



Assets | Engineering | Environment | Noise | Spatial | Waste

Tim's Thicket Liquid Waste Facility Upgrade

Section 43A Supporting Document



Prepared for City of Mandurah

February 2019

Project Number: TE18105



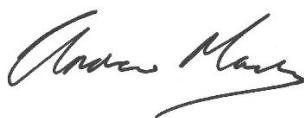
DOCUMENT CONTROL

Version	Description	Date	Author	Reviewer
0a	Internal Review	1/2/2019	GB	AM/JM
1a	Draft for client	1/2/2019	GB	AM/KB
1b	Draft	12/2/2019	GB	AM
1c	Final	21/2/2019	GB	AM

Approval for Release

Name	Position	File Reference
Andrew Mack	Associate Director	TE18105_Tims_Thicket_S43A_supportingdoc.1c

Signature



Copyright of this document or any part of this document remains with Talis Consultants Pty Ltd and cannot be used, transferred or reproduced in any manner or form without prior written consent from Talis Consultants Pty Ltd.

Executive Summary

The City of Mandurah (the City) wishes to undertake upgrade works before recommencing operations at its Liquid Waste Management Facility (the Facility) at the Tim's Thicket Waste Management Facility (the Site). The City previously engaged Talis Consultants Pty Ltd (Talis) to prepare the detailed design and associated documentation for the upgrade works as well as seek a Licence Amendment from the Department of Water and Environment Regulation (DWER).

The City currently holds DWER Licence L6860/1995/11 for 'Category 63 - Class I inert landfill' and a Category 13 (crushing of building material). In 2016, the City submitted documentation to the DWER to amend the Licence to also include 'Category 61 - liquid waste facility' to this licence. A referral of the project to the Environmental Protection Authority (EPA) pursuant to Section 38 of the *Environmental Protection Act 1986* (EP Act) for environmental impact assessment (EIA) was also made in March 2017.

Talis was made aware that there is an active Ministerial Statement that covers the operations (MS375) which includes provision for a septage disposal site. This Statement also incorporates a footprint for a wider suite of operations and includes a number of proponents.

Subsequent discussions held with the then Office of the EPA (OEPA) confirmed that a change to the project would be the preferred way to progress the matter in order to ensure consistency between the operations approved under MS375 and the currently proposed operations.

Since the initial discussions referred to above, further changes to the design of the proposed facility have been progressed. The purpose of this document is to provide information in support of a change to the project previously referred to the EPA for the Tim's Thicket Liquid Waste Facility Upgrade (in its revised form). These changes, where progressed and approved, will result in improvements to the environmental management of the site and modifications to MS375.



Table of Contents

1	Introduction	5
2	Proposed Site Activities	8
2.1	Liquid Waste	8
2.1.1	Overview	8
2.1.2	Receival Area.....	8
2.1.3	Anaerobic Ponds	10
2.1.4	Facultative Pond	10
2.1.5	Oxidation Pond	11
2.1.6	Evaporation Pond.....	11
2.1.7	Drying Pad	11
2.2	Other	11
3	Environmental Impacts	12
3.1	Overview	12
3.2	Consideration of Potential Environmental Impacts	12
3.2.1	Marine Environmental Quality.....	12
3.2.2	Hydrological Processes.....	14
3.2.3	Social Surroundings.....	15
3.2.4	Other factors	17
4	Consultation	18
5	Changes to MS375	19
6	Conclusion	20
7	References	21



Tables

Table 1: Recommended separation distances for proposed and existing Site activities

Figures

Figure 1: Tim's Thicket Septage Facility – general location

Figure 2: Tim's Thicket – revised Development Envelope.

Figure 3: Process flow diagram detailing the proposed treatment of liquid waste

Figure 4: Conceptual liner configuration for Anaerobic Ponds

Figure 5: Tim's Thicket Septage Facility – layout of upgraded pond arrangement

Appendices

Appendix A: Management Order

Appendix B: Records of Consultation

1 Introduction

The Tim's Thicket Waste Management Facility (the Site) is located approximately 15 km south of Mandurah, towards the western end of Tim's Thicket Road (Figure 1). The Site has been operational (in various forms) since 1995, with operations currently being managed under contract by Cleanaway Pty Ltd (Cleanaway). The Site is a Crown Reserve (43301) that the City manages under a Management Order (Appendix A).

A septage disposal site (3 ha) is included in Ministerial Statement 375 (MS375) released by the Minister for the Environment in November 1994 pursuant to Part IV of the *Environmental Protection Act 1986* (EP Act). This approval also incorporates an inert landfill.

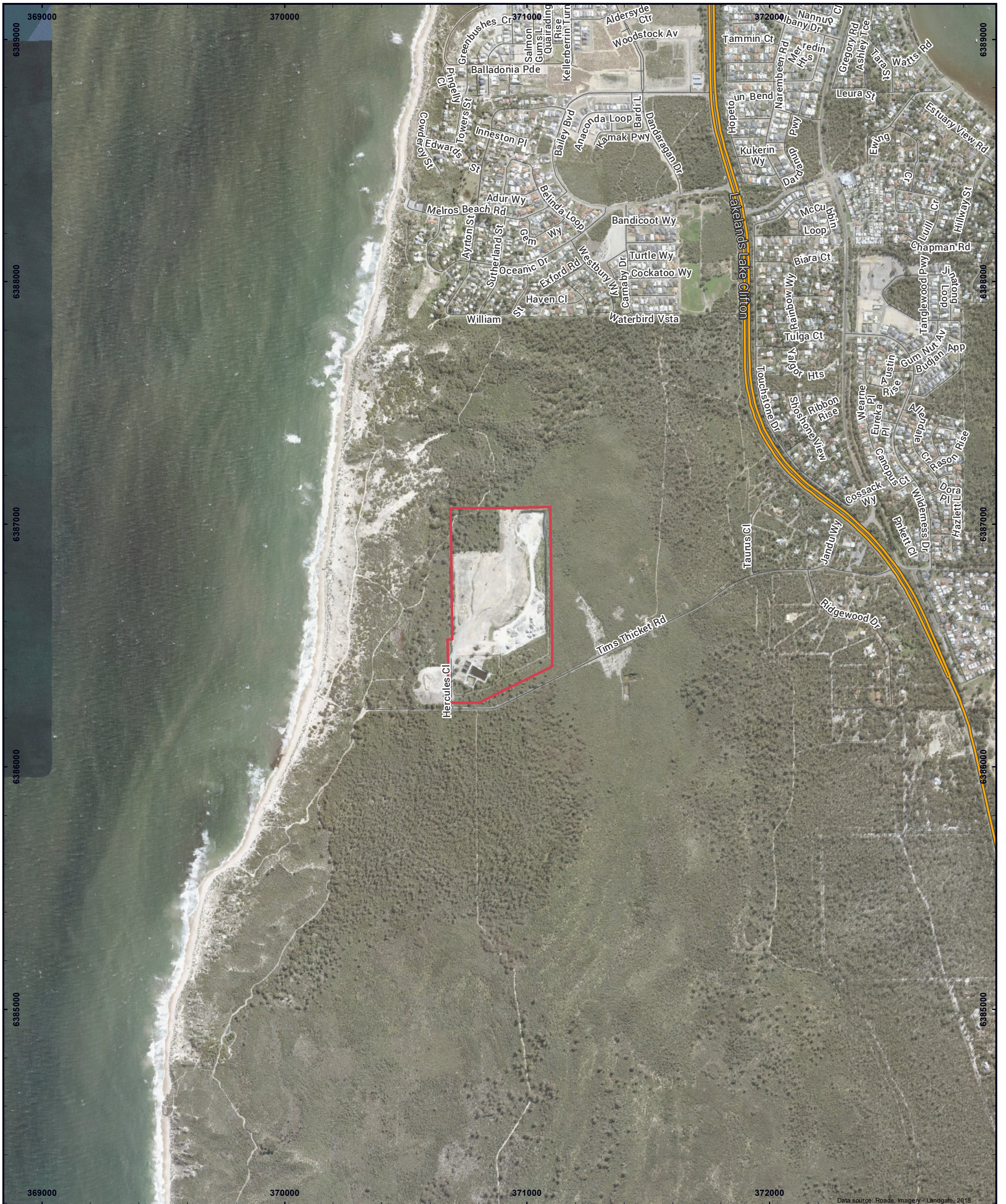
The Site has historically been operated under a Department of Water and Environment Regulation (DWER) Licence (L6860/1995/11) as a Category 63 Class 1 inert landfill, a Category 13 (crushing of building material) as well as a Category 61 liquid waste facility. However, in 2014 the Site ceased the acceptance of liquid waste and has since been operating solely under Categories 13 and 63.

The City of Mandurah (the City) wishes to recommence the acceptance of liquid waste at the Site. In order to do this, the City is aware that a suite of improvements are required. These works form part of the Tim's Thicket Liquid Waste Facility Upgrade Project (the Project).

Following several iterations and considerable dialogue between the City, the community and DWER, the Project will now include the reconstruction of all of the existing ponds and fitting with new HDPE liners, and the addition of an evaporation pond. The upgrades associated with the Project would ensure that the Site is suitable for accepting liquid waste for the next 15 to 20 years. A green waste transfer station has also been included. Further detail is provided in the following sections.

The purpose of this document is to provide information in relation to the proposed changes in the management of septage waste. These changes can then be considered by the EPA in light of the requirements of MS375. The City recognises that the assessment will necessarily result in changes to that approval. Activities will take place within the Development Envelope shown in Figure 2.

An amendment to the current Licence will also be required following approval of the facility under Part IV of the EP Act. A licence amendment application will be submitted separately to DWER.

