




CONFIRMED MINUTES

ORDINARY COUNCIL MEETING

9 APRIL 2019

I certify that the minutes of the meeting of the Ordinary Council held on Tuesday, 9 April 2019 were confirmed on Tuesday, 14 May 2019.


Presiding Person



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ATTENTION/DISCLAIMER

The purpose of this Council Meeting is to discuss and, where possible, make resolutions about items appearing on the agenda. Whilst Council has the power to resolve such items and may in fact appear to have done so at the meeting, no person should rely on or act on the basis of such decision or on any advice or information provided by an Elected Member or employee, or on the content of any discussion occurring during the course of the Meeting. Persons should be aware that regulation 10 of the *Local Government (Administration) Regulations 1996* establishes procedures to revoke or change a Council decision. No person should rely on the decisions made by Council until formal written advice of the Council decision is received by that person.

The Shire of Mundaring expressly disclaims liability for any loss or damage suffered by any person as a result of relying on or acting on the basis of any resolution of Council, or any advice or information provided by an Elected Member or employee, or the content of any discussion occurring during the course of the Council Meeting.

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ORDINARY COUNCIL MEETING COUNCIL CHAMBER

1.0 OPENING PROCEDURES

The Presiding Person declared the meeting open at 6.30pm.

Acknowledgement of Country

Shire of Mundaring respectfully acknowledges the Whadjuk people of the Noongar Nation, who are the traditional custodians of this land. We wish to acknowledge Elders past, present and emerging and respect their continuing culture and the contribution they make to the region.

Recording of Meeting

Members of Council and members of the gallery are advised that this meeting will be audio-recorded.

1.1 Announcement of Visitors

Nil

1.2 Attendance/Apologies/Approved Leave of Absence

Elected Members	Cr John Daw (President) (Presiding Person)	East Ward
	Cr Kate Driver	East Ward
	Cr Stephen Fox	East Ward
	Cr Toni Burbidge	Central Ward
	Cr Lynn Fisher (Deputy President)	Central Ward
	Cr Doug Jeans	Central Ward
	Cr Darrell Jones	South Ward
	Cr David Lavell	South Ward
	Cr Ian Green	West Ward
	Cr Tony Brennan	West Ward
Staff	Jonathan Throssell	Chief Executive Officer
	Megan Griffiths	Director Strategic & Community Services
	Stan Kocian	Acting Director corporate Services
	Mark Luzi	Director Statutory Services
	Shane Purdy	Director Infrastructure Services
	Adrian Dyson	Manager Community Safety & Emergency Management
	Angus Money	Manager Planning & Environment
	Madeleine Quy	Communications Officer
	Anna Italiano	Minute Secretary
Apologies	Cr James Martin	South Ward
	Cr Jason Russell	West Ward
Absent	Nil	

Leave of Absence	Nil	
Guests	Nil	
Members of the Public	58	
Members of the Press	Claire Ottaviano	Echo Newspaper

2.0 ANNOUNCEMENTS BY PRESIDING MEMBER WITHOUT DISCUSSION

2.1 Harmony Week and Blue Sky Festival

The Shire recently celebrated Harmony Week at the Blue Sky Festival.

This fantastic family event was held at Sculpture Park and offered a range of activities. A big hit among children was an opportunity to draw pictures and write about what they love most about living in Australia.

The responses were diverse and included “playing with friends” and the “greenness”. These were of course accompanied by their cleverly crafted drawings.

Another attraction on the day was a performance by African Drummers and several food trucks offering a feast of international cuisine.

2.2 Youth Council becomes a C.R.E.W

The Shire’s new Youth Advisory Group has had yet another productive meeting.

They met for the second time and discussed a range of different issues impacting young people living in the community.

An exciting outcome of the meeting was being able to choose a name for the group.

They decided the name The Youth C.R.E.W would best reflect the team. It stands for Communicate, Represent, Engage and Wonder.

On behalf of Council, the Shire President applauded the group for coming up with such an appropriate name – it reinforces both their purpose and values.

3.0 DECLARATION OF INTEREST

3.1 Declaration of Financial Interest and Proximity Interests

Elected Members must disclose the nature of their interest in matters to be discussed at the meeting (*Part 5 Division 6 of the Local Government Act 1995*).

Employees must disclose the nature of their interest in reports or advice when giving the report or advice to the meeting (*Sections 5.70 and 5.71 of the Local Government Act 1995*).

Nil

3.2 Declaration of Interest Affecting Impartiality

An Elected Member or an employee who has an interest in a matter to be discussed at the meeting must disclose that interest (*Shire of Mundaring Code of Conduct, Local Government (Admin) Reg. 34C*).

Nil

4.0 RESPONSE TO PREVIOUS PUBLIC QUESTIONS TAKEN ON NOTICE

4.1 Question Taken on Notice - Ordinary Council meeting 12 March 2019

At the Ordinary Council meeting held 12 March 2019, Claire Palmer of Stoneville asked a question which was taken on notice. A response was provided by the Chief Executive Officer in writing. Below is a summary of the questions and the response provided.

Question 2

Is there going to be any work proposed for a Stoneville Road footpath, in particular from Richardson Road?

Response

A footpath is in place on Stoneville Road from Great Eastern Highway, Mundaring to Bentley Street, Stoneville. There are currently no plans to extend the footpath on Stoneville Road further north of Bentley Street.

5.0 PUBLIC QUESTION TIME

15 minutes (with a possible extension of two extra 15 minute periods) are set aside at the beginning of each Council meeting to allow members of the public to ask questions of Council.

Public Question Time is to be conducted in accordance with Shire of Mundaring Meeting Procedures Local Law 2015.

Summary of Question		Summary of Response
Melanye Wawrik – Mt Helena		
1.	As a resident from the general area that I'm referring to, can we have a fire access road at the end of Wilkins Road to lead residents from Silia Retreat, Wilkins Road and Hummerston Street down to Houston Street, which would ultimately lead us to Lion and Bambrook Street that have direct access to Great Eastern Highway?	Director Infrastructure Services advised that through the Shire's Bush Fire Area Strategy a number of road links were identified that were required. One was from Wilkins Road to Hummerston Street. The Shire does have an allocation of funds to address each of those links. This particular link was highly prioritised and is expected to be undertaken in the next 4 year period. It is not likely to be undertaken in the next financial year.
2.	In the past Google Maps has marked a "dog leg" street from Wilkins Road to the end of the Houston Street cul-de-sac and recently it's disappeared, I'm not sure if it is a footpath or a firebreak as there are gates in front of it so was just wondering what's happening with that?	Director Statutory Services advised that fire officers would look into that and report back.
Gary Hussey – Mundaring		
1..	A report was produced around 2016 by an unknown source for the Shire of Mundaring called "Stoneville Road and Walker Street Intersection Investigation Report". Could the Walker Street Residents Group ask that there be examination of this investigation report with regular consultation with residents and written justification as to why these structures could not be made appropriate, in particular engineering and construction of the road round-about intersection at Stoneville Road and Walker Street? Also could we ask that a maximum speed of 50 kms per hour on Stoneville Road junction of Hillcrest to Hartung Street, given the large volumes of traffic along Stoneville Road?	Director Infrastructure Services confirmed that the Shire is looking at the issues Mr Hussey has raised. There are quite a number of elements so it may assist if Mr Hussey met with the Director Infrastructure Services to go through what the Shire has undertaken to date and is proposing to undertake.
Eric Smith – Glen Forrest		
1.	With regards to Item 10.4 on the agenda "New Policy - Community Leases" why were community groups not consulted on this draft policy and if the policy is accepted by Council tonight will it go out to consultation for community groups?	The CEO advised that the policy was developed at a direction of Council to look at all of the various leases the Shire holds with all of the properties throughout the Shire.

		It is designed to provide a framework through which the Shire can determine the appropriate levels of payments or conditions that would be applicable to the various leases the Shire enters into. It was not necessary to undertake consultation prior to finalising the policy. What will occur is, subsequent to the policy being adopted, the Shire will negotiate with the individual lease-holders as to how the policy may affect them.
2.	So transparency will apply?	The CEO advised that every lessee will be advised of any potential changes to a lease, either in cases where they don't have an existing lease in place or when a lease was due to be renewed.
Stephen Millett – Mt Helena		
1.	Would it be possible to defer the decision on Structure Plan 77 at tonight's meeting; if not, why not, until such time as the issues that are to be raised tonight can be adequately addressed so that a decision can be made that takes all views into account?	Director Statutory Services advised that there is a statutory timeframe for these matters to be dealt with which is under State legislation. In this particular case the applicants and the Western Australian Planning Commission agreed to an extension. The extension has now come to an end and the matter now needs to be determined unless there was a further extension agreed upon with all those involved. In relation to appealing the decision of Council, the Western Australian Planning Commission makes the decision. The Council is only providing its recommendation to the Western Australian Planning Commission on this matter.
3.	I understand there is a time limit and an extension has already been made. How much time does the Council have before it must lodge its submission to the Western Australian Planning Commission?	Manager Planning & Environment advised that the recommendation must be provided to the Western Australian Planning Commission by 16 April 2019.

6.0 APPLICATIONS FOR LEAVE OF ABSENCE

Application for Leave of Absence – Cr James Martin

Cr James Martin has advised of his request for leave of absence from 10 April 2019 to 31 May 2019 (inclusive).

COUNCIL DECISION MOTION		C1.04.19	
Moved by	Cr Jones	Seconded by	Cr Green

That Cr Martin be granted leave of absence from all meetings of Council held between 10 April 2019 to 31 May 2019 (inclusive).

CARRIED 10/0

For: Cr Daw, Cr Driver, Cr Fox, Cr Burbidge, Cr Fisher, Cr Jeans, Cr Jones, Cr Lavell, Cr Green and Cr Brennan

Against: Nil

7.0 CONFIRMATION OF MINUTES OF PREVIOUS MEETINGS

COUNCIL DECISION RECOMMENDATION		C2.04.19	
Moved by	Cr Lavell	Seconded by	Cr Jones

That the Minutes of the Ordinary Council Meeting held 12 March 2019 be confirmed.

CARRIED 10/0

For: Cr Daw, Cr Driver, Cr Fox, Cr Burbidge, Cr Fisher, Cr Jeans, Cr Jones, Cr Lavell, Cr Green and Cr Brennan

Against: Nil

8.0 PRESENTATIONS

8.1 Deputations

- | | | | |
|----|------------------|-----------|-------------------------------|
| 1. | Trudy Rosenwald | Item 10.5 | Refugee Welcome Zone |
| 2. | Fr Chris Bedding | Item 10.5 | Refugee Welcome Zone |
| 3. | Alex McKellar | Item 10.5 | Refugee Welcome Zone |
| 4. | Sharon Davies | Item 10.1 | Structure Plan 77 – Mt Helena |

COUNCIL DECISION MOTION		C3.04.19	
Moved by	Cr Burbidge	Seconded by	Cr Jeans

That the time for Deputations be extended by 15 minutes in accordance with the *Shire of Mundaring Meetings Procedure Local Law 2015*, clause 4.6(4).

CARRIED 10/0

For: Cr Daw, Cr Driver, Cr Fox, Cr Burbidge, Cr Fisher, Cr Jeans, Cr Jones, Cr Lavell, Cr Green and Cr Brennan

Against: Nil

5.	Stephen Millett	Item 10.1	Structure Plan 77 – Mt Helena
6.	Robert Leckie	Item 10.1	Structure Plan 77 – Mt Helena
7..	Gwynn Dean	Item 10.1	Structure Plan 77 – Mt Helena
8.	Lois Van Geloven	Item 10.1	Structure Plan 77 – Mt Helena

COUNCIL DECISION MOTION		C4.04.19	
Moved by	Cr Jeans	Seconded by	Cr Fisher

That the time for Deputations be extended by 15 minutes in accordance with the *Shire of Mundaring Meetings Procedure Local Law 2015*, clause 4.6(4).

CARRIED 10/0

For: Cr Daw, Cr Driver, Cr Fox, Cr Burbidge, Cr Fisher, Cr Jeans, Cr Jones, Cr Lavell, Cr Green and Cr Brennan

Against: Nil

9.	Morgan Oliver	Item 10.1	Structure Plan 77 – Mt Helena
10.	Michael Kennedy	Item 10.1	Structure Plan 77 – Mt Helena
11..	Simon O'Hara	Item 10.1	Structure Plan 77 – Mt Helena
12.	Robert Ragg	Item 10.1	Structure Plan 77 – Mt Helena
13.	Tom Johns	Item 10.2	Annual Electors' Meeting – Bushfire Planning
14.	Tom Burbidge	Item 11.1	Notice of Motion – Review Policy PS-01 Advertising Planning Applications

8.2 Petitions

Nil

8.3 Presentations

Nil

9.0 REPORTS OF COMMITTEES

Nil

Change of Order of Business

COUNCIL DECISION MOTION		C5.04.19	
Moved by	Cr Jeans	Seconded by	Cr Fisher

That the order of business be changed as follows:

1. Items 10.2, 10.3, 10.4 and 10.5 be considered prior to Item 10.1; and
2. Item 11.1 be considered prior to Item 10.6.

CARRIED 10/0

For: Cr Daw, Cr Driver, Cr Fox, Cr Burbidge, Cr Fisher, Cr Jeans, Cr Jones, Cr Lavell, Cr Green and Cr Brennan

Against: Nil

10.0 REPORTS OF EMPLOYEES

In accordance with Council Decision C5.04.19 Item 10.2 was considered at this time.

10.2 Annual Electors' Meeting Motions - Bushfire Planning

File Code	GV.MTG 2
Author	Angus Money, Manager Planning and Environment Services
Senior Employee	Mark Luzi, Director Statutory Services
Disclosure of Any Interest	Nil
Attachments	Nil

SUMMARY

At the 2018 Annual Electors' Meeting (AEM) two motions were passed relating to the Shire's approach to bushfire planning.

Council was requested to arrange a public forum to hear the concerns of the community, and to encourage partnerships with other local governments that share similar concerns. Secondly, Council was requested to undertake an investigation into the appropriateness of the Shire's application of the bushfire planning framework, with clarification sought from controlling bodies; and that the Shire provide aerial photographs of all new development within the last five years to illustrate the effect of the bushfire planning framework on vegetation.

There are a number of complications and challenges when addressing these motions. On 7 January 2019 the Manager of Planning and Environment met with the residents who raised the motion to clarify their intent. It was made clear that the residents are concerned that the Shire (and other stakeholders involved in bushfire planning) are too risk averse and overly dogmatic in relation to imposing building and fuel reduction requirements on landowners. There is concern that the weight given to the bushfire framework is undermining other objectives of the Shire to protect and enhance biodiversity and maintain a sense of place.

Officers are of the view that some elements of the State's bushfire framework including the *Guidelines for Planning in Bushfire Prone Areas* (the "Guidelines") are excessive, particularly the extent of canopy clearing expected. However, to achieve material change - even in partnership with other local governments - would require extensive time, collaborative research efforts, advocacy and resources. This is beyond the local government sector alone and requires collaboration across government agencies and research institutions.

In responding to this AEM motion, it is recommended that a letter be sent to the relevant WA Government Ministers highlighting the need for greater and wider participation in reviews of the Guidelines and the urgent need for the State to acknowledge and fund bushfire research specific to a Western Australian context.

BACKGROUND

Context

The Shire falls within the globally significant south-west Australia biodiversity hotspot, one of only 34 biodiversity hotspots identified on earth. Approximately 96sqkm (9600ha) of good quality bushland designated as Local Natural Areas (LNAs) is located on private land and almost all outside of the area covered by Bush Forever.

In Western Australia, Shire of Mundaring is arguably the local government most affected by bushfire risk, given the high proportion of residents living in or near bushfire prone areas. The Parkerville/ Stoneville/Mt Helena Bushfire that occurred in January 2014 resulted in the loss of 55 dwellings, demonstrating the area's vulnerability.

The effects of climate change are compounding the issue and make reconciling biodiversity conservation with bushfire risk management even more difficult. In short, this is due to higher temperatures, droughts and changes in rainfall patterns; with bushfire risks increasing due to the lengthening of the fire season and less opportunities for safe controlled burns.

In seeking to manage one set of immediate risks, the question is - what other risks are being introduced? This is a complex societal problem and raises a broader question about what is the appropriate inter-generational policy response.

Bushfire Planning Framework

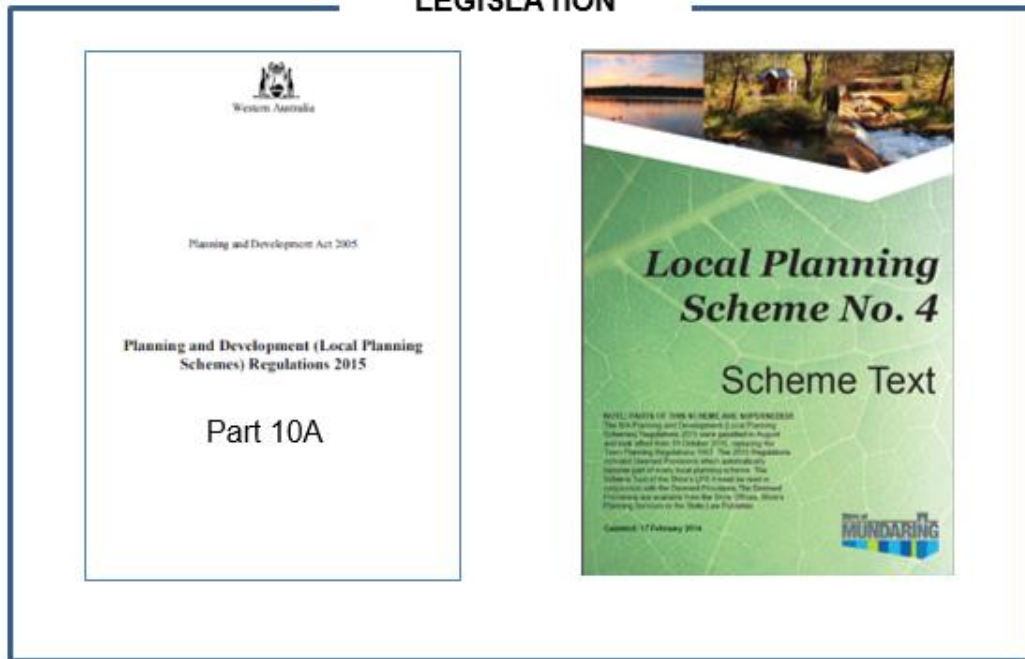
The State introduced Bushfire Guidelines in 2001 and released an updated version as interim guidelines in 2010. In 2011, It was acknowledged within the Keelty report '*A Shared Responsibility: The Report of the Perth Hills Bushfire February 2011 Review*' (2011), that the Guidelines had no head of power to be enforced. The Keelty Report subsequently recommended that "*The State Government give **legislative effect** to the Planning for Bush Fire Protection Guidelines*" (Recommendation 4).

A suite of changes and documents were subsequently introduced in December 2015 (referred to within this report as the bushfire framework) to ensure that bushfire protection measures were considered during the planning, construction and occupation phases. At that time, the Fire Protection Association became WA's peak industry body responsible for training and accrediting bushfire practitioners to operate within this new framework. Further, Department of Fire and Emergency Services (DFES) became a legitimate planning referral agency.

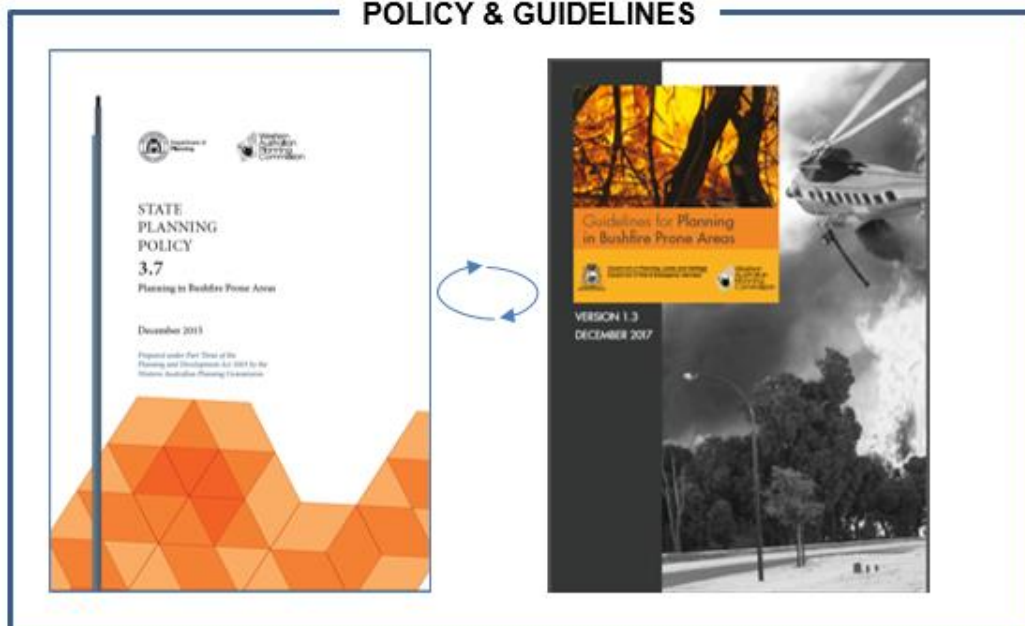
The bushfire planning legislation and policy framework consists of:

- *Planning and Development (Local Planning Schemes) Regulations 2015* - Deemed provisions Part 10A — Bushfire risk management ('Deemed Provisions')
- *Local Planning Scheme No.4 (2014) (LPS4)* - Section 6.5.
- State Planning Policy 3.7 – Planning in Bushfire Prone Areas (SPP3.7), having statutory effect pursuant to Part 3 of the *Planning and Development Act (2005)*
- By virtue of the above legislative and policy provisions, the *Guidelines for Planning in Bushfire Prone Areas* have significant influence.

LEGISLATION



POLICY & GUIDELINES



Bushfire Planning Framework

The bushfire planning requirements do not apply retrospectively and, in most instances, only apply to new planning proposals. The Shire's Bushfire Special Control Area provisions continue to refer to the Guidelines in the consideration of new planning proposals. Section 6.5 of the Shire's LPS4 in some respects overlaps with the State's introduced Deemed Provisions.

On being gazetted in 2014, the Shire's LPS No.4 included exemptions from requiring approval when clearing vegetation, which aligns with the Guidelines. Importantly, in 2016 the Shire recognised that amendments were required to LPS4's vegetation clearing exemptions (see **C8.03.16**) in particular. Amendment 7 to the Shire's Local Planning Scheme No.4 decoupled LPS4's clearing exemption provisions from the Guidelines and

now only references the Shire's *Fuel Load and Fire Break Notice* or Fire Management Plans which fall under the Shire's control.

In relation to the Shire, the Guidelines are also used as a point of reference when the Shire considers road upgrades of existing roads, with the Shire's *Bushfire Area Access Strategy* committed to progressively upgrade existing Shire roads to meet the new standards.

State Planning Policy 3.7 & Principles

The intent of the framework as expressed in SPP3.7 is to implement effective, risk-based land use planning and development to preserve life and reduce the impact of bushfire on property and infrastructure. Combined, the SPP3.7 and Guidelines (which are to be read in conjunction) provide both overarching policy objectives and more specific design requirements expected at the cascading levels of the planning process, from higher level rezoning, structure planning and subdivision through to individual developments.

At this point, it is useful to note Objective 5.4 of SPP 3.7:

5.4 Achieve an appropriate balance between bushfire risk management measures and, biodiversity conservation values, environmental protection and biodiversity management and landscape amenity, with consideration of the potential impacts of climate change.

Fundamentally, both motions passed at the Annual Electors' Meeting raise a question whether, in relation to Objective 5.4, the application of the framework is achieving an appropriate balance between bushfire mitigation and biodiversity. This will be explored further in this report.

The principle of 'shared responsibility' was the title and central theme of the Keelty Report and underpins much of the prevention and hazard reduction policy in Western Australia. SPP3.7 notes that reducing vulnerability to bushfire is the collective responsibility of State and local government, landowners, industry and the community. The State correctly recognises that bushfire risk cannot be reduced solely through regulation. Instead, managing bushfire risk is seen to be a whole of community concern, with landowners central to mitigating risk (in particular fuel loads) on their own properties. In this regard, prior to the implementation of this compulsory State system, the Shire had already implemented LPS4 in addition to dedicating resources (two Fire Hazard Inspection Officers) to ensure private property inspections and strategic burning regimes form part of its holistic approach to the preservation of life and property.

There is inherent logic in 'sharing responsibility', but it also creates fertile ground for discourse; with the State assuming its role to set state-wide standards, while others seeking to exercise their responsibility more autonomously. This discourse becomes more acute when DFES drives the policy development process and, by virtue of its focus on bushfire risks, feels it justified to suspend the consideration of other risks and broader community values.

SPP3.7 also highlights the responsibility of the decision maker to exercise a precautionary principle when entertaining local variations. Clause 6.11 of SPP3.7 notes that 'alternative solutions' must be endorsed by the relevant authority responsible for emergency services (i.e. DFES).

When seeking to adopt alternative solutions, the Shire must therefore have careful regard to DFES advice. Given the gravity of the risks involved, the Shire (and State) need a high degree of confidence in any proposed variations to State guidelines / requirements.

To the credit of the Department of Planning, Lands and Heritage (DoPLH), SPP3.7 does recognise the importance of landscape amenity and environmental protection (see 6.7). The Shire has been actively involved in the evolution of the bushfire framework – providing feedback and advice at every opportunity. In delivering on local community expectations, the Shire has had to innovate and create practical ways to balance bushfire and biodiversity considerations. The Shire's approach to ensure early intervention in the design process to achieve balanced outcomes was recognised at a national level and has partly fed back into the State framework. However, officers maintain that while the SPP expects balanced outcomes, questions remain about whether the standards espoused by the Guidelines actually facilitate or contradict the intent of SPP3.7.

Some commentators presume DFES advice to be binding and absolute. The Minister for Planning was recently criticised in the media for approving the Mount Helena MRS Amendment 1277/57 (in Oct 2017) and putting aside the DFES recommendation to refuse the amendment. The Minister later clarified that she has a responsibility to weigh up all views and seek balanced outcomes – which demonstrates a willingness, at the highest level, to exercise judgment within the parameters set by SPP3.7.

Guidelines

It is reasonable to assume that the Guidelines should help guide decisions and not bind any decision maker. However, the Guidelines have, by their nature as a risk-based document (and links into the SPP and legislation), attracted far more influence and effect compared to other WAPC guidelines. Evidence of outcomes from matters that have proceeded to the State Administrative Tribunal (SAT) confirm that agencies cannot afford not to place significant weight on the Guidelines. Understandably, there is general confusion in the community about the language and the degree to which the Guidelines have statutory effect. As guidelines, they remain malleable and easily amended without necessarily being subject to broader community scrutiny and deliberation (11 modifications have been made since 2015). Whether the review process is commensurate with the weight afforded to the Guidelines appears to be a reasonable concern.

To demonstrate this point, the 2015 version of the Guidelines allowed Asset Protection Zones (or low fuel zone) to be established 20 metres around a Building Envelope (BE). However, building envelopes are usually 2000sqm in size (far bigger than a typical dwelling and outbuilding) and are a planning tool to consolidate development rights within one location, thereby allowing the protection of good bush in the area outside of the building envelope. This provision was fundamentally untenable for the Shire as it already had around 2500 building envelopes registered and it would, by virtue of LPS4 clearing exemptions at that time, allow significant areas of protected native vegetation to be removed without recourse. These concerns were raised with DoPLH and, to their credit; reference to building envelopes within the Guidelines were eventually removed in the subsequent version.

The most recent suggestions presented to the Bushfire Policy Working Group, directly by DFES staff, propose, amongst other things, a significant increase in the clearing requirements for roadside vegetation (i.e. from 6 metres to at least 12 metres).

Their intent is well meant. DFES believes the additional horizontal clearance will allow a safer operating environment for bushfire fighting personnel and volunteers when fighting fires, whilst simultaneously allowing safe evacuation of residents. It cannot be contested that the safety of the bushfire fighting volunteers / firefighters and the community is an important issue, but the broader question is – at what cost? And are bushfire policy advisors able to make a balanced judgment?

In response, and putting aside the questionable assumptions behind the suggestion, the Shire noted that the changes would result in the removal of extensive areas of bush verges. This, in turn, would create space for weed infestation which would increase ongoing management costs for the Shire. If the Shire was unable to manage weeds on all verges (as is the case now, even with the existing low maintenance bush verges), the cleared verges would quickly become weed infested and represent a Grassland bushfire risk; undermining the original intent. The approach would also compromise various street tree and beautification initiatives, increase erosion and sedimentation, and create hotter micro climates – worsening the potential health impacts of heatwaves.

However, of most concern is the day-to-day safety implications. There is a direct correlation with wider streetscapes and driver behaviour, in that there is a tendency to speed. Conversely, narrowing a streetscape and a driver's view corridor with canopy vegetation has been demonstrated to slow drivers down. This fact is the cornerstone of the Department of Transport's new initiative 'Safe Active Streets' – intended to be applied to some streets in the proposed North Stoneville development. Driver behaviour, particularly on the Shire's long rural roads, represents a genuine 'day-to-day' risk to community safety. In summary, widening streetscapes will make it safer for those fighting fires in specific incidents, but will have a negative influence on driver behaviour and put more lives at risk at all other times.

To the credit of the agencies involved, a final decision regarding the changes has not been made and they are currently considering feedback from the working group. The concern, however, is that other key State agencies were not invited to contribute to the policy review, including Department of Transport and Main Roads WA.

In 2016 the Shire commissioned a desktop review of the tree canopy requirements in the Guidelines. The paper concluded that the requirement in the Guidelines requiring the removal of 85% of the tree canopy with a building Asset Protection Zone (APZ) is excessive. It also concluded that removing tree canopy (when ground fuel loads are managed) actually increases the exposure of buildings to ember attack and therefore, again, creates more risk.

DFES does not support a local government-wide variation to Asset Protection Zone (APZ) standards proposed and considers it would compromise the intent of an APZ to perform the dual function of hazard separation and defensible space. When the Shire questioned DFES, the Shire was advised that extensive independent research and peer review work would be required to make wholesale changes to the 'Acceptable Solutions'. Of particular concern, DFES officers were unable to provide the relevant fire science and research underpinning the current Guideline requirements, and simply noted that the Guidelines are based on eastern states research and interstate experience and agreed positions.

Any variation to the APZ standards expressed in the Guidelines within a locality (eg. tree canopy requirements within the Perth Hills) would require both WAPC and DFES support. DFES has encouraged the Shire away from this avenue and recommends considering variations on a site by-site basis.

When owners and consultants are willing, this remains the general approach by Shire officers. However, this suggestion does not allow the Shire to recalibrate the 'bar' to better align with the Hill's context and community expectations, particularly when working with accredited bushfire consultants required to work within the State framework. Within this rigid risk averse policy and operational context, achieving balanced outcomes becomes difficult.

There is no visible State commitment or support to refine the eastern states work to reflect the Western Australian vegetation complexes, geology and conditions. This lack of WA specific research represents a critical barrier to informing a more nuanced approach to bushfire planning policy in WA.

Since 2016, the Shire has made several representations to the State about the Guidelines, including a meeting with the Minister for Transport and Planning, DFES representatives, DoPLH Policy team and Member for Kalamunda, Matthew Hughes, MLA. The Manager Planning and Environment also continues to be actively involved in the Department of Planning, Lands and Heritage Bushfire Policy Working Group and in discussions with WALGA officers.

The point has been made that if DFES continues to take sole responsibility for the direction of the bushfire planning framework across the State, standards will be geared to eliminate bushfire risk without due consideration of other risks and impacts. Besides the costs to biodiversity and amenity, unnecessary clearing creates other risks, including erosion and land instability on steep slopes, increased land temperatures and urban heat island impacts. In some instances, DFES can unintentionally create other risks that fall outside of their responsibilities.

It was noted that every local government has different landforms, vegetation complexes, community values, emergency response, and compliance regimes. Introducing a state-wide bushfire framework without a willingness to entertain local variations will undermine the State's intent to cultivate a culture of shared responsibility.

In short, the Shire has not simply accepted the Guidelines; but, as demonstrated above, continues to actively challenge and influence the planning framework to achieve a balanced approach with the information at hand.

The policy area is complex and evolving. For example, it is presumed that the insurance industry will start aligning its policy settings with the State. This factor will undoubtedly accelerate voluntary compliance with the State agreed standards and potentially undermine efforts to enforce 'local' standards.

The following points summarise the above comment:

- Reconciling bushfire risk management and biodiversity conservation represents a complex policy issue, particularly in the face of climate change;
- The Shire has a duty of care to act in a manner which upholds the safety and welfare of its residents and their property;
- Where development rights are established, the Shire must prioritise human life over environmental considerations and must operate with the parameters of State legislation and requirements;

- Whilst there is room for interpretation, the accredited bushfire consultants (FPA members) are fundamentally wedded to and must operate within the State's bushfire planning framework;
- The Shire has a statutory obligation to achieve what it considers a reasonable and balanced outcome (site-by-site) within what is essentially a State-led risk averse bushfire framework;
- In its interpretation and application of the bushfire framework, the Shire has demonstrated its commitment to balance bushfire-safety and biodiversity; and its approach to influence design work early has been recognised at a State and National level and has arguably informed State policy;
- The Guidelines have been modified several times since 2015 and continue to evolve;
- The Guidelines have attracted a degree of weight and influence which may undermine the overarching intent of the SPP3.7. This in turn raises the question about the Guideline review process itself and whether the advertising process is broad enough to ensure informed deliberations and modifications are occurring; and
- Based on the Shire's exploration of the tree canopy requirement, there is a gap in WA relevant research and State commitments to resource research to make scientifically informed decisions as the bushfire framework evolves.

Annual Electors' Meeting

At the Annual Electors' Meeting on the 12 December 2018 the following motion was adopted:

That Council:-

- 1. Organises a public forum to hear the concerns from individuals, builders and landowners about the application of these Bushfire guidelines (BAL/BPZ/BMP) and recommendations that appear to be law;*
- 2. To identify the issues or perceived issues raised from this meeting; and*
- 3. Advocate a partnerships with other Local Governments in highlighting bushfire risk areas that share these concerns.*

For clarity, the acronyms used within the motion point (1) relate to:

BAL – Bushfire Attack Level. These are set out in the Australian Standard 3959: Construction of buildings in bushfire-prone areas (as reference in the Building Code of Australia (as amended)

BPZ – Building Protection Zones or Asset Protection Zone which are a low fuel area immediately surrounding a building.

BMP – Bushfire Management Plans. A document that sets out short, medium and long-term risk management strategies for the life of a development.

The second motion relating to bushfire planning was:

That Council:-

- 1. Investigate the appropriateness of the current interpretation of the BAL/BPZ/BMP advice for developers and development in the Mundaring Hills from both Shire staff and BAL professionals;*
- 2. Seek clarification from the controlling bodies; and*
- 3. Provide aerial photographs both pre and post of all new development over the last 5 years to see the effect of these recommendations.*

STATUTORY / LEGAL IMPLICATIONS

Investigating the appropriateness of current interpretations poses potential legal implications further explained below.

POLICY IMPLICATIONS

Nil.

FINANCIAL IMPLICATIONS

Should Council consider a forum appropriate, there would be staff and resource costs required, and no budget has been allocated at this stage. It would be recommended that a Level 3 accredited bushfire consultant be engaged to present and assist Shire officers respond to questions at the session. It would likely cost in the order of \$5,000.

The Shire's lobbying and advocacy has been occurring within current operational budget and could continue without any budget variation required.

STRATEGIC IMPLICATIONS

Mundaring 2026 Strategic Community Plan

Priority 2 - Community

Objective 2.1 – A community that is prepared for bush fire and other natural disasters

Strategy 2.1.1 – Reduce fuel loads on both private and public land

SUSTAINABILITY IMPLICATIONS

There is a community expectation that the Shire will balance bushfire risks with sound environmental management.

The Shire endeavours to achieve this within its existing statutory obligations on a case-by-case basis and its approach has been recognised at a national level.

RISK IMPLICATIONS

Risk: Reputational. To act upon these motion could raise community expectations that the Shire can make wholesale changes to the bushfire framework.		
Likelihood	Consequence	Rating
Almost Certain	Minor	Moderate

Action / Strategy
Council not support the motions but acknowledge the concerns and request the Shire continue to advocate for the State to support a local response and interpretation the Guidelines when the opportunities arise.

EXTERNAL CONSULTATION

Nil

COMMENT

That Council:-

- 1. Organises a public forum to hear the concerns from individuals, builders and landowners about the application of these Bushfire guidelines (BAL/BPZ/BMP) and recommendations that appear to be law;***
- 2. To identify the issues or perceived issues raised from this meeting; and***
- 3. Advocate a partnerships with other Local Governments in highlighting bushfire risk areas that share these concerns.***

To clarify point 1, the Guidelines have significant weight and their application is required by law. This motion seeks to establish a lobbying platform with other like-minded Local Governments.

Given the background provided, some of the key questions the motion raises include:

- If common areas of concern are defined – what next?
- While the Shire often seeks out local knowledge and understanding to inform decisions, what weight (if any) would the State give to common issues raised by those who have no expertise in fire science or risk management?
- Will other local governments have gone through the same consultation process and be in a position to engage in meaningful partnerships? What role should WALGA and/or EMRC have in providing a coordinated response and/or prioritising WA specific research?
- What resources would be required to advocate and enact change effectively to resolve any common issues raised?

The Shire is bound by the State's framework, and as stated above, continues to advocate for sensible balanced outcomes when the opportunities arise. It represents a reputational and financial risk to direct officer time to a community forum, and potentially raise expectations which cannot be delivered upon, without the resources or authority to act upon the issues and concerns raised.

The concept of forming partnerships with other local governments is general supported. The Shire has previously shared information and advocated for partnerships with other local governments, including City of Kalamunda, City of Armadale and City of Swan, specifically regarding the 85% canopy removal requirement. However, given the DFES

response and general unwillingness to entertain local variations, the need for far more work and justification, as well as resource constraints, the initiative and partnership approach was not further pursued. Again, given the gravity of the risks involved, any attempt to seek to relax any aspect of the Guidelines needs to be thoroughly understood. In the absence of this work being completed, it could be difficult to justify the establishment of partnerships across similar local governments.

Notwithstanding the officer's views, Council still may consider a public forum has merit. Should this be the case, it would be recommended that it has an education/information focus and be limited in numbers to manage costs. Given current resource commitments and priorities, it could only occur in the later part of this calendar year. To manage numbers, it would be by invitation only, with invitations sent to ratepayer associations, local bushfire consultants, local builders and representatives from adjoining local governments.

That Council:-

- 1. Investigate the appropriateness of the current interpretation of the BAL/BPZ/BMP advice for developers and development in the Mundaring Hills from both Shire staff and BAL professionals;***
- 2. Seek clarification from the controlling bodies; and***
- 3. Provide aerial photographs both pre and post of all new development over the last 5 years to see the effect of these recommendations.***

A key question regarding point one is who is best placed to undertake an independent review? And should the existing Guidelines be used as the point of reference?

To undertake a meaningful independent review, the Shire would need to engage experts with knowledge of bushfire science, fuel load management, environmental sciences and building standards. The Guidelines and bushfire framework are the only documents on which to base an assessment. A team of professionals, including a Level 3 accredited bushfire consultant, would therefore be required.

Following an extensive process and deliberation between consultants, it is probable that no agreement would be reached. If a conclusion was reached, it could either be that the Shire has 1) exercised judgment appropriately 2) been too lenient in its application of the Guidelines; or 3) has been too dogmatic. The implications of publicly concluding 2) or 3) could give rise to a series of negligence claims from the property owners, which the Shire would then have to defend. It is therefore not in the interests of the Shire or ratepayers to pursue this approach.

Point two of the AEM decision suggests clarification be requested from controlling bodies. The controlling State bodies include DFES and the DoPLH (Bushfire Policy Team), as these two State agencies are best place to clarify legislation and policy requirements. This, however, assumes that the Shire accepts the views of these agencies and the Guidelines as an appropriate point of reference.

Since DFES role was broadened to become a formal referral body, DFES has demonstrated a propensity to seek to remove risk wherever possible. The Shire must exercise judgment in a more holistic manner and seek to reduce and manage risk and balance environmental values. Hence, based on previous advice and

discussions, it would be likely that DFES would conclude that the Shire is too lenient. Again, a formal finding of this nature could set the Shire up for negligence claims, even if the judgment exercised by the Shire is - the opinion of others - sound and balanced.

The last point (3) relates to the Shire preparing aerial photographs both pre and post of all new development over the last 5 years to see the effect of these recommendations. Officers acknowledge the intent however it is unlikely to uncover what is suspected. To fulfil this request, roughly 1300 applications of pre and post development (or 2600 images) would need to be analysed. The exercise would either require additional resources or delay the completion of other work.

A complicating factor is that the bushfire planning framework has evolved over the last 4-5 years, with the State Guidelines modified several times over that period. Hence, any assessment would need to account for the timing of the development and the applicable version of the Guidelines at that time.

Further, most vegetation modification works occur to the ground and middle storey vegetation cover (approximately two metres from the ground). Analysing aerial mapping would not demonstrate the full effect of the imposition of the Guidelines. Also some vegetation may have been removed for other reasons (eg. diseased) and this may not be immediately obvious.

Initiating a specific project to assess the changes of vegetation cover would provide limited understanding about whether the Shire's interpretation is appropriate. The exercise would require significant time to complete and the outcomes are unlikely to be considered by State agencies as sufficient background research to effectively challenge and vary the Guidelines.

While not undertaken at the level of individual development applications, the Shire's overall native vegetation mapping will be updated and changes analysed through the review of the 2009 Local Biodiversity Strategy. This review and integration with other biodiversity related strategies has been identified in the draft Corporate Business Plan to begin after July 2019. The updated vegetation mapping will also inform the 'State of Environment' reporting anticipated in 2021.

Summary

There is some community apprehension and scepticism of the State's bushfire framework as it relates to Mundaring. As demonstrated, this a view somewhat shared by officers. However, there are a number of challenges and complications posed by these motions.

The Shire has an obligation to determine development applications within the parameters of State legislation and guidelines. Given 1) the gravity of the risks involved, 2) the degree of State control and 3) lack of informing research at a local level, there are significant challenges and risks to a local government (or partnership) that propose to operate outside of the Guidelines.

As the State planning bushfire framework continues to evolve and be reviewed, the Shire has actively participated and advocated for requirements that align with local vegetation types, geography and compliance regimes. It is therefore recommended Council support continued their advocacy of balanced outcomes when those opportunities arise. It is recommended that the intent of the AEM decisions be acknowledged but they not be adopted. In response to the AEM decisions, it is recommended that a letter be sent to the

relevant WA Government Ministers highlighting the need for greater and wider participation in the review of the Bushfire Guidelines and the urgent need for the State to acknowledge and fund bushfire research specific to a Western Australian context.

VOTING REQUIREMENT

Simple Majority

RECOMMENDATION

That Council:

1. resolves to note but not further consider AEM (12 December 2018) decisions 5 and 12 for the reasons detailed in the report;
2. notes the advocacy undertaken in regards to the *Guidelines for Planning in Bushfire Prone Areas* to date;
3. requests the CEO continue to advocate for changes to the *Guidelines for Planning in Bushfire Prone Areas* that balance bushfire, biodiversity and other risk considerations when the opportunities arise; and
4. writes to the Minister for Emergency Services and Minister for Planning requesting the State 1) undertake an independent review of the bushfire policy development process and State Planning Policy with a view to provide for greater transparency and participation and 2) assist in the funding of Western Australia specific research to better adapt eastern states bushfire standards into a Western Australian context.

COUNCIL DECISION MOTION		C6.04.19	
Moved by	Cr Fisher	Seconded by	Cr Green

That Council, in response to AEM (12 December 2018) decisions 5 and 12:

1. Notes the advocacy undertaken in regards to the *Guidelines for Planning in Bushfire Prone Areas* to date;
2. Requests the CEO continue to advocate for changes to the *Guidelines for Planning in Bushfire Prone Areas* that balance bushfire, biodiversity and other risk considerations when the opportunities arise;
3. Writes to the Minister for Emergency Services and Minister for Planning requesting the State:
 - a. undertake an independent review of the bushfire policy development process and State Planning Policy with a view to provide for greater transparency and participation, and
 - b. assist in the funding of Western Australia specific research to better adapt eastern states bushfire standards into a Western Australian context;
4. Requests Western Australian Local Government Association (WALGA), through East Metropolitan Zone, advocate for changes to the *Guidelines for Planning in Bushfire Prone Areas* that balance bushfire, biodiversity and other risk considerations and to support points 3 (a) and (b) above: and
5. Requests Eastern Metropolitan Regional Council (EMRC) support points 3 (a) and 3 (b) above.

CARRIED 9/1

For: Cr Daw, Cr Driver, Cr Burbidge, Cr Fisher, Cr Jeans, Cr Jones, Cr Lavell, Cr Green and Cr Brennan

Against: Cr Fox

Reasons for Change to Officer Recommendation

Including the requests to seek support from WALGA and EMRC in the motion strengthens the intent of Council's response to the AEM decisions, which is to advocate for changes to the *Guidelines for Planning in Bushfire Prone Areas* and provision of funding for Western Australia specific research to better adapt eastern states bushfire standards into a Western Australian context.

In accordance with Council Decision C5.04.19 Item 10.3 was considered at this time.

10.3 Sawyers Valley Volunteer Bush Fire Brigade - Amendment of Constitution

File Code	EM.VNT 1.1
Author	Adrian Dyson, Manager Community Safety and Emergency Management
Senior Employee	Mark Luzi, Director Statutory Services
Disclosure of Any Interest	Nil
Attachments	Nil

SUMMARY

Sawyers Valley Bushfire Brigade (SVVBFB) seeks to amend its Constitution by adopting Rules to comply with the requirements of the *Associations Incorporation Act 2015* (the AI Act 2015).

Notwithstanding consideration of the need for SVVBFB or indeed any Shire of Mundaring (SOM) Bush Fire Service brigade to remain an incorporated association, it is the will of the membership of SVVBFB to continue to be an incorporated association.

This report recommends that Council approves the amendment of the existing constitution of SVVBFB to be achieved by adopting new model rules of association.

BACKGROUND

The nine SOM Bush Fire Service Volunteer Bush Fire Brigades (VBFB's) first became incorporated associations from 1986 through to 1994, with the exception of Darling Range Volunteer Bush Fire Brigade which became incorporated in 2014.

It is understood that SOM VBFBs initially became incorporated principally due to concerns around insurance cover for volunteers and in relation to the potential liability of brigade members arising from brigade activities.

The Shire's legal advisers have previously stated in advice supplied to the Shire, "In relation to the issue of liability, it should be noted that section 37(1) of the *Fire and Emergency Authority of Western Australia Act 1988*, (now the *Fire and Emergency Services Act 1988*) a person does not incur civil liability for anything that the person has done, in good faith, in the performance of a function under that Act, the *Bush Fires Act 1954* and the *Fire Brigades Act 1942*". "Members of a bush fire brigade thus enjoy statutory Protection from civil liability to the extent that they are acting in good faith in the performance or purported performance of any function under the *Bush Fires Act 1954*".

It should also be noted that the *Shire of Mundaring Bush Fire Brigades Local Law 2013* (the BF Local Law) as adopted by Council on 13 August 2013 and gazetted on 26 August 2013 includes the following:

Schedule 1 RULES GOVERNING THE OPERATION OF BUSH FIRE BRIGADES

Schedule 1 of the BF Local Law covers a number of matters covered within VBFB constitutions/rules of association structured as per the AI Act. In addition the Shire has developed and implemented a Code of Conduct and Dispute Resolution Procedures for

VBFBs. The resolution of disputes is also covered within the model rules published under the AI Act as proposed to be adopted by SVVBFB.

The AI Act 2015, which replaces the *Associations Incorporation Act 1987* (the AI Act 1987), requires each association that was incorporated under the AI Act 1987 to update its “rules” (the new term for ‘constitution’) by 1 July 2019 to comply with the requirements of the new act.

The current SVVBFB constitution was registered with the then authority responsible, the Office of the Commissioner for Corporate Affairs, on 19 April 1994.

The clauses relating to amendments to the constitution within the existing SVVBFB constitution are detailed as follows:

20. AMENDMENTS TO THE CONSTITUTION

- 20.1 *A proposal for amendment of the Constitution may be submitted ;*
- 20.1.1 *By the Mundaring Shire Council by notification in writing to the Brigade; or*
- 20.1.2 *By the Sawyers Valley Volunteer Bush Fire Brigade;*
- a) to a Brigade Annual General Meeting; or*
- b) to a Special General Meeting called for that purpose on a notice of motion to be given at least 28 days before that meeting.*
- 20.2 *Such a proposal must be passed by a 75 percent majority vote of those present at the meeting.*
- 20.3 *When passed by the required majority at the Annual General Meeting or Special General Meeting called for that purpose, the proposal shall be submitted to the Mundaring Shire Council for approval.*

In accordance with the the above clauses of its existing constitution, SVVBFB called a Special General Meeting for the purpose of considering a motion to adopt the Model Rules of Association (as published by the Department of Mines, Industry Regulation and Safety) as its own rules. At that meeting, held on 29 January 2019, the motion was carried.

STATUTORY / LEGAL IMPLICATIONS

- Section 41 (1) of the *Bush Fires Act 1954 - Bush fire Brigades* states:

(1) For the purpose of carrying out normal brigade activities a local government may, in accordance with it s local laws made for the purpose, establish and maintain one or more bush fire brigades and may, in accordance with those local laws, equip each bush fire brigade so established with appliances, equipment and apparatus.

- Section 42A. of the *Bush Fires Act 1954 – Constitution of bush fire brigade* states:

Any group of persons however constituted and whether incorporated or not, may be established as a bush fire brigade under section 41(1) or 42(1).

- Clause 2.4 of the *Shire of Mundaring Bush Fire Brigades Local law 2013 – Rules* states;

(1) *The Rules govern the operation of a bush fire brigade*

(2) *A bush fire brigade and each bush fire brigade member is to comply with the Rules*

- Schedule 1 of the *Shire of Mundaring Bush Fire Brigades Local Law 2013 – RULES GOVERNING THE OPERATION OF BUSH FIRE BRIGADES* as referred to within clause 2.4 above covers a range of matters relating to the structure, operation and governance of a bush fire brigade, (note in this instance operation refers to the operation of the brigade as an entity and not in terms of firefighting operations, procedures etc.)

POLICY IMPLICATIONS

Nil

FINANCIAL IMPLICATIONS

Nil

STRATEGIC IMPLICATIONS

Mundaring 2026 Strategic Community Plan

Priority 2 - Community

Objective 2.1 – A community that is prepared for bush fire and other natural disasters

Strategy 2.1.2 – Support local volunteer bush fire brigades to do their job effectively and efficiently

SUSTAINABILITY IMPLICATIONS

Nil

RISK IMPLICATIONS

Risk: Reputation		
Failure of the Shire to approve amendments made in accordance with the requirements of the <i>Association Incorporation Act 2015</i> , to Sawyers Valley Volunteer Bush Fire Brigade (SVVBFB) constitution could adversely affect the reputation of the Shire, particularly within SVVBFB and the broader Bush Fire Service.		
Likelihood	Consequence	Rating
Possible	Insignificant	Low
Action / Strategy		
The above risk to the reputation of the Shire would be negated by Council approving the amendments to the SVVBFB constitution made in accordance with the <i>Association Incorporation Act 2015</i> .		

EXTERNAL CONSULTATION

This matter has been the subject of consultation with the Captain and Secretary of SVVBFB. In addition the issue of the continuing need or otherwise of Shire of Mundaring

VBFBs to remain incorporated has been the subject of consultation through the Shire's Bush Fire Advisory Committee.

COMMENT

In considering the approval of amendments to the SVVBFB constitution the existence of the *Shire of Mundaring Bush Fire Brigades Local Law 2013* (the BF Local Law) is noted.

The BF Local Law includes detailed provision for the governance and administration of VBFBs and as such the continued existence of an additional layer of governance (via incorporation and associated rules) is considered unnecessary and potentially problematic where there are inconsistencies between VBFB rules/constitutions and the requirements of the BF Local Law.

It is also noted that certain matters within the AI Act come within the scope of the State Administrative Tribunal, notably matters around dispute resolution.

Notwithstanding the above it is noted that SVVBFB has voted to adopt new rules as required of currently incorporated associations under the AI Act and thus to continue to be incorporated.

VOTING REQUIREMENT

Simple Majority

COUNCIL DECISION RECOMMENDATION		C7.04.19	
Moved by	Cr Brennan	Seconded by	Cr Burbidge

That Council approves the motion of Sawyers Valley Volunteer Bush Fire Brigade, carried at its Special General Meeting of 29 January 2019, to amend its constitution by adopting the model rules published by the Department of Mines, Industry Regulation and Safety.

CARRIED 10/0

For: Cr Daw, Cr Driver, Cr Fox, Cr Burbidge, Cr Fisher, Cr Jeans, Cr Jones, Cr Lavell, Cr Green and Cr Brennan

Against: Nil

In accordance with Council Decision C5.04.19 Item 10.4 was considered at this time.

10.4 New Policy - Community Leases

File Code	GV.OPP 1
Author	Danielle Courtin, Governance Coordinator
Senior Employee	Stan Kocian, Acting Director Corporate Services
Disclosure of Any Interest	Nil
Attachments	1. Draft Policy OR-24 Community Leases

SUMMARY

A new policy has been drafted to provide clear guidelines around lease arrangements with community groups for Shire facilities. The policy aims to ensure that the conditions subject to lease negotiations, rent subsidies in particular, are consistent, transparent and equitable across all Shire facilities and across all community groups.

It will be recommended that Council adopts the new policy "Community Leases".

BACKGROUND

While all community leases are based on the standard lease agreement template that was prepared by the Shire's solicitors in 2012, there has not been a consistent, transparent and equitable approach for determining rent or the circumstances under which the Shire may consider subsidising a prospective or existing lessee. Over the years inconsistencies have arisen, often as a result of the development of small community organisations into large(r) structures, operating in a commercial environment.

Adopting a policy will ensure that leases of Shire assets are managed appropriately to benefit and meet the expectations of the community.

STATUTORY / LEGAL IMPLICATIONS

The *Local Government Act 1995* section 3.58 and the *Local Government (Functions and General) Regulations 1996* regulation 30 set out the requirements for "disposing of property", which includes leasing, and the exemptions. The local government is not required to dispose of property by public auction, by tender or by giving public notice and considering the submissions, if the disposition is to a charitable, benevolent, religious, cultural, educational, recreational, sporting or like organisation, the members of which are not entitled to receive a profit from the organisation's activities.

The *Land Administration Act 1997* – Part 4 (Reserves) sets out the requirements for leasing on Crown Land, including Crown Land managed by Shire of Mundaring. Advice obtained from the Department of Lands makes it clear that leases on Crown Land must have a public benefit and cannot be purely commercial. Moreover the State is likely to request that a lucrative lease be excised to benefit the State, not the Shire.

The *Occupiers' Liability Act 1995* sets out the responsibilities of a landlord and a tenant. It is binding on the Crown and on Shire of Mundaring.

POLICY IMPLICATIONS

This is a new policy, drafted to provide guidance for the Shire's governance and decision-making processes.

FINANCIAL IMPLICATIONS

Having a consistent and fair approach to lease terms and rent subsidies for community leases will ensure that Shire assets are optimised and managed appropriately to meet the expectations of the community.

Charging appropriate rent based on ability to pay may also provide the Shire an increased financial return from these properties.

Valuation expenses will be borne by the Shire as and when required. The Shire's contracted valuers have indicated an average of \$1,200 plus GST per valuation.

STRATEGIC IMPLICATIONS

Mundaring 2026 Strategic Community Plan

Priority 1 - Governance

Objective 1.2 – Transparent, responsive and engaged processes for Shire decision making

Strategy 1.2.1 – Increase transparency and responsiveness of Shire administration processes

SUSTAINABILITY IMPLICATIONS

Social sustainability

Having clear guidance around leasing arrangements with community groups may assist in developing pride and a sense of belonging in the community, support not-for-profit organisations and provide opportunities for ongoing community involvement and ownership.

Governance sustainability

Having a clear policy ensures accountability, increases efficiency and effectiveness of the lease negotiation process and ensures that the Shire's assets are properly managed for the benefit of the whole community.

RISK IMPLICATIONS

Risk: Financial, Reputation

Without a policy there is no solid basis for equitable and consistent decision-making on rent setting for community leases. This may create frictions with community groups and/or the wider community.

Likelihood	Consequence	Rating
Likely	Moderate	High

Action / Strategy

Making decisions based on principles set out in a policy will ensure that all community groups are treated in a consistent, fair and transparent way.

EXTERNAL CONSULTATION

Nil

COMMENT

The draft policy was prepared after discussion amongst Elected Members at the Council Forum on 18 February 2019 and taking into account the comments made during that meeting.

Adopting the policy will create an opportunity to make the current leases progressively more consistent and fair, as the policy will apply to new leases as well as all renewals of existing leases.

VOTING REQUIREMENT

Simple Majority

COUNCIL DECISION RECOMMENDATION		C8.04.19	
Moved by	Cr Jeans	Seconded by	Cr Jones

That Council adopts Policy OR-24 "Community Leases" as per **Attachment 1**.

CARRIED 10/0

For: Cr Daw, Cr Driver, Cr Fox, Cr Burbidge, Cr Fisher, Cr Jeans, Cr Jones, Cr Lavell, Cr Green and Cr Brennan

Against: Nil

Shire of Mundaring

POLICY**COMMUNITY LEASES**

Policy Ref:	OR-24
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Adopted:**Date:****Amended:****Date:****Reviewed:****Date:****Procedure Ref:****Delegation Ref:** CE-117**Statute Ref:**

Local Government Act 1995 – section 3.58 (Disposing of property)
Local Government (Functions and General) Regulations 1996 – regulation 30 (Exempt dispositions)
Land Administration Act 1997 – Part 4 (Reserves)
Occupiers' Liability Act 1995

Local Law Ref:

N/A

PURPOSE

To ensure that:

- a consistent, transparent and equitable approach for the process of the Shire entering into a formal lease agreement with community groups to occupy Shire owned or managed land and buildings; and
- Shire leased assets are managed appropriately to optimise the benefit to and meet the expectations of the community.

POLICY**1. DEFINITIONS**

Lease	Exclusive occupancy agreement
Licence	Non-exclusive occupancy agreement (shared use)
Community group	<ol style="list-style-type: none"> 1. incorporated not for profit group or association of persons with the primary aim of conducting activities and providing services for community benefit; and 2. relies predominantly on volunteer labour, community fundraising, membership fees and donations; and 3. may receive state or federal government operational grants and may rely on a fee for service business model
Community lease	A lease between the Shire and a community group
CPI	Consumer Price Index. For the purpose of this policy CPI means the Perth All Groups CPI rise for the March quarter of

	the year, as determined by the Australian Bureau of Statistics
Market rent	The annual rent amount the Shire might reasonably expect to receive, and a lessee might reasonably expect to pay, for a tenancy. Market rent value is determined by a licensed valuer.

Throughout this policy, the word “lease” includes “licence”.

2. SCOPE

This policy applies to all new community leases for community groups, including renewal of leases on expiration of current leases. It does not cover commercial leases with business entities, as these will be negotiated on a case by case basis.

Shire of Mundaring Bush Fire Brigades are excluded from this policy: while these are community groups, they are an integral part of the Shire under the *Bush Fires Act 1954* and the Bush Fire Brigades Local Law 2013 and do not require a lease.

3. ELIGIBILITY FOR A COMMUNITY LEASE

Groups meeting the definition of a community group and who request exclusive or non-exclusive use to operate community activities from a leased facility, are eligible to apply for a community lease in accordance with this policy.

When assessing applications, the Shire will consider factors including the following criteria:

- the organisational structure of the group:
 - ✓ group is incorporated under the *Associations Incorporation Act 2015*;
 - ✓ group has an Australian Business Number (ABN);
- financial viability of the group:
 - ✓ proven financial viability, backed up by annual financial statements;
 - ✓ compliance with relevant legislation governing the activities of the group;
 - ✓ holds all relevant licences and approvals to operate;
- the community benefit of the proposal:
 - ✓ lease will increase social engagement and/or promote the health and well-being of the community;
 - ✓ meets a high level of need in the community or responds to a community demand for the service or activity;
 - ✓ without this service provision the Shire may be required to provide an additional service or the service would not be available to the community at all;
 - ✓ group's Rules of Association enable non-discriminatory membership, i.e. open to all residents who wish to participate in that service or activity;
 - ✓ group's fees are reasonable and accessible;
- the suitability of the site for the specific purpose;

- the alignment of the proposal with the Shire's objectives as articulated in the Shire's Strategic Community Plan; and
- for Shire-owned freehold premises: the alignment of the proposal with the Shire's Property Strategy, in which freehold property is distinguished in three categories:
 1. social, community and civic purposes;
 2. economic purposes; and
 3. investment purposes.

4. STANDARD COMMUNITY LEASE

4.1 The community lease, developed by the Shire's solicitors, with standard terms and conditions, roles and responsibilities, as amended from time to time, will be executed between the Shire (lessor) and each community group (lessee) wishing to occupy Shire premises.

4.2 The term of the lease is negotiable taking into account the particular circumstances of the property and of the proposed lessee.

4.3 Insurance

All community groups are required to obtain Public Liability Insurance for a minimum cover of \$20,000,000. A Certificate of Currency must be produced by the community group before the signing of the lease and thereafter every twelve months.

5. RENT SUBSIDIES

Subsidising rent is an indirect form of financial support from ratepayers to community groups and should only be considered if the community group can demonstrate benefits to the entire community (inclusive benefit) or to a particular section of the Shire community (exclusive benefit).

To ensure fair and transparent treatment, the Shire will assess community groups according to their capacity to raise revenue and assign them to one of three rent subsidy categories:

	Category A	Category B	Category C
	Peppercorn rent	Community rent	Market rent, discounted where appropriate
Rent setting	annual rent is \$1 per annum plus GST, payable in advance for the duration of the term of the lease	Determined by the size of the leased area: B1: areas up to 999sqm - \$500 per annum plus GST B2: areas 1,000sqm up to 4,999sqm - \$1,100 per annum plus GST	full market rent with any discount based on the Shire's assessment of the group's community benefit

		B3: areas 5,000sqm and over - \$1,700 per annum plus GST	
Indicators of eligibility for rent subsidy	no revenue raising capacity from activities consistent with the group's purpose	limited capacity to generate revenue from activities consistent with the group's purpose	ability to raise revenue and charge fees from activities consistent with the group's purpose
	no access to other funding sources	service or activity is non-discriminatory, i.e. open to all residents who wish to participate in that service or activity	access to substantial government grants (federal, state or local)
	without this service provision the Shire would be required to provide an additional service	service or activity is extensively used by specific sections of the community (youth, seniors, etc.)	commercial activities may include, but are not limited to regular bar and food activities, retail shop sales, fee for service at commercial rates
	meets a high level of need in the community	limited access to other sources of funding (no more than 10% of total revenue)	significant administration resources, such as paid staff, office equipment etc.
	run exclusively by volunteers	run exclusively by volunteers	run by paid staff or paid staff and volunteers

All community lease rents, other than peppercorn rents, will be indexed annually for CPI.

Full market rent discounts (Category C):

Full market rent will be applied where the community group's annual rent is less than 5% of its ongoing operating revenue (or estimated operating revenue where the group is newly established). Operating revenue excludes any capital grants.

Where full market rent would account for more than 5% of the group's annual operating revenue or estimated revenue, the Shire may provide a subsidy on the following basis:

- 50% discount if the group demonstrates an inclusive benefit;
- 25% discount if the group demonstrates an exclusive benefit.

The level of financial support provided will be recognised by charging lessees full market rent and in the same transaction deducting the annual rent subsidy, where the Shire has approved such subsidy. This will result in full transparency as to the level of support each group receives from the Shire.

Review of financial support:

For newly established groups, whose subsidy is based on estimated revenue, the Shire will review its financial support upon receipt of two consecutive annual financial statements from the group. Adjustments resulting from such a review will not be retrospective.

If during the course of a lease a community group experiences significant changes to its operation, the group may request the Shire to review their assessment by providing substantiated proof of their changed conditions. Adjustments resulting from such a review will not be retrospective.

6. LEASE RENEWAL FOR EXISTING LESSEES

The CEO has delegated authority (CE-117) to renew lease agreements with existing lessees or negotiate new lease agreements with existing lessees whose lease has expired. During this process, the following criteria will be considered:

- There remains a strong demand in the community for the continuation of the lessee's activities or services;
- The facility is not required by the Shire for other purposes;
- Renewal of the agreement will continue to maximise benefits to the community and the Shire; and
- The lessee has not been consistently in breach of their obligations under the existing agreement.

In accordance with Council Decision C5.04.19 Item 10.5 was considered at this time.

10.5 Shire of Mundaring become a Refugee Welcome Zone

File Code	CS.SPG
Author	Shannon Foster, Manager Libraries and Community Engagement
Senior Employee	Megan Griffiths, Director Strategic & Community Services
Disclosure of Any Interest	Nil
Attachments	1. Refugee Welcome Zone Example Declaration

SUMMARY

Community member, Dr Trudy Rosenwald, has approached the Shire for Council to consider the Shire becoming a Refugee Welcome Zone. This proposal was presented to the Cultural Advisory Group who were supportive as this, as it is aligned to the Shire's strategic objective of '*residents of all ages, needs and backgrounds are engaged and supported by their community*'. This report provides information on this program.

It is recommended Shire of Mundaring participate in this initiative as a way to further support its culturally and linguistically diverse community members.

BACKGROUND

In mid 2018 Dr Trudy Rosenwald, a resident of Mt Helena and advocate for the rights of refugees and asylum seekers, met with Cr. Kate Driver and the Manager Libraries and Community Engagement to discuss the concept of a Refugee Welcome Zone for Shire of Mundaring.

A Refugee Welcome Zone is a local Government area that makes a broad declaration of commitment to welcoming refugees into the community, upholding their human rights, demonstrating compassion and enhancing cultural and religious diversity. The intent of this commitment is to recognise the valuable contributions made by refugees to Australia and to foster links between Councils on the challenges faced by refugees and asylum seekers.

The proposal was presented to the Cultural Advisory Group in August 2018 for discussion, with the Group endorsing the concept and requesting it be brought before Council for consideration.

It is recommended the Shire of Mundaring becomes a Refugee Welcome Zone. This initiative promotes inclusion, encourages active community participation, support and recognition of the valuable contributions culturally and linguistically diverse people make to our community.

STATUTORY / LEGAL IMPLICATIONS

Nil

POLICY IMPLICATIONS

Nil

FINANCIAL IMPLICATIONS

There are no financial commitments made when signing the Declaration.

STRATEGIC IMPLICATIONS

Mundaring 2026 Strategic Community Plan

Priority 2 - Community

Objective 2.2 – Residents of all ages, needs and backgrounds are engaged and supported by their community

Strategy 2.2.4 – Facilitate increased multi-cultural awareness

SUSTAINABILITY IMPLICATIONS

Social

- Sustain and enhance community knowledge, capability and leadership;
- Meet the needs of the broader community now and into the future;
- Provide cultural opportunities and/or facilities for all sectors of the community;
- Provide opportunities for cultural and social interaction within all sectors of the community;
- Support multiculturalism and indigenous communities;
- Develop community pride and sense of belonging; and
- Identify, acknowledge, protect, enhance, manage and promote cultural, natural and indigenous heritage

RISK IMPLICATIONS

Risk: Reputational - Should Council determine that it does not wish to sign the Declaration to become a Refugee Welcome Zone, the community may form the view that it is not acknowledging the contribution culturally and linguistically diverse communities make to the Shire.		
Likelihood	Consequence	Rating
Unlikely	Minor	Low
Action / Strategy		
This risk may be mitigated by clearly communicating the reasons behind Council's decision.		

EXTERNAL CONSULTATION

Consultation has occurred with Dr Trudy Rosenwald and members of the Cultural Advisory Group.

COMMENT

The Shire of Mundaring Strategic Community Plan, Mundaring 2026, includes as a priority the facilitation of increased multi-cultural awareness. This report outlines an initiative by the Refugee Council of Australia to see the creation of Refugee Welcome Zones across the country.

A Refugee Welcome Zone is a local government area that makes a broad declaration of commitment to welcoming refugees into the community, upholding their human rights, demonstrating compassion and enhancing cultural and religious diversity.

The intent of this commitment is to recognise the valuable contributions made by refugees to Australia and to foster links between Councils on the challenges faced by refugees and asylum seekers.

To become a Refugee Welcome Zone, the Council signs a Refugee Welcome Zone Declaration. Currently there are 161 Refugee Welcome Zones registered across Australia; nine of these are in Western Australia – the Cities of Bayswater, Fremantle, Subiaco, Vincent and the Shires of Augusta-Margaret River, Katanning, Manjimup and the Towns of Bassendean and Victoria Park.

The concept of becoming a Refugee Welcome Zone was tabled at the Cultural Advisory Group on 16 August 2018. All members welcomed the initiative and recognised the Shire currently raises awareness of diversity in the community through a number of initiatives. The Shire has introduced and continues to deliver a number of activities that align with the intent of the Declaration. Such activities include the hosting of annual Harmony Day activities, delivery of relevant library services, supporting local community groups, providing capacity building workshops and through provision of community and event grants. All members of the Cultural Advisory Group agreed the Shire should celebrate the initiatives already in place for the benefit of local community and believed the signing of the Declaration was a way to do this.

The Refugee Council of Australia has reported that the initiative has proven to be a great success in demonstrating local government's connectedness with the issues facing refugees and asylum seekers. By making a public commitment Local Governments also acknowledge the contribution refugees have made to Australian society in many fields, including medicine, science, engineering, sport, education, the arts, business and commerce.

Should Council endorse the recommendation to sign the Declaration it would not confer any formal obligations or financial commitments. The signing of the Declaration is simply a way of demonstrating broad support for the principles it contains. Any actions or activities undertaken by Refugee Welcome Zones are voluntary. By making a commitment to become a Refugee Welcome Zone, Council would demonstrate actions towards achieving the aspirations of the Strategic Community Plan to celebrate and facilitate increased multicultural awareness.

The process for becoming a Refugee Welcome Zone involves Council signing a Refugee Welcome Zone Declaration similar to the template outlined in **Attachment 1**. This could state;

"Council declares the Shire of Mundaring a Refugee Welcome Zone. This Declaration is a commitment in spirit to: Welcoming refugees into our community, Upholding the Human Rights of refugees, Demonstrating compassion for refugees and enhancing cultural and religious diversity in our community."

Once signed, the declaration is then usually placed in a prominent place within the Local Government's Civic Building. It is recommended that Council declares the Shire of Mundaring as a Refugee Welcome Zone to demonstrate broad support for the principles - promoting harmony, social cohesion and respect for refugees within the community.

VOTING REQUIREMENT

Simple Majority

COUNCIL DECISION RECOMMENDATION		C9.04.19	
Moved by	Cr Driver	Seconded by	Cr Fox

That Council approves the Shire of Mundaring becoming a refugee welcome zone and authorises the Shire President to sign the Refugee Welcome Zone Declaration (**Attachment 1**).

CARRIED 10/0

For: Cr Daw, Cr Driver, Cr Fox, Cr Burbidge, Cr Fisher, Cr Jeans, Cr Jones, Cr Lavell, Cr Green and Cr Brennan

Against: Nil

(Council crest/logo)

The _____ Council,

Declares the Council of _____ a

Refugee Welcome Zone

This Declaration is a Commitment in Spirit to

Welcoming refugees into our community,

*Upholding the **Human Rights** of refugees,*

*Demonstrating **Compassion** for refugees and*

*Enhancing cultural and religious **Diversity** in our community.*

[name and title of signatory]

Date: _____

This Declaration is proudly supported and endorsed by the



**Refugee Council
of Australia**

The Refugee Council of Australia is a peak national organisation representing over 1000 organisational and individual members. The aim of the Refugee Council is to promote the adoption of flexible, humane and constructive policies toward refugees, asylum seekers and displaced persons by the Australian and other Governments and their communities.

10.1 Structure Plan 77 - Various lots - Lion Street, Bernard Street, Dean Street, Johnston Street, Hummerston Street Mount Helena

File Code	PS.TPS 4.3.077
Author	Liam Sexton, Planning Officer
Senior Employee	Mark Luzi, Director Statutory Services
Disclosure of Any Interest	Nil
Attachments	<ol style="list-style-type: none">1. Structure Plan (Plan) ↓2. Structure Plan (Report) ↓3. Subdivision Concept Plan ↓4. Summary of Submissions ↓5. Local Water Management Strategy (revised) ↓6. Bushfire Management Plan (revised) ↓7. Flora and Vegetation Assessment ↓8. Indicative Staging Plan ↓

Landowner	Multiple. Refer Attachment 2.
Applicant	Statewest Planning
Zoning	Urban (MRS); Development (LPS4)
Area	42.77ha

SUMMARY

Structure Plan 77 (SP77) has been advertised and assessed. Council is now invited to make a recommendation to the Western Australian Planning Commission (WAPC).

The area relates to 42.77ha of land southeast of the Mount Helena townsite. The structure plan guides future subdivision of the subject properties, including residential densities, local parks, future roads / infrastructure and the management of important environmental features.

The advertising process highlighted general support with some concerns regarding the protection of key environmental features, particularly Charlotte Creek.

Overall, officers are of the view that the structure plan as proposed provides a sound basis for ensuring future subdivision proposals respond to the specific site constraints – provided some modifications are made.

It is recommended Council supports the proposed structure plan, subject to modifications which, amongst other things, better safeguard water quality, vegetation and link the open space with the Heritage Trail and Mount Helena townsite.

BACKGROUND

Acronyms and Abbreviations	Meaning
Bushfire Guidelines	Guidelines for Planning in Bushfire Prone Areas (WAPC / DFES)
DFES	Department of Fire and Emergency Services
DoH	Department of Health
DPLH	Department of Planning, Lands and Heritage
DWER	Department of Water and Environment Regulation
Health Regulations	Health (treatment of sewerage and disposal of effluent and liquid waste) Regulations 1974
Heritage Trail	Railway Reserves Heritage Trail
LPS	Local Planning Strategy
LPS4	Local Planning Scheme No. 4
MRS	Metropolitan Region Scheme
MRWA	Main Roads Western Australia
POS	Public Open Space
Regulations	<i>Planning and Development (local planning scheme) Regulations 2015</i>
SPP <ul style="list-style-type: none"> SPP2.5 SPP3.7 	State Planning Policy - Rural Planning Planning in Bushfire Prone Areas
SP77	Structure Plan 77
Subject properties	Lots 29, 30 and 32 Johnston Street Lots 28, 1, 2, 3, 35, 36, 37 and 38 Bernard Street Lots 11, 12, 13, 39 and 42 Lion Street Lots 40 and 41 Hummerston Street, and Lots 100 and 101 Dean Street, Mount Helena
SWALSC	South West Aboriginal Land and Sea Council

WAPC	Western Australian Planning Commission
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The Shire's Local Planning Strategy (LPS) sets out the long term (10-15 years) planning for the Shire. In response to forecast growth within the Shire and consistent with the LPS objective to incrementally expand some townsites, the LPS provides the following support for residential development in the structure plan area:

“Investigate potential for residential expansion on land southeast of the Mount Helena local centre, being the area bounded by Johnston Street, Hummerston Street, Lion Street and Elliott Road, but excluding land which is primarily uncleared or unsuitable for effluent disposal”

In December 2011, a proposed amendment to the Metropolitan Region Scheme (MRS) was lodged with the WAPC, on behalf of multiple landowners within the structure plan area. The proposal was to rezone the land bound by Elliott Road, Lion Street, Hummerston Street and Johnston Street, Mount Helena from 'Rural' to 'Urban'.

The proposed area to be rezoned was revised to exclude eight vegetated properties on the periphery of the area. An amendment to the MRS (1277/57) was subsequently initiated by the WAPC with this revised plan.

On 6 October 2017, the MRS was amended to rezone the subject properties from 'Rural' to 'Urban'. Local planning schemes are required to align with the MRS. Consequently, Local Planning Scheme No. 4 (LPS4) was amended on 2 October 2018 to rezone the subject properties from 'Rural Residential' to 'Development', providing for final residential densities to be determined by an approved structure plan.

SP77 excludes those properties with no further subdivision potential under the current zoning.

Purpose

As defined by the WAPC (Structure Plan Framework), the purpose of structure planning is to provide the basis for zoning and subdivision of land. Structure plans are required to identify the road layout that will be used to guide subdivision, as well as designate the type and location of future public open space (POS).

It is not the intent of structure plans to resolve all potential issues associated with subdivision, but to ensure individual subdivisions do not prejudice the coordinated development of an area. For this reason, structure planning is particularly important to coordinate an outcome across multiple, adjoining properties that have subdivision potential.

STATUTORY / LEGAL IMPLICATIONS

The Regulations provide for the creation of structure plans, including their form, content and effect. Although the Shire's LPS4 has separate provisions for the preparation of structure plans, these have become (in effect) replaced by Schedule 2 (deemed provisions for local planning schemes) of the Regulations, gazetted in 2015.

The WAPC remains the determining authority for structure plans. In accordance with the Regulations, the Shire is required to provide a report to the WAPC, which includes:

- a list of submissions and any comments by the Shire in respect of those submissions;
- an assessment of the proposal based on appropriate planning principles; and
- a recommendation on whether the proposed structure plan should be approved by the WAPC, including any modifications.

The Regulations require the Shire provide a recommendation to the WAPC within 60 days from the conclusion of advertising. Pursuant to Schedule 2, Clause 20(1)(c) of the *Planning and Development (Local Planning Schemes) Regulations 2015*, the WAPC approved an extension to no later than 16 April 2019. A Council decision is required within that timeframe, otherwise WAPC could determine the proposal without a Council resolution and the Shire's influence would therefore be compromised.

POLICY IMPLICATIONS

Shire of Mundaring

Local Planning Strategy

The Shire's Local Planning Strategy (LPS) guides the long term planning within the Shire. The LPS supports residential development of the structure plan area at R5 and/or R2.5 density, subject to:

- on-site investigation demonstrating adequate effluent disposal;
- adequate protection of, and setback from, Charlotte Creek;
- adequate stormwater management; and
- appropriate integrated subdivision design across the area to retain Local Natural Areas as far as practicable.

These issues form the basis for the assessment of the structure plan. The fragmented land ownership raises other challenges; for example, the practicalities of staging / implementation and landowner equity. It is important Council is even-handed in its consideration across multiple landowners within the context of responding to different specific site constraints.

Local Planning Policy PS-08 – Street Trees

The Shire's Street Trees policy seeks to:

*“increase the tree canopy cover within the Shire's road reserves and mitigate the urban heat island effect, support biodiversity and enhance the character and amenity of local streets; and
...outline the Shire's expectations in relation to proposals requiring or impacting upon street trees within Shire managed road reserves.”*

Policy measure 3.1 requires that new roads are a minimum of 16m in width, to provide sufficient space within the verge for street trees on both sides of the street. SP77 complies with this requirement.

Policy measure 3.3 requires structure plans to be designed to:

- a) maximise opportunities to retain existing trees as future street trees; and
- b) incorporate new street tree planting.

SP77 is consistent with (a). The new road reserve connecting Lion Street to Bernard Street is 20m in width, providing opportunity to retain potential habitat trees within the road reserve and minimising the impact on native vegetation from other infrastructure works within the verge. This is supported as an appropriate response to the existing LNA quantity.

Future subdivision proposals would potentially require additional street trees. This would depend on the situation, including the retained vegetation within the verge and upgrade works required immediately adjoining the subject site.

Western Australian Planning Commission

State Planning Policy 3.7 (SPP3.7) - Planning in Bushfire Prone Areas

SPP3.7 is to be read in conjunction with the Bushfire Guidelines. The aim of these documents is to ensure risk-based planning is used to mitigate against the impacts of bushfire and ensure proposed development preserves life and reduces the impact of bushfire on property and infrastructure.

State Planning Policy 2.5 (SPP2.5) - Rural Planning

Although SPP2.5 provides for all aspects of rural planning, its relevance to this proposal relates to the protection of existing rural land uses against potentially sensitive land uses associated with urban encroachment.

FINANCIAL IMPLICATIONS

Nil

STRATEGIC IMPLICATIONS

Mundaring 2026 Strategic Community Plan

Priority 4 - Built environment

Objective 4.2 – Community needs are considered in planning for the future

Strategy 4.2.1 – Promote and facilitate the planning and development of affordable residential options, without compromising amenity of area

SUSTAINABILITY IMPLICATIONS

There are various sustainability implications of the proposed structure plan.

The Structure Plan will facilitate future residential subdivision, which will assist in the economic sustainability of the Mt Helena local centre, and the subdivision and dwelling construction phase will also generate economic activity.

Water quality and management is the key environmental issue within the study area and treatment and enhancement is important. Measures to preserve and enhance the waterways, retain vegetation and mitigate bushfire risk are more fully discussed in the report below.

Public open space is proposed for the benefit of the future residents. It is noted that the typical lot sizes proposed (2000sqm - 4000sqm) are significant and allow opportunities for recreation on private property. The SP layout anticipates only 6% being provided within the structure plan area, compared to the standard 10%. Officers suggest formalised POS should be concentrated within the Mount Helena village centre, as there are extensive passive recreation opportunities in the surrounding area. Directing the remaining POS contributions to fund improvements to the Mount Helena village centre POS (e.g. Pioneer Park) will help activate this important community hub. This approach also assists in sustaining the Shire's POS management, while improving POS infrastructure in an area strategically important for place activation.

RISK IMPLICATIONS

Risk: Natural Environment		
Further development in proximity to both overland watercourses and ground water has the potential to reduce the condition of these systems, due to nutrient loading and/or microbial contamination.		
Likelihood	Consequence	Rating
Possible	Moderate	Moderate
Action / Strategy		
Ensure residential densities result in land sizes which provide for adequate separation between future onsite effluent disposal systems and watercourses.		
Ensure appropriate system type (e.g. ATU's) where onsite effluent disposal systems are to be used in areas at greater risk of contamination of watercourses.		
Provide flexibility in determining future lot sizes where further detail is required to justify smaller (2000sqm) lot sizes. A density range is proposed for these lots.		

EXTERNAL CONSULTATION

The proposal was advertised to 180 landowners / occupiers within and surrounding the proposed structure plan area.

The Shire received 48 submissions from members of the public. Of these, five submitters objected and 30 submitters supported the proposal. The remaining 13 submitters raised concerns and/or provided alternative design responses.

The consistent theme raised within public submissions is environmental protection and specifically the protection and enhancement of Charlotte Creek.

The proposal was also advertised to the Mount Helena, Sawyers Valley and Chidlow resident and ratepayer / progress associations, in addition to 25 agencies and infrastructure providers potentially affected by the proposal. Of these, 16 submissions were received.

DFES notes that, since its objection to the MRS Amendment, there have been improvements to the 'indicative subdivision design concept'. Although the indicative subdivision design is not strictly subject to the decision before Council and WAPC, it provides some insight into the likely design response. DFES requests the resolution of some issues and additional information before it can fully support the proposal.

While DFES comments have been carefully considered and integrated into modifications where possible, there was insufficient time to resolve the matters with DFES. Further, the suggested modifications have implications on the scope of the lodged Bushfire Management Plan (BMP). Accordingly, it is appropriate that the Shire make its recommendation to the WAPC. The WAPC can then determine the manner in which the BMP should be modified to address matters raised by DFES and align the proposal with SPP3.7. This approach also avoids the potential for multiple changes to the BMP.

MRWA does not support the structure plan in its current form and has requested additional information (refer Attachment 4 and 'road network' assessment further). As SP77 does not directly adjoin or direct impact on the functionality of Great Eastern Highway, the MRWA concerns are not considered significant.

The common issues raised by respondents are addressed within this report.

COMMENT

Supporting information

Any planning proposal must provide information relevant to the site and commensurate with the scale of planning being undertaken.

Numerous submissions received during the advertising period questioned the level of detail and accuracy of the information contained within the supporting documentation, with some suggesting that the structure plan should not be approved until more information is provided.

