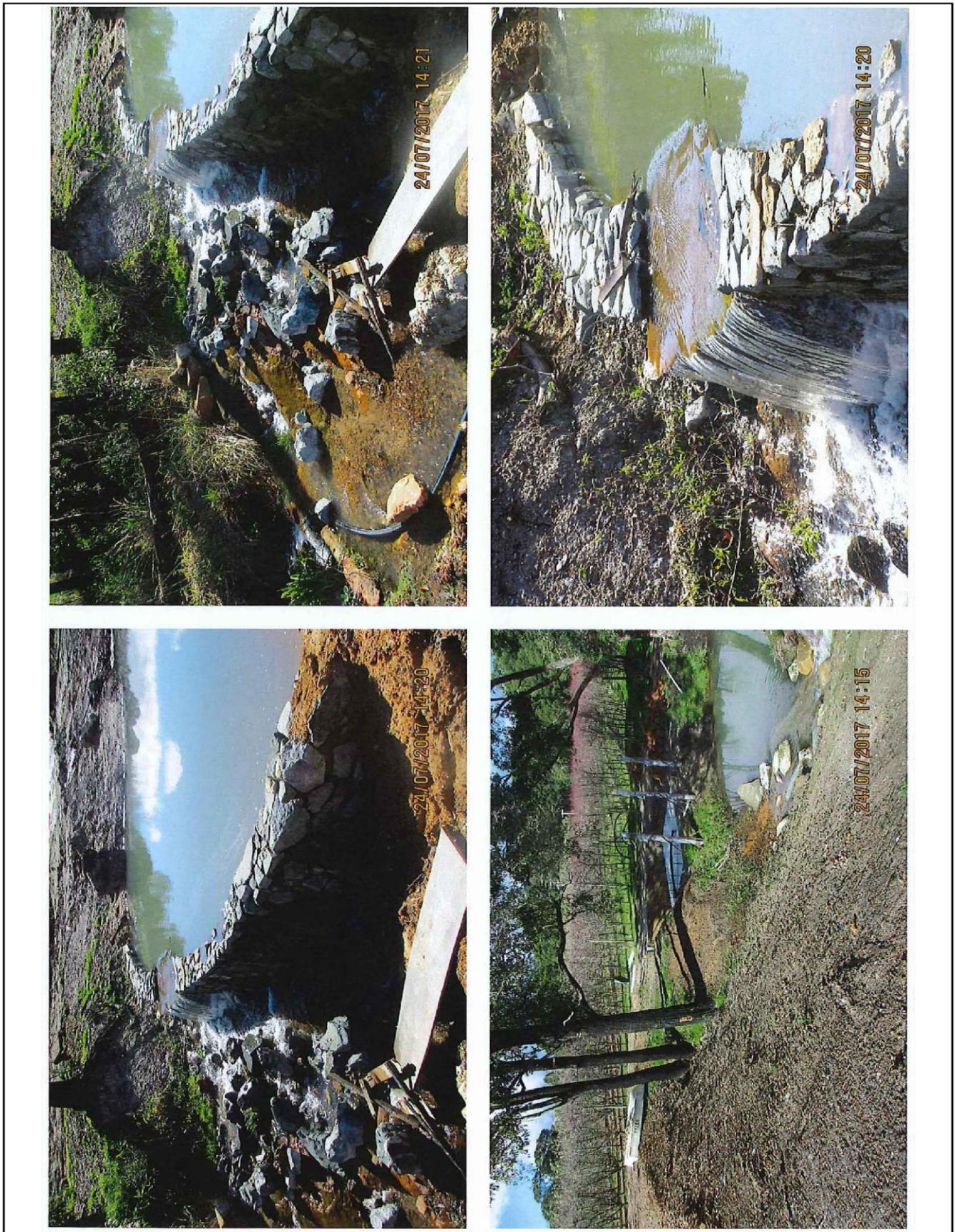
ALBANY | BUNBURY | BUSSELTON | FORRESTDALE | PERTH

NOTE: This plan has been prepared for planning purposes. Actual construction and dimensions should also be subject to survey.



**Proposed Pump Station**  
Lot 9000 Brookton Highway, Karragullen

DATE: 2 October 2018 - REVISED: N/A  
PROJECT: Proposed Pump Station - Lot 9000 Brookton Highway, Karragullen



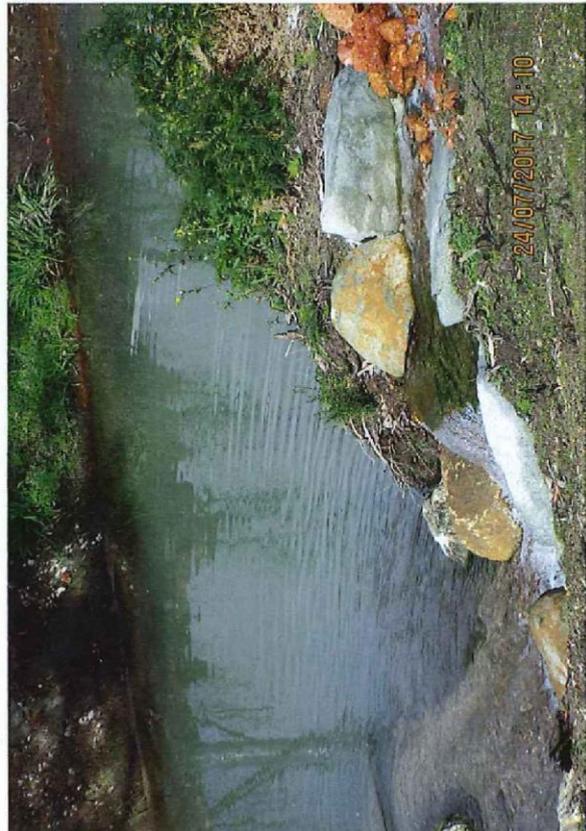
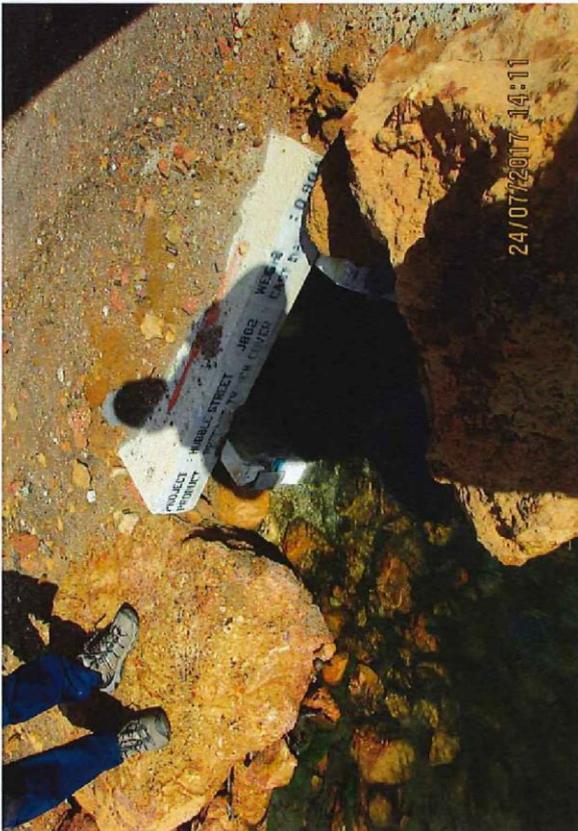
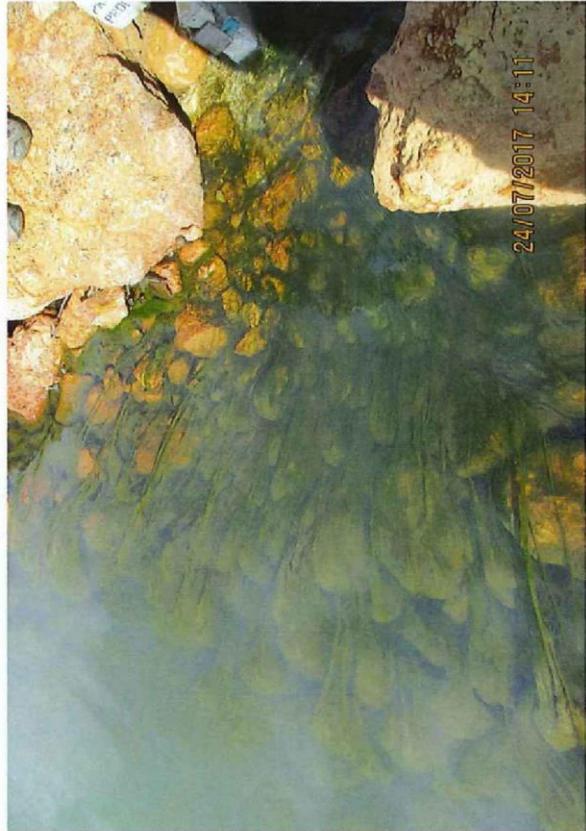
**PHOTOGRAPHS**

July 2017 - 1 of 7

Lot 9000 Brookton Highway, Karragullen

DATE 4 September 2018 - REVISION 1501  
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Aerial photograph supplied by Landgate. Photographs by iStockMap.



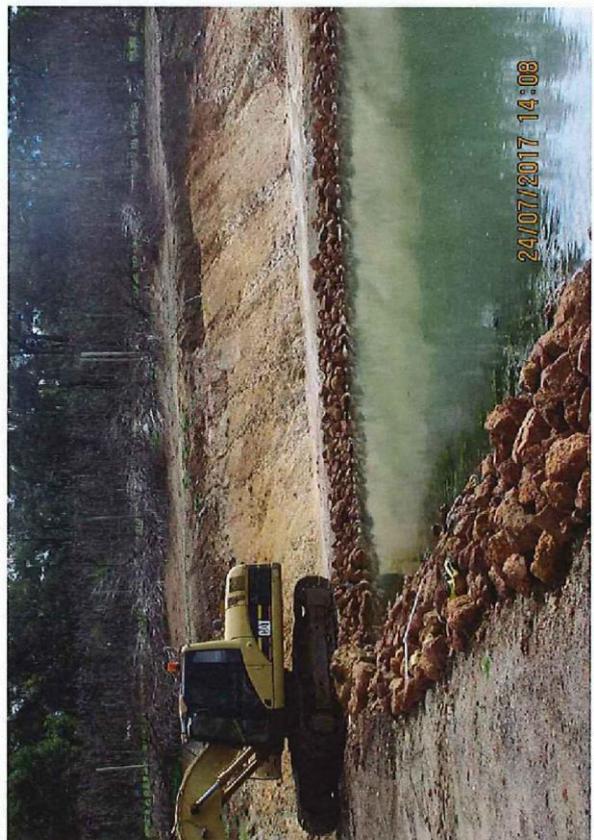
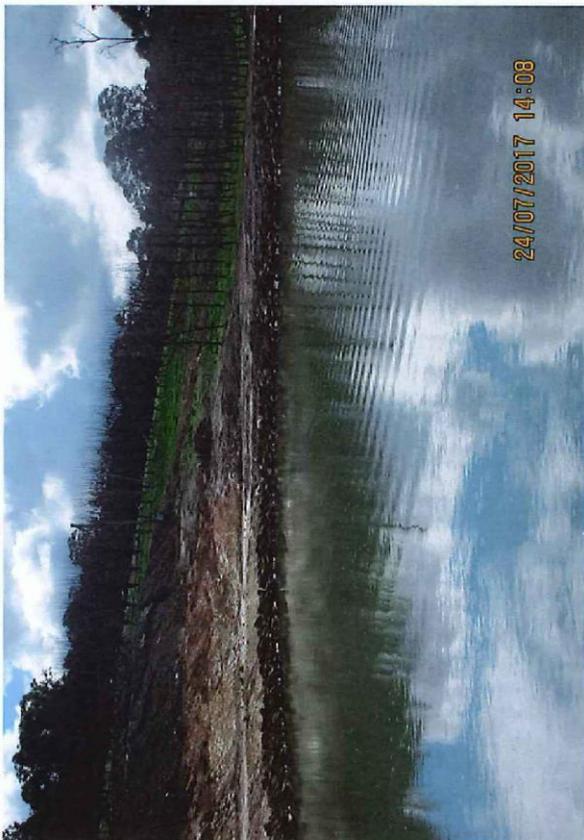
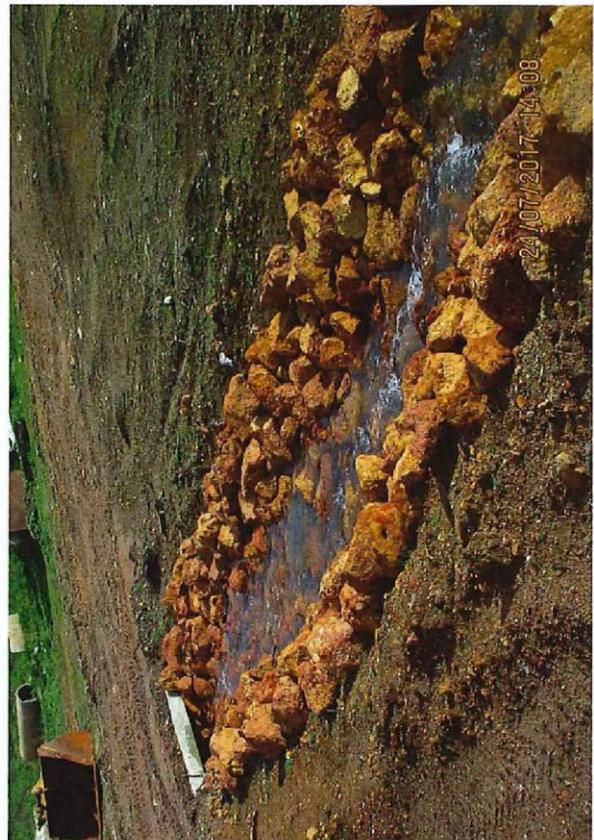
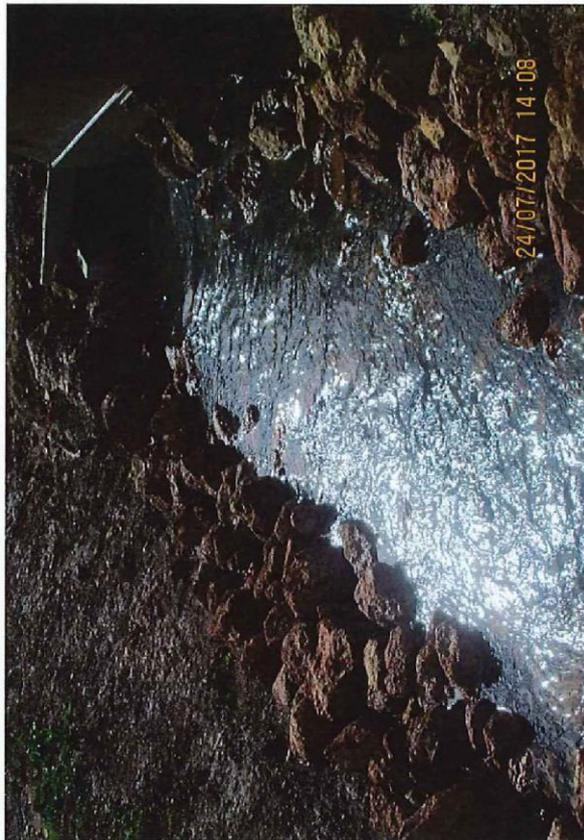
**PHOTOGRAPHS**