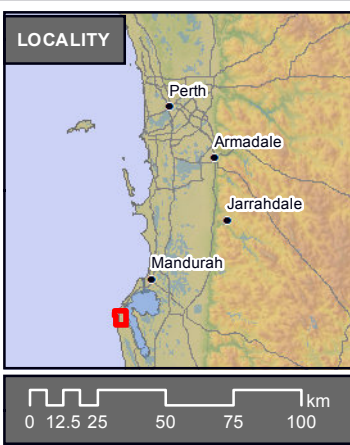


Data source: Roads, Imagery - Landgate, 2018

LEGEND

- Development Envelope
- Main Road
- Minor Road

© Talis Consultants Pty Ltd ("Talis") Copyright in the drawings, information and data recorded in this document ("the information") is the property of Talis. This document and the information are solely for the use of the authorised recipient and this document may not be used, transferred or reproduced in whole or part for any purpose other than that which it is supplied by Talis without written consent. Talis makes no representation, undertakes no duty and accepts no responsibility to any third party who may use or rely upon this document or the information.



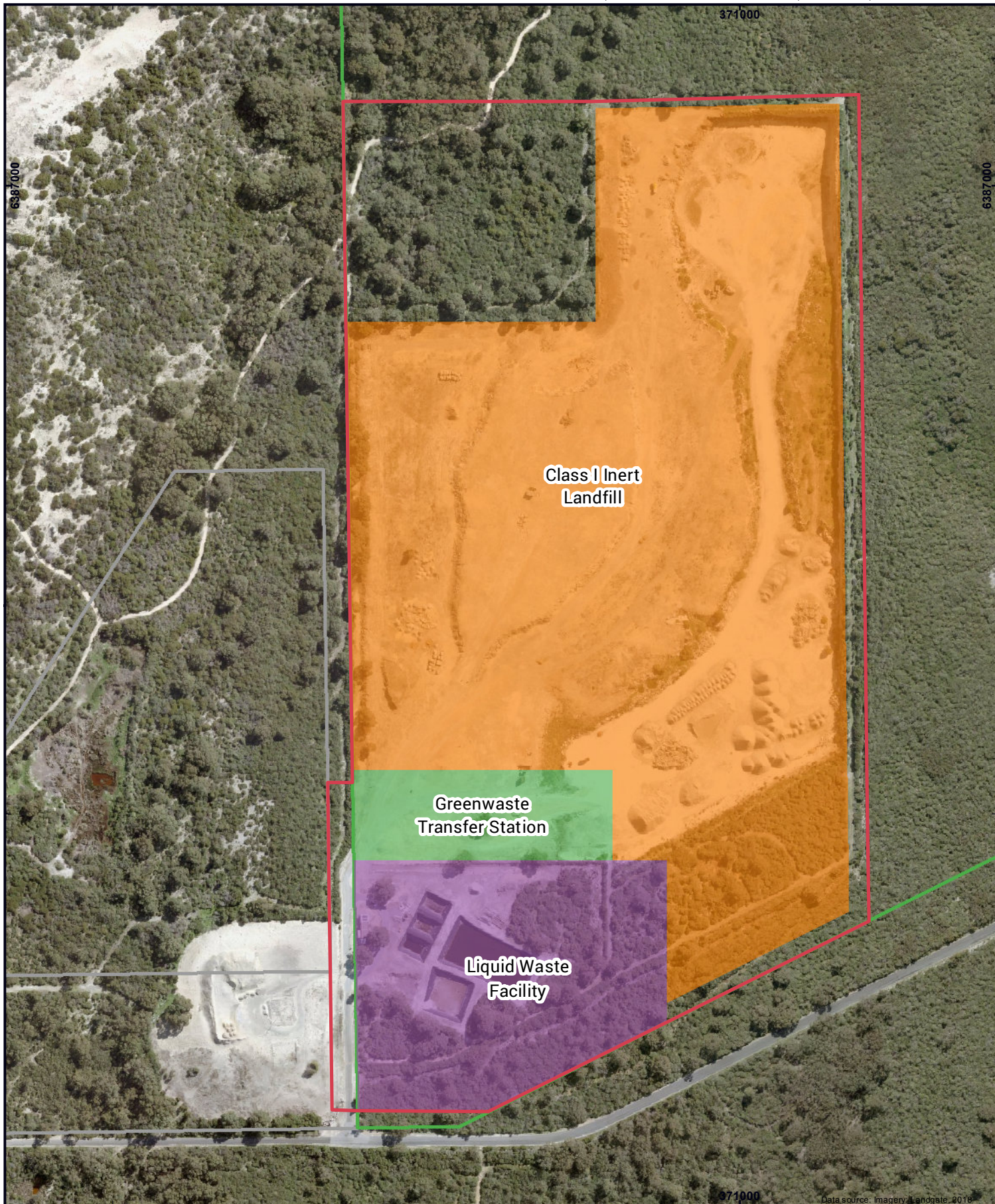
SITE LOCALITY

**Tims Thicket Septage Facility Upgrade Project
Redesign and Resubmission
City of Mandurah**

Scale @ A3: 1:15,000
Coordinate System: GDA 1994 MGA Zone 50, Projection: Transverse Mercator, Datum: GDA 1994

Prepared:	F Walker
Reviewed:	J S-Bingham
Checked:	A Mack
Project No:	TE18089
Revision:	A
Date:	25/01/2019

Figure 01



Data source: Imagery Landgate, 2018

LEGEND		LOCALITY 	SITE LAND USE Tims Thicket Septage Facility Upgrade Project Redesign and Resubmission City of Mandurah												
<ul style="list-style-type: none"> Development Envelope Reserve 43301 Other Land Parcels 	Site Activities (Current and Proposed) <ul style="list-style-type: none"> Class I Inert Landfill Greenwaste Transfer Station Liquid Waste Facility 			 0 25 50 75 100 metres Coordinate System: GDA 1994 MGA Zone 50 Projection: Transverse Mercator, Datum: GDA 1994 Scale @ A4: 1:4,000	<table border="1"> <tr><td>Prepared:</td><td>F Walker</td></tr> <tr><td>Reviewed:</td><td>G Barrett</td></tr> <tr><td>Checked:</td><td>A Mack</td></tr> <tr><td>Project:</td><td>TE18105</td></tr> <tr><td>Revision:</td><td>A</td></tr> <tr><td>Date:</td><td>31/01/2019</td></tr> </table>	Prepared:	F Walker	Reviewed:	G Barrett	Checked:	A Mack	Project:	TE18105	Revision:	A
Prepared:	F Walker														
Reviewed:	G Barrett														
Checked:	A Mack														
Project:	TE18105														
Revision:	A														
Date:	31/01/2019														
		 0 25 50 75 100 km	Figure 03 												

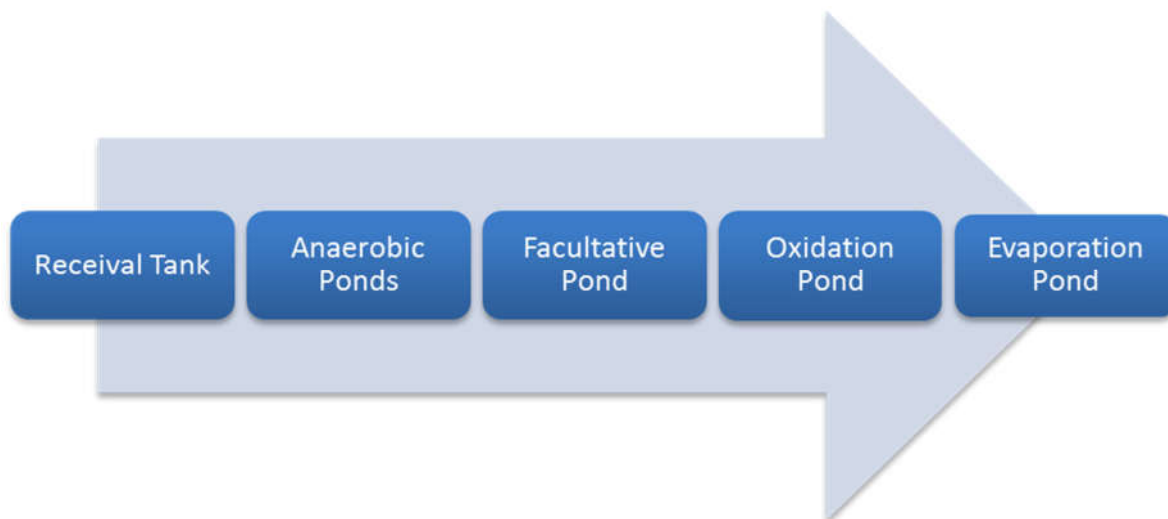
2 Proposed Site Activities

2.1 Liquid Waste

2.1.1 Overview

The proposed Project will have a design capacity of up to 5,000 kL of liquid waste per annum which will consist of septage and grease trap waste. Liquid waste is proposed to be disposed of into one of three anaerobic ponds for initial treatment, before undergoing secondary treatment in facultative and oxidation ponds. Overflow from the oxidation pond will then pass into an evaporation pond where it will be retained in a purpose-designed facility. A simplified process flow diagram is shown below.