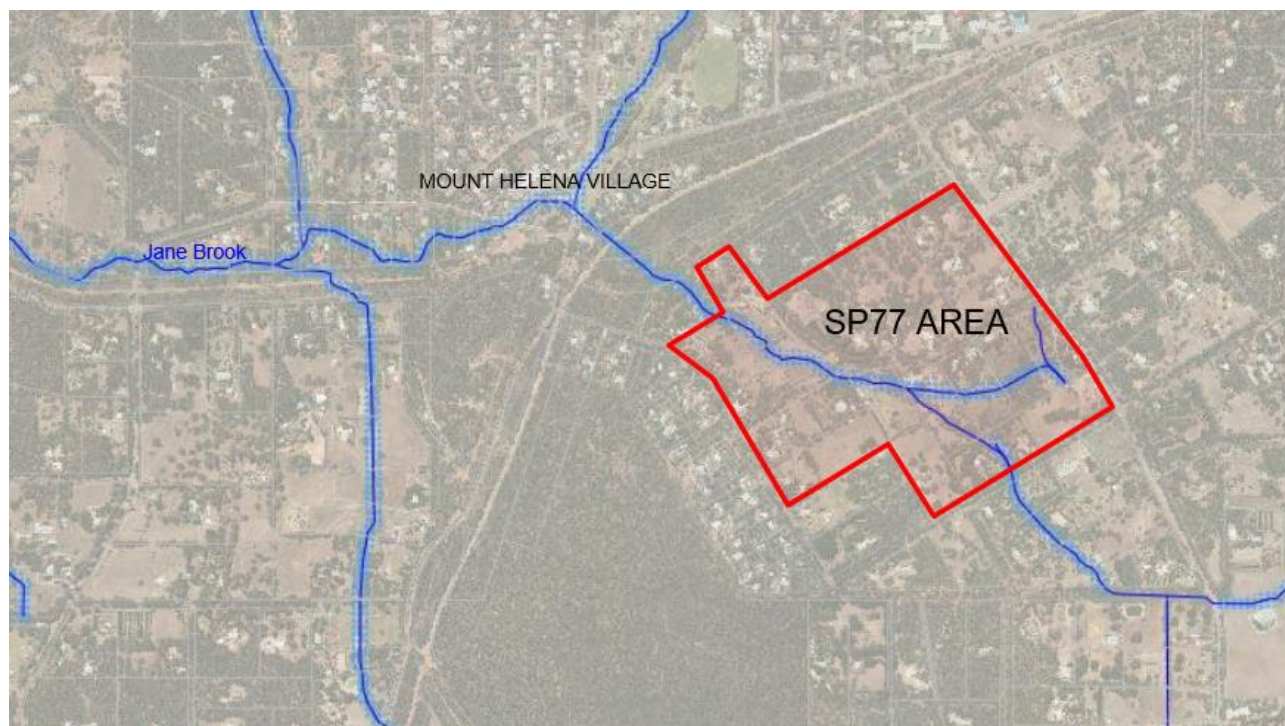
Notwithstanding that further details may be required prior to the WAPC approving a plan of subdivision, Clause 24 of the Regulations allows the WAPC to approve a structure plan where those further matters would not result in a substantial departure from the plan. Whether or not a matter requiring further details is likely to result in a substantial departure from the plan remains at the discretion of the WAPC.

From the Shire's perspective, protecting the environmental features, particularly the natural water systems and the bushfire mitigation, represent key issues which can have structural implications on the plan. Delays have occurred to allow the applicant to respond to officer enquiries regarding the stormwater and effluent disposal approach as well as bushfire management.

Charlotte Creek

Charlotte Creek and a secondary feeder watercourse dissect 10 of the subject lots. Charlotte Creek feeds from the south east of the subject land and flows in a predominantly north westerly direction into Jane Brook, via Pioneer Park in the Mount Helena village centre. Refer Figure 1 below.

Figure 1: Shire of Mundaring watercourse mapping



The protection and enhancement of Charlotte Creek was a key issue identified within the public submissions, with concerns raised by 18 submitters.

LPS4 provides minimum development setbacks to watercourses in the residential zone of 20m. Watercourse setbacks for effluent disposal systems are generally 30m, as discussed further (effluent disposal). These setbacks can be achieved for the majority of the lots shown in the indicative lot layout (**Attachment 3**).

The indicative lot layout (**Attachment 3**) shows additional lot boundaries crossing the watercourses. To minimise potential impacts from private access, watercourse crossings should be limited to one crossing to be coordinated between adjoining landowners. It is recommended the structure plan be modified to reflect this principle.

The protection of Charlotte Creek is discussed below (refer Effluent disposal and POS assessments).

Wetland

The Shire's mapping identifies an existing wetland within Lot 38 Bernard Street. The wetland appears to have been historically cleared for intensive agriculture. While pockets have naturally revegetated over the past 10-20 years, the existing riparian vegetation is not pristine.

The proposal identifies Lot 38 to be coded Residential R5 (minimum 2000sqm). The indicative lots (**Attachment 3**) provide a suitable area for development setback from the wetland, however the area of these lots ranges from 6000sqm to 8000sqm; significantly larger than the minimum provided by an R5 coding. An appropriate coding, more relevant to the achievable lot configurations and consistent with the indicative lot layout, is R2.5 (4000sqm). An R2.5 coding will also provide additional vegetation protection for the wetland area under LPS4 (applying to R2.5 lots greater than 4000sqm).

It is recommended that the structure plan be modified to provide a density coding to Lot 38 Bernard Street of Residential R2.5.

Vegetation protection

Private properties within the structure plan area are predominantly pasture cleared, with disconnected pockets of both introduced and native vegetation. There are also some 'degraded' to 'good' areas of native vegetation within the proposed structure plan area. The areas of 'good' vegetation generally correlate with the Shire's mapping of Local Natural Area (LNA). Refer to the areas circled green in Figures 2 and 3 below.

Figure 2: Flora and vegetation survey



Figure 3: Shire LNA mapping



The existing road reserves are well established with native vegetation. Where possible and in consideration of bushfire risk and infrastructure servicing requirements, subdivision applications will be required to demonstrate retention of roadside vegetation in accordance with Shire policy.

Several public submissions and referral agencies proposed that:

- Further environmental studies are required to assess the onsite vegetation; and
- Existing native vegetation should be protected within public open space to provide fauna habitat, protect and improve wildlife corridors and generally conserve and enhance the ecology of the area.

Sustainable planning decisions must consider all issues on balance. Officers have considered various scenarios to retain areas of good vegetation intact, including retention of vegetation within additional POS reserve(s) and reduced residential density (e.g. R2.5) for those properties identified as having 'good' quality or other intact vegetation.

Such scenarios inevitably present their own issues such as the need for public access to POS, reduced lot yield (which in turn compromises the viability of road connections) and additional bushfire risk.

Ultimately, reducing lot yield to protect large areas of vegetation somewhat conflicts with the intent of the SP77 and Shire's Local Planning Strategy (LPS), which aim to consolidate urban growth in proximity to Mt Helena town site. During the consideration of the MRS amendment, five lots immediately south of Elliott Road Reserve (and north of the SP77 area) were excluded from the Urban zoned area because of the extent of existing native vegetation (Marri-Jarrah Woodland). From a district perspective, a large amount (approximately 75ha) of natural bushland within a 1km radius of the Mount Helena village centre is currently reserved for conservation, parks and recreation.

Similarly, to improve safety in the event of a bushfire, SPP3.7 requires residential areas to be separated from natural bushland by low threat vegetation. Typically, this requires vegetation to be at least 'parkland cleared' and subsequently managed thereafter. By its nature, this results in modification (including the removal) of natural bushland, particularly low and mid-storey vegetation.

The proposal provides a balanced and practical approach to the retention of native vegetation in an urban development context. The protection and enhancement of vegetation within the structure plan area is prioritised to the foreshore areas of watercourses and the retention of both habitat and other significant trees where possible elsewhere. Importantly, the proposed road reserve connecting Lion Street and Bernard Street is 4m wider than the other new roads in the structure plan area, allowing greater retention of native vegetation and flexibility on infrastructure alignments. The viability of this road is an important consideration for the retention of significant trees in road verges in perpetuity. The proposed R5 coding in this area is considered an appropriate balance to ensure the viability of this wider road being constructed – and in a manner which provides flexibility to retain significant vegetation.

LPS4 provides for the protection of vegetation on Residential land where identified for preservation via an approved structure plan or subdivision. In considering bushfire risk and the objectives of the LPS, it is desirable that vegetation retention, outside of those watercourse riparian areas, be limited to any significant mature trees identified via the subdivision application process.

It is recommended that the following additional detail be provided and approved by the WAPC, prior to the WAPC supporting subdivision of relevant properties.

- Habitat/significant tree survey, retention and removal plans;
- Foreshore Management Plan to retain existing vegetation and propose new planting (where lots intersect or are within 30m of Charlotte Creek);
- Bushfire Management Plan which considers the retention of habitat trees and foreshore rehabilitation.
- Detailed design for construction of the 20m road reserve which demonstrates an alignment which appropriately responds to the retention of significant trees and the coordination with other infrastructure requirements.

Bushfire

Refer **Attachment 6**: Bushfire Management Plan (BMP)

DFES raises a number of issues to be addressed, prior to providing its support for the proposal. DFES acknowledges its advisory role in decision making. A summary of DFES concerns, the applicant's response and officer comments are provided in the table below:

Table 3: Summary of issues raised by DFES

DFES Issue	Applicant response	Officer Comment
DFES welcome the improvements made subsequent to the MRS amendment. The improvements include the reconfiguration of lot layout and the removal of battle-axe lot design.	Support for modifications noted. Each planning process allows for greater level of detail to be provided at each step; in our opinion, a few of the items raised by DFES are more relevant to the subdivision process.	N/A
<p>Siting and design – The site is adjacent to extreme bushfire hazard.</p> <p>In order to separate developed areas and provide fire service access, hazard separation needs to be increased through the provision of perimeter access and/or managed POS.</p>	<p><i>(comments include a response to DFES' further recommendation of a Fire Service Access Route [FSAR] through Lots 28 and 29)</i></p> <p>The provision of a road would require construction over the creek.</p> <p>The gradient on lot 29 is 12%, SPP 3.7 requires a maximum of 10%.</p> <p>The provision of POS (for additional separation) would be an additional burden on the Shire and would not achieve the intention of POS.</p> <p>There is not a requirement under SPP3.7 for an entire subdivision to be separated from a fire hazard by either a road or crown land.</p>	<p>Confirmed.</p> <p>Confirmed. The Bushfire Guidelines provide a maximum FSAR slope of 10%.</p> <p>Officers generally agree.</p> <p>Confirmed. However, officers have identified an alternative opportunity to improve bushfire mitigation access via the proposed POS link between Dean Street and the Heritage Trail, in a similar way that the existing Heritage Trail provides controlled vehicle access for maintenance to its bushland reserve. This</p>

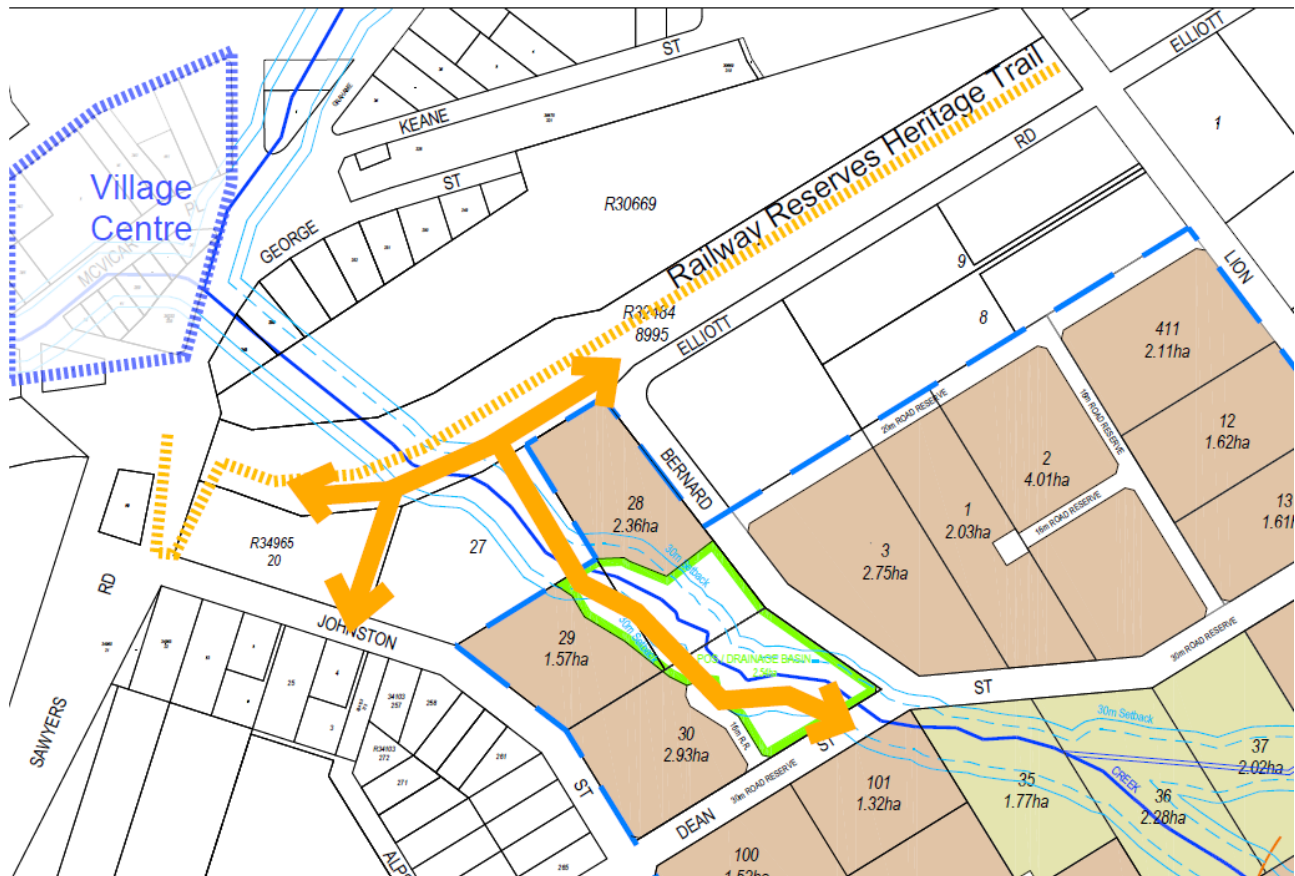
		modification would address DFES concern and improve access to the Charlotte Creek reserve for fuel reduction and fire suppression. A revised BMP would be required prior to WAPC endorsement. Refer Figure 4 and further discussion.
Vegetation classification - Unclear which area photo ID 3a and 3b represent. The classification and resultant BAL contours cannot be verified.	BMP updated to correctly reflect plots 3 and 4.	Vegetation classification photos and reference map (Figure 3.1) updated so that each photo has a corresponding label on the reference map.
<p>Vegetation exclusion - No evidence of a legal enforcement mechanism to accept excluded vegetation and ensure that the entire vegetation area will be maintained as "low threat" as per AS3959 in perpetuity.</p> <p>Aerial imagery indicates areas of grassland, canopy vegetation and riparian vegetation (Charlotte Creek), and Local Natural Area (LNA). It is unclear how these areas will be cleared or maintained to an APZ standard.</p> <p>If unsubstantiated, the Classification Map and BAL contour map should be modified to apply the worst-case scenario as per AS3959.</p>	<p>The BAL contours are indicative; the exclusion clause deals with the land in a post development situation.</p> <p>The individual lots as per SPP3.7 will need to prepare an updated BAL contour plan at the subdivision stage. The provisions of the exclusion clause allow for modification to the vegetation to be managed in a low threat manner.</p> <p>Cl. 2.2.3.2 (d) of Australian Standard AS3959 (the standard for determining BAL's), provides that strips of vegetation may be excluded if they are less than 20m in width and not within 20m of the site, each other or other areas of vegetation being classified. This is the proposed method for revegetating Charlotte Creek.</p>	<p>The Shire enforces its Fuel Load and Fire Break Notice which also makes reference to any approved site specific BMP and has dedicated officers to undertake inspections.</p> <p>Further, each individual subdivision proposal will need to provide a BMP specific to the subdivision design. It is appropriate to presume the entirety of smaller residential lots (2000sqm) and abutting developable areas on larger lots will be managed to a 'low threat' state.</p> <p>Other than those properties limited for subdivision potential by the ceding of POS, subdivision of properties which are intersected by a watercourse will need to demonstrate future lots can achieve a developable area which is setback an acceptable distance from the rehabilitated riparian vegetation.</p>

		<p>The applicant currently presumes these areas will be 'excluded' from assessment from AS3959 – however, this assumption may not be appropriate. Ultimately, each site will be assessed on a site-by-site basis and given the depth of the subject lots, this assumption is not expected to represent a fatal flaw. It is recommended consideration of watercourse revegetation be reviewed before the BMP is finalised.</p> <p>It is appropriate to retain an R5 coding for those properties limited for subdivision potential by the ceding of POS. Future subdivision of these lots will still need to demonstrate appropriate consideration of the bushfire risk, achieving a suitable area of land subject to BAL-29.</p>
<p>Location - The subdivision design concept submitted in support of the structure plan does not respond to the surrounding extreme bushfire hazard, particularly the areas of land zoned for R5 (within Lots 28 & 29) which are affected by significant areas of BAL-40 and BAL-FZ.</p> <p>The BAL Contour Map cannot be validated; compliance to this element has not been demonstrated.</p>	<p>All lots in concept plan achieve BAL-29 or better.</p> <p>We can however re-code lot 28 to be R2.5 to minimise potential setbacks from the extreme fire hazard.</p> <p>Lot 29 has one problematic proposed lot but this contains the existing dwelling. We propose no change to the R-code on this lot.</p>	<p>The BMP BAL contour illustrates Lot 27 as 'Flame Zone', which directly affects Lots 28 and 29. Following a site inspection with the Shire's Hazard Inspection Officer, it has been confirmed that Lot 27 it is parkland cleared with very low ground fuel loads.</p> <p>Increasing separation between new development on Lots 28 and 29 and bushfire risk outside of the structure plan area would be achieved by an alternative lot design and by including Lot 27 within the Structure Plan area and a revised BMP.</p>

		<p>Further, additional separation could be achieved via perimeter access for fire service access (fuel load management and fire suppression).</p> <p>DFES concerns regarding Lots 28 and 29 can be addressed and a R5 coding for Lots 28 and 29 is appropriate.</p>
<p>Access -</p> <p>Cul-de-sacs are not favoured in bushfire prone areas. It has not been demonstrated why no alternative exists for redesign, omitting the proposed cul-de-sacs.</p>	<p>The extension to another road will compromise rational lot design, create lots with dual road frontages or difficult shapes. The cul-de-sac on lot 30 can be removed and replaced with a single, SPP3.7 compliant, battle-axe lot.</p> <p>The proposed cul-de-sacs are able to comply with the technical requirements (including maximum length) required by the Bushfire Guidelines.</p>	<p>The proposed cul-de-sac within Lot 30 serves only one lot. Its construction is impractical and removal is supported. Battle-axe lots however, are not supported. The landowner would be expected to reduce lot yield or propose an alternative lot layout.</p> <p>The applicant's justifications for not extending the cul-de-sac within Lots 1 and 2 are generally supported; the proposed cul-de-sac is only 140m in length and the properties it will serve are expected to be managed (and surrounded by vegetation kept) to a 'low threat' state.</p>
<p>Access -</p> <p>A Fire Service Access Route (FSAR) should be provided along the north-western boundary of the structure plan area connecting Johnston Street and Elliot Road through the existing Lots 28 & 29.</p>	<p>The proposed FSAR would not comply with SPP3.7 gradient requirements and will also require a creek crossing to be constructed through the proposed POS.</p>	<p>A modification is recommended to address DFES expectations. However this necessitates the inclusion of Lot 27 within the SP area.</p>

Figure 4 below demonstrates how inclusion of Lot 27 in the structure plan is vital to providing a strategic link, which, in addition to the improved function of the POS (discussed in the following section), provides further perimeter access for reserve management and fire suppression activities in line with DFES expectations.

Figure 4:



In consideration of the issues raised by DFES and to improve (bushfire) access to the area, it is recommended that the structure plan be modified to:

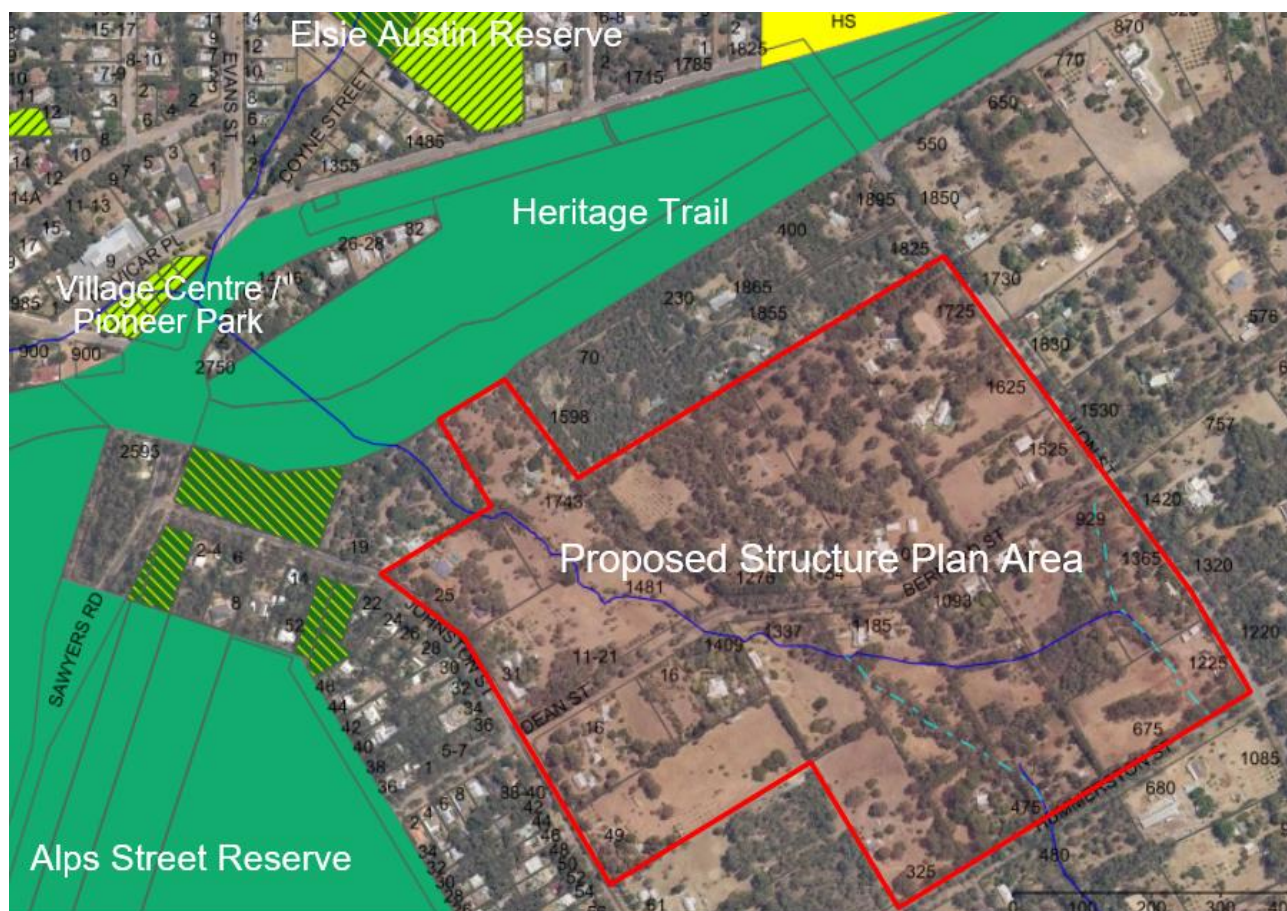
- Remove the new cul-de-sac road within Lot 30;
- Include Lot 27 with the structure plan;
- Include a multi-purpose (walking / POS maintenance / fire mitigation) trail(s) which follows the alignment of Charlotte Creek, connecting Dean Street to the Railway Reserves Heritage Trail; and
- More accurately account for the revegetation of Charlotte Creek and the coordination of crossing points.

Officers are satisfied that DFES comments can be addressed and do not represent any fatal flaws with the proposal. Provided the WAPC agrees with Shire's proposed modifications, it is recommended that the WAPC requires a revised BMP be prepared prior to approving the Structure Plan.

Public Open Space (POS)

As shown in Figure 5, the area is well serviced by both passive and active POS.

Figure 5: Nearby POS



SP77 proposes a 2.54ha area of POS to be ceded via the future subdivision of Lots 29 and 30 Johnston Street and Lot 28 Bernard Street. This proposed POS area represents 5.94% of the total structure plan area (42.8ha). The WAPC (DC 2.3) requires proponents of residential subdivision to give up 10% of the subdivisible land area for POS. The applicant proposes that the remaining POS contribution will be provided as cash-in-lieu from subdivision of those lots where POS is not proposed.

Concerns have been raised that subdivision of those lots burdened by significant POS contribution will be worse off than those lots where POS is not proposed. In such instances, the P&D Act provides the ability for the Shire to reimburse a landowner, provided money has been collected as cash-in-lieu of POS from other landowners in the structure plan area. As previously discussed above (see 'Sustainability Implications'), the remaining POS funds can be directed towards improving the POS within the nearby village centre (Pioneer Park).

A number of public submissions commented against the proposed pocket park. Officers agree that the social and environmental function, as well as the practical enjoyment of the proposed POS area, will be limited by:

- Saturated areas surrounding Charlotte Creek, especially during winter and spring;

- Lack of access from public spaces (approximately half of the POS boundary will abut private property); and
- Disconnection between existing recreational reserves (e.g. Heritage Trail).

To optimise the functionality of POS, it is essential it links with the Heritage Trail via Lot 27 (refer also previous 'bushfire' assessment and 'sustainability' section at the start of this report). Conversely, the POS, as proposed without a link, represents poor planning from an environmental, social and bushfire risk management outcome. It is acknowledged that the applicants were not in a position to presume this link could or should be made in the formation of the draft, as this lot does not form part of the 'Development' zone.

This link would require Lot 27 to be included within SP77 area with the eastern portion of the lot reserved for POS. To allow the reserve to be ceded via subdivision, the structure plan should provide for limited subdivision (2x lots) of Lot 27 (currently zoned Rural Residential 2 within LPS4). The current landowner is supportive of this concept.

Lot 27 has some canopy vegetation which is a mix of introduced and eastern states species with very limited understorey. Officers have visited the site and believe there are no fatal flaws to supporting a two lot subdivision.

The subdivision of Lot 27 (and ceding of reserve) would result in the creation of two undersize lots (slightly less than <1ha). However as the site is 2.2 ha, the only reason for the undersized lots would be because land would be required for the open space reserve on the eastern side of Charlotte Creek. As the land required would likely be in excess of 10% and the WAPC does not normally require POS for two lot subdivisions, it is wholly appropriate that this site and its conditional subdivision potential be formally recognised by the WAPC within SP77.

The proximity of the SP77 area to Mt Helena Townsite remains central to the justification that more residents should live in this location, in that it is in walking distance to the local centre. It would therefore be fundamentally at odds with the original logic to not extend the boundary of SP77 (and include Lot 27) and achieve a link. It also enables DFES concerns regarding fuel load management and access to be addressed.

LPS4 provides an opportunity for the Shire to support undersized lots where it results in improved access and safety for nearby residents. This represents an opportunity to enhance access for the public, improve reserve maintenance and provide access for fire suppression, as discussed in the previous section (bushfire).

Consideration of entirety of Charlotte Creek to be reserved POS

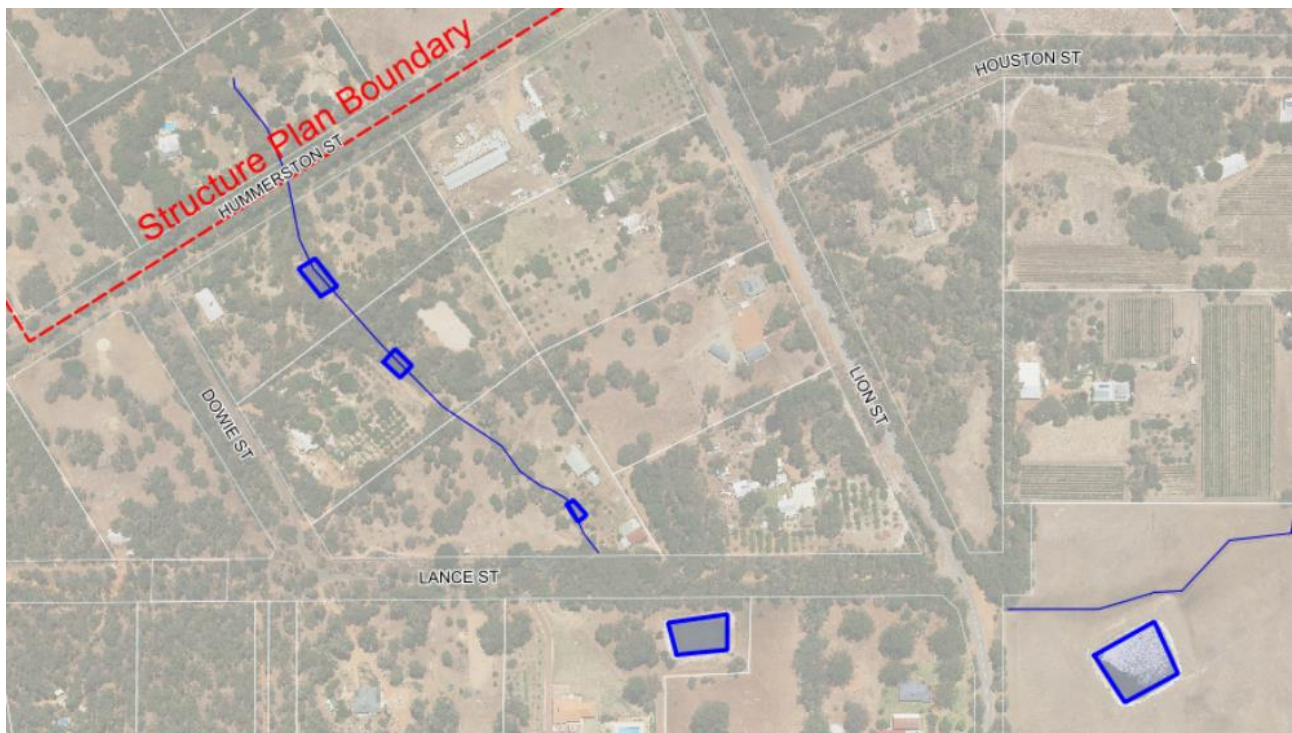
The applicant's report provides that the majority of Charlotte Creek will remain in private ownership, with the ability for management plans to be required and implemented at subdivision stage. It is proposed that easements in favour of the Shire over private land be established at subdivision stage, to establish access rights to reserve the right to intervene in and uphold the maintenance of Charlotte Creek. It is not intended these easements will provide public access.

Numerous public submissions suggested that the entire length of Charlotte Creek should be ceded as a public purpose reserve for public enjoyment and to ensure legal access for ongoing maintenance by the Shire and a future friends group.

As is required for many other creeks throughout the Shire, Charlotte Creek will be rehabilitated by landowners as a requirement of subdivision approval and thereafter reinforced by subsequent development applications. Watercourses within private property are protected from future development by requirements within the Shire's Local Planning Scheme No. 4 (LPS4).

Much of the upstream flow of Charlotte Creek is captured by existing dams south of the structure plan area (refer Figure 6 below). This significantly reduces the natural flow of Charlotte Creek through the structure plan area and the resultant downstream impact of the waterway. This is particularly evident in the section of Charlotte Creek between Hummerston Street and Dean Street.

Figure 6: Upstream dams



Requiring this section of Charlotte Creek between Hummerston Street and Dean Street to be ceded as a public reserve is not recommended for the following reasons:

- The downstream impact on Jane Brook is limited;
- Practical enjoyment of the land for the general public would be limited;
- The land would create long / narrow wet areas of riparian zones representing significant maintenance burden for the Shire. For this reason, it is common practice for the Shire to retain minor watercourses within private property which are lower in the watercourse hierarchy;
- The ecological function can still be enhanced via watercourse rehabilitation being required as conditions of subdivision approval; and
- Adverse impacts from unsuitable development are controlled via existing watercourse setback requirements within LPS4.

Public access is still intended to be afforded to Charlotte Creek downstream, following the confluence of the two creek lines.

For those lots with a section of a waterway, it is important that prospective landowners are made aware that they have an important custodian role for the ongoing management of the waterway in accordance with a Foreshore Management Plan. It is therefore recommended the SP77 be modified to identify these lots as 'Waterway Custodian Lots' and require notifications on the title to communicate this expectation from the outset.

Drainage

The advertised LWMS provided for the use of a standard piped stormwater network, leading into multiple small basins and two large basins within the proposed POS.

Refer also Figure 9 (Drainage Concept) within Attachment 5. Following comments raised during advertising, the applicant provided a revised LWMS. The revised LWMS provides an alternative drainage plan which better achieves 1-year Average Recurrence Interval (ARI) storm levels to be retained as close to the source as possible. This would be achieved by the use of an interconnected soak well system within new roads and a bio-retention swale system within Bernard Street and Dean Street. The existing open drains, which will be modified to moderate flow and prevent erosion, will connect the bio-retention swales.

Prior to entering the watercourse, overflow will be directed via planted swales to slow and filter the flow. Where required within private property, easements will be required to the benefit of the Shire. Easement locations are shown on the Drainage Concept plan.

Part of the drainage plan provides for water management within Charlotte Creek POS. Additional pools and riffles are proposed to maintain flow to pre-development levels. These modifications will be established in conjunction with revegetation of the watercourses.

Subdivision proposals for those properties intersected by a watercourse may need to demonstrate how overflow in storm events greater than 1-year ARI will be managed prior to entering the watercourse.

Post subdivision, individual development proposals will need to demonstrate coordinated management of onsite effluent disposal and stormwater for storms up to 1-year ARI.

Importantly, the revised LWMS provides more flexibility for individual landowners to subdivide independently of each other, by reducing the dependence of dedicated basins to manage stormwater.

Effluent disposal

Reticulated sewer is not available so effluent disposal will be managed on-site. Soils types in the higher areas of the structure plan area (Dwellingup 2 and Yarrigal 1) have 'fair' to 'high' land capability for effluent disposal. Soil types in the lower areas (Yarrigal 2 and Yarragil 4) have 'very low' to 'low' land capability for effluent disposal.

The current Government Sewerage Policy (1996 GSP) provides requirements for the treatment and disposal of onsite effluent disposal. A new GSP has been publicly available in draft format since 2016 (draft 2016 GSP).

Until a final version of the 2016 GSP is adopted, decision making is likely to occur with reference to either version of GSP or a combination of both; DPLH and DWER are understood to be using the draft 2016 GSP as operational policy, however DoH are understood to use only the 1996 GSP in their decision making. The policy framework, and how it will be applied in the future, remains ambiguous.

The revised LWMS (Attachment 5) provides that conventional septic tanks and leach drains are suitable for the majority of the structure plan area. The lower lying areas however, require careful consideration due to the potential for microbial contamination of waterways.

The draft 2016 GSP recommends effluent disposal systems be setback at least 100m from a watercourse. The legal requirement, as enforced by the Health Regulations is 30m. The Shire's LPS4 notes that *'Where there is any conflict between the setbacks specific in different legislation, the greater setback shall apply'*. Importantly, the existing and draft State Sewerage Policy are not statutes.

The revised LWMS states that all lots have sufficient space to accommodate a minimum setback of 30m between effluent disposal systems and the watercourse and that those properties within 100m or otherwise subject to water saturation will be required to achieve onsite effluent disposal by way of Aerobic Treatment Units (ATU's) or leach drain systems with modified-soil. Those areas subject to water saturation will require the use of fill and subsoil drainage to maintain suitable separation from groundwater.

Given the evolving policy context and the potential risks, a precautionary approach is warranted. A 30m watercourse setback is appropriate as it is consistent with the Health Regulations and generally accords with the soil types, provided that individual subdivision applications are accompanied by a site and soils evaluation demonstrating that the proposed lots and associated effluent disposal system (irrigation area) will not result in contamination of groundwater and watercourses.

Contrary to the LWMS conclusions, a number of indicative lots (Attachment 3) appear to provide insufficient area to meet the 30m setback requirement for effluent disposal. In addition, some lower lying properties are partially constrained by watercourse setbacks or significant areas of water saturation (refer Figure 7). While it may be appropriate for less restricted areas on these lots to have smaller lots sizes, larger lots in excess of 4000sqm (R2.5) are likely required for those more constrained areas.

As a precautionary approach and to prevent further subdivision in inappropriate locations: it is recommended a density range of R2-R5 be adopted for properties partially impacted by large areas of water saturation or watercourse setback requirements (properties highlighted in green in Figure 7 below). To achieve a R5 (2000sqm) subdivision, it would have to be demonstrated, relative to sewer policy applicable at that time, that the proposal will not result in contamination of groundwater and watercourses.

Figure 7: Properties (green) to be designated a density range of R2-R5



Residential density

As the area is not serviced by reticulated sewer, lot sizes must be of sufficient area to accommodate effluent disposal on each lot. For this reason, residential densities of R2.5 and R5 are proposed, which require a minimum lot area of 4000sqm and 2000sqm respectively.

The proposed densities are considered 'low' and consistent with the size of existing residential zoned properties within the Shire, within and around the various village centres east of the Darling Scarp.

As generally reflected in the proposal (Attachment 1), R2.5 coding is considered necessary where future lots will be significantly constrained by watercourse setbacks and water saturation. Where these constraints are predominantly ceded via subdivision (e.g. as foreshore reserve), the remaining land is considered appropriate for smaller (R5) lots.

As discussed previously (effluent disposal), it is recommended Lot 38 be coded Residential R2.5 and Lots 35, 39, 42 and 41 designated a density range of Residential R2-R5 reflective of the water course and saturation constraints affecting only a portion of these properties.

Other than the proposed modifications, the residential densities proposed by the applicant are supported.

Lot configuration

Refer **Attachment 3**: Subdivision Concept Plan

It is important to recognise that the Subdivision Concept Plan is provided only to demonstrate how future subdivision could occur.

Once a structure plan is approved by the WAPC, future subdivision proposals are only required to be generally consistent with the approved structure plan.

A number of public submissions raised concern over the narrow width of indicative future lots (Attachment 3) proposed to be coded R2.5. The applicant proposes that the reduced lot frontages (33.5m - 37.5m, in lieu of 40m) will maintain a residential appearance consistent with the R5 zone (which requires a minimum lot frontage of 30m), while the larger lot sizes respond to the largely undevelopable saturated areas to the rear of the lots.

The applicant's justifications for reduced frontages are sound and supported in principle. The indicative lots generally respond well to the constraints of the structure plan area, provided the structure plan is modified to require coordinated crossover locations and watercourse crossing locations.

A number of indicative lots (especially on Lots 36, 37 and 38 Bernard Street) are significantly larger than the proposed density requires as a minimum. A likely result in such situations is that future landowners may seek to further subdivide their property, likely in a battle axe configuration. LPS4 contains provisions against battleaxe lots, however where the road layout is already established and minimum land area requirements can be met, battleaxe lots may still be approved by the WAPC. To provide an additional safeguard against such a scenario, it is recommended that the structure plan be modified to clearly state that no battleaxe lots will be supported.

Those large undevelopable areas may appear suitable to future landowners for keeping stock such as sheep, goats or even horses. The Shire can consider applications for the keeping of stock (Rural Pursuit) in the Residential zone within LPS4. However, those areas subject to surface saturation are considered environmentally sensitive because of their relationship with groundwater and the waterways. The structure plan should therefore include a reference to these areas as unsuitable for the keeping of stock due to the potential contamination of groundwater and Charlotte Creek.

It is recommended the Structure Plan (Plan) be modified to note that:

- Battleaxe lots will not be supported; and
- The keeping of stock is not suitable in areas identified as saturated.

Road network

Impact on surrounding road network

Main Roads does not support the proposal due to a) the increase in traffic and b) a Traffic Impact Assessment (TIA) has not been provided which demonstrates that increased traffic can be accommodated within the existing road network (particularly the intersection of Lion Street and Great Eastern Highway).

The applicant has provided comment in response to Main Roads concerns. A summary is provided below (refer Table 4 below), alongside officer comments / clarification, where considered necessary.

Table 4: Applicant's justifications - surrounding road network

Applicant's justification	Officer comment
1. Main Roads raised no objection to the MRS amendment (1277/57 - re-zoning from Rural to Urban);	Confirmed. Main Roads provided comments of 'no objection' to MRS amendment 1277/57.
2. The intersection of Lion Street and Great Eastern Highway was recently upgraded by Main Roads which allowed increased capacity for future growth in the area;	The works were completed around 2006 - 2007.
3. The TIA Guidelines referenced by Main Roads response only require a TIA for significant (scheme amendment) proposals expected to generate more than 5000 vehicle movements per day (vmpd);	<p>The TIA Guidelines state that all structure plans are to be supported by a transport assessment.</p> <p>Notwithstanding and depending on the ultimate lot yield, the proposal is expected to generate between 700-1200vpm.</p>
<p>4. In regards to Main Roads example of the intersection of Lion Street and Great Eastern Highway.</p> <p>a. This is likely to be the least used access route from the structure plan area.</p> <p>b. The spread of access options based on common desire lines (schools, recreation, shopping and employment) dilute the traffic impacts.</p> <p>c. The 2006-2007 works included all possible upgrades, short of the installation of traffic lights.</p>	<p>Not supported. This intersection is likely to be one of the most used access routes from the Structure Plan area.</p> <p>Justification supported.</p> <p>Justification supported.</p>

The increase in traffic on the surrounding road network will be gradual over time, as individual landowners subdivide; this is likely to be over a period of 10-20 years (depending on the aspirations of individual landowners). Traffic increases will be minor in the short term and moderate over the long term. Traffic increases will be absorbed via multiple access routes throughout the road network, significantly minimising any impacts on individual roads. The Shire will undertake the upgrading of surrounding local roads as the area grows and as the need arises.

For the reasons above, a comprehensive TIA is not considered necessary.

Upgrading of existing roads within the subdivision area

A number of future lots can be serviced by existing roads. Where required, the Shire will recommend the WAPC impose conditions of subdivision approval, which require the landowner to upgrade an existing road and pay a contribution to the Shire towards future upgrades. This is the standard Shire practice for areas of minor to moderate growth and may include stormwater drainage, widening, kerbing and other infrastructure upgrades (e.g. lighting, footpaths etc.).

Elliott Road (west of Lion Street) is an unconstructed (existing) road reserve, with significant native vegetation (including numerous habitat trees). Numerous public submissions raised concerns over the potential future construction of Elliott Road and the resultant environmental impacts. Although the road reserve is existing, its construction is not envisaged and it is not required to enable future subdivision of the properties in the structure plan area.

New subdivision roads

Refer **Attachment 1**, in addition to the 'bushfire' and 'vegetation protection' assessments within this report.

An additional five new roads are proposed within the structure plan area. The new east-west road connecting Lion Street to Bernard Street is proposed to be 20m in width. All other new road reserves are proposed to be 16m in width. The provision of short cul-de-sacs was discussed above.

The proposed road widths are considered to be of a suitable size to accommodate appropriate pavement widths and any necessary infrastructure. The 20m road will provide additional opportunity to retain significant trees within the new road verge.

New roads within the structure plan area will need to be constructed at the cost of those landowners subdividing their land who require access to the proposed lots. Where required, local government infrastructure such as lighting, drainage and footpaths will form part of the requirements for constructing new roads.

Nearby noxious land uses

Poultry farm

A small poultry farm operates at a property neighbouring the structure plan area (southern corner of Hummerston Street and Lion Street) and currently enjoys non-conforming use rights. When the poultry farm ceases operation, the use (Animal Husbandry) will not be permitted to operate again under the provisions of LPS4.

SPP2.5 provides that the transition between rural and urban areas be managed so that existing rural uses can continue to operate by providing a buffer between incompatible land uses. Distances for such buffers are to be in accordance with other Government policy and guidance. Accordingly, EPA Guidance Note No. 3 provides that sensitive land uses (such as dwellings), should be separated from poultry farms by a distance of between 300m and 1km (depending on the size of the poultry farm), to prevent potential

issues regarding noise, odour and dust. The Shire's Health Service support a 300m buffer in this instance.

The proposed structure plan shows a 200m buffer from the poultry farm.

It is recommended that the Structure Plan (Plan) be modified to increase the poultry farm separation buffer to 300m and the following note added:

"Intensification of land use (subdivision or development) shall not occur until such time as the nearby poultry farm has ceased operation."

Alternatively, subdivision or development may be considered within the 300m poultry farm separation buffer where the proponent provides suitable technical analysis which demonstrates that the proposal will not be adversely impacted by noise, odour or dust from the nearby poultry farm."

Vineyards

An established commercial vineyard / winery operates from two nearby properties, 280m east of the structure plan area. The properties are adjoining and operated as one vineyard / winery.

To protect the rights of existing agricultural producers against complaints from encroaching residential development (e.g. spray drift), Department of Health (DoH) guidelines provide that new residential development should be separated from existing agricultural activities by at least 300m (boundary to boundary). The DoH guidelines provide that the separation distance may be reduced to 40m where vegetative buffers are appropriately used.

Existing native vegetation separates the vineyard and structure plan area. This existing vegetative buffer and 280m separation (boundary to boundary) is acceptable and consistent with the relevant DoH guidelines. No further development restrictions are necessary.

Aboriginal heritage

An 'Other Heritage' site is within the structure plan area; Paul's Farm / artefact scatter (ID3391).

The 'Structure plan report' (**Attachment 2**) provides that individual subdividers will be responsible for ensuring compliance with the Aboriginal Heritage Act 1972.

Under the *Aboriginal Heritage Act 1972 (WA)*, the Whadjuk People seek to protect artefact scatter via an Aboriginal Heritage Management Plan. The South West Aboriginal Land and Sea Council (SWALSC) requests consultation in the preparation of a management plan and recommends monitors are used during ground disturbing activity to identify the extent of artefact scatters within the structure plan area.

Accordingly it is recommended that an Aboriginal Heritage Management Plan be prepared on the advice of the South West Aboriginal Land and Sea Council and to the satisfaction of the Western Australian Planning Commission prior to any subdivision of land wholly or partly within the 'Other Heritage' site, Paul's Farm (ID3391).

Water supply

A common concern raised from public submissions is the potential impact on water supply, especially in the event of bushfire.

Water Corporation service the area and have a responsibility to provide adequate water supply (including pressure) to new and existing residents. It is recognised that water pressures fluctuate significantly within the hills, depending on the elevation of the individual property. This is reflected within Water Corporation's standard service range being between 15 and 100 metres head (mH).

Water Corporation has not raised any concerns with servicing new lots, however, has advised that further upgrades of the network may be required at subdivision stage. Any direct costs associated with such upgrades would be borne by the relevant landowner who is undertaking the subdivision. Any broader network upgrades would be borne by Water Corporation.

VOTING REQUIREMENT

Simple Majority

RECOMMENDATION

That Council recommends the Western Australian Planning Commission approves Structure Plan 77, subject to:

1. A revised Bushfire Management Plan being prepared prior to WAPC's approval of the Structure Plan that incorporates and responds to the relevant modifications proposed below;
2. The following modifications being made to the 'plan':
 - a. Lot 38 being coded Residential R2.5.
 - b. Lot 35 Bernard Street, Lots 39 and 42 Lion Street and Lot 41 Hummerston Street being designated a density range of Residential R2.5-R5.
 - c. Lot 27 Johnston Street being included in the structure plan and identified as having subdivision potential for a maximum of two undersized Rural Residential lots set back 10 metres from the western side of Charlotte Creek high water mark, provided the remaining land parcel east of Charlotte Creek is ceded free of cost for Public Open Space.
 - d. A multi-purpose (walking / POS maintenance / fire mitigation) trail(s) being shown following the alignment of Charlotte Creek, connecting Dean Street to the Railway Reserves Heritage Trail.
 - e. The removal of the proposed cul-de-sac road within Lot 30.
 - f. The poultry farm separation buffer being increased to 300m and the following note added:

“Intensification of land use (subdivision or development) shall not occur until such time as the nearby poultry farm has ceased operation.

Alternatively, subdivision or development may be considered within the 300m poultry farm separation buffer where the proponent provides suitable technical analysis which demonstrates that future development will not be adversely impacted by noise, odour or dust from the nearby poultry farm.”

- g. Lots with areas of saturation annotated as ‘unsuitable for the keeping of stock’.
 - h. An annotation to the plan stating that creation of battleaxe lots will not be supported.
 - i. Lots 27, 29 and 30 Johnston Street; Lot 101 Bernard Street; Lots 28, 35, 36, 37 and 38 Bernard Street; and Lot 41 Hummerston Street being identified as ‘Waterway Custodian Lots’ on the Structure Plan to signify the environmental values and landowners management obligations.
 - j. Watercourse crossing points being identified on the plan and coordinated between adjoining lots where practicable.
3. An addendum to the structure plan being provided which identifies that the criteria for determining the final density of the lots in (2b) includes: future development and effluent disposal systems being setback from the watercourse / wetland / water saturated areas so as maintain:
- a. The watercourses ecological functions and prevent contamination in accordance with the applicable State Sewer Policy at the time of subdivision; and
 - b. Acceptable bushfire risk in consideration of revegetation of the watercourse.
4. The following further details being approved by the WAPC, prior to approval of subdivision, in accordance with Clause 24 of the *Planning and Development (deemed provision for local planning schemes) Regulations 2015*:
- a. Lots 29 and 30 Johnston Street; Lot 101 Dean Street; Lots 28, 35, 36, 37 and 38 Bernard Street; Lots 39 and 42 Lion Street; and Lot 41 Hummerston Street.

A site and soils assessment demonstrating the suitability of the land for onsite effluent disposal, identifying any potential contamination of waterways and providing recommendations for specific system types and locations for onsite effluent disposal.
 - b. All properties: Significant tree survey and retention / removal plans which informs the subdivision design and lot configuration to maximise the retention of habitat and other significant trees.
 - c. Lots 1, 2, 36, 37 and 38 Bernard Street; Lots 11, 12, 13, 39 and 42 Lion Street; and Lots 40, 41 Hummerston Street.

An Aboriginal Heritage Management Plan, prepared on the advice of the South West Aboriginal Land and Sea Council.

-
- d. Street tree planting in accordance with Shire of Mundaring Street Trees policy PS-08.
 - e. Lots 27, 29 and 30 Johnston Street; Lot 101 Bernard Street; Lots 28, 35, 36, 37 and 38 Bernard Street; and Lot 41 Hummerston Street requiring a Foreshore Management Plan which details the retention of existing vegetation, new riparian plantings within at least 10 metres each side of the waterway(s) (subject to site circumstances) and the ongoing management requirements.

Section 70A (*Transfer of Land Act 1993*) notifications to be required that alert prospective landowners that the subject lots are 'Waterway Custodian Lots', advising of landowner obligations to manage the waterway in accordance with an approved Foreshore Management Plan.

- f. All properties: Detailed Drainage Plan consistent with an LWMS approved by the Shire of Mundaring.
- g. Detailed design for construction of the 20m road reserve which demonstrates an alignment which appropriately responds to the retention of significant trees and the coordination with other infrastructure requirements.
- h. Crossover location plan demonstrating coordinated crossover locations for lots with reduced width frontages.
- i. All properties:

A Bushfire Management Plan which considers the bushfire risk from vegetation proposed to be retained and/or planted within the structure plan area, including watercourse riparian areas and public reserves not otherwise maintained to a low threat state in accordance with Part 2.2.3.2 of Australian Standard AS3959.

MOTION

Moved by Cr Jeans Seconded by Cr Green

That Council recommends to the WAPC that it rejects SP77 in its current form because of the following:

1. POS does not include all of the Creek line of the subject area, only a portion of it;
2. The impact on the water course from the effluent disposal systems does not provide sufficient evidence that it will prevent contamination and ecological dysfunction because of the nature of the soil structure surrounding the creek line, as per the consultant to the proponents Local Water Management Strategy prepared by Bailey Environmental Services;
3. The creation of Waterway Custodian lots on the SP77 is not supported as it would be extremely difficult for the shire to manage due to the requirement to take legal action; and
4. The Foreshore Management Plan can be enhanced with the complete Creek line being POS through a public access along its length within the Structure plan allowing Shire and friends groups access for biodiversity enhancement and weed control for the long term benefit of Charlotte Creek.

LOST 4/6

For: Cr Daw, Cr Fisher, Cr Jeans and Cr Green

Against: Cr Driver, Cr Fox, Cr Burbidge, Cr Jones, Cr Lavell and Cr Brennan

MOTION

Moved by Cr Driver Seconded by Cr Fisher

That debate on this item be adjourned in accordance with *Shire of Mundaring Meetings Procedure Local Law 2015*, clause 9.1(a), until a Special Council meeting to be held on Monday 15 April 2019 commencing at 6.30pm.

LOST 3/7

For: Cr Driver, Cr Fisher and Cr Jeans

Against: Cr Daw, Cr Fox, Cr Burbidge, Cr Jones, Cr Lavell, Cr Green and Cr Brennan

COUNCIL DECISION RECOMMENDATION		C10.04.19	
Moved by	Cr Brennan	Seconded by	Cr Lavell

That Council recommends the Western Australian Planning Commission approves Structure Plan 77, subject to:

1. A revised Bushfire Management Plan being prepared prior to WAPC's approval of the Structure Plan that incorporates and responds to the relevant modifications proposed below;
2. The following modifications being made to the 'plan':
 - a. Lot 38 being coded Residential R2.5.
 - b. Lot 35 Bernard Street, Lots 39 and 42 Lion Street and Lot 41 Hummerston Street being designated a density range of Residential R2.5-R5.
 - c. Lot 27 Johnston Street being included in the structure plan and identified as having subdivision potential for a maximum of two undersized Rural Residential lots set back 10 metres from the western side of Charlotte Creek high water mark, provided the remaining land parcel east of Charlotte Creek is ceded free of cost for Public Open Space.
 - d. A multi-purpose (walking / POS maintenance / fire mitigation) trail(s) being shown following the alignment of Charlotte Creek, connecting Dean Street to the Railway Reserves Heritage Trail.
 - e. The removal of the proposed cul-de-sac road within Lot 30.
 - f. The poultry farm separation buffer being increased to 300m and the following note added:

"Intensification of land use (subdivision or development) shall not occur until such time as the nearby poultry farm has ceased operation.

Alternatively, subdivision or development may be considered within the 300m poultry farm separation buffer where the proponent provides suitable technical analysis which demonstrates that future development will not be adversely impacted by noise, odour or dust from the nearby poultry farm."
 - g. Lots with areas of saturation annotated as 'unsuitable for the keeping of stock'.
 - h. An annotation to the plan stating that creation of battleaxe lots will not be supported.
 - i. Lots 27, 29 and 30 Johnston Street; Lot 101 Bernard Street; Lots 28, 35, 36, 37 and 38 Bernard Street; and Lot 41 Hummerston Street being identified as 'Waterway Custodian Lots' on the Structure Plan to signify the environmental values and landowners management obligations.

-
- j. Watercourse crossing points being identified on the plan and coordinated between adjoining lots where practicable.
3. An addendum to the structure plan being provided which identifies that the criteria for determining the final density of the lots in (2b) includes: future development and effluent disposal systems being setback from the watercourse / wetland / water saturated areas so as maintain:
- a. The watercourses ecological functions and prevent contamination in accordance with the applicable State Sewer Policy at the time of subdivision; and
 - b. Acceptable bushfire risk in consideration of revegetation of the watercourse.
4. The following further details being approved by the WAPC, prior to approval of subdivision, in accordance with Clause 24 of the *Planning and Development (deemed provision for local planning schemes) Regulations 2015*:
- a. Lots 29 and 30 Johnston Street; Lot 101 Dean Street; Lots 28, 35, 36, 37 and 38 Bernard Street; Lots 39 and 42 Lion Street; and Lot 41 Hummerston Street.

A site and soils assessment demonstrating the suitability of the land for onsite effluent disposal, identifying any potential contamination of waterways and providing recommendations for specific system types and locations for onsite effluent disposal.
 - b. All properties: Significant tree survey and retention / removal plans which informs the subdivision design and lot configuration to maximise the retention of habitat and other significant trees.
 - c. Lots 1, 2, 36, 37 and 38 Bernard Street; Lots 11, 12, 13, 39 and 42 Lion Street; and Lots 40, 41 Hummerston Street.

An Aboriginal Heritage Management Plan, prepared on the advice of the South West Aboriginal Land and Sea Council.
 - d. Street tree planting in accordance with Shire of Mundaring Street Trees policy PS-08.
 - e. Lots 27, 29 and 30 Johnston Street; Lot 101 Bernard Street; Lots 28, 35, 36, 37 and 38 Bernard Street; and Lot 41 Hummerston Street requiring a Foreshore Management Plan which details the retention of existing vegetation, new riparian plantings within at least 10 metres each side of the waterway(s) (subject to site circumstances) and the ongoing management requirements.

Section 70A (*Transfer of Land Act 1993*) notifications to be required that alert prospective landowners that the subject lots are 'Waterway Custodian Lots', advising of landowner obligations to manage the waterway in accordance with an approved Foreshore Management Plan.
 - f. All properties: Detailed Drainage Plan consistent with an LWMS approved by the Shire of Mundaring.
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- g. Detailed design for construction of the 20m road reserve which demonstrates an alignment which appropriately responds to the retention of significant trees and the coordination with other infrastructure requirements.
 - h. Crossover location plan demonstrating coordinated crossover locations for lots with reduced width frontages.
 - i. All properties:

A Bushfire Management Plan which considers the bushfire risk from vegetation proposed to be retained and/or planted within the structure plan area, including watercourse riparian areas and public reserves not otherwise maintained to a low threat state in accordance with Part 2.2.3.2 of Australian Standard AS3959.

CARRIED 6/4

For: Cr Driver, Cr Fox, Cr Burbidge, Cr Jones, Cr Lavell and Cr Brennan

Against: Cr Daw, Cr Fisher, Cr Jeans and Cr Green

8.58pm Meeting Adjourned

COUNCIL DECISION MOTION		C11.04.19	
Moved by	Cr Burbidge	Seconded by	Cr Fox

That the meeting be adjourned for a period of 5 minutes..

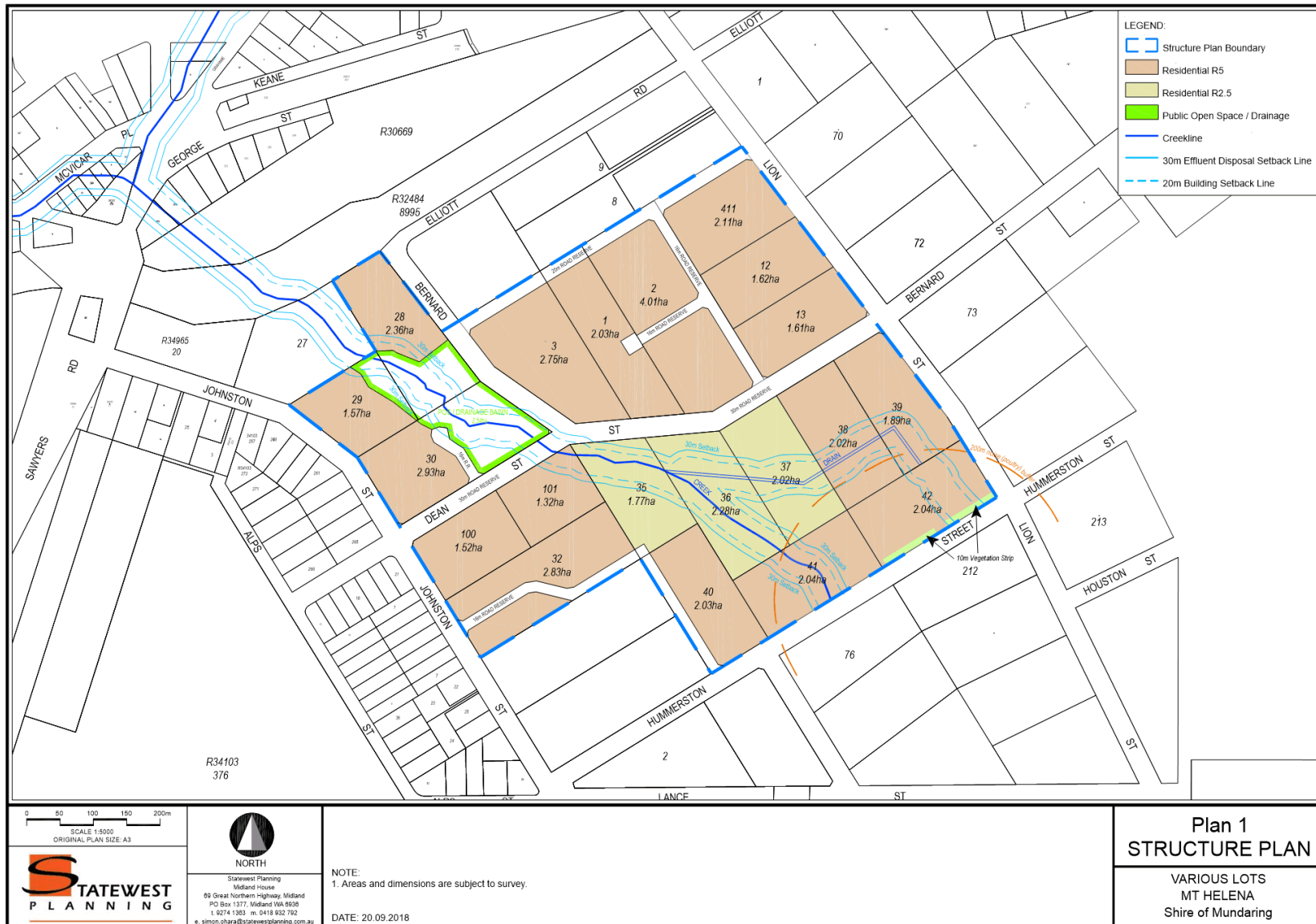
CARRIED 10/0

For: Cr Daw, Cr Driver, Cr Fox, Cr Burbidge, Cr Fisher, Cr Jeans, Cr Jones, Cr Lavell, Cr Green and Cr Brennan

Against: Nil

9.04pm Meeting Resumed

The meeting resumed with all elected members present.



LOCAL STRUCTURE PLAN

for

**LOTS 11, 12, 13, 39 & 42 LION STREET; 1, 2, 3, 28, 35, 36, 37 & 38 BERNARD STREET;
100 & 101 DEAN STREET; 29, 30 & 32 JOHNSTON STREET & 40 & 41 HUMMERSTON
STREET, MOUNT HELENA.**

**Prepared by
STATEWEST PLANNING
September 2018**

1

26 September 2018

CERTIFIED THAT THS STRUCTURE PLAN WAS ADOPTED BY RESOLUTION OF THE WESTERN AUSTRALIAN PLANNING COMMISSION ON

..... Date

Signed for and on behalf of the Western Australian Planning Commission

.....

an officer of the Commission pursuant to section 16 of the *Planning and Development Act 2005* for that purpose, in the presence of:

..... Witness

..... Date

And by

RESOLUTION OF THE COUNCIL OF THE SHIRE OF MUNDARING ON

..... Date

And

PURSUANT TO THE COUNCIL'S RESOLUTION HERUNTO AFFIXED IN THE PRESENCE OF:

.....

Shire President, Shire of Mundaring

.....

Chief Executive Officer, Shire of Mundaring

..... Date

This Structure Plan is prepared under the provisions of the Shire of Mundaring Local Planning Scheme No 4

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26 September 2018

Modification No.	Description Modification	of	Endorsed Council	by	Endorsed WAPC	by

EXECUTIVE SUMMARY

This Local Structure Plan (LSP) involves 20 privately owned lots in the locality of Mount Helena. The existing lots range in size from 1.3162ha to 4.0084ha and are generally in the order of 1.5 – 2.8ha. The site is zoned for residential development under the Shire of Mundaring Local Planning Scheme No 4.

Topographically the site is gently inclined with gradients of between 2-10% and Charlotte Creek traversing the site. All lots have been developed for rural residential purposes. A large portion of the site contains cleared land used historically for grazing with isolated pockets of native regrowth vegetation.

The LSP provides for coordinated subdivision of the subject area into predominantly 2,000m² lots in accordance with its R5 Coding. A portion of the site has been designated R2.5 (4,000m²) with reduced frontages to suit the site conditions at this location. The retention of existing dwellings and setbacks from the creek has resulted in larger lots in some locations.

In regard to Public Open Space (POS), in consultation with the Shire the required 10% provision is to be provided through a combination of land and cash-in-lieu.

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2. Botanical Assessment

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Bushfire Management Plan

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PART ONE – STATUTORY

1. LSP AREA

The subject area comprises of:

Lot No.	29 Johnston	Area ha	1.5707
Lot No.	30 Johnston	Area ha	2.9289
Lot No.	32 Johnston	Area ha	2.8327
Lot No.	100 Dean	Area ha	1.516
Lot No.	101 Dean	Area ha	1.3162
Lot No.	1 Bernard	Area ha	2.026
Lot No.	2 Bernard	Area ha	4.0089
Lot No.	3 Bernard	Area ha	2.7505
Lot No.	28 Bernard	Area ha	2.3623
Lot No.	35 Bernard	Area ha	1.7704
Lot No.	36 Bernard	Area ha	2.2763
Lot No.	37 Bernard	Area ha	2.0234
Lot No.	38 Bernard	Area ha	2.0234
Lot No.	39 Lion	Area ha	1.8944
Lot No.	42 Lion	Area ha	2.0436
Lot No.	11 Lion	Area ha	2.1158
Lot No.	12 Lion	Area ha	1.6195
Lot No.	13 Lion	Area ha	1.6148
Lot No.	40 Hummerston	Area ha	2.0335
Lot No.	41 Hummerston	Area ha	2.0436

The total land area is 42.7709 ha.

2. LSP CONTENT

Part One of this report contains the statutory section. It contains only the LSP map and statutory planning provisions and requirements.

Part Two contains the explanatory information to support the statutory component. It is to be used as a reference guide to interpret and justify the implementation of Part one.

3. INTERPRETATION AND SCHEME RELATIONSHIP

3.1 Interpretation

All terms used in this document shall have the same meaning as given to them in the Shire of Mundaring Local Planning Scheme No 4 (LPS 4).

3.2 Scheme Relationship

This LSP provides for the subdivision and development of the subject land. Its adoption fulfils the intent of Section 5.17 of LPS 4, which establishes the requirement for comprehensive

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planning, high design standards and cost effective servicing, which are sensitive to the environment, prior to the subdivision of land within the municipality.

In the event of any inconsistency between LPS 4 and this LSP, LPS 4 shall prevail.

4. OPERATION

This LSP becomes effective as at the date of its approval by the WAPC. After this date, the LSP can be used by the Shire of Mundaring, and all other Government Agencies involved in the assessment of subdivision applications, to support individual subdivision applications, be they for the whole of the subject area or only a portion of it. It can also be used by the WAPC as a basis of granting subdivision approval.

Nothing within this shall preclude the WAPC from making a decision, or imposing conditions, at variance with this LSP. The WAPC shall have due regard to, but is not bound by, the LSP when determining an application for subdivision approval for a property contained within the LSP.

Any modifications to this Plan are to be made in accordance with the procedures set out in section 5.17.14 of LPS 4.

5. LAND USE AND SUBDIVISION REQUIREMENTS

Subdivision of the land shall be carried out in accordance with this LSP, which has been developed in accordance with the Subdivision Design Requirements contained in Section 5.8

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of LPS 4. Lot sizes are consistent with those provided under the R5 and R2.5 coding contained in the Residential Design Codes.

Use class permissibility is contained in Table 1 of LPS 4. The requirements for the Residential zone apply. This LSP has no specific requirements in terms of land use, other than specific controls on the extent of uses prescribed within this document.

There are no Regional or Foreshore reserves required for this site. In consultation with the Shire a combination of cash-in-lieu and land will be provided for the required 10% Public Open Space requirements. This is in accordance with provisions of Development Control policy 2.3 and is to be implemented on future subdivision applications.

6. DEVELOPMENT REQUIREMENTS

Development of the lots created through this LSP shall comply with the Residential Design Codes in all respects except as follows:

- a) Building setbacks shall comply with the requirements of the Bushfire Management Plan that forms part of this LSP.

7. OTHER REQUIREMENTS

Copies of Certificates of Title for each lot within the LSP area are provided at Appendix 1.

PART TWO – EXPLANATORY

1. PLANNING BACKGROUND

1.1 Introduction & Purpose

This LSP has been prepared to coordinate subdivision of the subject properties as and when the respective owners choose to proceed. It has been prepared to address the requirements of the Shire of Mundaring Local Planning Scheme N^o 4, specifically section 5.17.

1.2 Land Description

1.2.1 Location

The subject site is located at the south-eastern edge of the Mount Helena townsite (refer Location Plan).

1.2.2 Area and Land Use

The subject site is 42.7709 ha in area and comprises 20 privately owned lots. They are described below:

Lot	House and Street	Area (Ha)
Lot No. 29	(25) Johnston	1.5707
Lot No. 30	(31) Johnston	2.9289
Lot No. 32	(49) Johnston	2.8327
Lot No. 100	(16) Dean	1.516
Lot No. 101	(18) Dean	1.3162
Lot No. 1	(1154) Bernard	2.026
Lot No. 2	(1072) Bernard	4.0089
Lot No. 3	(1276) Bernard	2.7505
Lot No. 28	(1743) Bernard	2.3623
Lot No. 35	(1337) Bernard	1.7704
Lot No. 36	(1185) Bernard	2.2763
Lot No. 37	(1093) Bernard	2.0234
Lot No. 38	(1011) Bernard	2.0234
Lot No. 39	(1365) Lion	1.8944
Lot No. 42	(1225) Lion	2.0436
Lot No. 11	(1725) Lion	2.1158
Lot No. 12	(1625) Lion	1.6195

Lot No. 13	(1525) Lion	1.6148
Lot No. 40	(325) Hummerston	2.0335
Lot No. 41	(475) Hummerston	2.0436

Historically, much of the land was cleared for agricultural and orchard use. Now, most lots remain in a predominantly cleared or parkland cleared state with small pockets of regrowth. A portion of the lots have been replanted with exotic species, such as pine. All lots contain dwellings and supporting outbuildings. The creek is predominately in a degraded state with sections modified to create garden, stock and leisure uses.

1.2.3 Legal Description and Ownership

Copies of the Certificates of Title for each of the lots within the LSP area are attached at Appendix 1. The subject lots are described below:

Lot number and Street Address	Volume	Folio	Registered Proprietor
Lot No. 29 (25) Johnston St.	1432	543	R Watson
Lot No. 30 (31) Johnston St.	1283	870	S Brayley
Lot No. 32 (49) Johnston St.	1154	557	S & G Pavey
Lot No. 100 (16) Dean St.	2669	483	R & A Lorkiewicz
Lot No. 101 (18) Dean St.	2669	484	H Gill
Lot No. 1 (1154) Bernard St.	1223	161	D Parsons
Lot No. 2 (1072) Bernard St.	1718	875	M & J Cousins
Lot No. 3 (1276) Bernard St.	1473	664	R Ragg
Lot No. 28 (1743) Bernard St.	1350	566	R & D Bacon
Lot No. 35 (1337) Bernard St.	1367	982	A Mercieca
Lot No. 36 (1185) Bernard St.	1277	880	J & P Reilly
Lot No. 37 (1093) Bernard St.	1398	692	C Melis & N Robertson
Lot No. 38 (1011) Bernard St.	1198	602	M Vandenadort
Lot No. 39 (1365) Lion St.	47	266A	R & R Oliver
Lot No. 42 (1225) Lion St.	1326	944	D Tomasi
Lot No. 11 (1725) Lion St.	1858	354	Magnum Plant Hire PTY LTD
Lot No. 12 (1625) Lion St.	1858	355	R & M Beaman
Lot No. 13 (1525) Lion St.	1858	356	E & R Hardy
Lot No. 40 (325) Hummerston St.	1018	498	M Oliver
Lot No. 41 (475) Hummerston St.	2022	666	R & L Davies

1.3 Planning Framework

1.3.1 Zoning and Reservations

The site is zoned 'Urban' under the MRS.

The site is currently zoned 'Development' under the Shire of Mundaring LPS 4. It contains no local or regional reserves, although there is a Regional Parks and Recreation reserve north and west of the LSP area as shown in the location plan.

1.3.2 Regional and Sub-Regional Structure Plans

The subject site has been identified as part of the existing Mt Helena hinterland under the WAPC's North Eastern Hills Settlement Pattern Plan. It has been identified as having a combination of soft and hard constraints, but no absolute constraints. It is a proposed growth area and the subdivision of the land after the adoption of the LSP will assist in achieving this.

1.3.3 Planning Strategies

LPS 4 Local Planning Strategy

The Shire of Mundaring has a Local Planning Strategy that supports LPS 4. In terms of Mount Helena, the Strategy specifically identifies the area bounded by Johnston Street, Hummerston Street, Lion Street and Elliot Road a portion of which is now the subject of this LSP to be investigated for potential residential expansion. In suitable locations which are primarily cleared and suitable for effluent disposal the Strategy supports residential development at R5 and/or R2.5, subject to suitable investigative reports and the rezoning of the land from Rural to Urban in the MRS. Amendment 12 to TPS4 was gazetted in August 2018 rezoning the land from Rural Residential 2 to Development, following the rezoning in the MRS.

Shire of Mundaring POS Strategy

The Council also has a Public Open Space (POS) Strategy which does not identify the Structure Plan area as a location requiring land to be provided as POS. In consultation with the Shire they have requested the provision of a 'pocket park' and the remaining portion to be cash-in-lieu. This LSP outlines these provisions and that in accordance with Section 153 of the Planning and Development Act 2005 arrangements be made subject to Western Australian Planning Commission approval for a cash-in-lieu contribution by the landowner/applicant to the Shire of Mundaring. This would facilitate the purchase or upgrade of POS directly related to the structure plan area.

Shire of Mundaring Local Biodiversity Strategy

Produced in 2009, this Strategy was utilised as a key component in the Council's LPS 4, which was gazetted in 2014. The two documents work together in trying to balance the need for growth in order to create a sustainable community whilst retaining valuable natural resources where practicable.

The Strategy in its recommendations recognised the development potential of the LSP area and Charlotte Creek. This LSP preserves the Creek in private ownership with relevant

management plans and easements to ensure adequate maintenance of biodiversity and providing Shire access. This approach creates a linear corridor that can be re-vegetated to create an ecological asset.

The designations of Local Natural Areas (LNA) in the Shire as part of the Strategy have been done via aerial images. Site investigations have shown that an area in the LSP area mapped for protection is exotic planted species, like pines. The LSP through the provisions of TPS4 clause 5.9.3.7 respond to this matter.

Furthermore, the site has been rezoned since the production of the Local Biodiversity Strategy and would now be more appropriately designated as an LNA 'Limited Protection / Already Committed by Zoning'.

1.3.4 Policies

There are several policies that may have the potential to affect the proposed LSP. These are listed below, with comments on how the LSP complies.

WAPC DC 1.1 – Subdivision of Land General Principles

This policy sets out the process of land subdivision, including the need (in some cases) for Structure Plans to coordinate subdivision, developer contributions, and the provision of infrastructure.

WAPC DC 1.7 – General Road Planning

This policy provides for road construction and/or upgrading contributions for subdivisions that utilize existing roads. This will be required in this instance and is addressed within this LSP.

WAPC DC 2.2 – Residential Subdivision

DC 2.2 provides broad guidance on residential subdivision, including lot sizes, lot configuration, and connections to infrastructure. The LSP complies with these.

WAPC DC 2.3 – Public Open Space in Residential Areas

In consultation with the Shire and as outlined in the Shire's POS Strategy the LSP area is not identified as a location for the provision of POS. Notwithstanding, the standard residential subdivision requirements will apply and take the form of a combination of land and cash-in lieu for POS. This outcome enables a 'pocket park' in the structure plan area and the consolidation of POS within Mount Helena as outlined in the Shires POS Strategy. The fragmented land ownership within the LSP area supports this approach. The Shire will follow the Development Control Policy 2.3 regarding the upgrade or acquisition of land as per the POS strategy and/or provisions of this policy.

WAPC DC 2.6 – Residential Road Planning

This is a follow up policy to DC 1.7. It focuses on residential road hierarchy and road design, critically permeability, variety, legibility and accessibility. It accommodates motor vehicle, cycle and pedestrian traffic movement. These aspects are incorporated into the design.

SPP 3.1 Residential Design Codes

Being zoned Development, the site is subject to the preparation of a structure plan as per clause 5.16 of LPS4. The prepared LSP incorporates the Residential Design codes in designating R5 and R2.5 zoning for the subject site as shown on Plan 1

SPP 3.7 Planning in Bushfire Prone Areas

This Structure Plan is located within a bushfire prone area and is therefore subject to the provisions of SPP 3.7. A Bushfire Management Plan has been prepared which identifies how the risk arising from bushfires is to be mitigated and is discussed within the Site Conditions and Constraints section.

SPP 2.9 Water Resources

A Local Water Management Strategy (LWMS) has been prepared addressing the key principles and general objectives of the policy. The outcomes of this Strategy are discussed in the Site Conditions and Constraints and Land Use and Subdivision Requirements sections.

1.3.5 Guidelines

Guidelines for the Preparation of Structure Plans (WAPC) This LSP has been prepared in accordance with these guidelines.

Better Urban Water Management Guidelines

Related to SPP 2.9 (above), this sets out a framework for the preparation of reports to ensure an appropriate level of consideration is given to the total water cycle at various stages of land development. The appropriate level of assessment at the LSP stage is a Local Water Management Strategy, which has been prepared for this site and forms part of this LSP.

1.3.6 Other Approvals

On October the 4th 2017 the Minister resolved to approve Metropolitan Region Scheme (MRS) amendment 1277/57 rezoning the land from Rural to Urban. Section 124(2) of the Planning and Development Act 2005 requires LPS4 to be amended so it is consistent with the MRS. The Shire initiated this process with Scheme Amendment 12 and the Council in January 2018 resolved to adopt the Amendment and provide it to the WAPC and Minister for determination. Amendment 12 was approved by the Minister and gazetted in August 2018 rezoning the land from Rural Residential 2 to Development.

2. SITE CONDITIONS AND CONSTRAINTS**2.1 Biodiversity and Natural Area Assets**

As mentioned above, most lots have historically been cleared for agricultural grazing or orchards with some pockets of remnant vegetation, regrowth and some replanted with exotic species (refer Aerial Photo attached).

There are no Bush Forever sites on the land.

Under Council's Local Natural Area mapping, the majority of the area has no protection category due to historical clearing. There is a small pocket of vegetation identified for "protection" and this has been addressed through the LSP and Residential density codes. The LSP recognizes the site's natural assets, including Charlotte Creek, which have been assessed as part of the LPS and recognizes that the zoning will provide an opportunity for development of the land. A site-specific botanical assessment of this site has been carried out (with the exception of Lot 28 Bernard Street & Lot 29 Johnston Street because the owners elected not to allow access) and is appended to this LSP (Appendix 2). It states that the vegetation on most of the lots is degraded, although there are areas of good quality vegetation, notably portions of Lot 3 Bernard Street in the north-western corner of the site.

The botanical assessment found no threatened ecological communities on the land accessed. Some lot owners would not allow access to their properties. These sites have been assessed from the boundary and will require individual investigation as and when those owners seek to apply for subdivision.

The study indicated that large trees should be retained for fauna habitat, good vegetation be retained where possible and protected from weed and dieback. These aspects have been incorporated into the LSP

In consultation with the Shire the creek is to be maintained predominantly in private land. Revegetation will occur through the provisions and requirements of a management plans at subdivision stage, which will include easements for Shire access if/when required. This approach will protect the asset and enhance the current poor condition through managed revegetation.

2.2 Landform and Soils

The land is slightly undulating with the highest point on the west and eastern boundaries (290m AHD at Lion Street and 295m AHD at Johnson Street). The land slopes down towards the middle of the site with Charlotte Creek located in the valley at approximately 275m AHD.

Soils have been mapped previously by the Department of Agriculture and Food (DAFWA). This mapping shows that there are two different soil types on the site - Yarragil and Dwellingup. The valley containing the creek is mapped as Yarragil, with Yg4 in the location of the creek and Yg1 on the valley floor with the balance of the site mapped as Dwellingup (D2). This is consistent with soil types east of the Darling escarpment and in valley locations. The capability of these soil types is provided below in Table 1.

In terms of land use, that is residential, there are few limitations across the site. The D2 land unit is the predominant land unit at the north of the site and has long proven capacity to sustain houses, roads and on-site effluent disposal through standard septic tank / leach drain systems. The location of the creek is reflected on the LSP and the 30m setback required for achieving onsite effluent disposal. Nonetheless a site-specific effluent disposal assessment has been carried out that confirms that the site is capable of supporting on-site effluent disposal either through conventional leach drains or ATU systems. A copy of that report is provided at Appendix 3 as part of the Local Water Management Strategy.

Subdivision in accordance with this LSP will not require any substantial excavation or dewatering. No canals or other artificial water features are proposed to be created. The site is within a low Acid Sulfate Soils risk area. Site investigations identified no at risk or “suspect” minerals or conditions during investigations or in soil test holes.

Table 1

RURAL RESIDENTIAL				HOBBY FARMING/AGRICULTURE			WATER SUPPLY			
Land Unit	Rural retreat (housing, roads & effluent disp.)	House and road constructio n	Effluent disposal (septic tanks)	Grazing	General annual horticulture	General perennial horticulture	Irrigation water supply+ (best option)	Earth dam rating (D)	Groundwa ter bore rating (B)	Stream supply rating (S)
Dwellingup										
D2	III p	II	III p	II	III k	II	V, h,d,g,j (D,B,S)	V h,d	V g	V j
Yarragil										
Yg1	II	II	II	II	II	II	III h,g (D,B)	III h	III g	V j
Yg4	Vo	III f,i	Vo	II	III i,e,k	III i	I (D)	I	II	II

Legend* to Table 1

Capability class

Capability subclass

Land quality

I	Very high capability	d	Subsoil water retention ability
II	High capability	e	Water erosion risk
III	Fair capability	f	Flood Risk
IV	Low capability	g	Groundwater availability
V	Very low capability	h	Dam site construction suitability
		i j	Waterlogging/inundation risk
		k	Surface water availability
		o	Soil workability
		p	Water pollution risk – by overland flow
			Microbial purification ability

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2.3 Groundwater and Surface Water

There is a natural watercourse - Charlotte Creek - through the middle of the site. The Mundaring Environmental Geology 1: 50,000 Geological Map, Geological Survey of Western Australia, 1986 identifies the site as being crossed by a sand filled valley and the centre of this is the location of Charlotte Creek. The creek is seasonal forming from seepage and inflows in winter periods. The historical clearing at the site and road drainage has contributed to the level of soil moisture and will be reduced once drainage basin construction and creek revegetation occurs. Revegetation of the valley floor 10m either side of the creek line will return the ground water levels to a more natural level while allowing the creek to continue its current function.

The location of the creek has been modified through historical excavation and used as a drain for both internal and external (road) water. Soaks have been excavated to assist in lot drainage and to create water features on private properties.

The LSP provides a 30m setback from the creek line for effluent disposal units and a 20m setback for building.

2.4 Bushfire Hazard

The land has been mapped as bushfire prone and a Bushfire Management Plan (BMP) has been prepared for the structure plan site. The BMP has been prepared in accordance with SPP3.7 and Guidelines for Planning in Bushfire Prone Areas version 1.3 and is included in Appendix 4. The BMP demonstrates that future buildings on new lots will be located within areas of BAL-29 or lower.

2.5 Heritage

A review of Councils Municipal Inventory revealed no sites of significance.