July 2017 - 2 of 7

Lot 9000 Brookton Highway, Karragullen

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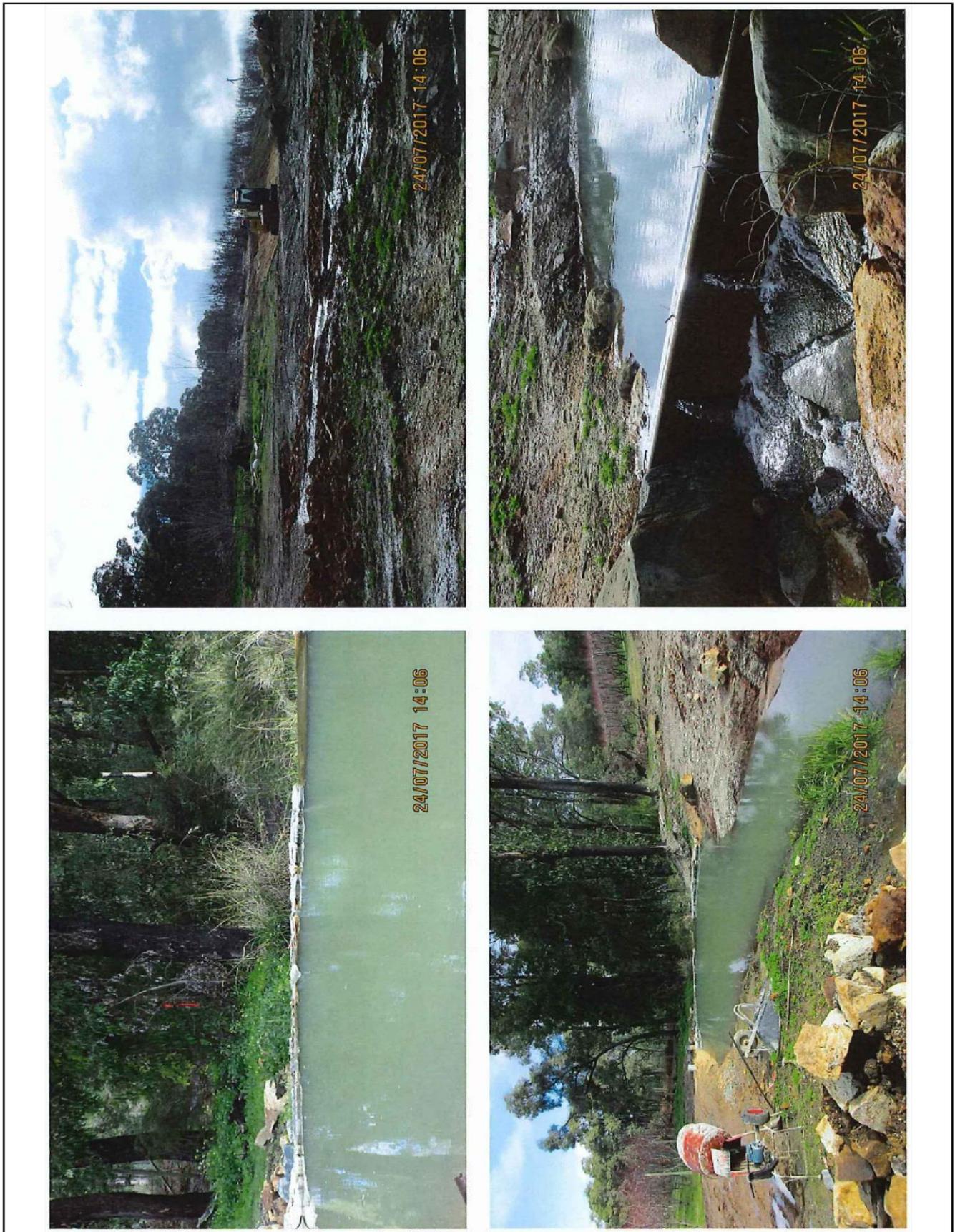
**PHOTOGRAPHS**

July 2017 - 3 of 7

Lot 9000 Brookton Highway, Karragullen

DATE 4 September 2018 - REVISION 1501  
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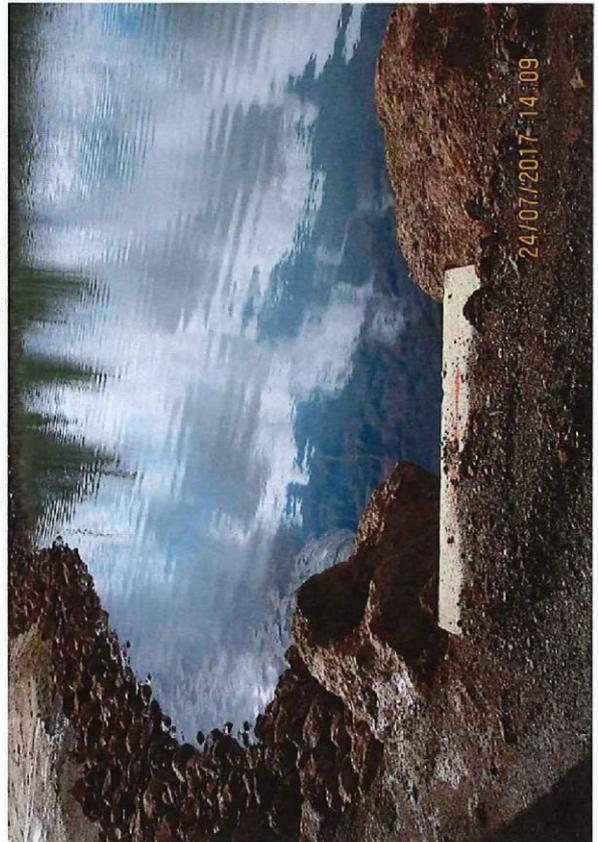
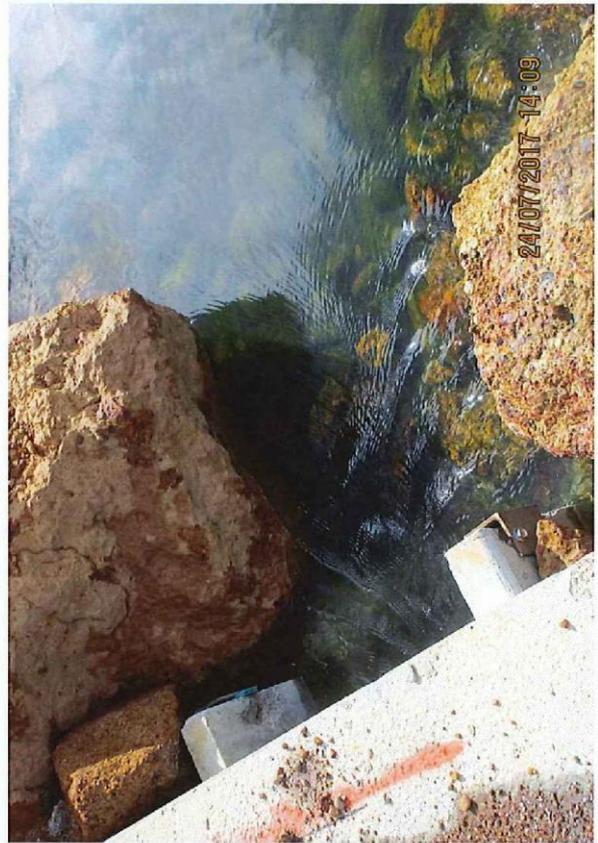
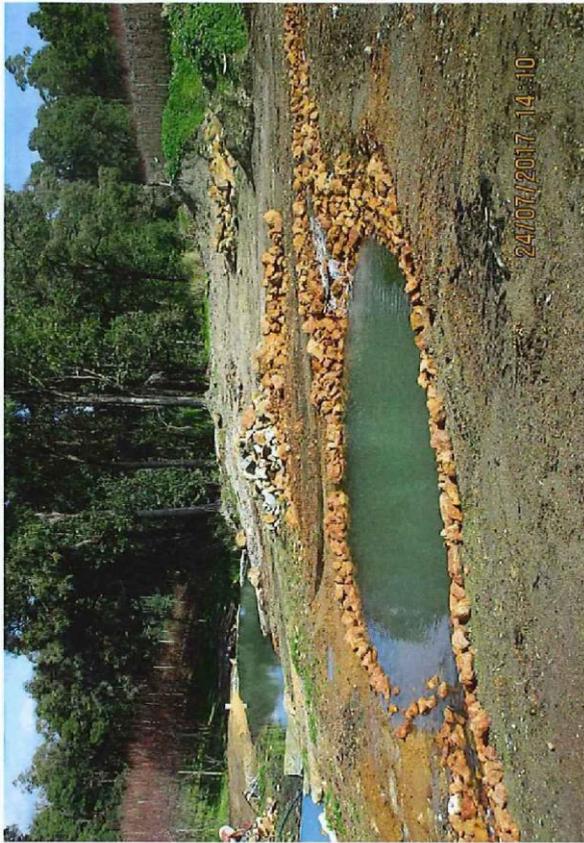
**PHOTOGRAPHS**

July 2017 - 4 of 7

Lot 9000 Brookton Highway, Karragullen

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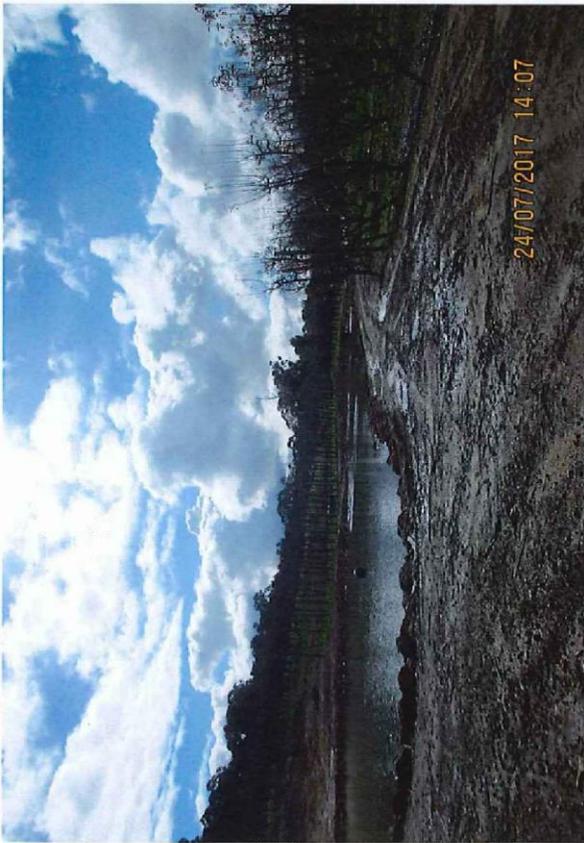
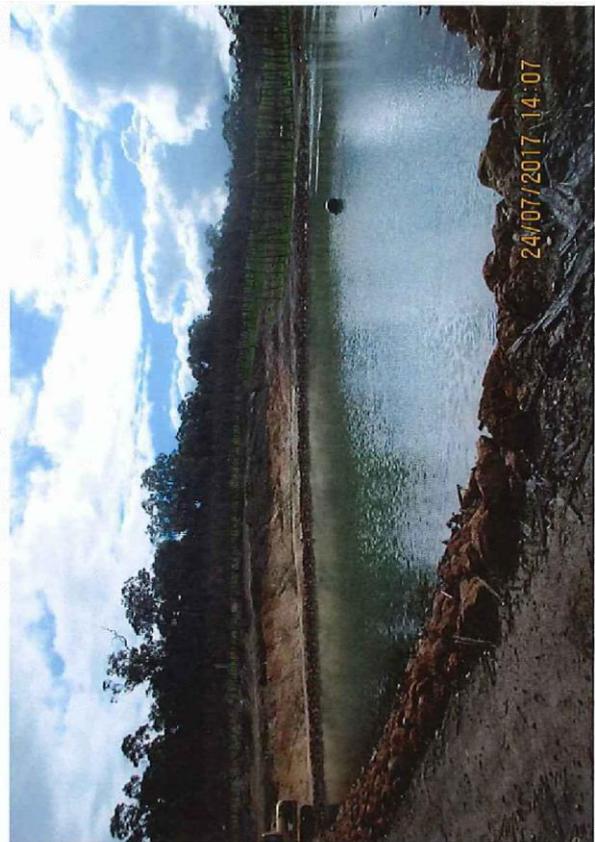
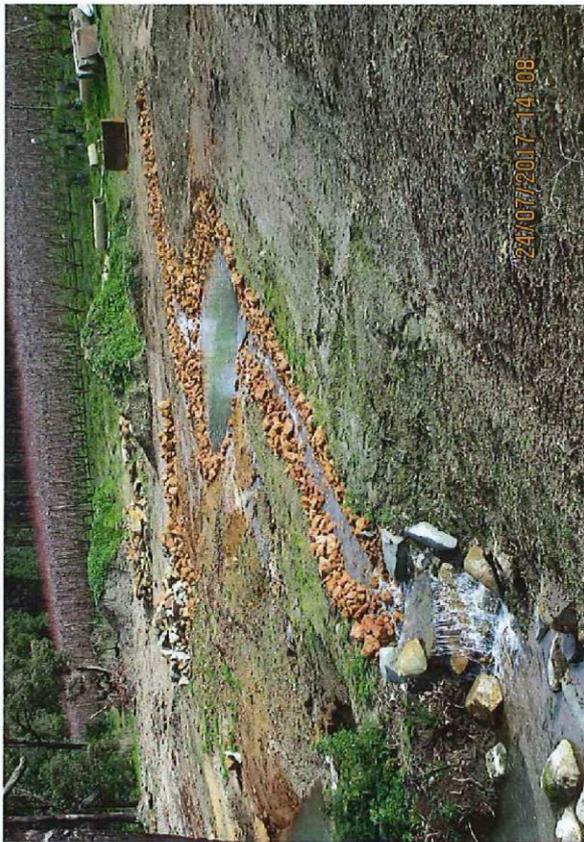
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July 2017 - 5 of 7