Figure 3: Process flow diagram detailing the proposed treatment of liquid waste

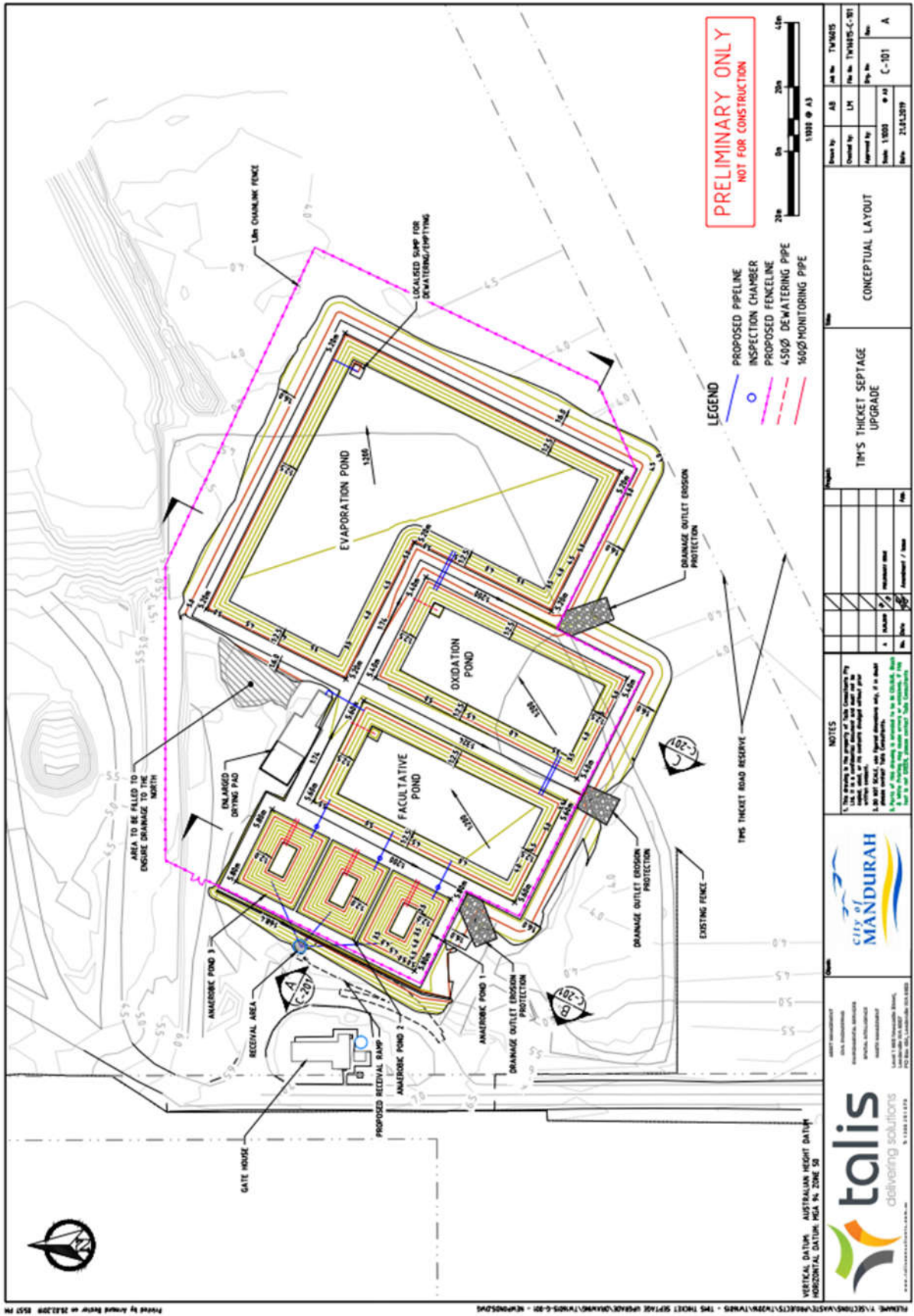


The following sections detail each of the components that make up the proposed liquid waste facility (the Facility), as shown in Figure 4.

2.1.2 Reival Area

The existing reival area and associated infrastructure will be upgraded and recommissioned. A concrete reival pad will be constructed to accommodate a semi-trailer liquid waste truck and will be graded so as to assist the decanting process. The pad will be designed so as to capture liquid spillage and divert it to the reival pit. The existing liquid waste reival pit will continue to be utilised to distribute liquid waste by gravity via the valved discharge pipe network to the Anaerobic Ponds.

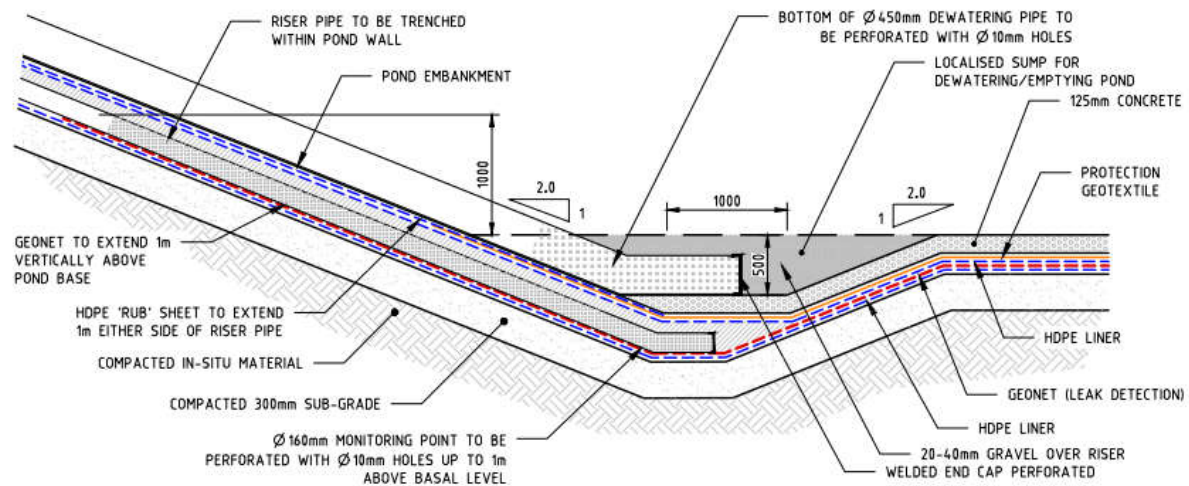
Figure 4: Tim's Thicket Septage Facility – proposed layout of upgraded pond arrangement



2.1.3 Anaerobic Ponds

Currently there are three mothballed anaerobic treatment ponds on site that form the first sequence of the former treatment process. As part of the proposed Project, the Anaerobic Ponds will be enlarged and re-engineered. The existing 1 mm HDPE liner will be removed and the ponds reconstructed with a new liner system comprised of a double layer of 2 mm High Density Polyethylene (HDPE) geomembrane separated by a geonet leak detection layer (Figure 5). Each pond will have an operational storage capacity of approximately 660 m³.

Figure 5: Proposed liner configuration for Anaerobic Ponds



At the base of the ponds, a geotextile will be installed between the new HDPE liner and a protection layer of a 125 mm thick reinforced concrete pad.

A below ground gravity fed HDPE pipe network is proposed to be installed between the Anaerobic Ponds and the Facultative Pond for the transfer of primary treated liquids.

The three anaerobic ponds on the Site will be used in a 12-18 month rotation as follows:

- Active receipt;
- Retention; and
- Empty after desludging.

2.1.4 Facultative Pond

The Facultative Pond will form part of the second stage in the liquid waste treatment process. Liquids that have undergone primary treatment in the Anaerobic Ponds will discharge by gravity via below ground HDPE pipes to the Facultative Pond. The Facultative Pond will be reorientated and re-engineered.

The Facultative Pond will be lined with a 2 mm HDPE (previously 1 mm) geomembrane with an operational storage capacity of approximately 3048 m³. At the base of the pond, a geotextile will be installed between the new HDPE liner and a protection layer of 300 mm of crushed limestone.

2.1.5 Oxidation Pond

Following secondary treatment, the liquid will flow by gravity to a newly constructed Oxidation Pond for polishing. The Oxidative Pond will be relocated, enlarged and re-engineered.

The Oxidation Pond will be lined with a 2 mm HDPE (previously 1 mm) geomembrane and have an operational storage capacity of 3068 m³. In the event that the pond reaches capacity, it will flow by gravity via below ground HDPE pipes to an Evaporation Pond.

2.1.6 Evaporation Pond

The Evaporation Pond has been sized to contain direct rainfall and overflow from the Oxidation Pond (8,644 m³). The Evaporation Pond will be lined with a 2 mm HDPE geomembrane.

2.1.7 Drying Pad

An existing drying pad was initially installed on the Site to assist in the desludging of the anaerobic ponds by allowing the removed sludge to be dewatered and dried prior to disposal to landfill. The sludge drying process represents a significant saving for the disposal costs due to the weight reduction as well as increasing the anaerobic capacity of the ponds. As part of the upgrade works the pad will be extended to accommodate the anticipated volume of sludge to be removed from one of the anaerobic ponds. The pad will be extended to approximately 225 m² of hard standing with a 400 mm high concrete wall to contain all sludge and prevent any spillages. Any leachate/liquor from the drying pad will be transferred by gravity via below ground HDPE pipes to the Facultative Pond.

2.2 Other

Unrelated to the septage disposal facility, the City of Mandurah proposes to establish a green waste transfer facility within the landfill area (see Figure 2). This area will be used to receive and process green waste prior to disposal off site. This activity is consistent with the "Municipal Depot" component of the Management Order governing the Site (Appendix A).

3 Environmental Impacts

3.1 Overview

Talis has undertaken an assessment of the current environmental setting, previous approval processes and the likely impacts associated with the Project and has determined that the following factors are considered to be the likely significant environmental factors for this proposal:

- Marine Environmental Quality;
- Hydrological Processes; and
- Social Surroundings.

These factors primarily relate to the environmental value of the area and the surrounding area both during and after the Site finishes operating.

Some commentary is also made on other factors.