2.6 Context and Other Land Use Constraints

Overhead power is available to the site.

Reticulated water is available to the site but may require upgrades to existing infrastructure at subdivision stage.

The site is remote from reticulated sewer. Effluent will need to be disposed of on site. As mentioned above, each proposed lot has areas with appropriate locations for either standard effluent disposal or via the use of ATU systems as shown on the attached plan 4 (subdivision concept plan)

Telecommunications are available to the site.

Lion Street, Hummerston Street, Dean Street, Johnston Street and a portion of Bernard Street are all sealed roads. Bernard Street north of the Dean Street intersection is not sealed and will require construction to the required standard at subdivision stage for lots fronting this road. The lots in the area have multiple directions for access and egress and the additional proposed roads will enhance this connectivity as required under the principle of liveable neighbourhoods.

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3. LAND USE AND SUBDIVISION REQUIREMENTS

3.1 Land Use

Land use will be residential and Public Open Space.

3.2 Open Space

A portion of Public Open Space (POS) will be provided in a consolidated location in the shallow valley across Lots 29 & 30 Johnson Street and Lot 28 Bernard Street as a linear corridor incorporating the open drain, providing a pocket park for residents. Development of the shallow valley POS will involve a weed eradication programme and a bush fire sensitive revegetation programme. It is not proposed to develop the POS for any organized sporting activity and the area will be unirrigated with a suitable community space to provide for passive community enjoyment. POS will be given up as a condition of individual subdivision approvals in the normal manner either as land or as cash-in-lieu.

Consultation with the Shire has indicated that a community pocket park incorporating a section of Charlotte Creek is a desired outcome for the location and that the shortfall of the required 10% POS can be in the form of cash-in-lieu due to the proximity of existing recreational areas and facilities for the future residents as shown on the attached plan 6.

All newly created lots adjoining the POS shall have visually permeable fencing installed to provide passive surveillance.

Public Open Space Schedule

Site Area	42.7709 ha
Less	0 ha
Net Site Area	42.7709 ha
Deductions	0 ha
Gross Subdivisible Area	42.7709 ha
Public Open Space @ 10%	4.27709 ha
Public Open Space contribution	
- Minimum 80% unrestricted	3.421672 ha
- Potential 20% restricted (drainage)	0.855418 ha
Restricted POS proposed	0.1553 ha
Public Open Space provision	2.54 ha

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3.3 Lot Sizes

Lots are proposed to be either R5 or R2.5 resulting in a minimum lot size of either 2,000m² or 4,000m² in accordance with the R-Coding. A conceptual subdivision configuration is provided at Plan 4.

3.4 Movement Network

As mentioned at 2.6 above, the site is serviced by multiple roads with Hummerston Street on the southern boundary, Lion on the eastern boundary, Johnston on the western and Bernard and Dean linking through the location from west to east. The northern portion of Bernard Road is not fully constructed. It will provide the northern access to the site with internal subdivision roads being constructed off it, as well as providing frontage to some future lots.

A subdivision road will be installed on the north boundary of the site, linking Bernard and Lion Streets. The road reserve is 20m wide (all others in the structure plan are 16m) to provide additional separation from the native vegetation external to the LSP area to the north. As per The Shires Street Tree policy the 20m road reserve will support the retention of potential black cockatoo nesting trees in the road reserve as street trees. The 20m width will support the installation of drainage infrastructure with less impact on the verge vegetation.

3.5 Water Management

The LWMS provided at Appendix 4 details water management across the site. It establishes the surface drainage concept and groundwater movement pattern. It demonstrates that the site can be developed using on-site effluent disposal systems.

3.6 Infrastructure Coordination, Servicing and Staging

Due to the fragmentation of land ownership, it is likely that the subdivision of land within the LSP will take place in stages. These are yet to be determined and will be dependent on owners' ambitions and the property market. Likely staging is indicated on Plan 5. Subdivision conditions and the resulting supporting documentation and works will respond to the individual stages.

The Structure Plan area has infrastructure available but will require the installation of additional infrastructure on subdivisional roads and transformers to service proposed lots. These services are all in proximity of the site and as the Shire of Mundaring scheme does not have the provisions for a developer contribution scheme cost sharing arrangements for infrastructure will need to be arranged by individual landowners through private agreements. These items include:

- Reticulated water supply upgrade
- Stormwater drainage
- Bernard Street upgrade

These items will be addressed through any subsequent subdivision conditions.

3.7 Other Requirements

Upgrade requirements for existing roads shall be determined by the Local Government at the time of subdivision. All lots shall ultimately be provided with sealed and drained road frontage to Local Government specifications.

The proposed new subdivision roads shall be created and constructed by the owners whose proposed lots front that road when those lots are proposed to be created. Where shared roads are proposed the owners of the adjoining lots will be required to share the road requirements in terms of land and cost of development unless alternative arrangements are made, and approved by the Local Government, to ensure that all proposed lots have adequate road frontage.

Fencing adjoining POS shall be constructed by the subdivider and shall be visually permeable.

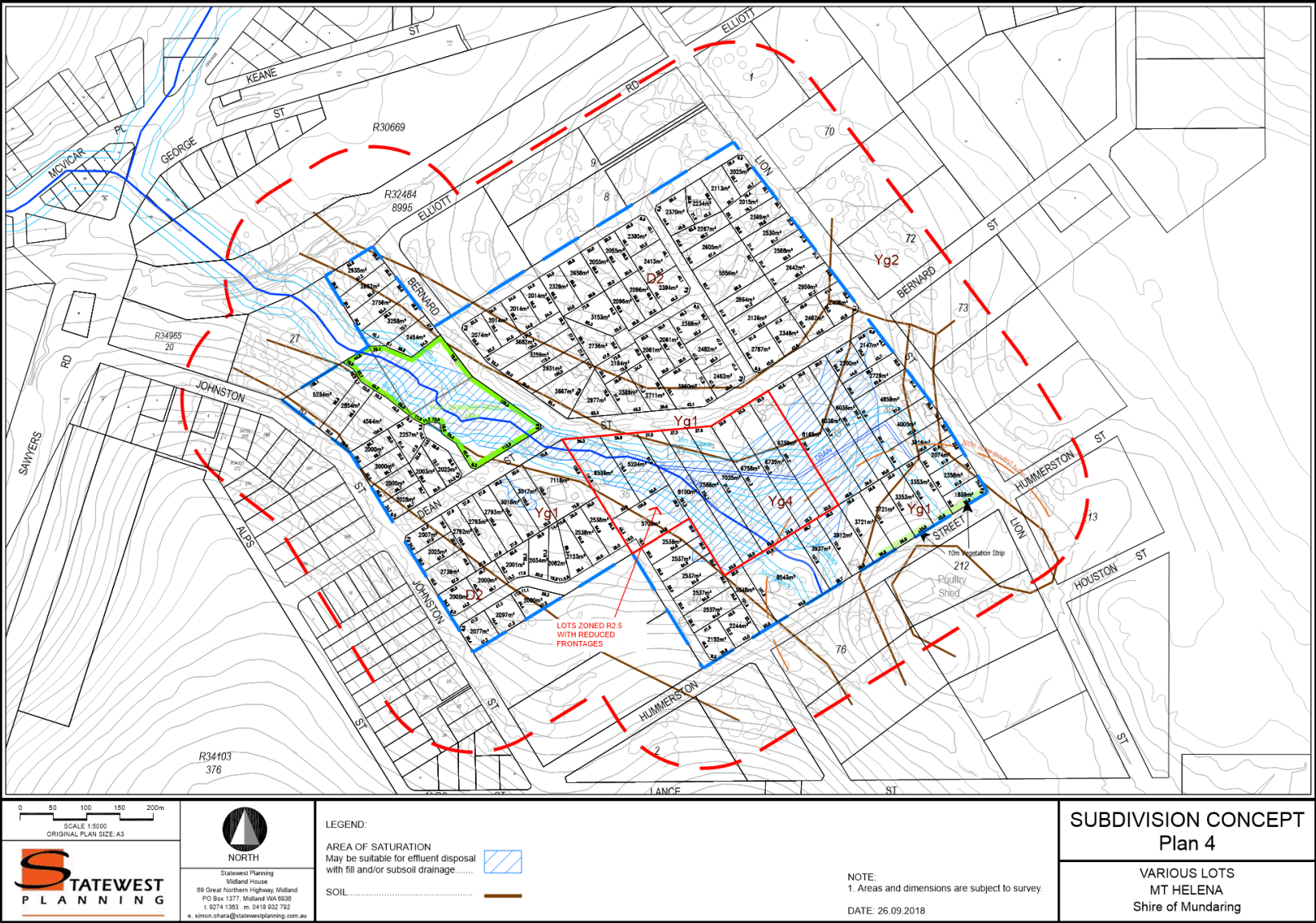
All subdividers are to ensure that development of their site conforms with the requirements of the Aboriginal Heritage Act 1972 (as amended).

Effluent disposal systems shall be installed in accordance with the recommendations of the On-Site Effluent Disposal Investigation (Bayley Environmental Services) report contained in Appendix 3 unless alternative arrangements are made with the Local Government based on site specific assessment.

The structure plan area is located within a bushfire prone area. A BMP was submitted as part of the application (Appendix 4) to demonstrate lots within the concept plan are capable of development. To ensure bushfire risk is appropriately mitigated, any subdivision application within the structure plan area will be required to be accompanied by an updated BAL assessment and BMP specific to their site.

Portions of the structure plan area are located within a Local Natural Area. Efforts to ensure the appropriate protection of trees are required. Any subdivision application within the structure plan area will be required to be accompanied by a tree retention plan. The requirement for retaining vegetation will need to be balanced with the requirements for clearing for subdivision works and bushfire risk management.

As discussed previously in section 2.1 Biodiversity and Natural Area Assets, a botanical assessment was undertaken for the majority of the lots within the structure plan area (Appendix 2). The outcomes of this are shown in the LSP and through this process under clause 5.9.3.7 of TPS4 the mapped LNA area will require amendment to reflect the actual site conditions. Lot 28 Bernard Street and Lot 29 Johnston Street were not included as part of this assessment. Any application of subdivision for these parent Lots will be required to be accompanied by a flora survey.



Proposed Structure Plan 77 - Summary of submissions received during advertising and officer responses

A full copy of all responses is provided as a separate attachment (refer Attachment X: Table of submissions received during advertising).

Submissions have been presented in the order they were received. Comments of support or no objection are grouped at the start of each Part.

Submission number	Submitted by	Page
Part 1 - Agencies, service providers, community groups and other organisations		
3, 5, 8, 18, 51 and 57	Department of Transport; City of Kalamunda; ATCO Gas; Department of Education; Perth Airport; Water Corporation	3
22	Department of Water and Environment Regulation	3
49	Department of Health	4
52	Friends of Pioneer Park	5
53	Mount Helena Residents and Ratepayers Association	5
54	Department of Biodiversity, Conservation and Attractions – Parks and Wildlife Service	6
56	Friends of Alps Street Reserve	6
59	Main Roads Western Australia	7
62	Department of Biodiversity Conservation and Attractions – Rivers and Estuaries Branch	8
63	Department of Fire and Emergency Services – Rural Fire Division	8
64	South West Aboriginal Land and Sea Council	9
Part 2 - Submissions from individuals		
2, 4, 6, 7, 9, 11, 14, 15, 17, 24, 25, 26, 27, 28, 32, 33, 34, 35, 36, 38, 39, 40, 41, 42, 43, 44, 45, 46, 47 and 48	Landowners within the structure plan area, nearby landowners and other individuals within and outside of the Shire of Mundaring	10
1	Landowner abutting the structure plan area	10
10	Landowner within the structure plan area	11
12	Landowner within the structure plan area	11
13	Nearby landowner	12
16	Landowner abutting the structure plan area	12

19	Landowner abutting the structure plan area	13
20	Nearby landowner	13
21	Nearby landowner	14
23	Nearby landowner	14
29	Nearby landowner	14
30	Nearby resident	15
31	Nearby landowner	15
37	Nearby landowner	15
50	Nearby landowner	16
55	Landowner within the structure plan area	16
58	Nearby landowner	16
60	Landowner within the structure plan area	17
61	Nearby landowner	17

Part 1 - Agencies, service providers, community groups and other organisations

Submission: 3, 5, 8, 18, 51 and 57

Submitted by: **Department of Transport; City of Kalamunda; ATCO Gas; Department of Education; Perth Airport; Water Corporation**

Summary: The above agencies/organisations provide general comments and/or raise no objections to the proposal.

Planning comment:	'No objections' noted. Refer also 'Water supply' assessment in the main report.
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Submission: 22 (Parts A and B)

Submitted by: **Department of Water and Environment Regulation (DWER)**

Summary: Recommend Local Water Management Strategy (LWMS) be amended to reference Draft Government Sewerage Policy, including 100m waterway setback for onsite effluent disposal; may be reduced to 30m with the use of Aerobic Treatment Units (ATU's), where demonstrated that waterways will not be contaminated.

Lot configuration: minimise number of lots which intersect the waterway to reduce impact of fences, firebreaks and no. of crossings on watercourse.

A detailed assessment of the LWMS raised the following issues:

- Missing sections
- Relationship to previous planning stages / studies not discussed
- Should address DRAFT Government Sewerage Policy 2016
- DoW OP 4.3 not applied or addressed - require Biophysical assessment and more detailed foreshore area landscape plan in LMWS.
- No PRI testing undertaken

Comments and recommended LWMS changes:

- Additional winter groundwater and surface water monitoring recommended
- 0.6m – 1.5m effluent disposal system separation from groundwater

- ATU's only recommended in Yg4 areas
- Developer to demonstrate that effluent systems with a setback less than 100 m to a watercourse are appropriate considering site factors (such as soil type, permeability, vegetation cover) and have a low risk of contamination.
- DWMS recommends 50m watercourse setback
- LWMS updated to reflect where ATU's (inc. secondary treatment) is required
- Demonstrate sub-soil drainage outlet and treatment prior to entering watercourse - concern that sub-soil drainage will fast track leachate from septic systems into the watercourse.
- Minimise piped network and encourage 'at-source' management using overland and disconnected flow paths – reflect in LWMS
- Identify areas requiring easements
- LWMS to discuss potential cumulative effect of on-site effluent disposal and how this will be minimised / managed
- Content of future UWMPs and additional investigations required.
- Identify that a Foreshore Management Plan will be required as a condition of subdivision.

Planning comment:	<p>Refer to 'Supporting information', 'Charlotte Creek', 'Drainage', 'Effluent Disposal' assessments within the main report.</p> <p>Modifications and additional detail prior to subdivision approval are recommended to address the issues raised by DWER.</p>
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Submission: 49

Submitted by: **Department of Health (DoH)**

Summary: New development to connect to scheme water.

Onsite wastewater in accordance with AS 1547 and DoH publications.

May be public concern regarding spray drift from existing agricultural land uses. Refer DoH Guidelines.

Shire should consider mosquito management plan.

Planning comment:	Scheme water is available in the area. Refer also 'Water supply' assessment in the main report.
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	<p>Regarding onsite wastewater, refer to <i>Submission 22</i> and the 'Effluent Disposal' assessment in the main report.</p> <p>There is an operational vineyard to the east of the structure plan area. Spray operations are not likely to impact future residential development. Refer also 'Nearby noxious land uses' assessment in the main report.</p> <p>The requirement for mosquito management plans for stagnant water bodies will be considered at the subdivision stage.</p>
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Submission: 52

Submitted by: **Friends of Pioneer Park**

Summary: Charlotte Creek should be protected. Further investigation is required. The watercourse and wetland area should be reserved as POS.

Aboriginal heritage should be investigated.

Vegetation should be protected. Further investigations required regarding dieback, relationship with and impact on nearby reserves, vegetation corridors.

Will Elliott Road reserve be constructed?

Planning comment:	<p>Refer to 'Charlotte Creek', 'Aboriginal Heritage', 'Supporting documentation' and 'Vegetation protection' assessments in the main report.</p> <p>The proposal acknowledges Elliott Road as an existing road reserve. Its construction is not considered necessary to allow subdivision of land in the proposed structure plan area. Refer also 'Road network' assessment in the main report.</p>
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Submission: 53

Submitted by: **Mount Helena Residents and Ratepayers Association**

Summary: Not opposed.

Charlotte Creek to be protected. Suitable access is to be provided in the event of an emergency (bushfire).

Planning comment:	Refer 'Charlotte Creek' and 'Bushfire' assessments in the main report.
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Submission: 54

Submitted by: **Department of Biodiversity, Conservation and Attractions (DBCA) - Parks and Wildlife Service**

Summary: Department of Water and Environmental Regulation should review and approve LWMS.

Ensure future development does not adversely impact on the watercourse(s).

Retain native vegetation, especially LNA and habitat for black cockatoos. Include as POS.

2012 vegetation assessment is insufficient. Flora and vegetation survey, prepared in accordance with EPA's Guidance Statement 51 required before finalising the structure plan.

Proponent should contact the Commonwealth Department of the Environment and Energy (DotEE) to determine what responsibilities they have under the EPBC Act.

Tree preservation plan and use of alternative firebreaks likely required at subdivision stage.

The department supports perimeter roads to separate residential development from regional open space.

Planning comment:	Refer 'Supporting information', 'Charlotte Creek', 'Drainage' and 'Vegetation protection' assessments within the main report.
	Comments regarding responsibilities to EPBC Act., tree preservation and perimeter roads are noted.

Submission: 56

Submitted by: **Friends of Alps Street Reserve**

Summary: Concerns raised regarding the potential ecological compromise of the structure plan area and surrounding environmental assets including: Charlotte Creek, Alps Street Reserve, vegetation (including fauna corridors) and wetlands (impact of a drain). Further studies recommended.

Concerns raised regarding Aboriginal heritage and the lack of information/assessment of Aboriginal heritage within the proposal. Concern raised that Aboriginal heritage is omitted from the scope of Shire Heritage Policy.

The proposal does not meet the structure plan requirements within Local Planning Scheme No. 4 (LPS4).

The lot sizes are too small.

Public Open Space (POS) is not functional.

The accuracy and details within the supporting information (e.g. BMP, LWMS, Flora and Vegetation Assessment) is questioned and considered insufficient to determine the proposal.

The drainage concept is inadequate and does not correlate with the proposed staging of the subdivision.

Concerns raised regarding access, including increased traffic, future road upgrades, Elliott Road (construction unknown) and associated road infrastructure).

Concerns raised regarding future water supply.

Planning comment:	Refer 'Charlotte Creek', 'Vegetation', 'Aboriginal heritage', 'Residential density', 'POS', 'Supporting information', 'Drainage', 'Road network' and 'Water supply' assessments within the main report. The structure plan provisions of LPS4 are superseded by the Planning and Development (local planning schemes) Regulations 2015 (Schedule 2: deemed provisions for local planning schemes).
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Submission: 59

Submitted by: **Main Roads Western Australia (MRWA)**

Summary: Object. MRWA does not support the proposal for the following reasons:

The proposal will result in approximately 1100 vehicles per day onto the surrounding road network. This will have a significant impact on the surrounding road network, in

particular Lion Street and its intersection with Great Eastern Highway.

The proposal should be a Transport Impact Assessment (TIA) in accordance with the WAPC's Transport Impact Assessment Guidelines 2016, including SIDRA modelling where required.

Planning comment:	Refer 'Road network' assessment within the main report. A comprehensive TIA is not considered necessary.
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Submission: 62

Submitted by: **Department of Biodiversity, Conservation and Attractions (DBCA) - Rivers and Estuaries Branch**

Summary: Comments provided regarding operational policies:

Maintenance and restoration of natural vegetation should be promoted and existing native vegetation should be retained to provide vegetation corridors and linkages.

A minimum width of 30 metres for foreshore land reservations is provided. However, it is acknowledged that the provision of 30 metre setbacks for some of the lots would severely limit the ability of the lot to support development.

Recommended all new subdivision connect to reticulated sewer, where possible.

Planning comment:	Refer 'Vegetation', 'Residential density' and 'Drainage' assessments within the main report.
	Reticulated sewer is not provided in the area.

Submission: 63

Submitted by: **Department of Fire and Emergency Services (DFES) - Rural Fire Division**

Summary: Object. The DFES have advised that the proposal cannot be supported until the BMP is modified to:

- Justify vegetation classifications and exclusions (BAL contour map);
- Address indicative new lots (Lots 28 and 29) being subject BAL-40 / BAL-FZ;

- Separate the bushfire hazard through the provision of public roads or managed public open space between the bushfire hazard and proposed development;
- Remove the proposed cul-de-sacs;
- Provide a Fire Service Access Route (FSAR) along the north-western boundary of the structure plan area connecting Johnston Street and Elliot Road through the existing Lots 28 & 29.

Planning comment	Refer 'Bushfire' assessment in the main report.
Submission:	64
Submitted by:	South West Aboriginal Land and Sea Council (SWALSC)
Summary:	<p>Within the Project Area is an "Other Heritage" site ID 3391 Paul's Farm/artefact scatter.</p> <p>The Whadjuk People seek to protect the heritage site in accordance with the Aboriginal Heritage Act 1972 (WA).</p> <p>Consultation is sought to discuss an Aboriginal heritage management plan to protect any artefact scatter.</p> <p>SWALSC also recommends monitors are engaged during ground disturbing activity to identify the extent of artefacts scatters within the Project Area.</p>
Planning comment:	Refer 'Aboriginal heritage' assessment in the main report.

Part 2 - Submissions from individuals

Submission: 2, 4, 6, 7, 9, 11, 14, 15, 17, 24, 25, 26, 27, 28, 32, 33, 34, 35, 36, 38, 39, 40, 41, 42, 43, 44, 45, 46, 47 and 48

Submitted by: **Landowners within the structure plan area, nearby landowners and other individuals within and outside of the Shire of Mundaring**

Summary: Support. Various comments in favour of the proposal.

Submission 2 supported the proposal and highlighted the need for Shire budgeting to account for future road upgrades in the area.

Planning comment: Support by 30 submissions noted.

Regarding submission 2, refer 'Road network' assessment in the main report.

Submission: 1

Submitted by: **Landowner abutting the structure plan area**

Summary: Request for Lot 27 to be included in the structure plan area, due to: long street frontage; parkland cleared; a loss of amenity, without recompense.

Charlotte Creek. Number of lots to be reduced and size of lots increased where developable areas are limited. Not doing so will pollute waterway.

Public Open Space (POS) is not functional.

The accuracy and details within the supporting information is questioned.

Water infrastructure needs to be improved.

Drainage proposal not consistent with proposed staging and interim measures will adversely impact the watercourse(s).

Concerns raised regarding traffic, future road upgrades. In order to protect significant vegetation, Elliott Road should not be constructed.

MRS and LPS4 amendment should be amended to include Lot 27.

Planning comment:	<p>Refer 'POS', 'Charlotte Creek', 'Residential density', 'Water supply', 'Drainage' and 'Road network' assessments within the main report.</p> <p>Any (MRS/LPS4) rezoning of Lot 27 would be subject to a separate amendment process.</p>
Submission:	10
Submitted by:	Landowner within the structure plan area
Summary:	<p>Will properties providing more than 10% POS be appropriately compensated?</p> <p>The proposed cul-de-sac within Lot 30 is excessive as it serves only one (indicative) lot. A battle-axe lot would be more appropriate.</p>
Planning comment:	<p>Subject to approval by the WAPC, the Planning and Development Act 2005 provides the ability for the Shire to reimburse a landowner providing more than 10% POS, with money collected as 'cash-in-lieu' of POS via other subdivisions in the structure plan area.</p> <p>Refer 'Road network' assessment in the main report.</p>
Submission:	12
Submitted by:	Landowner within the structure plan area
Summary:	<p>Contrary to statements in the supporting information, property access was never denied to any party representing the applicant(s). In this respect, Shire Officers are invited to the property to make their own observations.</p> <p>Multiple concerns raised including:</p> <ul style="list-style-type: none"> - Accuracy of supporting information (saturated areas); - The location and extent of POS; - Non-participating landowners will be forced to provide POS(?); - Drainage; - Access (road upgrades, footpaths); - Infrastructure upgrades (power, water etc.)
Planning comment:	<p>Shire officers undertook a site visit of the properties affected by the watercourse. An observation of this site visit was that the southeast corner of Lot 28, indicated in</p>

	<p>the LWMS as water saturated, did not appear to be subject to water saturation; contraction of POS boundary may be supported at subdivision stage.</p> <p>Refer 'Supporting information', 'POS', 'Drainage', 'Road network' and 'Water supply' assessments in the main report.</p>
Submission:	13
Submitted by:	Nearby resident
Summary:	<p>Multiple concerns raised, including:</p> <ul style="list-style-type: none"> - Flame zone ratings shown in BAL Contour Map. Will the proposal increase bushfire risk to surrounding properties?; - Access (future road upgrades); and - Water supply
Planning comment:	<p>BAL Contour mapping has been used to demonstrate the bushfire risk to land within the structure plan area, due to existing vegetation outside of the structure plan area. The proposal is not likely to increase the bushfire risk to surrounding residents.</p> <p>Refer also 'Bushfire', 'Road network' and 'Water supply' assessments in the main report.</p>
Submission:	16
Submitted by:	Landowner abutting the structure plan area
Summary:	<p>Multiple concerns raised including:</p> <ul style="list-style-type: none"> - Traffic (speeding, hooning, increased safety risk at driveway); - Infrastructure (street lighting and water supply); - Existing vegetation should be retained; and - Accuracy and detail within supporting information (LWMS; Flora and vegetation assessment);
Planning comment:	<p>Speed limits are set by MRWA and enforced by WA Police. Subdivision streets will need to demonstrate compliance with Austroads standards at subdivision stage.</p> <p>Refer also 'Road network', 'Water supply', 'Vegetation' and 'Supporting Information' assessments in the main report.</p>

Submission: 19

Submitted by: **Landowners abutting the structure plan area**

Summary: Multiple concerns raised, including:

- Adverse impacts to Charlotte Creek;
- Lot sizes and configuration;
- Wetland requires investigation;
- Lots do not maintain 'rural' aspect;
- Bushfire risk;
- Drainage;
- Access (limit vegetation removal if construction of Elliott Road is required, future road upgrades, traffic); and
- Water supply

Planning comment:	The land is zoned for 'urban' development; future development is not expected to maintain a 'rural' aspect. Refer 'Charlotte Creek', 'Residential density', 'Wetland', 'Bushfire', 'Drainage', 'Road network' and 'Water supply' assessments in the main report.
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Submission: 20

Submitted by: **Nearby resident**

Summary: Object. Multiple concerns raised, including:

- Charlotte Creek;
- Vegetation protection (also in future stages of development);
- Detail and accuracy of supporting information;
- Sustainability;
- Fauna assessment (none undertaken);
- POS (should be full length of Charlotte Creek);
- LWMS (development impact on waterways, drainage, soil permeability, groundwater impact - quality);
- Effluent disposal (types of units, setbacks etc.);
- Climate change (density should be decreased to retain trees and improve environmental value);
- Bushfire; and
- Traffic

Planning comment:	Reasons for objection noted.
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Refer relevant assessments within the main report.
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Submission: 21

Submitted by: **Nearby landowner**

Summary: Multiple concerns raised, including:

- Lot size and configuration;
- Charlotte Creek;
- POS (current proposal not practical, should be full length of Charlotte Creek);
- Access (Elliott Road);
- Detail and accuracy of supporting information;
- Water supply;
- Rural amenity

Planning comment:	The land is zoned for 'urban' development; future development is not expected to maintain 'rural' amenity.
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Refer relevant assessments within the main report.

Submission: 23

Submitted by: **Nearby landowner**

Summary: Construction of Elliott Road would require the removal of natural bushland. The construction is not necessary.

Planning comment:	The proposal acknowledges Elliott Road as an existing road reserve. Its construction is not considered necessary to allow subdivision of land in the proposed structure plan area. Refer also 'Road network' assessment in the main report.
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Submission: 29

Submitted by: **Nearby landowner**

Summary: Development to reflect "...*sound ecological and environmental principles that will protect and if possible enhance our area.*" Concerns raised include:

- Charlotte Creek (lot configuration to respond to and protect);
- POS extent (wildlife corridors – from Alps Street);
- Wetland features;

Planning comment:	Refer 'Charlotte Creek', 'POS', 'Vegetation' and 'Wetland' assessments within the main report.
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Submission: 30

Submitted by: **Nearby resident**

Summary: Object. Multiple concerns raised, including:

- Ground water quality;
- Watercourse;
- Amenity;
- Fauna habitat, wildlife corridors;
- Water supply; and
- Bushfire

Planning comment:	Reasons for objection noted. Refer relevant assessments within the main report.
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Submission: 31

Submitted by: **Nearby landowner**

Summary: Object. Multiple concerns raised, including:

- Vegetation;
- Fauna;
- Infrastructure costs (water, power, roads); and
- Charlotte Creek

Planning comment:	Reasons for objection noted. Immediate infrastructure requirements are borne by the subdivider. Refer also 'Vegetation', 'Road network' and 'Charlotte Creek' assessments within the main report.
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Submission: 37

Submitted by: **Nearby landowner**

Summary: Object. Concerns raised:

- Infrastructure (e.g. streets, lighting, internet); and
- Precedent for further urban development

Planning comment:	Immediate infrastructure requirements are borne by the subdivider.
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Refer also to 'Background' section of the main report.
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Submission: 50

Submitted by: **Nearby landowner**

Summary: Multiple concerns raised, including:

- Density;
- Charlotte Creek;
- Wetland;
- Vegetation (reliability of data);
- POS (limited practical enjoyment);
- LWMS (reliability of data);
- Water supply; and
- Access (traffic increase – safety, Elliott Road)

Planning comment: Refer relevant assessments within the main report.

Submission: 55

Submitted by: **Landowner within the structure plan area**

Summary: LWMS mapping (saturated areas) is over-exaggerated.

Propose Lot 35 to be coded R5, instead of R2.5 (R2.5 does not allow flexibility).

Propose alternative lot layouts for Lot 35 (presented at R5 coding; refer full submission).

Alternative road layout for Lots 32 and 35 in order to improve access (bushfire) and road frontage (Lot 35).

Rehabilitation of Charlotte Creek supported.

<p>Planning comment: Officer observations generally support extent of saturation identified within the LWMS for Lot 35.</p> <p>Insufficient area (Lot 35) north of Charlotte Creek for future development.</p> <p>Alternative road layouts not supported. May be further considered at subdivision stage.</p> <p>Refer 'Residential density' and 'Charlotte Creek' assessments within the main report.</p>

Submission: 58

Submitted by: Nearby landowner

Summary: Multiple concerns raised, including:

- Charlotte Creek
- POS (limited practical function)
- Surrounding road network
- Infrastructure (footpaths, street lighting, water, power)

Planning comment:	<p>Immediate infrastructure requirements are borne by the subdivider.</p> <p>Refer also 'Charlotte Creek', 'POS' and 'Road network' assessments within the main report.</p>
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Submission: 60

Submitted by: Landowner within the structure plan area

Summary: Contrary to statements in the supporting information, property access was never denied to any party representing the applicant(s).

No intension to subdivide.

Proposed POS extent on Lot 29 not supported due to:

- Rear of property is important for amenity; and
- POS will reduce security and increase potential for vandalism.

Planning comment:	<p>Comments regarding property access and (no) intent to subdivide noted.</p> <p>POS extent on Lot 29 may be varied, subject to consideration of relevant issues at subdivision stage (e.g. access, watercourse revegetation etc.).</p> <p>Comments regarding crime: Any potential increase in vulnerability must be weighed against community benefit of achieving a POS corridor along this portion of Charlotte Creek. Notwithstanding, an increase in density will provide additional passive surveillance opportunities between dwellings and public spaces (POS).</p>
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Submission: 61

Submitted by: Nearby landowner

Summary: Concerns raised include:

- Charlotte Creek;
- POS supported along creek line. Should be full length of the creek, through the development; and
- Pedestrian safety

Planning comment:

Footpaths will be required as part of the construction of new roads. Where required, the WAPC may impose conditions of subdivision to require footpaths on existing roads.

Refer also 'Charlotte Creek', 'POS' and 'Road network' assessments within the main report.

**LION, JOHNSTON & HUMMERSTON STREETS, MOUNT HELENA
LOCAL WATER MANAGEMENT STRATEGY**

Prepared for

Mr Morgan Oliver
40 Allpike Road
Darlington WA 6070

Report No. J18007
19 March 2019

BAYLEY ENVIRONMENTAL SERVICES
30 Thomas Street
SOUTH FREMANTLE WA 6162

Sundowner Nominees Pty Ltd as trustee for the Bayley Cook Family Trust ABN 20 822 598 897
trading as Bayley Environmental Services

EXECUTIVE SUMMARY

Introduction

Mr Morgan Oliver, on behalf of a group of landowners, has prepared a Local Structure Plan (LSP) for Lots 29, 30 and 32 Johnston Rd, Lots 100 and 101 Dean St, Lots 40 and 41 Hummerston St, Lots 11-13, 39 and 42 Lion St and Lots 1-3, 28 and 35-38 Bernard St, Mount Helena (the subject land). The LSP covers 20 existing lots with a total area of 42.7709 hectares.

The LSP envisages the creation of 98 new residential lots to make a total of 118 lots ranging in size from 2,000m² to 9,500m², along with 2.53ha of public open space.

On-site Effluent Disposal

The project area is unsewered and all lots will employ on-site effluent disposal using conventional septic systems in higher areas with loamy and gravelly soils, and nutrient-removing alternative systems (ATUs or modified leach drain systems) in low-lying areas with sandy soils or high water tables and within 100m of watercourses. Effluent disposal areas will be set back at least 30m from watercourses.

Filling and/or subsoil drainage will be required in a substantial part of the site in order to provide clearance from effluent disposal systems to groundwater in accordance with the current and draft Government Sewerage Policies. Areas close to the creek that are subject to saturation have been incorporated in larger lots to enable effluent disposal systems to be sited in suitable locations.

The soil types present at the site are known to have suitable permeability for effluent disposal and high phosphorus retention index (PRI). Permeability testing or equivalent assessment may be required on individual lots prior to development to guide the location and sizing of effluent disposal systems.

Stormwater Management

The major surface drainage feature of the project area at present is Charlotte Creek, a shallow seasonal creek that runs east-west through the site before joining several other small creeks downstream of the site to form Jane Brook. A number of small paddock and roadside drains flow into Charlotte Creek within the site. A number of small soak dams are also present within the site.

The quality of water within the soak dams, Charlotte Creek and drains is generally high.

Most of the roads and associated drains servicing the subdivision are already in existence. There will therefore be little change to the overall hydrology or drainage of

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the site following subdivision, although the stormwater management system will be updated and modified to bring it into line with current standards.

Road drainage currently consists of unkerbed pavements with shallow v-drains on one or both sides of the road, mostly discharging directly into Charlotte Creek.

With subdivision, the existing 30m road reserves will be flush-kerbed. Runoff from the road pavement will sheet off the road into the existing roadside drains, where the 1-year 1-hour ARI storm and the critical 5-year and 10-year storms will be captured by shallow swales constructed on the drain alignment. Excess runoff from larger and longer duration storms will overflow the swales and continue down the drains to Charlotte Creek.

The new roads in the subdivision will be conventionally kerbed. Runoff will be collected by side-entry pits and piped into underground soak wells, which will be sized to contain the runoff from the 1-year 1-hour ARI storm and from the critical (10-minute) 5-year and 100-year storms. Excess flow will bypass the soak wells and be carried by pipes to swales in Bernard Street and the POS.

The creekline within the Public Open Space will be modified by the creation of meanders, riffles and pools to assist in slowing the flow that eventually leaves the project area.

Storms up to 1-year ARI are not expected to generate any net runoff from private lots. Runoff from larger storms will flow into the road drainage system, the creekline or bushland areas along existing flow paths. The 100-year ARI flow paths will follow the road alignments and/or the existing flow paths determined by the topography.

Groundwater Management

Groundwater is present as a shallow aquifer in the valleys and lower slopes, where it is perched above the granite bedrock and overlying clays at depths ranging from 0m (ground surface) in the valleys to 14m on the lower slopes. Significant areas in the lower valleys are subject to surface saturation in winter when groundwater tables rise to the surface. The quality of groundwater is high, although some soak dams have water that is marginally too saline for irrigation.

The subdivision is expected to have little impact on groundwater levels or quality. The requirement for irrigation of landscape plantings will be low and short-term. The presence of high-PRI gravelly, loamy and clayey soils across the site means that little or no phosphorus will reach the groundwater or surface watercourses.

The use of on-site effluent disposal will add an estimated 3.8% to the annual water loading on the site, which is much less than the natural variation in rainfall from year to

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year. With the high PRI soils and the use of nutrient-removing effluent disposal systems in low-lying areas, the additional load of nutrients to the groundwater will be minimal.

Landscaping

The current landscape of the project area consists of scattered patches of native and planted trees and understorey interspersed with cleared paddocks and residential gardens.

Landscaping of the site will focus on the use of local native species with low water demand. Plantings will be limited to the POS, the bioretention basins and a band extending 10m each side of Charlotte Creek. The species selection and planting methods will be undertaken in accordance with the Shire of Mundaring's *Landscape and Revegetation* Guidelines (2015). No turf grass or street trees will be planted.

The immediate surrounds of the creekline (extending up to 10m from the watercourse) will be planted with wetland-tolerant native sedges, low shrubs and other understorey species to slow and filter runoff that is not captured by the road drainage system. The planted area will incorporate strategic 20m breaks about every 120m of creekline, so as to maintain the bushfire hazard at "low threat" level.

The total area to be planted in the POS, creek surrounds and bioretention basins will be approximately 2.6 hectares.

Monitoring

Baseline water level and water quality results for the site are shown in Table 2.2, based on measurements and sampling in May and September 2018. A further round of pre-development monitoring, including the locations sampled in September 2018, will be undertaken in the winter of 2019 and the results forwarded to the Shire, DWER and DPLH as part of the assessment process.

Post-development monitoring will focus on periodic water quality monitoring of Charlotte Creek upstream and downstream of the project area and at the Bernard Street crossing. The monitoring will be conducted nominally twice a year in early and late winter. Each landowner wishing to subdivide will be required, at the discretion of Council, to provide water quality information for Charlotte Creek upstream, downstream and at the Bernard St crossing, collected in winter within two years preceding the subdivision application.

Implementation and Further Management Plans

Structure planning and subdivision of the subject land will be carried out in accordance with the general water management principles set out in this LWMS. Subdivision of lots

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in the structure plan area may be carried out by individual owners as they see fit, in accordance with the framework of the LWMS. An Urban Water Management Plan (UWMP) is expected to be required as a condition of subdivision approval for each stage of subdivision.

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1.0 INTRODUCTION

1.1 Proposed Development

Mr Morgan Oliver, on behalf of a group of landowners, has prepared a Local Structure Plan (LSP) for Lots 29, 30 and 32 Johnston Rd, Lots 100 and 101 Dean St, Lots 40 and 41 Hummerston St, Lots 11-13, 39 and 42 Lion St and Lots 1-3, 28 and 35-38 Bernard St, Mount Helena (the subject land). The LSP covers 20 existing lots with a total area of 42.7709 hectares.

The LSP envisages the creation of 98 new residential lots to make a total of 118 lots ranging in size from 2,000m² to 9,500m², along with 2.53ha of public open space. Figure 1 shows the location and layout of the site. Figure 2 shows the proposed plan of subdivision.

The lots will be supplied with scheme water and will employ on-site effluent disposal.

1.2 Scope of the LWMS

The scope of this LWMS is to:

- Document the existing environment on the site, in relation to soils, drainage, erosion, watercourses, groundwater and water-dependent ecosystems.
- Briefly describe the proposed development in relation to water management.
- Examine the capability of the site for on-site effluent disposal.
- Address relevant regulatory requirements and design criteria for water harvesting, setbacks to watercourses, groundwater management and drainage.
- Describe the strategies to be implemented for water conservation, watercourse protection, groundwater management and stormwater drainage.
- Outline the proposed monitoring program.
- Outline what is to be addressed in the Urban Water Management Plan.

1.3 Previous Studies

1.3.1 District Water Management Strategy

A District Water Management Strategy (DWMS) for the project area was prepared by Landform Research in 2015. The DWMS documented the biophysical environment of the

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project area, examined the capability of the land to support on-site effluent disposal and identified areas where alternative disposal systems would be required and described the general drainage strategy.

1.4 Relevant Guidelines and Policies

1.4.1 State Planning Policy 2.9

State Planning Policy 2.9: *Water Resources* (WAPC, 2006) lists the following key principles for total water cycle management:

- Consideration of all water sources (including wastewater) in water planning, maximising the value of water resources.
- Integration of water and land use planning.
- Sustainable and equitable use of all water sources, having consideration of the needs of all water users including the community, industry and the environment.
- Integration of water use and natural water processes.
- A whole-of-catchment integration of natural resource use and management.

SPP 2.9 also lists the following general objectives for water-sensitive urban design:

- to manage a water regime;
- to maintain and, where possible, enhance water quality;
- to encourage water conservation;
- to enhance water-related environmental values; and
- to enhance water-related recreational and cultural values.

Element 5 of *Liveable Neighbourhoods* Edition 3 (WAPC, 2004) identifies specific objectives and requirements for Urban Water Management. These are based on Best Planning Practices which are defined as the best practical approach for achieving water resource management objectives within an urban framework.

1.4.2 Better Urban Water Management

Better Urban Water Management (WAPC, 2008) sets out the following objectives for water sensitive urban design:

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Water Conservation

- Consumption of 100kL/p/yr including less than 40-60 kL/p/yr scheme water.

Water Quantity

- Ecological Protection – Maintain pre-development flow rates and volumes for the 1 year ARI event. Maintain or restore desirable environmental flows and/or hydrological cycles.
- Flood Management – Maintain pre-development flow rates and volumes for the 100 year ARI event.

Water Quality

- Maintain pre-development nutrient outputs (if known) or meet relevant water quality guidelines (e.g. ANZECC & ARMCANZ, 2000).
- Treat all runoff in the drainage network prior to discharge consistent with the Stormwater Management Manual.
- As compared to a development that does not actively manage stormwater quality, achieve:
 - at least 80% reduction of Total Suspended Solids;
 - at least 60% reduction of Total Phosphorus;
 - at least 45% reduction of Total Nitrogen; and
 - at least 70% reduction of gross pollutants.

Mosquitoes and Midge

- Design detention structures so that, between the months of November and May, stormwater is fully infiltrated within 96 hours.
- Design permanent water bodies (where accepted by DoW) to maximise predation of mosquito larvae by native fauna.

1.4.3 Shire of Mundaring Town Planning Scheme No. 4

The Shire of Mundaring's Town Planning Scheme No. 4 sets out the following criteria for residential development that are directly relevant to this strategy:

Watercourse Protection

- In the absence of a specific setback for a particular watercourse as adopted by the Shire, all buildings and earthworks in the Residential zone shall be set back at least 20 metres from the bank of any watercourse.

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- All existing native vegetation within watercourse setbacks shall be retained.
- The natural flow of water within watercourses shall be maintained, and no development which would prevent the natural flow of water shall be approved, unless that development would, in the opinion of the Shire, restore or enhance the environmental health of the watercourse.
- Development adjacent to watercourses shall incorporate appropriate measures to minimise runoff and erosion and to protect water quality, including:
 - provision of contour banks to intercept and safely dispose of stormwater runoff; and
 - planting of local native vegetation to provide nutrient stripping and to act as a barrier to seepage and runoff.

Such measures should be commensurate with the scale of the development and the level of potential adverse impact on the watercourse.

Stormwater drainage

- Subdivision and development shall employ water sensitive urban design approaches to stormwater drainage. Any subdivision or development which increases the area of impermeable surfaces or which otherwise reduces stormwater recharge of groundwater systems, is to utilise best management practices to effect the retention of stormwater within the development area so as to:
 - minimise as far as practicable changes to both the rate and quantity of direct stormwater discharge from the site; and
 - prevent the export of water borne pollutants (including sediment load and nutrients).
- Subdivision and development shall be consistent with the relevant recommendations of Better Urban Water Management, published by the Commission, as applicable, and with any subsequent guideline or policy of the Commission relating to urban water management. Subdivision and development shall also be consistent with any guidelines and/or policy regarding stormwater drainage adopted by the Shire.

Effluent disposal

- Where access to a reticulated sewerage system is not available, on-site effluent disposal facilities are to be provided to treat and dispose of any effluent generated on the site. Soil permeability, nutrient retention characteristics, soil microbial purification ability, slope and distance to groundwater and surface water must be demonstrated to be appropriate for the proposed system.
- No on-site effluent disposal system (including any leach drain or soak well) is to be located nearer than the minimum setbacks specified to a watercourse, wetland, bore or underground water source used for human consumption in relative operational Western Australian environmental, water and health legislation. Where there is any conflict between the setbacks specified in different legislation, the greater setback shall apply.

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- The Shire may require additional setbacks for on-site effluent disposal facilities and/or require the installation of specific types of facilities (including those involving the removal of nutrients) where it considers such requirements appropriate or necessary for the protection of water resources or other environmental values.

Management of construction sites

- In addition to any requirements which may be imposed as conditions of planning approval, construction sites are to be managed so as to minimise soil erosion, sedimentation and/or the degradation of any water resource due to the action of wind or water and protect as far as practicable, the natural resource values of the site and of the adjacent area.

1.4.4 Government Sewerage Policy

The Government Sewerage Policy for the Perth Metropolitan Region (1996) requires that all new residential development should be deep-sewered unless it is exempt for one of several reasons. For exempt developments, the policy establishes minimum site capability requirements and density limits. Provisions of the policy that are relevant in this case include:

- Large lot subdivision (minimum lot size 2,000m²; density R5 equivalent or less) in the outer metropolitan area may be undertaken without deep sewerage provided the responsible authorities are satisfied that no significant environmental impact is likely and there is no further opportunity for subdivision without sewerage.
- Land used for on-site effluent disposal must meet the following requirements:
 - The slope must be less than 20% (1 in 5) and the land shall be engineered to prevent runoff.
 - The site should not be subject to inundation or flooding at a probability greater than once in 10 years.
 - The land should have a minimum depth to the seasonal or permanent water table from the natural ground surface of at least 0.5 metre.
 - The site should have free-draining soil (i.e. free from bedrock or impervious clay) to a depth of at least 1.2m below the base of the disposal system.
 - Where site modification involves blasting or fissuring of rock, an imported soil type is required to surround the disposal area unless the local authority grants an exemption.

1.4.5 Draft Government Sewerage Policy 2016

The Draft Government Sewerage Policy was released by the Department of Planning, Lands & Heritage (DPLH) in 2016. The draft GSP extends the current GSP to focus on environmental considerations of on-site effluent disposal as well as the health issues on which the current GSP is based. The Draft GSP introduces the concept of Sewage

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Sensitive Areas (SSA), where site and system requirements for on-site effluent disposal are more stringent. Outside of SSAs, the site requirements of the 2016 draft are generally more stringent than those of the current GSP.

The draft GSP has been modified since the release of the 2016 draft but the modified version has not been made publicly available. No timetable for the release of the final policy or an updated draft has been announced.

The DPLH and DWER recognise the 2016 draft GSP in policy and decision making. The Health Department, which has approval powers over on-site effluent disposal systems, continues to operate under the adopted 1996 GSP.

1.4.6 DoW Operational Policy 4.3: Identifying and Establishing Waterways Foreshore Areas

DoW Operational Policy 4.3 was published in 2012 and sets out the Department of Water's policy on defining and protecting foreshore reserves. It is intended to apply to all waterways within development areas. The policy sets out procedures for identifying, delineating and protecting foreshore areas.

The procedure may vary depending on the size and nature of the waterway and the nature of the proposed adjacent development. The policy provides for standard or nominal foreshore widths to be employed in some cases, such as small subdivisions and/or minor tributary creeks where the waterway is adequately protected and the proposed development poses an insignificant additional risk to the waterway.

1.4.7 DoW Interim Guideline: Developing a Local Water Management Strategy

The DoW LWMS guideline was published in 2008 and sets out the DoW's preferred format and content for LWMS documents. The guideline expands on the LWMS guidance provided in *Better Urban Water Management* (2008).

This LWMS has been prepared in accordance with the principles set out in the DoW guideline.

2.0 EXISTING ENVIRONMENT

The environment of the project area was described in the District Water Management Strategy (Landform Research, 2015). The descriptions below are based on that document and on further site investigations by Bayley Environmental Services in 2018.

2.1 Rainfall

Mount Helena, like the rest of the Perth region, has a strongly seasonal rainfall, with most of the annual rain falling between May and September in association with winter cold fronts. Occasional heavy falls may occur from summer thunderstorms. The long-term average annual rainfall for Bickley (the closest Bureau of Meteorology weather station) is 1,088.8mm, of which 78% falls between the months of May and September.

Figure 3 shows a rainfall occurrence chart for Bickley. Table 2.1 shows rainfall intensity and frequency for the Mt Helena vicinity.

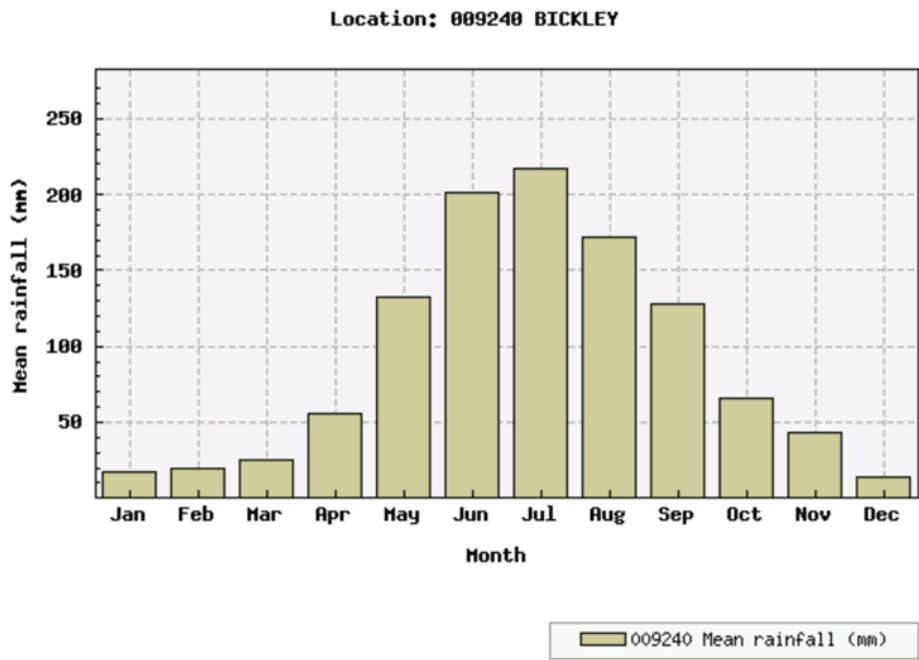


Figure 3 Bickley Mean Rainfall

Duration	Annual Exceedance Probability (AEP)						
	63.2%	50%#	20%*	10%	5%	2%	1%
1 min	1.65	1.81	2.36	2.76	3.17	3.74	4.21
2 min	2.89	3.15	4.01	4.63	5.29	6.22	7.00
3 min	3.88	4.23	5.42	6.28	7.19	8.48	9.55
4 min	4.69	5.13	6.61	7.69	8.82	10.4	11.7
5 min	5.38	5.90	7.64	8.91	10.2	12.1	13.6
10 min	7.81	8.61	11.3	13.2	15.1	17.9	20.1
15 min	9.42	10.4	13.6	15.9	18.3	21.6	24.2
30 min	12.6	13.8	18.0	20.9	24.0	28.3	31.8
1 hour	16.4	17.9	23.1	26.9	30.8	36.5	41.3
2 hour	21.4	23.2	29.7	34.6	40.0	47.9	54.6
3 hour	25.0	27.1	34.6	40.5	47.0	56.8	65.2
6 hour	32.9	35.6	45.7	53.8	62.9	76.8	89.2
12 hour	43.2	47.0	60.6	71.5	83.6	103	120
24 hour	56.3	61.5	79.4	93.0	108	131	151
48 hour	72.1	79.1	101	117	132	158	179
72 hour	83.1	91.2	116	133	148	174	194
96 hour	92.1	101	128	146	163	188	208
120 hour	100	110	139	158	177	204	224
144 hour	108	118	150	171	192	221	243
168 hour	115	126	160	184	209	240	265

Table 2.1 Rainfall Intensity for Mt Helena

2.2 Physiography

2.2.1 Topography

The project area occupies the floor and both sides of a shallow east-west creek valley. The valley falls from 280m AHD at the eastern side to 267m AHD at the west, with the sides reaching 298m AHD at the northern corner and 293m at the south.

The gradient is low to moderate, ranging from less than 1% in the eastern valley to about 16% in the western corner. Most of the site has a gradient of less than 10%.

Figure 4 shows the topography of the site, while Figure 1 shows an oblique aerial view.

2.2.2 Geology, Landforms and Soils

The site is located on the Darling Plateau and the geology is predominantly lateritic, with shallow gravelly soils overlying laterite, clay and, at depth, granite. The Department of Agriculture (King & Wells, 1990) mapped the higher parts of the site as Dwellingup (D2) unit and the valleys as Yarragil (Yg1, Yg2, Yg4). These units are shown on Figure 4 and described as follows:

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- D2 Gently undulating terrain with well drained, shallow to moderately deep gravelly brownish sands, pale brown sands and earthy sands overlying lateritic duricrust.
- Yg1 Gently to moderately inclined sideslopes with moderately well drained yellow duplex soils, and yellow and brown massive earths.
- Yg2 Very gentle to gently inclined valley headwaters with deep rapidly drained grey, yellowish brown or brown siliceous or bleached sands.
- Yg4 Valley floors with poorly drained mottled yellow duplex soils.

Test pitting at 40 locations across the site by Landform Research (2014) (Figure 4) generally confirmed these mapping units. Soil logs from the test pits are attached in Appendix A.

2.2.3 Soil Permeability

The D2, Yg1 and Yg2 soil units are generally permeable and well drained. Extensive shallow laterite may slow infiltration and produce localised lateral flow, but this can be overcome by excavation of the laterite and backfilling with porous soil. The Yg4 unit is generally less well drained with a higher clay content, but still has sufficient permeability for infiltration of effluent.

Test pitting at 40 sites covering all soil types across the project area (Landform Research, 2014) found no impermeable clay soils. On this basis, no permeability testing was judged to be necessary. Permeability testing or equivalent assessment may be required on individual lots to guide the sizing of effluent disposal systems.

A conservative permeability of 1m/day has been adopted for the preliminary design of bioretention swales. Permeability testing or equivalent may be required during the detailed design stage to inform the sizing of basins.

2.2.4 Acid Sulphate Soils

The subject site is high in the landscape and is not likely to contain any acid sulphate soils. The DWER maps the site as low to nil risk of ASS.

2.2.5 Phosphorus Retention Index

No tests for PRI have been carried out on the site. The soil types present on the subject land are known from experience elsewhere to have high PRI, making testing unnecessary.

PRI is a measure of the ability of a soil to adsorb and retain phosphorus from solution. A high PRI indicates that a soil is unlikely to leach phosphorus to the water table. Typical ranges for PRI values in soils are as follows:

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<i>PRI Range</i>	<i>Rating</i>	<i>Typical soils</i>
0 – 0.5	Very Low	Bassendean Sand
2 – 4	Low – Moderate	Karrakatta Sands
5 – 12	Moderate – High	Cottesloe Sands
12 – 20	High	Crushed Limestone, Limesand
20 – 1000+	Very High	Clay

The site soils are expected to have PRI in the range of 50 or higher. The DWER recommends a minimum PRI of 15 for soils beneath infiltration basins.

2.3 Hydrology

2.3.1 Surface Drainage

The major surface drainage feature of the project area is Charlotte Creek, a shallow seasonal creekline that runs east-west through the site. The creek channel is incised to a depth of 0.5m to 1m and is mostly 1m – 2m wide. A number of small paddock and roadside drains flow into Charlotte Creek within the site. Figure 5 shows the drainage within the site.

Two pools exist on the creeklines within the project area; one adjacent to Bernard Street and one on the drain upstream of the northern branch of Charlotte Creek (Figure 5). Several seasonal and permanent soak dams and wells are located around the project area. The fate of these will be up to the lot owners. No new lot boundaries will cross any dams.

Charlotte Creek joins several other small creeks to form Jane Brook about 1.2km downstream of the site before eventually flowing into the Swan River.

The upstream catchment of Charlotte Creek extends about 2km east of the project area and has an area of about 281ha, although the uppermost 81ha is severed by Great Eastern Highway, which traps all runoff from the road reserve and upslope. Most of the catchment drains through the main channel of Charlotte Creek, which enters the site on Hummerston Road at the mid-point of the south-eastern boundary. A smaller 31ha subcatchment drains via a smaller watercourse across Hummerston St near its junction with Lion St before joining the main channel of Charlotte Creek within the project area.

Most of the project area (43.5ha) drains internally to Charlotte Creek, the exceptions being small areas in the far west and north which drain into the creek downstream of the project area. A further 80ha of external catchments drain across the project area into Charlotte Creek. Figure 6 shows the internal and external catchments.

2.3.2 Groundwater

Groundwater is present as a shallow aquifer in the valleys and lower slopes, where it is perched above the granite bedrock and overlying clays. Landform Research (2014) found groundwater at depths of between 0m (ground surface) in the lower valleys and 14m on the

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lower slopes in October 2013. Additional groundwater measurements were collected in September 2018 from wells and soak dams, at the end of an exceptionally wet winter. Figure 5 shows the groundwater measurement locations and depths to groundwater in September 2018 across the site. A further round of groundwater measurements will be taken in winter 2019.

Significant areas in the lower valleys are subject to surface saturation in winter when groundwater tables rise to the surface. Figure 5 shows the areas known or expected to be subject to saturation. On the higher slopes, seasonal groundwater would occur as downslope seepage from higher areas. The overall direction of groundwater movement would be in line with the topography.

Many of the existing lots in the project area have bores for irrigation. Most of these appear to be in the order of 20-30m deep and would be tapping deeper perched groundwater in sand lenses above the granite bedrock. Some of these bores (notably at waypoints 289, 291 and 296 – see Figure 5) overflow above the ground surface during winter, indicating that an upward hydraulic head exists in these places. Residents report that the yield from most bores has declined significantly in recent decades.

The project area is not within a declared groundwater catchment and no licensing of bores is necessary.

2.4 Water Quality

Limited water sampling was conducted in May 2018 and further samples were collected in September 2018. The samples were collected from soak dams and, in September, from creek lines upstream and downstream of the project area. Figure 5 shows the sampling locations. A further round of sampling will be conducted in the winter of 2019.

The samples show that the quality of groundwater and surface water within the site is high, with generally low levels of nutrients and other contaminants. The salinity in the soak dams in May 2018 was high for irrigation. The elevated Total Phosphorus at site 301 in May 2018 was likely due to decaying plant material in the sample. The high acidity at site 300 (a soak) is unexplained but other parameters (e.g. sulphate, metals) give no indication that this is due to acid sulphate soils (ASS).

Table 2.2 summarises the water quality results. The full analysis results are attached in Appendix B.

Table 2.2 Water Quality

Parameter		Unit	Aquatic Ecosystems ^a	Irrigation Water ^b	Groundwater (Wells and Soaks)						Flowing Surface Water			Notes	
					22/5/2018		14/9/2018				14/9/2018				
					295	301	290	293	300	302	312	CCUS	CDUS		CCDS
Nutrients	Total Nitrogen	mg/L	1.2	5	0.7	1.8	<0.2	0.5 ¹	<0.2	0.3	0.7	0.8	0.2	0.5	ng denotes "no guideline". na denotes "not analysed" 1 Sample filtered before analysis a. ANZECC (2000) Aquatic Ecosystem trigger values (Nutrient, pH and Conductivity are for lowland rivers; Dissolved Metals are for freshwater ecosystems 90% species protection) b. ANZECC (2000) Irrigation trigger values (long-term irrigation up to 100 years) c. DEC(20__) oxidation indicator triggers for ASS-affected groundwater. d. ANZECC (2000) Irrigation trigger values for pasture and fodder for grazing animals except pigs and dairy animals.
	NOx	mg/L	0.15	ng	0.1	0.02	0.04	0.27	<0.01	<0.01	<0.01	0.74	0.05	0.39	
	Total Kjeldahl Nitrogen	mg/L	ng	ng	0.6	1.8	<0.2	0.4	<0.2	0.3	0.7	<0.2	0.2	<0.2	
	Total Phosphorus	mg/L	0.065	0.05	0.06	0.33	0.04	0.11 ¹	0.1	0.08	0.05	0.03	0.02	0.03	
	Reactive Phosphorus	mg/L	0.04	ng	<0.01	0.01	<0.01	0.08	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	
Physical	pH		6.5-8.0	6-8.5	7	6.9	5.8	7.1	5	5.7	5.9	6.7	6.1	6.8	
	Conductivity	mS/cm	0.12-0.3	1.3	0.92	3.2	0.49	0.3	1.4	1.2	0.57	0.49	0.4	0.61	
	Salinity (from EC)	mg/L	72-180	780	552	1920	294	180	840	720	342	294	240	366	
	Acidity	mg/L	40°	ng	<5	8	<5	<5	83	10	15	<5	8	<5	
	Alkalinity	mg/L	ng	ng	21	38	14	69	<5	7	12	17	18	17	
	Acidity:Alkalinity Ratio		1°	ng	<0.24	0.21	<0.36	<0.07	>16.6	1.43	1.25	<0.29	0.44	<0.32	
	Hardness	mg/L	ng	60-350	85	360	60	78	110	120	76	59	44	69	
	TSS	mg/L	ng	ng	22	21	7	23	19	7	20	<5	<5	10	
Major Ions	Sulphate	mg/L	ng	ng	29	7	17	7	100	38	10	22	13	24	
	Chloride	mg/L	ng	350	220	880	130	30	380	360	180	140	89	160	
	SO ₄ :Cl Ratio		0.5	ng	0.13	0.01	0.13	0.23	0.26	0.11	0.06	0.16	0.15	0.15	
	Calcium	mg/L	ng	ng	9.2	22	5.8	23	10	11	9.1	8.4	6.2	9.5	
	Sodium	mg/L	ng	230	94	420	64	21	190	180	68	69	54	89	
	Potassium	mg/L	ng	ng	3.3	4.5	3.4	4.9	4.9	13	4.2	3.4	2.4	3.8	
	Magnesium	mg/L	ng	ng	15	75	11	4.9	20	22	13	9.2	6.9	11	
Dissolved Metals	Iron	mg/L	ng	10	0.24	0.32	<0.01	0.48	11	0.03	1.1	0.07	0.1	0.13	
	Aluminium	mg/L	0.08	5	<0.1	<0.1	<0.1	1.7	<0.1	<0.1	<0.1	<0.1	0.2	<0.1	
	Arsenic (III & V)	mg/L	0.136	0.1	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	

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Cadmium	mg/L	0.0004	0.01	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002
Chromium (VI)	mg/L	0.006	0.1	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002
Copper	mg/L	0.0018	0.2	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
Mercury	mg/L	0.0019	0.002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002
Nickel	mg/L	0.013	0.2	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
Lead	mg/L	0.0056	2	<0.01	<0.01	<0.01	<0.01	0.01	<0.01	<0.01	<0.01	<0.01	<0.01
Zinc	mg/L	0.015	2	0.02	<0.01	<0.01	<0.01	<0.01	<0.01	1.5	<0.01	<0.01	<0.01

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2.5 Vegetation

The project area is mostly cleared of native vegetation, consisting of current and former farm paddocks. Clumps and small patches of Marri and Jarrah trees with varying degrees of understorey persist on rocky outcrops, roadsides, property boundaries and drainage lines. Paperbarks and other lowland species form thickets in some seasonally wet areas.

Much of the vegetation consists of planted trees including eastern states eucalypts, pines and ornamental species.

Del Botanics carried out a vegetation survey of eleven properties within the project area in 2012. The survey recorded 75 native taxa and 23 introduced species. No Threatened or Priority Flora species or Threatened Ecological Communities listed under State or Commonwealth legislation were recorded.

2.6 Land Uses and Potential Contamination

Historical Landgate aerial photography shows that the project area has been largely cleared and used for farming since at least 1965. Photography from the 1960s and 1970s shows a number of small orchards, which are regarded by the DWER as potentially contaminating land uses due to the historic use of pesticides. In this case, given the small size of the orchards, the potential for significant contamination is considered low.

The DWER Contaminated Sites Database (<https://dow.maps.arcgis.com/apps/webappviewer/index.html?id=c2ecb74291ae4da2ac32c441819c6d47>) shows no record of any contaminated sites in or near the project area.

There is no visual evidence of significant contaminating activities such as piggeries, hydrocarbon storage or landfill.

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3.0 WATER USE SUSTAINABILITY

3.1 Water Supply

The development will be serviced with potable water provided by the Water Corporation.

Due to the site's topography and geology, the availability of shallow groundwater for abstraction varies across of the site, with some existing owners having productive bores and some not. As the subject land is not within a proclaimed groundwater area, no licence is required to abstract groundwater.

Given the location of public open space areas close to the creekline, groundwater in sufficient quantity for irrigation of small areas and landscape plantings is likely to be available. Large quantities of water for irrigation of large parks is unlikely to be available.

3.2 Water Efficiency Measures

3.2.1 Public Open Space

Due to the limited availability of groundwater for irrigation, particularly over summer, all landscaping within the POS areas will employ waterwise local native plants that do not require irrigation. There will be no grass plantings within the POS. Further details of POS landscaping are provided in Section 7.0.

3.2.2 5 Star Plus Building Standards

In accordance with the amended *Building Regulations 1989*, new homes within the development will incorporate the following features:

- Minimum 4 stars WELS rated tap fittings, except bath outlets and garden taps.
- Minimum 3 stars WELS rated shower heads.
- Minimum 4 stars WELS rated dual-flush toilets.
- Covers on all private swimming pools.
- All internal hot water pipes installed and insulated in accordance with AS/NZS 3500:2003.
- Maximum run of pipe from hot water system to outlet will not exceed 20 metres length or 2 litres internal volume.

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4.0 LAND CAPABILITY FOR ON-SITE EFFLUENT DISPOSAL

4.1 Published Land Capability Ratings

The proposed lots are located on land mapped by the Department of Agriculture (King & Wells, 1990) as Dwellingup 2, Yarragil 1, Yarragil 2 and Yarragil 4. King & Wells (1990) rated the capability of these units for on-site effluent disposal as follows:

D2	Fair
Yg1	High
Yg2	Low
Yg4	Very Low

The D2 unit is limited by microbiological purification ability due to its highly permeable gravelly surface soils and extensive laterite, which may promote rapid shallow seepage or lateral movement of effluent. This limitation can be overcome by excavation of the laterite to a depth of about 2m during the installation of leach drains and its replacement by a suitable soil such as sandy loam.

The Yg2 unit is limited by microbiological purification ability due to its high permeability. The Yg4 unit is limited by the risk of water pollution by overland flow, due to its low elevation and susceptibility to waterlogging and inundation.

The D2 and Yg1 units make up most of the project area. These areas will generally be suitable for on-site effluent disposal using conventional septic systems. The Yg2 and Yg4 units will generally require alternative effluent disposal systems, either ATUs or septic tanks with amended-soil leach drains

The Yg4 unit is situated in the creek valley and mostly coincides with the area mapped as susceptible to saturation. Several lots are situated wholly or mostly on the Yg4 unit, including some with existing houses. Approximately nine new lots will require effluent disposal systems to be located on Yg4 soils. These lots will require filling and/or subsoil drainage in addition to alternative systems to make them suitable for effluent disposal.

4.2 Soil Permeability

Australian Standard AS1947:2012 recommends a minimum hydraulic conductivity of 0.06m/day for on-site effluent disposal without special design. The testing method set out in the *Health (Treatment of Sewage and Disposal of Effluent and Liquid Waste) Regulations 1974* implies a minimum conductivity of 0.11m/day without specific approval by the Director-General of Public Health. Permeabilities of this order are generally found in weakly structured or massive clays.

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Test pitting at 40 locations covering all soil types across the project area by Landform Research (2014) found no clay soils that would have insufficient permeability for effluent disposal. From this it is concluded that all parts of the site proposed for effluent disposal will meet the minimum permeability requirements of AS1947:2000 and the Health Regulations.

4.3 Phosphorus Retention Index

Previous experience has shown that the gravelly, loamy and clayey soil types present at the site have high PRI. Therefore, provided that the effluent disposal systems are correctly sited and constructed so that infiltration through the soil profile occurs, there is not expected to be any significant export of phosphorus from these systems in the foreseeable future.

4.4 Depth to Groundwater

The 1996 Government Sewerage Policy requires that land used for effluent disposal must have a minimum clearance of 0.5m from the natural ground surface to the highest seasonal or permanent water table. The required clearance cannot be achieved solely by filling but can be achieved by subsoil drainage, provided that the land has sufficient fall and area to dispose of the drained water and the drainage does not affect water flows or quality downstream.

The 2016 draft GSP applies this requirement only to lots smaller than 2,000m² and lots within SSAs. The project area is not within an SSA and all proposed lots are larger than 2,000m².

The draft GSP sets minimum requirements for clearance to groundwater from the discharge point of an effluent disposal system (base of leach drain or ATU drip lines) depending on soil type, as follows:

- 0.6m in loams and heavy soils;
- 1m in gravels;
- 1.5m in sands; or
- 0.6m for nutrient-retaining secondary systems in all soils.

The required clearance above groundwater may be achieved with a combination of fill and subsoil drainage. Figure 7 shows a conceptual layout of a leach drain with subsoil drainage beneath a filled house pad. In order to prevent nutrient leaching, this arrangement should incorporate either a nutrient-retaining system or fill with a PRI greater than 20.

The project area contains substantial areas where the maximum water table is at or within 0.5m of the ground surface (Figure 5). Some, but not all, of these areas have

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sufficient fall, given appropriate lot design, to accommodate subsoil drainage and effluent disposal.

Figure 8 shows the areas where subsoil drainage and/or filling and/or secondary effluent treatment systems will be required and also those areas where effluent disposal will not be possible. The plan of subdivision has been laid out to avoid development in unsuitable areas.

4.5 Slope

The Government Sewerage Policy prohibits on-site effluent disposal on land with a slope of more than 1 in 5 (20%), in order to prevent runoff of effluent.

The subject land is mostly sloping but nowhere does the gradient exceed 20% (Figure 4). Therefore effluent disposal on the site is not constrained by slope.

4.6 Watercourse Setbacks

The Department of Water's *Water Quality Protection Note 70* (DoW, 2006) recommended that conventional effluent disposal systems (e.g. septic, ATU without auxiliary nutrient removal) should be located at least 30m from watercourses in soils with PRI greater than 5 or 100m in soils with PRI <5. Nutrient-removing systems (e.g. modified leach drain, ATU with nutrient removal) should be located at least 30m from watercourses in all soil types.

In 2016 the DWER revised WQPN 70, increasing the recommended minimum setback for all systems in all soil types to 100m. The draft Government Sewerage Policy (2016) also recommends a minimum 100m setback from watercourses.

The legal requirement, as set out in the *Health (Treatment of Sewage and Disposal of Effluent and Liquid Waste) Regulations 1974*, is that effluent must not be discharged within 30m of a stream intended for human consumption.

The plan of subdivision shows that all lots have sufficient space for new effluent disposal systems to be located at least 30m from watercourses (Figure 8). A minimum setback of 100m from watercourses would effectively prohibit development on 29 lots, comprising about 30% of the total proposed area of lots within the project area. Given the characteristics of the site, it is considered that a setback of 30m for alternative effluent systems from the watercourses in the project area is justified. In particular:

- The soils are loam and clay-based, with high PRI and moderate permeability well suited to effluent disposal.

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- The saturated areas near the creeklines, through which the treated wastewater must pass to reach the creek, will promote effective nitrification/denitrification and loss of nitrogen to the atmosphere. This will be aided by the planting of dense vegetation within 10m of the creekline, as well as the existing deep-rooted vegetation on the site.
- The watercourses are all seasonal, typically flowing between two and five months of the year.
- Alternative treatment systems with secondary nutrient removal capability will be specified in all areas within 100m of watercourses.

4.7 System Selection and Location

All effluent generated within the subdivision will be treated and disposed by means of individual on-site effluent disposal systems. Depending on the site characteristics of each lot, these might be standard septic systems, modified leach drain systems or ATUs.

Areas mapped as subject to saturation (Figure 5) have generally been incorporated in larger lots so as to provide suitable sites for development and effluent disposal.

Effluent disposal systems will be located at least 30m from watercourses. Alternative treatment systems with nutrient removal capability will be employed in all areas within 100m of watercourses, as shown on Figure 8.

Alternative effluent disposal systems will be employed in all areas subject to shallow groundwater or surface saturation. Subsoil drains will be employed in areas subject to saturation in order to create a minimum 0.6m dry soil profile below the discharge point of the system, as described in Section 4.8.

The effluent disposal requirements of each lot will vary depending on the soil profile, soil permeability, slope, groundwater depth, risk of saturation and proximity to water bodies. Site testing on each lot will be required to determine the optimum location and type of effluent disposal system.

4.8 Subsoil Drainage

Subsoil drainage will be employed, in conjunction with alternative treatment systems, on lots subject to shallow groundwater or surface saturation, in order to maintain a 0.6m or greater separation from the discharge point of the system to the highest seasonal groundwater level.

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Figure 7 shows a conceptual plan of how subsoil drainage might be applied to leach drains on sloping sites, using a lot at the eastern end of Bernard Street (see Figure 5) as an example. A similar layout could be employed with an ATU irrigation area, which would require a larger area but a smaller overall height of fill.

The subsoil drains will discharge to the surface or to a shallow infiltration swale downslope of the leach drain. The discharge point will be at least 20m upslope of any lot boundary to avoid surface flow onto neighbouring lots. The area within 10m downslope of the discharge point will be densely vegetated.

The current GSP requires that effluent disposal areas be set back at least 6m from subsoil drains. The 2016 draft GSP proposes a minimum separation of 100m from any subsoil drain that discharges directly into a downstream waterway. It is understood that the current, unpublished version of the draft GSP modifies this by restricting the provision to drains that discharge into downstream waterways without treatment. In this case, a 6m separation as specified in the current GSP is considered appropriate, primarily because:

- the subsoil drains will be located upslope of the effluent disposal system, so will be draining groundwater that is unaffected by outflow from the system;
- the loamy and clayey soils of the project area will ensure effective filtration of treated effluent within a few metres of the disposal area; and
- a 100m separation would render the subsoil drains ineffective in terms of limiting groundwater levels beneath the disposal area.

4.9 Conclusion

This analysis has found that the subject land is suitable for on-site effluent disposal as proposed. Specifically:

- The risks of microbial contamination and water pollution identified by King & Wells (1990) can be overcome by correct siting and design of effluent disposal systems.
- The soils have adequate permeability and phosphorus retention index for infiltration systems to operate efficiently.
- Most of the site is not constrained by shallow groundwater. Shallow groundwater in some areas can be managed by subsoil drainage and/or fill.
- Areas in the creek valley that are too wet and flat to permit effluent disposal have been incorporated in larger lots in order to avoid development in these areas.
- The slope of the site is suitable for effluent disposal.
- Effluent disposal systems will be located at least 30m from watercourses in soils of high PRI.

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5.0 STORMWATER MANAGEMENT STRATEGY

5.1 Principles and Objectives

The stormwater management strategy aims to comply with the principles and objectives for stormwater management identified in the *Stormwater Management Manual for WA* (DoW, 2004) and *Better Urban Water Management* (WAPC, 2008).

Nutrient concentrations and loads in water leaving the site will be managed to comply with the targets of the draft *Swan Canning Water Quality Improvement Plan* (SRT, 2009), as follows:

- Winter median TP concentration: 0.1 mg/L
- Winter median TN concentration: 1.0 mg/L
- Annual TP yield: 0.013 kg/ha
- Annual TN yield: 0.2 kg/ha.

5.2 Drainage Management System

The drainage system will be designed to maintain surface flow rates and volumes within and from the developed site at or below their predevelopment levels. The drainage design presented here is conceptual and will be refined in the detailed subdivision design.

The priorities for managing the various sizes of storm event will be as follows:

- 1 year ARI Retain and infiltrate all flows as close to source as possible. Maintain pre-development flow rates and volumes. Minimise export of nutrients and sediments.
- 5 year ARI Detain water prior to discharge. Maintain pre-development flow rates and volumes. Maintain amenity and serviceability. Prevent scouring and damage.
- 100 year ARI Maintain pre-development flow rates and volumes. Prevent flooding and damage.

Runoff from private lots will be increased by the partial replacement of vegetated surfaces with lawns, gardens and paved areas. This will be mitigated by the capture of roof runoff in rainwater tanks or soak wells and the interception of runoff from driveways and other paved areas by lawns and gardens. As a result, storms up to 1-year ARI are not expected to generate any net runoff from private lots. Runoff from larger storms will flow into the road drainage system, the creekline or bushland areas along existing flow paths. The development of the project area, including the limited filling undertaken for

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house pads and effluent disposal areas, will not alter the major drainage paths of the site.

All roads within the project area will be kerbed. The existing roads with 30m road reserves (Bernard and Dean Streets – see Figure 9) will be flush-kerbed to allow runoff to sheet off into the existing roadside drains on both sides of the road. Shallow bioretention swales will be created approximately every 100m or less along the drains on each side of the road. The swales will be sized to capture and infiltrate the runoff from storms up to 1-year ARI, 1-hour duration (about 16.4mm).

The road reserves of Bernard and Dean Streets are mostly vegetated, so the 1-year ARI storm is not expected to generate significant runoff apart from the pavement and the drain. Preliminary calculations based on a 30m road reserve with a 6m pavement suggest that about 11m³ of bioretention swale will be required for each 100m of road. This may be achieved by various configurations, such as:

- one 5m x 10m swale on one side of the road each 100m;
- one 4m x 8m swale on each side of the road each 100m; or
- smaller swales at closer spacing on one or both sides of the road.

Figure 10 shows a conceptual layout of swales and drains for a 100m section of Bernard Street. Appendix C shows the preliminary runoff and swale calculations.

The 100m spacing of swales and soak wells broadly corresponds with the frontage of each existing lot. This will enable subdivision and drainage to be undertaken on a lot-by-lot basis, with each subdivider undertaking or funding the road upgrade and drainage works adjacent to their subdivision.

The swales sized to accommodate the 1-year 1-hour storm will be large enough to accommodate the excess runoff generated by the road reserve above those generated in its uncleared condition from the critical (6-10 minute) 5-year and 100-year ARI storms.

Runoff from larger and longer duration storms will overflow the swales and flow via the existing drains down to the creekline. The existing roadside drains will be improved by rock pitching and creation of rough surfaces, barriers and drop structures to protect the drains from erosion and slow the flow. The points where the drains enter the creekline, which currently exist, will be suitably protected to prevent erosion and scouring.

Swale overflow from the northern part of Bernard Street (north of the junction with Dean St) may flow overland into the POS and then into the creek, rather than into roadside drains. The area within the POS downslope of the discharge point will be densely vegetated to protect against erosion and to slow and filter the flow.

The new roads created by the subdivision (roads A, B and C – see Figure 9) will have smaller reserves (16m or 20m), which may not be wide enough to accommodate open

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drains and swales. These roads will be constructed with raised kerbs. Side-entry pits every 100m or less will capture runoff in soak wells linked by a pipe network. The soak wells will be sized to accommodate the 1-year 1-hour storm, which will require an estimated 11m³ of soak well for each 100m of road. A 1.8m by 1.8m soak well has a volume of 4.5m³, so to capture the 1-year 1-hour storm would require about three 1.8m soak wells per 100m of road.

The soak wells sized for the 1-year 1-hour storm will be large enough to accommodate the excess runoff from the critical (6-10 minute) 5-year and 100-year ARI storms. The flow and volume calculations for swales presented in Appendix C apply equally to soak wells. Figure 10 shows a conceptual layout of soak wells and pipes for a 16-20m road reserve.

Runoff from larger and longer duration storms will bypass the soak wells and flow as follows:

- from Road A (Figure 9), down via the pipe system (and the road pavement, for major storms) to swales on Bernard Street and then into the creek; and
- from Roads B and C, overland via shallow swales in easements within private lots down to the creek.

The overflow swales will be planted with sedges and shrubs to slow and filter the flow.

Detailed design including selection, sizing and location of retention structures, will be undertaken as part of each subdivision design.

The existing creekline contains several broad pools. The creekline within the Public Open Space will be modified by the creation of additional pools and riffles to assist in slowing the flow that eventually leaves the project area.

The project area receives road runoff from external catchments to the west and east, as shown on Figure 9. The majority of this runoff is directed into Bernard Street and to a lesser extent Dean Street, and thence into Charlotte Creek. The streets in these catchments are mostly unkerbed, and runoff from smaller storms would infiltrate into road verges and roadside drains. Runoff from larger storms may flow into the roadside drains along Bernard Street.

If and when those external catchments become more densely subdivided, it is expected that runoff from storms up to 1-year ARI 1-hour will be retained within each subdivision, and runoff from larger storms up to 100-year ARI will be suitably detained so that the flow rates into the project area will be no greater than the current rates.

On the advice of the Shire of Mundaring (J. Dooner, pers. comm.), the infiltration swales and soak wells will be sized to accommodate only runoff from within the project area. The road network and roadside drains will be designed to cope with all runoff from both within and outside of the project area.

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5.3 Water Quality Management

The drainage system will be designed to maximise on-site retention of nitrogen and phosphorus. This will be achieved by:

- Retaining and infiltrating all lot runoff from storms up to 1-year ARI within the lots.
- Infiltrating all road runoff from storms up to 1-year ARI 1-hour duration (estimated by the DWER to carry more than 99% of total flows and nutrients) in vegetated bioretention swales and soak wells with a minimum soil PRI of 15.
- Detaining runoff from storms between 1-year and 100-year ARI in rock-pitched drains and creekline pools to allow suspended particles to settle.

5.4 Maintenance

The drainage system has been designed to require minimal maintenance. The following will be required to ensure that the system continues to function as designed:

- Regular (possibly annual) cleaning of side entry pits, inlet pits and soak wells. More frequent cleaning may be required during the construction phase.
- Tending and maintenance of POS areas, swales and other vegetated drainage features to remove litter, control weeds and encourage the growth of native species.
- Pruning, mulching or removal of vegetation in infiltration swales as necessary to maintain ground fuel loads below 8 tonnes/ha.

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6.0 GROUNDWATER MANAGEMENT STRATEGY

6.1 Groundwater Levels

Groundwater occurrence in the project area is mostly confined to the creek valley and lowlands. As a result, closer subdivision and development over most of the site will have little or no impact on groundwater levels.

In the lowlands, subsoil drainage for effluent disposal may cause local reductions in maximum groundwater levels but this will occur at only the scale of individual lots.

6.2 Groundwater Quality

The sampling undertaken to date indicates that the groundwater beneath the site contains low to moderate concentrations of nitrogen and phosphorus. This is to be expected given the nature of the soils and the land use history of the site.

The relationship between nutrient inputs and exports is complex, especially in the case of phosphorus, which travels through the soil profile as a "front" in a complex series of adsorption and desorption reactions. Nitrogen is subject to denitrification and mineralisation in the soil and groundwater. As a result, nutrient exports from the site at present will be a reflection of nutrient inputs over the last several decades, modified by soil hydrology and nutrient retention capacity.

The project area currently contains twenty lots. Assuming that each one contains one residence and that each residence produces 540 litres of wastewater per day, in accordance with the Health Department's "R5 equivalent", the existing lots would place a wastewater volume of 10.8m³ onto the project area. With subdivision of the site into 110 lots generating wastewater at the same rates, the residences would place an additional 48.6m³ onto the site. This equates to an additional wastewater loading of 0.114mm/day or 41.5mm/year over the 42.8ha site. This is 3.8% of the annual average rainfall of 1,088.8mm at the site, which is much less than the natural variation in rainfall from year to year.

The aim of nutrient management will be to limit nutrient inputs to the site so that nutrient outputs are minimised. The primary source of groundwater-borne nutrients will be soluble garden fertilisers. With low-phosphorus garden fertilisers being strongly promoted under the State government's Fertiliser Action Plan, most garden fertilisers for sale in hardware and garden stores contain little or no phosphorus.