Lot 9000 Brookton Highway, Karragullen

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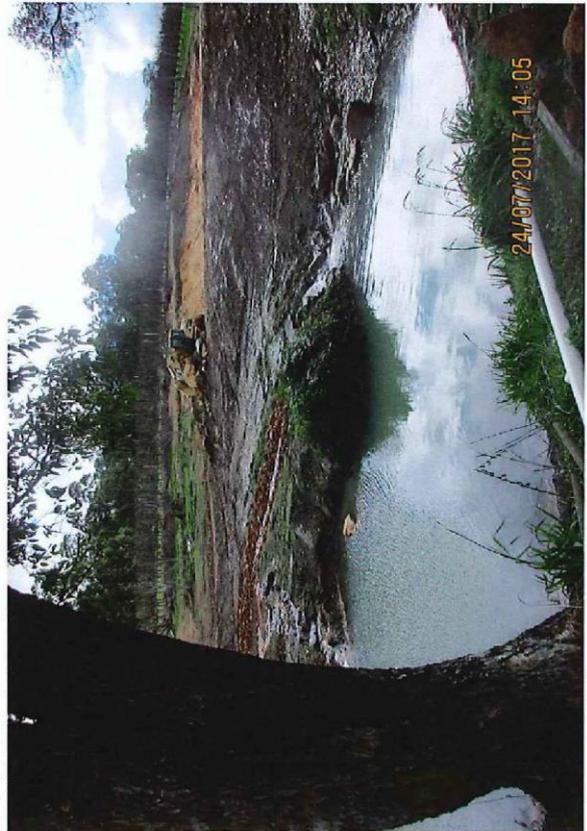
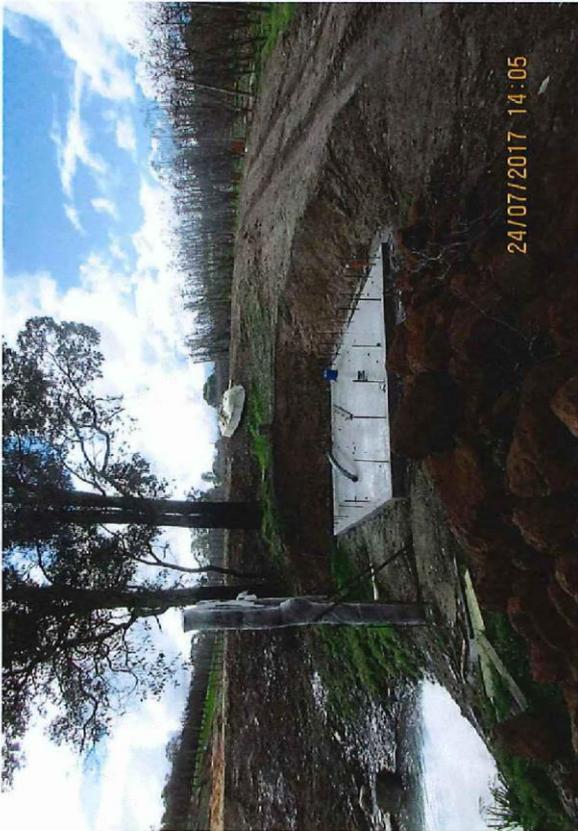
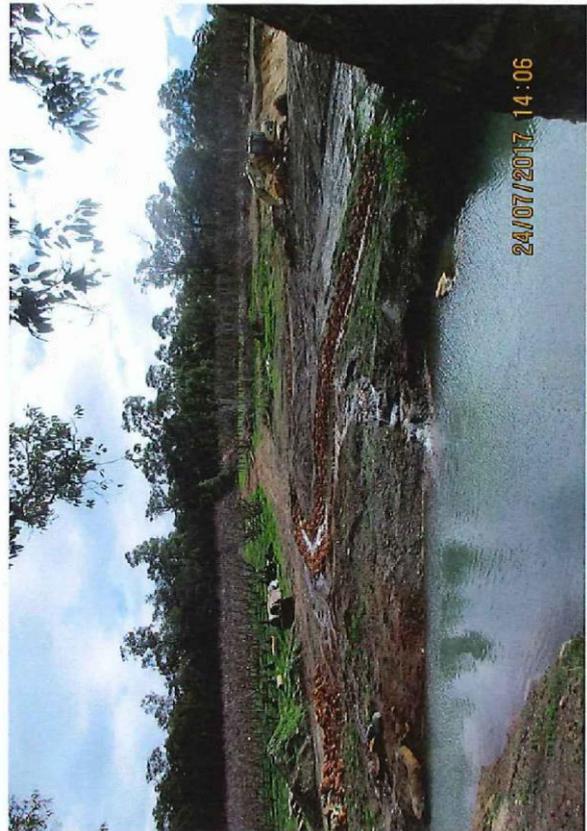
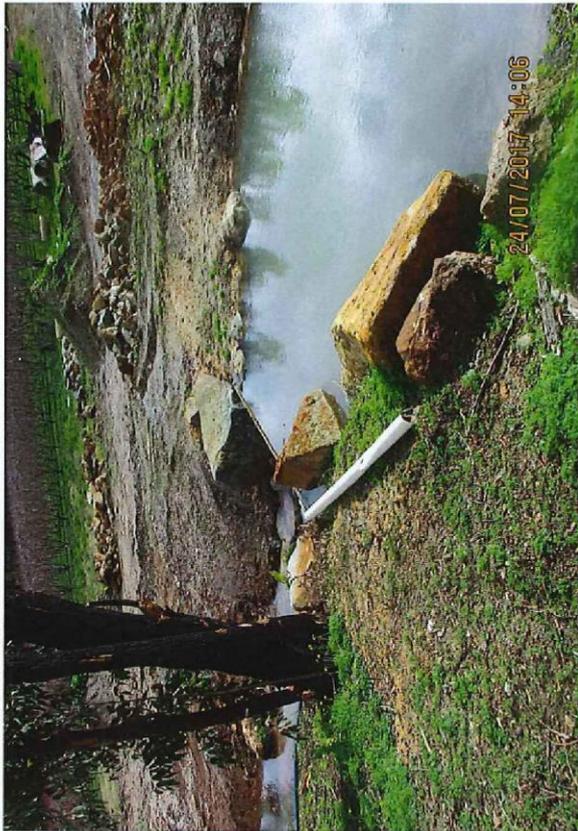
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July 2017 - 6 of 7

Lot 9000 Brookton Highway, Karragullen

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**PHOTOGRAPHS**

July 2017 - 7 of 7

Lot 9000 Brookton Highway, Karragullen

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Aerial photograph supplied by Landscape, Photomaps by headMap.



Integrating Resource Management

**Water Resource Investigation:  
Lot 9000 Brookton Hwy, Karragullen**

**Canning Orchard  
Western Australia  
June 2018**

WRI - ISSUE 1



**Water Resource Investigation**

Lot 9000 Brookton Hwy

*Prepared by*

**Didier Alanoix**

Environmental Scientist

*Project Supervisor*

**Peter Keating**

Managing Director

**Bioscience Pty Ltd**

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Forrestdale 6112

9397 2446

www.biosciencewa.com

**Document Control**

Issue	Date	Author	Reviewer	Approved
1	06/06/2018	D. Alanoix	P. Keating	P. Keating

WRI - ISSUE 1



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## 1 Introduction

Canning Orchard has been operational for many decades. In the early 1900's the establishment of this orchard included the construction of dams, spillways, creek crossings, bores, pumps and sub-soil drainage networks through the orchard area. Much of the orchard establishment works were completed using basic equipment and infrastructure. As a consequence, over the years, regular and ongoing improvement works of the dams, spillways, creeks crossings, bores, pumps and sub-soil drainage infrastructure were undertaken.

The latest maintenance and improvement works occurred mid last year and involved the following:

- a) Removal of tea trees from around the edges of the main existing dam on the property (tea trees were leaning extensively over the edges of the banks and causing safety concerns);
- b) Making safe the existing edges of the main dam with approximately 1.2 m high rock pitched batter (no changes to the dam depth and margins around the bank);
- c) Reinstatement of existing dam wall with rock pitch batter;
- d) Removal of dangerous vertical dam edge in one part (western edge) and establish a more gradual graded batter slope with rock pitching to the top margin;
- e) Clean out and rock pitch the existing "pond" immediately south of the dam wall, and establish rock pitched spillway to maintain connection of main dam to the pond and creek line;
- f) Remove old creek crossing, downstream from the "pond";
- g) Replace old spillway wall downstream of old creek crossing with new rock pitching to the same extent; and,
- h) Remove two old pump sheds from adjacent to the main dam, and commence replacement with single pump shed of approximately 10 m<sup>2</sup> on the east side of the "pond" (concrete pad and pylons in place).

In their letter dated 19 September 2017, the City of Armadale have raised concerns that these maintenance works could be restricting the flow of the Stinton Creek. To this end, a hydrological assessment of the improved dam was conducted on 11 November 2017 by Bioscience. The assessment demonstrated that the improvement of the dam and the management practices established on site increase the volume of the downstream flow both monthly and yearly, reduce the dry out time, and have no negative impact on the downstream monthly flow rate.

The assessment was reviewed by the Department of Water and Regulation (DWER) and was deemed insufficient as it does not address low stream flows, Environmental Water Provisions (EWPs) and other requirements in WQPN 53. To this end a Water Resource Investigation (this report) was requested by the Department.

The report was prepared in accordance with the Water Quality Protection Note 53: Dam construction and operation in rural areas (DWER, 2014) and include:

- A location plan depicting the dam layout, **Appendix A**;

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- Plan and profiles of the water retaining structure, including its dimensions and details on the dam overflow point and outlet, **Appendix B**;
- The water quality (**Section 2**) and quantity (**Section 3**);
- Prediction of the impacts on waterway flow, other users, the local and overall sub-catchment water availability and how these impacts will be managed / mitigated including the rates of flow being maintained in the Stinton Creek and how will low stream flows and Environmental Water Provisions be maintained (**Section 3**);
- Proposed operational strategy, monitoring program, contingency plan and complaints management protocol, **Appendix C**; and,
- An evaluation of alternative water sources (**Section 4**)

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## 2 Water Quality

On 17 May 2018, three water samples (i.e. bore water, dam water, and sub-soil drainage water discharging downstream of the dam) were collected on site. Results of the analysis can be found in **Appendix D**.

### 2.1 Water Quality for Irrigation

The water quality results were compared to the ANZECC guidelines' *Chapter 4, Primary Industries*. The water quality from the dam was deemed of an excellent quality for long term irrigation.

Although of good quality, water from the bore had a higher TDS. This difference in TDS is mainly influenced by iron concentrations nearly 17 fold higher than the dam's. Such a concentration will prevent the long-term irrigation of the orchard. Irrigation with bore water alone would therefore not be sustainable.

### 2.2 Water Quality of Downstream Flow

Note that since the Stinton Creek was dry at the time of the investigation, a sample from this waterway could not be collected. Comparisons between inflow and downstream flow water quality could therefore not be done. As such, water quality results from the subsoil drainage discharging downstream were compared to the ANZECC trigger values<sup>1</sup> for upland river (altitude>150 mAHD) in South-West Australia.

Nutrient concentrations from the sample did not exceed the trigger values provided by the guidelines. As such, the water flowing downstream of the site is deemed to be of a good quality to maintain aquatic ecosystems.

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<sup>1</sup> TP: 0.02 mg/L - FRP: 0.01 mg/L - TN: 0.45 mg/L - NOx: 0.2 mg/L - NH4: 0.06 mg/L



### 3 Refined Hydrological Assessment

As discussed previously, a hydrological assessment of the improved dam was conducted on 11 November 2017 by Bioscience. The assessment demonstrated that the improvement of the dam and the management practices established on site increase the volume of the downstream flow both monthly and yearly, reduce the dry out time, and have no negative impact on the downstream monthly flow rate.

This previous assessment relied on a number of assumptions which have been refined in this WRI. The new numerical model is more robust and establishes monthly inflow volume from the Stinton Creek. These volumes were then used as a baseline to compare the impacts downstream between pre- and post-development.

The model now addresses the issues of low stream period and the Environmental Water Provisions.

#### 3.1 Conceptual Model and Modeling Assumptions

The information we used relied on detailed site investigations, discussion on irrigation practice and subsoil drainage with the land owner, desktop assessment of upstream users using historic aerial photography (Landgate and Nearmaps), site and district topology sourced from Nearmaps and Google Earth, and data from the Bureau of Meteorology and DWER's *Middle Canning River surface water allocation plan*.

Conceptual model information and assumptions are detailed below:

- ❖ Monthly inflow volume from the Stinton Creek and pre- and post development downstream flow volumes were modeled from an average rainfall year. Comparisons between inflow volume and pre- / post development downstream flows were made to assess the impacts on waterway flow, downstream users and local and overall sub-catchment water availability; as such, the use of an average rainfall year is deemed to be adequate.
- ❖ Rainfall data from Karragullen weather station were used in the model.
- ❖ Volume of the pre-development dam (as of 11 January 2017) was estimated at 2223 m<sup>3</sup>. Please refer to **Table 1** for more details.
- ❖ Volume of the post-development dam was estimated at 5476 m<sup>3</sup>. Please refer to **Table 2** for more details.
- ❖ Water inputs to the dam encompasses the following:
  - Rainfall in dam
  - Surface runoff: To simplify the model we assumed a runoff coefficient of 0.6 for the site and the entirety of the Stinton Creek catchment (**Table 3**). This is consistent with our site observations, i.e. steep rocky and vegetated area. Note that 8 ha of the 9 ha irrigation area slope directly towards the dam.
  - Subsoil drainage: 8 ha of the irrigation area has subsoil drainage pipes discharging into the dam, while the remaining 1 ha has subsoil drainage pipes discharging downstream of the dam. We assumed that 25% of both the rainfall and irrigation water reaching the 8 ha irrigation area (minus runoff) will discharge into the dam.

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- Bore water: The site manager tops up the improved dam with bore water between November and April (**Table 4**). This practice did not occur at pre-development.
- Stinton Creek: Volume of flow input by the creek could not be sourced. For this reason, the following formula was used to estimate the Average Monthly Inflow (AMI) from the Stinton Creek to the dam:

$$AMI = C.I.A - V_{UI}$$

With AMI being the average monthly inflow [m<sup>3</sup>/month], C the runoff coefficient, I the rainfall intensity [m/month], A the area of the catchment located upstream of the dam [m<sup>2</sup>], and V<sub>UI</sub> being the Volume of the Stinton Creek water used by users located upstream of the dam. To simplify the calculations we assumed that the Stinton Creek is rainfall-fed only.

The value of each variable was obtained as follows:

- Runoff coefficient C: Assumed to be 0.6. This is consistent with our observations, i.e. steep rocky and vegetated area.
- Rainfall Intensity I: Average monthly rainfall from Karragullen weather station.
- Upstream catchment A: Based on Figure 1 of DWER's *Middle Canning River surface water allocation plan* the Stinton Creek Catchment is around 1,300 ha, while the area located upstream of the dam and sloping towards the creek is around 500 ha (Google earth elevations were used to determine the size of the catchment).
- Volume of the Stinton Creek water used by users located upstream of the dam V<sub>UI</sub> was calculated using the following formula:

$$V_{UI} = A_i.F_c.E$$

With A<sub>i</sub> being the irrigation area of upstream users [m<sup>2</sup>], F<sub>c</sub> being the crop factor and E being the evaporation [m/month]. To simplify the calculations we assumed that irrigation upstream is an evaporation-based irrigation except during winter months, where a 2 mm/ha/day is used as standard irrigation.

The value of each variable was obtained as follows:

- Irrigation area of upstream users A<sub>i</sub>: Nearmap suggests that around 150 ha of the upstream catchment are irrigated land. We assumed that out of the 150 ha one third is irrigated with bore water, leaving 100 ha irrigated through abstraction from the creek.
- Crop factor F<sub>c</sub>: Assumed to be 0.6 for the model. This value is usually used for orchard.
- Evaporation E: Average monthly evaporation.

Please refer to **Table 3** and **Table 5** for a summary of the above while **Table 6** presents the average monthly inflow to the dam.

- ❖ Water taken out of the dam encompasses the following:
  - Dam evaporation.

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- Abstraction for Irrigation: Evaporation-based irrigation except during winter months where a 2mm/ha/day is used as standard irrigation. Assumptions are further detailed in **Table 3**.
  
- ❖ Water discharging downstream of the dam:
  - Water leaving the dam:  $\text{Outflow} = \text{Water Inputs} - \text{Water Taken Out}$
  - Volume of irrigation and rainfall water discharged directly downstream of the dam by subsoil drainage: 1 ha of the irrigation area has subsoil drainage pipes discharging downstream of the dam. We assumed that 25% of both the rainfall and irrigation water reaching the 1 ha irrigation area (minus runoff) will discharge downstream
  - Volume of water discharged downstream by runoff: Note that 1 ha of the 9 ha irrigation area slopes towards the area located downstream of the dam.
  
- ❖ To facilitate comparisons between pre- and post-development, we assumed the dam is empty at the start of the modelling.