Given the suite of existing statutory processes regulated by various Decision Making Authorities (DMAs) and the likely impacts associated with the Project, a preliminary assessment of the risks suggests that there are no impacts that are unacceptable or cannot readily be managed appropriately via existing regulatory mechanisms, requirements specified under an amended DWER Licence and the City's internal controls. Notwithstanding this, the factors identified above are further considered below.

3.2 Consideration of Potential Environmental Impacts

3.2.1 Marine Environmental Quality

EPA Objective: To maintain the quality of water, sediment and biota so that environmental values are protected.

3.2.1.1 EPA Policy and Guidance

The following EPA policy and guidance documentation has been considered in the development of this referral.

- EPA Environmental Factor Guideline – Marine Environmental Quality 2016; and
- EPA Technical Guidance – Protecting the Quality of Western Australia's Marine Environment 2016.

3.2.1.2 Consultation

Given that the site has been operating since 1995 with no known incidents or detrimental impacts to marine environmental quality in the surrounding area and that the Project will likely result in substantial improvements to the operations on the site, no additional environmental impacts or unacceptable risks to marine environmental quality were determined to exist.

3.2.1.3 Receiving Environment

The Indian Ocean is located approximately 500 m to the west of the Site.

3.2.1.4 Proposal Activities

The below activities are considered to have the potential to impact marine environmental quality if not appropriately mitigated:

- Wastewater treatment; and
- Wastewater storage.

3.2.1.5 Mitigation

Wastewater treatment and storage have the potential to impact marine environmental quality if spill or leaching events occur via equipment failure, overflow or other form of system malfunction.

The risk of surface water runoff affecting the marine environment is limited due to both the topography and the densely vegetated land between the facility and the ocean. Notwithstanding this, surface water will be directed away from the proposed facility such that no ingress of surface water is possible.

The higher risk pathway for potential impacts to the marine environment is via groundwater. In addition to the mitigation measures detailed above, all ponds that are to contain treated or untreated effluent will be lined with 2 mm HDPE liners. The Anaerobic Ponds will be double lined and will include a leak detection system. The Anaerobic and Facultative Ponds will also have geotextile and concrete or limestone layers at the base of the pond as additional protective measures. The concrete and limestone layers will facilitate more efficient operation and cleaning of the ponds without significant risk of compromising the HDPE lining.

The Project will also include the installation of a range of additional measures to ensure that no leaching occurs from the facility, including upgrade of receival area and extension of the hard standing area for drying pad, replacement of pipes and installation of concrete sumps.

An earlier proposal to dispose of effluent using irrigation will not proceed as it is intended that all effluent (treated and untreated) will be retained onsite. The only means of discharge from the ponds will be via evaporation.

3.2.1.6 Impacts

In light of the above detailed mitigation measures, no additional impacts to marine environmental quality are expected to occur as a result of the realisation of the Project and the risks in this regard are deemed not to be significant.

3.2.1.7 Assumptions

It is assumed that any measuring and monitoring requirements for the Project will be stipulated by the DWER under its Licence which will require amendment to accommodate the changes discussed in this document.

3.2.2 Hydrological Processes

EPA Objective: To maintain the hydrological regimes of groundwater and surface water so that environmental values are protected.

3.2.2.1 EPA Policy and Guidance

The following EPA policy and guidance documentation has been considered in the development of this referral.

- EPA Environmental Factor Guideline – Hydrological Processes 2016.

3.2.2.2 Consultation

Given that the site has been operating since 1995 with no serious public complaints, the main consultation that has taken place with regard to hydrological processes has been in the form of liaison with the DWER regarding reapplying Category 61 to the Site's Licence.

Notwithstanding this, both Talis and the City recognises that there has been some significant recent concern raised by the local community in relation to the facility, its previous operation and the original plan to irrigate treated effluent onsite. Discussions held with the community over a considerable period of time have resulted in the changes to the proposed design and operation of the facility.

3.2.2.3 Receiving Environment

The Site's topography slopes down from the north-west to the south-east. The western portion of the Site sits at approximately 7.5m AHD with the eastern portion at approximately 3.5m AHD.

The nearest surface water body is the Indian Ocean located approximately 500m to the west of the Site. The second closest surface water body is the Peel-Harvey Estuary 2.2km to the east which discharges in to the Indian Ocean. The Site is not located within the Peel Harvey Water Quality Improvement Plan Catchment.

No registered wetlands are known within the immediate area. However, a wetland was identified to the west of the Site, known locally as the 'weed pit'. This feature was utilised for the storage of algal bloom material that was harvested from the Peel-Harvey estuary many years ago (prior to the construction of the Dawesville Channel). However, Talis understands that this operation is no longer undertaken.

With regard to groundwater, it was identified by Halpern Glick Maunsell (HGM) (1994) that the superficial formations within the area are hydraulically connected and form an unconfined aquifer which is dominated by two flow systems; the Harvey Estuary and Ocean Systems. Commander (1984) in HGM (1994) identify the boundary between the "flow systems is the groundwater divide running approximately north/south and lying equidistant between the Harvey Estuary and the Ocean". The groundwater flow direction beneath the peninsula on which the Site is located varies throughout the year due to variations in seasonal recharge, fluctuations in the level of the estuary and tides (HGM, 1994). Groundwater flow is generally towards the west (Indian Ocean) for 10-11 months of the year, with groundwater flowing towards the east (Peel-Harvey Estuary) for 1-2 months of the year (HGM,

1994). The small difference in hydraulic gradients (0.5m AHD at the end of winter and 0.1m AHD in summer) results in the net groundwater flow towards the Indian Ocean (HGM, 1994).

3.2.2.4 Proposal Activities

The below activities are considered to have the potential to impact hydrological processes if not appropriately mitigated:

- Wastewater treatment; and
- Wastewater storage.

3.2.2.5 Mitigation

The mitigation measures detailed in Section 3.2.1.5 above regarding marine environmental quality will also mitigate the potential impacts associated with hydrological processes.

3.2.2.6 Impacts

In light of the above detailed mitigation measures, no additional impacts to hydrological processes are expected to occur as a result of the realisation of the Project and as a result, Talis is of the opinion that there are no significant risks to the environment in this regard.

3.2.2.7 Assumptions

It is assumed that any measuring and monitoring requirements for the Project will be stipulated by the DWER under its Licence which will require amendment to accommodate the changes discussed in this document.

3.3 Social Surroundings

EPA Objective: To protect social surroundings from significant harm.

3.3.1.1 EPA Policy and Guidance

The following EPA policy and guidance documentation has been considered in the development of this referral.

- EPA Environmental Factor Guideline – Human Health 2016.

3.3.1.2 Consultation

The Site has been operating in some capacity since 1995, primarily through regulation under Part V of the EP Act. In that time, no significant complaints have been made from the surrounding land users. Given that the proposed upgrade works are not substantially different to the previous and existing operations and improve the controls associated with the operations and the fact that significant dialogue has already occurred between the City and the local community, no additional stakeholder consultation was deemed necessary.

3.3.1.3 Receiving Environment

A review of the Surrounding Land Uses was undertaken as a part of the referral process. The City of Mandurah Town Planning Scheme No. 3 (District Scheme) (TPS No. 3) identifies the Site to be zoned as *Public Purposes – Public Utilities*. Land adjacent to the Site is zoned Regional open space to the north, east and south and *Public Purposes – Public Utilities to the west*.

The recommended separation distances for the Site's proposed and existing activities are shown in Table 1, as set out in various existing and draft guidance documentation including the EPA Guidance on Separation Distances between Industrial and Sensitive Land Uses (Guidance Statement No. 3) (2005) and the EPA's draft Guideline for Separation Distances Between Industrial and Sensitive Land Uses (2015).

Table 1: Recommended separation distances for proposed and existing Site activities

Category	Activity Status	Recommended Separation Distance (m)	
		EPA Guidance Statement No. 3 (2005)	EPA Draft Guideline (2015)
13 - Crushing of building material	Licensed (existing)	1,000 m	1,000 m
61 - Liquid waste facility	Proposed	No distance cited, case by case	1,000 m
63 - Class I inert landfill site	Licensed (existing)	150 m for residential uses and an internal buffer of 25 m from boundary	300 m

The nearest sensitive (residential) receptor is located approximately 1,200 m to the east of the boundary of the liquid waste facility, which is well beyond the distances specified within the relevant guidance documents. As detailed above, the City operated the liquid waste facility for ~21 years with no significant complaints received from the surrounding households.

3.3.1.4 Proposal Activities

The activities below are considered to have the potential to impact the social surroundings if they are not appropriately mitigated:

- Wastewater treatment; and
- Wastewater storage.

3.3.1.5 Mitigation

Wastewater treatment and storage have the potential to impact the social surroundings, from a noise and odour perspective, they are not appropriately managed.

As detailed above, to date the Site has not received any significant complaints since it began operating in 1995, this is likely due to the isolated nature of the facility. Notwithstanding this, the City remains committed to transparent communication and the public is able to contact the City with any

complaints or suggested improvements via phone or the online enquiry process. There has been recent and ongoing dialogue between the City and a local community group in relation to the original changes put forward in the referral to the EPA. This resulted in the proposed changes to the design of the facility discussed in this document.

In addition to the existing 1.8 m security fence around the septage and inert landfill facilities, and to avoid any potential incidents relating to trespassing or other access confusion issues the City will install an additional fence around the pond system. The fence will be 1.8m high and will include measures to prevent animals digging under the fence. The entrance to the Facility will be securely locked when the Site is unattended. The fencing will also stop animals from traversing the Facility, potentially falling into the ponds and compromising the lining system. Damage has occurred in the past with the existing pond lining resulting in the liner being compromised.