Measures available to minimise nutrient inputs and exports in the development will include:

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- disposing of all effluent either in uplands with deep, highly adsorbent soils or using alternative nutrient-removing systems in low-lying areas;
 - regular street sweeping to remove accumulated contaminants;
 - selection of native species with low water and fertiliser requirements for public open space and landscape areas;
 - community education on waterwise gardening and fertiliser use; and
 - community education on management of pet wastes.

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7.0 LANDSCAPING STRATEGY

Landscaping of the site will focus on the use of local native species with low water demand. Plantings will be limited to the POS, the bioretention basins and a band extending 10m each side of Charlotte Creek. The species selection and planting methods will be undertaken in accordance with the Shire of Mundaring's *Landscape and Revegetation* Guidelines (2015). No turf grass or street trees will be planted.

Fertiliser use will be minimal. New tube stock plantings will be fertilised with slow-release nitrogen and phosphorus tablets on establishment and thereafter will be unfertilised. The plantings will not be irrigated after the establishment phase.

The POS will be designed as passive open space, with landscaping focussed on native sedges, low shrubs and scattered trees interspersed with open areas. Trees will be spaced at least 15m apart so as to maintain a 10m canopy separation. A pedestrian path will be created on the western side of the creek to allow for a future pedestrian connection with the railway reserve to the north-west.

The bioretention basins will be densely planted with inundation-tolerant species including sedges and low shrubs to stabilise the basins and maximise their ability to take up nitrogen from the water.

The immediate surrounds of the creekline (extending up to 10m from the watercourse) will be planted with wetland-tolerant native sedges, low shrubs and other understorey species to slow and filter runoff that is not captured by the road drainage system. The planted area will incorporate strategic 20m breaks about every 120m of creekline, so as to maintain the bushfire hazard level at "low threat". The breaks will facilitate access to the rear of lots and also act as strategic firebreaks. No mid-storey vegetation will be planted, in order to avoid creating a fire hazard. Figure 11 shows the proposed plantings along the creekline.

The width of the planting zone along the creekline has been determined in consultation with the Shire of Mundaring and is based on the following considerations:

- The primary purpose of the planting zone is to stabilise the banks of the watercourse and provide a vegetation filter strip between the creek and surrounding land uses. The proposed width is considered adequate for this purpose.
- A wider planting zone would increase the fire hazard, necessitating more closely spaced breaks in the vegetation. A planting zone 40m wide would require twice as many 20m breaks as a 20m zone, meaning that twice as much of the creekline would be left with no vegetation.

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- A 20m planting zone will include all current and likely future meanderings of the creek line and the maximum predicted extent (as per Figure 10 of the DWMS) of the 100-year flood event in the creek.
- An easement in favour of the Shire of Mundaring will need to be created over the creekline to enable Shire personnel to access the creekline for management purposes and to ensure long-term maintenance of the plantings. A 20m easement is considered a reasonable balance between management of the creekline and the property rights of lot owners.

Much of the creek and immediate surrounds is already vegetated with native (and some non-native) trees and shrubs. Planting in these areas will focus on understorey shrubs and sedges to improve the ground coverage, stabilise the creek line and provide habitat for native fauna such as Quenda. Where non-native trees are present they will be left unless they are invasive species or pose an unacceptable fire risk.

The total area to be planted in the POS, creek surrounds and bioretention basins will be approximately 2.6 hectares. If all of this area were irrigated simultaneously at the DWER's recommended rate for POS (4,750 KL/ha/yr) during the establishment phase, approximately 12.4 ML of water would be required to irrigate the new plantings for one year. As the project area is expected to be developed in a number of stages, the requirement for irrigation water is likely to be spread out over a number of years, with only a small part of the total demand being required in any one year.

It is likely that the landscape irrigation requirements for much of the project area could be met by the existing private bores. Because there will be no ongoing irrigation past the establishment phase, there will be no need for any bores to be operated or maintained by the Shire of Mundaring.

The density of planting will be controlled to keep flammable ground fuel loads below 8 tonnes/ha, in accordance with the Bushfire Management Plan (Bushfire Prone Planning, 2019).

Figure 11 shows the conceptual landscaping strategy. It is expected that a Landscape Plan will be required as a condition of subdivision for lots containing the POS or parts of the creekline.

8.0 MONITORING

Baseline water level and water quality results for the site are shown in Table 2.2, based on measurements and sampling in May and September 2018. A further round of pre-development monitoring, including the locations sampled in September 2018, will be undertaken in the winter of 2019 and the results forwarded to the Shire, DWER and DPLH as part of the assessment process.

Post-development monitoring will focus on periodic water quality monitoring of Charlotte Creek upstream and downstream of the project area and at the Bernard Street crossing. This will enable the effectiveness of the drainage management system to be assessed and modifications made if necessary.

Water monitoring within private lots would be of little benefit, as the ability to make changes to land use following subdivision would be very limited. In addition, the impacts of rural-residential development on water levels and water quality are well documented and the methods to manage them are well known and set out in government policy.

Post-development water quality sampling in Charlotte Creek will be conducted nominally twice a year in early and late winter. Each landowner wishing to subdivide will be required, at the discretion of Council, to provide water quality information for Charlotte Creek upstream, downstream and at the Bernard St crossing, collected in winter within the two years preceding the subdivision application.

Water quality criteria will be developed based on the consolidated results of pre-development monitoring, as part of the Urban Water Management Plan(s) to be prepared at subdivision stage.

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9.0 IMPLEMENTATION AND FURTHER MANAGEMENT PLANS

Structure planning and subdivision of the subject land will be carried out in accordance with the general water management principles set out in this LWMS. Subdivision of lots in the structure plan area may be carried out by individual owners as they see fit, in accordance with the framework of the LWMS.

An Urban Water Management Plan (UWMP) is expected to be required as a condition of subdivision approval for each stage of subdivision. Each UWMP will contain:

- a detailed design of the stormwater drainage system for the road(s) adjoining that stage;
- the results of winter water quality monitoring undertaken, at the discretion of Council, in Charlotte Creek upstream and downstream of the LSP area and at the Bernard St crossing within the two years preceding the subdivision application;
- detailed plans for revegetation and management of the creekline(s) and landscaping areas within that stage of subdivision.

The developer of each stage of subdivision will maintain the drainage system, landscape plantings and water monitoring program within that stage until two years after that stage of subdivision is completed. At the end of that time the responsibility for monitoring and management will be handed over to the Shire of Mundaring.

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10.0 REFERENCES

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BAYLEY ENVIRONMENTAL SERVICES

Figures



Figure 1

LOCATION AND LAYOUT





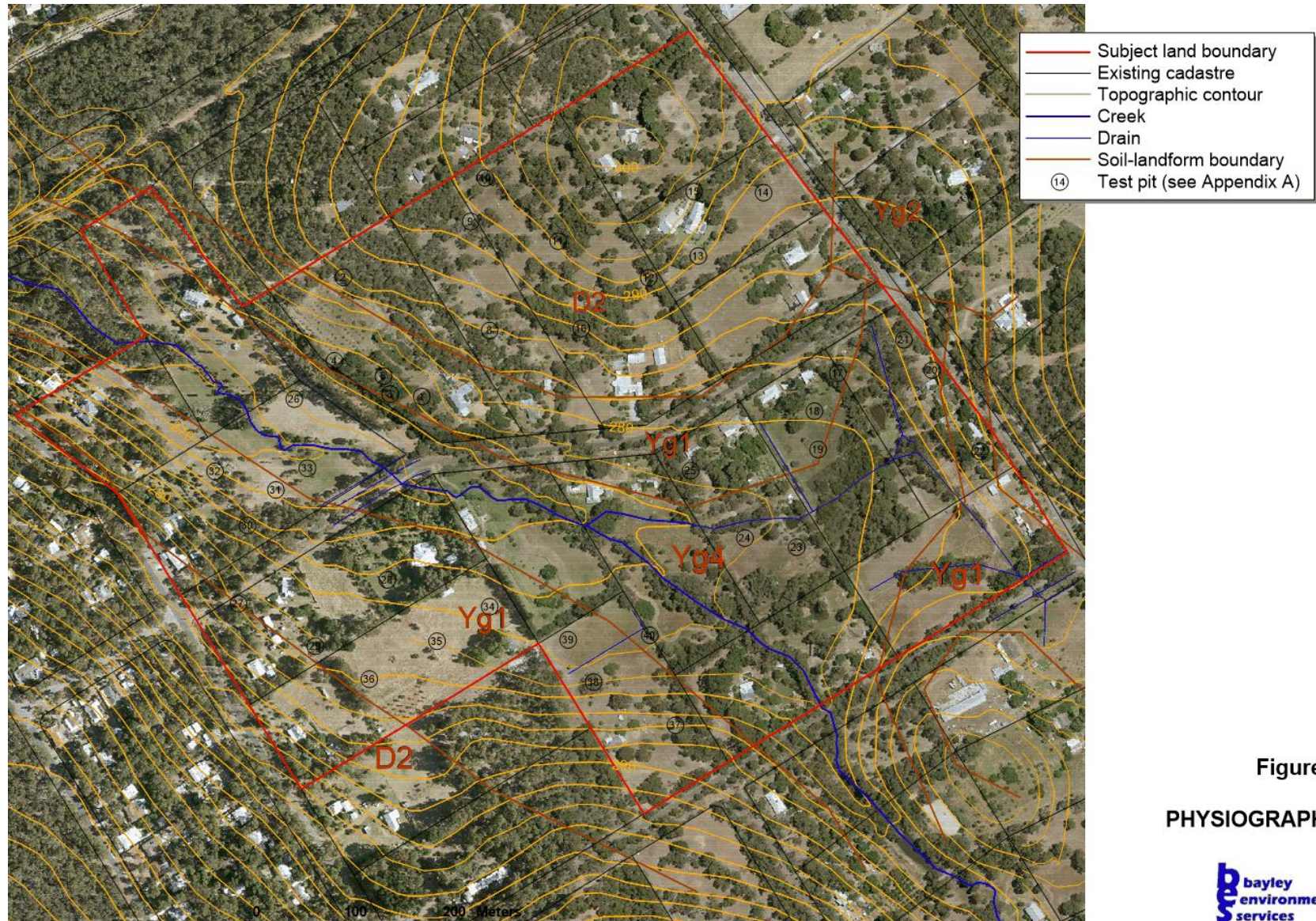


Figure 4
PHYSIOGRAPHY



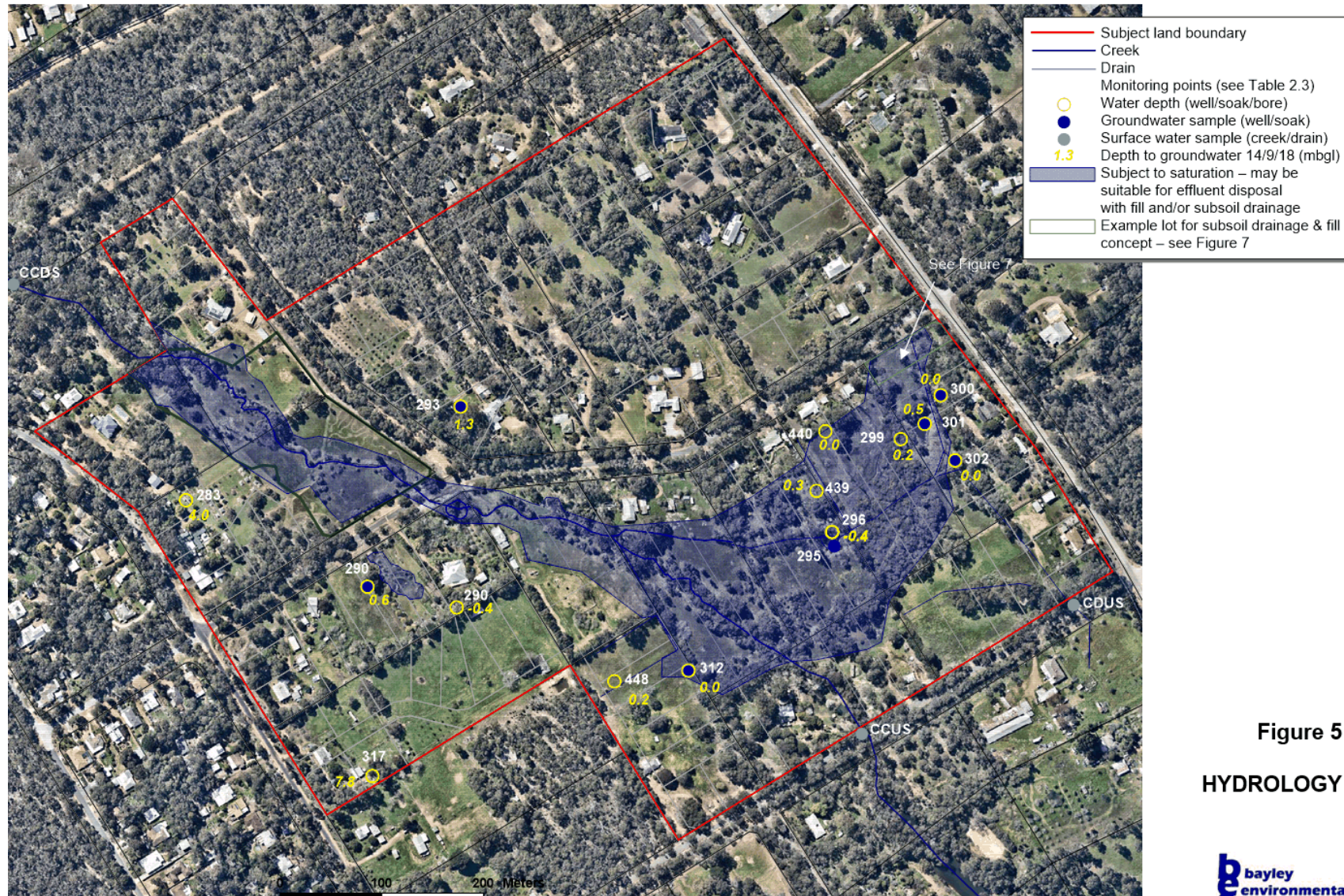


Figure 5
HYDROLOGY



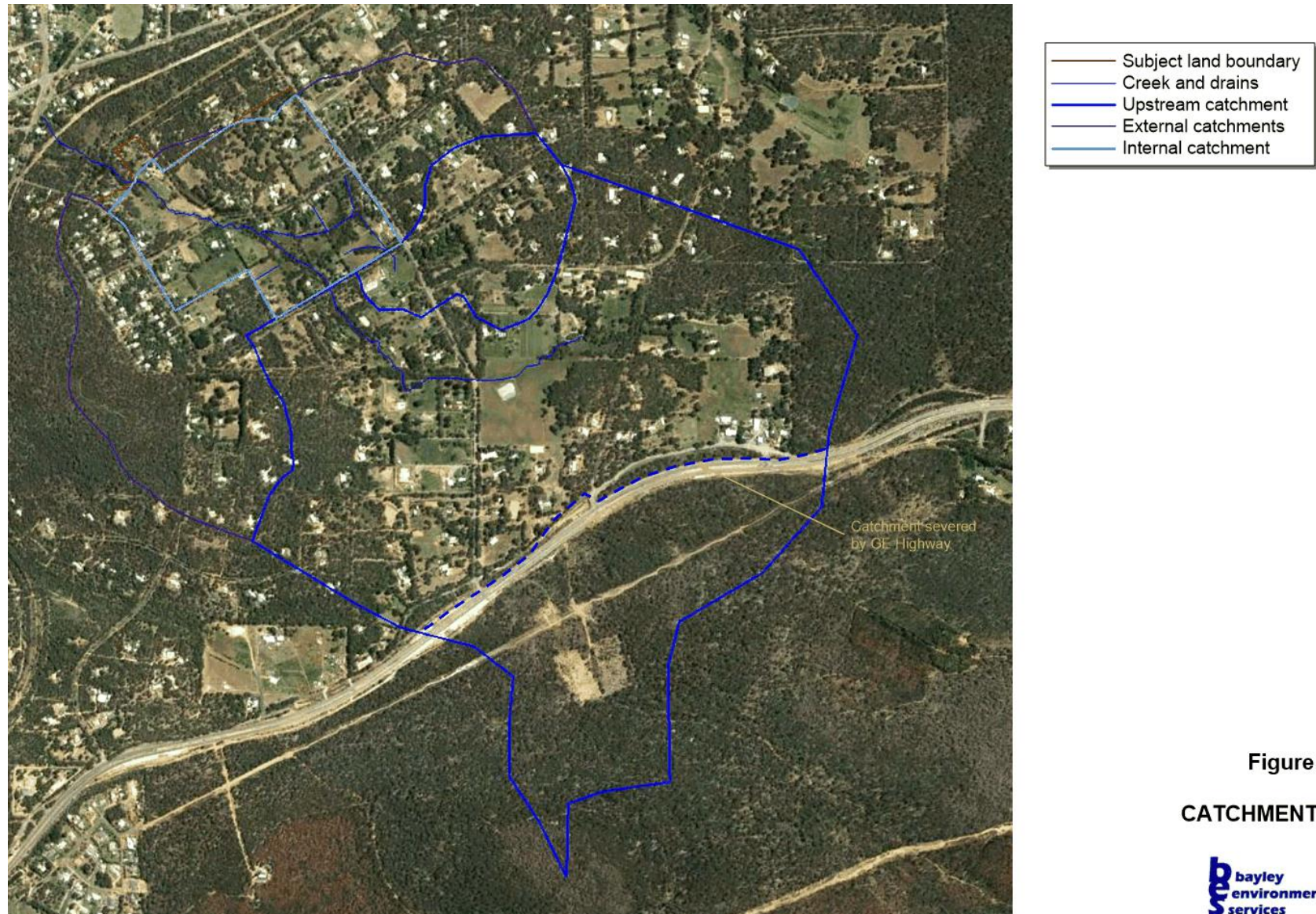


Figure 6
CATCHMENTS

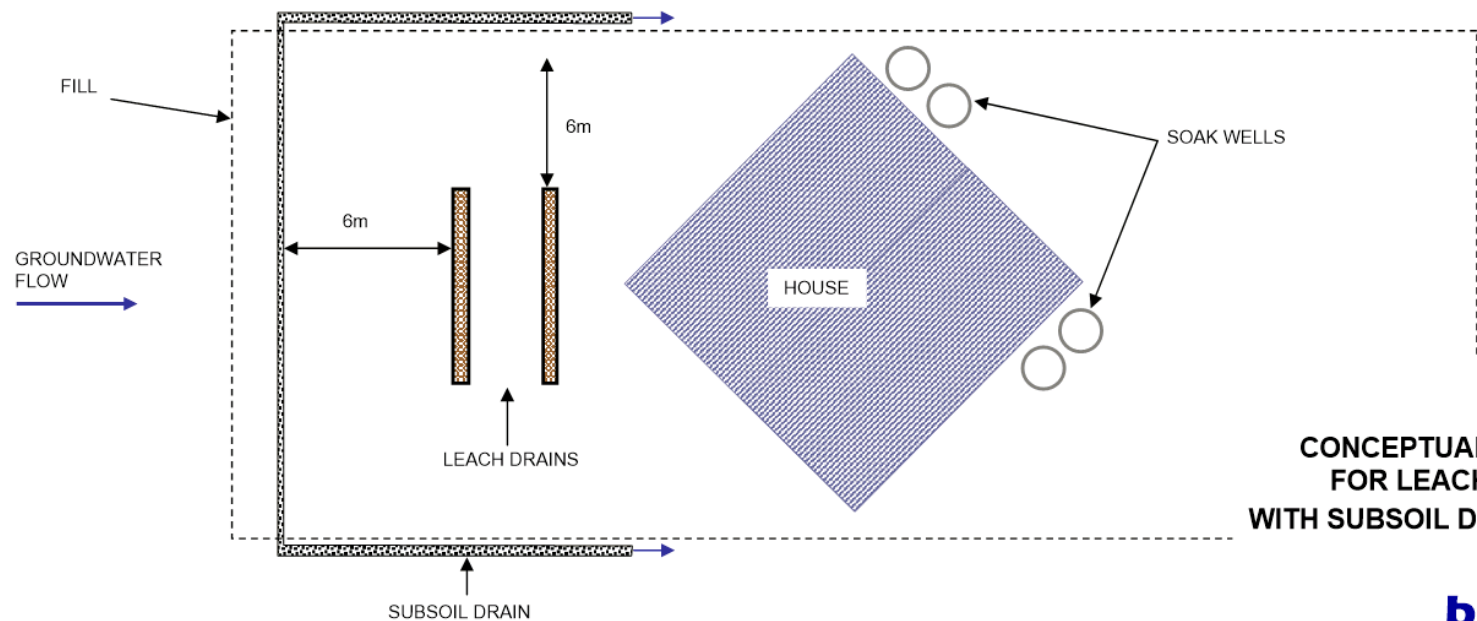
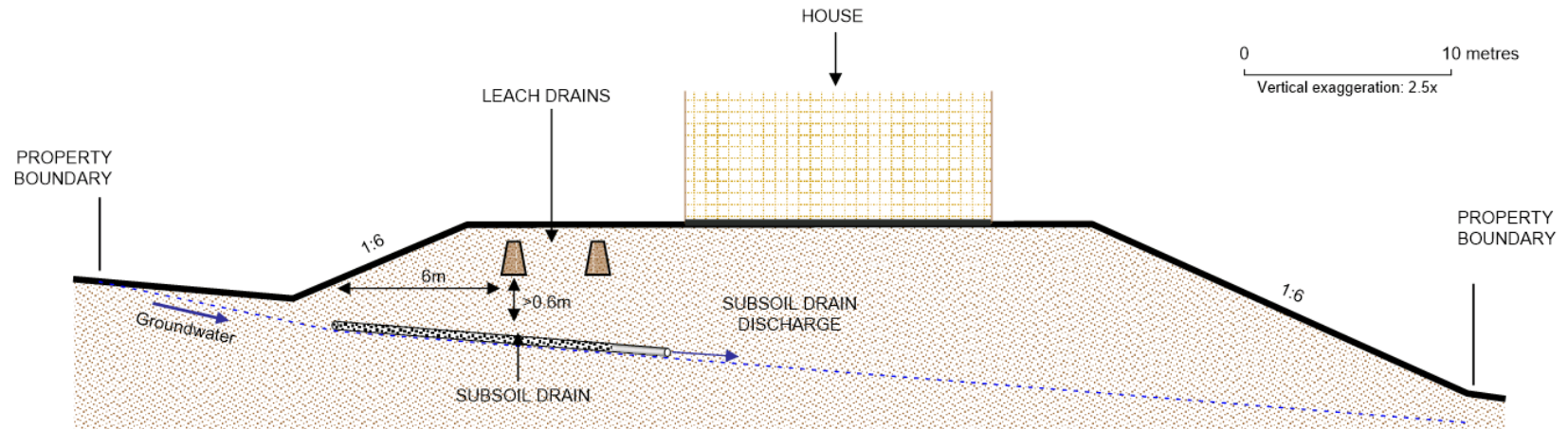
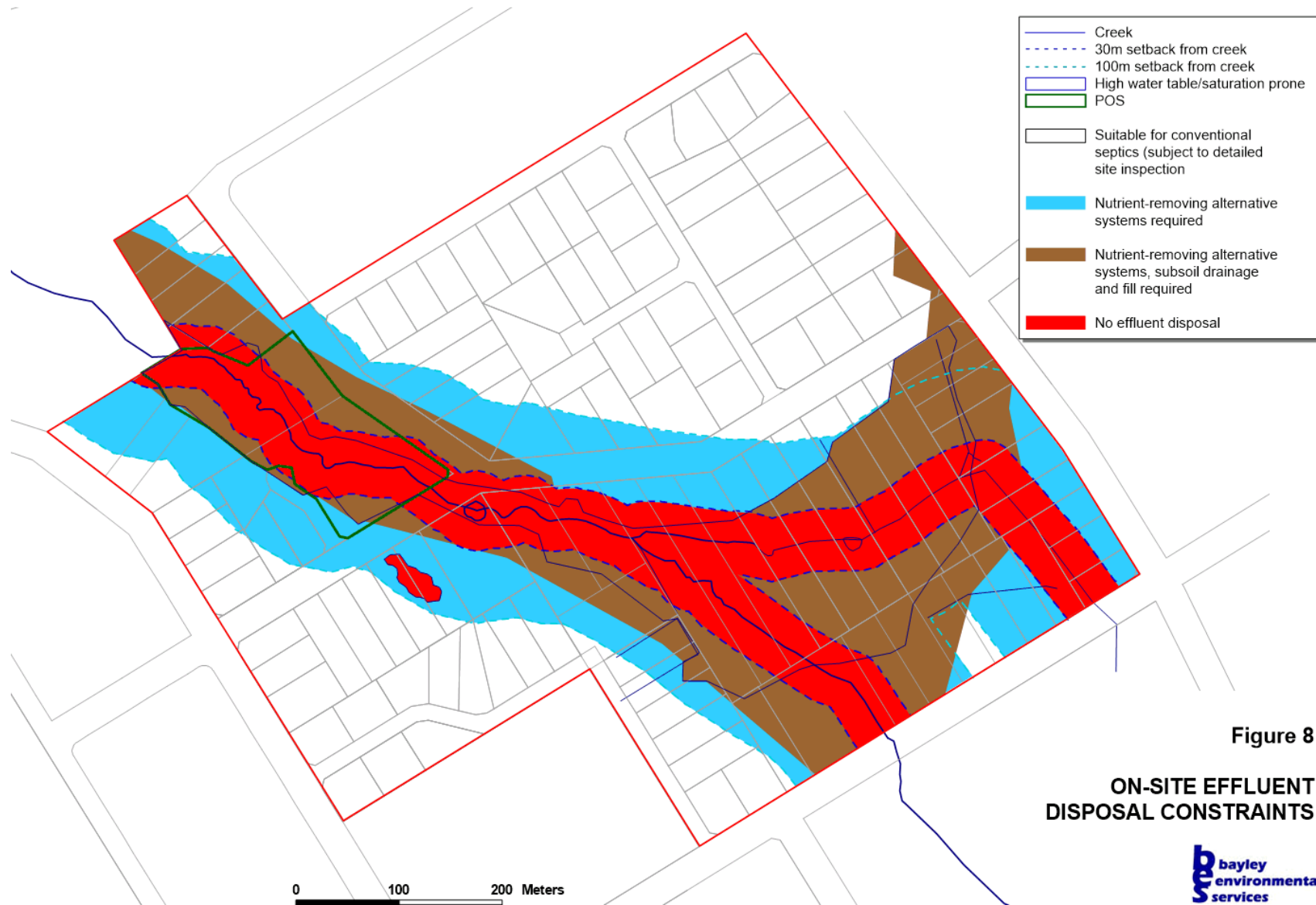
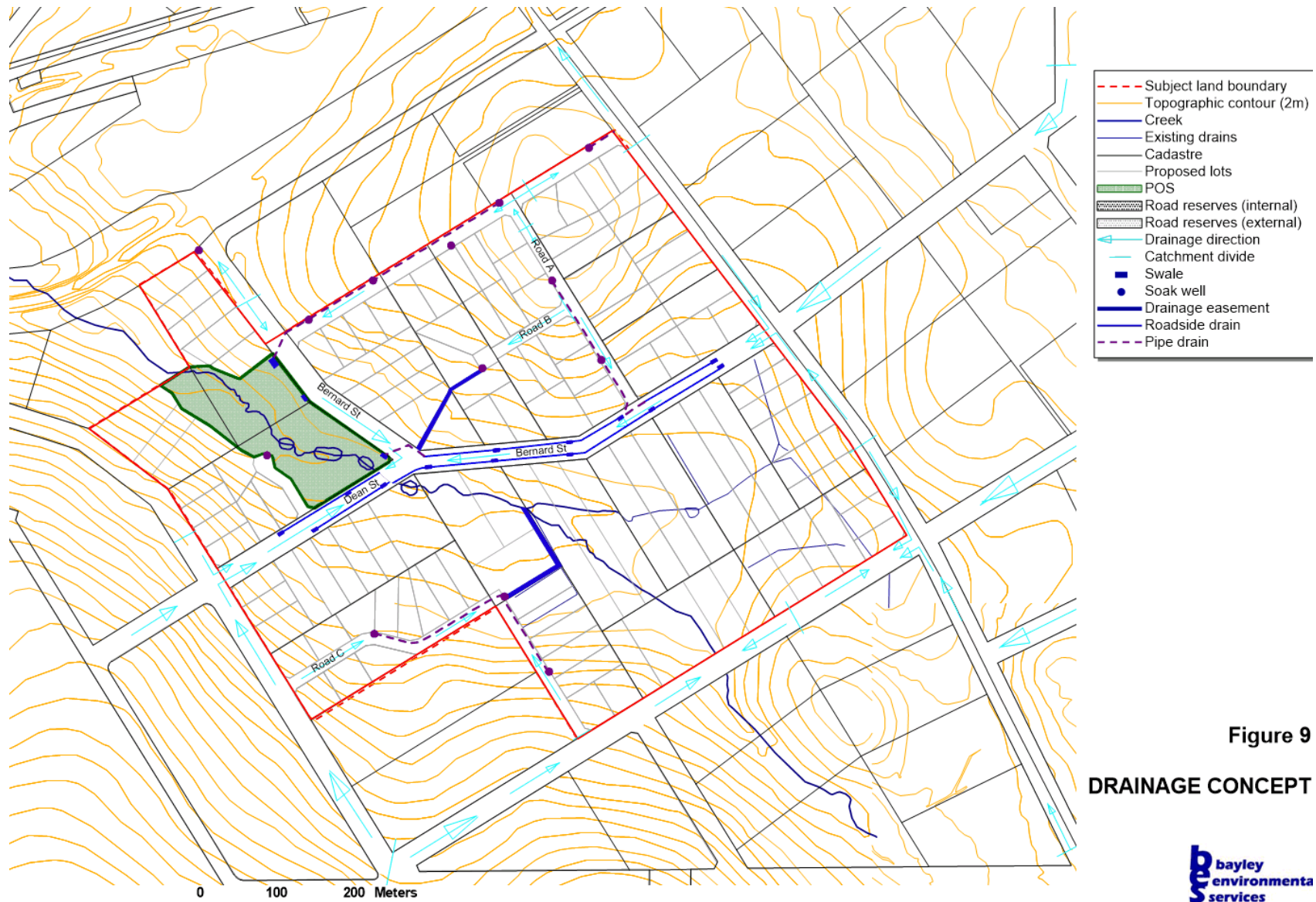


Figure 7

**CONCEPTUAL DESIGN
FOR LEACH DRAINS
WITH SUBSOIL DRAINAGE**

Note: This layout will require effluent to be pumped to the leach drains.
Other layouts using gravity feed are possible.





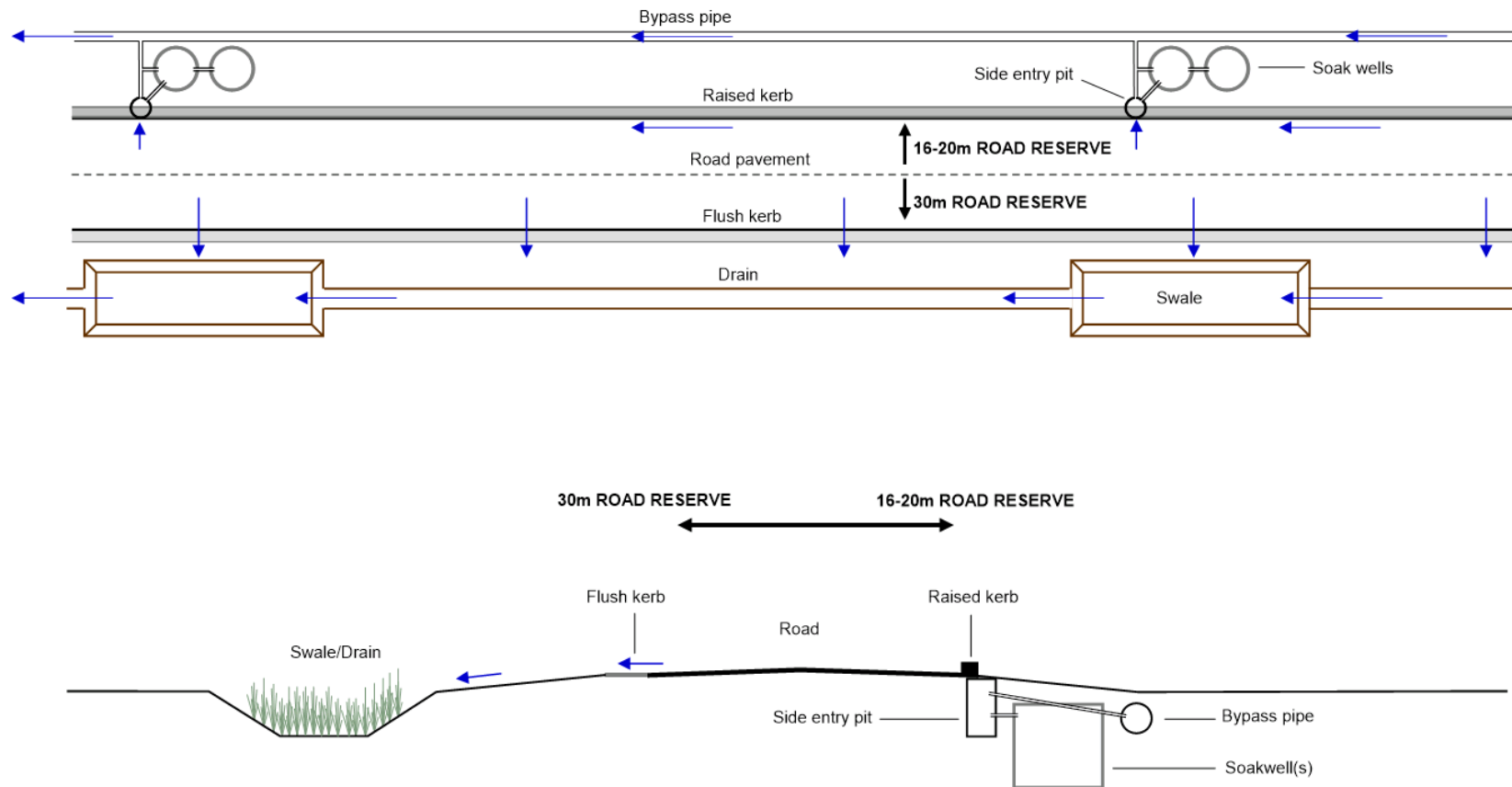


Figure 10

CONCEPTUAL LAYOUT OF SWALES AND SOAKWELLS



Figure 11

LANDSCAPE CONCEPT

Appendix A

Soil Logs



Regolith and Hydrological Logs

Lindsay Stephens BSc (Geology) MSc (Botany) FIQA, EIANZ
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 Phone 9397 5145 Fax 9397 5350

Project		Site Assessed by	L. Stephens
Location	Elliott – Humerston, Mt Helena	Date of Inspections	12 October 2013

Test Hole Number	1	Natural Surface		
Location	Central	Base of Hole		
Test Hole Type	Well	Depth		
Diameter		Depth of static water level		
Depth	Description			Comments
	Well constructed near granite outcrops			
Groundwater	Standing at 1800 mm			
Comment				

Test Hole Number	3	Natural Surface		
Location	Central	Base of Hole		
Test Hole Type	Backhoe	Depth		
Diameter		Depth of static water level		
Depth	Description			Comments
0 - 130 mm	Grey brown gravelly sand			
130 - 660 mm	Yellow brown gravelly sandy loam			
660 - 1400 mm	Yellow and red-orange mottled sandy loam clay			Free draining
Groundwater	Water table not intersected			
Comment				

Test Hole Number	4	Natural Surface		
Location	Central	Base of Hole		
Test Hole Type	Backhoe	Depth		
Diameter		Depth of static water level		
Depth	Description			Comments
0 - 100 mm	Yellow brown grey sand			
100 - 840 mm	Yellow brown to yellow coarse sandy gravel with coarse gravel particles			
840 - 1200 mm	Gravelly sandy clay			
Groundwater	Water table at 1050 mm			
Comment				

Test Hole Number	6	Natural Surface		
Location	North	Base of Hole		
Test Hole Type	Backhoe	Depth		
Diameter		Depth of static water level		
Depth	Description			Comments
0 - 200 mm	Sandy grey brown gravel with some duricrust			Base of old gravel pit
200 - 1100 mm	Yellow brown coarse sandy gravel			
1100 - 1900 mm	Yellow coarse sandy loam gravel			
1900 - 2100 mm	Yellow brown sandy loam with some gravel particles			
Groundwater	Water table not intersected			
Comment				



Regolith and Hydrological Logs

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Project		Site Assessed by	L. Stephens
Location	Elliott – Humerston, Mt Helena	Date of Inspections	12 October 2013

Test Hole Number	8	Natural Surface		
Location	Central	Base of Hole		
Test Hole Type	Backhoe	Depth		
Diameter		Depth of static water level		
Depth	Description			Comments
0 - 85 mm	Dark brown sandy gravelly loam			
85 - 1100 mm	Yellow brown sandy gravel			
1100 - 1700 mm	Yellow brown coarse gravel			
1700 - 1800 mm	Yellow brown gravel with red brown nodules of gravel just starting to form ferricrete cobbles and boulders.			
Groundwater	Water table not intersected			
Comment				

Test Hole Number	9	Natural Surface		
Location	North	Base of Hole		
Test Hole Type	Backhoe	Depth		
Diameter		Depth of static water level		
Depth	Description			Comments
0 - 100 mm	Dark brown sandy gravel			
100 - 440 mm	Yellow brown gravel with some duricrust floaters			
440 - 1700 mm	Coarse yellow brown gravel			
Groundwater	Water table not intersected			
Comment				

Test Hole Number	10	Natural Surface		
Location	North	Base of Hole		
Test Hole Type	Backhoe	Depth		
Diameter		Depth of static water level		
Depth	Description			Comments
0 - 140 mm	Grey gravelly sand			
140 - 480 mm	Light cream gravel			
480 mm	Duricrust			
Groundwater	Water table not intersected			
Comment				

Test Hole Number	11	Natural Surface		
Location	Central north	Base of Hole		
Test Hole Type	Backhoe	Depth		
Diameter		Depth of static water level		
Depth	Description			Comments
0 - 170 mm	Dark grey sand with minor gravel			
170 - 510 mm	Light yellow brown sandy gravel			
510 mm	Duricrust			
Groundwater	Water table not intersected			
Comment				



Regolith and Hydrological Logs

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Project		Site Assessed by	L. Stephens
Location	Elliott – Humerston, Mt Helena	Date of Inspections	12 October 2013

Test Hole Number	12	Natural Surface		
Location	Central east	Base of Hole		
Test Hole Type	Backhoe	Depth		
Diameter		Depth of static water level		
Depth	Description			Comments
0 - 60 mm	Dark brown gravelly loam			
60 - 110 mm	Gravelly light brown sand			
110 - 1750 mm	Orange red loam clay			
760 - >1100 mm	Cream clay sand with yellow brown mottles			Dry
Groundwater	Water table not intersected			
Comment				

Test Hole Number	13	Natural Surface		
Location	East	Base of Hole		
Test Hole Type	Backhoe	Depth		
Diameter		Depth of static water level		
Depth	Description			Comments
0 - 120 mm	Dark brown sandy loam			
120 - 640 mm	Light yellow brown loam to gravelly loam			
640 - 1020 mm	Yellow orange clay loam			Dry
1020 - 2000 mm	Lighter clay loam			Moist but free draining
Groundwater	Water table not intersected			
Comment				

Test Hole Number	14	Natural Surface		
Location	East	Base of Hole		
Test Hole Type	Backhoe	Depth		
Diameter		Depth of static water level		
Depth	Description			Comments
0 - 70 mm	Sandy grey gravel			
70 - 670 mm	Yellow brown sandy gravel			
670 - 1100 mm	Light yellow brown sandy loam			Free draining
1100 - 1300 mm	Light yellow gravel with reddish brown mottles			Hard but free draining
Groundwater	Water table not intersected			
Comment				

Test Hole Number	16	Natural Surface		
Location	Central	Base of Hole		
Test Hole Type	Backhoe	Depth		
Diameter		Depth of static water level		
Depth	Description			Comments
0 - 140 mm	Dark grey sandy gravelly loam			
140 - 900 mm	Light grey sandy gravelly loam			
900 - 1350 mm	Dark orange brown loam gravel			Free draining
1350 - 1400 mm	Reddish orange loam.			Hard but free draining
Groundwater	Water table not intersected			
Comment				



Regolith and Hydrological Logs

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Project		Site Assessed by	L. Stephens
Location	Elliott – Humerston, Mt Helena	Date of Inspections	12 October 2013

Test Hole Number	17	Natural Surface		
Location	South east	Base of Hole		
Backhoe	Backhoe	Depth		
Diameter		Depth of static water level		
Depth	Description	Comments		
0 - 190 mm	Dark grey sand			
190 - 680 mm	Light brown sand			
680 mm	Ferricrete cap over clay			
Groundwater	Water table at 400 mm			
Comment				

Test Hole Number	18	Natural Surface		
Location	South east	Base of Hole		
Test Hole Type	Backhoe	Depth		
Diameter		Depth of static water level		
Depth	Description	Comments		
0 - 250 mm	Dark grey sand			
250 - 1400 mm	Light yellow sand			
1400 mm	Ferricrete cap over clay			
Groundwater	Water table at 500 mm			
Comment				

Test Hole Number	19	Natural Surface		
Location	South east	Base of Hole		
Test Hole Type	Backhoe	Depth		
Diameter		Depth of static water level		
Depth	Description	Comments		
0 - 250 mm	Dark grey sand			
250 - 1100 mm	Light brown to yellow sand with brown mottles			
1100 - 1200 mm	Small ferricrete cap			
1200 - 1300 mm	White clay with yellow brown and red brown mottles			
Groundwater	Water table at 450 mm			
Comment				

Test Hole Number	20	Natural Surface		
Location	South east	Base of Hole		
Test Hole Type	Backhoe	Depth		
Diameter		Depth of static water level		
Depth	Description	Comments		
0 - 200 mm	Dark grey sand			
200 - 500 mm	Brown loamy sand			
500 - 800 mm	Yellow brown gravelly sand with brown mottles			
Groundwater	Water table not intersected			
Comment				



Regolith and Hydrological Logs

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Project		Site Assessed by	L. Stephens
Location	Elliott – Humerston, Mt Helena	Date of Inspections	12 October 2013

Test Hole Number	21	Natural Surface		
Location	South east	Base of Hole		
Test Hole Type	Backhoe	Depth		
Diameter		Depth of static water level		
Depth	Description	Comments		
0 - 380 mm	Dark grey sand			
380 - 490 mm	Light brown wet gravelly loam			
490 mm	Gravel ferricrete	Water running along the ferricrete. Dry underneath		
1300 - >1800 mm	Yellow sand slightly earthy			
Groundwater	Water table perched at 400 mm			
Comment				

Test Hole Number	22	Natural Surface		
Location	South east	Base of Hole		
Test Hole Type	Backhoe	Depth		
Diameter		Depth of static water level		
Depth	Description	Comments		
0 - 220 mm	Dark grey sand			
220 - 500 mm	Light brown gravelly sand			
500 - 850 mm	Yellow brown ferricrete with red brown mottles			
Groundwater	Water not intersected			
Comment				

Test Hole Number	23	Natural Surface		
Location	South east	Base of Hole		
Test Hole Type	Backhoe	Depth		
Diameter		Depth of static water level		
Depth	Description	Comments		
0 - 120 mm	Dark grey sand			
120 - 380 mm	Light brown gravelly sand			
380 - 420 mm	Ferricrete			
Groundwater	Water table perched at 400 mm			
Comment				

Test Hole Number	24	Natural Surface		
Location	South east	Base of Hole		
Test Hole Type	Backhoe	Depth		
Diameter		Depth of static water level		
Depth	Description	Comments		
0 - 140 mm	Grey brown sand			
140 - 710 mm	Dark orange yellow to yellow brown sand with slightly lighter mottles			
710 - 760 mm	Yellow brown ferricrete	Minor water flowing on the ferricrete		
Groundwater	Water table 700 mm			
Comment				

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Regolith and Hydrological Logs

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Project		Site Assessed by	L. Stephens
Location	Elliott – Humerston, Mt Helena	Date of Inspections	12 October 2013

Test Hole Number	25	Natural Surface		
Location	South east	Base of Hole		
Test Hole Type	Backhoe	Depth		
Diameter		Depth of static water level		
Depth	Description		Comments	
0 - 220 mm	Dark grey sand			
220 - 900 mm	Light brown gravelly sand, more gravelly with depth			
900 mm	Yellow brown ferricrete with red brown mottles			
Groundwater	Water table at 500 mm			
Comment				

Test Hole Number	26	Natural Surface		
Location	Central	Base of Hole		
Test Hole Type	Backhoe	Depth		
Diameter		Depth of static water level		
Depth	Description			Comments
0 – 130 mm	Dark grey sandy loam			
120 - 650 mm	Yellow brown gravelly loam			
650 – 1400 mm	Yellow brown sandy loam			Weathered granite basement
Groundwater	Water table not intersected			
Comment				

Test Hole Number	27	Natural Surface		
Location	West	Base of Hole		
Test Hole Type	Backhoe	Depth		
Diameter		Depth of static water level		
Depth	Description		Comments	
0 – 100 mm	Brown black gravelly loam			
100 – 1780 mm	Yellow brown loamy gravel			
Groundwater	Water table not intersected			
Comment				

Test Hole Number	28	Natural Surface		
Location	West	Base of Hole		
Test Hole Type	Backhoe	Depth		
Diameter		Depth of static water level		
Depth	Description			Comments
0 - 210 mm	Dark brown loam			
210 - 880 mm	Red brown loam			
880 – 1400 mm	Light yellow brown moist sandy gravelly loam			
1400 - 1600 mm	Gravelly loam, moist, grading to ferricrete			
Groundwater	Water table not intersected			
Comment				



Regolith and Hydrological Logs

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Project		Site Assessed by	L. Stephens
Location	Elliott – Humerston, Mt Helena	Date of Inspections	12 October 2013

Test Hole Number	29	Natural Surface		
Location	West	Base of Hole		
Test Hole Type	Backhoe	Depth		
Diameter		Depth of static water level		
Depth	Description		Comments	
0 - 130 mm	Dark brown loam			
130 - 850 mm	Light red brown loam			
850 - 1400mm	Lighter yellow brown loam, ferricreted at depth			
Groundwater	Water table not intersected			
Comment				

Test Hole Number	30	Natural Surface		
Location	West	Base of Hole		
Test Hole Type	Backhoe	Depth		
Diameter		Depth of static water level		
Depth	Description			Comments
0 – 140 mm	Dark grey brown sandy loam			
140 - 680 mm	Yellow brown loamy gravel			
680 – 1100 mm	Ferricrete 400 thick, could not penetrate			Free draining and dry
Groundwater	Water table not intersected			
Comment				

Test Hole Number	31	Natural Surface		
Location	West	Base of Hole		
Test Hole Type	Backhoe	Depth		
Diameter		Depth of static water level		
Depth	Description			Comments
0 – 100 mm	Dark brown gravelly loam			
100 – 500 mm	Reddish yellow broken ferricrete gravel			
500 – 1150 mm	Lighter broken gravel ferricrete			Moist at base
Groundwater	Water table not intersected			
Comment				

Test Hole Number	32	Natural Surface		
Location	West	Base of Hole		
Test Hole Type	Backhoe	Depth		
Diameter		Depth of static water level		
Depth	Description			Comments
0 - 150 mm	Brown sandy gravelly loam			
150 - 400 mm	Yellow brown gravel			
400 – 700 mm	Yellow brown indurated gravel			
700 mm	Hard indurated gravel			
Groundwater	Water table not intersected			
Comment				



Regolith and Hydrological Logs

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Project		Site Assessed by	L. Stephens
Location	Elliott – Humerston, Mt Helena	Date of Inspections	12 October 2013

Test Hole Number	33	Natural Surface		
Location	South east	Base of Hole		
Test Hole Type	Backhoe	Depth		
Diameter		Depth of static water level		
Depth	Description			Comments
0 – 80 mm	Brown sandy loam			
80 - 800 mm	Yellow brown loam gravel			Minor ferricrete at 400 that can be broken
800 - 1400 mm	Yellow brown ferricrete			Moist at depth
Groundwater	Water table not intersected			
Comment				

Test Hole Number	34	Natural Surface		
Location	Central south	Base of Hole		
Test Hole Type	Backhoe	Depth		
Diameter		Depth of static water level		
Depth	Description			Comments
0 – 200 mm	Dark grey brown sand			
200 - 750 mm	Yellow sand			
750 – 1550 mm	Pale yellow to cream brown loam clay with yellow brown mottles			Moist
Groundwater	Water table at 1100 mm			
Comment				

Test Hole Number	35	Natural Surface		
Location	South	Base of Hole		
Test Hole Type	Backhoe	Depth		
Diameter		Depth of static water level		
Depth	Description			Comments
0 – 250mm	Dark brown loam			
250 – 1500 mm	Yellow brown gravelly sandy loam			
1500 mm	Yellow brown ferricrete			
Groundwater	Water table not intersected			
Comment				

Test Hole Number	36	Natural Surface		
Location	South	Base of Hole		
Test Hole Type	Backhoe	Depth		
Diameter		Depth of static water level		
Depth	Description			Comments
0 - 180 mm	Dark red brown loam			
180 - 800 mm	Red loam			
800 - 1300 mm	Lighter red loam with minor gravel			
1300 mm	Ferricrete			Free draining
Groundwater	Water table not intersected			
Comment				

{



Regolith and Hydrological Logs

Lindsay Stephens BSc (Geology) MSc (Botany) FIQA, EIANZ
 25 Heather Road Roleystone 6111
 Phone 9397 5145 Fax 9397 5350

Project		Site Assessed by	L. Stephens
Location	Elliott – Humerston, Mt. Helena	Date of Inspections	12 October 2013

Test Hole Number	37	Natural Surface		
Location	South	Base of Hole		
Test Hole Type	Backhoe	Depth		
Diameter		Depth of static water level		
Depth	Description			Comments
0 - 180 mm	Dark brown loamy gravel			
180 - 740 mm	Brown sandy loam gravel			
740 - 800 mm	Ferricrete			
Groundwater	Water table not intersected			
Comment				

Test Hole Number	38	Natural Surface		
Location	South	Base of Hole		
Test Hole Type	Backhoe	Depth		
Diameter		Depth of static water level		
Depth	Description			Comments
0 - 130 mm	Dark brown loam			
130 - 760 mm	Red gravelly loam			
7600 - 1100 mm	Lighter gravelly loam			
Groundwater	Water table not intersected			
Comment				

Test Hole Number	39	Natural Surface		
Location	South	Base of Hole		
Test Hole Type	Backhoe	Depth		
Diameter		Depth of static water level		
Depth	Description			Comments
0 - 230 mm	Dark grey brown sand			
230 - 500 mm	Light brown sand			
500 - > 1100 mm	Light cream clay with red brown mottles			
Groundwater	Water table not intersected			
Comment				

Test Hole Number	40	Natural Surface		
Location	South	Base of Hole		
Test Hole Type	Backhoe	Depth		
Diameter		Depth of static water level		
Depth	Description			Comments
0 - 500	Small excavated hole			
Groundwater	Water table at 300 mm			
Comment				

Appendix B

Water Analysis Results



LABORATORY REPORT

Job Number: 18-07872
Revision: 00
Date: 1 June 2018

ADDRESS: **Bayley Environmental Services**
30 Thomas Street
South Fremantle WA 6162

ATTENTION: Phil Bayley

DATE RECEIVED: 24/05/2018

YOUR REFERENCE: J18007

PURCHASE ORDER:

APPROVALS:

	
Douglas Todd Laboratory Manager	Fiona Reid Inorganics Supervisor

REPORT COMMENTS:

This report is issued by Analytical Reference Laboratory (WA) Pty Ltd
Samples are analysed on an as received basis unless otherwise noted.

METHOD REFERENCES:

Methods prefixed with "ARL" are covered under NATA Accreditation Number: 2377

Methods prefixed with "PM" are covered under NATA Accreditation Number: 2561

ARL No. 29/402/403	Metals in Water by AAS/ICPOES/ICPMS
ARL No. 040	Arsenic by Hydride Atomic Absorption
ARL No. 406	Mercury by Cold Vapour Atomic Absorption Spectrophotometry
ARL No. 029	Metals in Water by AAS
ARL No. 316	Hexavalent Chromium in Water by Discrete Analyser
ARL No. 330	Persulphate Method for Simultaneous Determination of TN & TP
ARL No. 308	Total Phosphorus in Water by Discrete Analyser
ARL No. 313/319	NOx in Water by Discrete Analyser
ARL No. 309	Filterable Reactive Phosphorus in Water by Discrete Analyser
ARL No. 305	Chloride in Water by Discrete Analyser
ARL No. 301	Sulphate in Water by Discrete Analyser
ARL No. 021	Acidity in Water
ARL No. 037	Alkalinity in Water
ARL No. 014	pH in Water
ARL No. 019	Conductivity and Salinity in Water
ARL No. 016	Total Suspended Solids



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Bayley Environmental Services
Job No: 18-07872

LABORATORY REPORT
Revision: 00

Date: 1/06/18

Metals in Water			Sample No: 18-07872-1	18-07872-2
Sample Details:			295	301
ANALYTE	LOR	Units	22/05/2018	22/05/2018
Aluminium - Dissolved	0.1	mg/L	<0.1	<0.1
Arsenic III Dissolved	0.001	mg/L	<0.001	<0.001
Arsenic V Dissolved	0.001	mg/L	<0.001	<0.001
Cadmium - Dissolved	0.002	mg/L	<0.002	<0.002
Chromium (III) - Dissolved*	0.01	mg/L	<0.01	<0.01
Copper - Dissolved	0.01	mg/L	<0.01	<0.01
Chromium - Dissolved	0.01	mg/L	<0.01	<0.01
Iron - Dissolved	0.01	mg/L	0.24	0.32
Mercury - Dissolved	0.0002	mg/L	<0.0002	<0.0002
Nickel - Dissolved	0.01	mg/L	<0.01	<0.01
Lead - Dissolved	0.01	mg/L	<0.01	<0.01
Zinc - Dissolved	0.01	mg/L	0.02	<0.01
Calcium - Dissolved	0.1	mg/L	9.2	22
Potassium - Dissolved	0.1	mg/L	3.3	4.5
Magnesium - Dissolved	0.1	mg/L	15	75
Sodium - Dissolved	0.1	mg/L	94	420
Chromium (VI)	0.002	mg/L	<0.002	<0.002

Total Nitrogen in Water			Sample No: 18-07872-1	18-07872-2
Sample Details:			295	301
ANALYTE	LOR	Units	22/05/2018	22/05/2018
Total Nitrogen	0.2	mg/L	0.7	1.8
Total Kjeldahl Nitrogen	0.2	mg/L	0.6	1.8

Total Phosphorus in Water			Sample No: 18-07872-1	18-07872-2
Sample Details:			295	301
ANALYTE	LOR	Units	22/05/2018	22/05/2018
Total Phosphorus	0.01	mg/L	0.06	0.33

Ions by Discrete Analyser			Sample No: 18-07872-1	18-07872-2
Sample Details:			295	301
ANALYTE	LOR	Units	22/05/2018	22/05/2018
NOx-N	0.01	mg/L	0.10	0.02
Filterable Reactive Phosphorus	0.01	mg/L	<0.01	0.01
Chloride	5	mg/L	220	880
Sulphate	1	mg/L	29	7

Physical Parameters			Sample No: 18-07872-1	18-07872-2
Sample Details:			295	301
ANALYTE	LOR	Units	22/05/2018	22/05/2018
Acidity	5	mg CaCO ₃ /L	<5	8
Alkalinity	5	mg CaCO ₃ /L	21	38
pH	0.1	pH units	7.0	6.9
Conductivity	0.01	mS/cm	0.92	3.2
Total Suspended Solids	5	mg/L	22	21

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Bayley Environmental Services
Job No: 18-07872

LABORATORY REPORT
Revision: 00

Date: 1/06/18

Misc. Inorganics in Water			Sample No: 18-07872-1	18-07872-2
Sample Details:			295	301
ANALYTE	LOR	Units	22/05/2018	22/05/2018
Hardness	5	mg CaCO ₃ /L	85	360

Result Definitions

LOR Limit of Reporting

[NT] Not Tested

[ND] Not Detected at indicated Limit of Reporting

* Denotes test not covered by NATA Accreditation

FOR MICROBIOLOGICAL TESTING - The data in this report may not be representative of a lot, batch or other samples and may not necessarily justify the acceptance or rejection of a lot or batch, a product recall or support legal proceedings. Tests are not routinely performed as duplicates unless specifically requested. Changes occur in the bacterial content of biological samples. Samples should be examined as soon as possible after collection, preferably within 6 hrs and must be stored at 4 degrees Celsius or below. Samples tested after 24 hrs cannot be regarded as satisfactory because of temperature abuse and variations.

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LABORATORY REPORT

Job Number: 18-13849
Revision: 00
Date: 18 October 2018

ADDRESS: **Bayley Environmental Services**
30 Thomas Street
South Fremantle WA 6162

ATTENTION: Phil Bayley

DATE RECEIVED: 17/09/2018

YOUR REFERENCE: J18007

PURCHASE ORDER:

APPROVALS:

Douglas Todd
Laboratory Manager

REPORT COMMENTS:

This report is issued by Analytical Reference Laboratory (WA) Pty Ltd
Samples are analysed on an as received basis unless otherwise noted.
With the exception of TSS sample 2 was filtered prior to all analysis.

METHOD REFERENCES:

Methods prefixed with "ARL" are covered under NATA Accreditation Number: 2377

Methods prefixed with "PM" are covered under NATA Accreditation Number: 2561

ARL No. 040	Arsenic by Hydride Atomic Absorption
ARL No. 29/402/403	Metals in Water by AAS/ICPOES/ICPMS
ARL No. 029	Metals in Water by AAS
ARL No. 406	Mercury by Cold Vapour Atomic Absorption Spectrophotometry
ARL No. 330	Persulfate Method for Simultaneous Determination of TN & TP
ARL No. 308	Total Phosphorus in Water by Discrete Analyser
ARL No. 313/319	NOx in Water by Discrete Analyser
ARL No. 309	Filterable Reactive Phosphorus in Water by Discrete Analyser
ARL No. 305	Chloride in Water by Discrete Analyser
ARL No. 301	Sulfate in Water by Discrete Analyser
ARL No. 316	Hexavalent Chromium in Water by Discrete Analyser
ARL No. 021	Acidity in Water
ARL No. 037	Alkalinity in Water
ARL No. 014	pH in Water
ARL No. 019	Conductivity and Salinity in Water
ARL No. 016	Total Suspended Solids



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Bayley Environmental Services
Job No: 18-13849

LABORATORY REPORT
Revision: 00

Date: 18/10/18

Metals in Water			Sample No: 18-13849-1	18-13849-2	18-13849-3	18-13849-4	18-13849-5
Sample Details:			290	293	300	302	312
ANALYTE	LOR	Units	14/09/2018	14/09/2018	14/09/2018	14/09/2018	14/09/2018
Arsenic - (III)	0.001	mg/L	<0.001	<0.001	<0.001	<0.001	<0.001
Arsenic - (V)	0.001	mg/L	<0.001	<0.001	<0.001	<0.001	<0.001
Calcium - Dissolved	0.1	mg/L	5.8	23	10	11	9.1
Potassium - Dissolved	0.1	mg/L	3.4	4.9	4.9	13	4.2
Magnesium - Dissolved	0.1	mg/L	11	4.9	20	22	13
Sodium - Dissolved	0.1	mg/L	64	21	190	180	68
Aluminium - Dissolved	0.1	mg/L	<0.1	1.7	<0.1	<0.1	<0.1
Iron - Dissolved	0.01	mg/L	<0.01	0.48	11	0.03	1.1
Cadmium - Dissolved	0.002	mg/L	<0.002	<0.002	<0.002	<0.002	<0.002
Chromium - Dissolved	0.01	mg/L	<0.01	<0.01	<0.01	<0.01	<0.01
Chromium (III) - Dissolved*	0.01	mg/L	<0.01	<0.01	<0.01	<0.01	<0.01
Copper - Dissolved	0.01	mg/L	<0.01	<0.01	<0.01	<0.01	<0.01
Mercury - Dissolved	0.0002	mg/L	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002
Nickel - Dissolved	0.01	mg/L	<0.01	<0.01	<0.01	<0.01	<0.01
Lead - Dissolved	0.01	mg/L	<0.01	<0.01	0.01	<0.01	<0.01
Zinc - Dissolved	0.01	mg/L	<0.01	<0.01	<0.01	<0.01	1.5

Metals in Water			Sample No: 18-13849-6	18-13849-7	18-13849-8
Sample Details:			CCUS	CDUS	CCDS
ANALYTE	LOR	Units	14/09/2018	14/09/2018	14/09/2018
Arsenic - (III)	0.001	mg/L	<0.001	<0.001	<0.001
Arsenic - (V)	0.001	mg/L	<0.001	<0.001	<0.001
Calcium - Dissolved	0.1	mg/L	8.4	6.2	9.5
Potassium - Dissolved	0.1	mg/L	3.4	2.4	3.8
Magnesium - Dissolved	0.1	mg/L	9.2	6.9	11
Sodium - Dissolved	0.1	mg/L	69	54	89
Aluminium - Dissolved	0.1	mg/L	<0.1	0.2	<0.1
Iron - Dissolved	0.01	mg/L	0.07	0.10	0.13
Cadmium - Dissolved	0.002	mg/L	<0.002	<0.002	<0.002
Chromium - Dissolved	0.01	mg/L	<0.01	<0.01	<0.01
Chromium (III) - Dissolved*	0.01	mg/L	<0.01	<0.01	<0.01
Copper - Dissolved	0.01	mg/L	<0.01	<0.01	<0.01
Mercury - Dissolved	0.0002	mg/L	<0.0002	<0.0002	<0.0002
Nickel - Dissolved	0.01	mg/L	<0.01	<0.01	<0.01
Lead - Dissolved	0.01	mg/L	<0.01	<0.01	<0.01
Zinc - Dissolved	0.01	mg/L	<0.01	<0.01	<0.01

Total Nitrogen in Water			Sample No: 18-13849-1	18-13849-2	18-13849-3	18-13849-4	18-13849-5
Sample Details:			290	293	300	302	312
ANALYTE	LOR	Units	14/09/2018	14/09/2018	14/09/2018	14/09/2018	14/09/2018
Total Nitrogen	0.2	mg/L	<0.2		<0.2	0.3	0.7
Total Nitrogen (Filtered)	0.2	mg/L		0.5			
Total Kjeldahl Nitrogen	0.2	mg/L	<0.2	0.4	<0.2	0.3	0.7

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Bayley Environmental Services
Job No: 18-13849

LABORATORY REPORT
Revision: 00

Date: 18/10/18

Total Nitrogen in Water			Sample No: 18-13849-6	18-13849-7	18-13849-8
Sample Details:			CCUS	CDUS	CCDS
ANALYTE	LOR	Units	14/09/2018	14/09/2018	14/09/2018
Total Nitrogen	0.2	mg/L	0.8	0.2	0.5
Total Kjeldahl Nitrogen	0.2	mg/L	<0.2	0.2	<0.2

Total Phosphorus in Water			Sample No: 18-13849-1	18-13849-2	18-13849-3	18-13849-4	18-13849-5
Sample Details:			290	293	300	302	312
ANALYTE	LOR	Units	14/09/2018	14/09/2018	14/09/2018	14/09/2018	14/09/2018
Total Phosphorus	0.01	mg/L	0.04		0.10	0.08	0.05
Filtered Total Phosphorus	0.01	mg/L		0.11			

Total Phosphorus in Water			Sample No: 18-13849-6	18-13849-7	18-13849-8
Sample Details:			CCUS	CDUS	CCDS
ANALYTE	LOR	Units	14/09/2018	14/09/2018	14/09/2018
Total Phosphorus	0.01	mg/L	0.03	0.02	0.03

Ions by Discrete Analyser			Sample No: 18-13849-1	18-13849-2	18-13849-3	18-13849-4	18-13849-5
Sample Details:			290	293	300	302	312
ANALYTE	LOR	Units	14/09/2018	14/09/2018	14/09/2018	14/09/2018	14/09/2018
NOx-N	0.01	mg/L	0.04	0.27	<0.01	<0.01	<0.01
Filterable Reactive Phosphorus	0.01	mg/L	<0.01	0.08	<0.01	<0.01	<0.01
Chloride	5	mg/L	130	30	380	360	180
Sulfate	1	mg/L	17	7	100	38	10
Chromium (VI)	0.002	mg/L	<0.002	<0.002	<0.002	<0.002	<0.002

Ions by Discrete Analyser			Sample No: 18-13849-6	18-13849-7	18-13849-8
Sample Details:			CCUS	CDUS	CCDS
ANALYTE	LOR	Units	14/09/2018	14/09/2018	14/09/2018
NOx-N	0.01	mg/L	0.74	0.05	0.39
Filterable Reactive Phosphorus	0.01	mg/L	<0.01	<0.01	<0.01
Chloride	5	mg/L	140	89	160
Sulfate	1	mg/L	22	13	24
Chromium (VI)	0.002	mg/L	<0.002	<0.002	<0.002

Physical Parameters			Sample No: 18-13849-1	18-13849-2	18-13849-3	18-13849-4	18-13849-5
Sample Details:			290	293	300	302	312
ANALYTE	LOR	Units	14/09/2018	14/09/2018	14/09/2018	14/09/2018	14/09/2018
Acidity	5	mg CaCO ₃ /L	<5	<5	83	10	15
Alkalinity	5	mg CaCO ₃ /L	14	69	<5	7	12
pH	0.1	pH units	5.8	7.1	5.0	5.7	5.9
Conductivity	0.01	mS/cm	0.49	0.30	1.4	1.2	0.57
Total Suspended Solids	5	mg/L	7	23	19	7	20

Physical Parameters			Sample No: 18-13849-6	18-13849-7	18-13849-8
Sample Details:			CCUS	CDUS	CCDS
ANALYTE	LOR	Units	14/09/2018	14/09/2018	14/09/2018
Acidity	5	mg CaCO ₃ /L	<5	8	<5
Alkalinity	5	mg CaCO ₃ /L	17	18	17
pH	0.1	pH units	6.7	6.1	6.8
Conductivity	0.01	mS/cm	0.49	0.40	0.61

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Bayley Environmental Services
Job No: 18-13849

LABORATORY REPORT
Revision: 00

Date: 18/10/18

Physical Parameters			Sample No: 18-13849-6	18-13849-7	18-13849-8
Sample Details:			CCUS	CDUS	CCDS
ANALYTE	LOR	Units	14/09/2018	14/09/2018	14/09/2018
Total Suspended Solids	5	mg/L	<5	<5	10

Misc. Inorganics in Water			Sample No: 18-13849-1	18-13849-2	18-13849-3	18-13849-4	18-13849-5
Sample Details:			290	293	300	302	312
ANALYTE	LOR	Units	14/09/2018	14/09/2018	14/09/2018	14/09/2018	14/09/2018
Hardness	5	mg CaCO ₃ /L	60	78	110	120	76

Misc. Inorganics in Water			Sample No: 18-13849-6	18-13849-7	18-13849-8
Sample Details:			CCUS	CDUS	CCDS
ANALYTE	LOR	Units	14/09/2018	14/09/2018	14/09/2018
Hardness	5	mg CaCO ₃ /L	59	44	69

Result Definitions

LOR Limit of Reporting

[NT] Not Tested

[ND] Not Detected at indicated Limit of Reporting

* Denotes test not covered by NATA Accreditation

FOR MICROBIOLOGICAL TESTING - The data in this report may not be representative of a lot, batch or other samples and may not necessarily justify the acceptance or rejection of a lot or batch, a product recall or support legal proceedings. Tests are not routinely performed as duplicates unless specifically requested. Changes occur in the bacterial content of biological samples. Samples should be examined as soon as possible after collection, preferably within 6 hrs and must be stored at 4 degrees Celsius or below. Samples tested after 24 hrs cannot be regarded as satisfactory because of temperature abuse and variations.

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Appendix C

Flow Calculations and Swale Sizing

1 YEAR ARI 1 HOUR FLOWS

Rainfall Intensity i (mm/h)	16.4	(1 yr, 1 hr Storm)
Runoff Coefficient Road	0.9	
Runoff Coefficient Services	0	
Runoff Coefficient Drains	0	
Runoff Coefficient Bush	0	
Permeability k (m/hr)	0.0417	

Catchment	Road & Crossovers	Services	Drains	Verge	Ai	Q (L/s)	Vinflow (m3)
30m Road Reserve	744	376	376	1504	669.60	3.05	11
20m Road Reserve	744	376	0	880	669.60	3.05	11
16m Road Reserve	744	376	0	480	669.60	3.05	11

Basin Sizing

	Storm Event	Depth	Slope 1:x	Base Width	Base Length	Top Width (m)	Top Length (m)	Volume	Effective Volume	Surface Area (m2)	Volume check	2% Area
Basin A	1	0.3	3	3	8	5	10	10	12	47	ok	15
Basin B	1	0.3	3	3	8	5	10	10	12	47	ok	15
Basin C	1	0.3	3	3	8	5	10	10	12	47	ok	15
	600	400	400	1600								
	3000	0	0	0								

5 YEAR ARI DRAINAGE PROPERTIES

CATCHMENT	AREAS (m ²)					EFFECTIVE AREAS (m ²)		TIME OF CONCENTRATION PRE-DEVELOPMENT					TIME OF CONCENTRATION POST-DEVELOPMENT					CRITICAL STORM INTENSITY (mm/h)	
	Road & Crossovers	Services	Drain	Verge	Total	Pre-Dev	Post-Dev	Longest Path (m)	RL Top (mAHD)	RL Bottom (mAHD)	Slope (m/km)	TC (min)	Longest Path (m)	RL Top (mAHD)	RL Bottom (mAHD)	Slope	TC (min)	Pre-Dev	Post-Dev
30m Road	744	376	376	1504	3000	600	1384	100	282	280	20.00	6.7	100	282	280	20.00	6.2	82.90	85.31
20m Road	744	376	0	880	2000	400	921	100	282	280	20.00	7.0	100	282	280	20.00	6.4	81.65	84.16
16m Road	744	376	0	480	1600	320	841	100	282	280	20.00	7.1	100	282	280	20.00	6.5	80.94	83.90

Runoff Coefficients	Pre-Dev	Post-Dev
Road & crossovers	0.9	0.9
Services	0.2	0.2
Drain	0.9	0.9
Verge	0.2	0.2

Rainfall IFD		
Event	Duration (mins)	Intensity (mm/hr)
5 min	5	92
6 min	6	86
10 min	10	68
20 min	20	46
30 min	30	36
1 hr	60	23
2 hr	120	15
3 hr	180	11.5
6 hr	360	7.6
12 hr	720	5
24 hr	1440	3.3
48 hr	2880	2.1
72 hr	4320	1.6

5 YEAR ARI FLOWS

Storm Duration (mins)	30m Road Reserve				20m Road Reserve				16m Road Reserve			
	Pre-Dev Flow (l/s)	Post-Dev Flow (l/s)	Excess Flow (l/s)	Storage (m3)	Pre-Dev Flow (l/s)	Post-Dev Flow (l/s)	Excess Flow (l/s)	Storage (m3)	Pre-Dev Flow (l/s)	Post-Dev Flow (l/s)	Excess Flow (l/s)	Storage (m3)
5	13.82	35.37	21.55	3.36	9.07	23.53	14.46	2.19	7.19	21.49	14.29	2.43
6	13.82	33.06	19.25	3.96	9.07	22.00	12.92	2.60	7.19	20.09	12.89	2.85
10	13.82	26.14	12.33	4.99	9.07	17.39	8.32	3.32	7.19	15.88	8.69	3.68
20	13.82	17.68	3.87	3.53	9.07	11.77	2.69	2.43	7.19	10.74	3.55	3.34
30	13.82	13.84	0.02	0.03	9.07	9.21	0.14	0.19	7.19	8.41	1.21	1.78
60	13.82	8.84	-4.97	-15.04	9.07	5.88	-3.19	-9.59	7.19	5.37	-1.82	-5.62
120	13.82	5.77	-8.05	-50.84	9.07	3.84	-5.24	-32.94	7.19	3.50	-3.69	-23.64
180	13.82	4.42	-9.39	-90.63	9.07	2.94	-6.13	-58.94	7.19	2.69	-4.51	-44.01
360	13.82	2.92	-10.89	-216.30	9.07	1.94	-7.13	-141.18	7.19	1.78	-5.42	-108.55
720	13.82	1.92	-11.89	-482.25	9.07	1.28	-7.79	-315.41	7.19	1.17	-6.03	-245.96
1440	13.82	1.27	-12.55	-1033.65	9.07	0.84	-8.23	-676.91	7.19	0.77	-6.42	-531.78
2880	13.82	0.81	-13.01	-2165.72	9.07	0.54	-8.54	-1419.44	7.19	0.49	-6.70	-1120.37
4320	13.82	0.62	-13.20	-3312.21	9.07	0.41	-8.66	-2171.61	7.19	0.37	-6.82	-1717.11

Permeability 0.0417 m/hr

Basin Sizing

	Storm Event	Depth	Slope 1:x	Base Width	Base Length	Top Width (m)	Top Length (m)	Volume	Effective Volume	Surface Area (m2)	Volume check
30m Road Reserve	5	0.3	3	3	8	5	10	10	10.7	47	ok
20m Road Reserve	5	0.3	3	3	8	5	10	10	11	47	ok
16m Road Reserve	5	0.3	3	3	8	5	10	10	11	47	ok

100 YEAR ARI DRAINAGE PROPERTIES

CATCHMENT	AREAS (m2)					EFFECTIVE AREAS (m2)		TIME OF CONCENTRATION PRE DEVELOPMENT					TIME OF CONCENTRATION POST-DEVELOPMENT					CRITICAL STORM INTENSITY (mm/h)	
	Road & Crossovers	Services	Drain	Verge	Total	Pre	Post	Longest Path (m)	RL Top (mAHD)	RL Bottom (mAHD)	Slope (m/km)	TC (min)	Longest Path (m)	RL Top (mAHD)	RL Bottom (mAHD)	Slope	TC (min)	Pre-Dev	Post-Dev
30m Road	744	376	376	1504	3000	600	1196	100	282	280	20.00	6.7	100	282	280	20.00	6.2	149.14	152.93
20m Road	744	376	0	880	2000	400	958	100	282	280	20.00	7.0	100	282	280	20.00	6.4	146.78	151.74
16m Road	744	376	0	480	1600	320	878	100	282	280	20.00	7.1	100	282	280	20.00	6.4	145.45	151.26

Runoff Coefficients	Pre-Dev	Post-Dev
Road & crossovers	0.9	0.9
Services	0.3	0.3
Drain	0.9	0.3
Verge	0.2	0.2

Rainfall IFD		
Event	Duration (mins)	Intensity (mm/hr)
5 min	5	163
6 min	6	155
10 min	10	121
20 min	20	82
30 min	30	64
1 hr	60	41
2 hr	120	27
3 hr	180	22
6 hr	360	15
12 hr	720	10
24 hr	1440	6.3
48 hr	2880	3.7
72 hr	4320	2.7

100 YEAR ARI FLOWS

Storm Duration (mins)	30m Road Reserve				20m Road Reserve				16m Road Reserve			
	Pre-Dev Flow (l/s)	Post-Dev Flow (l/s)	Excess Flow (l/s)	Storage (m3)	Pre-Dev Flow (l/s)	Post-Dev Flow (l/s)	Excess Flow (l/s)	Storage (m3)	Pre-Dev Flow (l/s)	Post-Dev Flow (l/s)	Excess Flow (l/s)	Storage (m3)
5	24.86	54.15	29.30	3.75	16.31	43.39	27.08	4.23	12.93	39.77	26.84	4.68
6	24.86	51.49	26.64	4.77	16.31	41.26	24.96	5.21	12.93	37.82	24.89	5.67
10	24.86	40.20	15.34	5.65	16.31	32.21	15.90	6.46	12.93	29.52	16.60	7.15
20	24.86	27.24	2.39	2.05	16.31	21.83	5.52	5.05	12.93	20.01	7.08	6.73
30	24.86	21.26	-3.59	-4.90	16.31	17.04	0.73	1.04	12.93	15.62	2.69	3.98
60	24.86	13.62	-11.24	-32.77	16.31	10.92	-5.39	-16.33	12.93	10.00	-2.92	-9.07
120	24.86	8.97	-15.89	-97.89	16.31	7.19	-9.12	-57.75	12.93	6.59	-6.34	-40.85
180	24.86	7.31	-17.55	-167.16	16.31	5.86	-10.45	-101.74	12.93	5.37	-7.56	-74.62
360	24.86	4.98	-19.87	-392.12	16.31	3.99	-12.32	-246.76	12.93	3.66	-9.27	-187.55
720	24.86	3.32	-21.53	-869.91	16.31	2.66	-13.65	-557.54	12.93	2.44	-10.49	-431.64
1440	24.86	2.09	-22.76	-1865.47	16.31	1.68	-14.63	-1209.72	12.93	1.54	-11.39	-947.21
2880	24.86	1.23	-23.63	-3903.77	16.31	0.99	-15.32	-2550.87	12.93	0.90	-12.03	-2011.54
4320	24.86	0.90	-23.96	-5961.52	16.31	0.72	-15.59	-3905.59	12.93	0.66	-12.27	-3087.33

Permeability 0.0417 m/hr

Basin Sizing

	Storm Event	Depth	Slope 1:x	Base Width	Base Length	Top Width (m)	Top Length (m)	Volume	Effective Volume	Surface Area (m2)	Volume check
30m Road Reserve	100	0.3	3	3	8	5	10	10	11	47	ok
20m Road Reserve	100	0.3	3	3	8	5	10	10	11	47	ok
16m Road Reserve	100	0.3	3	3	8	5	10	10	11	47	ok

Bushfire Management Plan Coversheet

This Coversheet and accompanying Bushfire Management Plan has been prepared and issued by a person accredited by Fire Protection Association Australia under the Bushfire Planning and Design (BPAD) Accreditation Scheme.

Bushfire Management Plan and Site Details

Site Address / Plan Reference: Johnston Road

Suburb: MOUNT HELENA

State: WA

P/code: 6082

Local government area: Shire of Mundaring

Description of the planning proposal: Local Structure Plan - Subdivision

BMP Plan / Reference Number: 1429-3

Version: v1.5

Date of Issue: 15/03/2019

Client / Business Name: Statewest Planning

Reason for referral to DFES	Yes	No
Has the BAL been calculated by a method other than method 1 as outlined in AS3959 (tick no if AS3959 method 1 has been used to calculate the BAL)?	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Have any of the bushfire protection criteria elements been addressed through the use of a performance principle (tick no if only acceptable solutions have been used to address all of the BPC elements)?	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Is the proposal any of the following special development types (see SPP 3.7 for definitions)?		
Unavoidable development (in BAL-40 or BAL-FZ)	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Strategic planning proposal (including rezoning applications)	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Minor development (in BAL-40 or BAL-FZ)	<input type="checkbox"/>	<input checked="" type="checkbox"/>
High risk land-use	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Vulnerable land-use	<input type="checkbox"/>	<input checked="" type="checkbox"/>

If the development is a special development type as listed above, explain why the proposal is considered to be one of the above listed classifications (E.g. considered vulnerable land-use as the development is for accommodation of the elderly, etc.)?

Local Structure Plan - Subdivision of a moderate number of Lots

Note: The decision maker (e.g. local government or the WAPC) should only refer the proposal to DFES for comment if one (or more) of the above answers are ticked "Yes".

BPAD Accredited Practitioner Details and Declaration

Name Kathy Nastov	Accreditation Level Level 3	Accreditation No. BPAD 27794	Accreditation Expiry 01/08/2019
Company Bushfire Prone Planning	Contact No. 6477 1144		

I declare that the information provided within this bushfire management plan is to the best of my knowledge true and correct

Signature of Practitioner



Date 15/03/2019




Bushfire Management Plan

(Local Structure Planning)

Lots 29, 30 and 32 on Johnston Street, Lots 100 and 101 on Dean Street, Lots 1 to 3, 28 and 35 to 38 on Bernard Street, Lots 11 to 13 and Lots 39 on Lion Street and Lots 40, 41 & 42 on Hummerston Street, MOUNT HELENA.

Shire of Mundaring

Job Number:	1429
Assessment Date:	6 April 2016
Report Date:	5 September 2018

<p>BPP Group Pty Ltd t/a Bushfire Prone Planning ABN: 39 166 551 784</p> <p>Level, 159-161 James Street Guildford WA 6055</p> <p>PO Box 388 Guildford WA 6935</p> <p>Ph: 08 6477 1144 Email: admin@bushfireprone.com.au</p>	
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Disclaimer

The measures contained in this Bushfire Management Plan are considered to be minimum standards and they do not guarantee that a building will not be damaged in a bushfire, persons injured, or fatalities occur either on the subject site or off the site while evacuating. This is substantially due to the unpredictable nature and behaviour of fire and extreme weather conditions. Additionally, the correct implementation of the required bushfire protection measures (and any associated response/evacuation plan if applicable) will depend, among other things, on the actions of the landowners or occupiers over which Bushfire Prone Planning has no control.



All surveys, forecasts, projections and recommendations made in this report associated with the project are made in good faith based on information available to Bushfire Prone Planning at the time.

All maps included herein are indicative in nature and are not to be used for accurate calculations.

Notwithstanding anything contained therein, Bushfire Prone Planning will not, except as the law may require, be liable for any loss or other consequences whether or not due to the negligence of their consultants, their servants or agents - arising out of the services provided by their consultants.

Document Control

Version	Version Details	Date Submitted
v1.3	Updated Structure Plan Design & BMP	5-Sep-18
v1.4	Updated Structure Plan Design & BMP	1-Feb-19
V1.5	Updates to mapping & BMP (revegetation)	15-Mar-19

Author	Accreditation	Signature
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Co-author (updates to BMP)		
Greg Dunstan	BPAD Level 1 - No. 16382	
Reviewed/Approved		
Kathy Nastov	BPAD Level 3 - No. 27794	

Document Content Compliance Statement

This Bushfire Management Plan (the Plan) provides the required information to address State Planning Policy No. 3.7: Planning in Bushfire Prone Areas - December 2015 (SPP 3.7), the associated Guidelines for Planning in Bushfire Prone Areas - WAPC 2017 v1.3 (Guidelines), and any additional information as directed by the WA Planning Commission (WA Department of Planning, Lands and Heritage). It is fit for accompanying a planning application.

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Executive Summary

This Bushfire Management Plan is a strategic level planning proposal and has been prepared to accompany the proponent's planning submission associated with their local structure plan. The subject land in Mount Helena contains Lots 29, 30 and 32 on Johnston Street, Lots 100 and 101 on Dean Street, Lots 1, 2, 3, 28, 35, 36, 37 and 38 on Bernard Street, Lots 11, 12, 13 and 39 on Lion Street and Lots 40, 41 & 42 on Hummerston Street.

The subject land is within a designated bushfire prone area and the Proposal requires the application of State Planning Policy No. 3.7 (SPP 3.7).

The Proposal, as set out in this Plan, has addressed all applicable legislation, policy, standards and guidelines including the four elements of the Bushfire Protection Criteria of location, siting and design, vehicular access and fire-fighting water supply. The Plan demonstrates that compliance against the four elements of the Bushfire Protection Criteria can be achieved in subsequent planning stages.

Against the Bushfire Protection Criteria, the decision maker's assessment of this Proposal is to be on the basis of:

- For Element 1 'Location', the Proposal being able to achieve the acceptable solution (by being subject to BAL-29 or less);
- For Element 2 'Siting and Design' the Proposal being able to achieve the acceptable solution (by developing and maintaining an Asset Protection Zone compliant with a BAL Rating of BAL-29 or less);
- For Element 3 'Vehicular Access', the site is provided with suitable vehicle access and egress;
- For Element 4 'Water', the Proposal is able to achieve the acceptable solution (it will be able to provide the specified water supply for fire-fighting). The assessed bushfire risk is considered to be manageable and will be achieved by the identified stakeholders implementing and maintaining the bushfire risk management measures that are presented in this Plan.