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**Table 1: Pre-development dam details**

Item	Value	Unit	Comments
Top area (A1)	890	m2	Based on Nearmap observation. A1 based on observable spillway level
Bottom area (A2)	380	m2	Estimated from color change in dam (area of darker color)
Depth (H)	3.5	m	Owner's comment
Volume (V)	<b>2223</b>	m3	$V=(1/2)*H*(A1+A2)$

**Table 2: Post-development dam details**

Item	Value	Unit	Comments
Top area (A1)	2449	m2	Based on Nearmap observation. A1 based on observable spillway level
Bottom area (A2)	680	m2	Estimated from color change in dam (area of darker color)
Depth (H)	3.5	m	Owner's comment
Volume (V)	<b>5476</b>	m3	$V=(1/2)*H*(A1+A2)$

**Table 3: Irrigation details**

Item	Value	Unit	Comments
Irrigation area	9	ha	Based on Nearmap
Crop factor	0.6	-	Evaporation-based irrigation. Factor is assumed for the entirety of the Stinton Catchment
Irrigation area sloping to dam	8	ha	Based on Nearmap
Irrigation area sloping to waterways located downstream of dam	1	ha	Based on Nearmap
Surface runoff to dam, i.e runoff coefficient	0.6		Assumed for the entirety of the Stinton Catchment. Steep rocky and vegetated area.
Ratio of irrigation water discharged back to dam via subsoil drainage	25	%	Assumed



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Ratio of rainfall infiltrating irrigation area discharged back to dam via subsoil drainage	25	%	Assumed
Ratio of irrigation water discharged directly downstream of dam via subsoil drainage	25	%	Assumed
Ratio of rainfall infiltrating irrigation area discharged downstream of dam via subsoil drainage	25	%	Assumed
Irrigation area of upstream users within the Stinton Catchment	150	ha	Based on Nearmap
Irrigation area of upstream users: irrigated with the Stinton Creek	100	ha	We assumed that 1/3 of the area is irrigated with bore water

**Table 4: Onsite borefield details**

Item	Value	Unit	Comments
Number of bores	4		Around 20 bores exist on site, but 4 are mainly used.
Average Flow Rate for each bore	2	L/s	Conservative, as it accounts bores of very poor yield
Pumping time	15	hrs/day	This time is greatly reduced when more than 4 bores are used on site
Max volume abstracted with borefield	432	kL/day	

**Table 5: Stinton Creek**

Item	Value	Unit	Comments
Runoff coefficient	0.6	-	Assumed for the entirety of the Stinton Catchment. Steep rocky and vegetated area.
Stinton Creek catchment area (upstream of dam)	500	ha	Derived from the Middle Canning Surface Water Allocation Plan's Figure 1



### 3.2 Average Monthly Inflow Volume from the Stinton Creek to the Dam

**Table 6** presents the average monthly inflow (AMI) to the dam from the Stinton Creek. On an average year, around 2,274,600 kL of water from the creek enters the site. As expected, the majority of the inflow volume is produced between May and October. The site does not receive any inflow from the Stinton Creek during the summer months (December to March). This is consistent with verbal records given by the site manager.

### 3.3 Inflow and Pre- and Post-development Downstream Flow Comparisons

#### 3.3.1 Pre- versus Post- Development Downstream Flow

Results of the modeling are provided in **Tables 7.1, 7.2 and 7.3**. Note that the term "Post-Development Modelling (Comparison)" means the model was run with the same variables used in the running of the pre-development model, except for the volume of the dam. In contrast, the term "Post-Development Modelling (Actual)" includes the site Manager's management practice, i.e. groundwater addition to dam from bores.

When comparing the Pre-Development Modelling and the Post-Development Modelling (Comparison) scenarios, no overflow from the pre-dev dam and the improved dam (comparison) is recorded between November and March. This is expected as the site does not receive a sufficient amount of inflow from the Creek during this period. Discharge downstream is however recorded and consists solely of subsoil drainage water and runoff water discharging in the area located downstream of the dam.

On an average year basis, the volume of downstream flow from the pre-dev dam is slightly higher than the improved dam (comparison). As expected, given its smaller volume, the pre-dev. dam discharges more water within the first month of inflow from the creek than the improved dam (comparison). However, note that the significant difference in volume between both the pre-dev dam and the improved dam (nearly 2.5 times bigger) only creates a 4,300 kL discrepancy in flow volume released downstream. This only translates to an 8% loss during the first month of inflow. Note that discharge during the following months tends to be similar in rate. In conclusion, except for an insignificant loss in water discharge during the first month of inflow, the improved dam has no significant negative impact on downstream flows on a yearly basis.

In addition, it is emphasized that the trends described above change completely when comparing the Pre-Development Modelling and the Post-Development Modelling (Actual) scenarios. As seen in **Table 7.3**, the addition of bore water to the improved dam:

- ❖ Increase the yearly volume of water discharged downstream by more than 61,000 kL;
- ❖ Allows an additional 6,750 kL to be released prior to the first month of inflow from the creek; and,
- ❖ Increase by twice the volume of water released downstream during the low-flow period (i.e. November to April).

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In conclusion, the improved dam, the subsequent management practices (i.e. the addition of bore water to the dam during the low flow period) and the infrastructure of the site only have positive impacts on downstream flows when compared to the pre-development dam.

### *3.3.2 Inflow versus Post-Development Downstream Flow*

Average monthly inflow estimated in **Table 6** should be used as baseline when assessing whether negative impacts occurred on downstream users. To prevent negative impacts on downstream users, volume of flow discharge downstream should be equal or higher than the inflow from the creek. As seen on **Table 8**, volume of flow released downstream by the improved dam and the infrastructure is higher than the inflow from the creek on a monthly basis. Therefore the improvement of the dam does not cause negative impacts to downstream users.

Note that our modelling is based on average monthly rainfall recorded at Karragullen. Actual rainfall is expected to vary from averages each year. In dryer years, the Canning Orchard will rely more on bore water for irrigation. This is expected to produce greater flows downstream due to subsurface drainage. In wetter years, with less bore use, downstream flows will not be different due to dam improvements.

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**Table 6: Calculated average monthly inflow from Stinton Creek to Dam**

Months	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Total
Average monthly rainfall (mm)	13.9	17.0	22.6	51.8	129.3	192.7	203.1	164.6	107.4	63.7	39.0	15.4	<b>1,021</b>
Days	31	28	31	30	31	30	31	31	30	31	30	31	<b>365</b>
Evaporation (mm)	257	218	195	120	78	57	71	102	99	148	189	253	<b>1,787</b>
Stinton Creek's water volume (m3) (assumed it's rainfall fed only)	41,700	51,000	67,800	155,400	387,900	578,100	609,300	493,800	322,200	191,100	117,000	46,200	<b>3,061,500</b>
Theoretical Volume used for Irrigation by upstream users (m3)	154,200	130,800	117,000	72,000	62,000	60,000	62,000	62,000	60,000	88,800	113,400	151,800	<b>1,134,000</b>
Average monthly inflow from Stinton Creek to dam	<b>0</b>	<b>0</b>	<b>0</b>	<b>83,400</b>	<b>325,900</b>	<b>518,100</b>	<b>547,300</b>	<b>431,800</b>	<b>262,200</b>	<b>102,300</b>	<b>3,600</b>	<b>0</b>	<b>2,274,600</b>
Winter months: 2 mm/ha/day of irrigation													

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**Table 7.1: Pre-Development Modelling Results**

Climate and Rainfall	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Total
Rainfall (mm)	14	17	23	52	129	193	203	165	107	64	39	15	1,021
Evaporation (mm)	257	218	195	120	78	57	71	102	99	148	189	253	1,787
Water inputs	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Total
Rainfall in dam (m3)	12	15	20	46	115	172	181	146	96	57	35	14	908
Surface runoff to dam(m3)	667	816	1,085	2,486	6,206	9,250	9,749	7,901	5,155	3,058	1,872	739	48,984
<b>Stinton Creek (m3)</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>83,400</b>	<b>325,900</b>	<b>518,100</b>	<b>547,300</b>	<b>431,800</b>	<b>262,200</b>	<b>102,300</b>	<b>3,600</b>	<b>0</b>	<b>2,274,600</b>
Subsoil drainage (irrigation water) (m3)	3,084	2,616	2,340	1,440	936	684	852	1,224	1,188	1,776	2,268	3,036	21,444
Subsoil drainage (rainfall water) (m3)	111	136	181	414	1,034	1,542	1,625	1,317	859	510	312	123	8,164
Bore water (m3)	0	0	0	0	0	0	0	0	0	0	0	0	0
<b>Total</b>	<b>3,875</b>	<b>3,583</b>	<b>3,626</b>	<b>87,787</b>	<b>334,192</b>	<b>529,747</b>	<b>559,706</b>	<b>442,388</b>	<b>269,498</b>	<b>107,700</b>	<b>8,087</b>	<b>3,912</b>	<b>2,354,100</b>
Water taken out	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Total
Evaporation (m3)	229	194	174	107	69	51	63	91	88	132	168	225	1,590
Abstraction for irrigation (m3)	13,878	11,772	10,530	6,480	5,580	5,400	5,580	5,580	5,400	7,992	10,206	13,662	102,060
<b>Total</b>	<b>14,107</b>	<b>11,966</b>	<b>10,704</b>	<b>6,587</b>	<b>5,649</b>	<b>5,451</b>	<b>5,643</b>	<b>5,671</b>	<b>5,488</b>	<b>8,124</b>	<b>10,374</b>	<b>13,887</b>	<b>103,650</b>
Water Leaving Dam	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Total
Volume of water reaching dam (m3)	-10,232	-8,383	-7,078	81,200	328,542	524,296	554,063	436,717	264,010	99,576	-2,288	-9,975	
Storage + Excess water (m3)	-10,232	-18,615	-25,693	55,507	330,765	526,518	556,286	438,940	266,232	101,799	-65	-10,040	
Storage (m3)	-10,232	-18,615	-25,693	2,223	2,223	2,223	2,223	2,223	2,223	2,223	-65	-10,040	
Volume of water leaving the dam (i.e. excess) (m3)	0	0	0	53,285	328,542	524,296	554,063	436,717	264,010	99,576	0	0	2,260,490
Volume of water discharged downstream by subsoil drainage (irrigation water) (m3)	386	327	293	180	117	86	107	153	149	222	284	380	2,681
Volume of water discharged downstream by subsoil drainage (rainfallwater) (m3)	14	17	23	52	129	193	203	165	107	64	39	15	1,021
Volume of water discharged downstream by runoff (m3)	83	102	136	311	776	1,156	1,219	988	644	382	234	92	6,123
<b>Total volume of water discharged downstream (m3)</b>	<b>483</b>	<b>446</b>	<b>451</b>	<b>53,828</b>	<b>329,565</b>	<b>525,730</b>	<b>555,591</b>	<b>438,023</b>	<b>264,910</b>	<b>100,244</b>	<b>557</b>	<b>487</b>	<b>2,270,314</b>

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**Table 7.2: Post-Development (Comparison) Modelling Results**

Climate and Rainfall	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Total
Rainfall (mm)	14	17	23	52	129	193	203	165	107	64	39	15	1,021
Evaporation (mm)	257	218	195	120	78	57	71	102	99	148	189	253	1,787
<b>Water inputs</b>	<b>Jan</b>	<b>Feb</b>	<b>Mar</b>	<b>Apr</b>	<b>May</b>	<b>Jun</b>	<b>Jul</b>	<b>Aug</b>	<b>Sep</b>	<b>Oct</b>	<b>Nov</b>	<b>Dec</b>	<b>Total</b>
Rainfall in dam (m3)	34	42	55	127	317	472	497	403	263	156	96	38	2,499
Surface runoff to dam(m3)	667	816	1,085	2,486	6,206	9,250	9,749	7,901	5,155	3,058	1,872	739	48,984
<b>Slinton Creek (m3)</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>83,400</b>	<b>325,900</b>	<b>518,100</b>	<b>547,300</b>	<b>431,800</b>	<b>262,200</b>	<b>102,300</b>	<b>3,600</b>	<b>0</b>	<b>2,274,600</b>
Subsoil drainage (irrigation water) (m3)	3,084	2,616	2,340	1,440	936	684	852	1,224	1,188	1,776	2,268	3,036	21,444
Subsoil drainage (rainfall water) (m3)	111	136	181	414	1,034	1,542	1,625	1,317	859	510	312	123	8,164
Bore water (m3)	0	0	0	0	0	0	0	0	0	0	0	0	0
<b>Total</b>	<b>3,896</b>	<b>3,610</b>	<b>3,661</b>	<b>87,868</b>	<b>334,393</b>	<b>530,047</b>	<b>560,023</b>	<b>442,645</b>	<b>269,665</b>	<b>107,799</b>	<b>6,148</b>	<b>3,936</b>	<b>2,355,691</b>
<b>Water taken out</b>	<b>Jan</b>	<b>Feb</b>	<b>Mar</b>	<b>Apr</b>	<b>May</b>	<b>Jun</b>	<b>Jul</b>	<b>Aug</b>	<b>Sep</b>	<b>Oct</b>	<b>Nov</b>	<b>Dec</b>	<b>Total</b>
Evaporation (m3)	629	534	478	294	191	140	174	250	242	362	463	620	4,376
Abstraction for irrigation (m3)	13,878	11,772	10,530	6,480	5,580	5,400	5,580	5,580	5,400	7,992	10,206	13,662	102,060
<b>Total</b>	<b>14,507</b>	<b>12,306</b>	<b>11,008</b>	<b>6,774</b>	<b>5,771</b>	<b>5,540</b>	<b>5,754</b>	<b>5,830</b>	<b>5,642</b>	<b>8,354</b>	<b>10,669</b>	<b>14,282</b>	<b>106,436</b>
<b>Water Leaving Dam</b>	<b>Jan</b>	<b>Feb</b>	<b>Mar</b>	<b>Apr</b>	<b>May</b>	<b>Jun</b>	<b>Jul</b>	<b>Aug</b>	<b>Sep</b>	<b>Oct</b>	<b>Nov</b>	<b>Dec</b>	<b>Total</b>
Volume of water reaching dam (m3)	-10,611	-8,696	-7,347	81,094	328,022	524,508	554,269	436,815	264,023	99,445	-2,521	-10,345	
Storage + Excess water (m3)	-10,611	-19,307	-26,654	54,440	334,098	529,983	559,745	442,291	269,499	104,920	2,954	-7,391	
Storage (m3)	-10,611	-19,307	-26,654	54,440	334,098	529,983	559,745	442,291	269,499	104,920	2,954	-7,391	
Volume of water leaving the dam (i.e. excess) (m3)	0	0	0	48,964	328,622	524,508	554,269	436,815	264,023	99,445	0	0	2,256,646
Volume of water discharged downstream by subsoil drainage (irrigation water) (m3)	386	327	293	180	117	86	107	153	149	222	284	380	2,681
Volume of water discharged downstream by subsoil drainage (rainfallwater) (m3)	14	17	23	52	129	193	203	165	107	64	39	15	1,021
Volume of water discharged downstream by runoff (m3)	83	102	136	311	776	1,156	1,219	988	644	382	234	92	6,123
<b>Total volume of water discharged downstream (m3)</b>	<b>483</b>	<b>446</b>	<b>451</b>	<b>49,507</b>	<b>329,645</b>	<b>525,942</b>	<b>555,797</b>	<b>438,120</b>	<b>264,923</b>	<b>100,113</b>	<b>557</b>	<b>487</b>	<b>2,266,470</b>

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**Table 7.3: Post-Development (Actual) Modelling Results**