3.3.2 Other factors

The addition of the Evaporation Pond will require some land clearing.

The original assessment by HGM (1994) allowed for an area of 3 ha for the septage disposal facility and the area required will not be greater than 3 ha. Assuming the project is approved through a change to MS375, Talis understands that an exemption to the requirement to secure a Native Vegetation Clearing Permit (NVCP) pursuant to the *Environmental Protection (Clearing of Native Vegetation) Regulations 2004* will apply.

4 Consultation

Subsequent to the original submission of the referral documentation, a number of queries were received in relation to MS375 and the current proposal. These queries and the responses from the City are included here as Appendix B (April, May and July 2017).

There were a number of questions in relation to the proposal to dispose of waste water using irrigation. Subsequent to this correspondence, the City has opted to discontinue the proposal to use irrigation as a method of waste water disposal. Waste water management is described in Section 2 with disposal of waste water occurring via evaporation.

5 Changes to MS375

The City considers the changes that are required to MS375 should include:

- A revision of the development envelope; and
- A restructuring of MS375 to rationalise the proponents (MS375 is currently held in the names of the Department of Conservation and Land Management, the Water Authority of Western Australia and the City of Mandurah).

6 Conclusion

The City concludes that the revised proposed Project will not cause additional environmental impacts greater than those considered in the original assessment and will result in improvements to the environment when compared to what is currently approved.

The changes to the proposal as outlined in this document respond to concerns expressed by the local community. The City is of the view that the overall project reflects a contemporary solution to the operations onsite that not only ensure that there are no unacceptable risks to the environment but are also reflective of the local community's expectations.

The City recognises that the proposed changes will result in a range of changes to MS375, both in terms of operations and proponent which will require careful consideration but are of the view that such changes will provide a better outcome in terms of environmental regulation and accountability at the site.

The City remains committed to best practice environmental management and commits to maintaining open and transparent communication with the EPA to assist in facilitating an efficient and appropriate review of this proposal. With this in mind, the City expects a range of changes responding to the environmental management requirements associated with the facility to be progressed by the DWER in an amended Licence under Part V of the EP Act.

7 References

Environmental Protection Authority (2005). Guidance for the Assessment of Environmental Factors. Separation Distances between Industrial and Sensitive Land Uses. No.3. June 2005.

Environmental Protection Authority (2015). Draft Environmental Assessment Guideline for Separation distances between industrial and sensitive land uses. September 2015.

Halpern Glick Maunsell (HGM), Consultative Environmental Review for – Proposed Change to Yalgorup National Park Boundary, Septage, Limestone Quarry and Wastewater Treatment Plant, 1994.



Appendix A: Management Order

DUPLICATE

FORM LAA-1023

SECTION 46

WESTERN AUSTRALIA
LAND ADMINISTRATION ACT 1997
TRANSFER OF LAND ACT 1893 as amended

MANAGEMENT ORDER (XE)

RESERVE DESCRIPTION (NOTE 1)

43301

EXTENT

Whole
Formerly
Now

VOLUME

3006
3167

FOLIO

259
656

MANAGEMENT BODY (NOTE 2)

City of Mandurah, of PO BOX 210 MANDURAH WA 6210

CONDITIONS (NOTE 3)

i. To be utilised for the designated purpose of "Septage Disposal, Municipal Depot and Quarry" only.

ii. Power to lease (or sub-lease or licence) for the designated purpose is granted for the whole or portion thereof, for any term not exceeding twenty one (21) years from the commencement date of the lease (or sub-lease or licence) subject to the approval in writing of the Minister for Lands being first obtained to each and every lease or assignment of lease, pursuant also to the provisions of Section 18 of the Land Administration Act 1997.

THE MINISTER FOR LANDS (IN THE NAME OF AND ON BEHALF OF THE STATE OF WESTERN AUSTRALIA) ORDERS THAT THE CARE, CONTROL AND MANAGEMENT OF THE ABOVE RESERVE BE PLACED WITH THE MANAGEMENT BODY DESCRIBED ABOVE FOR THE PURPOSE FOR WHICH THE LAND COMPRISING THE RESERVE IS RESERVED UNDER SECTION 41 OF THE LAND ADMINISTRATION ACT 1997, AND FOR PURPOSES ANCILLARY OR BENEFICIAL TO THAT PURPOSE SUBJECT TO THE CONDITIONS ABOVE

Dated this 16 day of December in the year 2016

ATTESTATION (NOTE 4)



NAME: Jan Pruyn
SENIOR STATE LAND OFFICER
TEAM: CASE DELIVERY

DUPLICATE

INSTRUCTIONS

1. If insufficient space in any section, Additional Sheet Form B1 should be used with appropriate headings. The boxed sections should only contain the words "See Annexure".
2. Additional Sheets shall be numbered consecutively and bound to this document by staples along the left margin prior to execution by parties.
3. No alteration should be made by erasure. The words rejected should be scored through and those substituted typed or written above them, the alteration being initialled by the person signing this document and their witnesses.

NOTES

1. RESERVE DESCRIPTION

Reserve number and details to be stated. The Volume and Folio numbers to be stated.

2. MANAGEMENT BODY

State the full name and address of management body.

3. CONDITIONS

Detail the conditions specified by the Minister to be observed by the management body in its care control and management of the Reserve.

4. ATTESTATION

This document is to be executed by the Minister for Lands or a person to whom the power to grant a management order under section 46 of the Land Administration Act 1997 has been duly delegated under section 9(1) of the Act (if applicable).

EXAMINED

Office Use Only

N511654 XE

16 Dec 2016 09:23:15 Perth



DUPLICATE

MANAGEMENT ORDER (XE)

LODGED BY Department of Lands

ADDRESS DoL - Metropolitan Peel - Box 98C

PHONE No.
FAX No.

REFERENCE No. Carolyn Gasmier PH : 9166 7824 FAX:
6552 4417 File: 02922-1994 Job: 151788

ISSUING BOX No.

PREPARED BY Department of Lands

ADDRESS DoL - Metropolitan Peel - Box 98C

PHONE No.
FAX No.

INSTRUCT IF ANY DOCUMENTS ARE TO ISSUE TO
OTHER THAN LODGING PARTY

TITLES, LEASES, DECLARATIONS ETC LODGED
HEREWITH

1. _____ Received Items
2. _____ Nos.
3. _____
4. _____ Receiving Clerk
5. _____
6. _____

151788-009



Registered pursuant to the provisions of the TRANSFER OF
LAND ACT 1893 as amended on the day and time shown
above and particulars entered in the Register.

Reserve Enquiry Detail [5100L]

[Screen Friendly](#) [Print](#)

Reserve Name	43301	Legal Area (ha)	72.4886
Type		Status	Current
Notes		Current Purpose	SEPTAGE DISPOSAL, MUNICIPAL DEPOT AND QUARRY
File Number	2922/1994	WITH POWER TO LEASE FOR ANY TERM NOT EXCEEDING 21 YEARS SUBJECT TO THE CONSENT OF THE MINISTER FOR LANDS.	
Additional Reserve Information	RESERVE COMPRISES LOT 320 ON DP409351 (N511652)		

Class	Responsible Agency	Date of Last Change
C	DEPARTMENT OF LANDS (SLSD)	10/01/2017

Management Orders	Document	Land Use	Local Government Authority
CITY OF MANDURAH	N511654	MUNICIPAL DEPOT SITE QUARRY SEWAGE DISPOSAL	MANDURAH, CITY OF

Add Item	CLT Number	Parcel Identifier	Street Address	Suburb	File Number	PIN	Area (sqm)	Map
<input type="checkbox"/>	LR3167-656	Lot 320 On Plan 409351	320 TIMS THICKET RD	DAWESVILLE	02922-1994-01RO	12254022	724886.0	

Reserve Number 43301

Previous Certificates of Title	Historic Crown Allotments
LR3102-628 Cancelled	MURRAY Location 1944

Gaz Page/Document	Date	Type	Text
N511650	16/12/2016	Vesting Revoked	REVOKED
N511652	16/12/2016	Current Area	72.4886
N511653	16/12/2016	Current Purpose	SEPTAGE DISPOSAL, MUNICIPAL DEPOT AND QUARRY
N511654	16/12/2016	Current Vesting	MANAGEMENT ORDER CITY OF MANDURAH
N206418	17/12/2015	Vesting Revoked	REVOKED
N206419	17/12/2015	Historical Purposes	RECREATION, SEPTAGE DISPOSAL, MUNICIPAL DEPOT SITE & QUARRY
N206420	17/12/2015	Historical Vesting	MANAGEMENT ORDER CITY OF MANDURAH
4471	05/08/1997	Historical Area	129.6415
4471	05/08/1997	Public Plan	BF32 (2) 40.28
4471	05/08/1997	Street Name	OLD COAST ROAD
2107	30/05/1995	Historical Vesting	VEST:CITY OF MANDURAH
2112	30/05/1995	Class	C
2112	30/05/1995	Correspondence File Number	2922/1994
2112	30/05/1995	Historical Area	129.7648
2112	30/05/1995	Historical Purposes	RECREATION, SEPTAGE DISPOSAL & QUARRY
2112	30/05/1995	Location	MURRAY LOC 1944
2112	30/05/1995	Original Gazettal and page	ORIGINAL GAZETTE
2112	30/05/1995	Survey Number	CS DIA 91987

This product is for information purposes only. A search of the original documentation is required for all legal purposes
Western Australian Land Information Authority (Landgate)

WESTERN



AUSTRALIA

REGISTER NUMBER 320/DP409351	
DUPLICATE EDITION N/A	DATE DUPLICATE ISSUED N/A

RECORD OF QUALIFIED CERTIFICATE

VOLUME **LR3167** FOLIO **656**

**OF
CROWN LAND TITLE**

UNDER THE TRANSFER OF LAND ACT 1893
AND THE LAND ADMINISTRATION ACT 1997

NO DUPLICATE CREATED

The undermentioned land is Crown land in the name of the STATE of WESTERN AUSTRALIA, subject to the interests and Status Orders shown in the first schedule which are in turn subject to the limitations, interests, encumbrances and notifications shown in the second schedule.