The proposed development will have access to Lion, Hummerston, Bernard and Johnston Streets which are part of a public road network providing safe access and egress to multiple destinations. As public roads constructed to the required standard, they are available to all residents and the public at all times and under all weather conditions.

On a local area scale, the establishment of the proposed future subdivision of land that incorporates the required bushfire management measures, will also significantly reduce the local bushfire risk. The proposal can be designed such that all lots can have acceptably situated building sites which will be subject to a maximum BAL rating of BAL-29. This can be achieved by the implementation of the required Asset Protection Zones within the Structure Plan area.

There are existing hydrants along Johnston, Bernard and Hummerston Streets, however the development will require the installation of hydrants within the subject site to the required standards and specifications for the area.

Future buildings within 100 metres of classified vegetation will be constructed to standards which correspond to the determined BALs, as required by AS 3959-2009 Construction of buildings in bushfire prone areas. As this proposal does not identify the actual location of building works within each Lot, there will be a requirement to determine the BAL ratings for individual building works once a building site has been identified.

Future stages of subdivision may require more detailed and site-specific assessment and bushfire management planning relevant to the stage and scale of development.

1 The Proposal and Purpose of the Plan

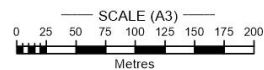
1.1 Details

Landowner / Proponent:	Multiple landowners
Site Address:	Lot Numbers. Lots 1-3, 11-13, 28-30, 32, 35-42, 100 & 101 as shown on site plan
Local Government:	Shire of Mundaring
Site Area:	42.831 hectares
No. of Proposed Lots:	110 (refer to Table 1.1)
Planning Stage:	Strategic - local structure plan
Subdivision Type:	Subdivision - large number of lots
Bushfire Prone Planning Commissioned to Produce the Plan by:	Statewest Planning
Purpose of the Plan:	To support a local planning assessment
For Submission to:	WA Planning Commission (WAPC)

Figure 1.1

Proposed Subdivision

Lots 1, 2 on Diagram 22841
 Lot 3 on Diagram 48648
 Lots 11, 12, 13 on Diagram 76934
 Lots 28, 29, 30, 32, 35, 36, 37, 38,
 39, 40, 41, 42 on Plan 222830
 Lots 100, 101 on Plan 56749
 MOUNT HELENA



Aerial Imagery : Landgate/SLIP
 Image Date : Aug 2018

Coordinate System: GDA 1994 MGA Zone 50
 Projection: Universal Transverse Mercator Units: Metre
 Map compiled by: Russell Wornes - 20/08/2018
 Map updated: Russell Wornes - 15/03/2019

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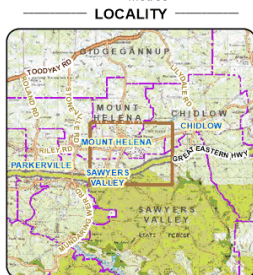
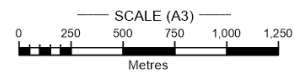
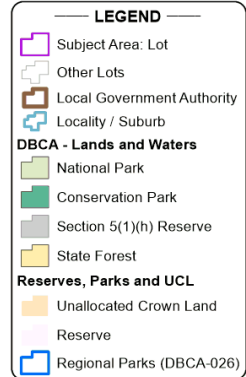
Table 1.1: Details of existing lots – Future subdivision

Table 1.1: Details of Existing Lots - Future Subdivision			
Existing Lots:	As per below	Total Area (ha):	42.831
Subdivision - 110 Proposed Lots (Indicative Lot Numbers refer Concept Plan)			
Lot No.	Area (ha)	Lot No.	Area (ha)
29 Johnston	1.5707	1 Bernard	2.0264
30 Johnston	2.9889	2 Bernard	4.0084
32 Johnston	2.8328	3 Bernard	2.7505
100 Dean	1.5160	28 Bernard	2.3623
101 Dean	1.3162	35 Bernard	1.7705
39 Lion	1.8944	36 Bernard	2.2763
11 Lion	2.1158	37 Bernard	2.0234
12 Lion	1.6195	38 Bernard	2.0234
13 Lion	1.6148	40 Hummerston	2.0335
		41 Hummerston	2.0436
		42 Hummerston	2.0436

Figure 1.2

**Proposed Development
(SPATIAL CONTEXT)**

Lots 1, 2 on Diagram 22841
Lot 3 on Diagram 48648
Lots 11, 12, 13 on Diagram 76934
Lots 28, 29, 30, 32, 35, 36, 37, 38,
39, 40, 41, 42 on Plan 222830
Lots 100, 101 on Plan 56749
MOUNT HELENA



Aerial Imagery : Landgate/SLIP
Image Date : JAN/FEB 2018

Coordinate System: GDA 1994 MGA Zone 50
Projection: Universal Transverse Mercator Units: Metre

Map compiled by: Russell Wornes
Date map compiled/updated: 23/08/2018



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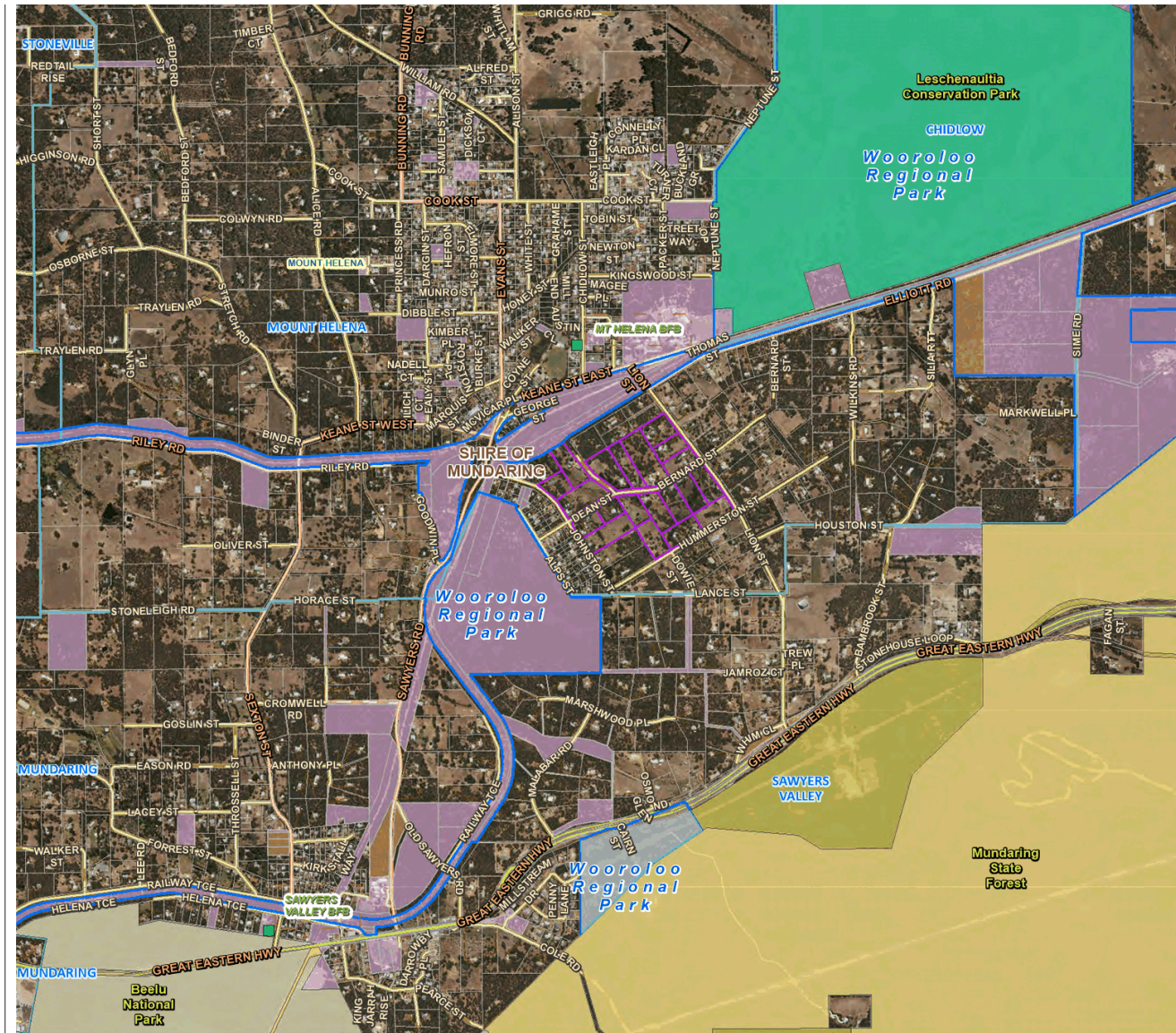
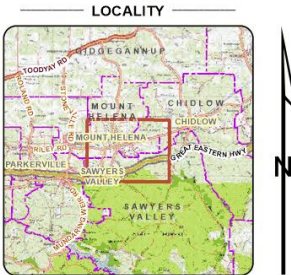
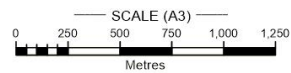


Figure 1.3
Bushfire Prone Area

Lots 1, 2 on Diagram 22841
Lot 3 on Diagram 48648
Lots 11, 12, 13 on Diagram 76934
Lots 28, 29, 30, 32, 35, 36, 37, 38,
39, 40, 41, 42 on Plan 222830
Lots 100, 101 on Plan 56749
MOUNT HELENA

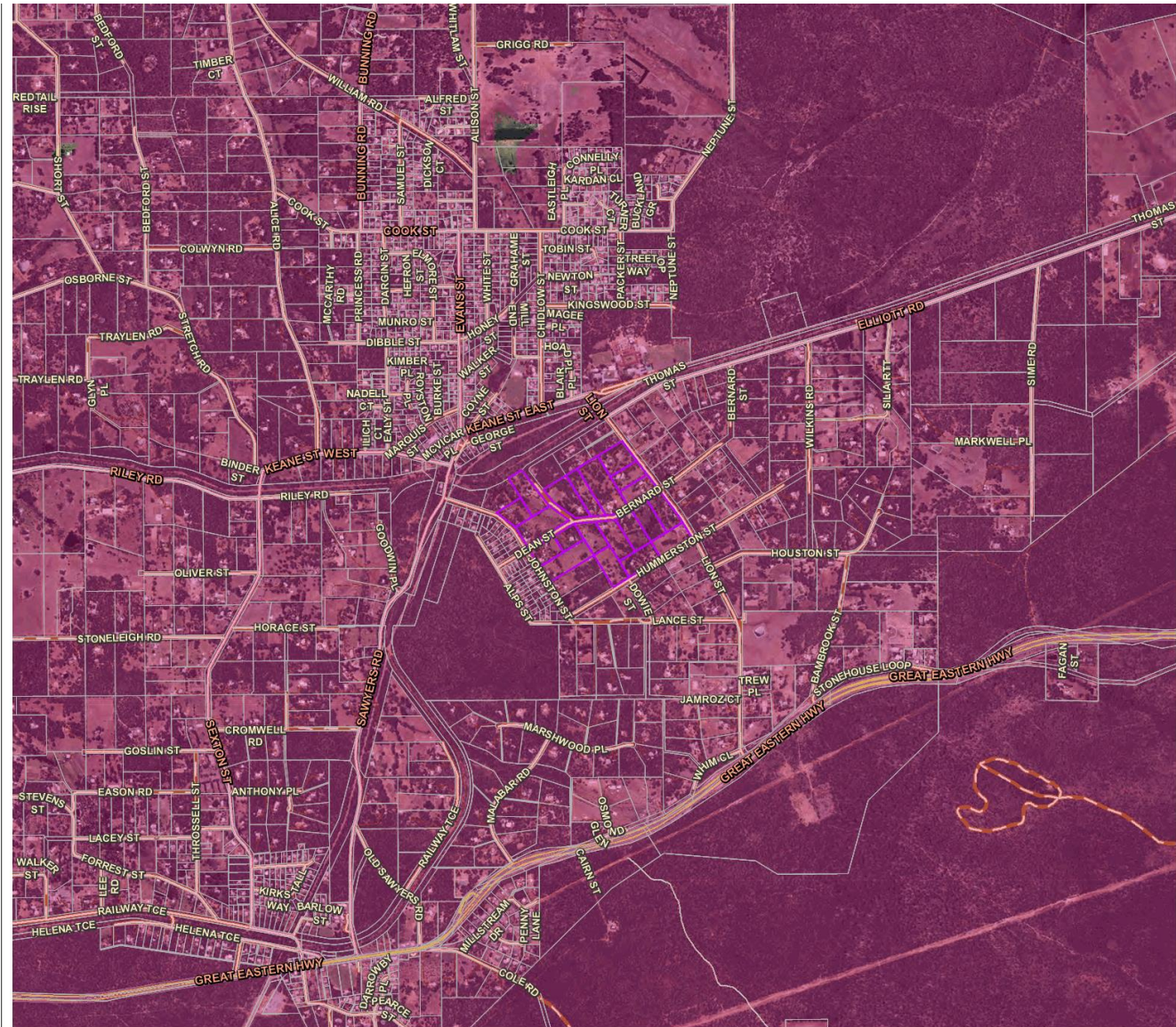
LEGEND

- Subject Area: Lot
- Other Lots
- Bushfire Prone Areas (2018)



Coordinate System: GDA 1994 MGA Zone 50
Projection: Universal Transverse Mercator Units: Metre
Map compiled by: Russell Worries
Date map compiled/updated: 23/08/2018

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1.2 Existing Documentation Relevant to the Construction of this Plan

This section acknowledges any known reports or plans that have been prepared for previous planning stages, that refer to the subject area and that may or will impact upon the assessment of bushfire risk and/or the implementation of bushfire protection measures and will be referenced in this Bushfire Management Plan.

Relevant Documents		
Existing Document	Copy Provided by Client	Title
Structure Plan	Yes	Mount Helena Subdivision Concept Plan 2 (Revision 7)
Environmental Report	Yes	Flora & Vegetation Assessment, Mt Helena (Del Botanics - November 2012)
Landscaping (Revegetation) Plan	No	
Bushfire Risk Assessments	Yes	BMP (1429-2 Bushfire Prone Planning – 28 July 2016, v1.2)

Landscaping (revegetation) within the subdivision site requires consideration of the bushfire management plan requirements to ensure an increase in bushfire hazards does not occur, nor alter bushfire attack levels determined for the site. Where an environmental report or landscaping (revegetation) plan is required as a condition of future subdivision, the bushfire management plan will require updating (amending) to address any bushfire impacts arising from these subsequent reports or plans.

Revegetation along the water-course and drain is planned for this Proposal (refer Section 2.2).

2 Environmental Considerations

2.1 Native Vegetation – Modification and Clearing

‘Guidelines’ s2.3: “Many bushfire prone areas also have high biodiversity values. SPP 3.7 policy objective 5.4 recognises the need to consider bushfire risk management measures alongside environmental, biodiversity and conservation values.”

Existing conservation areas that are potentially affected by the development proposal are required to be identified. This may result in vegetation removal/modification prohibition or limitations. These areas include National Parks, Nature Reserves, Wetlands and Bush Forever sites.

Environmental Protection Act 1986: “Clearing of native vegetation in Western Australia requires a clearing permit under Part V, Division 2 of the Act unless clearing is for an exempt purpose. Exemptions from requiring a clearing permit are contained in Schedule 6 of the Act or are prescribed in the Environmental Protection Regulations” (‘Guidelines’ s2.3).

The Environmental Protection and Biodiversity Conservation Act 1999 (EPBC Act): This Act administered by the Australian Government Department of Environment, provides a national scheme of environment and heritage protection and biodiversity conservation. Nationally threatened species and ecological communities are a specific matter of significance. Areas of vegetation can be classified as a Threatened Ecological Community (TEC) under the EPBC Act and consequently have removal restrictions imposed.

Vegetation Modification and Clearing Assessment	
Will on-site clearing of native vegetation be required?	Yes
Does this have the potential to trigger environmental impact/referral requirements under State and Federal environmental legislation?	Yes
For the proposed development site, have any areas of native vegetation been identified as species that might result in the classification of the area as a Threatened Ecological Community (TEC)?	No
Potential TEC species identified:	N/A

The bushfire assessment and management strategies contained in the BMP, assume that environmental approval will be achieved or clearing permit exemptions will apply. It is advised that the proponent seek further advice from an Environmental Consultant or the WA Department of Biodiversity Conservation and Attractions for further information on the condition and species contained within the proposed development area and the requirement for referral of the proposal.

Development Design Options

Establishing development in bushfire prone areas can adversely affect the retention of native vegetation through clearing associated with the creation of Lots and/or Asset Protection Zones. Where loss of vegetation is not acceptable or causes conflict with landscape or environmental objectives, it will be necessary to consider available design options to minimise the removal of native vegetation.

Minimising the Removal of Native Vegetation		
Design Option	Identified	Adopted
Reduction of lot yield	Yes	Considered and the subdivision plan has been modified. See comments below.
Cluster development	N/A	N/A
Construct building to a standard corresponding to a higher BAL rating as per BCA (AS 3959-2009 and/or NASH Standard)	N/A	N/A
Modify the development location	N/A	N/A

The original amendment area (as outlined in the Shire of Mundaring's Local Planning Strategy) was reduced to reflect existing vegetation and LNA's. The future lots will be designed to minimize the effect of buildings and their envelopes on native vegetation.

Impact on Adjoining Land

Is this planning proposal able to implement the required bushfire measures within the boundaries of the land being developed so as not to impact on the bushfire and environmental management of neighbouring reserves, properties or conservation covenants?	Yes
---	-----

Where, as part of the Proposal, revegetation of watercourse foreshore, wetland buffers is necessary for their protection or management, an assessment to determine the ability to, and practicality of, maintaining vegetation separation distances corresponding to determined BAL's is required.

Future subdivision stages can achieve asset protection zone development and maintenance of vegetation on each Lot in a low threat state, which will ensure the bushfire risk will be reduced to the immediate surrounding properties due to the continued ongoing management of vegetation, on each newly created Lot. Compliance is regulated via the bushfire management plan for the site and the Shire of Mundaring annual Firebreak and Fuel Load Notice. Bushfire management measures external to the site are not required as part of this proposal.

2.2 Re-vegetation / Retained Vegetation / Landscape Plans

Riparian zones, wetland/foreshore buffers, road verges and public open space may have plans to re-vegetate or retain vegetation as part of the Proposal.

Vegetation corridors may join offsite vegetation and provide a route for fire to enter a development area.

When applicable, any such area will be identified in this Bushfire Management Plan and their impact on the assessment and future management accounted for.

Is re-vegetation of riparian zones and/or wetland or foreshore buffers and/or public open space a part of this Proposal?	Yes
Is the requirement for ongoing maintenance of existing vegetation in riparian zones and/or wetland or foreshore buffers and/or public open space a part of this Proposal?	Yes

Where, as part of the Proposal, the revegetation of riparian zones and wetland or foreshore buffers is necessary for their protection or management, the bushfire management plan addressing the future staging of subdivision will assesses the ability and practicality of maintaining vegetation separation distances corresponding to determined BALs.

All onsite landscape planting is to be managed in a low threat state s2.2.3(f) as per the criteria detailed in AS3959-2009 "*Exclusions - Low threat vegetation & non-vegetated areas*" and revegetation within the water course/drain areas managed in a low threat state as per s2.2.3.2(c). All other vegetation is to be managed in accordance with the annual Shire of Mundaring Firebreak and Fuel Load Notice. This ensures BAL separation distances can be effectively maintained and bushfire hazards on-site are effectively reduced.

2.3 Shire of Mundaring – Local Natural Areas (LNA)

The Shire of Mundaring has a Local Biodiversity Strategy that requires natural areas should be conserved, protected or retained wherever practicable to maintain the Shire's current levels of biodiversity, unless the area is already committed to development through zoning. To achieve this intention formal protection is put in place through the Local Planning Strategy and the Town Planning Scheme 4 which specify controls and recommendations relating to each of these categories.

Protection Levels

Based on consideration of a range of factors including land tenure, specific purpose of Crown reserves, existing lot sizes, subdivision potential and relative conservation priority, all LNAs in the Shire have been assigned a Protection Level as shown below.

Local Natural Area (LNA) - Protection Levels	
Map Shading	Level
Green	Conservation
Blue	Protection
Orange	Retention
Beige	Limited Protection – already committed by zoning

Conservation Priorities

To assist with making decisions on planning proposals affecting LNAs and the allocation of resources to managing them, conservation priorities have been determined. LNAs are identified as having one of three conservation priorities (P1, P2 or P3) based on a range of ecological values as shown below.

Determination of Conservation Priorities – Local Natural Area (LNA) (refer to Shire of Mundaring Local Biodiversity Strategy and Local Planning Strategy)			
Map Shading	Priority	Intention	Conservation Assets
Green	1	To be conserved or protected and receive active management	Rare vegetation complexes At risk vegetation complexes Within 20 m of a watercourse Regional linkage over special features Regional linkage over habituate
Brown	2	To be conserved or protected and receive active management	Habitat Special features Regional linkages Within 20-50m off watercourse
Yellow	3	To be retained and where possible receive active management	Every other LNA

Assessment Result

Has the subject lot been identified as being subject to a Local Natural Area classification	Yes
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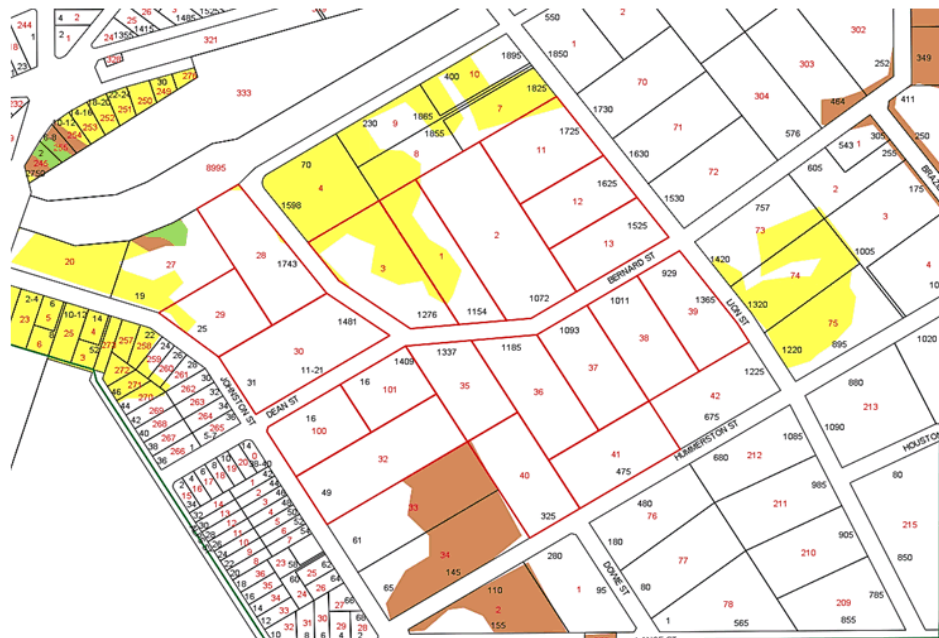
Mapping (Screen Shot)

The following screen shots from the Shire of Mundaring Intramaps Town Planning module, show the Protection Levels and Conservation Priorities for the identified Local Natural Areas for this Proposal. Changes to zoning for the subject site will alter the protection levels indicated. LNA mapping will require to be updated to reflect the appropriate new ratings. Approval will be required from the Shire of Mundaring prior to any native vegetation clearing.

Figure 2.1: Subject Site – LNA Map – Protection Level



Figure 2.2: Subject Site – LNA Map – Conservation Priority



3 Potential Bushfire Impact Assessment

3.1 Assessment Input

3.1.1 Fire Danger Index (FDI) Applied

AS 3959-2009 specifies the fire danger index values to apply for different regions as per Table 2.1. The values used in the model calculations are for the Forest Fire Danger Index (FFDI) and for which equivalent representative values of the Grassland Fire Danger Index (GFDI) are applied as per Appendix B. The values can be refined if appropriately justified.

Table 3.1: Applied FDI Value

FDI Value			
Vegetation Area	As per AS 3959 - 2009 Table 2.1	As per DFES for the Location	Value Applied
1	80	N/A	80
2		N/A	
3		N/A	
4		N/A	

3.1.2 Existing Vegetation Identification and Classification

Vegetation identification and classification has been conducted in accordance with AS 3959-2009 s2.2.3 and the Visual Guide for Bushfire Risk Assessment in WA (DoP February 2016).

When more than one vegetation type is present, each type is identified separately with the worst-case scenario being applied as the classification. The predominant vegetation is not necessarily the worst-case scenario. The vegetation structure has been assessed as it will be in its mature state (rather than what might be observed on the day). Areas of modified vegetation are assessed as they will be in their natural unmodified state (unless maintained in a permanently low threat, minimal fuel condition, satisfying AS 3959 s2.2.3.2(f)). Vegetation destroyed or damaged by a bushfire or other natural disaster has been assessed on its revegetated mature state.

When there is a significant change in ground slope under classified vegetation that will impact a site, the vegetation will be identified as a separate area to enable correct assessment (and construction of the BAL contour map).

Table 3.2: Vegetation identification and classification

All Vegetation Within 150 metres of the Proposed Development				
Vegetation Area	Identified Classification Types ¹ or Description if 'Excluded'	Applied Classification ²	Effective Slope Under Classified Vegetation	
			degrees	description
1	Grassland, sown pasture	Class G Grassland	0°	Upslope
2	Forest A-03, Jarrah, Marri, & Plantation (Pinus sp)	Class A Forest	0°	Upslope
			>0° to 5°	Downslope
3	Woodland B-05, Jarrah, Marri, Introduced species & grasses	Class B Woodland	0°	Upslope
4	Woodland B-05, Jarrah, Marri, Introduced species & grasses	Class B Woodland	0°	Upslope
Note ¹ : As per AS 3959-2009 Table 2.3 and Figures 2.3 and 2.4 a-g				
Note ² : As per AS 3959-2009 Table 2.3.				

Representative photos of each vegetation area, descriptions and classification justification, are presented on the following pages. The areas of classified vegetation are defined and the photo locations identified on the topography and classified vegetation map, Figure 3.1

Vegetation Area 1**Classification Applied:** Class G Grassland**Classification Justification:** Sown pasture & grassland.

Photo ID: 1a



Photo ID: 1b

Vegetation Area 2**Classification Applied:** Class A Forest**Classification Justification:** Jarrah & Marri tree canopy, tall and low shrub understorey.

Photo ID: 2a



Photo ID: 2b

Vegetation Area 2**Classification Applied:** Class A Forest**Classification Justification:** Jarrah, Marri tree canopy, low shrub understorey. Pine tree plantation.

Photo ID: 2c



Photo ID: 2d

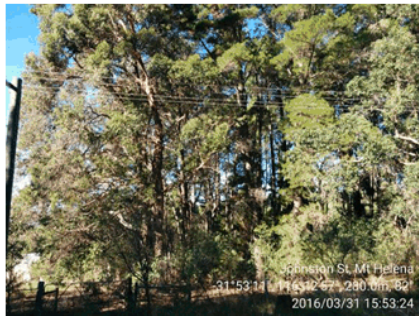
Vegetation Area 2**Classification Applied:** Class A Forest**Classification Justification:** Jarrah, Marri and Pine tree canopy. Tall and low shrub understorey.

Photo ID: 2e



Photo ID: 2f

Vegetation Area 2**Classification Applied:** Class A Forest**Classification Justification:** Jarrah & Marri tree canopy, tall and low shrub understorey.

Photo ID: 2g



Photo ID: 2h

Vegetation Area 2**Classification Applied:** Class A Forest**Classification Justification:** Jarrah, Marri, Wandoo tree canopy, grass and low shrub understorey.

Photo ID: 2i

Photo ID: -

Vegetation Area 3**Classification Applied:** Class B Woodland**Classification Justification:** Mixed species and Pine tree canopy. Grass paddock understorey. (Woodland in background – Grassland foreground)

Photo ID: 3a



Photo ID: 3b

Vegetation Area 4**Classification Applied:** Class B Woodland**Classification Justification:** Jarrah & Marri tree canopy, grass paddock understorey.

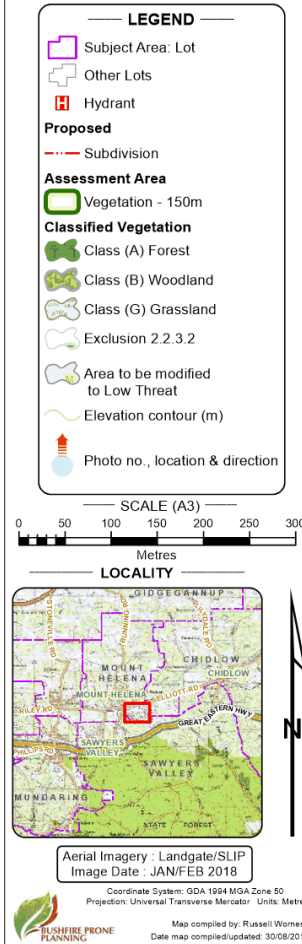
Photo ID: 4a

Photo ID: -

Figure 3.1

Topography & Classified Vegetation

Lots 1, 2 on Diagram 22841
Lot 3 on Diagram 48648
Lots 11, 12, 13 on Diagram 76934
Lots 28, 29, 30, 32, 35, 36, 37, 38,
39, 40, 41, 42 on Plan 222830
Lots 100, 101 on Plan 56749
MOUNT HELENA



3.1.3 Effective Slope and Site Slope

Effective Slope: Is the ground slope under the classified vegetation and is determined for each area of classified vegetation. It is the measured or assessed slope which will most significantly influence the bushfire behaviour in that vegetation as it approaches a building or site. When there is a significant change in effective ground slope under an area of classified vegetation, that will cause a change in fire behaviour, separate vegetation areas will be identified, based on the change in effective slope, to enable the correct assessment and the construction of the BAL contour map.

Site Slope: Is the slope along the ground by line of sight between the site or building and the area of classified vegetation to which the assessment applies. AS 3959-2009 Method 1 assumes that site slope is the same as the effective slope while Method 2 allows input of the actual slope. The site slope is used to position a building relative to the potential fire for the correct calculation of bushfire impact.

Table 3.1: Effective slope and site slope assessed values applied.

Effective Slope and Site Slope Assessed Values (Using Method 1 AS 3959-2009)			
Vegetation Area	Vegetation Classification	Effective Slope (degrees)	Effective Slope Range (degrees)
1	Class G Grassland	0°	upslope or flat
2	Class A Forest	0°	upslope or flat
		3.66°	downslope >0° to 5°
3	Class B Woodland	0°	upslope or flat
4	Class B Woodland	0°	upslope or flat

Vegetation Area 2 'Forest' impacts the Structure Plan area with both an upslope and downslope 'effective Slope'. The BAL Contour mapping is representative of these changes in effective slope.

3.1.4 Vegetation Separation Distance

Vegetation Separation Distance: Is the distance from the site or building to the area of classified vegetation and is measured in the horizontal plane.

In determining Bushfire Attack Levels (BALs), the separation distance is either:

- A measured input variable to apply to calculations as per AS 3959-2009; or
- A range of distances (corresponding to BAL ratings) that is derived from the same calculations.

Measured Separation Distance (m): This is an actual measured distance, used as a calculation input to determine a BAL rating. Its use will apply when the actual location of a 'site' (building, envelope or Lot) has been defined (refer to the site plan), and the separation distance can be measured. In this situation, a BAL rating for the 'site' can be determined.

Derived Separation Distance (m): This is a result derived from calculations using all other required inputs. The derived range states the distance away from an area of classified vegetation that corresponds to each BAL rating. Use of this methodology will apply when:

- The actual location of a 'site' (building, envelope or lot) has not been defined and therefore an actual separation distance cannot be measured; or
- The use of a distance range that corresponds to a BAL rating is more appropriate to the assessment of the proposal; or
- The assessment requires the production of a BAL contour map to assess planning viability and provide indicative BAL ratings (and in certain circumstances, determined BAL ratings).

BAL Contour Map: Where a calculated separation distance range is used to construct a BAL Contour Map, the distances that have been determined as corresponding to each BAL rating for the subject site are presented in Section 3.2 'Assessment Output' rather than this assessment inputs section.

Table 3.1.4 Statement of the determination method applied and location of results.

Vegetation Area/s	Method Applied for Determination of Separation Distance	Location of Results in this Plan
1 - 4	Distance Range (m) - Method 1 Default Range	Table 3.2.1 in s3.2.1 'BAL Contour Map'

3.2 Assessment Output

3.2.1 Indicative BAL Results Presented as a BAL Contour Map

Interpretation of the Bushfire Attack Level (BAL) Contour Map

The contour map will present different coloured contour intervals constructed around the classified bushfire prone vegetation. These represent the different Bushfire Attack Levels that exist at varying distances away from the classified vegetation.

Each BAL represents a set range of radiant heat flux (as defined by AS 3959-2009) that can be generated by the bushfire in that vegetation at that location.

The width of each shaded contour (i.e. the distance interval) will vary and is determined by consideration of variables including vegetation type, fuel structure, ground slope, climatic conditions. They are unique to a site and can vary across a site. The width of each contour is a diagrammatic expression of the separation distances from the classified vegetation that apply for each BAL rating, for that site.

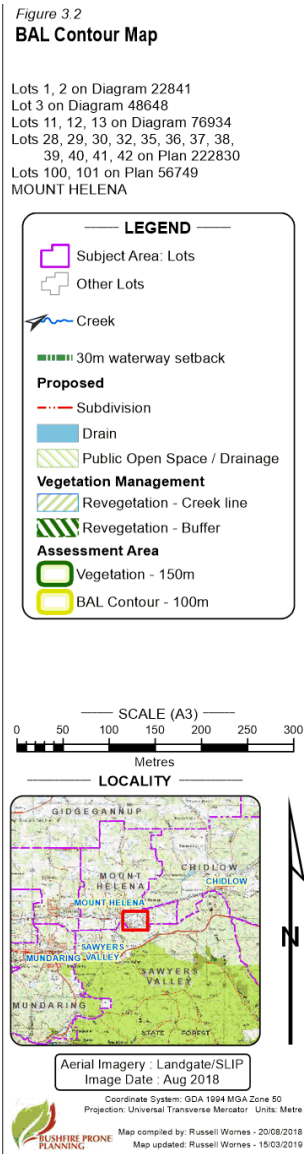
A building (or 'area') located within any given BAL contour will be subject to that BAL rating and potentially multiple BAL ratings of which the highest rating will be applied.

Separation Distances Calculated to Construct the BAL Contours

Table 3.2.1: Vegetation separation distances applied to construct the BAL contours.

Vegetation Area	Vegetation Classification	Effective Slope	BAL Assessment Method Applied ¹	BAL Rating and Corresponding Separation Distance ² (metres)					
				BAL-FZ	BAL-40	BAL-29	BAL-19	BAL-12.5	BAL-LOW
1	Class G Grassland	0°	Method 1	<6	6 - <8	8 - <12	12 - <17	17 - <50	>50
2	Class A Forest	0°	Method 1	<16	16 - <21	21 - <31	31 - <42	42 - <100	>100
2	Class A Forest	3.66°	Method 1	<20	20 - <27	27 - <37	37 - <50	50 - <100	>100
3	Class B Woodland	0°	Method 1	<10	10 - <14	14 - <20	20 - <29	29 - <100	>100
4	Class B Woodland	0°	Method 1	<10	10 - <14	14 - <20	20 - <29	29 - <100	>100

Precautionary approach - Area 3 not indicated on BAL Contour MAP. (Small pockets of Woodland, generally falling outside of the 100m assessment zone, classified as Forest for the purposes of the contour mapping).



Disclaimer and Limitation: This map has been prepared for bushfire management planning purposes only. All depicted areas, contours and any dimensions shown are subject to survey. Bushfire Prone Planning does not guarantee that this map is without flaw of any kind and disclaims all liability for any errors, loss or other consequence which may arise from relying on any information depicted.

3.2.2 Bushfire Attack Levels (BAL) Derived from The Contour Map

Deriving a BAL Rating for a Future Construction Site (Building) from the BAL Contour Map Data (Capacity to Issue a BAL Certificate)

Key Assumptions: The actual location of a building within a lot or envelope (an 'area') has not been determined at this stage of planning; and the BAL ratings represent the BAL of an 'area' not a building.

The BAL Rating is Assessed as Indicative

If the assessed BAL for the 'area' is stated as being 'indicative', it is because that 'area' is impacted by more than one BAL contour interval and/or classifiable vegetation remains on the lot, or on adjacent lots, that can influence a future building's BAL rating (and this vegetation may have been omitted from being contoured for planning purposes e.g. Grassland or when the assumption is made that all onsite vegetation can be removed and/or modified).

In this report the indicative BAL is presented as either the highest BAL impacting the site or as a range of achievable BALs within the site – whichever is the most appropriate.

The BAL rating that will apply to any future building within that 'area' will be dependent on:

1. vegetation management onsite; and/or
2. vegetation remaining on adjacent lots; and/or
3. the actual location of the future building within that 'area'.

A BAL Certificate cannot be provided for future buildings, within a lot or envelope with an indicative BAL, until the building location and in some instances building design (elevation), have been established and any required and approved vegetation modification/removal has been confirmed. Once this has occurred a report confirming the building location and BAL rating will be required to submit with the BAL certificate.

The required confirmation of the BAL rating must be done by a bushfire practitioner with the same level of accreditation as has been required to compile this Bushfire Management Plan. This is dependent on the type of calculations utilised (e.g. if performance based solutions have been used in the Plan BPAD Level 3 accreditation is required)

The BAL Rating is Assessed as Determined

If the assessed BAL for the lot or envelope is stated as being 'determined' it is because that lot or envelope is impacted by a single BAL contour interval. This BAL has been determined by the existence (or non-existence) of classified vegetation outside the lot or envelope, and no classifiable vegetation currently exists on the lot or envelope (i.e. it has been cleared to a minimal fuel, low bushfire threat state). In the situation where the BAL Contour Map has been constructed around multiple lots, there also needs to be no classifiable vegetation on an adjacent lot if this vegetation has not already been incorporated into the creation of the BAL Contour Map.

As a result, a determined BAL can be provided in this limited situation because:

1. No classified vegetation is required to be removed or modified to achieve the determined BAL, either within the lot/envelope or on adjacent lots (or if vegetation is excluded from classification, it is reasonable to assume it will be maintained in this state into the future); and
2. A future building can be located anywhere within the 'site' and be subject to the determined BAL rating; and
3. The degree of certainty is more than sufficient to allow for any small discrepancy that might occur in the mapping of the BAL contours.

For a determined BAL rating for a lot/envelope, A BAL Certificate (referring to this BMP) can be provided for a future building, if the BMP remains current.

Table 3.2.2: Indicative achievable bushfire attack levels for the proposed lots.

Indicative Achievable Bushfire Attack Level for Future Buildings on Proposed Lots	
Relevant Fire Danger Index (AS 3959-2009 Table 2.1)	80
BAL Determination Method	Method 1 as per AS 3959-2009 s2.2.6 and Table 2.4.3. and Method 2 as per AS 3959-2009 Appendix B.
Existing Lot Numbers.	Indicative Achievable BAL Ratings
1, 2, 3	BAL-40 to BAL-LOW
11, 12, 13	BAL-40 to BAL-LOW
28, 29	BAL-FZ to BAL-LOW
30, 32, 35, 39, 100	BAL-40 to BAL-LOW
36, 37, 38, 101	BAL-LOW
40	BAL-40 to BAL-12.5
41, 42	BAL-29 to BAL-LOW

The indicative achievable Bushfire Attack Levels for the proposed Lots, as part of the future subdivision of the existing Lots, are stated in Table 3.2.2. Once actual building locations are determined at the later planning stage, the BAL ratings for specific buildings or the building envelope may need to be determined by an onsite visit to confirm the proposed vegetation management has taken place and measure the separation distances as required.

The assessed BAL for each lot is stated as being 'indicative', this is because that 'area' is impacted by more than one BAL contour interval and/or classifiable vegetation remains on the Lot, that can influence a future building's BAL rating (and this vegetation may have been omitted from being contoured for planning purposes e.g. Grassland or when the assumption is made that onsite vegetation can be removed and/or modified to low threat criteria).

In this report, the indicative BAL is presented as the highest BAL impacting the 'area'. A lower BAL may be achievable. The BAL rating that will apply to any future building within that 'area' will be dependent on:

1. vegetation management onsite; and/or
2. vegetation remaining on adjacent Lots; and/or
3. the actual location of the future building within that 'area';
4. A BAL Certificate cannot be provided for future buildings within an 'area' with an indicative BAL until the location of any future building has been determined. A report confirming the location and BAL rating will be required and submitted with the BAL certificate.

3.2.3 Identification of Specific Issues Arising from BAL Contour Map

- **Onsite Vegetation:** Vegetation onsite is within the control of the subject site's landowner/proponent and therefore can potentially be removed or modified to lower the bushfire risk, subject to any approval being required by a local government.
- **Offsite Vegetation:** Vegetation offsite is not within the control of the subject site's landowner/proponent and therefore the vegetation cannot be removed or modified by the landowner and as a result the assessed BALs determined by this vegetation are unable to be reduced.

Impact from Vegetation – As It Currently Exists

The key assumption used to facilitate the determining of Indicative Bushfire Attack Levels on the Proposed Structure Plan site is that vegetation **onsite** is under the control of the Landowner/Proponent and therefore can be removed or modified to present a low bushfire threat (Note: any proposed vegetation removal may be subject to local government approval, dependent on the lot's specific situation with respect to identified environmental protection areas and the lot size).

4 Assessment Against the Bushfire Protection Criteria (BPC)

4.1 Bushfire Protection Criteria - Assessment Summary

Summarised Outcome of the Assessment Against the Bushfire Protection Criteria (BPC)				
Element	Basis for the Assessment of Achieving the Intent of the Element			
	Achieves compliance with the Element through meeting Acceptable Solutions		Achieves compliance with the Element by application of a Performance Based Solution	Minor or Unavoidable Development
	Meets all relevant acceptable solutions	One or more relevant Acceptable Solutions are not <u>fully</u> met. A <u>variation</u> of the solution is provided and justified.	One or more applicable Acceptable Solutions are not met. A solution is developed with the summary presented in this Plan in Section 5.5. The supporting document presenting Bushfire Prone Planning's detailed methodology is submitted separately to the decision makers.	The required supporting statements are presented in this Plan.
Location	✓			N/A
Siting and Design of Development	✓			
Vehicular Access	✓			
Water	✓			

The subject Proposal has been assessed against:

1. The requirements established in Appendix 4 of the Guidelines for Planning in Bushfire Prone Areas, WAPC 2017 v1.3 (the 'Guidelines'). The detail, including technical construction requirements, are found at <https://www.planning.wa.gov.au/8194.aspx>. A summary of relevant information is provided in the appendices of this Plan; and
2. Any endorsed variations to the Guideline's acceptable solutions and associated technical requirements that have been established by the relevant local government. If known and applicable these have been stated in this Plan with the detail included as an appendix if required by the relevant local government.

4.2 Local Government Variations to Apply

Local governments may add to or modify the acceptable solutions of the Bushfire Protection Criteria (BPC) and/or apply technical requirements that vary from those specified in the Guidelines for Planning in Bushfire Prone Areas (WAPC). In such instances, this Proposal will be assessed against these variations and/or any specific local government technical requirements for emergency access and water. Refer to Appendices 2 and 3 for relevant technical requirements.

Will local or regional variations to the acceptable solutions (endorsed by WAPC / DFES) and/or the technical requirements contained in the Guidelines, apply to this Proposal.	N/A
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Not applicable to this stage of planning.

4.3 Bushfire Protection Criteria – Acceptable Solutions Assessment Detail

4.3.1 Element 1: Location

Bushfire Protection Criteria Element 1: Location Assessment Statements and Bushfire Protection Measures to be Applied			
Intent: To ensure that strategic planning proposals, subdivision and development applications are located in areas with the least possible risk of bushfire to facilitate the protection of people, property and infrastructure.			
Acceptable Solution:	A1.1: Development Location	Method of achieving Element compliance and/or the Intent of the Element:	The acceptable solution can be fully met in the future (at a later planning stage).

- By ensuring future building work on the lot/s can be located on an area that will be subject to potential radiant heat from a bushfire not exceeding 29 kW/m² (i.e. a BAL rating of BAL-29 or less will apply). This can be achieved by using positioning, design and appropriate vegetation removal/modification;
- Managing the remaining bushfire risk to an acceptable level by the existence/implementation and ongoing maintenance of all required bushfire protection measures, as identified within this Plan. These measures include the requirements for vegetation management, vehicular access and firefighting water supply; and
- Changes to design or Lot yield of future subdivision stages where a BAL-Flame Zone or BAL-40 has been identified at the Structure Plan, planning stage (on lots where insufficient area for BAL-29 exists).

4.3.2 Element 2: Siting and Design of Development

Bushfire Protection Criteria Element 2: Siting and Design of Development Assessment Statements and Bushfire Protection Measures to be Applied			
Intent: To ensure that the siting and design of development (note: not building/construction design) minimises the level of bushfire impact.			
Acceptable Solution:	A2.1: Asset Protection Zone	Method of achieving Element compliance and/or the Intent of the Element:	The acceptable solution can be fully met in the future (at a later planning stage).

The proposed structure plan can achieve compliance by:

- Ensuring future building work on the lot/s can have established around it an APZ of the required dimensions - to ensure that the potential radiant heat from a bushfire to impact future building/s, does not exceed 29 kW/m² (i.e. a BAL rating of BAL-29 or less will apply to determine building construction standards);

4.3.3 Element 3: Vehicular Access

Bushfire Protection Criteria Element 3: Vehicular Access Assessment Statements and Bushfire Protection Measures to be Applied			
Intent: To ensure that the vehicular access serving a subdivision/development is available and safe during a bushfire event.			
Acceptable Solution:	A3.1: Two access routes	Method of achieving Element compliance and/or the Intent of the Element:	The acceptable solution can be fully met in the future (at a later planning stage).

The technical requirements established by the Guidelines and/or the local government can and will be complied with.

Acceptable Solution:	A3.2 Public Road	Method of achieving Element compliance and/or the Intent of the Element:	The acceptable solution can be fully met in the future (at a later planning stage).
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The technical requirements established by the Guidelines and/or the local government can and will be complied with.

Bushfire Protection Criteria Element 3: Vehicular Access (continued) Assessment Statements and Bushfire Protection Measures to be Applied			
Acceptable Solution:	A3.3 Cul-de-sacs (including a dead-end road)	Method of achieving Element compliance and/or the Intent of the Element:	The acceptable solution can be fully met in the future (at a later planning stage).

The technical requirements established by the Guidelines and/or the local government can and will be complied with.

Acceptable Solution:	A3.5: Private Driveways	Method of achieving Element compliance and/or the Intent of the Element:	The acceptable solution can be fully met in the future (at a later planning stage).
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The construction technical requirements established by the Guidelines and/or the local government can be complied with.

Acceptable Solution:	A3.8 Firebreak Width	Method of achieving Element compliance and/or the Intent of the Element:	The acceptable solution is fully met.
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The proposed lots will comply with the requirements of the local government annual firebreak notice issued under s33 of the Bush Fires Act 1954.

The construction technical requirements established by the Guidelines and/or the local government can be complied with.

Element 4: Water

Bushfire Protection Criteria Element 4: Water Assessment Statements and Bushfire Protection Measures to be Applied			
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Intent: To ensure water is available to the subdivision, development or land use to enable people, property and infrastructure to be defended from bushfire.

Acceptable Solution:	A4.1 Reticulated Areas	Method of achieving Element compliance and/or the Intent of the Element:	The acceptable solution can be fully met in the future (at a later planning stage).
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There are hydrants along Johnston, Bernard and Hummerston Streets, however the development will require the installation of several hydrants within the subject site.

The construction technical requirements established by the Guidelines and/or the local government can be complied with.

Acceptable Solution:	A4.2 Non-Reticulated Areas	Method of achieving Element compliance and/or the Intent of the Element:	N/A
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N/A

Acceptable Solution:	A4.3 Non-reticulated Areas (Individual Lots)	Method of achieving Element compliance and/or the Intent of the Element:	N/A
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N/A

4.4 Additional Information for Required Bushfire Protection Measures

An Area of Saturation has been identified within the structure plan including a drainage reserve on existing lots 28, 29 and 30. Future subdivision plans will be required to determine appropriate building envelope locations and the consequential impact on the APZs for structures on each of the proposed lots.

4.4.1 Vegetation Management

Asset Protection Zone (APZ) Dimensions that are to Apply

The required dimensions of the APZ will vary dependent upon the purpose for which the APZ has been defined. There are effectively three APZ dimensions that can apply:

1. An application for planning approval will be required to show that an APZ can be created which is of sufficient size to ensure the potential radiant heat impact of a fire does not exceed 29kW/m² (BAL-29); and
2. If the assessment has determined a BAL rating for an existing or future building is less than BAL-29, the APZ must be of sufficient size to ensure the potential radiant heat impact of a fire does not exceed the kW/m² corresponding to the lower assessed BAL rating; or
3. Complying with the relevant local government's annual firebreak notice may require an APZ of greater size than that defined by the two previous parameters.

The dimensions (vegetation separation distances) that are to apply to the APZ for this Proposal are presented in the tables below.

The 'Planning (WAPC) BAL-29' APZ				
Required Dimensions for the Subject Site				
Requirement Set By		Guidelines for Planning in Bushfire Prone Areas (WAPC 2017 v1.3)		
Relevant Fire Danger Index (AS3959-2009 Table 2.1)				80
BAL Determination Method		Method 1 (as per AS 3959-2009 s2.2.6 and Table 2.4.3)		
Vegetation Area	Applied Vegetation Classification	Effective Slope (degrees)	Maximum Acceptable 'Planning' BAL	Required Separation Distance (metres)
1	Class G Grassland	0	BAL-29	8
2	Class A Forest	0		21
	Class A Forest	3.66		27
3	Class B Woodland	0		14
4	Class B Woodland	0		14
This requirement has been established through the State bushfire provisions, SPP 3.7 and the associated Guidelines, as being a key compliance requirement for development proposals in WA.				



4.4.2 Consideration/Implementation of Staged Development

Where staged development is to be implemented, consideration should be given to an appropriate vegetation management process or buffer zone, to ensure that all lots can achieve a BAL 29 rating.

4.4.3 Future Stage Planning Application – Additional Information Required

For future planning stages of subdivision within the Structure Plan area, there is a requirement to review and update the bushfire management planning for the site to address future development application and the content of the associated BMP.

5 Responsibilities for Implementation and Management of the Bushfire Protection Measures

Table 5.1: BMP Implementation responsibilities prior to the issue of titles for the Developer (Landowner).

DEVELOPER (LANDOWNER) - PRIOR TO ISSUE OF TITLES		
No.	Implementation Actions	Clearance
1	<p>Planning approval may be conditioned with the requirement to make appropriate notifications (on the certificates of title and the deposited plan), of the existence of this Bushfire Management Plan.</p> <p>The WAPC may condition a subdivision application approval with a requirement for the landowner / proponent to place a notification onto the certificate(s) of title and a notice of the notification onto the diagram or plan of survey (deposited plan). This will be done pursuant to Section 165 of the Planning and Development Act 2005 ('Hazard etc. affecting land, notating titles as to:') and applies to lots with a determined BAL rating of BAL-12.5 or above. The notification will be required to state:</p> <p><i>'This land is within a bushfire prone area as designated by an Order made by the Fire and Emergency Services Commissioner and may be subject to a Bushfire Management Plan. Additional planning and building requirements may apply to development on this land'.</i></p>	<input type="checkbox"/>
2	Construct the roads to the standards stated in the BMP.	<input type="checkbox"/>
3	Install the reticulated water supply (hydrants) to the standards stated in the BMP.	<input type="checkbox"/>
4	Development of low threat vegetation areas to ensure BAL-29 or lower is achieved for the relevant stage of subdivision, within the Structure Plan area.	<input type="checkbox"/>

Table 5.2: BMP Implementation responsibilities prior to lot sale, occupancy or building for the Landowner (Developer).

LANDOWNER (DEVELOPER) - PRIOR TO LOT SALE, OCCUPANCY OR BUILDING	
No.	Implementation Actions
1	<p>The local government may condition a development application approval with a requirement for the landowner/proponent to register a notification onto the certificate of title (it may also need to be included on the deposited plan).</p> <p>This will be done pursuant to Section 70A Transfer of Land Act 1893 as amended ('Factors affecting use and enjoyment of land, notification on title:'). This is to give notice of the bushfire hazard and any restrictions and/or protective measures required to be maintained at the owner's cost.</p> <p>This condition ensures that:</p> <ol style="list-style-type: none"> 1. Landowners/proponents are aware their lot is in a designated bushfire prone area and of their obligations to apply the stated bushfire risk management measures; and 2. Potential purchasers are alerted to the Bushfire Management Plan so that future landowners/proponents can continue to apply the bushfire risk management measures that have been established in the Plan.
2	<p>Prior to sale and post planning approval, the entity responsible for having the BMP prepared should ensure that anyone listed as having responsibility under the Plan has endorsed it and is provided with a copy for their information and informed that it contains their responsibilities. This includes the landowners/proponents (including future landowners where the Plan was prepared as part of a subdivision approval), local government and any other authorities or referral agencies ('Guidelines' s4.6.3).</p>
3	<p>Prior to sale of the subject lots, each individual lot is to be compliant with the relevant local government's annual firebreak notice issued under s33 of the Bushfires Act 1954.</p>
4	<p>Prior to any building work, inform the builder of the existence of this Bushfire Management Plan and the responsibilities it contains, regarding the required construction standards. This will be:</p> <ul style="list-style-type: none"> • The standard corresponding to the determined BAL rating, as per the bushfire provisions of the Building Code of Australia (BCA); and/or • A higher standard as a result of the BMP establishing that construction is required at a standard corresponding to a higher BAL rating.



Table 5.3: Ongoing management responsibilities for the Landowner/Occupier.

LANDOWNER/OCCUPIER - ONGOING	
No.	Ongoing Management Actions
1	Maintain the Asset Protection Zone (APZ) to the dimensions and standard stated in the BMP.
2	Comply with the Shire of Mundaring annual firebreak notice issued under s33 of the Bush Fires Act 1954.
3	Ensure that any builders (of future structures on the lot) are aware of the existence of this Bushfire Management Plan and the responsibilities it contains regarding the application of construction standards corresponding to a determined BAL rating.
4	<p>Ensure all future buildings the landowner has responsibility for, are designed and constructed in full compliance with:</p> <ol style="list-style-type: none"> 1. the requirements of the WA Building Act 2011 and the bushfire provisions of the Building Code of Australia (BCA); and 2. with any identified additional requirements established by this BMP or the relevant local government.

Table 5.4: Ongoing management responsibilities for the Local Government.

LOCAL GOVERNMENT - ONGOING	
No.	Ongoing Management Actions
1	Monitor landowner compliance with the Bushfire Management Plan and the annual Firebreak Notice.

Appendix 1 - Onsite Vegetation Management Technical Requirements

It is the responsibility of the landowner to maintain the established bushfire protection measures on their property. Not complying with these responsibilities can result in buildings being subject to a greater potential impact from bushfire than that determined by the assessed BAL rating presented in this Bushfire Management Plan.

For the management of vegetation within a lot (i.e. onsite) the following technical requirements exist:

1. **The APZ:** Installing and maintaining an asset protection zone (APZ) of the required dimensions to the standard established by the Guidelines for Planning in Bushfire Prone Areas (WA Planning Commission, as amended). When, due to the planning stage of the proposal to which this Bushfire Management Plan applies, defined APZ dimensions are known and are to be applied to existing or future buildings – then these dimensions are stated in Section 5.4.1 of this Plan.
2. **The Firebreak/Fuel Load Notice:** Complying with the requirements established by the relevant local government's annual firebreak notice issued under s33 of the Bushfires Act 1954. Note: If an APZ requirement is included in the Notice, the standards and dimensions may differ from the Guideline's APZ Standard – the larger dimension must be complied with.
3. **Changes to Vegetated/Non-Vegetated Areas:**
 - a. If applicable to this Plan, the minimum separation distance from any classified vegetation, that corresponds to the determined BAL for a proposed building, must be maintained as either a non-vegetated area or as low threat vegetation managed to a minimal fuel condition as per AS 3959-2009 s2.2.3.2 (e) and (f). Refer to Part 4 of this Appendix 1.
 - b. Must not alter the composition of onsite areas of classified vegetation (as assessed and presented in Section 3.1.2) to the extent that would require their classification to be changed to a higher bushfire threat classification (as per AS 3959-2009); and
 - c. Must not allow areas within a lot (i.e. onsite) that have been:
 - i. excluded from classification by being low threat vegetation or non-vegetated; and
 - ii. form part of the assessed separation distance that is determining a BAL rating -
 ...to become vegetated to the extent they no longer represent a low threat (refer to Part 4 of Appendix 1). Note: The vegetation classification exclusion specifications as established by AS 3959-2009 s2.2.3.2, are included at A1.4 below for reference.

1. Requirements Established by the Guidelines – the Asset Protection Zone (APZ) Standards

(Source: Guidelines for Planning in Bushfire Prone Areas - WAPC 2017 v1.3 Appendix 4, Element 2, Schedule 1 and Explanatory Note E2.1)

Defining the Asset Protection Zone (APZ)

Description: An APZ is an area surrounding a building that is managed to reduce the bushfire hazard to an acceptable level (by reducing fuel loads). The width of the required APZ varies with slope and vegetation. For planning applications, the minimum sized acceptable APZ is that which is of sufficient size to ensure the potential radiant heat impact of a fire does not exceed 29kW/m² (BAL-29). It will be site specific.

The APZ may include public roads, waterways, footpaths, buildings, rocky outcrops, golf courses, maintained parkland as well as cultivated gardens in an urban context, but does not include grassland or vegetation on a neighbouring rural lot, farmland, wetland reserves and unmanaged public reserves.

For subdivision planning, design elements and excluded/low threat vegetation adjacent to the lot can be utilised to achieve the required vegetation separation distances and therefore reduce the required dimensions of the APZ within the lot.

Defendable Space: The APZ includes a defendable space which is an area adjoining the asset within which firefighting operations can be undertaken to defend the structure. Vegetation within the defendable space should be kept at an absolute minimum and the area should be free from combustible items and obstructions. The width of the defendable space is dependent on the space which is available on the property, but as a minimum should be 3 metres.

Establishment: The APZ should be contained solely within the boundaries of the lot on which the building is situated, except in instances where the neighbouring lot or lots will be managed in a low-fuel state on an ongoing basis, in perpetuity.

Note: Regardless of whether an Asset Protection Zone exists in accordance with the acceptable solutions and is appropriately maintained, fire fighters are not obliged to protect an asset if they think the separation distance between the dwelling and vegetation that can be involved in a bushfire, is unsafe.

Schedule 1: Standards for APZ

Fences: within the APZ are constructed from non-combustible materials (e.g. iron, brick, limestone, metal post and wire). It is recommended that solid or slatted non-combustible perimeter fences are used.

Objects: within 10 metres of a building, combustible objects must not be located close to the vulnerable parts of the building i.e. windows and doors.

Fine Fuel Load: combustible dead vegetation matter less than 6 mm in thickness reduced to and maintained at an average of two tonnes per hectare (example below).

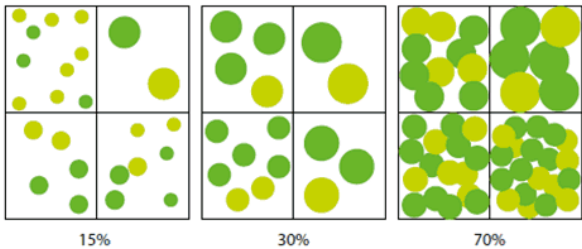
Example Fine Fuel Load of Two Tonnes per Hectare



(Image source: Shire of Augusta Margaret River’s Firebreak and Fuel Reduction Hazard Notice)

Trees (> 5 metres in height): trunks at maturity should be a minimum distance of 6 metres from all elevations of the building, branches at maturity should not touch or overhang the building, lower branches should be removed to a height of 2 metres above the ground and or surface vegetation, canopy cover should be less than 15% with tree canopies at maturity well spread to at least 5 metres apart as to not form a continuous canopy. Diagram below represents tree canopy cover at maturity.

Tree canopy cover – ranging from 15 to 70 per cent at maturity



(Source: Guidelines for Planning in Bushfire Prone Areas 2017, Appendix 4)

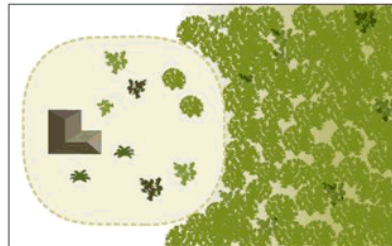
Shrubs (0.5 metres to 5 metres in height): should not be located under trees or within 3 metres of buildings, should not be planted in clumps greater than 5m2 in area, clumps of shrubs should be separated from each other and any exposed window or door by at least 10 metres. Shrubs greater than 5 metres in height are to be treated as trees.

Ground covers (<0.5 metres in height): can be planted under trees but must be properly maintained to remove dead plant material and any parts within 2 metres of a structure, but 3 metres from windows or doors if greater than 100 mm in height. Ground covers greater than 0.5 metres in height are to be treated as shrubs.

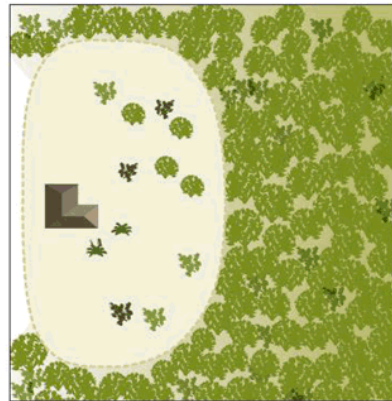
Grass: should be managed to maintain a height of 100 mm or less.

The following example diagrams illustrate how the required dimensions of the APZ will be determined by the type and location of the vegetation.

Hazard on one side

 APZ


Hazard on three sides

 APZ


2. Requirements Established by the Local Government – the Firebreak Notice

These requirements are established by the relevant local government's Firebreak Notice created under s33 of the Bushfires Act 1954 and issued annually (potentially with revisions). The Notice may include additional components directed at managing fuel loads, accessibility and general property management with respect to limiting potential bushfire impact.

The relevant local government's current Firebreak Notice is available on their website, at their offices and is distributed as ratepayer's information. It must be complied with.

If Asset Protection Zone technical requirements are defined in the Notice, the standards and dimensions may differ from the Guideline's APZ Standards, with the intent to better satisfy local conditions. When these are more stringent than those created by the Guidelines, or less stringent and endorsed by the WAPC and DFES, they must be complied with.

When, due to the planning stage of the proposal to which this Bushfire Management Plan applies, defined APZ dimensions are known and are to be applied to existing or future buildings – then these dimensions are stated in Section 5.4.1 of this Plan.

3. Requirements Recommended by DFES – Property Protection Checklists

Further guidance regarding ongoing/lasting property protection (from potential bushfire impact) is presented in the publication 'DFES – Fire Chat – Your Bushfire Protection Toolkit'. It is available from the Department of Fire and Emergency Services (DFES) website.

4. Requirements Established by AS 3959-2009 - Maintaining Areas within your Lot as 'Low Threat'

This information is provided for reference purposes. This knowledge will assist the landowner to comply with Management Requirement No. 3 set out in the Guidance Panel at the start of this Appendix. It identifies what is required for an area of land to be excluded from classification as a potential bushfire threat.

"Australian Standard - AS 3959-2009 Section 2.2.3.2: Exclusions - Low threat vegetation and non-vegetated areas:

The Bushfire Attack Level shall be classified BAL-LOW where the vegetation is one or a combination of the following:

- a) Vegetation of any type that is more than 100m from the site.*
- b) Single areas of vegetation less than 1ha in area and not within 100m of other areas of vegetation being classified.*
- c) Multiple area of vegetation less than 0.25ha in area and not within 20m of the site or each other.*
- d) Strips of vegetation less than 20m in width (measured perpendicular to the elevation exposed to the strip of vegetation) regardless of length and not within 20m of the site or each other, or other areas of vegetation being classified.*
- e) Non-vegetated areas, including waterways, roads, footpaths, buildings and rocky outcrops.*
- f) Low threat vegetation, including grassland managed in a **minimal fuel condition** (i.e. insufficient fuel available to significantly increase the severity of a bushfire attack – recognisable as short cropped grass to a nominal height of 100mm for example), maintained lawns, golf courses, maintained public reserves and parklands, vineyards, orchards, cultivated gardens, commercial nurseries, nature strips and windbreaks."*

Appendix 2 - Vehicular Access Technical Requirements

Each local government may have their own standard technical requirements for emergency vehicular access and they may vary from those stated in the Guidelines.

Contact the relevant local government for the requirements that are to apply in addition to the requirements set out as an acceptable solution in the Guidelines. If the relevant local government requires that these are included in the Bushfire Management Plan, they will be included in this appendix and referenced.

Requirements Established by the Guidelines – The Acceptable Solutions

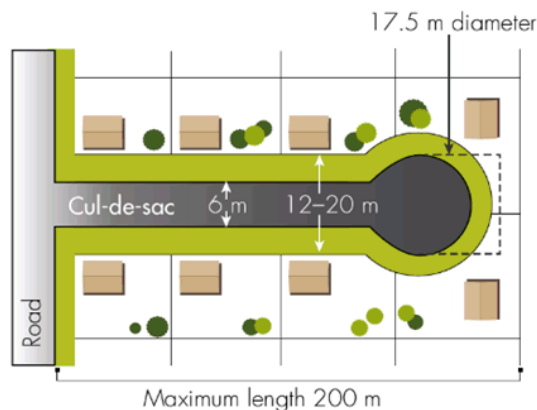
(Source: Guidelines for Planning in Bushfire Prone Areas WAPC 2017 v1.3, Appendix 4)

Vehicular Access Technical Requirements - Part 1

Acceptable Solution 3.3: Cul-de-sacs (including a dead-end road)

Their use in bushfire prone areas should be avoided. Where no alternative exists then the following requirements are to be achieved:

- Maximum length is 200m. If public emergency access is provided between cul-de-sac heads (as a right of way or public access easement in gross), the maximum length can be increased to 600m provided no more than 8 lots are serviced and the emergency access way is less than 600m in length;
- Turnaround area requirements, including a minimum 17.5m diameter head to allow type 3.4 fire appliances to turn around safely;
- The cul-de-sac connects to a public road that allows for travel in two directions; and
- Meet the additional design requirements set out in Part 2 of this appendix.



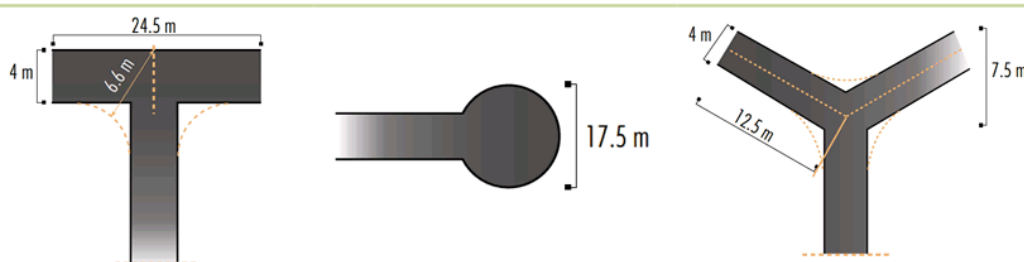
Acceptable Solution 3.5: Private Driveways

The following requirements are to be achieved:

- The design requirements set out in Part 2 of this appendix; and

Where the house site is more than 50 metres from a public road:

- Passing bays every 200 metres with a minimum length of 20 metres and a minimum width of two metres (ie combined width of the passing bay and constructed private driveway to be a minimum six metres);
- Turn-around areas every 500 metres and within 50 metres of a house, designed to accommodate type 3.4 fire appliances to turn around safely (ie kerb to kerb 17.5 metres);
- Any bridges or culverts are able to support a minimum weight capacity of 15 tonnes; and
- All weather surface (i.e. compacted gravel, limestone or sealed).



Acceptable Solution 3.8: Firebreak Width

Lots greater than 0.5 hectares must have an internal perimeter firebreak of a minimum width of three metres or to the level as prescribed in the local firebreak notice issued by the local government.

Vehicular Access Technical Requirements - Part 2

Technical Component	Vehicular Access Types				
	Public Roads	Cul-de-sacs	Private Driveways	Emergency Access Ways	Fire Service Access Routes
Minimum trafficable surface (m)	6*	6	4	6*	6*
Horizontal clearance (m)	6	6	6	6	6
Vertical clearance (m)	4.5	4.5	4.5	4.5	4.5
Maximum grade <50 metres	1 in 10	1 in 10	1 in 10	1 in 10	1 in 10
Minimum weight capacity (t)	15	15	15	15	15
Maximum cross-fall	1 in 33	1 in 33	1 in 33	1 in 33	1 in 33
Curves minimum inner radius (m)	8.5	8.5	8.5	8.5	8.5

* A six metre trafficable surface does not necessarily mean paving width. It could, for example, include four metres of paving and one metre of constructed road shoulders. In special circumstances, where 8 lots or less are being serviced, a public road with a minimum trafficable surface of four metres for a maximum distance of ninety metres may be provided subject to the approval of both the local government and DFES.

Appendix 3 - Water Technical Requirements

Requirements Established by the Guidelines - Acceptable Solution A4.1: Reticulated Areas

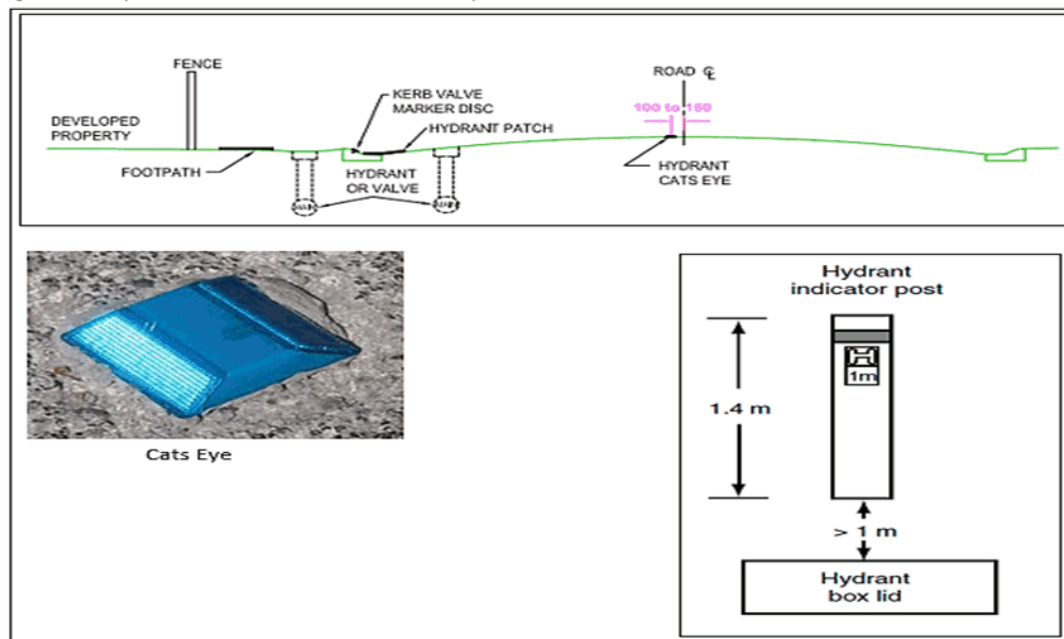
The requirement is to supply a reticulated water supply and fire hydrants, in accordance with the technical requirements of the relevant water supply authority and DFES. The Water Corporation's 'No 63 Water Reticulation Standard' is deemed to be the baseline criteria for developments and should be applied unless local water supply authority's conditions apply.

Key specifications in the most recent version/revision of the design standard include:

- **Residential Standard** – hydrants are to be located so that the maximum distance between the hydrants shall be no more than 200 metres.
- **Commercial Standard** – hydrants are to be located with a maximum of 100 metre spacing in Industrial and Commercial areas.
- **Rural Residential Standard** – where minimum site areas per dwelling is 10,000 m² (1ha), hydrants are to be located with a maximum 400m spacing. If the area is further subdivided to land parcels less than 1ha, then the residential standard (200m) is to be applied.

(Source: Guidelines for Planning in Bushfire Prone Areas WAPC 2017 v1.3, Appendix 4, Element 4)

Figure 4.1: Hydrant Location and Identification Specifications



Contact the relevant water supply authority to confirm the technical requirements that are to be applied. They may differ from the minimum requirements of the 'baseline' Water Corporation's No. 63 Water Reticulation Standard.

Flora and Vegetation Assessment

Mt Helena

Prepared for: Land Insights

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November 2012

Appendix 2

EXECUTIVE SUMMARY

This report has been prepared by Del Botanics on behalf of Land Insights to review remnant vegetation within the study area bounded by Elliott Road to the north, Lion Street to the east, Hummerston Street to the south and Johnston Street to the west.

During the time of the survey access was granted to survey eleven properties. The properties surveyed consist of Lot/Number 1,2,3,4 and 38 Bernard Street; Lot 1625 Lion Street, Lot 19, 31 and 49 Johnston Street, and Lot 16 Dean Street and Lot 315 Hummerston Street, Mt Helena. The additional seventeen properties within the study area were assessed for vegetation condition and type from the road in conjunction with aerial photography.

This report is the result of a spring botanical survey of the flora and vegetation on the site. The location of the property is shown in **Figure 1** and the extent of the property is shown in **Figure 2**.

The recent Flora and Vegetation Assessment within the study area identified a number of flora species within the study area. The vegetation ranged from “Completely Degraded” to “Very Good” Condition, and existing tracks were rated as “Completely Degraded”.

Three Vegetation Types at a local level were recorded during the survey. No species of Threatened (T), Priority Flora or Threatened Ecological Community (TEC) pursuant to subsection 2 of section 23F of the *Wildlife Conservation Act 1950* and listed by Department of Environment and Conservation (DEC) were located during the time of the survey.

Based on the results of this survey, Del Botanics is of the opinion that development of the site would not pose significant or unacceptable impacts on flora and vegetation with consideration to the following recommendations:

- Large trees are retained for fauna habitat;
- Buffers are developed to protect vegetation from weeds and dieback;
- Vegetation in good or better condition is retained where possible;
- Properties not surveyed may require an on ground assessment to determine the presence/absence of Rare and Priority Flora; and
- Further investigations are undertaken regarding the wetland.

STATEMENT OF LIMITATIONS

This environmental report has been prepared in accordance with the scope of services set out in the original quotation. In preparing the report, Del Botanics has relied on data, surveys, analyses, designs, plans and other information provided by the Client and other individuals and organisations, most of which are referred to in the report. Del Botanics has not verified the accuracy or completeness of the data to the extent that the statements, opinions, facts, information, conclusions and/or recommendations in the report are based in whole or in part on the data, those conclusions are contingent upon the accuracy and completeness of the data. Del Botanics will not be liable in relation to incorrect conclusions should any data, information or condition be incorrect or have been concealed, withheld, unavailable, misrepresented or otherwise not fully disclosed.

In accordance with the scope of services, Del Botanics has have relied on the data and have conducted environmental field monitoring in the preparation of the report. The nature and extent of monitoring conducted is described in the report. Within the limitations imposed by the scope of services, the monitoring, and preparation of this report have been undertaken and performed in a professional manner, in accordance with generally accepted practices and using a degree of skill and care. No other warranty, express or implied, is made.

The report has been prepared for the benefit of the Client and for no other party. Del Botanics assumes no responsibility and will not be liable to any other person or organisation for or in relation to any matter dealt with or conclusions expressed in the report, or for any loss or damage suffered by any other person or organisation arising from matters dealt with or conclusions expressed in the report. Other parties should not rely upon the report or the accuracy or completeness of any conclusions, and should make their own enquiries and obtain independent advice in relation to such matters.

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Figure 2	Extent of the subject site
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Appendix A	Vascular Plant Species Recorded in Vegetation Communities
Appendix B	Quadrat data

1. INTRODUCTION

1.1 BACKGROUND

This report has been prepared by Del Botanics on behalf of Land Insights to review remnant vegetation within the study area bounded by Elliott Road to the north, Lion Street to the east, Hummerston Street to the south and Johnston Street to the west.

A botanical survey of the flora species and vegetation of the site was undertaken in October 2012. The site is approximately 41.5 kilometres east of the Perth central area. The location of the property is shown in **Figure 1** and the extent of the property is shown in **Figure 2**.

1.2 PURPOSE OF THIS REPORT

This report was prepared to document the flora and vegetation that occurs within the subject area. The flora species and vegetation were used to determine the significance of the site in regards to Threatened and Priority Flora and Threatened Ecological Communities.

In summary this report provides:

- Threatened Flora (T) and Threatened Ecological Communities (TEC) DEC Database search to determine results for the site;
- A spring botanical survey; and
- An assessment of vegetation types and condition.

2. EXISTING ENVIRONMENT

2.1 SOILS AND LANDFORMS

The site is within what is commonly known as the Darling Plateau. The Darling Plateau lies to the east of the Swan Coastal Plain. It is characterised by an undulating hilly landscape and lateritic uplands with major valleys along the scarp. Large rock outcrops are a dominant feature along slopes and crests. The soil types associated with the Darling Plateau are:

- Darling Scarp – shallow red and yellow earths with large granite outcrops a common feature;
- Dwellingup – consists of duri-crust on ridges and sands and gravels in shallow depressions;
- Helena – yellow duplex soils and some shallow gradational earths with granite outcrops a common feature;
- Murray – red and yellow earths on side slopes of valleys and narrow alluvial terraces;

- Yarragil – sandy gravels on the slopes with orange earths in swampy floors;
- Yalanbee – dominated by fine gravel with some duri-crust on ridges;
- Cooke – dominated by granite outcrops and shallow duplex soils;
- Pindalup – contains gravely duplex soils on the slopes with some rocky outcrops, while the valley floors are dominated by grey sands with yellow duplex soils and orange earths; and
- A minor occurrence of Coolakin to the north – slopes dominated by sandy and gravely duplex soils with some rock outcrops.

2.2 CLIMATE

The Darling Plateau generally has a warm Mediterranean climate with hot dry summers and mild wet winters with rainfall ranges between 1000 and 600mm annually.

3. FLORA AND VEGETATION

The survey area lies in the Drummond Botanical Subdistrict within the southwest Botanical Province as described by Beard (1990). Flora composition has been described by Beard (1990) as predominantly consisting of *Banksia* Low Woodlands on leached sands with *Melaleuca* swamps where ill drained and Woodlands of *Eucalyptus* spp. on less leached soils.

The vegetation assessed is known as Darling Plateau Vegetation which is characterised by Marri woodlands with heath on the shallow soils. The Darling Plateau Jarrah forest occurs on the uplands, grading to Jarrah and Marri woodlands on the slopes with scrub along the creeklines. Where granite outcrops at or near the surface, woodland of rock Sheoak and Wandoo occur with herbland on the shallowest soils.

3.1 VEGETATION METHODS

A botanical survey was undertaken on the 19th October 2012. The study area was surveyed by undertaking two methods. Within the study area eleven properties granted permission for access, these properties were surveyed for flora, vegetation communities and condition, Threatened Flora (T), Priority Flora (PF) and potential areas of Threatened Ecological Communities (TEC's). Each variation or difference in vegetation was recorded with a 10 metre by 10 metre quadrat. Data was recorded to statistically determine vegetation types and condition. Eleven quadrats were assembled to record each change or variation in vegetation type. Quadrats were not assembled permanently; quadrat data is available in **Appendix B**. The additional seventeen properties within the study area were assessed from road observations in conjunction with aerial photography. These properties were surveyed for vegetation condition and types. Properties surveyed are shown in **Figure 2**.

The survey methodology was undertaken in accordance with EPA Position Statement No.3: *Terrestrial Biological Surveys as an Element of Biodiversity Protection* and EPA Guidance Statement No. 51: *Terrestrial Flora and Vegetation Surveys for Environmental Impact Assessment in Western Australia*.

All plant specimens collected during the field survey were dried, pressed and then sorted in accordance with the requirements of the Western Australian State Herbarium. Identification of specimens occurred through comparison with named material and through the use of taxonomic keys.

The use of a standard data collection forms ensured the data was collected in a systematic and consistent manner. At each change in vegetation the following records were made:

- Condition/disturbance;
- Topography;

- Soils.

The vegetation communities occurring on this site were described in detail. Aerial photography was used to extrapolate and map plant communities in combination with running notes made during the course of the survey.

3.2 DECLARED RARE AND PRIORITY FLORA

Species of Flora acquire “Threatened” “Presumed Extinct” or “Priority” conservation status where populations are restricted geographically or threatened by local processes. The Department of Environment and Conservation (DEC) recognise these threats and subsequently applies regulations towards population protection and species conservation. The DEC enforces regulations under the *Wildlife Conservation Act 1950* to conserve Threatened species and protect significant populations. Priority Flora species are potentially rare or threatened and are classified in order of threat. Threatened and Priority Flora category definitions are listed in **Table 1**.

Threatened Flora species are gazetted under subsection 2 of section 23F of the *Wildlife Conservation Act 1950* and therefore it is an offence to “take” or damage rare flora without Ministerial approval. Section 23F of the Act defines “to take” as “... to gather, pick, cut, pull up, destroy, dig up, remove or injure the flora to cause or permit the same to be done by any means”.

Table 1: Definition of Rare and Priority Flora Species (DEC 2012)

Conservation Code	Category
T	<p>Threatened Flora (Declared Rare Flora – Extant) Schedule 1 under the Wildlife Conservation Act 1950 Rare Flora Notice Taxa which have been adequately searched for and are deemed to be in the wild either rare, in danger of extinction, or otherwise in need of special protection, and have been gazetted as such</p> <p>Threatened Flora (Schedule 1) are further ranked by the Department according to their level of threat using IUCN Red List criteria: CR: Critically Endangered - considered to be facing an extremely high risk of extinction in the wild. EN: Endangered –considered to be facing a very high risk of extinction in the wild. VU: Vulnerable - considered to be facing a high risk of extinction in the wild</p>
X	<p>Presumed Extinct Flora (Declared Rare Flora – Extinct) Schedule 2 under the Wildlife Conservation Act 1950 Rare Flora Notice Taxa which have been adequately searched for and there is no reasonable doubt that the last individual has died, and have been gazetted as such.</p>
P1	<p>Priority One: Poorly-known species species that are known from one or a few collections or sight records (generally less than five), all on lands not managed for conservation, e.g. agricultural or pastoral lands, urban areas, Shire, Westrail and Main Roads WA road, gravel and soil reserves, and active mineral leases and under threat of habitat destruction or degradation. Species may be included if they are comparatively well known from one or more localities but do not meet adequacy of survey requirements and appear to be under immediate threat from known threatening processes.</p>
P2	<p>Priority Two: Poorly-known species Species that are known from one or a few collections or sight records, some of which are on lands not under imminent threat of habitat destruction or degradation, e.g. national parks, conservation parks, nature reserves, State forest, vacant Crown land, water reserves, etc. Species may be included if they are comparatively well known from one or more localities but do not meet adequacy of survey requirements and appear to be under threat from known threatening processes.</p>
P3	<p>Priority Three: Poorly-known species Species that are known from collections or sight records from several localities not under imminent threat, or from few but widespread localities with either large population size or significant remaining areas of apparently suitable habitat, much of it not under imminent threat. Species may be included if they are comparatively well known from several localities but do not meet adequacy of survey requirements and known threatening processes exist that could affect them.</p>
P4	<p>Priority Four: Rare, Near Threatened and other species in need of monitoring (a) Rare. Species that are considered to have been adequately surveyed, or for which sufficient knowledge is available, and that are considered not currently threatened or in need of special protection, but could be if present circumstances change. These species are usually represented on conservation lands. (b) Near Threatened. Species that are considered to have been adequately surveyed and that do not qualify for Conservation Dependent, but that are close to qualifying for Vulnerable. (c) Species that have been removed from the list of threatened species during the past five years for reasons other than taxonomy.</p>
P5	<p>Priority Five: Conservation Dependent species Species that are not threatened but are subject to a specific conservation program, the cessation of which would result in the species becoming threatened within five years</p>

A search of the Department of Environment and Conservations (DEC) Threatened (Declared Rare) and Priority flora database identified two Priority 3 (P3) species in close proximity to the project site. The results from the database search identified species within the subject area with a 5 km buffer. The species are listed in **Table 2** below: No Threatened or Priority Flora species listed below were located during the time of the survey.