Climate and Rainfall	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Total
Rainfall (mm)	14	17	23	52	129	193	203	165	107	64	39	15	1,021
Evaporation (mm)	257	218	195	120	78	57	71	102	99	148	189	253	1,787
Water inputs	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Total
Rainfall in dam (m3)	34	42	55	127	317	472	497	403	263	156	96	38	2,499
Surface runoff to dam (m3)	667	816	1,085	2,486	6,206	9,250	9,749	7,901	5,155	3,058	1,872	739	48,984
<b>Stinton Creek (m3)</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>83,400</b>	<b>325,900</b>	<b>518,100</b>	<b>547,300</b>	<b>431,800</b>	<b>262,200</b>	<b>102,300</b>	<b>3,600</b>	<b>0</b>	<b>2,274,600</b>
Subsoil drainage (irrigation water) (m3)	3,084	2,616	2,340	1,440	936	684	852	1,224	1,188	1,776	2,268	3,036	21,444
Subsoil drainage (rainfall water) (m3)	111	136	181	414	1,034	1,542	1,625	1,317	859	510	312	123	8,164
<b>Bore water (m3)</b>	<b>13,392</b>	<b>12,096</b>	<b>13,392</b>	<b>12,960</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>12,960</b>	<b>13,392</b>	<b>78,192</b>
<b>Total</b>	<b>17,288</b>	<b>15,706</b>	<b>17,053</b>	<b>100,828</b>	<b>334,393</b>	<b>530,047</b>	<b>560,023</b>	<b>442,645</b>	<b>269,665</b>	<b>107,799</b>	<b>21,108</b>	<b>17,328</b>	<b>2,433,883</b>
Water taken out	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Total
Evaporation (m3)	629	534	478	294	191	140	174	250	242	362	463	620	4,376
Abstraction for irrigation (m3)	13,878	11,772	10,530	6,480	5,580	5,400	5,580	5,580	5,400	7,992	10,206	13,662	102,060
<b>Total</b>	<b>14,507</b>	<b>12,306</b>	<b>11,008</b>	<b>6,774</b>	<b>5,771</b>	<b>5,540</b>	<b>5,754</b>	<b>5,830</b>	<b>5,642</b>	<b>8,354</b>	<b>10,669</b>	<b>14,282</b>	<b>106,436</b>
Water Leaving Dam	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Total
Volume of water reaching dam (m3)	2,781	3,400	6,045	94,054	328,622	524,508	554,269	436,815	264,023	99,445	10,439	3,047	
Storage + Excess water (m3)	2,781	6,181	11,521	99,530	334,098	529,983	559,745	442,291	269,499	104,920	15,914	8,522	
Storage (m3)	2,781	5,476	5,476	5,476	5,476	5,476	5,476	5,476	5,476	5,476	5,476	5,476	
<b>Volume of water leaving the dam (i.e. excess) (m3)</b>	<b>0</b>	<b>705</b>	<b>6,045</b>	<b>94,054</b>	<b>328,622</b>	<b>524,508</b>	<b>554,269</b>	<b>436,815</b>	<b>264,023</b>	<b>99,445</b>	<b>10,439</b>	<b>3,047</b>	<b>2,321,971</b>
Volume of water discharged downstream by subsoil drainage (irrigation water) (m3)	386	327	293	180	117	86	107	153	149	222	284	380	2,681
Volume of water discharged downstream by subsoil drainage (rainfallwater) (m3)	14	17	23	52	129	193	203	165	107	64	39	15	1,021
Volume of water discharged downstream by runoff (m3)	83	102	136	311	776	1,156	1,219	988	644	382	234	92	6,123
<b>Total volume of water discharged downstream (m3)</b>	<b>483</b>	<b>1,151</b>	<b>6,496</b>	<b>94,596</b>	<b>329,645</b>	<b>525,942</b>	<b>555,797</b>	<b>438,120</b>	<b>264,923</b>	<b>100,113</b>	<b>10,995</b>	<b>3,534</b>	<b>2,331,795</b>

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**Table 8: Monthly Average Inflow Volume Comparison**

Volume of flow (m3/month)	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Total
Theoretical inflow to dam	0	0	0	83,400	325,900	518,100	547,300	431,800	262,200	102,300	3,600	0	<b>2,274,600</b>
Downstream flow Pre-Dev	483	446	451	53,828	329,565	525,730	555,591	438,023	264,910	100,244	557	487	<b>2,270,314</b>
Downstream flow Post-Dev (Comparison)	483	446	451	49,507	329,645	525,942	555,797	438,120	264,923	100,113	557	487	<b>2,266,470</b>
Downstream flow Post-Dev (Actual)	483	1,151	6,496	94,596	329,645	525,942	555,797	438,120	264,923	100,113	10,995	3,534	<b>2,331,795</b>



### 3.4 Environmental Water Provisions during Low-Flow Period

Environmental water provisions (EWP) are an important component in determining if dam construction is likely to threaten ecological values within a catchment. As such, if there is any inflow to the dam during low-flow periods (typically as a result of thunderstorm), then an equivalent amount of water should be released to maintain aquatic ecological functions downstream.

As discussed previously, during an average rainfall year no inflow enters the site. As such, with the current rainfall data used in the model, whether or not the management practices established on site can maintain the EWPs cannot be assessed. To this end, the rainfall data were increased during the summer months (e.g storm event) to simulate flows during low-flow periods. An inflow of 3,600 kL (i.e. inflow recorded in November during an average rainfall year) was used as benchmark when determining the adequate rainfall depth for each low-flow month.

As seen in **Table 9**, with the current management practice of adding bore water to the dam at a rate of 432 kL/day during low-flow periods while keeping the same monthly water abstraction from the dam, the volume of downstream flows during low-flow periods are higher than the volume of the inflow. As such, the current management practices and the infrastructure of the site maintain the EWPs. A bypass is therefore not required.

Also note that this numerical model is conservative. It assumes that the dam is empty at the start of the modelling. In reality the dam is at least 2/3 full on a daily basis.

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**Table 9: Assessment and Maintenance of EWPs**

Climate and Rainfall	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Total
Rainfall (mm)	52.6	44.8	40.2	51.8	129.3	192.7	203.1	164.6	107.4	63.7	39.0	51.8	1,141
Evaporation (mm)	257	218	195	120	78	57	71	102	99	148	189	253	1,787
<b>Water Inputs</b>													
Rainfall in dam (m3)	129	110	98	127	317	472	487	403	263	156	96	127	2,794
Surface runoff to dam(m3)	2,525	2,150	1,930	2,486	6,206	9,250	9,749	7,901	5,155	3,058	1,872	2,486	54,768
<b>Stinton Creek (m3)</b>	<b>3,600</b>	<b>3,600</b>	<b>3,600</b>	<b>63,400</b>	<b>325,900</b>	<b>518,100</b>	<b>547,300</b>	<b>431,800</b>	<b>262,200</b>	<b>102,300</b>	<b>3,600</b>	<b>3,600</b>	<b>2,289,000</b>
Subsoil drainage (irrigation water) (m3)	3,084	2,616	2,340	1,440	936	684	862	1,224	1,188	1,776	2,268	3,036	21,444
Subsoil drainage (rainfall water) (m3)	421	358	322	414	1,034	1,542	1,625	1,317	859	510	312	414	9,128
<b>Bore water (m3)</b>	<b>13,392</b>	<b>12,096</b>	<b>13,392</b>	<b>12,960</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>12,960</b>	<b>13,392</b>	<b>78,192</b>
<b>Total</b>	<b>23,150</b>	<b>20,931</b>	<b>21,682</b>	<b>100,828</b>	<b>334,393</b>	<b>530,047</b>	<b>560,023</b>	<b>442,645</b>	<b>269,665</b>	<b>107,799</b>	<b>21,108</b>	<b>23,066</b>	<b>2,455,326</b>
<b>Water taken out</b>													
Evaporation (m3)	629	534	478	294	191	140	174	250	242	362	463	620	4,376
Abstraction for irrigation (m3)	13,878	11,772	10,530	6,480	5,580	5,400	5,580	5,580	5,400	7,992	10,206	13,682	102,060
<b>Total</b>	<b>14,507</b>	<b>12,306</b>	<b>11,008</b>	<b>6,774</b>	<b>5,771</b>	<b>5,540</b>	<b>5,754</b>	<b>5,830</b>	<b>5,642</b>	<b>8,354</b>	<b>10,669</b>	<b>14,282</b>	<b>106,436</b>
<b>Water Leaving Dam</b>													
Volume of water reaching dam (m3)	8,643	8,625	10,674	94,054	328,622	524,508	554,269	436,815	264,023	99,445	10,439	8,774	
Storage + Excess water (m3)	8,643	14,100	16,150	99,530	334,098	529,983	559,745	442,291	269,499	104,920	15,914	14,250	
Storage (m3)	5,476	5,476	5,476	5,476	5,476	5,476	5,476	5,476	5,476	5,476	5,476	5,476	
Volume of water leaving the dam (i.e. excess) (m3)	3,167	8,625	10,674	94,054	328,622	524,508	554,269	436,815	264,023	99,445	10,439	8,774	2,343,414
Volume of water discharged downstream by subsoil drainage (irrigation water) (m3)	386	327	293	180	117	86	107	153	149	222	284	380	2,681
Volume of water discharged downstream by subsoil drainage (rainfallwater) (m3)	53	45	40	52	129	193	203	165	107	64	39	52	1,141
Volume of water discharged downstream by runoff (m3)	316	269	241	311	776	1,156	1,219	988	644	382	234	311	6,846
<b>Total volume of water discharged downstream (m3)</b>	<b>3,921</b>	<b>9,265</b>	<b>11,248</b>	<b>94,596</b>	<b>329,645</b>	<b>525,942</b>	<b>555,797</b>	<b>438,120</b>	<b>264,923</b>	<b>100,113</b>	<b>10,995</b>	<b>9,516</b>	<b>2,354,082</b>

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### 3.5 Site Evidence: Outflow when No Inflow

**Plate 1** below presents a summary of our site observations. Plates 2 to 5 were taken during our site investigation conducted on 17 May 2018. Note that April and May 2018 were significantly dry compared to the average year.

As seen on **Plate 2**, the Stinton Creek inlet was dry at the time of the investigation. The dam was around two third full (topped up with bore water to maintain this volume during low flow period) (**Plate 3**). As seen on **Plate 4** the water level of the dam was below the dam outlet preventing any discharge. However, outflow was observed in the area located downstream of the dam (**Plate 5**). This outflow is due to the subsoil drainage installed on site.

Although a practical outflow volume cannot be measured, this demonstrates that during dry periods the site produces outflow and as such maintains the EWPs.

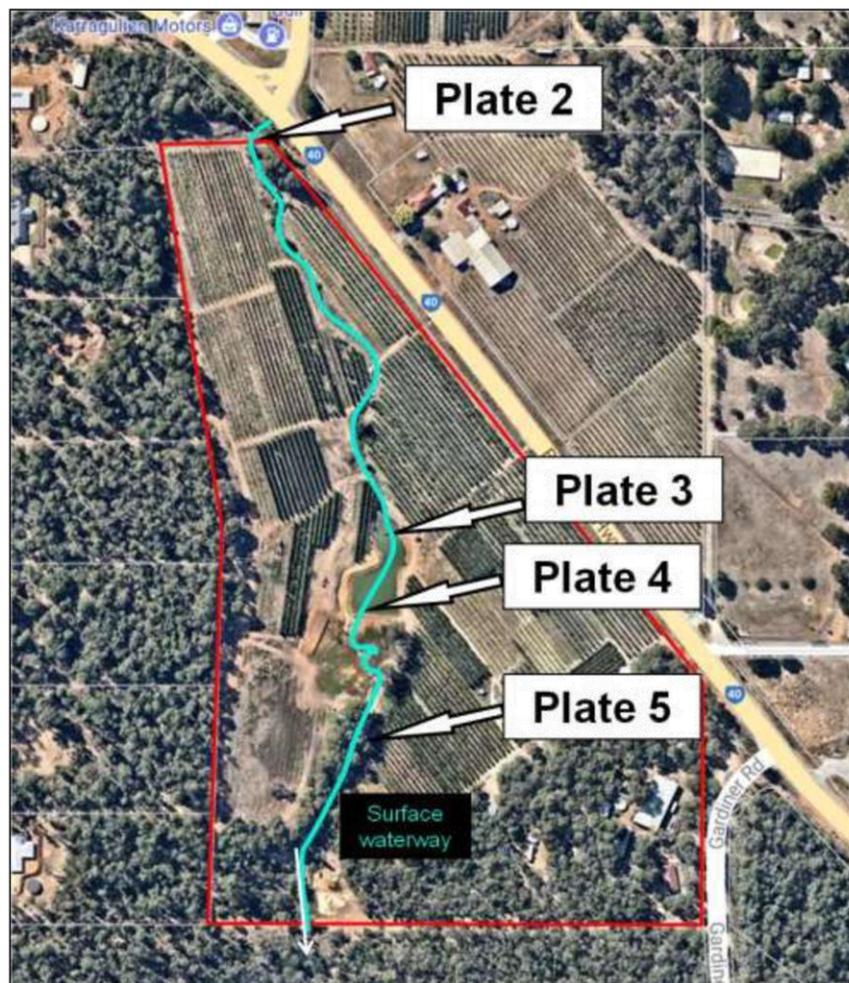


Plate 1: Site observation summary

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**Plate 2: Stinton Creek inlet**



**Plate 3: Dam water level**

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Plate 4: Dam outlet



Plate 5: Outflow

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### 3.6 Conclusion of Hydrological Assessment

Based on the information presented above, the following conclusions are presented:

- ❖ The Stinton Creek is not a perennial waterway;
- ❖ The volume of downstream flow from the improved dam is higher than the inflow from the Stinton Creek on a monthly basis. The improved dam has therefore no negative impact on waterway flow, other users, and on the local and overall sub-catchment water availability;
- ❖ The infrastructure on site (subsoil drainage) and the subsequent management practices (addition of bore water to improved dam) increase the yearly volume of water discharged downstream by more than 61,000 kL when compared to the pre-development dam;
- ❖ The infrastructure on site and the subsequent management practices also increase by twice the volume of water released downstream during the low-flow period (i.e. November to April) when compared to the pre-development dam; while,
- ❖ Maintaining the Environmental Water Provisions during low-flow periods.
- ❖ Note that outflow from the site accumulates in a dam located within the Stinton Cascades Nature Reserve (**Plate 6**). No outflow was observed from the Stinton Cascades Nature Reserve dam. The dam outlet was deemed to be poorly maintained. This poor maintenance is likely to reduce flow volume downstream during low-flow periods.