REGISTRAR OF TITLES

LAND DESCRIPTION:

LOT 320 ON DEPOSITED PLAN 409351

**STATUS ORDER AND PRIMARY INTEREST HOLDER:
(FIRST SCHEDULE)**

STATUS ORDER/INTEREST: RESERVE UNDER MANAGEMENT ORDER

PRIMARY INTEREST HOLDER: CITY OF MANDURAH OF PO BOX 210 MANDURAH WA 6210
(XE N511654) REGISTERED 16 DECEMBER 2016

**LIMITATIONS, INTERESTS, ENCUMBRANCES AND NOTIFICATIONS:
(SECOND SCHEDULE)**

1. N511652 RESERVE 43301 FOR THE PURPOSE OF SEPTAGE DISPOSAL, MUNICIPAL DEPOT AND QUARRY REGISTERED 16.12.2016.
N511654 MANAGEMENT ORDER. CONTAINS CONDITIONS TO BE OBSERVED. WITH POWER TO LEASE FOR ANY TERM NOT EXCEEDING 21 YEARS, SUBJECT TO THE CONSENT OF THE MINISTER FOR LANDS. REGISTERED 16.12.2016.

- Warning: (1) A current search of the sketch of the land should be obtained where detail of position, dimensions or area of the lot is required. Lot as described in the land description may be a lot or location.
(2) The land and interests etc. shown hereon may be affected by interests etc. that can be, but are not, shown on the register.
(3) The interests etc. shown hereon may have a different priority than shown.

-----END OF CERTIFICATE OF CROWN LAND TITLE-----

STATEMENTS:

The statements set out below are not intended to be nor should they be relied on as substitutes for inspection of the land and the relevant documents or for local government, legal, surveying or other professional advice.

SKETCH OF LAND: DP409351.
PREVIOUS TITLE: LR3006-259.
PROPERTY STREET ADDRESS: LOT 320 TIMS THICKET RD, DAWESVILLE.
LOCAL GOVERNMENT AREA: CITY OF MANDURAH.
RESPONSIBLE AGENCY: DEPARTMENT OF LANDS (SLSD).

END OF PAGE 1 - CONTINUED OVER

ORIGINAL CERTIFICATE OF CROWN LAND TITLE
QUALIFIED

REGISTER NUMBER: 320/DP409351

VOLUME/FOLIO: LR3167-656

PAGE 2

NOTE 1: N206419 CORRESPONDENCE FILE 02922-1994-01RO

LANDGATE USE ONLY



Appendix B: Records of Consultation

11/04/2017

1300 251 070
Level 1, 660 Newcastle St
Leederville WA 6007

PO Box 454
Leederville WA 6903

info@talisconsultants.com.au
www.talisconsultants.com.au

Anthony Sutton

Director

Assessment and Compliance Division
Office of the Environmental Protection Authority

BY EMAIL

Dear Anthony,

Tim's Thicket Liquid Waste Facility Upgrade Proposal Provision of Additional Information

Following the recent correspondence titled '*Notice Requiring Further Information - Tim's Thicket Liquid Waste Facility Upgrade Proposal*' (CMS17070) between the Office of the Environmental Protection Authority (OEPA) and City of Mandurah (the City) dated 3 April 2017, Talis Consultants Pty Ltd (Talis) has prepared the following letter on behalf of the City as a response to OEPA's queries. Talis has been engaged by the City in relation to this matter and provides its response against each of the issues raised by the OEPA.

Wastewater Treatment Plan

OEPA Request for Information 1

In the original assessment covered by Ministerial Statement 375 (MS 375), a Wastewater Treatment Plant (WWTP) was proposed at Tim's Thicket. The Development Envelope provided with the referral documentation does not specify a location for this WWTP. Further information is required on whether this WWTP is proposed to be constructed at the site in the future and where it would be located.

The proponent for the Wastewater Treatment Plant (WWTP) referred to in the original assessment covered by Ministerial Statement 375 is the Water Corporation and not the City. This facility was proposed to be built on Reserve 39349 immediately west of the inert landfill. The reserve is still undeveloped and the City is unaware whether Water Corporation has plans to construct this facility in the future.

It is noted that there is a clear distinction between a septage treatment facility that treats grease trap and septage waste and a WWTP originally proposed by the Water Corporation which treats raw sewage. The Water Corporation have previously advised that their facilities are not designed for the receipt of septage and grease trap waste.

The proposal that has been referred to the EPA by Talis on behalf of the City should therefore not be confused with the WWTP and has no relation to the Water Corporation's plans for the facility (whether these are progressed or not).

Irrigation area

OEPA Request for Information 2

Please provide the EPA with land-use history of the irrigation site, noting any land-use that may have caused contamination at the site. The current contamination status of the site should be identified in case there is a non-complimentary past land-use in the proposed irrigation area. Information should also be provided regarding past contamination issues at the Tim's Thicket site, and how the irrigation area may have been affected by this contamination and whether there are any continuing legacy issues.

The proposed irrigation site was previously an old limestone quarry that was backfilled with construction and demolition waste during 1995 – 1999. To date there has been no requirement to conduct contamination investigations and install monitoring bores around this old limestone quarry. In our view, it would be highly unusual for an investigation of this nature to be conducted for a quarry facility unless there was evidence of contamination being generated.

Notwithstanding the above, the Department of Environment Regulation (DER) requested the City to prepare a full detailed groundwater assessment for the entire Tim's Thicket site. The report is titled 'Groundwater Investigation Report - Tim's Thicket Septage and Inert Waste Disposal Facility' (Talis, 2015). Whilst this work did not identify any significant concerns in relation to the risk of contamination, one of the recommendations was to expand the monitoring bore network around the site and install additional bores to the east and west to the site to determine risk to the marine/coastal environment.

The DER has had this report since October 2015 and the City is yet to receive a response in relation to recommendations made in the report. The report is enclosed with this letter and it is assumed that the DER is comfortable with the findings of the report and resultant recommendations it makes.

Adjacent shore line

OEPA Request for Information 3

Provide information on whether the beach area to the west of the site is used recreationally. Provide information on whether there could be an impact (i.e. noise/odour/health) to people using this area. Please confirm that no direct discharge to the marine environment will occur.

The shore line is approximately 500 m to the west of the proposed irrigation area. This beach area is used primarily for fishing and four wheel driving. The old septage facility was in operation between 1995 and 2014 and no impacts on the beach area were observed during this time. The proposed septage upgrade is designed to a higher standard and will consequently have no adverse impacts to the beach area in relation to noise, odour or health risks.

The upgraded Septage Facility does not have any direct discharge to the marine environment and the design of the ponds will ensure that no unacceptable risk of discharge to groundwater will occur.

General information

OEPA Request for Information 4

Please provide the EPA with confirmation on whether the waste transfer station is still being proposed, noting the advice provided that the station would not be inconsistent with the proposal as outlined in MS 375. The EPA notes the zoning under Town Planning Scheme No. 3 for part of the irrigation area is for Regional Open Space and that this would be reviewed by the City of Mandurah if required.

The City has previously received a Works Approval from the DER to construct a transfer station at Tim's Thicket. The project was linked to regional funding from the Waste Authority, but funding was withdrawn due to the delays in obtaining the necessary DER approvals. The City still has a desire to construct the transfer station at the Tim's Thicket facility, but the project is dependent on external funding. Should the transfer station be constructed it would be located between the inert landfill and septage facility.

The City's Town Planning Scheme No. 3 designates the entire Tim's Thicket waste facility (Reserve 43301) and the proposed irrigation area (Reserve 24198) as Public Purposes, Regional Open Space.

Provision of revised spatial data

OEPA Request for Information 5

Approximately 0.01 hectares of the Disturbance Footprint is outside the Development Envelope; the western side of the landfill area. All disturbance footprint areas should be fully within the Development Envelope. Please revise and resubmit the GIS data. As a reminder, please provide spatial data in GIS format that is geo-referenced and conforms to the following parameters:

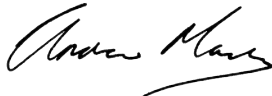
- *Data type: closed polygons that represent the proposal boundary (development envelope) and the activity areas for all physical elements of the proposal (footprint).*
- *Attribution: Name the development envelope and each activity area in the attribute table of the spatial data.*
- *Format: ESRI geodatabase or shapefile.*
- *Coordinate System: GDA94 (datum) and projected into the appropriate Map Grid of Australia (MGA) zone.*

Please refer to revised spatial data and spatial data catalogue enclosed to this letter.

Closing

We trust that the information provided here is sufficient to recommence the assessment of the proposal pursuant to section 38A(1) of the *Environmental Protection Act 1986*. Should you have any queries relating to this matter, please do not hesitate to contact me.