Table 2: Threatened and Priority species in close proximity to the site

Species Name	Conservation Code
<i>Adenanthos cygnorum subsp. chamaephyton</i>	P3
<i>Meionectes tenuifolia</i>	P3

3.3 ENVIRONMENT PROTECTION AND BIODIVERSITY CONSERVATION ACT (1999) – SPECIES LEVEL SIGNIFICANCE

The Environment Protection and Biodiversity Conservation (EPBC) Act promotes the conservation of biodiversity by providing strong protection for plants at a species level. Section 178 and 179 provides the lists and categories of threatened species under the Act and is presented in **Table 3** below.

Table 3: Categories of Threatened Species (EPBC Act, Section 179, 1999)

1	Extinct A native species is eligible to be included in the extinct category at a particular time if, at that time, there is no reasonable doubt that the last member of the species has died.
2	Extinct in the Wild A native species is eligible to be included in the extinct in the wild category at a particular time if, at that time: (a) it is known only to survive in cultivation, in captivity or as a naturalised population well outside its past range; or (b) it has not been recorded in its known and/or expected habitat, at appropriate seasons, anywhere in its past range, despite exhaustive surveys over a time frame appropriate to its life cycle and form.
3	Critically Endangered A native species is eligible to be included in the critically endangered category at a particular time if, at that time, it is facing an extremely high risk of extinction in the wild in the immediate future, as determined in accordance with the prescribed criteria.
4	Endangered A native species is eligible to be included in the endangered category at a particular time if, at that time: (a) it is not critically endangered; and (b) it is facing a very high risk of extinction in the wild in the near future, as determined in accordance with the prescribed criteria.
5	Vulnerable A native species is eligible to be included in the vulnerable category at a particular time if, at that time: (a) it is not critically endangered or endangered; and (b) it is facing a high risk of extinction in the wild in the medium term future, as determined in accordance with the prescribed criteria.
6	Conservation Dependant A native species is eligible to be included in the conservation dependent category at a particular time if, at that time: (a) the species is the focus of a specific conservation program the cessation of which would result in the species becoming vulnerable, endangered or critically endangered; or (b) the following subparagraphs are satisfied: (i) the species is a species of fish; (ii) the species is the focus of a plan of management that provides for management actions necessary to stop the decline of, and support the recovery of, the species so that its chances of long term survival in nature are maximised; (iii) the plan of management is in force under a law of the Commonwealth or of a State or Territory; (iv) cessation of the plan of management would adversely affect the conservation status of the species.

The two Priority 3 species listed in the DEC DRF search are not identified under the EPBC listed flora.

3.3.1 Threatened Ecological Communities

In Western Australia TECs are assessed through a procedure coordinated by the DEC and are assigned to one of the categories outlined below in **Table 4**. While they are not afforded direct statutory protection at a State level (unlike Threatened Flora under the *Wildlife Conservation Act 1950*) their significance is acknowledged through other State environmental approval processes (i.e. Environmental Impact Assessment pursuant to Part IV of the *Environmental Protection Act 1986*). Scheduled TECs are afforded statutory protection at a Federal level pursuant to the EPBC Act.

The DEC maintains a database of TECs that currently includes 110 ecological communities, and the communities are based on Floristic Community Types (FCT) previously identified and classified on a species composition basis across the Swan Coastal Plain (Gibson et al., 1994). From the full DEC list, the Minister for the Environment has endorsed 69 as TECs requiring special acknowledgement and protection.

Table 4: Categories of DEC Threatened Ecological Communities

PD	Presumably Totally Destroyed An ecological community that has been adequately searched for but for which no representative occurrences have been located.
CE	Critically Endangered An ecological community that has been adequately surveyed and is found to be facing an extremely high risk of total destruction in the immediate future.
E	Endangered An ecological community that has been adequately surveyed and is not critically endangered but is facing a very high risk of total destruction in the near future.
V	Vulnerable An ecological community that has been adequately surveyed and is not critically endangered or endangered but is facing a high risk of total destruction or significant modification in the medium to long-term future.

The EPBC Act provides for the strong protection of TECs, which are listed under section 181 of the Act and are described as 'Critically Endangered', 'Endangered' or 'Vulnerable' under section 182. Schedules of protected TECs maintained pursuant to the EPBC Act are based on the same FCTs as adopted by DEC, however not all TECs listed by the DEC are scheduled under the EPBC Act.

A search was undertaken on the EPBC Act Protected Matters Report database. There are no known occurrences of TEC's occurring in close proximity to the site.

3.4 VEGETATION ASSESSMENT RESULTS

A total of 98 taxa, comprising 28 families and 70 genera were recorded from the eleven properties within the study area, which are shown in **Appendix A**. Species representation was greatest among the Myrtaceae (Myrtles), Fabaceae (Pea's) and Proteaceae (Protea's) families.

3.4.1 *Introduced species*

Twenty three introduced flora species were recorded from the eleven properties within the study area. Introduced species (weeds) were recorded in the Poaceae, Iridaceae and Asteraceae families. This represents 23.5 % of the total flora recorded on site.

3.4.2 *Threatened and Priority Flora*

No species of Threatened (T) or Priority Flora were recorded during the survey from the eleven properties within the study area. No other flora, pursuant to subsection 2 of section 23F of the *Wildlife Conservation Act 1950* and listed by the Department of Environment and Conservation (DEC) were located during the time of the survey. The botanical survey was undertaken in spring to coincide with the flowering times of the threatened species.

3.4.3 *EPBC listed and Threatened Ecological Communities*

No EPBC listed species or TEC's were recorded during the survey from the eleven properties within the study area.

3.4.4 *Local Vegetation Communities*

Vegetation structure is used to determine the coverage in each vegetation community recorded. Definitions are shown in **Table 5** below. These vegetation structure classes are the ones defined and used in Bush Forever (2000, Volume 2, Table 11 and p. 493) to describe vegetation in Bush Forever sites.

Table 5: Vegetation Structure Classes

Life Form/ Height Class	Canopy Cover (percentage)			
	100% - 70%	70% - 30%	30% - 10%	10% - 2%
Trees 10-30m	Closed Forest	Open Forest	Woodland	Open Woodland
Trees < 10m	Low Closed Forest	Low Open Forest	Low Woodland	Low Open Woodland
Shrub Mallee	Closed Shrub Mallee	Shrub Mallee	Open Shrub Mallee	Very Open Shrub Mallee
Shrubs > 2m	Closed Tall Scrub	Tall Open Scrub	Tall Shrubland	Tall Open Shrubland
Shrubs 1-2m	Closed Heath	Open Heath	Shrubland	Open Shrubland
Shrubs <1m	Closed Low Heath	Open Low Heath	Low Shrubland	Low Open Shrubland
Grasses	Closed Grassland	Grassland	Open Grassland	Very Open Grassland
Herbs	Closed Herbland	Herbland	Open Herbland	Very Open Herbland
Sedges	Closed Sedgeland	Sedgeland	Open Sedgeland	Very Open Sedgeland

Three vegetation communities were represented on the site at a local level; these have been described below in **Table 6**. Photographic representations of these vegetation communities are shown in the Quadrat data sheets in **Appendix B**.

Table 6: Local Vegetation Communities Recorded at the Subject Site, October 2012

Mapping Code	Community Descriptions
Vegetation Community 1 – Marri/Jarrah Woodland with a diverse understorey	
1	Open Forest of <i>Corymbia calophylla</i> and <i>Eucalyptus marginata</i> , over shrubland of <i>Hakea amplexicaulis</i> , <i>Hakea undulata</i> and <i>Xanthorrhoea preissii</i> over herbland of <i>Hibbertia hypericoides</i> , <i>Patersonia occidentalis</i> , <i>Scaevola calliptera</i> and <i>Lomandra ?suaveolens</i>
Vegetation Community 2 – Parkland Cleared Marri/Jarrah Woodland	
2	Open woodland of <i>Corymbia calophylla</i> and <i>Eucalyptus marginata</i> over very open herbland of, * <i>Hypochaeris glabra</i> * <i>Acrctotheca calendula</i> * <i>Trifolium dubium</i> over very open grassland of * <i>Briza maxima</i> and * <i>Lolium perenne</i>
Vegetation Community 3 – Wetland	
3	Open woodland of <i>Eucalyptus rudis</i> and <i>Eucalyptus camelduensis</i> over shrubland of <i>Hypocalymma angustifolium</i> , over herbland of * <i>Homeria flaccida</i> , and * <i>Gladiolus undulatus</i>

3.4.5 Vegetation Condition

Many bushland remnants have been historically subject to ongoing degradation and are especially susceptible to disturbances arising as a result of indirect impacts from surrounding developments and human activity. Degradation is caused by a wide range of factors, including isolation and edge effects, weed invasion, plant diseases, changes in fire frequency and behaviour, landscape fragmentation, increased predation on native fauna by feral animals, decrease in species richness and general modification of ecological function. These issues can affect the biodiversity rating and ecological viability of areas of remnant vegetation and should be assessed in line with conservation values.

The Vegetation Condition was rated according to the Vegetation Condition Scale commonly used in the Perth Metropolitan Region (Government of WA 2000). The definitions are described in **Table 7** below.

Table 7: Vegetation Condition Scale (Taken from Bush Forever (Government of WA 2000))

Vegetation Condition	Definition
Pristine (1)	Pristine or nearly so, no obvious signs of disturbance.
Excellent (2)	Vegetation structure intact, disturbance affecting individual species and weeds are non-aggressive species.
Very Good (3)	Vegetation structure altered, obvious signs of disturbance. For example, disturbance to vegetation structure caused by repeated fires, the presence of some more aggressive weeds, dieback, logging and grazing
Good (4)	Vegetation structure significantly altered by very obvious signs of multiple disturbances. Retains basic vegetation structure or ability to regenerate it. For example, disturbance to vegetation structure caused by very frequent fires, the presence of some very aggressive weeds at high density, partial clearing, dieback and grazing.
Degraded (5)	Basic vegetation structure severely impacted by disturbance. Scope for regeneration but not to a state approaching good condition without intensive management. For example, disturbance to vegetation structure caused by very frequent fires, the presence of very aggressive weeds, partial clearing, dieback and grazing.
Completely Degraded (6)	The structure of the vegetation is no longer intact and the area is completely or almost completely without native species. These areas are often described as 'parkland cleared' with the flora comprising weed or crop species with isolated native trees or shrubs.

In general, the vegetation condition ranged from “Completely Degraded” to “Very Good” Condition, tracks were rated as “Completely Degraded”. Vegetation condition mapping is provided in **Figure 3**.

4. CONCLUSIONS AND RECOMMENDATIONS

The recent Flora and Vegetation Assessment identified a number of flora species within the study area. The vegetation ranged from “Completely Degraded” to “Very Good” Condition, and existing tracks were rated as “Completely Degraded”.

A majority of the site has been previously disturbed and therefore a high number of weeds are present on site. Two remnant bush areas have been retained in Good - Very Good condition, on Lot 3 and 4 Bernard Street. There are also isolated patches of intact native vegetation on Lots 16, 31 and 49 Johnston Street. There is a disturbed wetland on 38 Bernard Street, which still shown signs of a functional wetland, however is dominated by weed species. Although the other properties have been disturbed and are predominately Completely Degraded, there are large Marri’s and Jarrah’s that would be worthy of retaining.

Three Vegetation Types at a local level were recorded during the survey. No species of Threatened (T), Priority Flora or Threatened Ecological Community (TEC) pursuant to subsection 2 of section 23F of the *Wildlife Conservation Act 1950* and listed by Department of Environment and Conservation (DEC) were located during the time of the survey from the eleven properties within the study area.

Based on the results of this survey, Del Botanics is of the opinion that development of the site would not pose significant or unacceptable impacts on flora and vegetation with consideration to the following recommendations:

- Large trees are retained for fauna habitat;
- Buffers are developed to protect vegetation from weeds and dieback;
- Vegetation in good or better condition is retained where possible;
- Properties not surveyed may require an on ground assessment to determine the presence/absence of Rare and Priority Flora; and
- Further investigations are undertaken regarding the wetland.

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FIGURES

FIGURE 1: LOCATION OF SUBJECT SITE

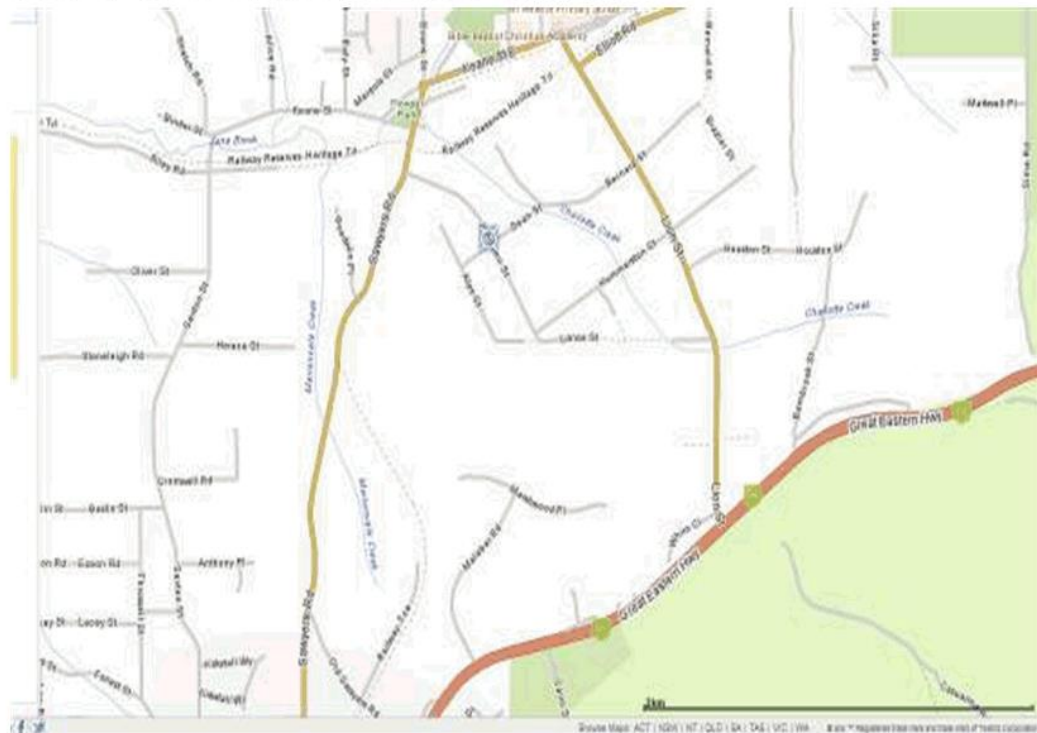
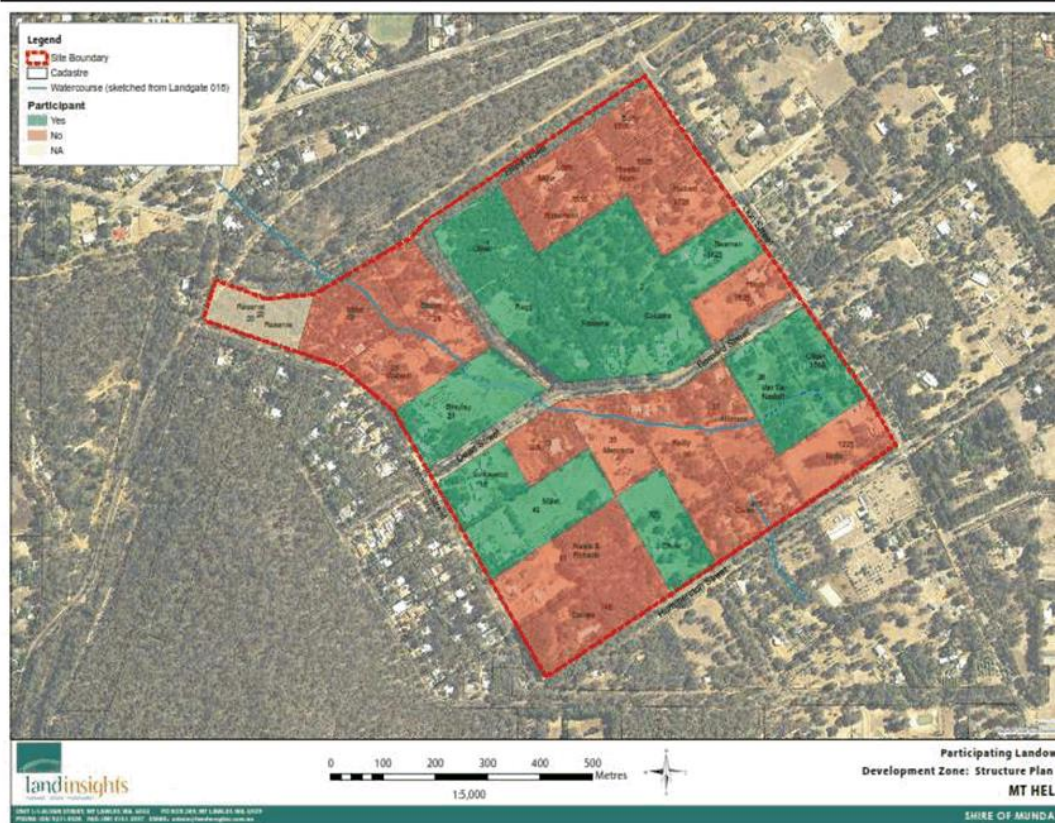
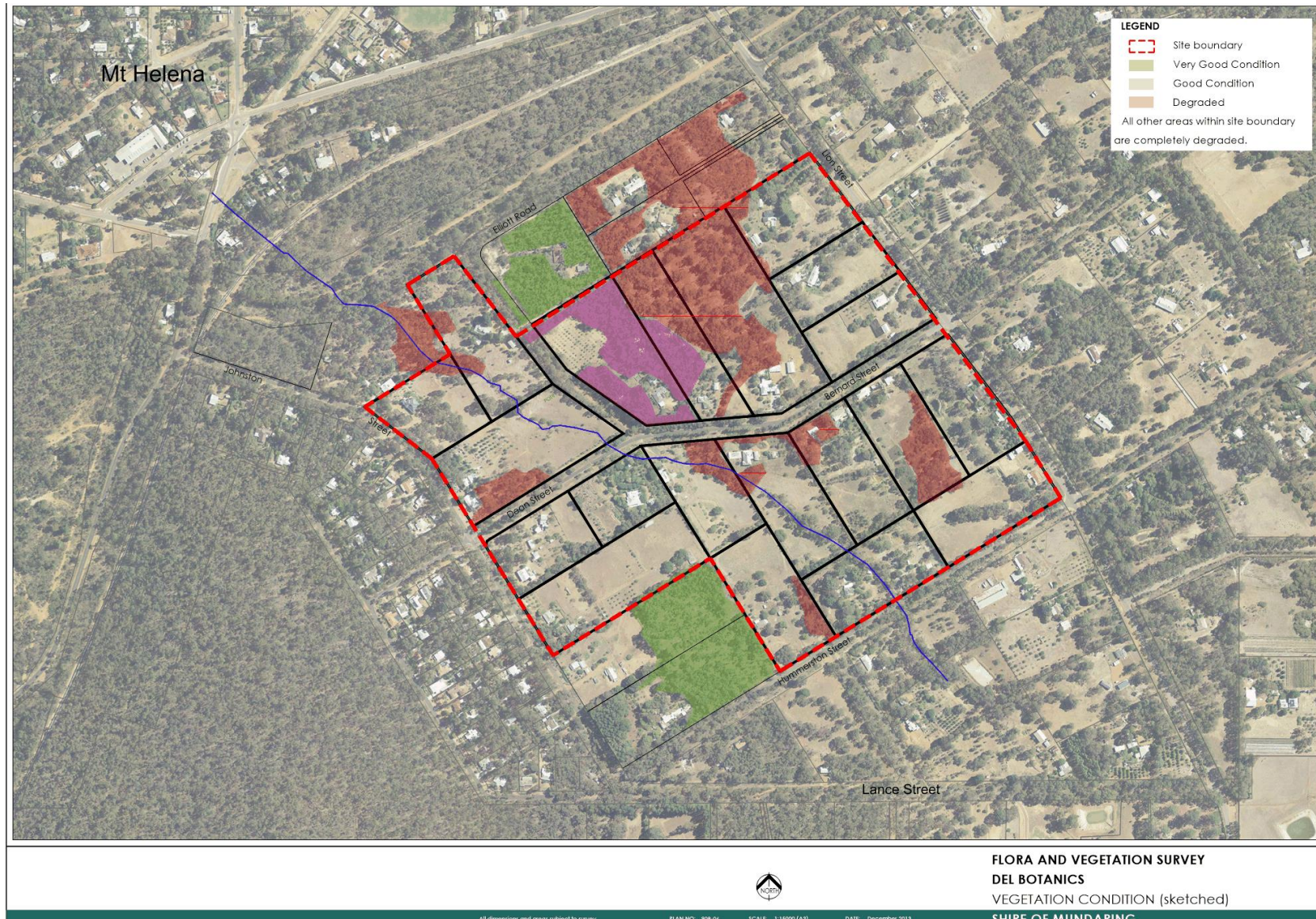
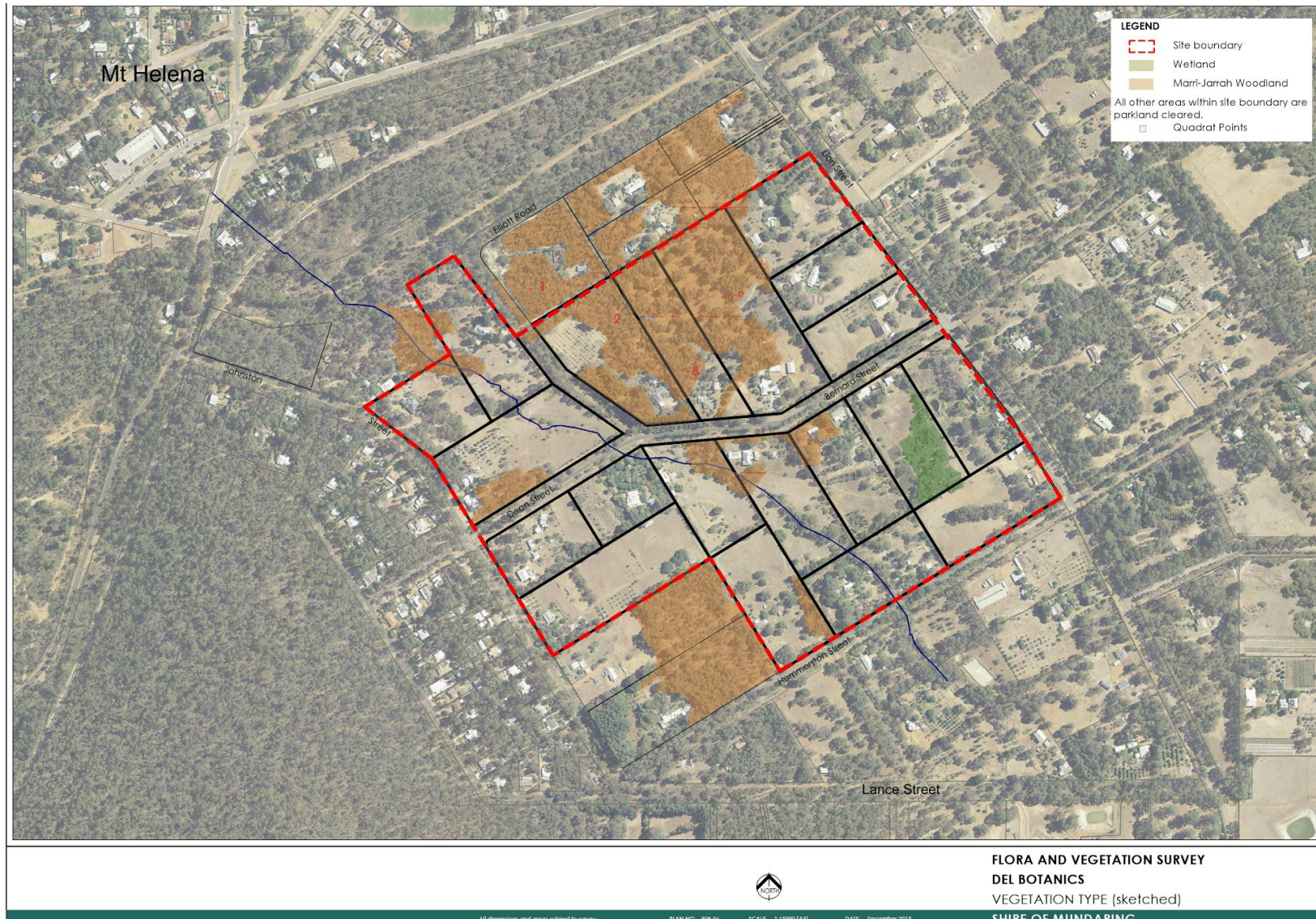


FIGURE 2 EXTENT OF SUBJECT SITE







PHOTOGRAPHIC PLATES



Plate 1: Habitat Tree (*Corymbia calophylla*)

APPENDIX A
VASCULAR PLANT SPECIES RECORDED

APPENDIX A: VASCULAR PLANT SPECIES RECORDED FROM THE ELEVEN PROPERTIES WITHIN THE STUDY AREA, MT HELENA OCTOBER 2012

(*DENOTES A WEED SPECIES)

Family	* Genus/Species
Apiaceae	<i>Pentapeltis peltigera</i>
Asparagaceae	<i>Lomandra ? preissii</i>
	<i>Lomandra ?suaveolens</i>
	<i>Thysanotus ? multiflorus</i>
	<i>Thysanotus sparteus</i>
Asteraceae	<i>*Acrctotheca calendula</i>
	<i>*Dimorphotheca ecklonis</i>
	<i>*Hypochaeris glabra</i>
	<i>Pterochaeta paniculata</i>
	<i>Senecio hispidulus</i>
	<i>Trichocline spathulata</i>
Boraginaceae	<i>*Echium plantagineum</i>
Casuarinaceae	<i>Allocasuarina fraseriana</i>
Cyperaceae	<i>Lepidosperma ? squamatum</i>
	<i>Lepidosperma squamatum</i>
	<i>Lepidosperma tenue</i>
	<i>Tetraria octandra</i>
Dilleniaceae	<i>Hibbertia hypericoides</i>
Droseraceae	<i>Drosera erythrorhiza</i>
	<i>Drosera macrantha</i>
Elaeocarpaceae	<i>Tetratheca hirsuta</i>
Fabaceae	<i>*Acacia decurrens</i>
	<i>*Acacia iteaphylla</i>
	<i>*Acacia longifolia</i>
	<i>*Chamaecytisus palmensis</i>
	<i>*Trifolium dubium</i>
	<i>Acacia lateriticola</i>
	<i>Acacia pulchella</i>
	<i>Bossiaea eriocarpa</i>
	<i>Bossiaea ornata</i>
	<i>Daviesia ? preissii</i>
	<i>Daviesia decurrens</i>
	<i>Daviesia sp</i>
	<i>Gastrolobium dilatatum</i>
	<i>Gastrolobium villosum</i>
	<i>Gompholobium knightianum</i>
	<i>Gompholobium marginatum</i>
	<i>Hovea trisperma</i>
	<i>Kennedia coccinea</i>
	<i>Kennedia prostrata</i>
	<i>Sphaerolobium medium</i>
Geraniaceae	<i>*Geranium molle</i>
Goodeniaceae	<i>Dampiera alata</i>
	<i>Lechenaultia biloba</i>
	<i>Scaevola calliptera</i>
Haemodoraceae	<i>Anigozanthos manglesii</i>
	<i>Conostylis setigera</i>
	<i>Haemodorum ? spicatum</i>
Hemerocallidaceae	<i>Agrostocrinum hirsutum</i>
	<i>Caesia micrantha</i>
Iridaceae	<i>*Homeria flaccida</i>

	<i>*Gladiolus caryophyllaceus</i>
	<i>*Gladiolus undulatus</i>
	<i>Patersonia occidenatlis</i>
	<i>Patersonia pygmaea</i>
	<i>*Watsonia bulbilifera</i>
Lentibulariaceae	<i>Utricularia multifida</i>
Myrtaceae	<i>*Melaleuca armillaris subsp. armillaris</i>
	<i>Astartea ? affinis</i>
	<i>Astartea affinis</i>
	<i>Corymbia calophylla</i>
	<i>Eucalyptus camaldulensis</i>
	<i>Eucalyptus marginata</i>
	<i>Eucalyptus rudis</i>
	<i>Hypocalymma angustifolium</i>
Oleaceae	<i>*Olea europaea</i>
Orchidiaceae	<i>Thelymitra crinita</i>
Pittosporaceae	<i>Billardiera fraseri</i>
Poaceae	<i>*Avena barbata</i>
	<i>*Briza maxima</i>
	<i>*Bromus duriandrus</i>
	<i>*Ehrharta calycina</i>
	<i>*Hordeum leporinum</i>
	<i>*Lolium perenne</i>
	<i>*Paspalum sp</i>
	<i>Austrostipa hemipogon</i>
	<i>Cyathochaeta avenacea</i>
	<i>Neuracnhe alopecuroides</i>
	<i>Tetrarrhena laevis</i>
Primulaceae	<i>*Lysimachia arvensis</i>
Proteaceae	<i>Adenanthos barbigera</i>
	<i>Banksia bipinnatifida</i>
	<i>Banksia nivea</i>
	<i>Banksia sessilis</i>
	<i>Dillwynia laxiflora</i>
	<i>Grevillea manglesii</i>
	<i>Grevillea quercifolia</i>
	<i>Hakea amplexicaulis</i>
	<i>Hakea lissocarpa</i>
	<i>Hakea ruscifolia</i>
	<i>Hakea undulata</i>
	<i>Perseoonia elliptica</i>
Rubiaceae	<i>Opercularia echinocephala</i>
Rutaceae	<i>Boronia ovata</i>
Stylidiaceae	<i>Stylidium hispidum</i>
Thymelaeaceae	<i>Pimelea sp</i>
Xanthorrhoeaceae	<i>Xanthorrhoea gracilis</i>
	<i>Xanthorrhoea preissii</i>

**APPENDIX B
QUADRAT DATA**

*Del Botanics***FIELD SHEET – FLORA AND VEGETATION SURVEY**

Job Code: Mt Helena	Date: 19/10/12	Site: Q1- Lot 4 Bernard Street
GPS Datum: 50 425790 6472603	Topography: Mid slope	Litter cover: 30% twigs, 30% leaves
Age since fire: >10 yrs	Disturbance: Hi Med Lo	Soils: Clay/Loam
Vegetation Description: Marri/Jarrah woodland		
Vegetation Condition: Very Good		
Observations: Degraded along the edges		



Coll No.	Taxon
	<i>Xanthorrhoea preissii</i>
	<i>Eucalyptus marginata</i>
	<i>Hibbertia hypericoides</i>
	<i>Banksia nivea</i>
	<i>Patersonia occidentalis</i>
	<i>Thelymitra crinita</i>
	<i>Gompholobium knightianum</i>
	<i>Lechenaultia biloba</i>
	<i>Daviesia</i> sp
	<i>Tetraria octandra</i>
	<i>Damperia alata</i>
	<i>Daviesia decurrens</i>
	<i>Kennedia coccinea</i>
	<i>Stylidium hispidum</i>
	<i>Conostylis setigera</i>
	<i>Acacia lateriticola</i>
	<i>Banksia bipinnatifida</i>

	<i>Caesia micrantha</i>
	<i>Anigozanthos manglesii</i>
	<i>Boronia ovata</i>
	<i>Lepidosperma squamatum</i>
	<i>Hakea amplexicaulis</i>
	<i>Hakea undulata</i>
	<i>Bossiaea eriocarpa</i>
	<i>Sphaerolobium medium</i>
	<i>Drosera erythrorhiza</i>
	<i>Tetrarrhena laevis</i>
	<i>Lomandra ? preissii</i>
	<i>Thysanotus sparteus</i>
	<i>Pentapeltis peltigera</i>
	<i>Thysanotus ? multiflorus</i>
	<i>Lomandra ? suaveolens</i>
	* <i>Acacia longifolia</i>
	<i>Xanthorrhoea gracilis</i>
	* <i>Briza maxima</i>
	<i>Opercularia echinocephala</i>
	<i>Scaevola calliptera</i>
	<i>Billardiera fraseri</i>
	* <i>Hypochaeris glabra</i>
	<i>Corymbia calophylla</i>
	<i>Cyathochaeta avenacea</i>
	<i>Senecio hispidulus</i>
	<i>Gastrolobium dilatatum</i>
	<i>Grevillea manglesii</i>
Opp	<i>Acacia pulchella</i>
Opp	<i>Gastrolobium dilatatum</i>
Opp	<i>Adenanthos barbiger</i>
Opp	<i>Tetratheca hirsuta</i>
Opp	<i>Banksia sessilis</i>
Opp	<i>Persoonia elliptica</i>
Opp	<i>Hakea ruscifolia</i>
Opp	<i>Grevillea quercifolia</i>

Del Botanics

FIELD SHEET – FLORA AND VEGETATION SURVEY

Job Code: Mt Helena	Date: 19/10/12	Site: Q2 – Lot 3 Bernard Street
GPS Datum: 50 425925 6472505	Topography: Upper slope	Litter cover: 10% logs, 20% leaves
Age since fire: >10 yrs	Disturbance: Hi Med Lo	Soils: Clay/Loam
Vegetation Description: Marri/Jarrah Woodland,		
Vegetation Condition: Good		
Observations: Good habitat trees		



Coll No.	Taxon
	<i>Eucalyptus marginata</i>
	<i>Corymbia calophylla</i>
	<i>Xanthorrhoea preissii</i>
	<i>Trichocline spathulata</i>
	<i>Thelymitra crinita</i>
	<i>Tetraria octandra</i>
	<i>Drosera erythrorhiza</i>
	<i>Bossiaea ornata</i>
	<i>Bossiaea eriocarpa</i>
	<i>Gastrolobium villosum</i>
	<i>Hibbertia hypericoides</i>
	<i>Banksia nivea</i>
	<i>Hakea amplexicaulis</i>
	<i>Pentapeltis peltigera</i>
	<i>Scaevola calliptera</i>

	<i>Banksia bipinnatifida</i>
	<i>Lechenaultia biloba</i>
	<i>Damperia alata</i>
	<i>Lepidosperma tenue</i>
	<i>Boronia ovata</i>
	<i>Persoonia elliptica</i>
	<i>Drosera macrantha</i>
	<i>Daviesia ? preissii</i>
	<i>Agrostocrinum hirsutum</i>
	<i>Hovea trisperma</i>
	<i>*Briza maxima</i>
	<i>*Hypochaeris glabra</i>
	<i>Tetarrhena laevis</i>
	<i>Opercularia echinocephala</i>
	<i>Austrostipa hemipogon</i>
	<i>Gastrolobium dilatatum</i>
	<i>Stylidium hispidum</i>
	<i>Haemodorum ? spicatum</i>
	<i>Dillwynia laxiflora</i>
	<i>Banksia sessilis</i>

*Del Botanics***FIELD SHEET – FLORA AND VEGETATION SURVEY**

Job Code: Mt Helena	Date: 19/10/12	Site: Q3 Lot 38 Bernard Street
GPS Datum: 50 426356 6472365	Topography: Lower slope	Litter cover: 5% logs, 10% leaves
Age since fire: >10 yrs	Disturbance: Hi Med Lo	Soils: Orange, Clay/Loam
Vegetation Description: Wetland		
Vegetation Condition: Degraded		
Observations:		



Coll No.	Taxon
	<i>Thysanotus sparteus</i>
	<i>Astartea ? affinis</i>
	<i>Utricularia multifida</i>
	<i>Hypocalymma angustifolium</i>
	<i>Anigozanthos manglesii</i>
	<i>Patersonia pygmaea</i>
	* <i>Paspalum</i> sp
	* <i>Hypochaeris glabra</i>
	<i>Astartea affinis</i>
	* <i>Briza maxima</i>
	* <i>Acacia longifolia</i>
	* <i>Homeria flaccida</i>
	* <i>Lysimachia arvensis</i>
	* <i>Gladiolus undulatus</i>
	<i>Pterochaeta paniculata</i>

*Del Botanics***FIELD SHEET – FLORA AND VEGETATION SURVEY**

Job Code: Mt Helena	Date: 19/10/12	Site: Q4 Lot 1365 Bernard Street
GPS Datum:	Topography: Lower slope	Litter cover: % logs, 20 % leaves
Age since fire: >10 yrs	Disturbance: Hi Med Lo	Soils: Clay/Loam,
Vegetation Description: Wetland		
Vegetation Condition: Completely Degraded		
Observations:		



Coll No.	Taxon
	<i>Eucalyptus rudis</i>
	<i>Eucalyptus camaldulensis</i>
	* <i>Hypochaeris glabra</i>
	* <i>Watsonia bulbifera</i>
	* <i>Avena barbata</i>
	* <i>Acrctotheca calendula</i>
	* <i>Echium plantagineum</i>
	* <i>Acacia longifolia</i>
	<i>Corymbia calophylla</i>

Del Botanics

FIELD SHEET – FLORA AND VEGETATION SURVEY

Job Code: Mt Helena	Date: 19/10/12	Site: Q5 Lot 19 Johnston Street
GPS Datum:	Topography: Mid slope	Litter cover: % logs, % leaves
Age since fire: >10 yrs	Disturbance: Hi Med Lo	Soils: Clay/Loam,
Vegetation Description: Marri/Jarrah Woodland		
Vegetation Condition: Degraded		
Observations:		



Coll No.	Taxon
	<i>Eucalyptus marginata</i>
	<i>Corymbia calophylla</i>
	<i>Xanthorrhoea preissii</i>
	<i>Pimelea</i> sp
	* <i>Briza maxima</i>
	* <i>Acacia decurrens</i>
	<i>Hakea lissocarpha</i>
	* <i>Dimorphanthera ecklonis</i>
	* <i>Gladiolus undulatus</i>

*Del Botanics***FIELD SHEET – FLORA AND VEGETATION SURVEY**

Job Code: Mt Helena	Date: 19/10/12	Site: Q6 Lot 31 Johnston Street
GPS Datum:	Topography: Mid slope	Litter cover: % logs, % leaves
Age since fire: >10 yrs	Disturbance: Hi Med Lo	Soils: Clay/Loam,
Vegetation Description: Marri/Jarrah Woodland		
Vegetation Condition: Completely Degraded		
Observations: Parkland Cleared (only native trees retained)		

Coll No.	Taxon
	<i>Eucalyptus marginata</i>
	<i>Corymbia calophylla</i>
	<i>Allocasuarina fraseriana</i>
	* <i>Hordeum leporinum</i>
	* <i>Hypochaeris glabra</i>
	* <i>Briza maxima</i>
	* <i>Geranium molle</i>
	* <i>Lolium perenne</i>
	* <i>Bromus diandrus</i>
	* <i>Trifolium dubium</i>

*Del Botanics***FIELD SHEET – FLORA AND VEGETATION SURVEY**

Job Code: Mt Helena	Date: 19/10/12	Site: Q7 Lot 16 Dean Street
GPS Datum:	Topography: Mid slope	Litter cover: % logs, % leaves
Age since fire: >10 yrs	Disturbance: Hi Med Lo	Soils: Clay/Loam,
Vegetation Description: Marri/Jarrah Woodland		
Vegetation Condition: Degraded		
Observations: Parkland Cleared (only native trees retained)		

Coll No.	Taxon
	<i>Corymbia calophylla</i>
	<i>*Ehrharta calycina</i>
	<i>*Olea europaea</i>
	<i>*Acacia iteaphylla</i>
	<i>*Watsonia bulbillifera</i>
	<i>*Arctotheca calendula</i>
	<i>*Echium plantagineum</i>
	<i>*Briza maxima</i>
	<i>Grevillea manglesii</i>
	<i>Neuracnhe alopecuroidea</i>
	<i>Austrostipa hemipogon</i>
	<i>Thysanotus sparteus</i>
	<i>Patersonia pygmea</i>
	<i>Gompholobium marginatum</i>
	<i>Kennedia coccinea</i>
	<i>Kennedia prostrata</i>
	<i>Lepidosperma ? squamatum</i>
	<i>*Gladiolus caryophyllaceus</i>
	<i>*Hypochaeris glabra</i>
	<i>Agrostocrinum hirsutum</i>
	<i>*Melaleuca armillaris subsp. armillaris</i>
	<i>Hakea lissocarpa</i>

*Del Botanics***FIELD SHEET – FLORA AND VEGETATION SURVEY**

Job Code: Mt Helena	Date: 19/10/12	Site: Q8 Lot 1 Bernard Street
GPS Datum:	Topography: Mid slope	Litter cover: % logs, % leaves
Age since fire: >10 yrs	Disturbance: Hi Med Lo	Soils: Clay/Loam,
Vegetation Description: Marri/Jarrah Woodland		
Vegetation Condition: Completely Degraded		
Observations: Parkland Cleared (only native trees retained)		



Coll No.	Taxon
	<i>Eucalyptus marginata</i>
	<i>Corymbia calophylla</i>
	<i>Hibbertia hypericoides</i>
	<i>Thelymitra crinita</i>
	<i>Xanthorrhoea preissii</i>
	<i>Xanthorrhoea gracilis</i>
	* <i>Ehrharta calycina</i>
	* <i>Chamaecytisus palmensis</i>

Del Botanics

FIELD SHEET – FLORA AND VEGETATION SURVEY

Job Code: Mt Helena	Date: 19/10/12	Site: Q9 Lot 2 Bernard Street
GPS Datum:	Topography: Mid slope	Litter cover: % logs, % leaves
Age since fire: >10 yrs	Disturbance: Hi Med Lo	Soils: Clay/Loam,
Vegetation Description: Marri/Jarrah Woodland		
Vegetation Condition: Completely Degraded		
Observations: Parkland Cleared (only native trees retained)		



Coll No.	Taxon
	* <i>Briza maxima</i>
	<i>Eucalyptus marginata</i>
	<i>Corymbia calophylla</i>
	* <i>Arctotheca calendula</i>
	* <i>Hordeum leporinum</i>
	* <i>Homeria flaccida</i>

*Del Botanics***FIELD SHEET – FLORA AND VEGETATION SURVEY**

Job Code: Mt Helena	Date: 19/10/12	Site: Q10 Lot 1625 Lion Street
GPS Datum:	Topography: Mid slope	Litter cover: % logs, % leaves
Age since fire: >10 yrs	Disturbance: Hi Med Lo	Soils: Clay/Loam,
Vegetation Description: Marri/Jarrah Woodland		
Vegetation Condition: Completely Degraded		
Observations: Parkland Cleared (only native trees retained)		

Coll No.	Taxon
	<i>*Homeria flaccida</i>
	<i>*Arctotheca calendula</i>
	<i>*Ehrharta calycina</i>
	<i>Eucalyptus marginata</i>
	<i>Corymbia calophylla</i>

*Del Botanics***FIELD SHEET – FLORA AND VEGETATION SURVEY**

Job Code: Mt Helena	Date: 19/10/12	Site: Q11 Lot 1365 Lion Street
GPS Datum:	Topography: Mid slope	Litter cover: % logs, % leaves
Age since fire: >10 yrs	Disturbance: Hi Med Lo	Soils: Clay/Loam,
Vegetation Description: Wetland		
Vegetation Condition: Completely Degraded		
Observations: Parkland Cleared (only native trees retained)		

Coll No.	Taxon
	<i>Corymbia calophylla</i>
	<i>Xanthorrhoea preissii</i>
	<i>Grevillea manglesii</i>
	<i>Neuracme alopecuroides</i>
	<i>Cyathochaeta avenacea</i>
	<i>Hibbertia hypericoides</i>
	<i>Austrostipa hemipogon</i>



10.2 Annual Electors' Meeting Motions - Bushfire Planning

File Code	GV.MTG 2
Author	Angus Money, Manager Planning and Environment Services
Senior Employee	Mark Luzi, Director Statutory Services
Disclosure of Any Interest	Nil
Attachments	Nil

In accordance with Council Decision C5.04.19 Item 10.2 was considered prior to Item 10.1.

10.3 Sawyers Valley Volunteer Bush Fire Brigade - Amendment of Constitution

File Code	EM.VNT 1.1
Author	Adrian Dyson, Manager Community Safety and Emergency Management
Senior Employee	Mark Luzi, Director Statutory Services
Disclosure of Any Interest	Nil
Attachments	Nil

In accordance with Council Decision C5.04.19 Item 10.3 was considered prior to Item 10.1.

10.4 New Policy - Community Leases

File Code	GV.OPP 1
Author	Danielle Courtin, Governance Coordinator
Senior Employee	Stan Kocian, Acting Director Corporate Services
Disclosure of Any Interest	Nil
Attachments	1. Draft Policy OR-24 Community Leases ⇒

In accordance with Council Decision C5.04.19 Item 10.3 was considered prior to Item 10.1.

10.5 Shire of Mundaring become a Refugee Welcome Zone

File Code	CS.SPG
Author	Shannon Foster, Manager Libraries and Community Engagement
Senior Employee	Megan Griffiths, Director Strategic & Community Services
Disclosure of Any Interest	Nil
Attachments	1. Refugee Welcome Zone Example Declaration ⇒

In accordance with Council Decision C5.04.19 Item 10.3 was considered prior to Item 10.1.

In accordance with Council Decision C5.04.19 Item 11.1 was considered at this time.

11.1 Cr Fisher Motion - Review Policy PS-01 Advertising Planning Applications

File Code	PS.CDE 04
Author	Angus Money, Manager Planning and Environment Services
Senior Employee	Mark Luzi, Director Statutory Services
Disclosure of Any Interest	Nil
Attachments	Nil

SUMMARY

On 7 March 2019, Cr Fisher provided the following notice of motion:

‘That Council requests a review of Policy PS-01 Advertising Planning Applications be undertaken in an effort to enhance the provision of public information about planning proposals and the understanding about how community and business priorities can be addressed.’

This report provides Elected Members with advice regarding the notice of motion.

BACKGROUND

In support of the motion, Cr Fisher notes that:

The Shire’s SCP (Strategic Community Plan) seeks to achieve the following:

1.2.Objective:

Transparent, responsive and engaged processes for Shire decision making.

1.2.1 Strategy:

Increase transparency and responsiveness of Shire administration processes.

1.2.1 Community Outcomes:

Values, policies and procedures deliver ethical, transparent and accountable local governance; and

Policies and procedures are responsive to community and business priorities

The purpose of the motion is to investigate processes that make the community’s engagement and contributions to Planning matters simple and meaningful, while providing security and respect for the rights of a business proponent.

It is understood that this motion has arisen from discussions regarding the advertising of Structure Plan 34 (North Stoneville Townsite). A question was received from the Save the Perth Hills lobby group asking that the supporting technical information be reposted back onto the Shire’s website, as it had been removed following the closing of the advertising period.

Advice provided by staff noted that it would be contrary to Shire policy and would conflict with the copyright exemptions provided under the Regulations for the Shire to share information outside of the advertising period.

The particular matter raised by the Save Perth Hills group was subsequently resolved, as the proponent agreed that they would post the information on their own website (see: <https://satterley.com.au/north-stoneville/structure-plan-reports>).

Thereafter, Cr Fisher made specific enquiries in relation to changing the Shire's policy to allow supporting information associated with planning proposals to continue to remain on the Shire's website during the time between the close of advertising and the release of Council's agenda where the planning proposal is to be determined.

There are various legal and operational considerations, as described below.

STATUTORY / LEGAL IMPLICATIONS

The Shire of Mundaring Meeting Procedures Local Law 2015 details the requirements for notices of motion:

- 1. A notice of motion is to be given at least seven clear working days before the meeting at which the motion is to be raised; and*
- 2. A notice of motion is to be accompanied by supporting reasons and is to relate to the good governance of the district.*

The notice of motion provided by Cr Fisher complies with the Shire's meeting procedures.

In relation to a review of a local planning policy, there is no specified requirement for a local government to review an adopted planning policy under the *Planning and Development (Local Planning Scheme) Regulations 2015* (Regulations).

The policy in question indicates a review period of two years (November 2018). As the policy was prepared following the gazettal of the Regulations, it remains current and applicable. Shire staff work with the policy daily and confirm there are no fundamental issues that would necessitate an urgent review of the policy.

Planning policies are different to other Shire policies and any review must be progressed in accordance with the Planning Regulations. They are not presented to the Audit and Risk Committee but proceed directly to Council. Steps would involve:

1. A review of all other provisions within the policy;
2. Some further WAPC and legal advice regarding copyright implications would be sought;
3. Council report;
4. Community consultation;
5. Review of submissions and suggested modifications devised;
6. A second report to Council for endorsement; and
7. Notice in local newspaper.

It is important to recognise that the Shire's planning policies operate within the parameters set by State Regulations. Any amendments to the Policy must align with, and operate within, the parameters of the legal framework.

Cr Fisher's specific suggestion to allow supporting information to be available following advertising, but prior to a decision, is not provided for within the current Regulations. In particular, under the deemed provisions in Schedule 2 of the *Planning and Development (Local Planning Schemes) Regulations 2015* (Deemed Provisions), there are various planning proposals for which approval may be sought: structure plans (Part 4), activity centre plans (Part 5), local development plans (Part 6) and development applications (Part 8).

Applications for each of these planning proposals are subject to advertising (with certain exceptions). In each case, the Shire must make the planning proposal and any accompanying material available for public inspection. In addition, the Shire may publish the planning proposal and the accompanying material on the Shire's website (*Deemed Provisions: clauses 18(3), 34(3), 50(4) and 64(5)*).

To avoid any infringement of copyright in the planning proposal and accompanying material, clause 85 of the Deemed Provisions provides that a local government may refuse to accept an application if it is not satisfied that an agreement is in place to allow the local government to use any copyrighted material provided in support of the application or implementing a decision on the application. Where an applicant submits a planning proposal for approval in circumstances where it must be advertised together with any accompanying material, the applicant gives an implied consent to the Shire for the documents to be copied and/or published on the Shire's website for this purpose. There is no legal impediment to the Shire publicising planning proposals and accompanying material on the Shire's website provided it is for the purpose of advertising a planning proposal.

Similarly, where a planning proposal and accompanying material are included in the agenda for a Council meeting, they are generally accessible by the public (*Local Government Act 1995: section 5.94(p)*). Consequently, there is no likely infringement of copyright in publishing these documents on the Shire's website as part of the agenda papers for the Council meeting.

The above provisions do not, however, cover the period between the end of the advertising period and the release of the agenda papers for the Council meeting at which the planning proposal is to be determined. If there is no consent from an applicant by which it agrees that the Shire can either copy and make available to the public or publish on its website any copyrighted material relating to a planning proposal in this intervening period, then the Shire may infringe the applicant's copyright.

Hence, the Shire's policy stipulates that

*"Where authorisation is provided and plans and a full copy of the supporting information can be uploaded onto the Shire's website for the **duration of the advertising process.**"*

Cr Fisher noted that within the Planning Regulations there is *"no statement that the 'advertising period' is a specified time frame and that Shire has no authority to publish the documents on the website or make available at front counter"*. Importantly, however, the powers of local government do not operate on the basis that it may do anything unless there is an express provision in legislation saying it cannot.

A local government's ability to publish an applicant's copyrighted documents is necessarily limited to the purpose for which the legislative authority to do so is given. In this case, the purpose is to enable the public to make submissions. Once the submission period ends, so too does the purpose for which copyrighted documents have been published on the Shire's website.

POLICY IMPLICATIONS

While the matter raised by Cr Fisher relates to a specific element of the policy, it would not be efficient use of Shire resources to consider one modification to the policy without reviewing the policy in its entirety.

Enacting the motion would result in a full review of the policy.

FINANCIAL IMPLICATIONS

To date, legal costs of \$7831 have been incurred to inform responses to enquiries and this report.

Should Council agree to undertake a review of the policy, resources would need to be redirected away from other work priorities, including those of higher strategic importance.

STRATEGIC IMPLICATIONS

Mundaring 2026 Strategic Community Plan

Priority 1 - Governance

Objective 1.2 – Transparent, responsive and engaged processes for Shire decision making

Strategy 1.2.1 – Increase transparency and responsiveness of Shire administration processes

SUSTAINABILITY IMPLICATIONS

Nil

RISK IMPLICATIONS

Risk: Reputational – Community perception may be that the Shire, by not enacting a review at this time, is not concerned with improving processes or communication options.		
Likelihood	Consequence	Rating
Unlikely	Insignificant	Low
Action / Strategy		
Sharing the justifications contained within this report with interested parties and continuing to monitor the performance of the Policy is recommended.		

EXTERNAL CONSULTATION

Advertising modifications to the policy would follow the process determined by the Regulations and the existing policy.

COMMENT

In relation to the specific changes raised to allow for information to be available beyond the advertising process, there are also operational considerations. It is the Shire's practice to remove material from the website on the completion of advertising. As described above, this approach avoids potential copyright infringements but also ensures a clear timeframe for public comment. This approach also ensures that all proponents are subject to a consistent and fair process. This practice avoids raising a community expectation that late submissions will be considered.

Further, supporting material and / or reports are often refined and negotiated during the planning assessment. Hence, the original documentation posted on the web can become out of date. If out of date reports remain on the website it could exacerbate misunderstandings when the matter comes before Council.

In relation to a broader review of the policy, capacity is not available at the present time to undertake a full policy review without foregoing other important statutory obligations.

Should Council form the view that a review is warranted, the earliest it could be initiated is later in 2019, noting this will have an impact on the delivery of other strategic initiatives.

VOTING REQUIREMENT

Simple Majority

MOTION

That Council requests a review of Policy PS-01 Advertising Planning Applications be undertaken in an effort to enhance the provision of public information about planning proposals and the understanding about how community and business priorities can be addressed.

COUNCIL DECISION MOTION		C12.04.19	
Moved by	Cr Fisher	Seconded by	Cr Green

That:

1. Council requests a review of Policy PS-01 Advertising Planning Applications be presented to Council by February 2020 and that this review includes:
 - i. Amendment to enhance the provision of public information about planning proposals to cover the period between the end of the advertising period and the release of the agenda papers for the Council meeting at which the planning proposal is to be determined; and
 - ii. Amendment to guide Council in the application of discretionary powers to accept late public submissions; and
2. Until the Policy PS-01 is reviewed, officers request applicants of planning proposals to agree to an extension of the provision of public information about planning proposals to cover the period between the end of the advertising period and the release of the agenda papers for the Council meeting at which the planning proposal is to be determined.

CARRIED 6/4

For: Cr Daw, Cr Driver, Cr Fisher, Cr Jeans, Cr Green and Cr Brennan

Against: Cr Fox, Cr Burbidge, Cr Jones and Cr Lavelll

During debate on this item the following procedural motion was noted:

COUNCIL DECISION MOTION		C13.04.19	
Moved by	Cr Driver	Seconded by	Cr Lavelll

That Cr Fisher be granted additional time to speak to this item, in accordance with *Shire of Mundaring Meetings Procedure Local Law 2015*, clause 6.11.

CARRIED 10/0

For: Cr Daw, Cr Driver, Cr Fox, Cr Burbidge, Cr Fisher, Cr Jeans, Cr Jones, Cr Lavell, Cr Green and Cr Brennan

Against: Nil

10.6 Statement of Financial Activity for period ended 28 February 2019

File Code	FI.RPT 2
Author	Stan Kocian, Acting Director Corporate Services
Senior Employee	Jonathan Throssell, Chief Executive Officer
Disclosure of Any Interest	Nil
Attachments	1. Statement of Financial Activity for period ending 28 February 2019 ↓

SUMMARY

The monthly Statement of Financial Activity discloses the Shire's financial position as at 28 February 2019.

The closing budget position as at 28 February 2019 is a surplus of \$20,494,305 compared to a budgeted year to date surplus of \$14,728,427. The budgeted year end surplus is \$1,637,504 as per the original budget adopted by Council (C10.06.18). The mid-year budget review subsequently amended the forecast budget year end surplus to \$1,690,472 (C8.03.19)

BACKGROUND

The monthly financial report is presented in accordance with the *Local Government Act 1995* and the *Local Government (Financial Management) Regulations 1996*.

A statement of financial activity and any accompanying documents are to be presented to the Council at an ordinary meeting of the Council within two months after the end of the month to which the statement relates.

The Statement of Financial Activity Report summarises the Shire's operating activities and non-operating activities.

STATUTORY / LEGAL IMPLICATIONS

Regulation 34(1) of the *Local Government (Financial Management) Regulations 1996* requires a local government to prepare each month a statement of financial activity.

Regulation 34(2) requires the statement of financial activity to report on the sources and applications of funds, as set out in the annual budget.

POLICY IMPLICATIONS

Nil

FINANCIAL IMPLICATIONS

Financial implications are in accordance with the approved reporting material variances (C15.06.18) of:

- (+) or (-) \$50,000 or 10%, whichever is the greater for Revenue

- (+) or (-) \$100,000 or 10%, whichever is the greater for Expenses within the monthly Statement of Financial Activity during the 2018/19 financial year.

STRATEGIC IMPLICATIONS

Mundaring 2026 Strategic Community Plan

Priority 1 - Governance

Objective 1.1 – A fiscally responsible Shire that prioritises spending appropriately

Strategy 1.1.4 – Practice effective governance and financial risk management

SUSTAINABILITY IMPLICATIONS

Nil

RISK IMPLICATIONS

Risk: Financial performance is not monitored against approved budget		
Likelihood	Consequence	Rating
Possible	Minor	Moderate
Action / Strategy		
The monthly financial report tracks the Shire's actual financial performance against its budgeted financial performance to ensure that the Council is able to monitor to Shire's financial performance throughout the financial year.		

EXTERNAL CONSULTATION

Nil

COMMENT

The reports that accompany this item are as follows:

- Statement of Financial Activity (based on the Rate Setting Statement adopted in the annual budget) for the period ending 28 February 2019;
- The closing budget position for the period ending 28 February 2019 and comparison to the year to date budget and same period last year;
- A graphical representation of the year to date comparison to budget for operating revenue, operating expenses and capital expenses;
- An explanation of the material variances in the Statement of Financial Activity; and
- Summary of Cash Investments with financial institutions as at 28 February 2019.

In relation to the material variances, "timing" differences are due to the monthly spread of the budget not matching the actual spread of revenue or expenditure. Timing differences will not result in a forecast adjustment.

Where the material variance is flagged as "permanent" this indicates that a forecast adjustment to the annual budget is required or has been made.

The Shire has a surplus of \$20,494,305 as at 28 February 2019, compared to a budgeted year to date surplus of \$14,728,427. The cash balance in the Municipal Fund is \$18,314,740.

VOTING REQUIREMENT

Simple Majority

COUNCIL DECISION MOTION	C34.04.19
Moved by	Cr Brennan
Seconded by	Cr Jeans

That Item 10.6 and Item 10.7 be carried by en-bloc Council Decision.

CARRIED 10/0

For: Cr Daw, Cr Driver, Cr Fox, Cr Burbidge, Cr Fisher, Cr Jeans, Cr Jones, Cr Lavell, Cr Green and Cr Brennan

Against: Nil

COUNCIL DECISION RECOMMENDATION	C14.04.19
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That Council notes:

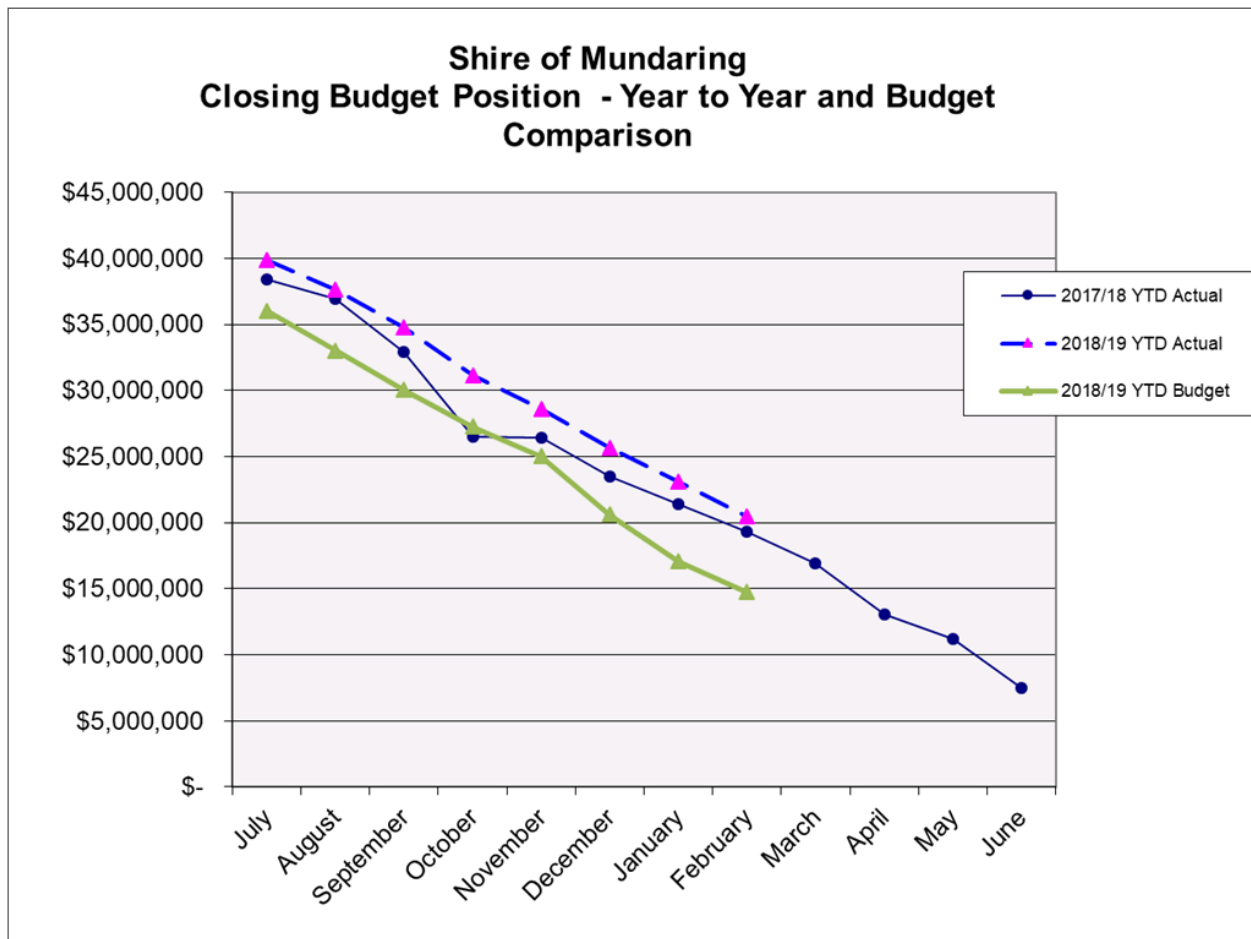
1. the closing position of the Shire for the period ending 28 February 2019 is a surplus of \$20,494,305 compared to the year to date budgeted surplus of \$14,728,427; and
2. the explanation of material variances in the Statement of Financial Activity contained in **Attachment 1**.

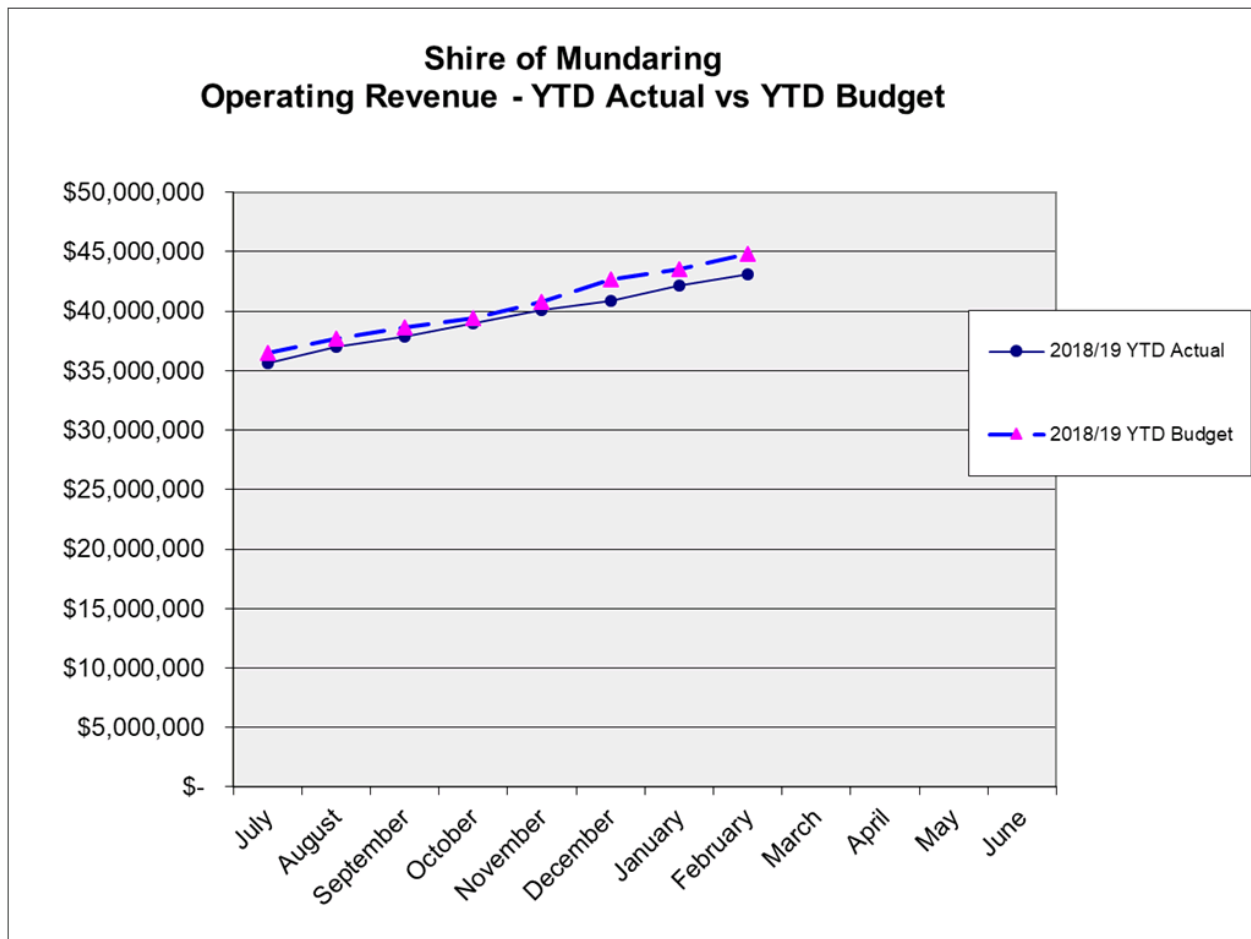
CARRIED BY EN-BOC COUNCIL DECISION C14.04.19

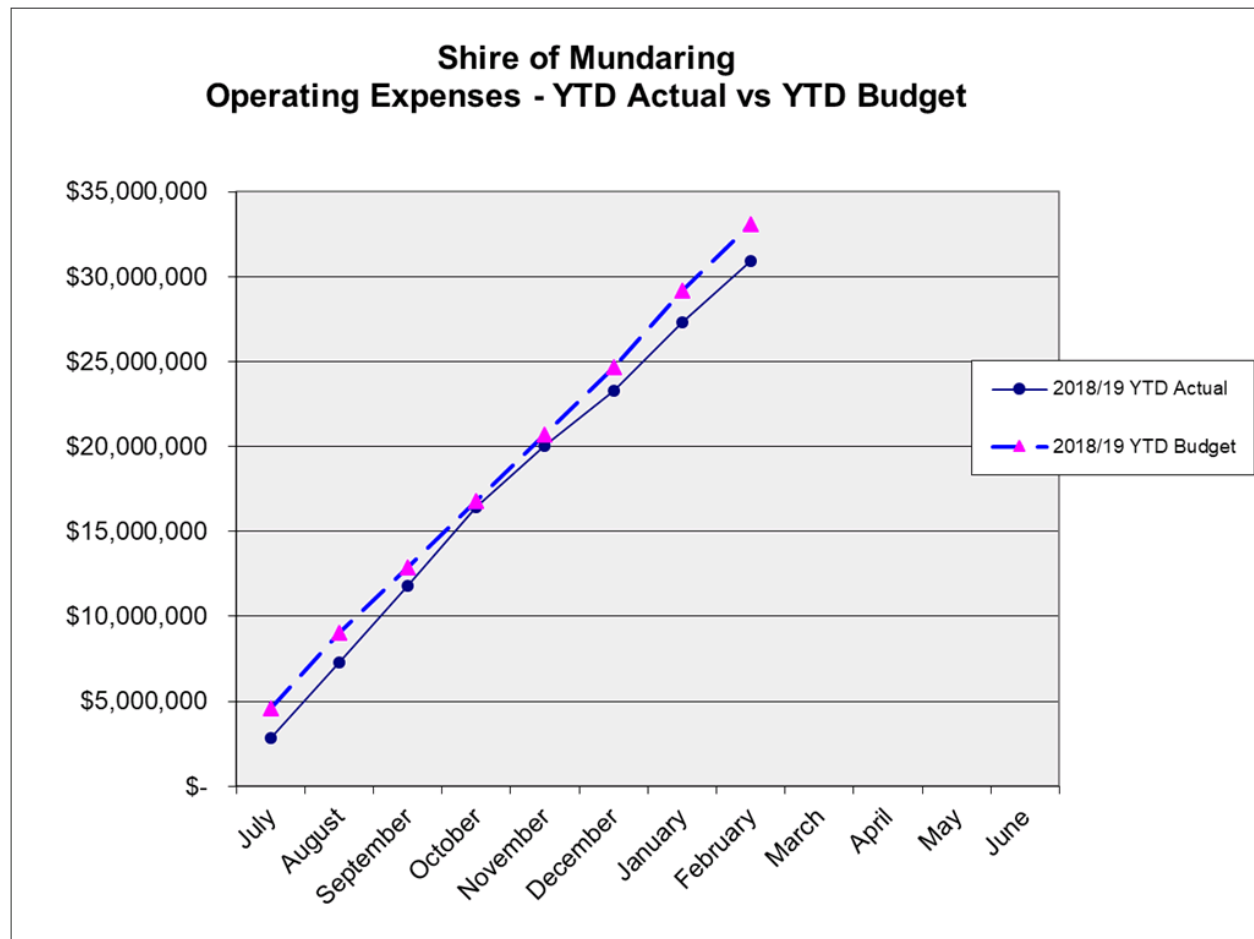
Shire of Mundaring
Statement of Financial Activity
for period ending 28 February 2019

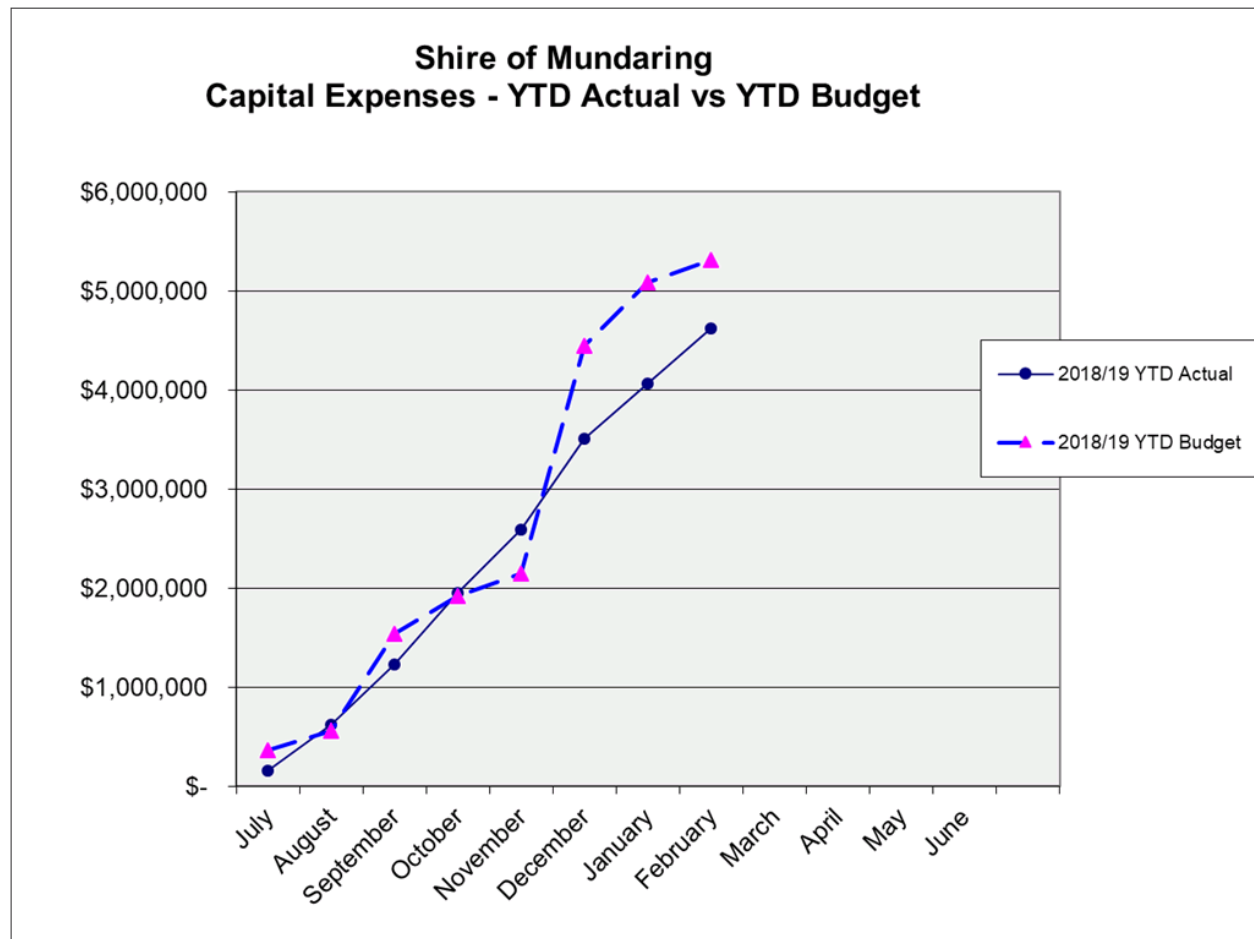
	2018/19 YTD Budget	2018/19 YTD Actuals	2018/19 BUDGET	2018/19 REVISED BUDGET	YTD Variance	YTD Variance
	\$	\$	\$		\$	%
Opening Funding Surplus/(Deficit)	3,859,575	7,301,336	3,859,575	7,301,336	3,441,761	89.2%
Revenue from operating activities						
General Purpose Funding - Rates	28,113,586	27,237,022	28,160,287	28,180,526	(876,564)	-3.1%
General Purpose Funding - Other	2,249,530	1,641,565	3,127,042	2,430,124	(607,965)	-27.0%
Governance	189,969	114,944	242,345	193,378	(75,025)	-39.5%
Law, Order & Public Safety	340,343	366,686	469,200	458,241	26,343	7.7%
Health	43,792	69,386	55,700	64,700	25,594	58.4%
Education & Welfare	3,190,975	4,173,323	4,837,010	4,837,369	982,348	30.8%
Community Amenities	8,032,294	7,958,167	8,193,183	8,105,491	(74,127)	-0.9%
Recreation and Culture	947,253	980,146	2,179,070	2,176,114	32,893	3.5%
Transport	319,239	60,741	657,101	563,296	(258,498)	-81.0%
Economic Services	221,456	192,123	332,185	267,185	(29,333)	-13.2%
Other Property and Services	1,182,174	339,105	1,342,400	619,559	(843,069)	-71.3%
Total	44,830,611	43,133,208	49,595,523	47,895,983		
Expenditure from operating activities						
General Purpose Funding	(434,504)	(446,341)	(650,773)	(644,773)	11,837	-2.7%
Governance	(3,429,689)	(2,859,376)	(4,959,036)	(5,088,444)	(570,313)	16.6%
Law, Order & Public Safety	(1,696,436)	(1,620,152)	(2,483,616)	(2,525,941)	(76,284)	4.5%
Health	(477,642)	(455,511)	(690,177)	(705,721)	(22,131)	4.6%
Education & Welfare	(4,414,708)	(4,648,454)	(6,467,843)	(6,401,104)	233,746	-5.3%
Community Amenities	(6,468,309)	(5,587,018)	(9,743,248)	(9,690,674)	(881,291)	13.6%
Recreation and Culture	(6,790,289)	(6,999,325)	(10,333,111)	(10,618,013)	209,036	-3.1%
Transport	(7,424,767)	(7,313,143)	(11,356,639)	(11,336,888)	(111,624)	1.5%
Economic Services	(546,542)	(495,740)	(793,651)	(785,863)	(50,802)	9.3%
Other Property and Services	(1,369,096)	(491,667)	(1,726,895)	(1,745,080)	(877,429)	64.1%
Total	(33,051,982)	(30,916,725)	(49,204,989)	(49,542,501)		
Operating activities excluded from rate setting						
Depreciation on Assets	4,698,736	4,873,361	7,048,166	7,214,820	(174,625)	-3.7%
(Profit)/Loss on Disposal of Assets	(882,092)	3,096	(1,724,461)	(944,341)	(885,188)	100.4%
Deferred Rates Adjustment	0	28,887	0	0	(28,887)	0.0%
Amount attributable to operating activities	15,595,273	17,121,827	5,714,239	4,623,961		
Investing Activities						
Proceeds from Disposal of Assets	2,056,360	405,131	3,291,831	2,542,769	(1,651,229)	-80.3%
Grants and Contributions	869,764	935,567	1,928,858	1,561,425	65,803	7.6%
Purchase Property, Plant & Equipment	(2,146,978)	(1,364,711)	(2,503,142)	(2,797,617)	(782,267)	36.4%
Purchase Infrastructure	(3,160,119)	(3,255,625)	(5,139,138)	(7,360,502)	95,506	-3.0%
Amount attributable to investing activities	(2,380,973)	(3,279,638)	(2,421,591)	(6,053,925)		
Financing Activities						
Repayment of Debentures	(403,552)	(400,315)	(605,330)	(605,330)	(3,237)	0.8%
Transfers from Reserves	168,328	20,832	1,806,760	2,456,579	(147,496)	-87.6%
Transfers to Reserves	(2,110,224)	(269,737)	(6,716,149)	(6,032,149)	(1,840,487)	87.2%
Amount attributable to financing activities	(2,345,448)	(649,220)	(5,514,719)	(4,180,900)		
Closing Funding Surplus/(Deficit)	14,728,427	20,494,305	1,637,504	1,690,472		

NET CURRENT ASSETS- BUDGET SURPLUS/(DEFICIT)		
	Actual 28 February 2018	Actual 28 February 2019
CURRENT ASSETS		
Rates & Sanitation Debtors	6,654,905	7,020,278
Debtors	338,712	440,802
TOTAL RECEIVABLES - CURRENT	6,993,617	7,461,080
STOCK ON HAND	97,143	93,986
CASH ASSETS		
Municipal	17,625,837	18,314,740
Restricted Cash	17,377,233	19,469,909
Total Bank Accounts	35,003,071	37,784,649
TOTAL CURRENT ASSETS	42,093,831	45,339,715
CURRENT LIABILITIES		
Creditors	(2,094,344)	(2,094,979)
Borrowings - Current Portion	(577,065)	(605,330)
Provisions	(3,278,611)	(3,280,522)
	(5,950,020)	(5,980,831)
NET CURRENT ASSETS	36,143,811	39,358,884
Less Reserve Funds	(17,377,233)	(19,469,909)
Add Current Loan Liability	577,065	605,330
CLOSING BUDGET SURPLUS/(DEFICIT)	19,343,643	20,494,305









Explanation of Material Variances				
The material variance thresholds are adopted annually by Council as an indicator of whether the actual expenditure or revenue varies from the year to date budget materially.				
The material variance for revenue adopted by Council for the 2018/19 year is \$50,000 or 10% whichever is the greater.				
The material variance for expenses adopted by Council for the 2018/19 year is \$100,000 or 10% whichever is the greater.				
Reporting Program	Var. \$	Var. %	Timing/ Permanent	Explanation of Variance
Opening Funding Surplus/(Deficit)	3,441,761	89%	Permanent	1) The advance payment by the Western Australian Local Government Grants Commission (WALGGC) of 50% of the Shire's 2018/19 allocation for the General Purpose Grant and united Roads Grant. An amount of \$1,221,161 was received on 22 June 2018. Whilst this amount increases the Shire's closing budget surplus for 2017/18, the revenue the Shire budgeted to receive in 2018/19 will according be reduced by this amount (the full amount was budgeted to be received in 2018/19). This was a forecast adjustment in the mid-year budget review for 2018-19. 2) A difference of \$1,583,761 between what was forecast (\$7,395,071) to be spent on infrastructure capital projects in 2017/18 and what was actually (\$5,811,310) spent on these projects. The unspent amount on these incomplete projects carried over to 2018/19 was a forecast adjustment in terms of unbudgeted expenditure in the mid-year budget review for 2018/19.
Revenue from operating activities				
General Purpose Funding - Rates	(876,564)	(3.1%)	Timing	Impact of rates of \$976,316 received in advance as at 30/6/2018. Impact will self adjust when 30/6/2019 rates are finalised i.e. when rates received in advance for 18/19 are accounted for.
General Purpose Funding - Other	(607,965)	(27.0%)	Permanent	Impact of receiving 50% of 2018/19 allocation of FAGs from Grant Commission as an advance payment in June 2018. Off-set by point 1 above under "Opening Funding Surplus/(Deficit)". Forecast adjusted in mid-year review.
Governance	(75,025)	(39.5%)	Timing	Reimbursement of Long Service Leave Liability from other local governments - impact \$18,561. Sundry income \$19,196 less than YTD budget. Forecast reduced by \$15,000 in mid-year budget review.
Law, Order & Public Safety	26,343	7.7%		Within Variance threshold
Health	25,594	58.4%	Permanent	Income from health fees and charges is greater than anticipated. Forecast adjusted by \$9000 in mid-year budget review.
Education & Welfare	982,348	30.8%	Timing	Timing of grant funding for Children Services Middle Swan - impact \$126,636. Timing of child care benefit subsidies - impact \$613,410. Fees and Charges Midvale Childcare Centre - Impact \$118,562. Grant Funding Midvale Hub - Impact \$41,554.
Community Amenities	(74,127)	(0.9%)	Permanent	Town Planning fees and charges income \$53,252 less than YTD budget. Year end forecast reduced by \$72,000 in mid-year budget review.
Recreation and Culture	32,893	3.5%		Within Variance threshold
Transport	(258,498)	(81.0%)	Permanent	Contributions Income for Parks - Impact \$294,000. Year end forecast reduced by \$203,709 in mid-year budget review.
Economic Services	(29,333)	(13.2%)		Within Variance threshold
Other Property and Services	(843,069)	(71.3%)	Permanent	Land Sales have not occurred as budgeted for YTD therefore there has no profit on sale recognised. Impact \$860,000. There is also a decrease of \$725,000 in the mid-year budget review forecast revenue from profit on the disposal of assets. This reflects updated valuations that have been undertaken on Shire land that is currently on the market for sale.