Plate 5: Stinton Cascades Nature Reserve

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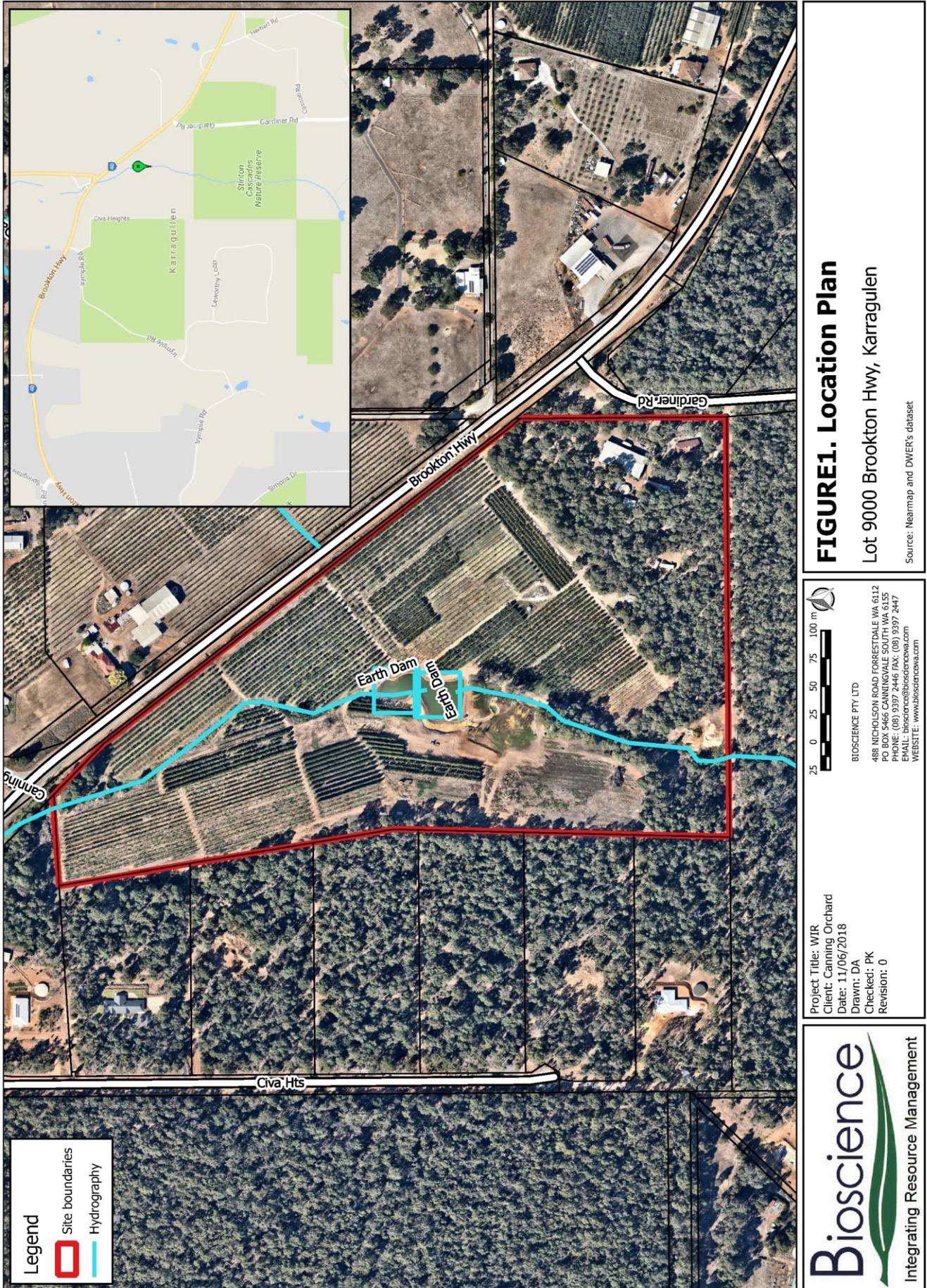
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#### **4 Evaluation of Alternative Water Sources**

Based on the conclusion of the hydrological assessment and the water quality results, there is no need to evaluate alternative water sources for the irrigation of the orchard.

However, it is suggested that an upgrade of the outlet of the dam located within the Stinton Cascades Nature Reserve is done by the relevant Department. This would likely increase outflow further downstream during low-flow periods.

**Appendix A: Dam Layout**



**Legend**  
 Site boundaries  
 Hydrography

**FIGURE 1. Location Plan**  
 Lot 9000 Brookton Hwy, Karragullen

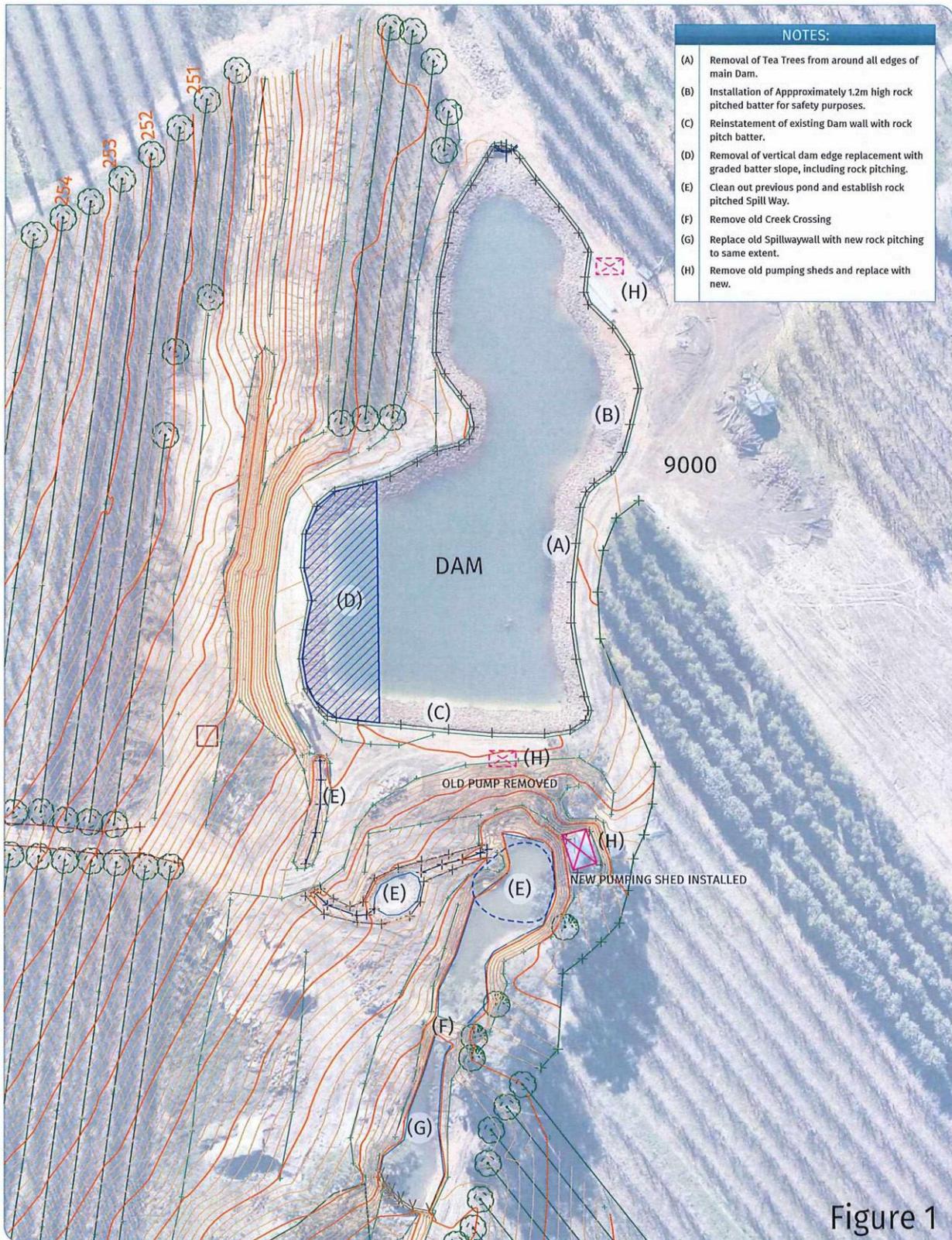
Source: Nearmap and DWER's dataset

  
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 Client: Canning Orchard  
 Date: 11/06/2018  
 Drawn: DA  
 Checked: PK  
 Revision: 0



**Appendix B: Plan and Profiles**



**WATER WAY REPAIRS  
SITE PLAN**

Lot 9000, Brookton Highway  
KARRAGULLEN

Plan No. | 21282-06A  
Date | 15/08/17  
Drawn | JPU  
Checked | CP  
Revision | A

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ALBANY | BUNBURY | BUSSELTON | FORRESTDAL | PERTH

Scale | 1:500 @A3



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NOTE: This plan has been prepared for planning purposes. Areas, Contours and Dimensions shown are subject to survey

**Harley Dykstra**  
PLANNING & SURVEY SOLUTIONS

**Appendix C: Operating Strategy**



**Integrating Resource Management**

**Basic Operating Strategy:  
Lot 9000 Brookton Hwy, Karragullen**

**Canning Orchard  
Western Australia  
June 2018**

Basic Operating Strategy: Lot 9000 Brookton Hwy, Karragullen



### Basic Operating Strategy

Lot 9000 Brookton Hwy, Karragullen

*Prepared by*

**Didier Alanoix**

Environmental Scientist

*Project Supervisor*

**Peter Keating**

Managing Director

### Bioscience Pty Ltd

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### Document Control

Issue	Date	Author	Reviewer	Approved
1	13/06/2018	D. Alanoix	P. Keating	P. Keating

**Name of water licence applicant/licensee:** Canning Orchard Pty Ltd

**Name of development project:** Irrigation from Stinton Creek

**Legal description and address of land where water is taken and water is used:** Lot 9000 Brookton Hwy lies within the Middle Canning Subarea of the Canning River Surface Water Area. Water will be taken from a dam constructed on-stream of the Stinton Creek and will be used for the irrigation of 9 ha of land.

*"I understand that the commitments given in the attached operating strategy will be a condition of an associate water license if approved and that a breach of a commitment or any license condition may be an infringement of the Rights in Water and Irrigation Act 1914":*

### Signatures

Person legally responsible for the water license:

Printed name:

Date:

Approved by delegated authority Department of Water:

Printed name:

Date

Basic Operating Strategy: Lot 9000 Brookton Hwy, Karragullen



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Basic Operating Strategy: Lot 9000 Brookton Hwy, Karragullen



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## Introduction

This basic operating strategy was written in accordance with the *Operational Policy 5.08 - Use of Operating Strategies in the Water Licensing Process*. The operating strategy outlines details and procedures relating to surface water abstraction from Lot 9000 Brookton Hwy, Karragullen.



## **1 Administrative Requirements**

### **1.1 Water Licences**

Groundwater is abstracted on site, however as the site does not lie within a Proclaimed Groundwater Area, a groundwater licence is not required.

Surface water is currently taken on site from a dam constructed on-stream of the Stinton Creek. Although the site lies within a proclaimed surface water area, the abstraction is currently not licensed. To this end, this strategy is written as part of a retrospective water licence application.

### **1.2 Staged Development**

The sought water licence will not involve staged development.

### **1.3 Investigation and Reporting**

A hydrological assessment of the improved dam was conducted on 11 November 2017. The assessment demonstrated that the improvement of the dam and the management practices established on site increase the volume of the downstream flow both monthly and yearly, reduce the dry out time, and have no negative impact on the downstream monthly flow rate.

The assessment was reviewed by the Department of Water and Regulation (DWER) and was deemed insufficient as it does not address low stream flows, Environmental Water Provisions (EWPs) and other requirements in WQPN 53. To this end a Water Resource Investigation (WRI) was requested by the Department.

The WRI was written by Bioscience and concluded the following:

- The Stinton Creek is not a perennial waterway;
- The volume of downstream flow from the improved dam is higher than the inflow from the Stinton Creek on a monthly basis. As such, the improved dam has no negative impact on waterway flow, other users, and on the local and overall sub-catchment water availability;
- The infrastructure on site (subsoil drainage) and the subsequent management practices (addition of bore water to improved dam) increase the yearly volume of water discharged downstream by more than 61,000 kL when compared to the pre-development dam;
- The infrastructure on site and the subsequent management practices also increase by twice the volume of water released downstream during the low-flow period (i.e. November to April) when compared to the pre-development dam; while,
- Maintaining the Environmental Water Provisions during low-flow periods.
- At the time of the investigation, both the water used for irrigation and the water released downstream was of a good quality. Water leaving the site had nutrient concentrations not exceeded the ANZECC guidelines for upland rivers. The impacts on aquatic ecosystems are therefore minimal.

Basic Operating Strategy: Lot 9000 Brookton Hwy, Karragullen



- The outflow from the site accumulates in a dam located within the Stinton Cascades Nature Reserve. No outflow was observed from the Stinton Cascades Nature Reserve dam. The dam outlet was deemed to be poorly maintained. This poor maintenance is likely to reduce flow volume downstream during low-flow periods.

#### 1.4 Water Resource Management/Allocation Plan

Lot 9000 Brookton Hwy lies within the Middle Canning Subarea of the Canning River Surface Water Area and is covered by the *Middle Canning River surface water allocation plan* (DoW, 2012). This plan explains how the Department allocates and manages abstraction and water quality, particularly during summer, when flows are low and demand for water is highest.

As such, low stream flow and water quality management will be particularly discussed in this strategy.

#### 1.5 Responsibility

Paul Civa, Director of Canning Orchard Pty Ltd, is responsible for the implementation of this operating strategy. He can be contacted via the following details:

Phone: (08) 9397 5919  
Address: Lot 9000 Brookton Hwy, Karragullen

#### 1.6 Reporting to DWER

On 15 May 2018, a meeting was held between the City of Armadale, DWER and the applicant. During the meeting it was decided that flow meters will not be required as long as a volume of water equivalent to the volume entering the dam is released downstream during low-flow period. This matter was discussed in the WRI and is summarised later on in this strategy.

It is also noted that the site has been operating for more than 60 years and testing revealed good quality water. Water quality monitoring is therefore not required.

As such, since the WRI demonstrated that the current management practices and infrastructure on site maintain the EWPs, have no negative on downstream users and ecology, and release good quality water, a compliance report is not deemed necessary.

#### 1.7 Review of Strategy

A review of the Operating Strategy will be done three months before the expiry date of the water licence.



## 2 Water Source Description

The orchard is irrigated with the water stored into the on-stream dam. Inputs to the dam have different origin and include:

- The Stinton Creek;
- Groundwater;
- "Recycling" of irrigation water through discharge into the dam via subsoil-drainage
- Surface runoff; and,
- Rainfall

65% of the irrigation occurs between November and April. Should this period be wetter than an average year, the Stinton Creek would contribute more to the irrigation on site, while on an average and a dryer year irrigation would rely more on groundwater abstraction.

Canning Orchard has been operational for many decades. In the early 1900's the establishment of this orchard included the construction of dams, spillways, creek crossings, bores, pumps and sub-soil drainage networks through the orchard area. Much of the orchard establishment works were completed using basic equipment and infrastructure. As a consequence, over the years, regular and ongoing improvement works of the dams, spillways, creeks crossings, bores, pumps and sub-soil drainage infrastructure were undertaken.

To date the site uses 4 bores of different yields. On average the bores could deliver 2 L/s.

Basic Operating Strategy: Lot 9000 Brookton Hwy, Karragullen



### 3 Identifying and Managing Impacts

In order to comply with the objective of the *Middle Canning River surface water allocation plan* (DoW, 2012):

- I. Abstraction from the site must not impact on downstream users and ecosystems, particularly during summer, when flows are low and demand for water is highest; and,
- II. Water leaving the site must be of a good quality.

The Water Resource Investigation demonstrated that there are no negative impacts on waterway flow caused by the operation. It also demonstrated that the Environmental Water Provisions are maintained through the use of subsoil drainage and addition of bore water to the dam.

The Water Resource Investigation also demonstrated that the water quality leaving the site is of good quality, with nutrient concentrations not exceeding the ANZECC trigger values for upland river (please refer to the WIR for more details).

As such, impact management is therefore not required.



## 4 Operating Rules

The standard operating rules is detailed in **Table 1** below.

**Table 1: Operating Rules**

Name	Installed Pumping Capacity	Annual Abstraction (kL/year)	Operating Protocols	Abstraction Strategy
Borefield	432 kL/d	Around 79,000 kL/yr	Borefield water is pumped into the dam. The objective is to maintain the dam at least two third full at any one time	Borefield is only used during low flow periods, i.e. between November to April each year
Dam		Around 105,000 kL/yr		65 % of the abstraction will occur during the low flow periods

Basic Operating Strategy: Lot 9000 Brookton Hwy, Karragullen



## 5 Monitoring and Reporting

It is noted that Groundwater License reporting is more focused on amounts of water used and any changes to groundwater flow associated with that use. On 15 May 2018, a meeting was held between the City of Armadale, DWER and the applicant. During the meeting it was decided that flow meters will not be required as long as a volume of water equivalent to the volume entering the dam is released downstream during low-flow period. This was demonstrated in the Water Resource Investigation. To this end, metering will not be required for the site.

In addition, and as discussed previously, the Water Resource Investigation demonstrated that there are no negative impacts on waterway flow caused by the operation. It also demonstrated that the Environmental Water Provisions are maintained through the use of subsoil drainage and addition of bore water to the dam.