Yours sincerely,



Andrew Mack

Associate Director & Environment Section Leader

TALIS CONSULTANTS

e – andrew.mack@talisconsultants.com.au

m – 0402 029 244

- enc. Groundwater Investigation Report - Tim's Thicket Septage and Inert Waste Disposal Facility' (Talis, 2015)
Revised spatial data and spatial data catalogue

30/05/2017

1300 251 070
Level 1, 660 Newcastle St
Leederville WA 6007

PO Box 454
Leederville WA 6903

info@taliconsultants.com.au
www.taliconsultants.com.au

Hans Jacob

Acting Director

Assessment and Compliance Division
Office of the Environmental Protection Authority

BY EMAIL

Dear Hans,

Tim's Thicket Liquid Waste Facility Upgrade Proposal Post Public Consultation Period - Provision of Additional Information

Following the recent correspondence titled '*Notice Requiring Further Information - Tim's Thicket Liquid Waste Facility Upgrade Proposal*' (CMS17070) between the Office of the Environmental Protection Authority (OEPA) and the City of Mandurah (the City) dated 17 May 2017, Talis Consultants Pty Ltd (Talis) has prepared the following letter on behalf of the City as a response to the OEPA's queries.

Talis has been engaged by the City in relation to this matter and provides its response against each of the issues raised by the OEPA.

Management Orders

Provide the EPA with a copy of the management orders for reserves 43301 and 24198. These should be available from Landgate if the City of Mandurah does not have copies. These management orders are required to understand the current conditions of management of the reserves.

Please refer to the enclosed management orders.

Response to Public Comments

During the 7-day public review period, 24 members of the public commented on the proposal and requested a level of assessment of "Assess - Public Environmental Review". The matters raised on the proposal are summarised in Attachment 1, and the City of Mandurah is requested to provide a response to the matters raised. Additionally, please provide details of any further consultation that the City intends to undertake with the public on this proposal.

Public Comment 1
Contrary to information provided within the referral, there are two wetlands/damplands within 150 metres (m) to 500 m of the site and within the irrigation plume.
City of Mandurah Response
The City is not aware of any registered wetland that is located within 500m of the Septage facility site. There is a portion of low lying land located within R39349, which is Crown Land vested with the Water Corporation and planned for a future Waste Water Treatment facility. This low lying area is locally known as the 'weed pit' and was historically utilised for the storage of algal bloom material that was harvested from the Peel-Harvey estuary many years ago (prior to the construction of the Dawesville Channel). The City understands that this practice no longer takes place. This area is not

a registered wetland and has been historically disturbed and as such has not been considered as a wetland as part of this referral.

Further to the above, the original Consultative Environment Review document (refer to Section 2.4 - page 9) for this development stated that the closest waterbody to the site was Lake Clifton – which is situated approximately 7km to the south – and that there were no permanent watercourses in the study area. The Environmental Protection Authority Bulletin 751 – 1994 also made no reference to wetlands or waterbodies in close proximity to the subject site.

Public Comment 2

A change of designation of the whole reserve 24198 would allow the facility to border housing areas.

City of Mandurah Response

The portion of R24198 that is located immediately south of R39349 has been used previously as a Class 1 landfill. It is proposed that this portion of land is utilised to accommodate the irrigation disposal field for the septage facility.

It is acknowledged that R24198 is 48 hectares in size and expands from Tim's Thicket Road, north to William Street, Dawesville and wraps around Reserve 39349 (vested with Water Corporation) to include the small portion of land proposed to accommodate the irrigation disposal field.

If the vesting of the small portion of land south of R39349 requires amendment to accommodate the septage facility irrigation disposal field it would be the City's intention to excise this land and add it to existing reserve (R43301) utilised for septage facility and landfill operations.

The portion of R24198 north of R39349 would remain for recreation purposes only.

The City has no intention of expanding septage facility operations in a northerly direction or to reduce the relative large buffers to residential premises to the north and east.

Public Comment 3

The proposed change of purpose for reserve 24198 contravenes the original land-swap agreement by the proponent (i.e. Ministerial Statement 375) with (the now) Department of Parks and Wildlife, which would then contravene the direction by the Environment Minister that this reserve be managed in accordance with the management plan for Yalgorup National Park.

City of Mandurah Response

The portion of R24198 that the City wishes to utilise for the irrigation disposal field was an old quarry that was rehabilitated with the backfilling of construction and demolition waste. This portion of land is unvegetated and contains the existing wind turbine compounds that supply renewable energy to the gatehouse for the septage and inert landfill operations.

The City explored the placement of the irrigation disposal field within R43301, but there was insufficient cleared land for this expansion without the need to clear additional native vegetation.

As a result, the use of R24198 for this purpose was considered a more sustainable option.

It is acknowledged that the use of R24198 for this purpose was never envisaged back in 1994 when the original proposal was planned. However, given that it is likely that Ministerial Statement 375 will require amendment to accommodate the upgraded septage facility, the use of the southern section of R24198 could be also be addressed at the same time.

Public Comment 4

The expansion will lead to impacts to flora and fauna, which could lead to further diminishing of Yalgorup National Park.

City of Mandurah Response

The City's proposal relates to the upgrade of the existing septage facility infrastructure at the site, which will include an irrigation disposal field that is to be located on the southern portion of R24198. The irrigation field will consist of 0.11 ha Vetiver Grass System (VGS) to polish the treated wastewater from the storage ponds. The VGS will be bounded by 0.5 ha buffer zone consisting of soil contaminant bunds and an access track for maintenance. The remaining 1.17ha will be vegetated with vegetation native to the area.

This portion of R24198 in question is currently un-vegetated and contains the wind turbine compounds used for the septage facility gatehouse.

The City therefore disputes that the utilisation of the southern portion of R24198 for this activity will have a detrimental impact on flora and fauna in the area or any adverse impact on the nearby National Park.

Public Comment 5

There are concerns regarding increased leaching of contaminants into groundwater (which is used by residents in the area) and the ocean. The irrigation area is positioned directly over a site which contains contaminated waste. The site could contain many different waste materials such as 40-litre waste drums that contained 2-4-5-trichlorophenoxyacetic acid, metal and chemical drums of unknown content, and heavy metals including zinc, copper and magnesium.

City of Mandurah Response

It is proposed that the irrigation area is located on the southern portion of R24198, which was previously an old quarry and backfilled with construction and demolition waste from the region.

The City is not aware of waste materials, as detailed in the public submission, to be located within this landfill. Further to this, previous groundwater monitoring results have not suggested any concerns in this regard.

The septage facility upgrade includes a Bioreactor to polish effluent and reduce its nutrient load prior to settling in the Storage Pond prior to disposal to the irrigation disposal field. The irrigation disposal field will contain a Vetiver Grass System (VGS) that has proven to be very effective in nitrogen and phosphorus uptake – again minimising any impact on the groundwater system.

Furthermore and as detailed in the referral document, the direction of groundwater flow is predominantly in a westward direction for the majority of the year i.e. towards the ocean.

Public Comment 6

The validity of the soil assessment of "course grained soil" is queried as most of the soil covering the irrigation area was brought in from another location and placed over the proposed irrigation area. This waste layer is located over Tamala Limestone which is unsuitable for septic disposal.

City of Mandurah Response

The soil assessment information contained within the Licence Amendment Application document was based on field trials and sampling undertaken by Talis Consultants Pty Ltd. Field works were carried out in accordance with the relevant Australian Standards and the soil samples were analysed at a suitable laboratory.

The soil within the irrigation disposal area was subsequently assessed in accordance with WQPN22 to be 'course grained soil'.

Public Comment 7

Drinking water is [allegedly] taken from the public bore in Bouvard, and bore water is used for vegetable irrigation and as a source of water for animals (i.e. chickens). There is risk of contaminating both public and private water supplies by irrigating water through the irrigation area.

City of Mandurah Response

A bore search of the Department of Water's Water Information Reporting (WIR) showed that the nearest registered bore was approximately 1.2 km immediately east of the septage facility.

The City is not aware of the exact location of the public bore in Bouvard. However, according to the WIR search the closest bore in the Bouvard area is located approximately 2.5km south east of the septage facility.

The old septage facility operated from 1995 to 2014 and the City was permitted to discharge the overflow of the oxidative pond to the ground through a leach drain system. The overflow only ever occurred during the winter period. To this effect the proposed septage facility upgrade will improve the quality of water discharged to the environment and as such is more favourable than the originally approved operation.

Given the predominantly westward direction of the groundwater flow around the subject site, the City disputes that the upgraded septage facility will be at risk of contaminating any known public or private water supplies.

Public Comment 8

There will be impacts from noise, dust pollution, odours and toxic gases which could affect residents close to the facility. There is concern that adequate buffers will not be in place after the development of the facility, and for any further expansions/upgrades.

City of Mandurah Response

The septage facility, limestone quarry and inert landfill activities have been in operation at this site since 1995. The closest residence to the site is 1.2 km to the east. The septage facility is surrounded by Crown Reserve R52821 and R33139 – which are both vested in the City of Mandurah for Recreation Purposes.

Adequate buffers to residential premises have been in place since the inception of the site in 1995 and the upgraded septage facility will not reduce these buffers.

The site is licensed by the Department of Environment Regulation (DER) and is regularly audited and inspected by officers of the DER. The licensee also submits an annual Compliance and Environmental Monitoring report to the DER in February each year.

The last site inspection conducted by DER officers was on 18 May 2017 and officers were satisfied with the operation and management of the site.

The City therefore disputes the claims within the public submission as they are unsubstantiated.

Public Comment 9

Little or no information has been provided by the City of Mandurah to residents. Residents believe that the City is being secretive and information should have been made public.

City of Mandurah Response

The septage facility has been in operation since 1995 and the City's proposal is to upgrade the facility infrastructure to ensure it meets current environmental standards and reduces the environmental impact cause by the site.

The facility upgrade does not require planning consent as it relates to the upgrade of existing public works infrastructure. The City would normally consult local residents through the development approval process, however, given that this was not required and the facility upgrade would result in an improved environmental outcome, no further consultation was deemed necessary.