Expenditure from operating activities				
General Purpose Funding	11,837	(2.7%)		Within Variance threshold
Governance	(570,313)	16.6%	Timing	YTD IT operating costs being \$244,654 less than YTD budget. No permanent saving identified. YTD Budget of \$40,000 for internal audits has not been spent. YTD expenditure for organisational training is \$26,156 less than YTD budget. YTD expenditure for maintenance and operating costs for administration building are \$42,693 less than YTD budget. No Saving identified. YTD salaries in Finance \$53,783 less than budget - due to full-time positions currently filled part-time.
Law, Order & Public Safety	(76,284)	4.5%		Within Variance threshold
Health	(22,131)	4.6%		Within Variance threshold
Education & Welfare	233,746	(5.3%)	Timing	Childcare Care Giver Subsidy Expenses - Impact \$592,605. Offset by corresponding revenue.
Community Amenities	(881,291)	13.6%	Permanent	Various YTD expenses for waste management \$769,403 less than YTD budget - primarily due to timing of contractor invoices. There has also been lower than anticipated volumes relating to bulk collection and disposal to Redhill resulting in a reduction of \$101,000 to the year end forecast for expenses in the mid-year budget review.
Recreation and Culture	209,036	(3.1%)	Permanent	Mundaring Art Centre Grant was inadvertently budgeted to be paid over a period of 12 months. The Grant was paid in one instalment in July - Impact \$52,767. YTD expenses on maintenance of parks, gardens and reserves - impact \$112,187. Budgeted Depreciation on Buildings under estimated - impact \$154,950. Year end forecast adjusted by \$165,950 in mid-year budget review. A forecast saving of \$89,700 in expenses relating to the delivery of the Shire's Youth services. This reflects Council's decision in June to change the service delivery model.
Transport	(111,624)	1.5%		Verge weed spraying is \$96,148 less than YTD budget.
Economic Services	(50,802)	9.3%		Within Variance threshold
Other Property and Services	(877,429)	64.1%	Timing	Impact of the pre-allocation of engineering overheads - Impact \$837,887.

Operating activities excluded from rate setting				
Depreciation on Assets	(174,625)	(3.7%)	Permanent	Budgeted Depreciation on Buildings under estimated - impact \$154,746. Year end forecast adjusted by \$165,950 in mid-year budget review.
(Profit)/Loss on Disposal of Assets	(885,188)	100.4%	Permanent	Land Sales have not occurred as budgeted for YTD therefore there has no profit on sale recognised. Impact \$860,000. There was also a decrease of \$725,000 in the mid-year budget review forecast revenue from profit on the disposal of assets. This reflects updated valuations that have been undertaken on Shire land that is currently on the market for sale.
Investing Activities				
Proceeds from Disposal of Assets	(1,651,229)	(80.3%)	Permanent	Land Sales have not occurred as budgeted for YTD therefore there are no proceeds from sale recognised. Impact \$1.5 million. There was also a decrease of \$725,000 in the mid-year budget review forecast proceeds from land sales. This reflects updated valuations that have been undertaken on Shire land that is currently on the market for sale.
Grants and Contributions	65,803	7.6%	Permanent	\$97,567 in additional State Government Road Funding was received that was not anticipated in the budget. Year end forecast was adjusted accordingly in the mid-year budget review.
Purchase Property, Plant & Equipment	(782,267)	36.4%	Permanent	Actual YTD costs associated with plant and vehicle replacement are less than the YTD budget due to the timing of purchasing (no savings). Impact \$467,609. A forecast reduction of \$632,000 in funding and purchase of replacement of Bush Fire Brigade Vehicles as the Department of Fire and Emergency Services (DFES) program for replacing vehicles has been delayed
Purchase Infrastructure	95,506	(3.0%)		Within Variance threshold. It should be noted that there are unbudgeted carry overs for incomplete works in 17/18, which formed part of the forecast adjustment in the mid-year budget review.
Financing Activities				
Repayment of Debentures	(3,237)	0.8%		Within Variance threshold
Transfers from Reserves	(147,496)	(87.6%)	Timing	YTD transfers from LSL Reserve less than YTD Budget.
Transfers to Reserves	(1,840,487)	87.2%	Permanent	Land Sales have not occurred as budgeted for YTD therefore there are no proceeds from sale to transfer to the Capital Investment Reserve. Impact \$1.5 million. Within the mid-year budget review there was a forecast decrease of \$725,000 in transfers to the Capital Investment Reserve. The proceeds from land sales are transferred into this reserve and this reduction reflects updated valuations that have been undertaken on Shire land that is currently on the market for sale.

SHIRE OF MUNDARING
INVESTMENT SUMMARY as at 28 February 2019

MUNICIPAL FUNDS

		Amount Invested	Interest Rate	Period of Investment	Investment Date	Maturity Date
<u>Unrestricted Use Funds</u>						
1	Bendigo Investment Account (on Call)	4,015,664	1.40%	N/A	N/A	N/A
129	NAB	2,624,950	2.66%	272 days	21-Aug-18	20-May-19
132	Suncorp Bank	5,139,784	2.65%	180 days	10-Oct-18	8-Apr-19
136	BankWest	3,000,000	2.75%	271 days	29-Aug-18	27-May-19
140	Bendigo	1,519,233	2.60%	273 days	26-Feb-19	26-Nov-19
Total		17,799,630				

RESERVE FUNDS

2	Bendigo Investment Account (on Call)	3,184,976	1.40%	N/A	N/A	N/A
60A	Bendigo	1,459,710	2.70%	365 days	25-Sep-18	25-Sep-19
107	ANZ	2,445,779	2.45%	365 days	30-Jul-18	30-Jul-19
108	ANZ	1,846,923	2.35%	365 days	17-Jan-19	17-Jan-20
127	NAB	3,744,144	2.75%	367 days	9-Nov-18	11-Nov-19
128	Westpac	4,788,376	2.60%	182 days	19-Oct-18	19-Apr-19
141	BankWest	2,000,000	2.75%	272 days	5-Sep-18	4-Jun-19
Total		19,469,908.82				

TOTAL MUNI / RESERVE INVESTMENTS **\$37,269,539**

TRUST FUNDS

Road Construction/POS Funds

3	Bendigo Investment Account (on Call)	\$1,311,554	1.40%	N/A	N/A	N/A
58	BankWest	\$1,497,286	2.50%	270 days	25-Feb-19	22-Nov-19
98	BankWest	\$1,283,545	2.80%	273 days	1-Aug-18	1-May-19
99	BankWest	\$1,293,036	2.72%	273 days	31-Oct-18	31-Jul-19
TOTAL TRUST INVESTMENTS		5,385,420.38				

10.7 List of Payments made during February 2019

File Code	FI.RPT 1
Author	Andrea Douglas, PA to Director Corporate Services
Senior Employee	Stan Kocian, Acting Director Corporate Services
Disclosure of Any Interest	Nil
Attachments	1. Payments Between Meetings February 2019 ↓

SUMMARY

A list of accounts paid from the Municipal Fund or Trust Fund under the Chief Executive Officer's delegated authority for the month of February 2019 is presented to Council for noting.

BACKGROUND

Council has delegated to the Chief Executive Officer (CEO) the exercise of its power to make payments from the Shire's Municipal and Trust Funds. In accordance with Regulation 13 of the *Local Government (Financial Management) Regulations 1996*, a list of accounts paid is to be presented to Council and be recorded in the minutes of the meeting at which the list was presented.

STATUTORY / LEGAL IMPLICATIONS

Regulation 13 of the Local Government (Financial Management) Regulations 1996 stipulates the requirements for presenting to Council the monthly list of accounts paid.

POLICY IMPLICATIONS

AS-04 Purchasing Policy

FINANCIAL IMPLICATIONS

All payments have been made in accordance with the approved budget and provide for the effective and timely payment of the Shire's contractors and other creditors.

STRATEGIC IMPLICATIONS

Mundaring 2026 Strategic Community Plan

Priority 1 - Governance

Objective 1.1 – A fiscally responsible Shire that prioritises spending appropriately

Strategy 1.1.1 – Prudently consider resource allocation

SUSTAINABILITY IMPLICATIONS

Expenditure has been incurred in accordance with budget parameters, which have been structured on financial viability and sustainability principles.

RISK IMPLICATIONS

Risk: Payments are not monitored against approved budget and delegation.		
Likelihood	Consequence	Rating
Possible	Minor	Moderate
Action / Strategy		
The monthly list of payments provides an open and transparent record of payments made under the CEO's approved delegation.		

EXTERNAL CONSULTATION

Nil

COMMENT

Nil

VOTING REQUIREMENT

Simple Majority

COUNCIL DECISION RECOMMENDATION	C15.04.19
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That Council notes the list of payments made during February 2019 (**Attachment 1**).

CARRIED BY EN-BOC COUNCIL DECISION C15.04.19

PAYMENTS BETWEEN MEETINGS

In compliance with *Regulation 13 of the Local Government (Financial Management) Regulations 1996* (as amended) a list of accounts paid since the last such list was prepared is to be presented to the next Ordinary Meeting of Council and included in the minutes of that meeting.

The attached schedule of accounts paid is for the period made during February 2019 totalling \$ **3,671,873.21** be received by Council covers:

- Municipal Cheques 200289 – 200298;
- Electronic Funds Transfers; and
- Trust Fund Cheques 400581 – 400592

Schedule of Accounts:

	Amounts \$	Total \$
MUNICIPAL ACCOUNT		
MUNICIPAL CHEQUE PAYMENTS	16,511.55	
EFT PAYMENTS	2,570,104.82	
EFT PAYROLL PAYMENTS	968,638.23	
NATIONAL AUSTRALIA BANK (NAB PURCHASE CARD)	20,033.94	
FLEETCARE FUEL PAYMENTS	4,310.48	
COMMONWEALTH BANK BPOINT FEES	3,439.18	
BENDIGO MERCHANT BANK FEES	6,211.12	
BENDIGO DIRECT DEBIT FEES	472.02	
HP FINANCIAL SERVICES - EQUIPMENT LEASE	24,379.30	
KONICA MINOLTA – EQUIPMENT LEASE	152.66	
KONICA MINOLTA – PRINTER LEASE	3,267.00	
EZIDEBIT BANK FEES	176.88	
PUMA FUEL	94.85	
GENERAL PROCEDURE CLAIM FEES	21,210.40	
TOTAL MUNICIPAL ACCOUNT		3,639,002.43
TRUST ACCOUNT		32,870.78
TOTAL ALL SCHEDULES		3,671,873.21

hire of Mundaring - Municipal Fund	Account : 633-000 158416347				
heque Details					
s T A Sheridan & Mr J Westall	00200289	14/02/2019	RATES REFUND		\$121.18
	REFUND	14/02/2019	RATES REFUND	\$121.18	
hire of Mundaring	00200290	19/02/2019	REIMBURSEMENT OF PETTY CASH - BROWN PARK		\$179.05
	PETTY CASH	18/02/2019	REIMBURSEMENT OF PETTY CASH - BROWN PARK	\$179.05	
hire of Mundaring	00200291	19/02/2019	TRADE IN OF P4761 - 810 MDG		\$13,552.00
	TRADE IN	15/02/2019	TRADE IN OF P4761 - 810 MDG	\$13,552.00	
rs L M Woodley	00200292	19/02/2019	CROSSOVER CONTRIBUTION		\$188.33
	XOVER	19/02/2019	CROSSOVER CONTRIBUTION	\$188.33	
rs P M Trew	00200293	19/02/2019	CROSSOVER CONTRIBUTION		\$188.33
	XOVER	19/02/2019	CROSSOVER CONTRIBUTION	\$188.33	
r GD Dransfield	00200294	19/02/2019	CROSSOVER CONTRIBUTION		\$188.33
	XOVER	19/02/2019	CROSSOVER CONTRIBUTION	\$188.33	
r B & Mrs J T Hunter	00200295	19/02/2019	RATES REFUND		\$225.68
	REFUND	19/02/2019	RATES REFUND	\$225.68	
hire of Mundaring	00200296	27/02/2019	REIMBURSEMENT OF PETTY CASH - DEPOT		\$932.65
	PETTY CASH	25/02/2019	REIMBURSEMENT OF PETTY CASH - DEPOT	\$331.35	
	PETTY CASH	25/02/2019	REIMBURSEMENT OF PETTY CASH - ADMIN	\$601.30	
linta Energy	00200297	27/02/2019	GAS		\$272.25
	5346461905	25/02/2019	GAS	\$47.10	
	1563279509	25/02/2019	GAS	\$225.15	
s JC Gentile	00200298	28/02/2019	RATES REFUND		\$663.75
	REFUND	28/02/2019	RATES REFUND	\$663.75	
			Total Confirmation Cheques		\$16,511.55
Electronic Funds Transfer					
ichael Page International (Australia) Pty Ltd	2216.10416-01	04/02/2019	TEMP STAFF		\$2,783.64
	292323	01/02/2019	TEMP STAFF - FINANCE	\$1,334.52	
	292322	01/02/2019	TEMP STAFF - FINANCE	\$1,449.12	
apital Recycling	2216.10912-01	04/02/2019	GRAVEL		\$1,337.16
	CSD9471-J05629	21/01/2019	SUPPLY AND DELIVERY OF BASE COURSE GRAVEL	\$1,337.16	
itech (WA) Pty Ltd	2216.10973-01	04/02/2019	REPAIRS		\$873.51
	19514	21/01/2019	REPAIRS TO LOADRITE ON 020 MDG	\$873.51	
elstra SNP Monitoring Pty Ltd	2216.11017-01	04/02/2019	SECURITY MAINTENANCE		\$286.00
	SP109194	15/01/2019	REPAIRS TO ALARM	\$286.00	
ontline Fire & Rescue Equipment	2216.11135-01	04/02/2019	EQUIPMENT PURCHASES		\$3,484.80
	62815	15/01/2019	EQUIPMENT PURCHASES	\$1,742.40	
	62814	15/01/2019	EQUIPMENT PURCHASES	\$1,742.40	
arning Seat Pty Ltd	2216.11326-01	04/02/2019	SUBSCRIPTIONS		\$1,405.82
	19900121	21/01/2019	SUBSCRIPTIONS	\$1,405.82	
wan Valley Fresh (Vendor Management Solutions PtyLtd T/A)	2216.11474-01	04/02/2019	KIOSK SUPPLIES		\$231.82
	00022077	01/02/2019	KIOSK SUPPLIES	\$231.82	
eris Australia Pty Ltd	2216.11648-01	04/02/2019	SURVEY SERVICES		\$1,111.00
	V1013286	01/02/2019	SURVEY SET OUT	\$1,111.00	

ug Shots	2216.11900-01	04/02/2019	NAME BADGES		\$72.00
	00000880	01/02/2019	NAME BADGES		
undaring Smash Repairs (WA Panel Works Pty Ltd T/A)	2216.11921-01	04/02/2019	TOWING AND REPAIRS		\$1,245.20
	64611	10/01/2019	TOWING		\$176.00
	64642	16/01/2019	VEHICLE REPAIRS		\$1,069.20
ecruitwest Pty Ltd	2216.12078-01	04/02/2019	TEMP STAFF		\$9,174.36
	C INV 496633	01/02/2019	TEMP STAFF - DEPOT		\$9,174.36
A School Canteen Suppliers	2216.12183-01	04/02/2019	KIOSK SUPPLIES		\$1,122.78
	00005201	11/01/2019	KIOSK SUPPLIES		\$599.82
	00005205	24/01/2019	KIOSK SUPPLIES		\$522.96
iobean Coffee Pty Ltd	2216.12185-01	04/02/2019	KIOSK SUPPLIES		\$371.37
	00008451	17/01/2019	KIOSK SUPPLIES		\$371.37
re Artisan Mundaring	2216.12363-01	04/02/2019	KIOSK SUPPLIES		\$70.54
	79	25/01/2019	KIOSK SUPPLIES		\$37.58
	80	25/01/2019	KIOSK SUPPLIES		\$32.96
DM Plumbing and Gas	2216.12422-01	04/02/2019	PLUMBING		\$1,266.27
	582	25/01/2019	REPAIRS TO CAFE DISHWASHER AT LAKE		\$191.02
	600	01/02/2019	PLUMBING MAINTENANCE AT LAKE LESCHENAUTIA		\$1,075.25
r V Crowe	2216.12579-01	04/02/2019	CLEANING AND GARDENING		\$1,110.00
	1147	01/02/2019	CLEANING		\$210.00
	1148	01/02/2019	GARDENING		\$340.00
	1149	01/02/2019	GARDENING		\$210.00
	1150	01/02/2019	MAINTENANCE		\$350.00
r G J Parsons	2216.12635-01	04/02/2019	HIRE EQUIPMENT		\$1,067.00
	IV00000000115	01/02/2019	HIRE EQUIPMENT CINEMA UNDER STARLIGHT		\$1,067.00
d's Sheds Solutions (DT & TG Edwards Partnership)	2216.12673-01	04/02/2019	CONCRETING		\$3,362.00
	00001532	01/02/2019	CONCRETE WORKS FOR TRUCK BAY AT DEPOT		\$3,362.00
nap Midland (Debandkas Assets Pty Ltd T/A)	2216.12677-01	04/02/2019	PRINTING		\$315.00
	F069-203546	01/02/2019	PRINTING		\$315.00
Social Perth	2216.12736-01	04/02/2019	SOCIAL MEDIA SERVICES		\$390.00
	#003	01/02/2019	SOCIAL MEDIA SERVICES		\$390.00
prayline Spraying Equipment	2216.12751-01	04/02/2019	EQUIPMENT		\$26.00
	21237	24/01/2019	TOOL PURCHASES		\$26.00
BK Plant Hire Pty Ltd	2216.12753-01	04/02/2019	PLANT HIRE		\$1,331.00
	ZJ9379060	17/01/2019	EXCAVATOR HIRE		\$1,331.00
li Turf Maintenance	2216.12759-01	04/02/2019	LAWN TREATMENT		\$440.00
	INV-1716	01/02/2019	LAWN TREATMENT		\$440.00
rackajack Party Hire	2216.1350-01	04/02/2019	EQUIPMENT HIRE		\$209.00
	4403	01/02/2019	HIRE OF TABLES FOR AUSTRALIA DAY BREAKFAST		\$209.00
chweppes Australia Pty Ltd	2216.145-01	04/02/2019	KIOSK SUPPLIES		\$854.85
	0808468837	17/01/2019	KIOSK SUPPLIES		\$277.55
	0808455240	01/02/2019	KIOSK SUPPLIES		\$577.30
astern Hills Saws & Mowers Pty Ltd	2216.146-01	04/02/2019	EQUIPMENT AND REPAIRS		\$411.00
	42521 # 4	24/01/2019	HELMET KITS		\$270.00
	42571 # 10	01/02/2019	PARTS		\$30.00
	42572	01/02/2019	MOWER REPAIRS		\$111.00

Woodwest	2216.1495-01	04/02/2019	CARPENTRY		\$2,013.55
	1901-2	31/01/2019	SUPPLY AND INSTALL NEW DESK	\$2,013.55	
Al A Nappy & Busiclean	2216.1521-01	04/02/2019	GOODS		\$253.00
	INV-9716	09/01/2019	CLEANING CONSUMABLES	\$253.00	
romaco Geodraft	2216.1905-01	04/02/2019	DRAFTING SERVICES		\$860.25
	0381	31/01/2019	ARTWORK AND UPDATE OF VISITOR CENTRE MAP	\$860.25	
astern Region Security	2216.191-01	04/02/2019	SECURITY EXPENSES		\$5,116.94
	00017894	31/01/2019	SECURITY EXPENSES	\$82.50	
	00017895	31/01/2019	SECURITY EXPENSES	\$1,188.00	
	00017892	31/01/2019	SECURITY EXPENSES	\$82.50	
	00017893	31/01/2019	SECURITY EXPENSES	\$352.00	
	00017867	31/01/2019	SECURITY EXPENSES	\$810.21	
	00017868	31/01/2019	SECURITY EXPENSES	\$573.12	
	00017865	31/01/2019	SECURITY EXPENSES	\$358.48	
	00017866	31/01/2019	SECURITY EXPENSES	\$859.42	
	00017863	31/01/2019	SECURITY EXPENSES	\$264.98	
	00017864	31/01/2019	SECURITY EXPENSES	\$545.73	
ovs Parts Pty Ltd	2216.199-01	04/02/2019	PARTS		\$168.42
	1610138342	21/01/2019	PARTS	\$168.42	
tewart & Heaton Clothing Co	2216.2625-01	04/02/2019	UNIFORMS		\$900.79
	SIN-2980123	11/01/2019	UNIFORMS	\$450.91	
	SIN-2979906	11/01/2019	UNIFORMS	\$254.72	
	SIN-2981727	15/01/2019	UNIFORMS	\$195.16	
u Clene Pty Ltd	2216.2737-01	04/02/2019	CLEANING		\$65,870.94
	00009287	31/01/2019	CLEANING	\$883.49	
	00009285	31/01/2019	MONTHLY CLEANING OF SHIRE FACILITIES	\$64,987.45	
ills Seafood Supplies	2216.2741-01	04/02/2019	KIOSK SUPPLIES		\$2,040.92
	60780	31/01/2019	KIOSK SUPPLIES	\$498.24	
	60901	31/01/2019	KIOSK SUPPLIES	\$883.29	
	61192	31/01/2019	KIOSK SUPPLIES	\$659.39	
egenerated Landscapes	2216.2769-01	04/02/2019	WEED CONTROL		\$3,600.00
	1	31/01/2019	WEED CONTROL	\$275.00	
	100	31/01/2019	WEED CONTROL	\$50.00	
	2	31/01/2019	WEED CONTROL	\$525.00	
	3	31/01/2019	WEED CONTROL	\$600.00	
	4	31/01/2019	WEED CONTROL	\$125.00	
	5	31/01/2019	WEED CONTROL	\$150.00	
	6	31/01/2019	WEED CONTROL	\$75.00	
	7	31/01/2019	WEED CONTROL	\$200.00	
	8	31/01/2019	WEED CONTROL	\$125.00	
	9	31/01/2019	WEED CONTROL	\$300.00	
	10	31/01/2019	WEED CONTROL	\$125.00	
	11	31/01/2019	WEED CONTROL	\$250.00	
	12	31/01/2019	WEED CONTROL	\$400.00	
	13	31/01/2019	WEED CONTROL	\$225.00	
	14	31/01/2019	WEED CONTROL	\$25.00	
	15	31/01/2019	WEED CONTROL	\$150.00	
Inc Australia Pty Limited	2216.280-01	04/02/2019	STATIONERY		\$391.26
	9026345404	15/01/2019	STATIONERY	\$218.97	
	9026333493	15/01/2019	STATIONERY	\$2.77	
	9026347403	23/01/2019	STATIONERY	\$169.52	
ivica Pty Ltd	2216.300-01	04/02/2019	FEES		\$2,698.84
	MILG010755	31/01/2019	ANNUAL LICENSES	\$1,052.14	
	3001201900370037	01/02/2019	CIVICA EXCHANGE REGISTRATION	\$548.90	

	3101201900420039	01/02/2019	CIVICA EXCHANGE REGISTRATION	\$548.90	
	3001201900380038	01/02/2019	CIVICA EXCHANGE REGISTRATION	\$548.90	
irfworks WA Pty Ltd	2216.3232-01	04/02/2019	MOWING		\$5,215.02
	4539	31/01/2019	MOWING	\$1,257.25	
	4543	31/01/2019	MOWING	\$1,789.11	
	4532	31/01/2019	MOWING	\$2,168.66	
ourier Australia	2216.375-01	04/02/2019	COURIER SERVICES		\$39.15
	0374	31/01/2019	COURIER COSTS	\$39.15	
onservation Volunteers Australia	2216.3844-01	04/02/2019	WEED CONTROL		\$825.00
	80878	01/02/2019	BLACKBERRY CONTROL ALONG JANE BROOK	\$825.00	
artins Trailer Parts	2216.394-01	04/02/2019	PARTS		\$440.00
	1010769	21/01/2019	PARTS	\$440.00	
own Under Stump Grinding Pty Ltd	2216.3998-01	04/02/2019	STREET TREE MAINTENANCE		\$96.25
	31520	31/01/2019	STREET TREE MAINTENANCE	\$96.25	
erry Environmental Contracting	2216.4386-01	04/02/2019	WEED CONTROL		\$748.00
	2764	24/01/2019	WEED CONTROL	\$748.00	
ardvark Bobcat & Truck Hire	2216.4407-01	04/02/2019	HIRE OF PLANT		\$4,045.64
	#672	01/02/2019	HIRE OF PLANT	\$4,045.64	
exi Staff Pty Ltd	2216.4560-01	04/02/2019	TEMP STAFF		\$1,886.50
	204949	01/02/2019	TEMP STAFF - DEPOT	\$1,886.50	
hidlow Water Carriers	2216.4755-01	04/02/2019	WATER		\$530.00
	13721	25/01/2019	WATER	\$530.00	
ork Clobber	2216.509-01	04/02/2019	WORK CLOTHES		\$247.50
	MI208720	31/01/2019	WORK CLOTHES	\$247.50	
hidlow Growers Mart & Liquor Store	2216.5378-01	04/02/2019	KIOSK SUPPLIES		\$81.17
	DECEMBER 2018	31/01/2019	KIOSK SUPPLIES	\$81.17	
lobal Workwear Investments Pty Ltd T/A Totally Workwear	2216.5558-01	04/02/2019	WORK CLOTHES		\$158.28
	MD41993	06/12/2018	WORK CLOTHES	\$158.28	
undaring Tyre Centre	2216.5669-01	04/02/2019	TYRES & REPAIRS		\$1,060.00
	267	21/01/2019	TYRES & REPAIRS	\$1,060.00	
rs Macs Pty Ltd	2216.5924-01	04/02/2019	KIOSK SUPPLIES		\$912.80
	3908078	21/01/2019	KIOSK SUPPLIES	\$488.55	
	3908547	21/01/2019	KIOSK SUPPLIES	\$424.25	
uel Distributors of Western Australia Pty Ltd	2216.6050-01	04/02/2019	FUEL & OILS		\$17,313.69
	19100350	04/02/2019	FUEL & OILS	\$17,313.69	
idland Rubber Stamps	2216.641-01	04/02/2019	STATIONERY		\$52.70
	00041055	15/01/2019	STATIONERY	\$52.70	
ustralian Training Management	2216.6423-01	04/02/2019	STAFF TRAINING		\$825.00
	2914	23/01/2019	STAFF TRAINING	\$550.00	
	2926	23/01/2019	STAFF TRAINING	\$275.00	
ne Midland Timber Co Pty Ltd	2216.6599-01	04/02/2019	TIMBER		\$125.21
	240267	21/01/2019	TIMBER	\$125.21	
ne Watershed Water Systems	2216.68-01	04/02/2019	RETICULATION PARTS		\$902.79
	10173404	21/01/2019	RETICULATION PARTS	\$47.90	
	10173512	21/01/2019	RETICULATION PARTS	\$140.67	

	10173520	21/01/2019	RETICULATION PARTS	\$79.00	
	10173563	23/01/2019	RETICULATION PARTS	\$53.85	
	10173451	24/01/2019	RETICULATION PARTS	\$215.20	
	10169575	04/02/2019	RETICULATION PARTS	\$366.17	
oss Bobcat & Truck Service	2216.7230-01	04/02/2019	EARTHWORKS		\$6,600.00
	219	24/01/2019	MUNDARING HARDCOURTS - TRENCHING FOR POWER TO MAIN	\$3,300.00	
	119	24/01/2019	MUNDARING ARENA - CLEARING AND LEVELLING OF TRACK	\$3,300.00	
& M Automotive Equipment	2216.7417-01	04/02/2019	SAFETY INSPECTION		\$114.40
	11816/ 21861	01/02/2019	WORKSHOP HOIST SAFETY INSPECTION	\$114.40	
coob's Dingo Service	2216.7426-01	04/02/2019	FOOTPATH SWEEPING		\$2,970.00
	2164	01/02/2019	FOOTPATH SWEEPING	\$2,970.00	
ffair With Flair	2216.7555-01	04/02/2019	EQUIPMENT HIRE		\$506.84
	102	01/02/2019	CHAIR COVERS	\$506.84	
FD Food Services Pty Ltd	2216.7590-01	04/02/2019	KIOSK SUPPLIES		\$2,740.85
	KN589902	11/01/2019	KIOSK SUPPLIES	\$778.20	
	KN632738	17/01/2019	KIOSK SUPPLIES	\$1,962.65	
est Force Plumbing & Gas	2216.7735-01	04/02/2019	PLUMBING		\$1,141.50
	00023804	01/02/2019	PLUMBING	\$621.50	
	00023798	01/02/2019	PLUMBING	\$370.00	
	00023791	01/02/2019	PLUMBING	\$150.00	
BM Landscaping	2216.7820-01	04/02/2019	LANDSCAPING		\$8,354.50
	INV-3784	01/02/2019	HORTICULTURAL WATERING OPERATIONS	\$8,354.50	
hredding Services Pty Ltd	2216.7854-01	04/02/2019	GREENWASTE PROCESSING SERVICES		\$48,729.56
	00001548	24/01/2019	GREENWASTE PROCESSING SERVICES	\$48,729.56	
icoh Finance	2216.7857-01	04/02/2019	RENTAL CHARGES		\$630.30
	143345	01/02/2019	RENTAL CHARGES	\$210.10	
	149022	01/02/2019	RENTAL CHARGES	\$210.10	
	154616	01/02/2019	RENTAL CHARGES	\$210.10	
unnings Group Limited	2216.80-01	04/02/2019	HARDWARE		\$260.12
	2180/01248638	11/01/2019	HARDWARE	\$162.19	
	2180/01588159	23/01/2019	HARDWARE	\$97.93	
lectritech Industries	2216.8037-01	04/02/2019	ELECTRICAL SERVICES		\$452.50
	12320	10/01/2019	TECHNICAL SERVICES - DATA NETWORK	\$279.00	
	12321	10/01/2019	TECHNICAL SERVICES - BOYA LIBRARY	\$173.50	
oyal Life Saving Society Western Australia Inc	2216.810-01	04/02/2019	CERTIFICATES		\$168.30
	87795	04/02/2019	CERTIFICATES	\$168.30	
Fire & Safety	2216.8275-01	04/02/2019	SERVICE MAINTENANCE		\$818.40
	00229850	01/02/2019	MONTHLY FIRE PANEL TESTING AT ADMIN BUILDING	\$147.40	
	00229517	01/02/2019	SERVICE MAINTENANCE	\$671.00	
ankey Plumbing Service	2216.8545-01	04/02/2019	PLUMBING		\$550.00
	4299	01/02/2019	PLUMBING	\$550.00	
rownes Foods Operations Pty Ltd	2216.8611-01	04/02/2019	KIOSK SUPPLIES		\$82.81
	14668626	25/01/2019	KIOSK SUPPLIES	\$82.81	
ortham Tree Services	2216.8769-01	04/02/2019	STREET TREE MAINTENANCE		\$10,144.20
	1951	01/02/2019	STREET TREE MAINTENANCE	\$2,741.20	
	1953	01/02/2019	STREET TREE MAINTENANCE	\$2,305.60	
	1950	01/02/2019	STREET TREE MAINTENANCE	\$2,545.40	
	1943	01/02/2019	STREET TREE MAINTENANCE	\$2,552.00	

the Cookie Barrel	2216.9463-01	04/02/2019	KIOSK SUPPLIES		\$350.96
	00376034	01/02/2019	KIOSK SUPPLIES	\$350.96	
rice Pest Management	2216.9596-01	04/02/2019	PEST CONTROL		\$242.00
	02881	25/01/2019	PEST CONTROL	\$242.00	
aimler Trucks Perth	2216.9643-01	04/02/2019	PARTS		\$70.28
	6153902D	21/01/2019	PARTS FOR 041 MDG	\$70.28	
anaged System Services Pty Ltd	2216.9698-01	04/02/2019	IT HARDWARE		\$14,312.50
	00003910	01/02/2019	IT HARDWARE	\$14,312.50	
r S R Lukic	2217.12786-01	04/02/2019	CROSSOVER CONTRIBUTION		\$565.00
	REIMBURSEMENT	04/02/2019	CROSSOVER CONTRIBUTION	\$565.00	
r L Osborne	2217.12787-01	04/02/2019	CROSSOVER CONTRIBUTION		\$565.00
	REFUND	04/02/2019	CROSSOVER CONTRIBUTION	\$565.00	
s E Batten	2217.12788-01	04/02/2019	REFUND		\$100.00
	REIMBURSEMENT	04/02/2019	REFUND	\$100.00	
ynergy	2217.174-01	04/02/2019	ELECTRICITY		\$1,760.55
	9159298220	30/01/2019	ELECTRICITY	\$969.00	
	3051745929	30/01/2019	ELECTRICITY	\$791.55	
hire of Mundaring	2217.589-01	04/02/2019	FDC PARENT LEVY		\$22,915.95
	310119	04/02/2019	FDC PARENT LEVY	\$22,915.95	
r GD Haines	2217.9400-01	04/02/2019	REIMBURSEMENT		\$29.95
	REIMBURSEMENT	04/02/2019	REIMBURSEMENT	\$29.95	
ater Corporation	2218.34-01	07/02/2019	WATER RATES & FEES		\$4,435.43
	9004566571	06/02/2019	WATER RATES & FEES	\$272.85	
	9004566600	06/02/2019	WATER RATES & FEES	\$1,907.84	
	9004565691	06/02/2019	WATER RATES & FEES	\$1,822.44	
	9004690281	06/02/2019	WATER RATES & FEES	\$12.15	
	9010772929	06/02/2019	WATER RATES & FEES	\$420.15	
ichael Page International (Australia) Pty Ltd	2219.10416-01	11/02/2019	TEMP STAFF		\$1,855.76
	292718	08/02/2019	TEMP STAFF - FINANCE	\$889.68	
	292738	08/02/2019	TEMP STAFF - FINANCE	\$966.08	
_R Pumps	2219.10615-01	11/02/2019	PUMP MAINTENANCE		\$1,430.00
	547	01/02/2019	MT HELENA OVAL - REMOVE OLD PUMP AND INSTALL NEW PUMP	\$1,430.00	
orporate Hands Pty Ltd	2219.10621-01	11/02/2019	CORPORATE MASSAGE SERVICES		\$1,155.01
	INV-00003919	08/02/2019	CORPORATE MASSAGE CHILDREN'S SERVICES	\$1,155.01	
rants Empire	2219.10637-01	11/02/2019	GRANT WRITING		\$1,320.00
	00001794	08/02/2019	GRANT APPLICATIONS	\$1,320.00	
atacom Systems (AU) Pty Ltd	2219.10654-01	11/02/2019	REPAIRS AND MAINTENANCE		\$447.94
	INVDSPW058855	25/01/2019	REPAIRS AND MAINTENANCE	\$447.94	
otal Green Recycling Pty Ltd	2219.10807-01	11/02/2019	RECYCLING SERVICES		\$1,278.20
	INV5434	21/01/2019	COPPIN RD TRANSFER STATION - E-WASTE ITEMS	\$1,278.20	
isco Pty Ltd	2219.10881-01	11/02/2019	FIRST AID REPLENISHMENT		\$489.94
	CPER1907651	01/02/2019	FIRST AID REPLENISHMENT	\$29.04	
	CPER1907649	01/02/2019	FIRST AID REPLENISHMENT	\$101.64	
	CPER1907650	01/02/2019	FIRST AID REPLENISHMENT	\$359.26	

Attachment 1 to Report 10.7

om Operations Pty Ltd	2219.10921-01	11/02/2019	CHLORINE GAS		\$204.26	\$204.26
	6057832	08/02/2019	CHLORINE GAS			
elstra SNP Monitoring Pty Ltd	2219.11017-01	11/02/2019	ALARM MONITORING			\$419.43
	SP110000	01/02/2019	ALARM MONITORING		\$419.43	
ontline Fire & Rescue Equipment	2219.11135-01	11/02/2019	EQUIPMENT PURCHASES			\$6,073.39
	62863	21/01/2019	EQUIPMENT PURCHASES		\$1,395.86	
	62862	21/01/2019	EQUIPMENT PURCHASES		\$287.49	
	62905	21/01/2019	EQUIPMENT PURCHASES		\$643.05	
	62904	24/01/2019	PPE PURCHASES		\$28.88	
	62897	24/01/2019	PPE PURCHASES		\$1,086.36	
	62895	24/01/2019	EQUIPMENT PURCHASES		\$2,631.75	
rgolink (Max & Claire Pty Ltd T/A)	2219.11413-01	11/02/2019	OFFICE FURNITURE			\$911.82
	SI-00064512	17/01/2019	POSTURE AID CUSHION		\$75.41	
	SI-00064607	24/01/2019	OFFICE FURNITURE		\$800.35	
	SI-00064608	24/01/2019	OFFICE FURNITURE		\$36.06	
wan Valley Fresh (Vendor Management Solutions PtyLtd T/A)	2219.11474-01	11/02/2019	KIOSK SUPPLIES			\$267.16
	00022157	08/02/2019	KIOSK SUPPLIES		\$203.15	
	00022123	08/02/2019	KIOSK SUPPLIES		\$64.01	
ce Plus (Finestone Investments Pty Ltd T/A)	2219.11503-01	11/02/2019	MAINTENANCE			\$2,860.00
	666795	08/02/2019	GUTTER AND DOWNPIPE CLEANING		\$2,860.00	
orgee Pty Ltd	2219.11678-01	11/02/2019	RETAIL STOCK			\$693.00
	00138369	24/01/2019	GOGGLES FOR RETAIL STOCK		\$693.00	
eyton Consulting Pty Ltd.	2219.11730-01	11/02/2019	CONSULTING SERVICES			\$3,587.65
	INV-0017	24/01/2019	REVIEW OF COMPLIANCE AUDIT RETURN 2018		\$3,587.65	
t Helena Veterinary Clinic	2219.11913-01	11/02/2019	VETERINARY SERVICES			\$40.00
	665108	08/02/2019	ANIMAL MICRO CHIP SERVICES		\$40.00	
epartment of Human Services - Child Support	2219.12-01	11/02/2019	CHILD SUPPORT PAYMENT			\$147.26
	PY02-16-CHILD SU	03/02/2019	CHILD SUPPORT PAYMENT		\$147.26	
ecruitwest Pty Ltd	2219.12078-01	11/02/2019	TEMP STAFF			\$13,246.18
	C INV 496687	08/02/2019	TEMP STAFF - DEPOT		\$13,246.18	
.A. Library Supplies	2219.12134-01	11/02/2019	STATIONERY			\$277.35
	00118214	08/02/2019	BOOK COVERING MATERIALS		\$277.35	
A School Canteen Suppliers	2219.12183-01	11/02/2019	KIOSK SUPPLIES			\$198.15
	00005218	06/02/2019	KIOSK SUPPLIES		\$198.15	
iobean Coffee Pty Ltd	2219.12185-01	11/02/2019	KIOSK SUPPLIES			\$432.08
	00008481	07/02/2019	KIOSK SUPPLIES		\$432.08	
ustralian Children's Books	2219.12237-01	11/02/2019	CHILDREN'S BOOKS			\$49.00
	3011	08/02/2019	CHILDREN'S BOOKS		\$49.00	
lobal Quality Assurance Pty Ltd T/A Global Food Safety Auditing	2219.12245-01	11/02/2019	FOOD SAFETY AUDITING			\$451.00
	INV-1711	01/02/2019	HEALTH DEPARTMENT AUDIT		\$451.00	
re Artisan Mundaring	2219.12363-01	11/02/2019	KIOSK SUPPLIES			\$156.62
	82	25/01/2019	KIOSK SUPPLIES		\$137.42	
	81	25/01/2019	KIOSK SUPPLIES		\$19.20	
int Civil T/A Kalamunda Sweeping	2219.12388-01	11/02/2019	STREET SWEEPING SERVICES			\$4,294.25
	M 2131	17/01/2019	STREET SWEEPING SERVICES		\$4,294.25	

Advance Scanning Services	2219.12415-01	11/02/2019	LOCATION OF SERVICES		\$657.58
	20163261	24/01/2019	MUNDARING HARDCOURTS - LOCATION OF SERVICES	\$657.58	
Er G Wood	2219.12470-01	11/02/2019	FENCING		\$1,204.50
	2173	01/02/2019	FENCING	\$1,204.50	
Er V Crowe	2219.12579-01	11/02/2019	GARDENING AND MAINTENANCE		\$1,380.00
	1152	08/02/2019	GARDENING	\$260.00	
	1153	08/02/2019	CLEANING	\$437.50	
	1155	08/02/2019	MAINTENANCE	\$367.50	
	1154	08/02/2019	GARDENING AND MAINTENANCE	\$315.00	
Er G J Parsons	2219.12635-01	11/02/2019	EQUIPMENT HIRE		\$1,067.00
	IV00000000125	08/02/2019	CINEMA HIRE FOR CINEMA UNDER STARLIGHT	\$1,067.00	
Er J M Newell	2219.12638-01	11/02/2019	SCHOOL HOLIDAY WORKSHOP		\$330.00
	SOM2	08/02/2019	SCHOOL HOLIDAY WORKSHOP	\$330.00	
aboom Toons (Trustee for the Trevenen Family Trust T/A)	2219.12683-01	11/02/2019	SCHOOL HOLIDAY PROGRAM INCURSION		\$500.00
	294	04/02/2019	SCHOOL HOLIDAY PROGRAM INCURSION	\$500.00	
ideband Networks Pty Ltd	2219.12692-01	11/02/2019	NBN ACCESS CHARGES		\$109.00
	5141788	04/02/2019	NBN FTTN 100/40 ACCESS CHARGES	\$109.00	
olich Waste Contractors Pty Ltd	2219.127-01	11/02/2019	REFUSE CONTRACT		\$105,559.92
	00005241	07/02/2019	REFUSE CONTRACT	\$86.59	
	00005244	07/02/2019	REFUSE CONTRACT	\$476.26	
	00005245	07/02/2019	REFUSE CONTRACT	\$5,051.73	
	00005237	07/02/2019	REFUSE CONTRACT	\$2,083.62	
	00005239	07/02/2019	REFUSE CONTRACT	\$8,792.17	
	00005238	07/02/2019	REFUSE CONTRACT	\$4,572.39	
	00005243	07/02/2019	REFUSE CONTRACT	\$359.04	
	00005240	07/02/2019	REFUSE CONTRACT	\$1,166.00	
	00005236	07/02/2019	REFUSE CONTRACT	\$82,170.40	
	00005235	07/02/2019	REFUSE CONTRACT	\$220.00	
	00005242	07/02/2019	REFUSE CONTRACT	\$283.27	
	00005246	07/02/2019	REFUSE CONTRACT	\$122.45	
	00005248	07/02/2019	REFUSE CONTRACT	\$176.00	
artco Traffic Equipment Pty Ltd	2219.12703-01	11/02/2019	EQUIPMENT		\$52,949.60
	13984	04/02/2019	LED FIRE CONDITION WARNING SIGN CATASTROPHIC PANELS	\$52,949.60	
Social Perth	2219.12736-01	11/02/2019	SOCIAL MEDIA SERVICES		\$390.00
	#004	08/02/2019	SOCIAL MEDIA SERVICES	\$390.00	
ncore Kids Parties	2219.12754-01	11/02/2019	ENTERTAINMENT		\$368.50
	SOM02FEB	08/02/2019	ENTERTAINMENT FOR CINEMA UNDER STARLIGHT	\$368.50	
&R Glass	2219.12790-01	11/02/2019	GLAZING		\$223.58
	00000217	08/02/2019	REPLACE GLASS AT GLEN FORREST HALL	\$223.58	
hire of Mundaring	2219.13-01	11/02/2019	PAYROLL DEDUCTION		\$4,894.01
	PY02-16-Private	03/02/2019	PAYROLL DEDUCTION	\$147.00	
	PY02-16-Buy Addi	03/02/2019	PAYROLL DEDUCTION	\$434.41	
	PY01-16-Private	03/02/2019	PAYROLL DEDUCTION	\$441.00	
	PY01-16-Child Ca	03/02/2019	PAYROLL DEDUCTION	\$1,039.65	
	PY01-16-Buy Addi	03/02/2019	PAYROLL DEDUCTION	\$698.06	
	PY01-16-Novated	03/02/2019	PAYROLL DEDUCTION	\$971.72	
	PY01-16-Novated	03/02/2019	PAYROLL DEDUCTION	\$825.00	
	PY01-16-LSL Adju	03/02/2019	PAYROLL DEDUCTION	\$337.17	
OC Ltd	2219.135-01	11/02/2019	CYLINDER RENTAL		\$185.63
	4021651437	01/02/2019	CYLINDER RENTAL	\$185.63	

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onic HealthPlus Pty Ltd	2219.138-01	11/02/2019	MEDICALS		\$364.10	\$364.10
	1677784	08/02/2019	PRE-EMPLOYMENT MEDICAL EXAMINATION			
chweppes Australia Pty Ltd	2219.145-01	11/02/2019	KIOSK SUPPLIES			\$1,173.50
	0808487819	25/01/2019	KIOSK SUPPLIES		\$448.05	
	0808473672	31/01/2019	KIOSK SUPPLIES		\$725.45	
oodwest	2219.1495-01	11/02/2019	CARPENTRY			\$274.00
	1901-3	04/02/2019	MODIFICATION TO SHELVING AT KSP LIBRARY		\$274.00	
ustralia Post	2219.15-01	11/02/2019	POSTAGE			\$1,602.26
	1008226726	07/02/2019	POSTAGE		\$1,602.26	
ompsys Pty Ltd T/A Harmony Software	2219.1689-01	11/02/2019	SOFTWARE EXPENSES			\$663.30
	I3-184	08/02/2019	SOFTWARE EXPENSES		\$663.30	
astern Region Security	2219.191-01	11/02/2019	SECURITY EXPENSES			\$2,376.00
	00017913	08/02/2019	SECURITY EXPENSES		\$2,376.00	
ovs Parts Pty Ltd	2219.199-01	11/02/2019	PARTS			\$281.79
	1610139170	23/01/2019	PARTS		\$81.34	
	1610139176	23/01/2019	PARTS		\$110.18	
	1610139313	23/01/2019	PARTS		\$90.27	
rich Australian Insurance Ltd	2219.2000-01	11/02/2019	INSURANCE			\$2,000.00
	CL633624107	08/02/2019	EXCESS ON INSURANCE CLAIM		\$2,000.00	
astern Metropolitan Regional Council	2219.21-01	11/02/2019	TRANSFER STATION FEES			\$99,989.24
	016 515	04/02/2019	LANDFILL GATE FEES		\$41,838.23	
	016 516	07/02/2019	TRANSFER STATION FEES		\$127.63	
	016 577	07/02/2019	TRANSFER STATION FEES		\$58,023.38	
eputy Commissioner of Taxation	2219.215-01	11/02/2019	TAXATION			\$155,843.00
	PY02-16-Deputy C	03/02/2019	PAYROLL DEDUCTION		\$25,797.00	
	PY01-16-Deputy C	03/02/2019	PAYROLL DEDUCTION		\$129,775.00	
	PY99-07-Deputy C	03/02/2019	PAYROLL DEDUCTION		\$271.00	
ewart & Heaton Clothing Co	2219.2625-01	11/02/2019	UNIFORMS			\$1,337.96
	SIN-2982820	21/01/2019	UNIFORMS		\$228.56	
	SIN-2982827	21/01/2019	UNIFORMS		\$228.56	
	SIN-2983859	21/01/2019	UNIFORMS		\$97.58	
	SIN-2982874	21/01/2019	UNIFORMS		\$97.58	
	SIN-2982876	21/01/2019	UNIFORMS		\$457.12	
	SIN-2982880	21/01/2019	UNIFORMS		\$228.56	
wan Hills Design & Print	2219.272-01	11/02/2019	PHOTOCOPIER PRINTING			\$1,590.00
	3812	01/02/2019	PRINTING TIMESHEETS AND VEHICLE SERVICE LOG		\$1,590.00	
egenerated Landscapes	2219.2769-01	11/02/2019	WEED SPRAYING			\$975.00
	93	08/02/2019	WEED SPRAYING		\$975.00	
cleods Barristers and Solicitors	2219.307-01	11/02/2019	PROFESSIONAL LEGAL SERVICES			\$6,664.44
	106613	08/02/2019	PROFESSIONAL LEGAL SERVICES - HEALTH MATTER		\$1,164.44	
	106202	11/02/2019	RETAINER FEE FOR 2018/19		\$5,500.00	
rlfworks WA Pty Ltd	2219.3232-01	11/02/2019	MOWING			\$7,627.28
	4551	08/02/2019	MOWING		\$1,789.11	
	4545	08/02/2019	MOWING		\$1,663.50	
	4546	08/02/2019	MOWING		\$2,385.56	
	4547	08/02/2019	MOWING		\$1,789.11	
ourier Australia	2219.375-01	11/02/2019	COURIER SERVICES			\$29.53
	0375	04/02/2019	FIRE BRIGADE COURIER COSTS		\$29.53	

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Mundaring News & Lotto	2219.385-01	11/02/2019	MAGAZINE SUBSCRIPTIONS		\$635.86
	5856	08/02/2019	MAGAZINE SUBSCRIPTIONS		
Educational Art Supplies	2219.386-01	11/02/2019	EDUCATIONAL RESOURCES		\$253.06
	3461819	24/01/2019	ART SUPPLIES		
Blackwood & Son Pty Ltd	2219.397-01	11/02/2019	DEPOT CONSUMABLES		\$884.85
	PE9138RW	31/01/2019	SAFETY GLASSES		\$321.21
	PE9139RW	08/02/2019	SPRAY AND MARK-UP PAINT		\$563.64
obcat-Attach	2219.3996-01	11/02/2019	PARTS		\$297.00
	19792	21/01/2019	PARTS		
Health Insurance Fund of WA	2219.4-01	11/02/2019	PAYROLL DEDUCTION		\$1,128.95
	PY01-16-HIF	03/02/2019	PAYROLL DEDUCTION		
Direct Communications	2219.4281-01	11/02/2019	COMMUNICATIONS EQUIPMENT		\$1,195.26
	108415	08/02/2019	INSTALLATION OF 2-WAY RADIO		
Berry Environmental Contracting	2219.4386-01	11/02/2019	WEED CONTROL		\$385.00
	2768	01/02/2019	WEED CONTROL - LION MILL CREEK RESERVE		
Cardvark Bobcat & Truck Hire	2219.4407-01	11/02/2019	HIRE OF PLANT		\$2,427.38
	#673	11/02/2019	HIRE OF PLANT		
Chainfire 2000	2219.4453-01	11/02/2019	PARTS		\$185.90
	23136	24/01/2019	PARTS		
Exi Staff Pty Ltd	2219.4560-01	11/02/2019	TEMP STAFF		\$1,414.87
	205240	08/02/2019	TEMP STAFF - DEPOT		\$471.62
	205218	08/02/2019	TEMP STAFF - DEPOT		\$943.25
West Sure Group Pty Ltd	2219.4811-01	11/02/2019	SECURITY EXPENSES		\$461.19
	00020599	08/02/2019	SECURITY EXPENSES		\$153.73
	00020601	08/02/2019	SECURITY EXPENSES		\$122.98
	00020600	08/02/2019	SECURITY EXPENSES		\$153.73
	00020598	08/02/2019	SECURITY EXPENSES		\$30.75
Worldwide Online Printing Cannington	2219.5169-01	11/02/2019	PHOTOCOPIER PRINTING		\$294.00
	1039721	11/02/2019	PHOTOCOPIER PRINTING		
WA Naturally Publications	2219.5390-01	11/02/2019	MAPS		\$78.51
	P 1-01-027344	08/02/2019	MAPS		
Mundaring Tyre Centre	2219.5669-01	11/02/2019	TYRES & REPAIRS		\$1,430.00
	334	24/01/2019	TYRES & REPAIRS		
Hire of Mundaring - Lotto Club	2219.5719-01	11/02/2019	PAYROLL DEDUCTION		\$271.60
	PY02-16-STAFF LO	03/02/2019	PAYROLL DEDUCTION		\$13.58
	PY01-16-STAFF LO	03/02/2019	PAYROLL DEDUCTION		\$258.02
rs Macs Pty Ltd	2219.5924-01	11/02/2019	KIOSK SUPPLIES		\$1,491.15
	3908821	21/01/2019	KIOSK SUPPLIES		\$516.00
	3909154	24/01/2019	KIOSK SUPPLIES		\$486.60
	3908241	08/02/2019	KIOSK SUPPLIES		\$488.55
West Coast Spring Water Pty Ltd	2219.5945-01	11/02/2019	CAFE BAR CONSUMABLES		\$40.20
	1290515	15/01/2019	CAFE BAR CONSUMABLES		\$20.10
	1290517	08/02/2019	CAFE BAR CONSUMABLES		\$13.40
	1301523	08/02/2019	CAFE BAR CONSUMABLES		\$6.70
Hire of Mundaring - Social Club	2219.6-01	11/02/2019	PAYROLL DEDUCTION		\$166.00
	PY02-16-MUNDARIN	03/02/2019	PAYROLL DEDUCTION		\$2.00
	PY01-16-MUNDARIN	03/02/2019	PAYROLL DEDUCTION		\$164.00

eface Industries Pty Ltd	2219.6126-01	11/02/2019	STATIONERY		\$759.00
	30086	11/02/2019	CONSUMABLES FOR DISC CLEANER	\$455.40	
	30087	11/02/2019	CONSUMABLES FOR DISC CLEANER	\$303.60	
idland Rubber Stamps	2219.641-01	11/02/2019	STATIONERY		\$92.70
	00041060	24/01/2019	STATIONERY	\$92.70	
ills Fresh (WA) Pty Ltd	2219.6419-01	11/02/2019	MILK		\$251.26
	MILK JAN 2019	08/02/2019	MILK	\$251.26	
le Watershed Water Systems	2219.68-01	11/02/2019	RETICULATION PARTS		\$2,995.84
	10173830	21/01/2019	RETICULATION PARTS	\$2,624.16	
	10173888	21/01/2019	RETICULATION PARTS	\$321.64	
	10173929	23/01/2019	RETICULATION PARTS	\$29.59	
	10173967	23/01/2019	RETICULATION PARTS	\$13.06	
	10173968	23/01/2019	RETICULATION PARTS	\$7.39	
ustralian Services Union	2219.7-01	11/02/2019	PAYROLL DEDUCTION		\$181.30
	PY02-16-AUSTRALI	03/02/2019	PAYROLL DEDUCTION	\$155.40	
	PY01-16-AUSTRALI	03/02/2019	PAYROLL DEDUCTION	\$25.90	
arlington Review	2219.7053-01	11/02/2019	ANNUAL SUBSCRIPTION		\$250.00
	1039	11/02/2019	ANNUAL SUBSCRIPTION	\$250.00	
irtek Midland	2219.7318-01	11/02/2019	PARTS		\$13.42
	MD-T00021394	01/02/2019	PARTS - HYDRAULIC HOSE	\$13.42	
coob's Dingo Service	2219.7426-01	11/02/2019	EARTHWORKS		\$3,217.50
	2165	04/02/2019	EARTHWORKS - DARLINGTON PINE PARK	\$247.50	
	2163	04/02/2019	EARTHWORKS - PARKERVILLE OVAL	\$495.00	
	2169	08/02/2019	FOOTPATH SWEEPING	\$1,980.00	
	2170	08/02/2019	OPEN DRAIN MAINTENANCE	\$495.00	
estrac Pty Ltd	2219.75-01	11/02/2019	PARTS		\$1,401.02
	PI 3120298	11/02/2019	PARTS	\$1,401.02	
oore Stephens (WA) Pty Ltd	2219.7519-01	11/02/2019	WORKSHOPS		\$2,343.00
	232	08/02/2019	WALGA BUDGET AND GST WORKSHOPS	\$2,343.00	
FD Food Services Pty Ltd	2219.7590-01	11/02/2019	KIOSK SUPPLIES		\$10,923.80
	KN556033	10/01/2019	KIOSK SUPPLIES	\$17.80	
	KN589890	10/01/2019	KIOSK SUPPLIES	\$800.45	
	KN632743	15/01/2019	KIOSK SUPPLIES	\$348.30	
	KN665096	21/01/2019	KIOSK SUPPLIES	\$1,985.55	
	KN740523	24/01/2019	KIOSK SUPPLIES	\$1,532.50	
	KN782583	24/01/2019	KIOSK SUPPLIES	\$441.40	
	KN707686	01/02/2019	KIOSK SUPPLIES	\$1,775.45	
	KN850138	06/02/2019	KIOSK SUPPLIES	\$339.00	
	KN782579	06/02/2019	KIOSK SUPPLIES	\$623.95	
	KN632719	08/02/2019	KIOSK SUPPLIES	\$1,244.10	
	KN665087	08/02/2019	KIOSK SUPPLIES	\$787.00	
	KN554966	11/02/2019	KIOSK SUPPLIES	\$1,028.30	
est Force Plumbing & Gas	2219.7735-01	11/02/2019	PLUMBING		\$1,375.00
	00023778	04/02/2019	PLUMBING	\$1,177.00	
	00023745	08/02/2019	PLUMBING	\$198.00	
hredding Services Pty Ltd	2219.7854-01	11/02/2019	GREENWASTE PROCESSING SERVICES		\$52,743.19
	00001549	04/02/2019	GREENWASTE PROCESSING SERVICES	\$52,743.19	
unnings Group Limited	2219.80-01	11/02/2019	HARDWARE		\$1,064.38
	2180/00292702	23/01/2019	HARDWARE	\$145.75	
	2180/00292700	23/01/2019	HARDWARE	\$197.45	

	2180/01679471	23/01/2019	HARDWARE	\$193.38	
	2180/01677542	23/01/2019	HARDWARE	\$527.80	
estyle Now	2219.8004-01	11/02/2019	SKATEBOARD COACHING		\$726.00
	1826	04/02/2019	SCHOOL HOLIDAY PROGRAM - SKATEBOARD COACHING	\$726.00	
SRCEU	2219.8-01	11/02/2019	PAYROLL DEDUCTION		\$41.00
	PY02-16-LGRCEU	03/02/2019	PAYROLL DEDUCTION	\$41.00	
K Technologies Pty Ltd	2219.8057-01	11/02/2019	SUBSCRIPTION		\$143.75
	160943	24/01/2019	SUBSCRIPTION	\$143.75	
ublic Libraries Western Australia Inc	2219.8395-01	11/02/2019	ANNUAL MEMBERSHIP FEES		\$250.00
	558	04/02/2019	ANNUAL MEMBERSHIP FEES	\$250.00	
reg Northover Pest & Weed Solutions	2219.8500-01	11/02/2019	WEED CONTROL		\$970.00
	00003084	24/01/2019	WEED CONTROL	\$970.00	
ankey Plumbing Service	2219.8545-01	11/02/2019	PLUMBING		\$1,991.00
	4305	04/02/2019	PLUMBING	\$132.00	
	4306	04/02/2019	PLUMBING	\$363.00	
	4304	04/02/2019	PLUMBING	\$748.00	
	4309	08/02/2019	PLUMBING	\$132.00	
	4314	08/02/2019	PLUMBING	\$110.00	
	4315	08/02/2019	PLUMBING	\$121.00	
	4311	08/02/2019	PLUMBING	\$154.00	
	4310	08/02/2019	PLUMBING	\$110.00	
	4313	08/02/2019	PLUMBING	\$121.00	
ircusWA (WA Circus School Incorporated T/A)	2219.9312-01	11/02/2019	CIRCUS WORKSHOP		\$800.00
	INV-3357	08/02/2019	CIRCUS WORKSHOP	\$800.00	
rice Pest Management	2219.9596-01	11/02/2019	PEST CONTROL		\$242.00
	02894	01/02/2019	PEST CONTROL	\$242.00	
McGuinness Bricklaying	2219.9632-01	11/02/2019	PAVING		\$2,651.00
	36	01/02/2019	PAVING	\$1,155.00	
	34	04/02/2019	PAVING	\$1,496.00	
amzilla Timber Pty Ltd T/As Mundaring Hardware	2219.9824-01	11/02/2019	HARDWARE		\$57.68
	55298	08/02/2019	HARDWARE	\$33.68	
	55299	08/02/2019	HARDWARE	\$24.00	
il Fence U Rent Pty Ltd	2219.9935-01	11/02/2019	TEMPORARY FENCING		\$535.15
	00026147	04/02/2019	TEMPORARY FENCING - SAWYERS VALLEY OVAL	\$535.15	
elstra	2220.119-01	12/02/2019	TELEPHONE		\$13,335.72
	2085566000	11/02/2019	TELEPHONE	\$10,516.01	
	0941160300	11/02/2019	TELEPHONE	\$1,044.31	
	0941160300	12/02/2019	TELEPHONE	\$1,775.40	
epartment of Mines, Industry Regulation and Safety (Building Commiss)	2220.12599-01	12/02/2019	MUNDARING BSL		\$6,418.71
	JANUARY 2019	07/02/2019	MUNDARING BSL JANUARY 2019	\$6,418.71	
uilding and Construction Industry Training Board	2220.12665-01	12/02/2019	BCITF LEVY		\$3,398.93
	JANUARY 2019	11/02/2019	BCITF LEVY - JANUARY 2019	\$3,398.93	
rs V N Macknay	2220.12795-01	12/02/2019	REFUND		\$150.00
	REFUND	11/02/2019	PARTIAL REFUND DOG REGISTRATION	\$150.00	
r D J Haupt	2220.12796-01	12/02/2019	REFUND		\$30.00
	REFUND	11/02/2019	PARTIAL REFUND DOG REGISTRATION	\$30.00	

energy	2220.174-01	12/02/2019	ELECTRICITY		\$12,262.15
	3084190724	06/02/2019	ELECTRICITY	\$136.65	
	5831532322	06/02/2019	ELECTRICITY	\$759.80	
	1187187526	06/02/2019	ELECTRICITY	\$159.70	
	7556391528	06/02/2019	ELECTRICITY	\$238.70	
	4806915126	06/02/2019	ELECTRICITY	\$426.70	
	5145475816	06/02/2019	ELECTRICITY	\$2,931.70	
	5416370728	06/02/2019	ELECTRICITY	\$300.65	
	1808368323	06/02/2019	ELECTRICITY	\$4,103.70	
	1059211527	06/02/2019	ELECTRICITY	\$204.15	
	7436114725	06/02/2019	ELECTRICITY	\$190.30	
	0998549922	06/02/2019	ELECTRICITY	\$1,122.40	
	5155752515	06/02/2019	ELECTRICITY	\$124.40	
	5185501927	06/02/2019	ELECTRICITY	\$1,094.60	
	5008526913	11/02/2019	ELECTRICITY	\$468.70	
arlinton Volunteer Bushfire Brigade	2220.306-01	12/02/2019	HAZARD REDUCTION BURN		\$2,750.00
	0279	11/02/2019	HAZARD REDUCTION BURN- 65 ROCKY PLACE, SWAN VIEW	\$700.00	
	0303	11/02/2019	HAZARD REDUCTION BURN- 17 PADBURY RD, DARLINGTON	\$300.00	
	0305	11/02/2019	HAZARD REDUCTION BURN- 16 BOYA CRES, BOYA	\$250.00	
	0280	11/02/2019	HAZARD REDUCTION BURN- 61 STONE CRES, DARLINGTON	\$500.00	
	0306	11/02/2019	HAZARD REDUCTION BURN- 740 COULSTON RD, BOYA	\$300.00	
	0307	11/02/2019	HAZARD REDUCTION BURN- 225 RYECROFT RD, DARLINGTON	\$350.00	
	0308	11/02/2019	HAZARD REDUCTION BURN- 32 HUBERT ST, DARLINGTON	\$350.00	
rs W N Dodd	2220.4978-01	12/02/2019	REFUND		\$100.00
	REFUND	11/02/2019	REFUND PLANNING MODIFICATION FEE - NOT REQUIRED	\$100.00	
hire of Mundaring	2220.589-01	12/02/2019	LEVIES		\$344.25
	JANUARY 2019	07/02/2019	BUILDING SERVICES LEVY - JANUARY 2019	\$270.00	
	JANUARY 2019	11/02/2019	BCITF LEVY - JANUARY 2019	\$74.25	
undaring Firefighters School	2220.792-01	12/02/2019	REIMBURSEMENT		\$275.59
	2019-4	11/02/2019	REIMBURSEMENT OF ESL EXPENSES	\$275.59	
ater Corporation	2221.34-01	14/02/2019	WATER RATES & FEES		\$16,101.11
	9019690081	13/02/2019	WATER RATES & FEES	\$891.22	
	9004277008	13/02/2019	WATER RATES & FEES	\$1,419.43	
	9004610501	13/02/2019	WATER RATES & FEES	\$27.03	
	9020758629	13/02/2019	WATER RATES & FEES	\$1,007.37	
	9020409381	13/02/2019	WATER RATES & FEES	\$90.91	
	9022572692	13/02/2019	WATER RATES & FEES	\$243.24	
	9019991669	13/02/2019	WATER RATES & FEES	\$1,113.02	
	9004607388	13/02/2019	WATER RATES & FEES	\$9.83	
	9014111730	13/02/2019	WATER RATES & FEES	\$9.82	
	9004600055	13/02/2019	WATER RATES & FEES	\$11,289.24	
r T K De Haas	2222.12802-01	14/02/2019	RATES REFUND		\$350.00
	REFUND	14/02/2019	RATES REFUND	\$350.00	
are Giver Subsidies	2223.3462-01	14/02/2019	CARE GIVER SUBSIDIES		\$52,401.35
	140219	15/02/2019	CARE GIVER SUBSIDIES	\$52,401.35	
udd Industrial & Farm Supplies	2224.1020-01	18/02/2019	PARTS		\$60.13
	891078	31/01/2019	PARTS	\$44.76	
	890927	31/01/2019	PARTS	\$15.37	
aeco	2224.104-01	18/02/2019	STATIONERY		\$192.50
	532321	31/01/2019	STATIONERY	\$192.50	
ichael Page International (Australia) Pty Ltd	2224.10416-01	18/02/2019	TEMP STAFF		\$2,783.64
	295108	15/02/2019	TEMP STAFF - FINANCE	\$1,449.12	
	295109	15/02/2019	TEMP STAFF - FINANCE	\$1,334.52	

Force Printing	2224.10840-01	18/02/2019	PRINTING		\$274.67
	63000	25/01/2019	SWIMMING POOL INSPECTION BOOKS	\$274.67	
Alstra SNP Monitoring Pty Ltd	2224.11017-01	18/02/2019	SECURITY SERVICES		\$82.50
	SP110732	14/02/2019	SECURITY MONITORING	\$82.50	
osh Catering	2224.11020-01	18/02/2019	CATERING		\$935.00
	118323	01/02/2019	CATERING	\$935.00	
alcolm Thompson Pumps Pty Ltd	2224.11110-01	18/02/2019	MAINTENANCE		\$2,173.60
	SLI 21089704	14/02/2019	SERVICING OF PUMPS - MT HELENA AQUATIC CENTRE	\$815.10	
	SLI 21089705	14/02/2019	SERVICING OF PUMPS - BILGOMAN AQUATIC CENTRE	\$1,358.50	
pform Pty Ltd	2224.11111-01	18/02/2019	PRINTING		\$9,577.25
	187944	14/02/2019	RATES INSTALMENT NOTICE PRODUCTION	\$9,577.25	
online Fire & Rescue Equipment	2224.11135-01	18/02/2019	EQUIPMENT PURCHASES		\$6,357.95
	62971	01/02/2019	EQUIPMENT MAINTENANCE - PRESSURE TESTING	\$1,165.23	
	62963	01/02/2019	EQUIPMENT PURCHASES	\$176.00	
	62964	01/02/2019	EQUIPMENT PURCHASES	\$659.23	
	62965	01/02/2019	EQUIPMENT PURCHASES	\$572.00	
	62966	01/02/2019	EQUIPMENT PURCHASES	\$1,028.50	
	62967	01/02/2019	EQUIPMENT PURCHASES	\$1,204.12	
	62970	01/02/2019	EQUIPMENT PURCHASES	\$1,228.37	
	62972	01/02/2019	EQUIPMENT PURCHASES	\$324.50	
and I Services (Sneska Iliikj T/A)	2224.11452-01	18/02/2019	CLEANING		\$280.00
	134	15/02/2019	CLEANING	\$280.00	
wan Valley Fresh (Vendor Management Solutions PtyLtd T/A)	2224.11474-01	18/02/2019	KIOSK SUPPLIES		\$166.19
	00022235	15/02/2019	KIOSK SUPPLIES	\$166.19	
oundtown (Broomstick Productions P/L & Cold Cranking Amps P/L T/A)	2224.11475-01	18/02/2019	SOUND EQUIPMENT		\$1,212.00
	29488	14/02/2019	REPLACEMENT AMP FOR PA SYSTEM	\$1,212.00	
ce Plus (Finestone Investments Pty Ltd T/A)	2224.11503-01	18/02/2019	REPAIRS & MAINTENANCE		\$2,026.20
	666127	15/02/2019	INSTALL NEW DOOR - MUNDARING FOOTBALL PAVILION	\$2,026.20	
ow Steel Pty Ltd	2224.11568-01	18/02/2019	STEEL FABRICATION		\$836.00
	440	15/02/2019	LID FOR WATER METER AT HARRY RISEBOROUGH OVAL	\$836.00	
ocal Geotechnics (R & R Engineer Consultants Trust T/A)	2224.11579-01	18/02/2019	GEOTECHNICAL INVESTIGATIONS		\$3,278.00
	INV-161	01/02/2019	GEOTECHNICAL INVESTIGATIONS - CHIDLOW OVAL	\$3,278.00	
orpion Training Solutions (RMTP Enterprises P/L T/A)	2224.11590-01	18/02/2019	OSH REPRESENTATIVE COURSE		\$1,600.00
	00007389	15/02/2019	OSH REPRESENTATIVE COURSE	\$800.00	
	00007385	15/02/2019	OSH REPRESENTATIVE COURSE	\$800.00	
eris Australia Pty Ltd	2224.11648-01	18/02/2019	SURVEY SERVICES		\$2,249.50
	VI014544	01/02/2019	SURVEY SERVICES	\$1,314.50	
	VI014689	15/02/2019	SURVEY SERVICES	\$935.00	
VG Midland City Hyundai Kia (Buick Holdings Pty Ltd)	2224.11684-01	18/02/2019	PARTS		\$1,419.00
	31485995	13/02/2019	TOWBAR FOR SORENTO SI	\$1,419.00	
andscape and Maintenance Solutions Pty Ltd	2224.11754-01	18/02/2019	LANDSCAPE MAINTENANCE		\$7,132.51
	INV-1007	08/02/2019	LANDSCAPE MAINTENANCE - SCULPTURE PARK AND MJM PARK	\$7,132.51	
hura Consulting (Trustee for Ohura Trust T/A)	2224.11797-01	18/02/2019	INDUSTRIAL RELATIONS SERVICES		\$1,650.00
	481	01/02/2019	INDUSTRIAL RELATIONS SERVICES	\$1,650.00	
le Stationery Co (C Willis & D J Willis T/A)	2224.11953-01	18/02/2019	STATIONERY		\$943.22
	156211	01/02/2019	STATIONERY	\$537.96	
	156235	08/02/2019	STATIONERY	\$91.20	

	156213	08/02/2019	STATIONERY	\$103.00	
	156214	08/02/2019	STATIONERY	\$25.69	
	156215	08/02/2019	STATIONERY	\$113.70	
	156236	08/02/2019	STATIONERY	\$71.67	
leanflow Environmental Solutions	2224.11986-01	18/02/2019	JETTING AND EDUCTING		\$2,668.74
	00035415	15/02/2019	JETTING AND EDUCION OF STORMWATER DRAINS	\$2,668.74	
ecruitwest Pty Ltd	2224.12078-01	18/02/2019	TEMP STAFF		\$10,050.79
	C INV 496743	15/02/2019	TEMP STAFF - DEPOT	\$10,050.79	
A. Library Supplies	2224.12134-01	18/02/2019	STATIONERY		\$417.30
	00118248	04/02/2019	BOOK COVERING MATERIALS	\$417.30	
A School Canteen Suppliers	2224.12183-01	18/02/2019	KIOSK SUPPLIES		\$899.26
	00005212	01/02/2019	KIOSK SUPPLIES	\$899.26	
iobean Coffee Pty Ltd	2224.12185-01	18/02/2019	KIOSK SUPPLIES		\$639.00
	00008507	07/02/2019	KIOSK SUPPLIES	\$639.00	
ten Systems Pty Ltd	2224.12271-01	18/02/2019	ANNUAL SUBSCRIPTION		\$2,970.00
	18192190	15/02/2019	ANNUAL SUBSCRIPTION - SHAREPOINT	\$2,970.00	
le Artisan Mundaring	2224.12363-01	18/02/2019	KIOSK SUPPLIES		\$82.38
	83	01/02/2019	KIOSK SUPPLIES	\$82.38	
r G Wood	2224.12470-01	18/02/2019	FENCING		\$1,276.00
	2179	08/02/2019	FENCING	\$1,276.00	
r V Crowe	2224.12579-01	18/02/2019	CLEANING AND GARDENING		\$1,172.50
	1158	15/02/2019	CLEANING AND GARDENING	\$332.50	
	1156	15/02/2019	CLEANING AND MAINTENANCE	\$297.50	
	1157	15/02/2019	GARDENING	\$210.00	
	1159	15/02/2019	GARDENING	\$332.50	
fficeworks Ltd	2224.12640-01	18/02/2019	STATIONERY		\$99.95
	41806857	01/02/2019	STATIONERY	\$99.95	
apid Asbestos Removals (Rapid Holdings WA Pty LtdT/A)	2224.12649-01	18/02/2019	ASBESTOS REMOVAL		\$385.00
	491	14/02/2019	ASBESTOS REMOVAL	\$385.00	
olich Waste Contractors Pty Ltd	2224.127-01	18/02/2019	REFUSE CONTRACT		\$653.66
	00005247	14/02/2019	REFUSE CONTRACT	\$653.66	
r A A Hoffmann	2224.12713-01	18/02/2019	WORKSHOP		\$260.00
	INV-378	15/02/2019	WORKSHOP SCHOOL HOLIDAY PROGRAM	\$260.00	
s K Hooper	2224.12728-01	18/02/2019	WORKSHOP		\$600.00
	13	25/01/2019	SUSTAINABLE LIVING WORKSHOP	\$600.00	
20 Conversations	2224.12768-01	18/02/2019	IN HOUSE TRAINING		\$550.00
	1024	15/02/2019	IN HOUSE TRAINING	\$550.00	
xel Whip Creative	2224.12773-01	18/02/2019	GRAPHIC DESIGN SERVICES		\$316.25
	INV-02682	08/02/2019	GRAPHIC DESIGN SERVICES	\$316.25	
usiness Station Inc	2224.12797-01	18/02/2019	TRAINING		\$16.50
	INV-19520	15/02/2019	SOCIAL MEDIA WORKSHOP	\$16.50	
r R Martin	2224.1296-01	18/02/2019	ENTERTAINMENT		\$500.00
	70	14/02/2019	ENTERTAINMENT FOR AUSTRALIA DAY BREAKFAST	\$500.00	
rackajack Party Hire	2224.1350-01	18/02/2019	EQUIPMENT HIRE		\$341.00
	4212	14/02/2019	HIRE OF TABLES AND CHAIRS	\$341.00	

onic HealthPlus Pty Ltd	2224.138-01	18/02/2019	MEDICALS		\$82.50
	1703829	14/02/2019	PRE-EMPLOYMENT MEDICAL EXAMINATION	\$82.50	
chweppes Australia Pty Ltd	2224.145-01	18/02/2019	KIOSK SUPPLIES		\$638.66
	0808506229	08/02/2019	KIOSK SUPPLIES	\$320.71	
	9005672134	14/02/2019	KIOSK SUPPLIES	\$317.95	
astern Hills Saws & Mowers Pty Ltd	2224.146-01	18/02/2019	REPAIRS AND MAINTENANCE		\$1,114.95
	42613 # 4	08/02/2019	EQUIPMENT MAINTENANCE	\$1,038.00	
	42612 # 4	08/02/2019	SAFETY GEAR	\$76.95	
ustralia Post	2224.15-01	18/02/2019	POSTAGE		\$229.45
	1008226245	14/02/2019	POSTAGE	\$229.45	
ovs Parts Pty Ltd	2224.199-01	18/02/2019	PARTS		\$487.25
	1610139745	23/01/2019	PARTS	\$43.18	
	1610140108	24/01/2019	PARTS	\$86.37	
	1610140454	31/01/2019	PARTS	\$56.43	
	1610140383	31/01/2019	PARTS	\$183.04	
	1610140316	31/01/2019	PARTS	\$37.40	
	1610140526	31/01/2019	PARTS	\$80.83	
ountry Womens Association of WA Inc - Mundaring Branch	2224.2165-01	18/02/2019	CATERING		\$240.00
	92	08/02/2019	CATERING	\$240.00	
ecurity & Key Distributors	2224.218-01	18/02/2019	KEYS AND LOCKS		\$253.13
	80951	31/01/2019	KEYS AND LOCKS	\$253.13	
o-Go Appointments	2224.253-01	18/02/2019	TEMP STAFF		\$1,048.88
	00419079	14/02/2019	TEMP STAFF - VISITORS CENTRE	\$1,048.88	
ewart & Heaton Clothing Co	2224.2625-01	18/02/2019	UNIFORMS		\$441.67
	SIN-2985002	24/01/2019	UNIFORMS	\$228.56	
	SIN-2987875	31/01/2019	UNIFORMS	\$195.16	
	SIN-2986521	31/01/2019	UNIFORMS	\$11.97	
	SIN-2986520	31/01/2019	UNIFORMS	\$5.98	
ills Seafood Supplies	2224.2741-01	18/02/2019	KIOSK SUPPLIES		\$927.06
	61389	15/02/2019	KIOSK SUPPLIES	\$530.99	
	61608	15/02/2019	KIOSK SUPPLIES	\$396.07	
ccess Office Industries	2224.2743-01	18/02/2019	OFFICE FURNITURE		\$1,639.88
	84434	31/01/2019	OFFICE FURNITURE	\$1,639.88	
rs M V Woodward	2224.2770-01	18/02/2019	CARDS		\$48.00
	14	14/02/2019	CARD RETAIL STOCK FOR VISITORS CENTRE	\$48.00	
inc Australia Pty Limited	2224.280-01	18/02/2019	STATIONERY		\$401.33
	9026434078	24/01/2019	STATIONERY	\$26.64	
	9026427395	25/01/2019	STATIONERY	\$333.93	
	9026425813	08/02/2019	STATIONERY	\$40.76	
ndgate	2224.314-01	18/02/2019	TITLE SEARCHES		\$219.61
	345511-10000974	31/01/2019	TITLE SEARCHES	\$219.61	
rfworks WA Pty Ltd	2224.3232-01	18/02/2019	MOWING		\$3,425.91
	4554	14/02/2019	MOWING	\$1,257.25	
	4553	14/02/2019	MOWING	\$2,168.66	
late Law Publisher	2224.342-01	18/02/2019	PUBLICATIONS		\$103.95
	162025	31/01/2019	TOWN PLANNING AMENDMENT	\$103.95	

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Quick Corporate Australia	2224.3445-01	18/02/2019	STATIONERY		\$321.84
	SIN-01045796	24/01/2019	STATIONERY		
Eastern Hills Veterinary Centre	2224.360-01	18/02/2019	VETERINARY SERVICES		\$80.00
	2072919	14/02/2019	MICROCHIPPING		\$40.00
	2081170	14/02/2019	MICROCHIPPING		\$40.00
Courier Australia	2224.375-01	18/02/2019	COURIER SERVICES		\$52.20
	0376	14/02/2019	COURIER COSTS		
Ducher Municipal Pty Ltd	2224.3868-01	18/02/2019	EQUIPMENT PURCHASES		\$37.62
	919839	31/01/2019	EQUIPMENT PURCHASES		
Blackwood & Son Pty Ltd	2224.397-01	18/02/2019	SAFETY GLASSES		\$80.52
	PE4245RX	08/02/2019	SAFETY GLASSES		
obcat-Attach	2224.3996-01	18/02/2019	PARTS		\$2,172.50
	19812	31/01/2019	NEW RIPPER ASSEMBLY FOR BACK HOE LOADER		
& D Planke & Sons	2224.4300-01	18/02/2019	HIRE OF PLANT		\$6,468.00
	000161	14/02/2019	PROFILING AND SWEEPING		
erry Environmental Contracting	2224.4386-01	18/02/2019	WEED CONTROL		\$374.00
	2769	14/02/2019	WEED CONTROL		
ardvark Bobcat & Truck Hire	2224.4407-01	18/02/2019	HIRE OF PLANT		\$3,910.78
	#674	14/02/2019	HIRE OF PLANT		
ahogany Building & Design	2224.452-01	18/02/2019	MAINTENANCE		\$2,321.00
	INV0107	14/02/2019	REPAIRS AT BROWN PARK AFTER VANDALISM		
exi Staff Pty Ltd	2224.4560-01	18/02/2019	TEMP STAFF		\$1,414.87
	205344	15/02/2019	TEMP STAFF - DEPOT		
ure Air Filters	2224.4749-01	18/02/2019	PARTS		\$90.20
	00011218	01/02/2019	PARTS		
electrical Distributors Of WA Pty Ltd	2224.5305-01	18/02/2019	ELECTRICAL PRODUCTS		\$3,288.35
	OEI1979693	24/01/2019	LIGHTING COMPONENTS FOR MUNDARING HARDCOURTS UPGRADE		
hidlow Growers Mart & Liquor Store	2224.5378-01	18/02/2019	KIOSK SUPPLIES		\$40.39
	JANUARY 2019	15/02/2019	KIOSK SUPPLIES		
A Naturally Publications	2224.5390-01	18/02/2019	BOOKS		\$256.20
	P 1-01-027406	01/02/2019	BOOKS		
rs Macs Pty Ltd	2224.5924-01	18/02/2019	KIOSK SUPPLIES		\$486.60
	3909612	08/02/2019	KIOSK SUPPLIES		
ountry Womens Association of WA Inc - Mt Helena/Parkerville	2224.6635-01	18/02/2019	CATERING		\$450.00
	20	15/02/2019	CATERING		
estern Power	2224.6657-01	18/02/2019	ELECTRICAL SERVICES		\$10,371.00
	CORPB0447054	31/01/2019	CONNECTION OF 3 NEW STREET LIGHTS		
1e Watershed Water Systems	2224.68-01	18/02/2019	RETICULATION PARTS		\$1,743.23
	10174160	24/01/2019	RETICULATION PARTS		\$143.55
	10174214	24/01/2019	RETICULATION PARTS		\$319.00
	10174163	24/01/2019	RETICULATION PARTS		\$105.98
	10174213	31/01/2019	RETICULATION PARTS		\$132.29
	10174218	31/01/2019	RETICULATION PARTS		\$16.41
	10174266	31/01/2019	RETICULATION PARTS		\$1,026.00