It is also noted that the site has been operating for more than 60 years and testing revealed good quality water. This was confirmed in the WIR. Nutrient concentrations in the outflow did not exceed the ANZECC trigger values for upland river.

As such, since the WRI demonstrated that the current management practices and infrastructure on site maintain the EWPs, have no negative on downstream users and ecology, and release good quality water, monitoring and reporting are not deemed necessary.

Basic Operating Strategy: Lot 9000 Brookton Hwy, Karragullen



---

## **6 Contingency Program**

Since monitoring is not deemed necessary on site, a contingency program is not required.

## **7 Water Use Efficiency**

Evaporation-based irrigation is used on site. Water is delivered evenly and irrigation scheduling is theoretically matched to plant water demand. In addition, any excess water is discharged back to the dam through subsoil drainage pipes. As such, water use is deemed to be efficient on site.

## **8 Summary List of Commitments**

1. The operating strategy will be resubmitted to the Department of Water for review three months before the expiry date of the licence.

**Appendix D: Water Chemistry Results**



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## ANALYTICAL REPORT

CLIENT:	H. Dykstra/ Canning Orchard	REPORT NO:	9194_2018
TEST REQUEST:	Std water pot, plus total N and P	LAB SAMPLE ID:	9194-9196
ADDRESS:	Not Supplied	DATE RECEIVED:	21/05/2018
CLIENT SAMPLE ID:	Canning Orchard	DATE TESTED:	21/05/2018 - 5/06/2018
SAMPLING LOCATION:	Lot 9000 Brookton Hwy	DATE REPORTED:	6/06/2018

### TEST RESULTS

Analytes	Dam	Bore	Subsoil	Unit	Method / Standard
Electrical Conductivity (EC)	0.406	0.616	0.464	mS/cm	EC Sensor
pH	6.45	5.42	6.49	-	IJ pH Sensor
Total Dissolved Salts*	267	386	300	mg/L	
Ammonium-N	0.097	<0.01	<0.01	mg/L	Colorimetric Assay
Nitrate-N	0.152	2.02	0.06	mg/L	Colorimetric Assay
Total N	0.249	2.02	0.06	mg/L	
Phosphate-P	0.02	<0.01	0.01	mg/L	Colorimetric Assay
Total P	0.05	<0.01	0.01	mg/L	
Potassium	2.42	2.52	3.38	mg/L	Flame AAS
Calcium	6.05	4.03	9.00	mg/L	Flame AAS
Magnesium	11.1	13.3	13.3	mg/L	Flame AAS
Sodium	44.7	85.3	56.0	mg/L	Flame AAS
Chloride	74.2	153	96.0	mg/L	Precipitation
Sulphate	26.3	17.2	24.8	mg/L	Turbidity Assay
Iron	0.35	5.85	0.24	mg/L	Flame AAS
Manganese	0.02	0.06	0.16	mg/L	Flame AAS
Copper	<0.01	0.01	<0.01	mg/L	Flame AAS
Zinc	0.05	0.02	0.01	mg/L	Flame AAS

Notes: (1) = World Health Authority; (2) = NHMRC/NRMMC Australian Drinking Water Guidelines 2011, a) aesthetic value, h) health value.

\* Estimated from EC

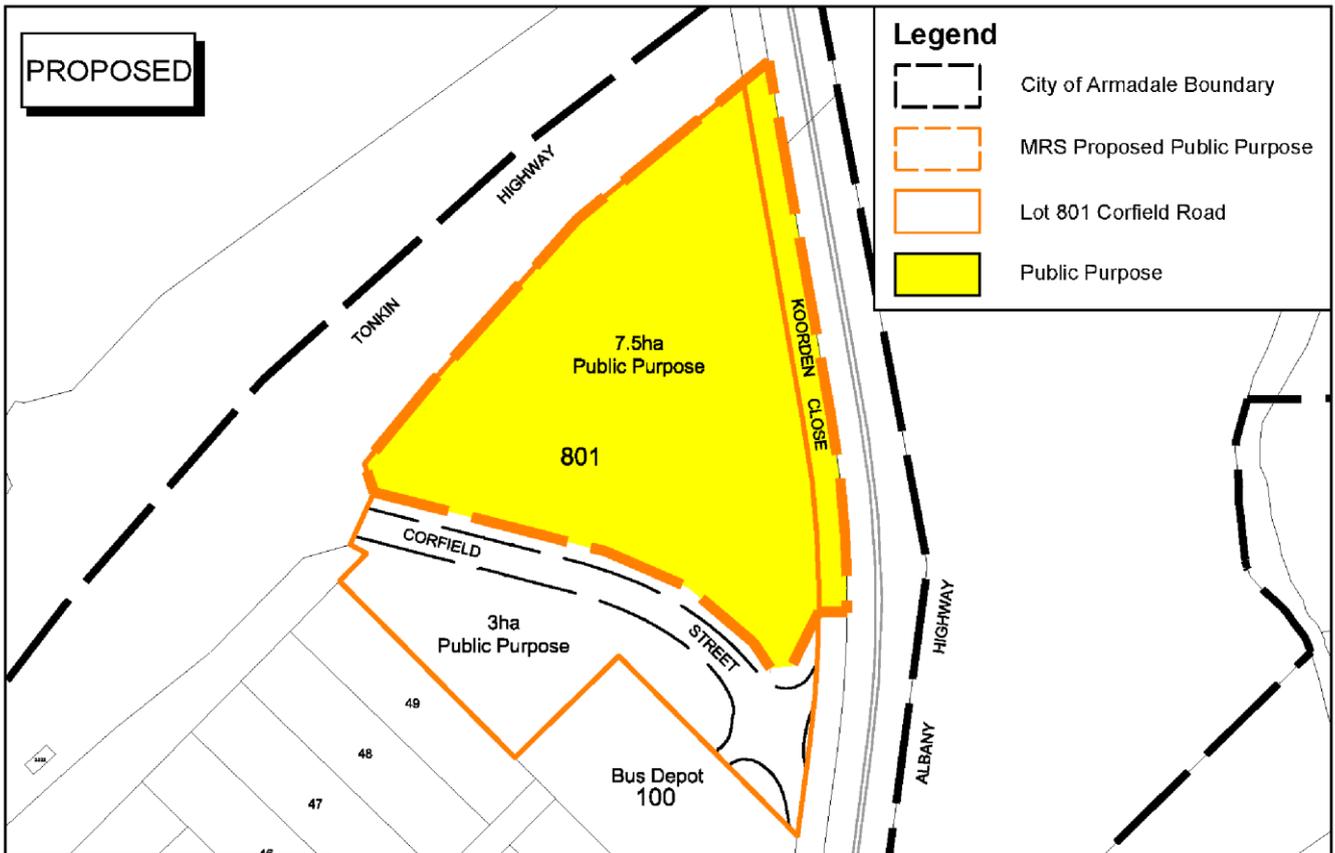
mg/L (milligrams per litre) is equivalent to parts per million (ppm); µg/L (micrograms per litre) is equivalent to parts per billion (ppb).

"<": "less than", "≤": "less than or equal to", AAS: Atomic Absorption Spectrometry

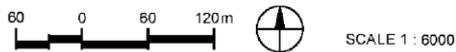
These results reflect our findings of the received sample only.

Tested by: GM, FM Date: 6/06/2018

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**WAPC's MRS ZONING PLAN**  
 Proposal 4 MRS Amendment  
 Portion Lot 801 Corfield Street, Champion Lakes



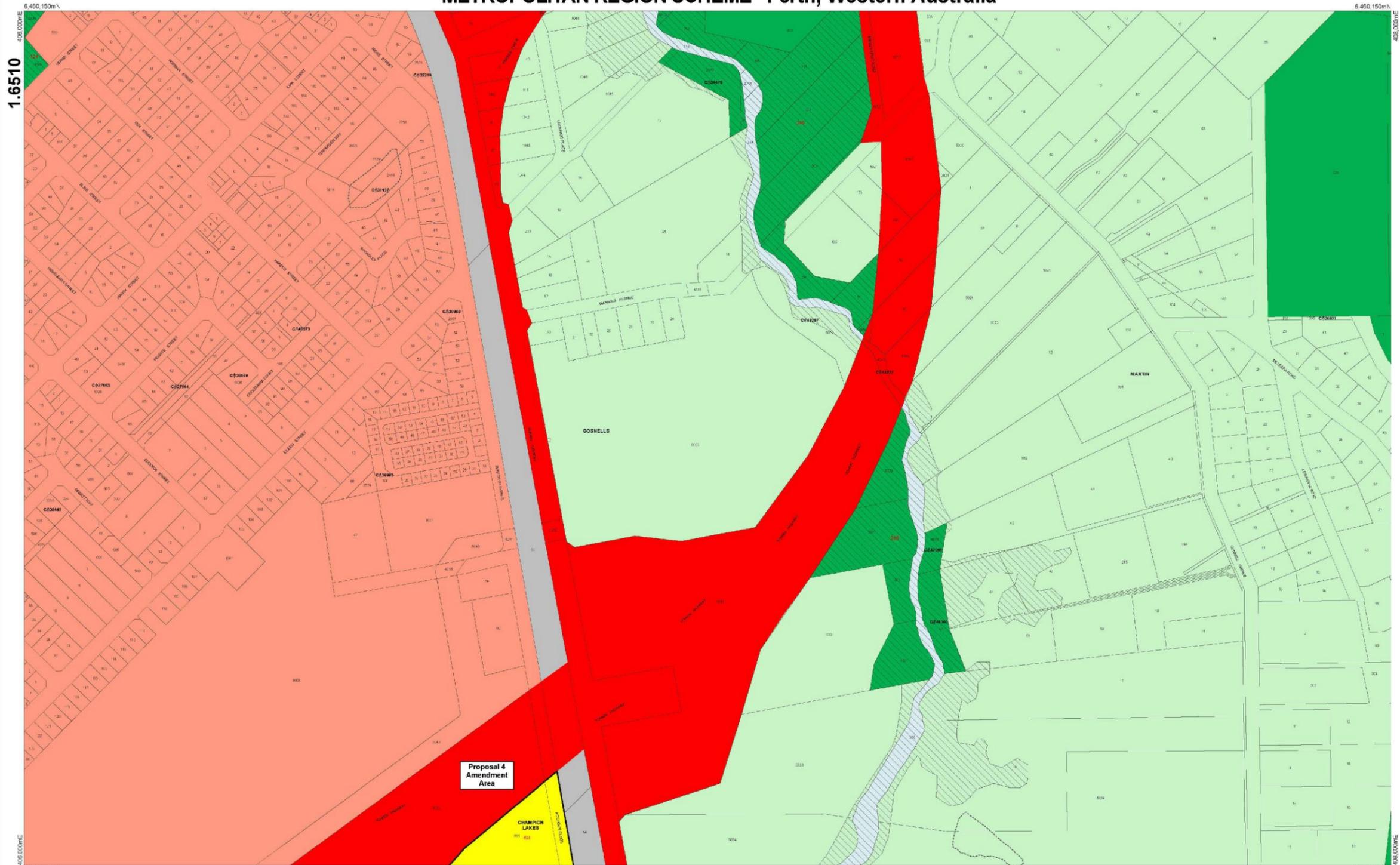
DATE 6 January 2015 - REVISION 1801  
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Based on information provided by and with the permission of the Western Australian Land Information Authority (Landscape Australia 2012). Aerial photographs supplied by Landscape. Photographs by GeoMap.





# METROPOLITAN REGION SCHEME - Perth, Western Australia



**Important notes**  
Boundary lines are not shown on these maps, refer to the MRS Test for details of environmental conditions.  
Redevelopment scheme areas are shown on these maps, although they are not within the jurisdiction of the Western Australian Planning Commission.  
Refer to the relevant redevelopment authority's scheme and maps for details.  
For Port Kennedy locality refer to the Port Kennedy Development Agreement Act 1982.  
**Technical notes**  
Geographic datum - Geocentric datum of Australia 1994  
GDA base - Map of Australia  
Projection - Transverse Mercator, graphically projected in zone 50

**Data Sources**  
Cadastral data from the Western Australian Land Information Authority Spatial Cadastral Database (SCDB) - permission no. GLIP-1965-2015-4  
Topographic features derived from Barcoot Street Directory 2013  
**Production notes**  
Published by the Department of Planning, Lands and Heritage, Coastal Stakeholder Hub, 140 William Street, Perth, WA 6000  
This scheme is not intended to indicate the land use allocation under any local government provision.  
© State of Western Australia. This map may not be reproduced wholly or in part without the written permission of the Department.  
Website - www.dpla.wa.gov.au - to access electronic copies of the MRS  
Email - spatialdata@dpla.wa.gov.au for digital data or for written permission.

**Metropolitan Region Scheme Legend**

--- scheme boundary	Water catchments	Public purposes - AHS HS TS CP U CCS SBS SU VSD IP	<b>Zones</b>	Rural - water protection Private recreation
Reserved lands	Canals and cultural	Waterways	Urban	Proposed
Reclaimed public areas	Roads	Shore foreshore	Unsubdivided	Notice of delegation
Highways	Primary regional roads Other regional roads	Shore foreshore	Centrality area	Deed foreshore area
Perennial water			Industrial	Redevelopment scheme
Shore foreshore			Special industrial	Redevelopment scheme
			Rural	Redevelopment scheme

**Standard Truncation**  
Note: All truncations are standard unless otherwise shown.

**Western Australian Planning Commission**  
This is to certify that plan no. 1.6510 was approved by resolution at a meeting held on 03 May 2018.  
Minute no. WAPC / RS\_ItemNo  
Signed:   
Effective: RS\_Date