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Arlington Review	2224.7053-01	18/02/2019	ADVERTISING		\$275.00
	1089	14/02/2019	ADVERTISING	\$150.00	
	1008	15/02/2019	ADVERTISING	\$125.00	
Loss Bobcat & Truck Service	2224.7230-01	18/02/2019	EARTHWORKS		\$3,300.00
	9919	14/02/2019	SAND FOR SAWYERS VALLEY OVAL PLAYGROUND	\$3,300.00	
Comet WA Pty Ltd T/A DVG Midland Kia	2224.7314-01	18/02/2019	VEHICLE MAINTENANCE		\$1,241.00
	3590494	13/02/2019	FIT AND BALANCE TYRES	\$789.00	
	3590160	13/02/2019	VEHICLE SERVICE 806MDG	\$452.00	
Ortek Midland	2224.7318-01	18/02/2019	PARTS		\$277.82
	MD-T00021513	04/02/2019	PARTS	\$277.82	
Coob's Dingo Service	2224.7426-01	18/02/2019	FOOTPATH SWEEPING		\$2,695.00
	2173	15/02/2019	FOOTPATH SWEEPING	\$2,227.50	
	2174	15/02/2019	VERGE MAINTENANCE	\$467.50	
Parks Refrigeration & Airconditioning	2224.7489-01	18/02/2019	REPAIRS AND MAINTENANCE		\$1,047.20
	INV-1534	24/01/2019	AIR CON REPAIRS - ADMIN BUILDING	\$255.20	
	INV-1532	01/02/2019	MAINTENANCE FOR ZIPP WATER HEATER AT ADMIN	\$423.50	
	INV-1533	01/02/2019	MAINTENANCE FOR ZIPP WATER HEATER AT DEPOT	\$368.50	
FD Food Services Pty Ltd	2224.7590-01	18/02/2019	KIOSK SUPPLIES		\$1,883.15
	KN782564	01/02/2019	KIOSK SUPPLIES	\$1,534.40	
	KN740510	01/02/2019	KIOSK SUPPLIES	\$348.75	
Test Force Plumbing & Gas	2224.7735-01	18/02/2019	PLUMBING		\$330.00
	00023818	15/02/2019	PLUMBING	\$330.00	
Eston Road Systems	2224.7806-01	18/02/2019	PAVEMENT MARKINGS		\$1,870.00
	Mund 96	15/02/2019	TEMPORARY PAVEMENT MARKINGS	\$495.00	
	Mund 97	15/02/2019	TEMPORARY PAVEMENT MARKINGS	\$385.00	
	Mund 98	15/02/2019	TEMPORARY PAVEMENT MARKINGS	\$495.00	
	Mund 99	15/02/2019	TEMPORARY PAVEMENT MARKINGS	\$495.00	
Compass Earthworks	2224.7840-01	18/02/2019	EARTHWORKS		\$270.00
	00000711	15/02/2019	CONSTRUCTION OF 2 x BASINS	\$270.00	
Test Coast On Hold	2224.7960-01	18/02/2019	MESSAGES ON HOLD		\$69.00
	INV0805	08/02/2019	MESSAGES ON HOLD	\$69.00	
Unnings Group Limited	2224.80-01	18/02/2019	HARDWARE		\$449.06
	2180/01591736	31/01/2019	HARDWARE	\$69.84	
	2180/01592296	31/01/2019	HARDWARE	\$79.80	
	2180/01682114	31/01/2019	HARDWARE	\$89.58	
	2180/01592014	31/01/2019	HARDWARE	\$209.84	
Eaton Australia Pty Ltd	2224.803-01	18/02/2019	SAFETY SIGNS		\$46.86
	9339183279	31/01/2019	SAFETY SIGNS	\$46.86	
Eaton Australia Pty Ltd	2224.8053-01	18/02/2019	LIBRARY SUPPLIES		\$300.85
	IN170062	01/02/2019	DVD SECURITY CASES	\$300.85	
Re-Save	2224.8128-01	18/02/2019	INSPECTION FEES		\$607.20
	TI- 003568	04/02/2019	INSPECTION & SERVICE OF FIRE EXTINGUISHERS	\$607.20	
East End Electrical	2224.8149-01	18/02/2019	ELECTRICAL SERVICES		\$1,232.00
	EEE1000-841	15/02/2019	REPOSITION LIGHT FITTING AT BOYA COMMUNITY HUB	\$1,232.00	
Natural Area Holdings P/L T/A Natural Area Consulting Management	2224.8374-01	18/02/2019	WEED CONTROL		\$2,508.35
	00010601	01/02/2019	WEED CONTROL AT MATHIESON RD TRANSFER STATION	\$2,508.35	

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CG Earthmoving Pty Ltd	2224.8513-01	18/02/2019	EARTHWORKS		\$8,052.00
	00000649	15/02/2019	CONSTRUCTION OF OPEN DRAINS - LINLEY VALLEY ROAD	\$8,052.00	\$8,052.00
ankey Plumbing Service	2224.8545-01	18/02/2019	PLUMBING		\$132.00
	4316	15/02/2019	PLUMBING	\$132.00	\$132.00
rownes Foods Operations Pty Ltd	2224.8611-01	18/02/2019	KIOSK SUPPLIES		\$163.17
	14684737	08/02/2019	KIOSK SUPPLIES	\$163.17	\$163.17
ortham Tree Services	2224.8769-01	18/02/2019	STREET TREE MAINTENANCE		\$8,679.00
	1952	01/02/2019	STREET TREE MAINTENANCE	\$2,871.00	\$8,679.00
	1958	14/02/2019	STREET TREE MAINTENANCE	\$2,552.00	\$8,679.00
	1949	15/02/2019	STREET TREE MAINTENANCE	\$3,256.00	\$8,679.00
ool Line Electrical & Refrigeration	2224.8976-01	18/02/2019	ELECTRICAL SERVICES		\$8,589.90
	00126085	14/02/2019	LIGHT GLOBES FOR ROSE GARDEN	\$1,698.40	\$8,589.90
	00126054	14/02/2019	MUNDARING HARDCOURTS CARPARK LIGHTING MAINTENANCE	\$2,360.00	\$8,589.90
	00126091	14/02/2019	MUNDARING HARDCOURTS SWITCHBOARD REPAIRS	\$685.00	\$8,589.90
	00126087	14/02/2019	MJM CARPARK LIGHTING MAINTENANCE	\$1,860.00	\$8,589.90
	00126088	14/02/2019	GLEN FORREST OVAL LIGHTING MAINTENANCE	\$925.00	\$8,589.90
	00126089	14/02/2019	GLOBE FOR LIONS PIONEER PARK	\$1,061.50	\$8,589.90
ign Supermarket	2224.904-01	18/02/2019	SIGNS		\$952.00
	18205	08/02/2019	SIGNS	\$721.00	\$952.00
	18206	14/02/2019	SIGNS	\$231.00	\$952.00
erth Rollershutters Pty Ltd	2224.9273-01	18/02/2019	MAINTENANCE		\$525.80
	INV-1440	14/02/2019	REPAIRS TO ROLLER DOOR AT LAKE LESCHENAULTIA	\$525.80	\$525.80
von Hills Environmental	2224.9584-01	18/02/2019	FIREBREAKS		\$412.50
	420	15/02/2019	FIREBREAKS	\$412.50	\$412.50
rice Pest Management	2224.9596-01	18/02/2019	PEST CONTROL		\$946.00
	02918	15/02/2019	PEST CONTROL	\$946.00	\$946.00
PK Tree Management Pty Ltd	2224.9627-01	18/02/2019	STREET TREE MAINTENANCE		\$2,743.58
	00006036	01/02/2019	STREET TREE MAINTENANCE	\$2,743.58	\$2,743.58
aimler Trucks Perth	2224.9643-01	18/02/2019	PARTS		\$295.28
	6154897D	01/02/2019	SUPPLY OF PARTS FOR 042 MDG	\$295.28	\$295.28
henton Enterprises Pty Ltd	2224.9697-01	18/02/2019	POOL EQUIPMENT REPAIRS		\$366.30
	164422	14/02/2019	REPAIRS CHLORINE VALVE AT BILGOMAN AQUATIC CENTRE	\$366.30	\$366.30
VG Midland Isuzu Ute (Komet WA Pty Ltd)	2224.9813-01	18/02/2019	PARTS		\$143.66
	3573922	19/12/2018	PARTS	\$143.66	\$143.66
canlan Surveys Pty Ltd	2224.9972-01	18/02/2019	SURVEYING SERVICES		\$5,929.00
	7886/17	08/02/2019	SURVEYING SERVICES	\$2,750.00	\$5,929.00
	8173/19	15/02/2019	SURVEYING SERVICES	\$3,179.00	\$5,929.00
iss E Smith	2225.11837-01	18/02/2019	YOUTH SPONSORSHIP		\$100.00
	1819YG18	18/02/2019	YOUTH SPONSORSHIP	\$100.00	\$100.00
rs S B Manton	2225.12800-01	18/02/2019	REFUND		\$147.00
	REFUND	18/02/2019	REFUND OF PLANNING FEE	\$147.00	\$147.00
r G Stewart	2225.12801-01	18/02/2019	REIMBURSEMENT		\$1,762.50
	REIMBURSEMENT	18/02/2019	REIMBURSEMENT OF COURSE FEES	\$1,762.50	\$1,762.50
s D Trenent	2225.12803-01	18/02/2019	REFUND		\$588.47
	REFUND	18/02/2019	REFUND FOR OVERPAYMENT OF FEES	\$588.47	\$588.47

ynergy	2225.174-01	18/02/2019	ELECTRICITY		\$62,112.10
	3563304329	06/02/2019	ELECTRICITY	\$332.40	
	3666408227	13/02/2019	ELECTRICITY	\$450.15	
	4743483524	13/02/2019	ELECTRICITY	\$95.60	
	5068955212	13/02/2019	ELECTRICITY	\$184.80	
	5639936321	13/02/2019	ELECTRICITY	\$376.20	
	2172465520	13/02/2019	ELECTRICITY	\$109.80	
	8876289221	13/02/2019	ELECTRICITY	\$368.85	
	8749180328	13/02/2019	ELECTRICITY	\$116.20	
	5045204415	13/02/2019	ELECTRICITY	\$355.50	
	5125442514	13/02/2019	ELECTRICITY	\$215.25	
	5142730716	13/02/2019	ELECTRICITY	\$114.45	
	5087811715	13/02/2019	ELECTRICITY	\$379.50	
	6945660323	13/02/2019	ELECTRICITY	\$1,105.25	
	5233911527	18/02/2019	ELECTRICITY	\$268.45	
	5162819914	18/02/2019	ELECTRICITY	\$2,641.80	
	3021647529	18/02/2019	STREET LIGHT ELECTRICITY	\$54,997.90	
hire of Mundaring	2225.589-01	18/02/2019	FDC PARENT LEVY		\$21,863.75
	140219	18/02/2019	FDC PARENT LEVY	\$21,863.75	
idland Mowers	2226.101-01	25/02/2019	PARTS		\$193.00
	28650 # 2	14/02/2019	PARTS	\$193.00	
udd Industrial & Farm Supplies	2226.1020-01	25/02/2019	PARTS		\$119.09
	888789	15/01/2019	PARTS	\$30.29	
	888988	15/01/2019	PARTS	\$88.80	
ichael Page International (Australia) Pty Ltd	2226.10416-01	25/02/2019	TEMP STAFF		\$2,338.80
	296198	22/02/2019	TEMP STAFF - FINANCE	\$889.68	
	295629	22/02/2019	TEMP STAFF - FINANCE	\$1,449.12	
2 Commander Pty Ltd	2226.10819-01	25/02/2019	ADSL CHARGES		\$493.59
	18169653	15/02/2019	ADSL CHARGES	\$493.59	
isco Pty Ltd	2226.10881-01	25/02/2019	FIRST AID REPLENISHMENT		\$232.32
	CPER1911564	08/02/2019	FIRST AID REPLENISHMENT	\$101.64	
	CPER1911561	08/02/2019	FIRST AID REPLENISHMENT	\$29.04	
	CPER1911563	08/02/2019	FIRST AID REPLENISHMENT	\$29.04	
	CPER1911562	08/02/2019	FIRST AID REPLENISHMENT	\$72.60	
om Operations Pty Ltd	2226.10921-01	25/02/2019	CHLORINE GAS		\$3,555.50
	6069033	08/02/2019	CHLORINE GAS	\$286.92	
	6060962	25/01/2019	CHLORINE GAS	\$3,268.58	
mgrow Australia Pty Ltd T/As Nuturf	2226.10931-01	25/02/2019	LAWN FERTILISER		\$726.00
	148294	08/02/2019	LAWN FERTILISER	\$726.00	
elstra SNP Monitoring Pty Ltd	2226.11017-01	25/02/2019	ALARM MONITORING		\$4,021.63
	SP110098	22/02/2019	SERVICE CALL	\$193.60	
	MAS268980	22/02/2019	ALARM MONITORING	\$3,828.03	
osh Catering	2226.11020-01	25/02/2019	CATERING		\$2,376.00
	118432	08/02/2019	CATERING	\$2,376.00	
TI Couriers Pty Ltd	2226.11085-01	25/02/2019	COURIER SERVICES		\$600.60
	CISC4239678	14/02/2019	COURIER SERVICES	\$600.60	
online Fire & Rescue Equipment	2226.11135-01	25/02/2019	EQUIPMENT PURCHASES		\$3,267.55
	62995	01/02/2019	EQUIPMENT PURCHASES	\$893.25	
	63003	01/02/2019	EQUIPMENT PURCHASES	\$216.48	
	63002	01/02/2019	EQUIPMENT PURCHASES	\$758.84	
	63004	01/02/2019	EQUIPMENT PURCHASES	\$643.05	
	62994	01/02/2019	EQUIPMENT PURCHASES	\$240.57	

	62996	01/02/2019	EQUIPMENT PURCHASES	\$103.73	
	62643	21/02/2019	REPAIR LEAKING ROOF IN CAB OF 072 MDG	\$411.63	
XIIS Contracting Pty Ltd	2226.11161-01	25/02/2019	CONCRETING		\$6,502.43
	4278	18/02/2019	CONSTRUCTION OF CONCRETE APRONS - MUNDARING INDUSTRIAL AREA	\$5,077.05	
	4279	18/02/2019	KERB CUTTING - MUNDARING INDUSTRIAL AREA	\$1,425.38	
recision Landscape Construction Pty Ltd (The Martin Family Trust T/A)	2226.11400-01	25/02/2019	PAVING SERVICES		\$550.00
	3712	18/02/2019	PAVING SERVICES	\$550.00	
and I Services (Sneska Iliki T/A)	2226.11452-01	25/02/2019	CLEANING		\$560.00
	133	21/02/2019	CLEANING	\$280.00	
	135	21/02/2019	CLEANING	\$280.00	
wan Valley Fresh (Vendor Management Solutions PtyLtd T/A)	2226.11474-01	25/02/2019	KIOSK SUPPLIES		\$148.13
	00022354	21/02/2019	KIOSK SUPPLIES	\$148.13	
ARP Traffic Management (WARP Pty Ltd T/A)	2226.11564-01	25/02/2019	TRAFFIC MANAGEMENT		\$62,191.73
	8293204	23/01/2019	TRAFFIC MANAGEMENT	\$6,653.15	
	8293203	23/01/2019	TRAFFIC MANAGEMENT	\$698.39	
	8293075	23/01/2019	TRAFFIC MANAGEMENT	\$3,607.24	
	8293202	23/01/2019	TRAFFIC MANAGEMENT	\$5,922.31	
	8293343	01/02/2019	TRAFFIC MANAGEMENT	\$10,132.25	
	8293341	01/02/2019	TRAFFIC MANAGEMENT	\$4,661.40	
	8293342	01/02/2019	TRAFFIC MANAGEMENT	\$4,842.89	
	8293353	01/02/2019	TRAFFIC MANAGEMENT	\$1,475.57	
	8293515	04/02/2019	TRAFFIC MANAGEMENT	\$7,240.53	
	8293512	04/02/2019	TRAFFIC MANAGEMENT	\$5,883.85	
	8293505	14/02/2019	TRAFFIC MANAGEMENT	\$6,476.43	
	8293514	18/02/2019	TRAFFIC MANAGEMENT	\$2,468.93	
	8293513	18/02/2019	TRAFFIC MANAGEMENT	\$2,128.79	
ontra-Flow Pty Ltd	2226.11580-01	25/02/2019	TRAFFIC MANAGEMENT		\$11,651.57
	T18/48470	25/01/2019	TRAFFIC MANAGEMENT	\$8,577.76	
	T18/48407	01/02/2019	TRAFFIC MANAGEMENT	\$3,073.81	
nells Distribution Pty Ltd T/A Amalgamated Movies	2226.11816-01	25/02/2019	COPYRIGHT FEES		\$665.40
	00006237	25/01/2019	COPYRIGHT FEES FOR MOVIES	\$665.40	
eality Landscapes & Consultancy (The Pankhurst Trust T/A)	2226.11965-01	25/02/2019	WATERWISE DEMONSTRATION		\$660.00
	00000246	21/02/2019	WATERWISE DEMONSTRATION	\$660.00	
leanflow Environmental Solutions	2226.11986-01	25/02/2019	JETTING AND EDUCTING		\$2,287.49
	00035416	18/02/2019	JETTING AND EDUCTION OF STORMWATER SYSTEM	\$2,287.49	
epartment of Human Services - Child Support	2226.12-01	25/02/2019	CHILD SUPPORT PAYMENT		\$147.26
	PY02-17-CHILD SU	17/02/2019	CHILD SUPPORT PAYMENT	\$147.26	
ecruitwest Pty Ltd	2226.12078-01	25/02/2019	TEMP STAFF		\$12,920.27
	C INV 496797	21/02/2019	TEMP STAFF - DEPOT	\$12,920.27	
idland Tools Pty Ltd T/A Total Tools Midland	2226.12080-01	25/02/2019	TOOL BOXES		\$178.00
	117719	04/02/2019	TOOL BOXES	\$178.00	
eta Maya Group Pty Ltd	2226.12100-01	25/02/2019	ASBESTOS SAMPLING		\$30.80
	G42001321	21/02/2019	ASBESTOS SAMPLING	\$30.80	
enderLink.com	2226.12149-01	25/02/2019	TENDER ADVERTISING		\$58.30
	MUNDAR-264925	11/02/2019	TENDER ADVERTISING - TURNAROUND FACILITIES	\$58.30	
iobean Coffee Pty Ltd	2226.12185-01	25/02/2019	KIOSK SUPPLIES		\$839.48
	00008567	07/02/2019	KIOSK SUPPLIES	\$150.00	
	00008508	21/02/2019	KIOSK SUPPLIES	\$689.48	

Attachment 1 to Report 10.7

Eastern Hills Bakery	2226.12312-01	25/02/2019	CATERING		\$181.50	\$181.50
	21	21/02/2019	CATERING		\$181.50	
Specialist News Pty Limited	2226.12348-01	25/02/2019	SUBSCRIPTIONS			\$1,179.00
	WP23484	01/02/2019	SUBSCRIPTIONS		\$1,179.00	
evco Builders	2226.12350-01	25/02/2019	CONSTRUCTION CONTRACT			\$57,730.86
	00007902	25/02/2019	CONSTRUCTION OF UNIVERSAL TOILET FACILITY - GLEN FORREST OVAL		\$57,730.86	
Int Civil T/A Kalamunda Sweeping	2226.12388-01	25/02/2019	STREET SWEEPING SERVICES			\$7,898.75
	M 2144	04/02/2019	STREET SWEEPING SERVICES		\$2,492.00	
	M 2143	04/02/2019	STREET SWEEPING SERVICES		\$5,406.75	
Race Information & Records Management	2226.12402-01	25/02/2019	OFF SITE STORAGE			\$1,821.69
	RP00845206	08/02/2019	OFFSITE STORAGE		\$1,821.69	
DM Plumbing and Gas	2226.12422-01	25/02/2019	PLUMBING			\$620.13
	636	22/02/2019	PLUMBING		\$620.13	
Brochure Display Systems	2226.12471-01	25/02/2019	OFFICE FURNITURE			\$28.60
	00000287	25/01/2019	BROCHURE BRACKET		\$28.60	
CoCareBags Pty Ltd T/A ePromotions 247	2226.12515-01	25/02/2019	ECO BAGS			\$1,286.19
	INV-6915	22/02/2019	ECO BAGS		\$1,286.19	
Mr V Crowe	2226.12579-01	25/02/2019	GARDENING			\$890.00
	1161	21/02/2019	GARDENING		\$260.00	
	1162	21/02/2019	CLEANING		\$210.00	
	1163	21/02/2019	LANDSCAPING		\$210.00	
	1164	21/02/2019	LANDSCAPING		\$210.00	
Rapid Asbestos Removals (Rapid Holdings WA Pty Ltd T/A)	2226.12649-01	25/02/2019	ASBESTOS REMOVAL			\$385.00
	490	18/02/2019	ASBESTOS REMOVAL		\$385.00	
West Coast Profilers Pty Ltd	2226.12654-01	25/02/2019	PROFILING			\$5,225.00
	20198	14/02/2019	PROFILING SERVICES FOR ELLIOTT ROAD, CHIDLOW		\$5,225.00	
Busco Modular Pty Ltd	2226.12715-01	25/02/2019	MODULAR BUILDING			\$15,009.28
	1112351	04/02/2019	SUPPLY AND DELIVERY OF PORTABLE ABLUTION BLOCK - LAKE LESCHENAULTIA		\$15,009.28	
Social Perth	2226.12736-01	25/02/2019	SOCIAL MEDIA SERVICES			\$390.00
	#005	21/02/2019	SOCIAL MEDIA SERVICES		\$390.00	
Prayline Spraying Equipment	2226.12751-01	25/02/2019	EQUIPMENT			\$417.12
	21551	18/02/2019	SAFETY GEAR		\$397.72	
	21561	18/02/2019	TOOLS		\$19.40	
Work Health Professionals Pty Ltd	2226.12808-01	25/02/2019	HEARING TESTING			\$198.00
	00000054	21/02/2019	HEARING TESTING		\$198.00	
Hire of Mundaring	2226.13-01	25/02/2019	PAYROLL DEDUCTION			\$4,592.01
	PY02-17-Private	17/02/2019	PAYROLL DEDUCTION		\$147.00	
	PY02-17-Buy Addi	17/02/2019	PAYROLL DEDUCTION		\$434.41	
	PY01-17-Private	17/02/2019	PAYROLL DEDUCTION		\$441.00	
	PY01-17-Child Ca	17/02/2019	PAYROLL DEDUCTION		\$1,113.76	
	PY01-17-Buy Addi	17/02/2019	PAYROLL DEDUCTION		\$659.12	
	PY01-17-Novated	17/02/2019	PAYROLL DEDUCTION		\$971.72	
	PY01-17-Novated	17/02/2019	PAYROLL DEDUCTION		\$825.00	
Western Australian Treasury Corp	2226.131-01	25/02/2019	LOAN REPAYMENT			\$91,888.81
	LOAN 170	30/01/2019	LOAN 170 REPAYMENT - PRINCIPAL & INTEREST		\$42,395.12	
	LOAN 171	30/01/2019	LOAN 171 REPAYMENT - PRINCIPAL & INTEREST		\$49,493.69	

NT - Division of Pacific Brands Workwear Group P/L	2226.1328-01	25/02/2019	UNIFORMS		\$1,692.76
	11116979	24/01/2019	UNIFORMS	\$691.91	
	11148117	14/02/2019	UNIFORMS	\$249.80	
	11150303	14/02/2019	UNIFORMS	\$751.05	
onic HealthPlus Pty Ltd	2226.138-01	25/02/2019	MEDICALS		\$231.00
	1714150	22/02/2019	PRE-EMPLOYMENT MEDICAL EXAMINATION	\$231.00	
chweppes Australia Pty Ltd	2226.145-01	25/02/2019	KIOSK SUPPLIES		\$423.46
	0808444889	10/01/2019	KIOSK SUPPLIES	\$423.46	
astern Hills Saws & Mowers Pty Ltd	2226.146-01	25/02/2019	PARTS		\$32.00
	42663 # 4	21/02/2019	PARTS	\$32.00	
oates Hire	2226.155-01	25/02/2019	EQUIPMENT HIRE		\$1,936.00
	18022250	08/02/2019	HIRE OF VMB FOR CINEMA UNDER STARLIGHT ADVERTISING	\$1,936.00	
astern Region Security	2226.191-01	25/02/2019	SECURITY SERVICES		\$4,093.94
	00017957	22/02/2019	SECURITY SERVICES	\$347.48	
	00017956	25/02/2019	SECURITY SERVICES	\$809.73	
	00017958	25/02/2019	SECURITY SERVICES	\$831.92	
	00017959	25/02/2019	SECURITY SERVICES	\$353.71	
	00017960	25/02/2019	SECURITY SERVICES	\$650.12	
	00017982	25/02/2019	SECURITY SERVICES	\$88.00	
	00017983	25/02/2019	SECURITY SERVICES	\$495.00	
	00017984	25/02/2019	SECURITY SERVICES	\$82.50	
	00017955	25/02/2019	SECURITY SERVICES	\$435.48	
leanaway	2226.1955-01	25/02/2019	RECYCLING FEES		\$71,688.10
	21514005	22/02/2019	RECYCLING FEES	\$71,688.10	
onica Minolta Business Solutions Aust Pty Ltd	2226.197-01	25/02/2019	PHOTOCOPIER PRINTING		\$6,015.59
	91743382	08/02/2019	PHOTOCOPIER PRINTING	\$4,075.50	
	0400001153320119	08/02/2019	PHOTOCOPIER PRINTING	\$1,940.09	
potless Facility Services Pty Ltd	2226.2075-01	25/02/2019	EQUIPMENT		\$579.15
	719392	14/02/2019	NON-SLIP MATS	\$321.75	
	717953	21/02/2019	NON-SLIP MATS	\$257.40	
astern Metropolitan Regional Council	2226.21-01	25/02/2019	TRANSFER STATION FEES		\$112,863.78
	EMRC29749	14/02/2019	TRANSFER STATION FEES	\$21,744.85	
	EMRC29748	14/02/2019	TRANSFER STATION FEES	\$23,790.54	
	016 645	21/02/2019	TRANSFER STATION FEES	\$67,328.39	
eputy Commissioner of Taxation	2226.215-01	25/02/2019	TAXATION		\$149,149.00
	PY02-17-Deputy C	17/02/2019	PAYROLL DEDUCTION	\$27,413.00	
	PY01-17-Deputy C	17/02/2019	PAYROLL DEDUCTION	\$121,736.00	
sphaltech Pty Ltd	2226.2163-01	25/02/2019	ASPHALT		\$71,455.17
	10005926	14/02/2019	ASPHALT - STUART STREET, GREENMOUNT	\$45,217.39	
	10005925	14/02/2019	ASPHALT - GALLIPOLI DRIVE, GREENMOUNT	\$26,237.78	
ecurity & Key Distributors	2226.218-01	25/02/2019	SECURITY SERVICES		\$338.72
	80946	31/01/2019	SECURITY SERVICES	\$42.79	
	81003	08/02/2019	SECURITY SERVICES	\$126.57	
	81002	08/02/2019	SECURITY SERVICES	\$42.79	
	81006	14/02/2019	SECURITY SERVICES	\$126.57	
o-Go Appointments	2226.253-01	25/02/2019	TEMP STAFF		\$1,022.33
	00419120	21/02/2019	TEMP STAFF - VISITOR CENTRE OFFICER	\$1,022.33	
undaring Arts Centre Inc	2226.254-01	25/02/2019	ART ACQUISITIONS		\$14,385.00
	1158	21/02/2019	ART ACQUISITION EXHIBITION	\$2,200.00	
	2477	22/02/2019	ART ACQUISITION	\$12,185.00	

Stewart & Heaton Clothing Co	2226.2625-01	25/02/2019	UNIFORMS		\$216.72
	SIN-2989686	04/02/2019	UNIFORMS	\$210.74	
	SIN-2976413	18/02/2019	UNIFORMS	\$5.98	
Clene Pty Ltd	2226.2737-01	25/02/2019	CLEANING		\$66,091.52
	00009325	04/02/2019	MONTHLY CLEANING OF SHIRE FACILITIES	\$64,987.45	
	00009334	04/02/2019	CLEANING	\$883.49	
	00009333	08/02/2019	CLEANING	\$220.58	
Inc Australia Pty Limited	2226.280-01	25/02/2019	STATIONERY		\$693.87
	9026494362	08/02/2019	STATIONERY	\$397.54	
	9026075982	21/02/2019	STATIONERY	\$263.59	
	9026184044	21/02/2019	STATIONERY	\$32.74	
Leods Barristers and Solicitors	2226.307-01	25/02/2019	PROFESSIONAL LEGAL SERVICES		\$3,120.63
	106614	22/02/2019	PROFESSIONAL LEGAL SERVICES - DOG ACT PROSECUTION	\$852.68	
	105887	25/02/2019	PROFESSIONAL LEGAL SERVICES - PLANNING MATTER	\$2,267.95	
ocal Government Professionals Australia WA	2226.3088-01	25/02/2019	CONFERENCE REGISTRATION		\$1,160.00
	10201	25/02/2019	CONFERENCE REGISTRATION	\$1,160.00	
andgate	2226.314-01	25/02/2019	TITLE SEARCHES		\$77.10
	906270	08/02/2019	TITLE SEARCHES	\$77.10	
urfworks WA Pty Ltd	2226.3232-01	25/02/2019	MOWING		\$3,578.22
	4556	14/02/2019	MOWING	\$1,789.11	
	4559	21/02/2019	MOWING	\$1,789.11	
oral Construction Materials Group Ltd	2226.33-01	25/02/2019	ASPHALT		\$19,544.80
	WA14179548	21/01/2019	EMULSION	\$176.00	
	WA14179547	21/01/2019	EMULSION	\$330.00	
	WA14181601	21/01/2019	ASPHALT	\$4,004.00	
	WA14181600	21/01/2019	ASPHALT	\$2,002.00	
	WA14189628	23/01/2019	EMULSION	\$176.00	
	WA14181602	23/01/2019	ASPHALT - SHOULDER IMPROVEMENTS	\$880.00	
	WA14195242	23/01/2019	EMULSION	\$316.80	
	WA14195241	23/01/2019	ASPHALT & BITUMEN EMULSION	\$3,344.00	
	WA14195240	23/01/2019	ASPHALT- SHOULDER IMPROVEMENTS	\$3,080.00	
	WA14195239	23/01/2019	ASPHALT- SHOULDER IMPROVEMENTS	\$924.00	
	WA14199086	31/01/2019	ASPHALT	\$4,004.00	
	WA14227393	14/02/2019	ASPHALT	\$154.00	
	WA14227392	14/02/2019	ASPHALT	\$154.00	
SEA Pty Ltd	2226.3338-01	25/02/2019	SAFETY EQUIPMENT		\$67.96
	6614452	21/01/2019	SAFETY EQUIPMENT	\$67.96	
asta Courier Service	2226.336-01	25/02/2019	COURIER SERVICES		\$680.30
	205979	22/02/2019	COURIER SERVICES	\$680.30	
andmark Operations Ltd	2226.35-01	25/02/2019	WEED CONTROL CHEMICALS		\$874.61
	901398158	14/02/2019	WEED CONTROL CHEMICALS	\$159.61	
	901421043	14/02/2019	WEED CONTROL CHEMICALS	\$715.00	
ourier Australia	2226.375-01	25/02/2019	COURIER SERVICES		\$13.05
	0377	18/02/2019	COURIER COSTS	\$13.05	
undaring Electrical Contracting Service	2226.381-01	25/02/2019	ELECTRICAL SERVICES		\$1,681.90
	6827	18/02/2019	ELECTRICAL SERVICES	\$319.00	
	6828	18/02/2019	ELECTRICAL SERVICES	\$209.00	
	6826	21/02/2019	ELECTRICAL SERVICES	\$286.00	
	6825	21/02/2019	ELECTRICAL SERVICES	\$387.20	
	6836	22/02/2019	ELECTRICAL SERVICES	\$106.70	
	6835	22/02/2019	ELECTRICAL SERVICES	\$374.00	

Observation Volunteers Australia	2226.3844-01	25/02/2019	LANDSCAPING		\$825.00
	81184	18/02/2019	ROCK RIFFLE WORK ALONG CREEK LINE ON BOYA TRAIL	\$825.00	
unzl Ltd	2226.388-01	25/02/2019	CLEANING SUPPLIES		\$1,656.87
	U677104	21/01/2019	CLEANING PRODUCTS	\$638.88	
	U696490	08/02/2019	CLEANING SUPPLIES	\$905.10	
	U702130	08/02/2019	CLEANING SUPPLIES	\$112.89	
Health Insurance Fund of WA	2226.4-01	25/02/2019	PAYROLL DEDUCTION		\$1,128.95
	PY01-17-HIF	17/02/2019	PAYROLL DEDUCTION	\$1,128.95	
ardvark Bobcat & Truck Hire	2226.4407-01	25/02/2019	HIRE OF PLANT		\$3,056.70
	#675	21/02/2019	HIRE OF PLANT	\$3,056.70	
oolmart Australia Pty. Ltd.	2226.441-01	25/02/2019	EQUIPMENT		\$349.00
	201902017135507	04/02/2019	TOOL BOX FOR UTE	\$349.00	
arketforce Pty Ltd	2226.4433-01	25/02/2019	ADVERTISING		\$712.62
	25960	04/02/2019	ADVERTISING	\$712.62	
r J S Daw	2226.4526-01	25/02/2019	COUNCILLOR ALLOWANCE		\$707.67
	TRAVEL	22/02/2019	TRAVEL REIMBURSEMENT	\$707.67	
exi Staff Pty Ltd	2226.4560-01	25/02/2019	TEMP STAFF		\$3,301.37
	205518	21/02/2019	TEMP STAFF - DEPOT	\$1,886.50	
	205845	22/02/2019	TEMP STAFF - DEPOT	\$1,414.87	
cho Newspaper	2226.480-01	25/02/2019	ADVERTISING		\$3,204.63
	00373001	15/01/2019	ADVERTISING	\$825.00	
	00373176	21/01/2019	ADVERTISING	\$1,028.50	
	00373365	31/01/2019	ADVERTISING	\$1,351.13	
lobal Workwear Investments Pty Ltd T/A Totally Workwear	2226.5558-01	25/02/2019	WORK CLOTHES		\$184.75
	MD42956	10/01/2019	WORK CLOTHES	\$184.75	
hire of Mundaring - Lotto Club	2226.5719-01	25/02/2019	PAYROLL DEDUCTION		\$271.60
	PY02-17-STAFF LO	17/02/2019	PAYROLL DEDUCTION	\$13.58	
	PY01-17-STAFF LO	17/02/2019	PAYROLL DEDUCTION	\$258.02	
hire of Mundaring - Social Club	2226.6-01	25/02/2019	PAYROLL DEDUCTION		\$168.00
	PY02-17-MUNDARIN	17/02/2019	PAYROLL DEDUCTION	\$2.00	
	PY01-17-MUNDARIN	17/02/2019	PAYROLL DEDUCTION	\$166.00	
el Distributors of Western Australia Pty Ltd	2226.6050-01	25/02/2019	FUEL & OILS		\$19,860.35
	00109079	21/02/2019	FUEL & OILS	\$616.44	
	39100616	21/02/2019	FUEL & OILS	\$19,243.91	
idland Rubber Stamps	2226.641-01	25/02/2019	STATIONERY		\$54.70
	00041070	14/02/2019	STATIONERY	\$54.70	
ade Sales	2226.6601-01	25/02/2019	PARTS		\$837.98
	24914	21/01/2019	PARTS	\$837.98	
ie Watershed Water Systems	2226.68-01	25/02/2019	RETICULATION PARTS		\$1,457.23
	10174520	04/02/2019	RETICULATION PARTS	\$187.56	
	10174583	04/02/2019	RETICULATION PARTS	\$1,042.81	
	10171931	21/02/2019	RETICULATION PARTS	\$9.50	
	10174552	01/02/2019	RETICULATION PARTS	\$217.36	
ark Rubber Midland (Westside Investments PTY Ltd)	2226.6997-01	25/02/2019	EQUIPMENT		\$267.80
	767265	21/01/2019	SUPPLY OF CHECKER PLATE RUBBER MATTING	\$267.80	

Australian Services Union	2226.7-01	25/02/2019	PAYROLL DEDUCTION		\$181.30
	PY02-17-AUSTRALI	17/02/2019	PAYROLL DEDUCTION	\$155.40	
	PY01-17-AUSTRALI	17/02/2019	PAYROLL DEDUCTION	\$25.90	
ny Envelopes	2226.7048-01	25/02/2019	STATIONERY		\$636.90
	00016672	08/02/2019	ENVELOPES	\$636.90	
oss Bobcat & Truck Service	2226.7230-01	25/02/2019	EARTHWORKS		\$10,010.00
	619	15/02/2019	RAKE AND CLEAN UP OF CHIDLOW OVAL	\$3,300.00	
	519	15/02/2019	SAND	\$1,650.00	
	719	18/02/2019	CLEAN UP OF SAND PITS	\$1,760.00	
	819	21/02/2019	LANDSCAPE MIX AT SAWYERS OVAL	\$3,300.00	
omet WA Pty Ltd T/A DVG Midland Kia	2226.7314-01	25/02/2019	VEHICLE SERVICE		\$2,777.01
	3602995	08/02/2019	VEHICLE SERVICE 819 MDG	\$475.00	
	3603883	08/02/2019	VEHICLE SERVICE 805 MDG	\$566.01	
	3605561	14/02/2019	NEW TYRES AND REPAIRS TO 831 MDG	\$1,736.00	
irtek Midland	2226.7318-01	25/02/2019	PARTS		\$47.30
	MD-T00021529	04/02/2019	PARTS	\$47.30	
umes Wembley Cement (Holcim Australia Pty Ltd)	2226.7347-01	25/02/2019	CONCRETE PRODUCTS		\$4,113.12
	9406162580	08/02/2019	CONCRETE PIPES	\$2,303.86	
	9406148729	22/02/2019	PIPING AND O RINGS	\$1,809.26	
r SA Hawke	2226.7353-01	25/02/2019	AUTHOR TALK		\$302.50
	2019-02	18/02/2019	AUTHOR TALK - BOYA LIBRARY	\$302.50	
coob's Dingo Service	2226.7426-01	25/02/2019	EARTHWORKS		\$4,273.50
	2177	21/02/2019	FOOTPATH SWEEPING	\$2,227.50	
	2179	21/02/2019	CLEANING OF HARDCOURTS	\$495.00	
	2176	21/02/2019	FOOTPATH SWEEPING	\$808.50	
	2175	21/02/2019	DRILL HOLES AND USE CEMENT MIXER FOR CHIDLOW OVAL	\$742.50	
onnect Call Centre Services	2226.7541-01	25/02/2019	CALL CENTRE SERVICES		\$4,668.24
	00094616	22/02/2019	AFTER HOURS CALL CENTRE COSTS - NOVEMBER	\$1,862.58	
	00094992	22/02/2019	AFTER HOURS CALL CENTRE COSTS - DECEMBER	\$2,805.66	
FD Food Services Pty Ltd	2226.7590-01	25/02/2019	KIOSK SUPPLIES		\$470.70
	KN817002	08/02/2019	KIOSK SUPPLIES	\$470.70	
hidlow Quality Affordable Meat	2226.7644-01	25/02/2019	KIOSK SUPPLIES		\$508.42
	10404	21/02/2019	KIOSK SUPPLIES	\$508.42	
under Enterprises Pty Ltd T/As Fortus Group	2226.7650-01	25/02/2019	PARTS		\$555.37
	INVFG0008290	04/02/2019	PARTS	\$555.37	
est Force Plumbing & Gas	2226.7735-01	25/02/2019	PLUMBING		\$473.00
	00023811	21/02/2019	PLUMBING	\$473.00	
BM Landscaping	2226.7820-01	25/02/2019	LANDSCAPE MAINTENANCE		\$38,449.99
	INV-3773	04/02/2019	LANDSCAPE MAINTENANCE	\$231.00	
	INV-3827	08/02/2019	LANDSCAPE MAINTENANCE	\$363.00	
	INV-3805	08/02/2019	PAVING REPAIRS	\$825.00	
	INV-3744	15/02/2019	PAVING REPAIRS	\$550.00	
	INV-3851	18/02/2019	LANDSCAPE MAINTENANCE	\$2,079.88	
	INV-3852	18/02/2019	LANDSCAPE MAINTENANCE	\$94.05	
	INV-3855	18/02/2019	HORTICULTURAL WATERING OPERATIONS	\$11,580.25	
	INV-3847	18/02/2019	LANDSCAPE MAINTENANCE	\$12,083.41	
	INV-3848	18/02/2019	LANDSCAPE MAINTENANCE	\$10,643.40	
ompass Earthworks	2226.7840-01	25/02/2019	EARTHWORKS		\$6,250.00
	00000709	14/02/2019	DRAINAGE WORKS - LINLEY VALLEY ROAD	\$4,050.00	
	00000715	18/02/2019	DRAINAGE EARTHWORKS - GLEN FORREST HALL	\$2,200.00	

Greenwaste Processing Services Pty Ltd	2226.7854-01	25/02/2019	GREENWASTE PROCESSING SERVICES		\$25,985.69
	00001553	15/02/2019	GREENWASTE PROCESSING SERVICES	\$25,985.69	
Greenwaste Processing Services Pty Ltd	2226.7857-01	25/02/2019	RENTAL CHARGES		\$210.10
	160164	01/02/2019	RENTAL CHARGES	\$210.10	
Greenwaste Processing Services Pty Ltd	2226.80-01	25/02/2019	HARDWARE		\$1,172.93
	2180/01593785	31/01/2019	HARDWARE	\$20.37	
	2180/01594131	04/02/2019	HARDWARE	\$601.89	
	2174/01395794	07/02/2019	HARDWARE	\$163.49	
	2180/01684003	07/02/2019	HARDWARE	\$283.66	
	2180/01684786	07/02/2019	HARDWARE	\$103.52	
Greenwaste Processing Services Pty Ltd	2226.8-01	25/02/2019	PAYROLL DEDUCTION		\$41.00
	PY02-17-LGRCEU	17/02/2019	PAYROLL DEDUCTION	\$41.00	
Greenwaste Processing Services Pty Ltd	2226.8149-01	25/02/2019	ELECTRICAL SERVICES		\$572.00
	EEE1000-843	21/02/2019	ELECTRICAL SERVICES	\$264.00	
	EEE1000-842	22/02/2019	ELECTRICAL SERVICES	\$308.00	
Greenwaste Processing Services Pty Ltd	2226.8165-01	25/02/2019	LABORATORY TESTING		\$1,273.80
	00025174	14/02/2019	GRAVEL AND SOIL TESTING	\$1,273.80	
Greenwaste Processing Services Pty Ltd	2226.8275-01	25/02/2019	MAINTENANCE		\$3,549.70
	00232084	18/02/2019	SERVICING OF FIRE EXTINGUISHERS	\$2,224.20	
	00232096	21/02/2019	FIRE EXTINGUISHER INSPECTIONS	\$1,325.50	
Greenwaste Processing Services Pty Ltd	2226.8500-01	25/02/2019	PEST CONTROL		\$798.10
	00003099	04/02/2019	PEST CONTROL	\$198.00	
	00003097	04/02/2019	PEST CONTROL	\$204.60	
	00003096	04/02/2019	PEST CONTROL	\$395.50	
Greenwaste Processing Services Pty Ltd	2226.8513-01	25/02/2019	EARTHWORKS		\$2,266.00
	00000652	18/02/2019	DRAINAGE WORKS - WANDEARA CRES, MUNDARING	\$2,266.00	
Greenwaste Processing Services Pty Ltd	2226.8584-01	25/02/2019	FERRICRETE AND SAND		\$10,337.56
	00004714	14/02/2019	FERRICRETE AND SAND	\$10,337.56	
Greenwaste Processing Services Pty Ltd	2226.8677-01	25/02/2019	SANITARY BINS		\$268.31
	339178	14/02/2019	SANITARY BINS	\$201.23	
	339179	14/02/2019	SANITARY BINS	\$67.08	
Greenwaste Processing Services Pty Ltd	2226.8769-01	25/02/2019	STREET TREE MAINTENANCE		\$22,913.00
	1954	18/02/2019	STREET TREE MAINTENANCE	\$1,812.80	
	1955	18/02/2019	STREET TREE MAINTENANCE	\$2,450.80	
	1957	18/02/2019	STREET TREE MAINTENANCE	\$1,174.80	
	1959	18/02/2019	STREET TREE MAINTENANCE	\$2,741.20	
	1960	18/02/2019	STREET TREE MAINTENANCE	\$2,741.20	
	1961	18/02/2019	STREET TREE MAINTENANCE	\$1,566.40	
	1963	18/02/2019	STREET TREE MAINTENANCE	\$1,595.00	
	1964	18/02/2019	STREET TREE MAINTENANCE	\$6,089.60	
	1956	21/02/2019	STREET TREE MAINTENANCE	\$2,741.20	
Greenwaste Processing Services Pty Ltd	2226.889-01	25/02/2019	CLEANING SUPPLIES		\$211.20
	ZJ1017389	21/02/2019	RAGS	\$211.20	
Greenwaste Processing Services Pty Ltd	2226.8944-01	25/02/2019	TYRES		\$1,360.00
	00014425	15/02/2019	TYRES	\$1,360.00	
Greenwaste Processing Services Pty Ltd	2226.8971-01	25/02/2019	PROPERTY STRATEGY IMPLEMENTATION		\$816.20
	325	14/02/2019	PROPERTY STRATEGY IMPLEMENTATION	\$816.20	

Mundaring Glass & Security	2226.91-01	25/02/2019	GLAZING		\$55.00	\$55.00
	00115738	21/02/2019	MIRROR FOR 036 MDG		\$55.00	
Pest Management	2226.9596-01	25/02/2019	PEST CONTROL			\$572.00
	02926	14/02/2019	PEST CONTROL		\$572.00	
PK Tree Management Pty Ltd	2226.9627-01	25/02/2019	STREET TREE MAINTENANCE			\$15,079.50
	00006004	21/01/2019	STREET TREE MAINTENANCE		\$6,499.50	
	00006055	01/02/2019	STREET TREE MAINTENANCE		\$4,180.00	
	00006054	01/02/2019	STREET TREE MAINTENANCE		\$4,400.00	
Managed System Services Pty Ltd	2226.9698-01	25/02/2019	IT HARDWARE			\$2,739.59
	00004056	22/02/2019	IT HARDWARE		\$983.79	
	00004057	22/02/2019	IT HARDWARE		\$1,755.80	
Amzilla Timber Pty Ltd T/As Mundaring Hardware	2226.9824-01	25/02/2019	HARDWARE			\$233.40
	55178	21/02/2019	HARDWARE		\$120.00	
	55330	21/02/2019	HARDWARE		\$108.90	
	55348	21/02/2019	HARDWARE		\$4.50	
Marling Range Tilt & Hiab	2226.9872-01	25/02/2019	TRANSPORT			\$380.00
	38	15/02/2019	TRANSPORT STORM WATER PIPES TO WOOROOLOO		\$380.00	
Mr A M Currell	2227.10502-01	26/02/2019	REIMBURSEMENT			\$440.09
	REIMBURSEMENT	25/02/2019	REIMBURSEMENT FOR IT HARDWARE		\$440.09	
Mr C Blacker	2227.11039-01	26/02/2019	YOUTH GRANT			\$100.00
	YOUTH GRANT	25/02/2019	YOUTH GRANT		\$100.00	
Mr R Haripersad	2227.12292-01	26/02/2019	REIMBURSEMENT			\$200.00
	REIMBURSEMENT	25/02/2019	REIMBURSEMENT FOR PRESCRIPTION GLASSES		\$200.00	
Mr S Kocian	2227.12772-01	26/02/2019	REIMBURSEMENT			\$25.25
	REIMBURSEMENT	25/02/2019	REIMBURSEMENT OF PARKING FEES		\$25.25	
Ms J S Thein	2227.12778-01	26/02/2019	REFUND			\$600.00
	REFUND	25/02/2019	REFUND OF FUNDS TRANSFER TO INCORRECT ACCOUNT		\$600.00	
Ms S Cullen	2227.12810-01	26/02/2019	REFUND			\$30.00
	REFUND	25/02/2019	REFUND PART DOG REGISTRATION DUE TO STERILISATION		\$30.00	
Mr A P Bradfield	2227.12811-01	26/02/2019	CROSSOVER CONTRIBUTION			\$425.00
	CROSSOVER	25/02/2019	CROSSOVER CONTRIBUTION		\$425.00	
Mr T M Strohmeier	2227.12813-01	26/02/2019	REFUND			\$118.00
	REFUND	25/02/2019	REFUND BUILDING APPLICATION FEES		\$118.00	
Energy	2227.174-01	26/02/2019	ELECTRICITY			\$6,351.70
	5147790712	13/02/2019	ELECTRICITY		\$1,051.00	
	0239507529	13/02/2019	ELECTRICITY		\$130.40	
	5176146213	18/02/2019	ELECTRICITY		\$342.55	
	5172433125	18/02/2019	ELECTRICITY		\$152.75	
	5134764810	22/02/2019	ELECTRICITY		\$256.10	
	5176146311	22/02/2019	ELECTRICITY		\$1,020.40	
	3310777127	22/02/2019	ELECTRICITY		\$113.20	
	8446589925	22/02/2019	ELECTRICITY		\$837.05	
	5035029810	22/02/2019	ELECTRICITY		\$1,177.15	
	5035029115	22/02/2019	ELECTRICITY		\$137.15	
	8764232325	22/02/2019	ELECTRICITY		\$360.30	
	6704891520	22/02/2019	ELECTRICITY		\$161.50	
	2298437127	22/02/2019	ELECTRICITY		\$224.10	
	5059324411	22/02/2019	ELECTRICITY		\$388.05	

esfarmers Kleenheat Gas Pty Ltd	2227.355-01	26/02/2019	GAS		\$270.70
	21372613	25/01/2019	GAS	\$214.74	
	21372614	11/02/2019	BULK LPG GAS	\$55.96	
ayClear Services Pty Ltd (Superchoice)	2228.12516-01	27/02/2019	SUPERANNUATION-FEB2019-1		\$194,567.66
	Feb2019-1	28/02/2019	SUPERANNUATION-FEB2019-1	\$138,185.48	
	Feb2019-10	28/02/2019	SUPERANNUATION-FEB2019-10	\$972.02	
	Feb2019-12	28/02/2019	SUPERANNUATION-FEB2019-12	\$2,078.61	
	Feb2019-13	28/02/2019	SUPERANNUATION-FEB2019-13	\$6,699.67	
	Feb2019-18	28/02/2019	SUPERANNUATION-FEB2019-18	\$2,502.15	
	Feb2019-19	28/02/2019	SUPERANNUATION-FEB2019-19	\$278.03	
	Feb2019-20	28/02/2019	SUPERANNUATION-FEB2019-20	\$547.48	
	Feb2019-22	28/02/2019	SUPERANNUATION-FEB2019-22	\$803.64	
	Feb2019-23	28/02/2019	SUPERANNUATION-FEB2019-23	\$1,496.33	
	Feb2019-24	28/02/2019	SUPERANNUATION-FEB2019-24	\$967.04	
	Feb2019-26	28/02/2019	SUPERANNUATION-FEB2019-26	\$1,093.28	
	Feb2019-27	28/02/2019	SUPERANNUATION-FEB2019-27	\$1,600.08	
	Feb2019-3	28/02/2019	SUPERANNUATION-FEB2019-3	\$641.37	
	Feb2019-30	28/02/2019	SUPERANNUATION-FEB2019-30	\$398.62	
	Feb2019-32	28/02/2019	SUPERANNUATION-FEB2019-32	\$46.66	
	Feb2019-33	28/02/2019	SUPERANNUATION-FEB2019-33	\$1,282.16	
	Feb2019-34	28/02/2019	SUPERANNUATION-FEB2019-34	\$70.90	
	Feb2019-35	28/02/2019	SUPERANNUATION-FEB2019-35	\$376.59	
	Feb2019-37	28/02/2019	SUPERANNUATION-FEB2019-37	\$818.78	
	Feb2019-38	28/02/2019	SUPERANNUATION-FEB2019-38	\$448.20	
	Feb2019-4	28/02/2019	SUPERANNUATION-FEB2019-4	\$1,564.94	
	Feb2019-40	28/02/2019	SUPERANNUATION-FEB2019-40	\$1,681.13	
	Feb2019-42	28/02/2019	SUPERANNUATION-FEB2019-42	\$972.28	
	Feb2019-46	28/02/2019	SUPERANNUATION-FEB2019-46	\$153.47	
	Feb2019-47	28/02/2019	SUPERANNUATION-FEB2019-47	\$2,316.45	
	Feb2019-48	28/02/2019	SUPERANNUATION-FEB2019-48	\$807.14	
	Feb2019-49	28/02/2019	SUPERANNUATION-FEB2019-49	\$402.24	
	Feb2019-50	28/02/2019	SUPERANNUATION-FEB2019-50	\$592.09	
	Feb2019-52	28/02/2019	SUPERANNUATION-FEB2019-52	\$515.28	
	Feb2019-53	28/02/2019	SUPERANNUATION-FEB2019-53	\$846.14	
	Feb2019-54	28/02/2019	SUPERANNUATION-FEB2019-54	\$268.34	
	Feb2019-55	28/02/2019	SUPERANNUATION-FEB2019-55	\$1,896.70	
	Feb2019-56	28/02/2019	SUPERANNUATION-FEB2019-56	\$515.28	
	Feb2019-57	28/02/2019	SUPERANNUATION-FEB2019-57	\$69.18	
	Feb2019-58	28/02/2019	SUPERANNUATION-FEB2019-58	\$28.36	
	Feb2019-6	28/02/2019	SUPERANNUATION-FEB2019-6	\$1,635.10	
	Feb2019-7	28/02/2019	SUPERANNUATION-FEB2019-7	\$1,967.74	
	Feb2019-8	28/02/2019	SUPERANNUATION-FEB2019-8	\$16,873.04	
	Feb2019-9	28/02/2019	SUPERANNUATION-FEB2019-9	\$81.18	
	Feb2019A-1	28/02/2019	SUPERANNUATION-FEB2019A-1	\$74.49	
Water Corporation	2229.34-01	21/02/2019	WATER RATES & FEES		\$3,537.62
	9004679584	20/02/2019	WATER RATES & FEES	\$73.06	
	9004705199	20/02/2019	WATER RATES & FEES	\$27.03	
	9018371679	20/02/2019	WATER RATES & FEES	\$49.14	
	9004679816	20/02/2019	WATER RATES & FEES	\$2,305.08	
	9004707493	20/02/2019	WATER RATES & FEES	\$295.57	
	9004707805	20/02/2019	WATER RATES & FEES	\$787.74	
rs E Andrew	2230.12720-01	28/02/2019	RATES REFUND		\$1,000.00
	REFUND	28/02/2019	RATES REFUND	\$1,000.00	
r P M Law	2230.12816-01	28/02/2019	RATES REFUND		\$2,587.38
	Refund	28/02/2019	RATES REFUND	\$2,587.38	
s D M Collings	2230.12817-01	28/02/2019	RATES REFUND		\$100.00
	REFUND	28/02/2019	RATES REFUND	\$100.00	
Water Corporation	2231.34-01	28/02/2019	WATER RATES & FEES		\$20,589.81
	9004679971	27/02/2019	WATER RATES & FEES	\$152.88	

	9004683970	27/02/2019	WATER RATES & FEES	\$113.57	
	9004678303	27/02/2019	WATER RATES & FEES	\$342.41	
	9004679824	27/02/2019	WATER RATES & FEES	\$46.68	
	9004679509	27/02/2019	WATER RATES & FEES	\$787.01	
	9004680833	27/02/2019	WATER RATES & FEES	\$305.80	
	9004687154	27/02/2019	WATER RATES & FEES	\$122.85	
	9004680614	27/02/2019	WATER RATES & FEES	\$7,711.53	
	9004684543	27/02/2019	WATER RATES & FEES	\$6,755.42	
	9015634496	27/02/2019	WATER RATES & FEES	\$469.29	
	9004680788	27/02/2019	WATER RATES & FEES	\$264.58	
	9010381397	27/02/2019	WATER RATES & FEES	\$140.05	
	9004691428	27/02/2019	WATER RATES & FEES	\$7.37	
	9004679808	27/02/2019	WATER RATES & FEES	\$835.38	
	9004679832	27/02/2019	WATER RATES & FEES	\$744.47	
	9004679998	27/02/2019	WATER RATES & FEES	\$896.93	
	9004679541	27/02/2019	WATER RATES & FEES	\$80.13	
	9012388904	27/02/2019	WATER RATES & FEES	\$813.46	
are Giver Subsidies	2232.3462.01	28/02/2019	CARE GIVER SUBSIDIES		\$53,246.80
	280219	28/02/2019	CARE GIVER SUBSIDIES	\$53,246.80	
			Total Confirmation Cheques		\$2,570,104.82
hire of Mundaring - Trust Fund	Account : 633-000 158416396				
heque CHQ					
r M Firth	00400581	07/02/2019	REISSUE OF LOST CHEQUE 400544		\$830.00
	BOND REFUND	07/02/2019	REISSUE OF LOST CHEQUE 400544	\$830.00	
spoinya Investment Pty Ltd	00400582	07/02/2019	RETURN UNCOMPLETED WORKS BOND SPA142989		\$370.00
	765076	07/02/2019	RETURN UNCOMPLETED WORKS BOND SPA142989	\$370.00	
arlington Review	00400583	07/02/2019	OVAL BOND REFUND		\$500.00
	1093939	07/02/2019	OVAL BOND REFUND	\$500.00	
rs J C Barrington	00400584	07/02/2019	HALL BOND REFUND		\$110.00
	1119532	07/02/2019	HALL BOND REFUND	\$110.00	
piritual Assembly of the Bahais of Mundaring	00400585	14/02/2019	BOND REFUNDS		\$610.00
	1112840	14/02/2019	BOND REFUNDS	\$610.00	
arlington Sports & Recreation Association (WA) Inc	00400586	14/02/2019	HALL BOND REFUND		\$500.00
	1118277	14/02/2019	HALL BOND REFUND	\$500.00	
rs H L Cummings	00400587	14/02/2019	HALL BOND REFUND		\$500.00
	1118835	14/02/2019	HALL BOND REFUND	\$500.00	
arkerville Children & Youth Care Incorporated	00400588	14/02/2019	REFUND OF MAINTENANCE BOND - LOT 1854		\$28,455.78
	955875	14/02/2019	REFUND OF MAINTENANCE BOND - LOT 1854	\$28,455.78	
hild Wellbeing Centre	00400589	28/02/2019	HALL BOND REFUND		\$500.00
	1124138	28/02/2019	HALL BOND REFUND	\$500.00	
s T De Langen	00400590	28/02/2019	KEY BOND REFUND		\$55.00
	980404	28/02/2019	KEY BOND REFUND	\$55.00	
etrix Consulting	00400591	28/02/2019	HALL BOND REFUND		\$110.00
	1119528	28/02/2019	HALL BOND REFUND	\$110.00	
undaring Community Financial Services	00400592	28/02/2019	HALL BOND REFUND		\$330.00
	1113419	28/02/2019	HALL BOND REFUND	\$330.00	
			Total Confirmation Cheques		\$32,870.78

PAYMENTS BY ELECTRONIC FUNDS TRANSFER (Payroll)					
ay Summary	PP16/19 cycle 1	06/02/2019			\$402,656.76
ay Summary	PP16/19 cycle 2	06/02/2019			\$88,399.02
ay Summary	PP99/07	07/02/2019			\$513.15
ay Summary	PP17/19 cycle 1	20/02/2019			\$385,808.73
ay Summary	PP17/19 cycle 2	20/02/2019			\$91,260.57
			Total Payroll Payments Direct From Municipal Account		\$968,638.23
PAYMENTS BY DIRECT DEBIT FROM MUNICIPAL ACCOUNT					
endigo - Merch Bank Fees					\$6,211.12
endigo - Direct Debit Fees					\$472.02
ommonwealth Bank - Bpoint Fees					\$3,439.18
AB - Purchase Cards					\$20,033.94
zidebit Bank Fees					\$176.88
eetcare - Fuel Payments					\$4,310.48
P Financial Services - Equipment Lease					\$24,379.30
onica Minolta - Equipment Lease					\$152.66
onica Minolta - Printer Lease					\$3,267.00
uma Fuel					\$94.85
eneral Procedure Claims Fees					\$21,210.40
			Total Electronic Fund Payments Direct From Municipal Account		\$83,747.83

NAB Credit Card

Date	Supplier	Description	Amount	Card User
30-Jan-19	Coles 0398	Food Items - SCFC-CV	\$35.79	Jane Elkins
30-Jan-19	Woolworths 4312	Catering - Bilgoman Aquatic Excellence Award Morning Tea	\$8.80	Paula Heath
30-Jan-19	Eb *perth Wa Mundaring	Social Media training workshop for Communications team member	\$16.91	Karen White
30-Jan-19	Coles 0330	Consumable items for kitchen	\$3.90	Beverley Beale
30-Jan-19	Coles 0330	Consumable items for kitchen	\$12.10	Beverley Beale
31-Jan-19	Netregistry	Mundaringtourism.com.au domain renewal	\$47.95	Andrew Currell
31-Jan-19	Wesfarmers Kleenheat Gas	Mt Helena spare BBQ gas bottle	\$65.00	Chris Blankley
31-Jan-19	Dr Teck Aun Yew	Medical Assessment	\$290.00	Joanne Dutton
31-Jan-19	Campaignmonitor	Distribution of monthly events e-newsletter - February What's On	\$22.36	Beverley Beale
1-Feb-19	Element14 Pty Limited	DVI Monitor Cables x 7	\$66.61	Andrew Currell
1-Feb-19	Tonys Meats	Meat for children's lunches at MECPC	\$117.55	Laurena Bogucki
1-Feb-19	Tonys Meats	Meat for children's lunches at MECPC	\$187.25	Laurena Bogucki
1-Feb-19	The Cheesecake Shop	Staff celebration - Children's Services	\$52.85	Sarah-Lee Harlow
1-Feb-19	Seek 31139691	Advertisement for position of Personal Assistant to Director Strategic & Community Services	\$308.00	Giulia Censi
1-Feb-19	Coles 0330	Provisions for Reflections Café Lake Leschenaultia	\$72.49	Leonie Ettridge
1-Feb-19	Coles 0330	Provisions for Reflections Café Lake Leschenaultia	\$125.31	Leonie Ettridge
1-Feb-19	Dot - Licensing	Dot license - 810 MDG	\$26.85	Roger Haripersad
4-Feb-19	Gilberts Fresh Midland	Staff celebration - Children's Services	\$29.98	Sarah-Lee Harlow
4-Feb-19	Angus & Robertson Bookworld	Junior book stock for AFM and KSP libraries	\$406.29	Morgan Yasbincek
4-Feb-19	Angus & Robertson Bookworld	Refund for non-supply of item for AFM library	-\$30.49	Morgan Yasbincek
4-Feb-19	Best Price Variety Store	Craft Items for OSHC - SCFC-CV	\$31.94	Jane Elkins
4-Feb-19	Coles 0363	Food items and consumables - SCFC-CV	\$32.59	Jane Elkins
4-Feb-19	Coles 0363	Food items and consumables - SCFC-CV	\$18.38	Jane Elkins
4-Feb-19	Coles 0363	Food items and consumables - SCFC-CV	\$73.68	Jane Elkins
4-Feb-19	Subway Mundaring	Bilgoman staff recognition catering	\$49.00	Chris Blankley
4-Feb-19	Angus & Robertson Bookworld	KSP Library - Local stock purchase	\$403.57	Kerryn Martin
4-Feb-19	Angus & Robertson Bookworld	Junior book stock for AFM and KSP libraries	\$152.20	Morgan Yasbincek
4-Feb-19	Angus & Robertson Bookworld	Refund for non-supply of item for KSP library	-\$30.49	Morgan Yasbincek
4-Feb-19	Aldi Stores - Mundaring	Provisions for Reflections Café Lake Leschenaultia	\$15.06	Leonie Ettridge
4-Feb-19	Kmart 1052	Provisions for Reflections Café Lake Leschenaultia	\$9.00	Leonie Ettridge
4-Feb-19	Coles 0278	Fruit milk bread and biscuits for the centre - C&PCS - Middle Swan	\$21.20	Melissa Bill
4-Feb-19	Coles 0278	Fruit milk bread and biscuits for the centre - C&PCS - Middle Swan	\$9.00	Melissa Bill
4-Feb-19	Coles 0278	Fruit milk bread and biscuits for the centre - C&PCS - Middle Swan	\$30.59	Melissa Bill
4-Feb-19	Kmart 1052	Laminating sheets for the office and tooth brushes for the Before School Care children - C&PCS - M/S	\$18.00	Melissa Bill
4-Feb-19	Kmart 1052	Laminating sheets for the office and tooth brushes for the Before School Care children - C&PCS - M/S	\$29.00	Melissa Bill
4-Feb-19	Bergero Hydra Tarps	Remote for tarp on truck	\$556.52	Joanne Dutton
4-Feb-19	Dot - Licensing	DOT Licensing for 827 MDG	\$144.90	Roger Haripersad
4-Feb-19	Dot - Licensing	DOT Licensing for 827 MDG	\$26.85	Roger Haripersad
4-Feb-19	Ashcorbenklay Pty Ltd	Water tank to be mounted under tray on spray ute for washing hands	\$218.20	David O'Brien
4-Feb-19	Autobarn Midland	Wheel step for accessing spray tank on back of spray vehicle	\$64.99	David O'Brien
5-Feb-19	Element14 Pty Limited	DVI Monitor Cables x 28	\$266.42	Andrew Currell
5-Feb-19	Coles 0278	Bread and voucher for volunteer reimbursement	\$6.00	Laurena Bogucki

Date	Supplier	Description	Amount	Card User
5-Feb-19	Coles 0278	Bread and voucher for volunteer reimbursement	\$50.00	Laurena Bogucki
5-Feb-19	Jbhifi.Com.Au	Junior A/V for AFM and KSP libraries and Adult AV for AFM Library	\$236.56	Morgan Yasbincek
5-Feb-19	Jbhifi.Com.Au	Junior A/V for AFM and KSP libraries and Adult AV for AFM Library	\$77.94	Morgan Yasbincek
5-Feb-19	Coles 0337	Food and consumables - MECPC	\$392.71	Susan Broad
5-Feb-19	Coles 0337	Food and consumables - MECPC	\$53.35	Susan Broad
5-Feb-19	Angus & Robertson Bookworld	KSP Library - Local stock purchase	\$189.78	Kerryn Martin
5-Feb-19	Jbhifi.Com.Au	Junior A/V for AFM and KSP libraries and Adult AV for AFM Library	\$249.82	Morgan Yasbincek
5-Feb-19	Mundaring Lotto Gift	Farewell card for PA to Director Strategic & Community Services	\$12.00	Paula Heath
6-Feb-19	Puma Energy Mundaring	Motorpass card did not work for Stoneville 1.4 refuelling for Flynn Road fire	\$97.36	Craig Cuthbert
6-Feb-19	Kmart 1052	Mixing bowl for the centre - C&PCS - Middle Swan	\$8.00	Melissa Bill
6-Feb-19	Officeworks 0611	A new office chair and office stationery - C&PCS - Middle Swan	\$149.00	Melissa Bill
6-Feb-19	Officeworks 0611	A new office chair and office stationery - C&PCS - Middle Swan	\$102.55	Melissa Bill
6-Feb-19	Coles 0278	Afternoon tea for Kaos and sugar and biscuits for the centre - C&PCS - Middle Swan	\$26.30	Melissa Bill
6-Feb-19	Coles 0278	Afternoon tea for Kaos and sugar and biscuits for the centre - C&PCS - Middle Swan	\$10.74	Melissa Bill
6-Feb-19	Big W 0443	Icecreams for Kaos and storage containers for Before School Care - C&PCS - Middle Swan	\$4.50	Melissa Bill
6-Feb-19	Big W 0443	Icecreams for Kaos and storage containers for Before School Care - C&PCS - Middle Swan	\$74.00	Melissa Bill
7-Feb-19	Woolworths 4312	Afternoon tea for Statutory Services award presentation	\$21.30	Eileen Bolton
7-Feb-19	Woolworths 4312	Afternoon tea for Statutory Services award presentation	\$62.38	Eileen Bolton
7-Feb-19	Broome Doctors Practice	Pre-employment medical expenses - Health Services	\$214.50	Martin Shurlock
7-Feb-19	Officeworks Online Bentleigh	IPad cover for Manager Libraries and Community Engagement	\$183.95	Paula Heath
7-Feb-19	Environmental Health	Pesticide License renewal for Landcare Officer	\$190.00	Joanne Dutton
7-Feb-19	Stratton Supa Iga	Milk for the centre C&PCS - Middle Swan	\$5.98	Melissa Bill
8-Feb-19	McDonalds Mundaring	Refreshments for IMT Gorrie Rd Fire	\$102.40	Adrian Dyson
8-Feb-19	Coles 0278	Bread rolls for children's lunch at MECPC	\$10.00	Laurena Bogucki
8-Feb-19	News Pty Ltd Subscription	Renewal of subscription to the Australian Newspaper	\$554.31	Kerryn Martin
8-Feb-19	Coles 0330	Provisions for Reflections Café Lake Leschenaultia	\$91.41	Leonie Ettridge
8-Feb-19	Coles 0330	Provisions for Reflections Café Lake Leschenaultia	\$83.85	Leonie Ettridge
8-Feb-19	Spotlight 058	Items for the craft group - C&PCS - Middle Swan	\$39.00	Melissa Bill
11-Feb-19	Woolworths 4312	Catering for Tennis Courts Representatives Meeting 12 Feb 2019	\$14.25	Paula Heath
11-Feb-19	Ple Computers Pty Ltd	120GB SSD x 20 & 4GB RAM x 20 (Computer Parts)	\$1,680.00	Andrew Currell
11-Feb-19	Puma Energy Mundaring	Motorpass card test as new cards issued were not working	\$10.00	Craig Cuthbert
11-Feb-19	Coles 0337	Food and consumables for SCFC Clayton View & MECPC	\$3.60	Susan Broad
11-Feb-19	Coles 0337	Food and consumables for SCFC Clayton View & MECPC	\$57.50	Susan Broad
11-Feb-19	Coles 0337	Food and consumables for SCFC Clayton View & MECPC	\$366.91	Susan Broad
11-Feb-19	Angus & Robertson Bookworld	Junior and adult book stock for AFM and KSP Libraries	\$56.12	Morgan Yasbincek
11-Feb-19	Angus & Robertson Bookworld	Junior and adult book stock for AFM and KSP Libraries	\$161.67	Morgan Yasbincek
11-Feb-19	Coles 0337	Food and consumables for SCFC Clayton View & MECPC	\$15.00	Susan Broad
11-Feb-19	Woolworths 4384	Food items OSHC - SCFC-CV	\$17.80	Jane Elkins
11-Feb-19	Woolworths 4384	Food items OSHC - SCFC-CV	\$6.50	Jane Elkins
11-Feb-19	Woolworths 4384	Food items OSHC - SCFC-CV	\$64.88	Jane Elkins
11-Feb-19	Kmart 1052	Aquarium for OSHC - SCFC-CV	\$41.00	Jane Elkins
11-Feb-19	Officeworks 0611	Stationery Items - SCFC-CV	\$78.29	Jane Elkins
11-Feb-19	Booktopia Pty Ltd	Junior book stock for KSP Library	\$36.05	Morgan Yasbincek
11-Feb-19	Angus & Robertson Bookworld	Junior and adult book stock for AFM and KSP Libraries	\$264.85	Morgan Yasbincek
11-Feb-19	Angus & Robertson Bookworld	Junior and adult book stock for AFM and KSP Libraries	\$22.59	Morgan Yasbincek

Date	Supplier	Description	Amount	Card User
11-Feb-19	Big W 0443	Three new booster seats for the van - C&PCS - Middle Swan	\$147.00	Melissa Bill
13-Feb-19	Jiang & Wong It	Replace mobile phone screen for Chief Bushfire Control Officer - Screen cracked at Flynn Rd fire	\$149.00	Craig Cuthbert
13-Feb-19	Tonys Meats	Meat for children's meal at MECPC	\$130.90	Laurena Bogucki
13-Feb-19	Stanlee Hospitality	Replacement colour coded chopping boards for MECPC kitchen	\$69.26	Laurena Bogucki
14-Feb-19	Subway Mundaring	Catering for Tennis Courts Representatives Meeting 12 Feb 2019	\$49.00	Paula Heath
14-Feb-19	Element14 Pty Limited	DVI Monitor Cables x 20	\$184.36	Andrew Currell
14-Feb-19	Cop Citiplace	Officers attended information session relating to amended Bushfire Access Guidelines	\$14.54	Craig Cuthbert
14-Feb-19	Gilberts Fresh Midland	Vegetables for children's meals at MECPC	\$15.00	Laurena Bogucki
14-Feb-19	Coles 0278	Food for MECPC - OSHC	\$12.10	Sarah-Lee Harlow
14-Feb-19	Coles 0278	Food for MECPC - OSHC	\$1.95	Sarah-Lee Harlow
14-Feb-19	Lgpa	Practitioner's Guide to Design WA on 7 March 2019 for Planning	\$170.00	Eileen Bolton
14-Feb-19	Phonics Australia	Junior book stock for KSP and AFM libraries	\$180.00	Morgan Yasbincek
14-Feb-19	Jbhifi.Com.Au	AV stock for AFM Library	\$64.93	Morgan Yasbincek
14-Feb-19	Good Reading	Magazine subscription for AFM Library	\$195.00	Morgan Yasbincek
14-Feb-19	Woolworths 4337	Consumables for Parenting Programs	\$23.10	Jillian Pearce
14-Feb-19	Woolworths 4337	Consumables for Parenting Programs	\$15.70	Jillian Pearce
14-Feb-19	Phonics Australia	Junior book stock for KSP and AFM libraries	\$180.00	Morgan Yasbincek
14-Feb-19	Stratton Supa Iga	Afternoon tea for Kaos and morning teas for the craft group - C&PCS Middle Swan	\$28.10	Melissa Bill
14-Feb-19	Stratton Supa Iga	Afternoon tea for Kaos and morning teas for the craft group - C&PCS Middle Swan	\$77.42	Melissa Bill
15-Feb-19	Gregs Midland	First aid supplies for Midvale Hub - Epi Pen for SCFC Clayton View	\$21.66	Sarah-Lee Harlow
15-Feb-19	Angus & Robertson Bookworld	Adult and junior book stock for AFM Library	\$126.24	Morgan Yasbincek
15-Feb-19	Angus & Robertson Bookworld	Adult and junior book stock for AFM Library	\$168.37	Morgan Yasbincek
15-Feb-19	Gregs Midland	First aid supplies for Midvale Hub - Epi Pen for SCFC Clayton View	\$117.94	Sarah-Lee Harlow
15-Feb-19	Jiang & Wong It	Phone cover and screen protector for new phone	\$55.00	David O'Brien
15-Feb-19	Event And Conference Co	WorkCover WA Conference 8 & 9 May 2019 - OSH Officer	\$603.92	Andrea Douglas
15-Feb-19	Stratton Supa Iga	Jelly to make grass for Bubbaccino's and butter for the centre - C&PCS - Middle Swan	\$23.62	Melissa Bill
18-Feb-19	Coles 0337	Food and consumables for SCFC Clayton View & MECPC	\$52.10	Susan Broad
18-Feb-19	Coles 0337	Food and consumables for SCFC Clayton View & MECPC	\$26.10	Susan Broad
18-Feb-19	Coles 0337	Food and consumables for SCFC Clayton View & MECPC	\$393.22	Susan Broad
18-Feb-19	7-Eleven 3006	Staff morning tea - MECPC	\$45.00	Raeleen McAllister
18-Feb-19	Coles 0337	Food and consumables for SCFC Clayton View & MECPC	\$21.00	Susan Broad
18-Feb-19	Woolworths 4384	Food Items for Afternoon tea - OSHC-CV	\$6.00	Jane Elkins
18-Feb-19	Woolworths 4384	Food Items for Afternoon tea - OSHC-CV	\$32.69	Jane Elkins
18-Feb-19	Best Price Variety Store	Craft Items for OSHC - SCFC-CV	\$30.93	Jane Elkins
18-Feb-19	Woolworths 4384	Cleaning products - SCFC-CV	\$66.49	Jane Elkins
18-Feb-19	The Reject Shop 6637	Mints for Parenting Groups	\$23.10	Jillian Pearce
18-Feb-19	Cop Citiplace	Parking in the city to attend a forum	\$20.19	Jillian Pearce
18-Feb-19	Stratton Supa Iga	Fruit milk bread and biscuits for the centre - C&PCS - Middle Swan	\$27.62	Melissa Bill
19-Feb-19	Tonys Meats	Meat for children's meals at MECPC	\$178.50	Laurena Bogucki
19-Feb-19	Baby Bunting	Replacement nappy change mats for MECPC	\$79.90	Laurena Bogucki
19-Feb-19	Red Dot Stores	Bilgoman supplies	\$37.00	Chris Blankley
19-Feb-19	Jbhifi.Com.Au	AV stock for AFM Library	\$21.67	Morgan Yasbincek
20-Feb-19	Essential Resources	STEM Detectives resource book for MECPC	\$57.65	Laurena Bogucki
20-Feb-19	Sparklers Midland	Car Wash for 831MDG - MECPC	\$16.20	Susan Broad
20-Feb-19	Coles 0330	AFM Library - sundries	\$6.00	Helen McKissock

Date	Supplier	Description	Amount	Card User
20-Feb-19	Steaks N Stuff	Meat for vacation care - SCFC Clayton View	\$233.32	Susan Broad
20-Feb-19	Angus & Robertson Bookworld	KSP Library - Local stock purchase	\$406.13	Kerryn Martin
20-Feb-19	Jbhifi.Com.Au	KSP Library - Local stock purchase	\$89.96	Kerryn Martin
21-Feb-19	Landgate	Register of PSSO on title	\$171.20	Jodie Redmond
21-Feb-19	City Of Swan	Parking - City of Swan - Rates Officers Meeting	\$6.00	Jodie Redmond
21-Feb-19	Coles 0278	Food and consumables for children at MECPC	\$30.60	Laurena Bogucki
21-Feb-19	Coles 0278	Food and consumables for children at MECPC	\$45.00	Laurena Bogucki
21-Feb-19	Angus & Robertson Bookworld	Junior book stock for AFM and KSP libraries	\$47.45	Morgan Yasbincek
21-Feb-19	Midland Supa Iga	Food items for afternoon tea SCFC-CV	\$18.00	Jane Elkins
21-Feb-19	Campaignmonitor	Email out event promotion	\$118.46	Kerryn Martin
21-Feb-19	Angus & Robertson Bookworld	KSP Library - Local stock purchase	\$316.15	Kerryn Martin
21-Feb-19	Angus & Robertson Bookworld	Junior book stock for AFM and KSP libraries	\$175.17	Morgan Yasbincek
21-Feb-19	Guardian Removals	Removal and placement of furniture between Mundaring Hall and CC Room	\$264.82	Andrea Douglas
22-Feb-19	Jbhifi.Com.Au	AFM Library - DVDs and CDs	\$455.64	Helen McKissock
22-Feb-19	Jb Hifi Midland Gate	KSP Library - Local stock purchase	\$62.94	Kerryn Martin
22-Feb-19	Jb Hifi Midland Gate	KSP Library - Local stock purchase	\$98.92	Kerryn Martin
22-Feb-19	Preston Reservoir Adult Commur	KSP Library - Local stock purchase	\$74.80	Kerryn Martin
22-Feb-19	Preston Reservoir Adult Commur	KSP Library - Local stock purchase	\$14.80	Kerryn Martin
22-Feb-19	Coles 0330	Provisions for Reflections Cafe Lake Leschenaultia	\$33.39	Stewart Winfield
22-Feb-19	Coles 0330	Provisions for Reflections Cafe Lake Leschenaultia	\$53.97	Stewart Winfield
22-Feb-19	Red Dot Stores	Bin bags plastic containers and sandwich bags - C&PCS - Middle Swan	\$36.00	Melissa Bill
22-Feb-19	Red Dot Stores	Bin bags plastic containers and sandwich bags - C&PCS - Middle Swan	\$4.00	Melissa Bill
22-Feb-19	Stratton Supa Iga	Milk and bananas for the centre - C&PCS - Middle Swan	\$9.47	Melissa Bill
25-Feb-19	Pathwest Laboratory	Pre-employment medical testing - Finance Officer Rates	\$35.00	Andrea Douglas
25-Feb-19	Coles 0337	Food and consumables for MECPC	\$11.40	Susan Broad
25-Feb-19	Coles 0337	Food and consumables for MECPC	\$50.80	Susan Broad
25-Feb-19	Coles 0337	Food and consumables for MECPC	\$441.52	Susan Broad
25-Feb-19	Coles 0262	Cleaning consumables not ordered with main Coles order - MECPC	\$19.57	Susan Broad
25-Feb-19	Angus & Robertson Bookworld	AFM Library - Books	\$619.45	Helen McKissock
25-Feb-19	Angus & Robertson Bookworld	Junior and adult book stock for AFM and KSP Libraries	\$77.38	Morgan Yasbincek
25-Feb-19	Angus & Robertson Bookworld	Junior and adult book stock for AFM and KSP Libraries	\$55.93	Morgan Yasbincek
25-Feb-19	Seek	Seek advertising - Civil Designer HR.REC 2/2019.5	\$308.00	Maria Beley
25-Feb-19	Big W 0443	Craft items and replacement CD player - SCFC-CV	\$78.15	Jane Elkins
25-Feb-19	Kmart 1052	Art and craft Items for SCFC-CV	\$167.00	Jane Elkins
25-Feb-19	Woolworths 4384	Food items for OSHC - SCFC-CV	\$15.50	Jane Elkins
25-Feb-19	Woolworths 4384	Food items for OSHC - SCFC-CV	\$6.00	Jane Elkins
25-Feb-19	Woolworths 4384	Food items for OSHC - SCFC-CV	\$86.43	Jane Elkins
25-Feb-19	Booktopia Pty Ltd	Non-supply refund for junior stock for KSP Library	-\$17.95	Morgan Yasbincek
25-Feb-19	Angus & Robertson Bookworld	Junior and adult book stock for AFM and KSP Libraries	\$71.44	Morgan Yasbincek
26-Feb-19	Agape Ventures Pty Ltd	Pre-employment medical - Finance Officer Rates	\$121.00	Andrea Douglas
26-Feb-19	Tonys Meats	Meat for children's meals at MECPC	\$184.95	Laurena Bogucki
26-Feb-19	Kmart 1052	A new kettle for the staffroom - C&PCS - Middle Swan	\$39.00	Melissa Bill
26-Feb-19	Statewide Bearings	Bearings Depot w/s	\$73.15	Kelvin Worthington
27-Feb-19	Big Bubble	Promotional goods for parenting displays	\$63.00	Jillian Pearce
27-Feb-19	Bcf Australia	Small fold up table for parenting displays	\$64.99	Jillian Pearce

CREDIT

Date	Supplier	Description		Amount	Card User
27-Feb-19	Facebk Qekrwj62c2	Facebook Boost - Red Cross Preparedness Session		\$17.00	Alison Martyn
27-Feb-19	Stratton Supa Iga	Bin bags toilet paper and fruit for the centre - C&PCS - Middle Swan		\$11.52	Melissa Bill
27-Feb-19	Stratton Supa Iga	Bin bags toilet paper and fruit for the centre - C&PCS - Middle Swan		\$10.40	Melissa Bill
27-Feb-19	Stratton Supa Iga	Bin bags toilet paper and fruit for the centre - C&PCS - Middle Swan		\$19.08	Melissa Bill
28-Feb-19	Coles 0330	Afternoon tea for Statutory Planner in appreciation for structure plan		\$37.29	Eileen Bolton
28-Feb-19	Coles 0330	Afternoon tea for Statutory Planner in appreciation for structure plan		\$56.38	Eileen Bolton
28-Feb-19	Coles 0330	Sundry purchases for Annual Volunteer Firefighters Family Event March 2019		\$87.05	Jenine Banks
28-Feb-19	Swanview Iga	MECPC - Staff team challenge		\$10.38	Sarah-Lee Harlow
28-Feb-19	Angus & Robertson Bookworld	KSP Library - Local stock purchase Credit for cancelled item	CREDIT	-\$46.31	Kerryn Martin
28-Feb-19	Bunnings 318000	Hand trolley		\$24.98	Beverley Beale
28-Feb-19	Coles 0330	Provisions for Reflections Cafe and kiosk		\$27.00	Stewart Winfield
28-Feb-19	Coles 0330	Provisions for Reflections Cafe and kiosk		\$92.60	Stewart Winfield
28-Feb-19		Account Fees Cc Fp User Fee		\$180.40	
		Total		\$20,033.94	

11.0 ELECTED MEMBERS MOTIONS OF WHICH PREVIOUS NOTICE HAS BEEN GIVEN

11.1 Cr Fisher Motion - Review Policy PS-01 Advertising Planning Applications

File Code	PS.CDE 04
Author	Angus Money, Manager Planning and Environment Services
Senior Employee	Mark Luzi, Director Statutory Services
Disclosure of Any Interest	Nil
Attachments	Nil

In accordance with Council Decision C5.04.19 Item 11.1 was considered prior to Item 10.6.

12.0 URGENT BUSINESS (LATE REPORTS)

13.0 CONFIDENTIAL REPORTS

Nil

14.0 CLOSING PROCEDURES

14.1 Date, Time and Place of the Next Meeting

The next Ordinary Council meeting will be held on Tuesday, 14 May 2019 at 6.30pm in the Council Chamber.

14.2 Closure of the Meeting

The Presiding Person declared the meeting closed at 9.30pm.