**Data Analytics Certification**  
Manager: T. Senaus  
Geospatial Officer: J. Bellarotta  
Examined: A. Power

**DETAIL PLAN No. 1.6510**

Scale: 0 25 50 75 100 metres

LOCATION OF DETAIL PLAN

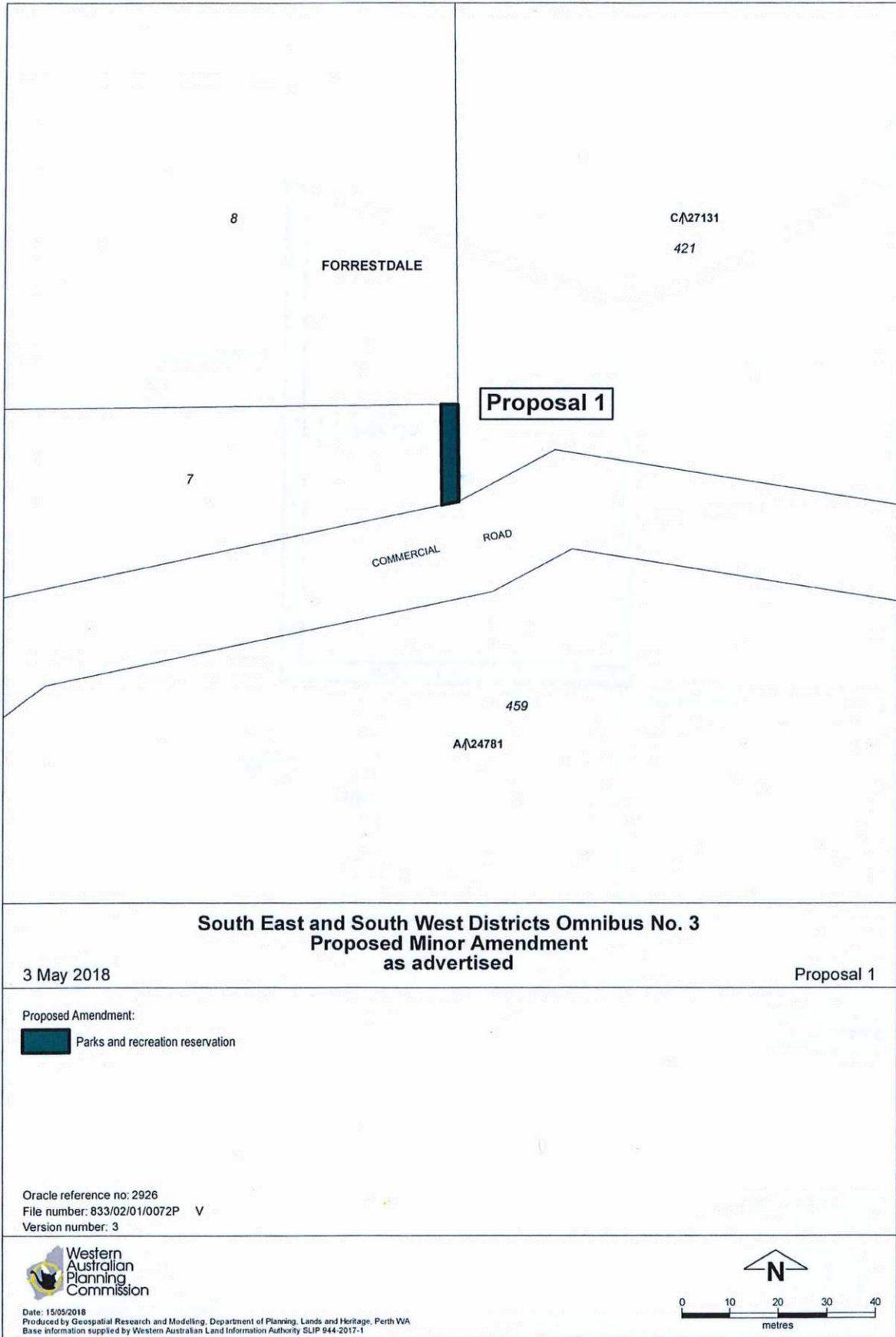


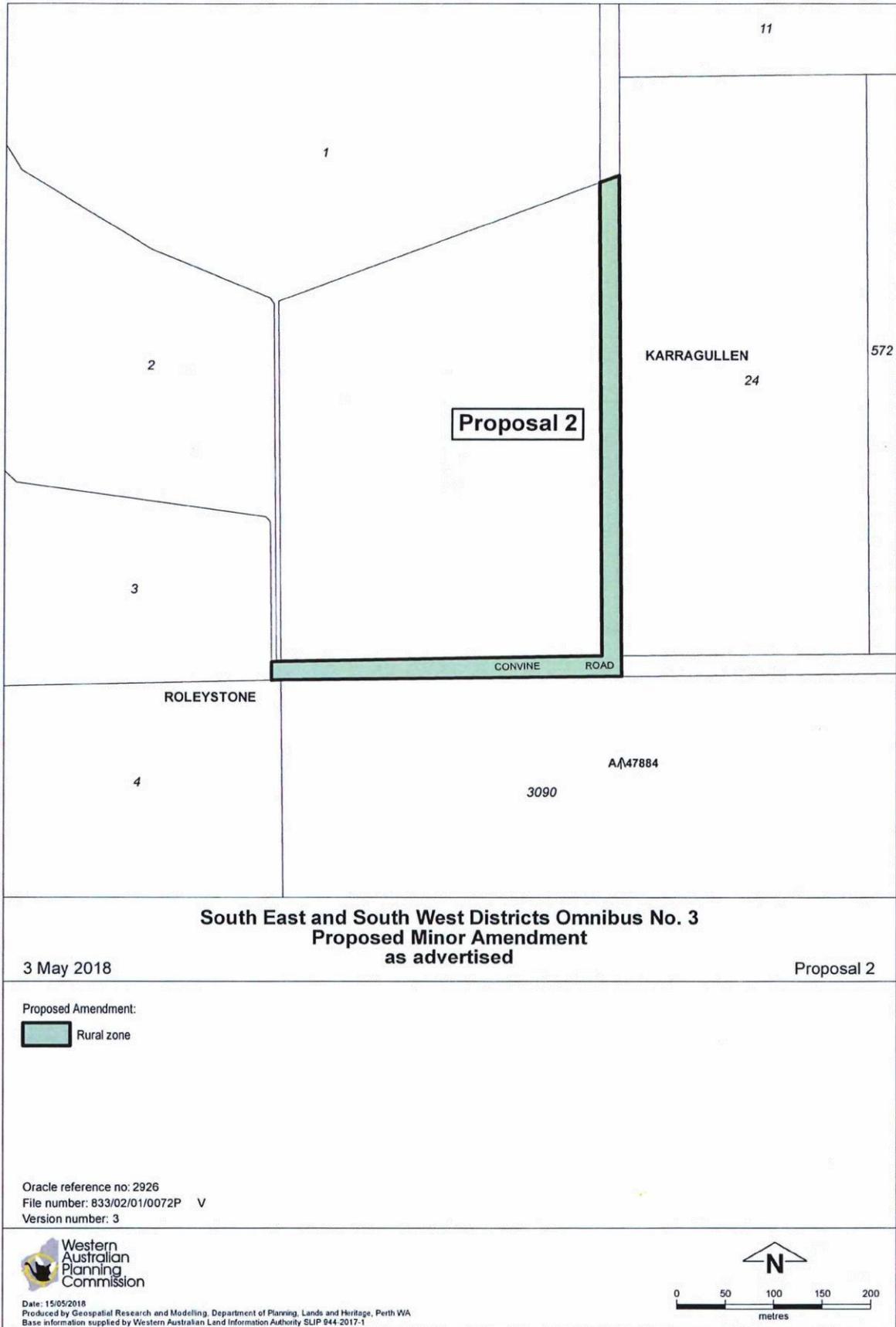
NOT TO SCALE

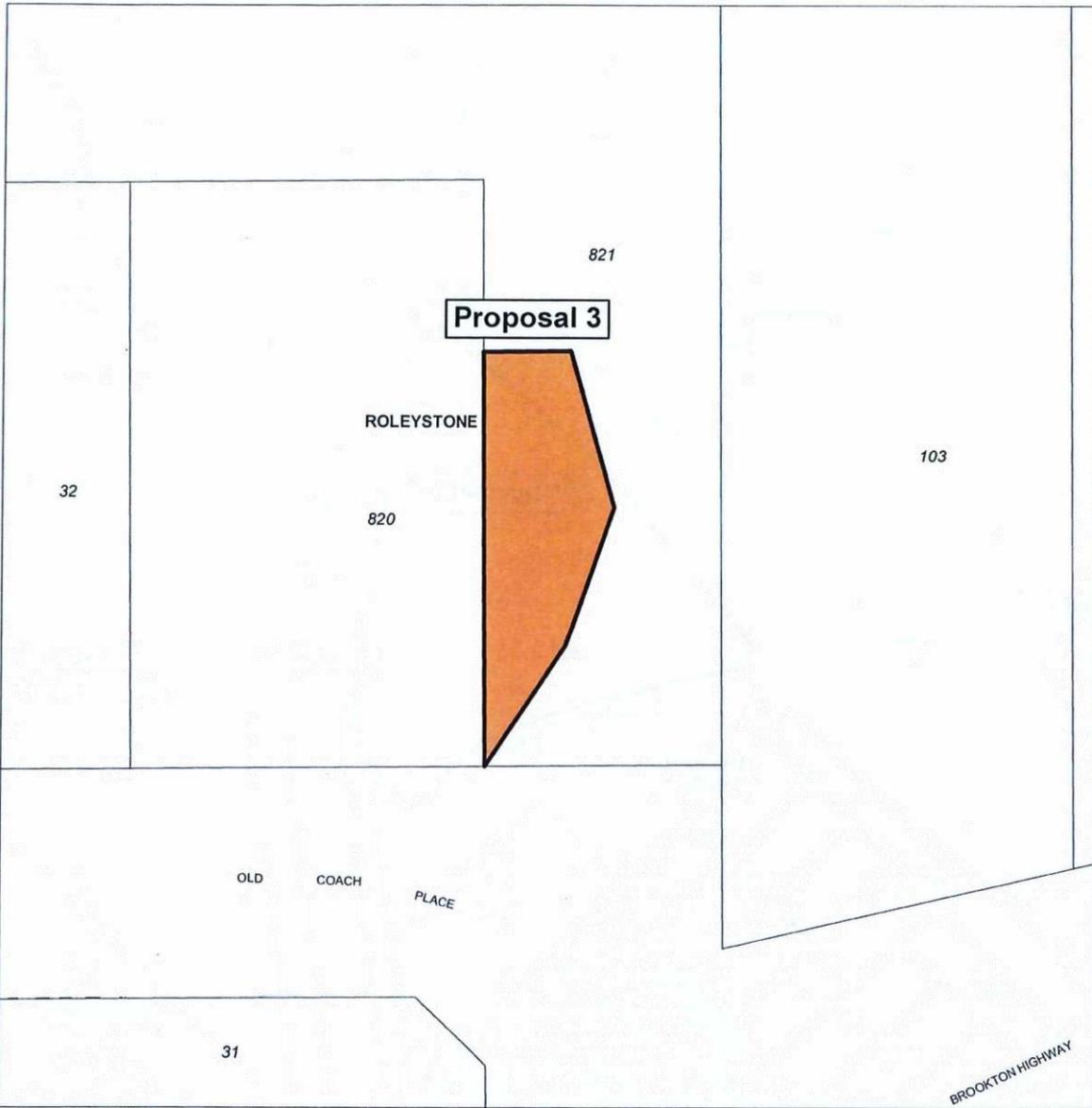
Based on information provided by and with the permission of the City of Armadale. Aerial photograph supplied by Landmap. Photograph by NetMap.

**MRS Zoning Plan**  
Proposal 4 MRS Amendment  
Portion Lot 801 Corfield Street, Champion Lakes

DATE: 28 September 2018 - 10:27:00 AM (GMT+8:00)  
FILE: C:\Users\jpower\Documents\armadale\1801\corfield\mrs\_1801\corfield\1801\corfield.dwg







**South East and South West Districts Omnibus No. 3  
Proposed Minor Amendment  
as advertised**

3 May 2018

Proposal 3

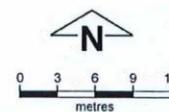
Proposed Amendment:

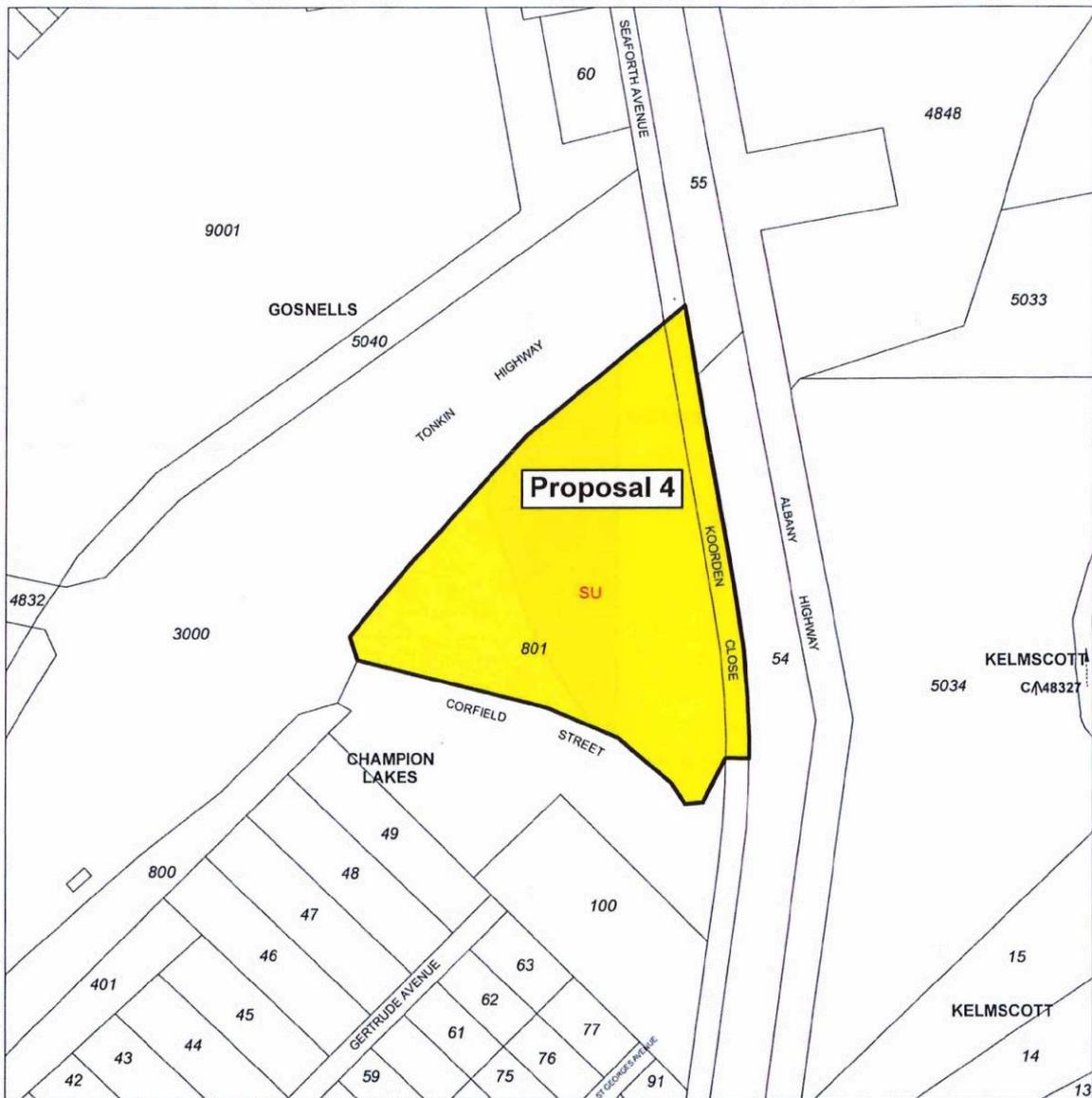
 Urban zone

Oracle reference no: 2926  
File number: 833/02/01/0072P V  
Version number: 3



Date: 16/05/2018  
Produced by Geospatial Research and Modelling, Department of Planning, Lands and Heritage, Perth WA  
Base information supplied by Western Australian Land Information Authority SLIP 944-2017-1





**South East and South West Districts Omnibus No. 3  
Proposed Minor Amendment  
as advertised**

3 May 2018

Proposal 4

Proposed Amendment:

 **SU** Public purposes reservation - special uses

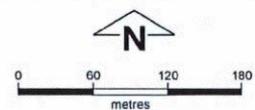
Oracle reference no: 2926

File number: 833/02/01/0072P V

Version number: 3



Date: 15/05/2018  
Produced by Geospatial Research and Modeling, Department of Planning, Lands and Heritage, Perth WA  
Base information supplied by Western Australian Land Information Authority SLIP 944-2017-1





**South East and South West Districts Omnibus No. 3  
Proposed Minor Amendment  
as advertised**

3 May 2018

Proposal 5

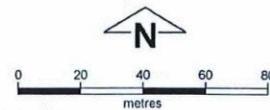
Proposed Amendment:

 Rural zone

Oracle reference no: 2926  
File number: 833/02/01/0072P V  
Version number: 3



Date: 15/05/2018  
Produced by GeoSpatial Planning Support, Department of Planning, Perth WA  
Base information supplied by Western Australian Land Information Authority SLIP 944-2017-1





1. Small excavator to be used for vegetable garden.



2. Blue tip truck to be used on the property for clean-up works.



3. Turf roller to be used to maintain driveway.



4. Excavator to be used to clear fire breaks and general garden use.