Several reports on the Septage facility upgrade have been considered by Council and Council resolved for officers to seek the appropriate environmental approvals to enable the facility to be upgraded. One local resident attended the relevant Council meetings and raised a number of questions regarding the proposed upgrade. These questions were addressed by Council officers. The resident also provided a deputation to Council, which has been recorded by Council and is publically available.

In addition, the City's Licence Amendment Application relating to the Septage Facility upgrade was publicly advertised in accordance with the DER's standard procedures and the OEPA has also advertised this application in accordance with its standard procedures. Both sets of documents have contained all relevant information relating to the proposal.

Public Comment 10

There have been many complaints about the operation of the inert fill and septage site (while operational) related to security and performance.

City of Mandurah Response

The City has only ever received complaints about the septage and inert landfill facility from one resident. This resident has submitted many questions to the City and has attended a number of Council meetings to express their concerns.

Officers have responded to the residents questions.

The site is licensed by the Department of Environment Regulation and is regularly audited and inspected by officers of that Department. The licensee also submits an Annual Compliance and Environmental Monitoring report to the DER in February each year.

The last site inspection conducted by DER officers was on 18 May 2017 and officers were satisfied with the operation and management of the site.

The City therefore disputes this resident's claims about the operation of the facility.

Closing

We trust that the information provided here is sufficient to recommence the assessment of the proposal pursuant to section 38A(1) of *the Environmental Protection Act 1986*. Should you have any queries relating to this matter, please do not hesitate to contact me.

Yours sincerely,



Josh Matthews

Environmental Consultant

TALIS CONSULTANTS

e – josh.matthews@talisconsultants.com.au

m – 0498 141 722

enc. Management Order for Reserves 43301 and 24198

Cc. Kyle Boardman

Andrew Mack



Management Order: 43301



Government of **Western Australia**
Department of **Lands**

CITY OF MANDURAH RECEIVED	
18 JAN 2017	
Doc #	
Officer	

With Compliments

Level 2, 140 William Street, Perth Western Australia 6000 PO Box 1143, West Perth Western Australia 6872
Telephone: (08) 6552 4400 Facsimile: (08) 6552 4417 Freecall: 1800 735 784 (Country only)
Email: info@lands.wa.gov.au Website: www.lands.wa.gov.au

DUPLICATE

FORM LAA-1023

SECTION 46

WESTERN AUSTRALIA
LAND ADMINISTRATION ACT 1997
TRANSFER OF LAND ACT 1893 as amended

MANAGEMENT ORDER (XE)

RESERVE DESCRIPTION (NOTE 1)

43301

EXTENT

Whole
Formerly
Now

VOLUME

3006
3167

FOLIO

259
656

MANAGEMENT BODY (NOTE 2)

City of Mandurah, of PO BOX 210 MANDURAH WA 6210

CONDITIONS (NOTE 3)

i. To be utilised for the designated purpose of "Septage Disposal, Municipal Depot and Quarry" only.

ii. Power to lease (or sub-lease or licence) for the designated purpose is granted for the whole or portion thereof, for any term not exceeding twenty one (21) years from the commencement date of the lease (or sub-lease or licence) subject to the approval in writing of the Minister for Lands being first obtained to each and every lease or assignment of lease, pursuant also to the provisions of Section 18 of the Land Administration Act 1997.

THE MINISTER FOR LANDS (IN THE NAME OF AND ON BEHALF OF THE STATE OF WESTERN AUSTRALIA) ORDERS THAT THE CARE, CONTROL AND MANAGEMENT OF THE ABOVE RESERVE BE PLACED WITH THE MANAGEMENT BODY DESCRIBED ABOVE FOR THE PURPOSE FOR WHICH THE LAND COMPRISING THE RESERVE IS RESERVED UNDER SECTION 41 OF THE LAND ADMINISTRATION ACT 1997, AND FOR PURPOSES ANCILLARY OR BENEFICIAL TO THAT PURPOSE SUBJECT TO THE CONDITIONS ABOVE

Dated this 16 day of December in the year 2016

ATTESTATION (NOTE 4)

J. Pruyn

NAME: JAN PRUYN
SENIOR STATE LAND OFFICER
TEAM: CASE DELIVERY

DUPLICATE

INSTRUCTIONS

1. If insufficient space in any section, Additional Sheet Form B1 should be used with appropriate headings. The boxed sections should only contain the words "See Annexure".
2. Additional Sheets shall be numbered consecutively and bound to this document by staples along the left margin prior to execution by parties.
3. No alteration should be made by erasure. The words rejected should be scored through and those substituted typed or written above them, the alteration being initialled by the person signing this document and their witnesses.

NOTES

1. RESERVE DESCRIPTION

Reserve number and details to be stated. The Volume and Folio numbers to be stated.

2. MANAGEMENT BODY

State the full name and address of management body.

3. CONDITIONS

Detail the conditions specified by the Minister to be observed by the management body in its care control and management of the Reserve.

4. ATTESTATION

This document is to be executed by the Minister for Lands or a person to whom the power to grant a management order under section 46 of the Land Administration Act 1997 has been duly delegated under section 9(1) of the Act (if applicable).

EXAMINED

Office Use Only

N511654 XE

16 Dec 2016 09:23:15 Perth



DUPLICATE

MANAGEMENT ORDER (XE)

LODGED BY Department of Lands

ADDRESS DoL - Metropolitan Peel - Box 98C

PHONE No.
FAX No.

REFERENCE No. Carolyn Gasmier PH : 9166 7824 FAX:
6552 4417 File: 02922-1994 Job: 151788

ISSUING BOX No.

PREPARED BY Department of Lands

ADDRESS DoL - Metropolitan Peel - Box 98C

PHONE No.
FAX No.

INSTRUCT IF ANY DOCUMENTS ARE TO ISSUE TO
OTHER THAN LODGING PARTY

TITLES, LEASES, DECLARATIONS ETC LODGED
HEREWITH

1. _____ Received Items
2. _____ Nos.
3. _____
4. _____ Receiving Clerk
5. _____
6. _____

151788-009



Registered pursuant to the provisions of the TRANSFER OF
LAND ACT 1893 as amended on the day and time shown
above and particulars entered in the Register.

Reserve Enquiry Detail [5100L]

[Screen Friendly](#) [Print](#)

Reserve Name	43301	Legal Area (ha)	72.4886
Type		Status	Current
Notes		Current Purpose	SEPTAGE DISPOSAL, MUNICIPAL DEPOT AND QUARRY
File Number	2922/1994		
Additional Reserve Information	RESERVE COMPRISES LOT 320 ON DP409351 (N511652)		

Class	Responsible Agency	Date of Last Change
C	DEPARTMENT OF LANDS (SLSD)	10/01/2017

Management Orders	Document	Land Use	Local Government Authority
CITY OF MANDURAH	N511654	MUNICIPAL DEPOT SITE QUARRY SEWAGE DISPOSAL	MANDURAH, CITY OF

Add Item	CLT Number	Parcel Identifier	Street Address	Suburb	File Number	PIN	Area (sqm)	Map
<input type="checkbox"/>	LR3167-656	Lot 320 On Plan 409351	320 TIMS THICKET RD	DAWESVILLE	02922-1994- 01RO	12254022	724886.0	

Reserve Number 43301

Previous Certificates of Title	Historic Crown Allotments
LR3102-628 Cancelled	MURRAY Location 1944

Gaz Page/Document	Date	Type	Text
N511650	16/12/2016	Vesting Revoked	REVOKED
N511652	16/12/2016	Current Area	72.4886
N511653	16/12/2016	Current Purpose	SEPTAGE DISPOSAL, MUNICIPAL DEPOT AND QUARRY
N511654	16/12/2016	Current Vesting	MANAGEMENT ORDER CITY OF MANDURAH
N206418	17/12/2015	Vesting Revoked	REVOKED
N206419	17/12/2015	Historical Purposes	RECREATION, SEPTAGE DISPOSAL, MUNICIPAL DEPOT SITE & QUARRY
N206420	17/12/2015	Historical Vesting	MANAGEMENT ORDER CITY OF MANDURAH
4471	05/08/1997	Historical Area	129.6415
4471	05/08/1997	Public Plan	BF32 (2) 40.28
4471	05/08/1997	Street Name	OLD COAST ROAD
2107	30/05/1995	Historical Vesting	VEST:CITY OF MANDURAH
2112	30/05/1995	Class	C
2112	30/05/1995	Correspondence File Number	2922/1994
2112	30/05/1995	Historical Area	129.7648
2112	30/05/1995	Historical Purposes	RECREATION, SEPTAGE DISPOSAL & QUARRY
2112	30/05/1995	Location	MURRAY LOC 1944
2112	30/05/1995	Original Gazettal and page	ORIGINAL GAZETTE
2112	30/05/1995	Survey Number	CS DIA 91987

This product is for information purposes only. A search of the original documentation is required for all legal purposes
Western Australian Land Information Authority (Landgate)

WESTERN



AUSTRALIA

REGISTER NUMBER 320/DP409351	
DUPLICATE EDITION N/A	DATE DUPLICATE ISSUED N/A

RECORD OF QUALIFIED CERTIFICATE

VOLUME **LR3167** FOLIO **656**

**OF
CROWN LAND TITLE**

UNDER THE TRANSFER OF LAND ACT 1893
AND THE LAND ADMINISTRATION ACT 1997

NO DUPLICATE CREATED

The undermentioned land is Crown land in the name of the STATE of WESTERN AUSTRALIA, subject to the interests and Status Orders shown in the first schedule which are in turn subject to the limitations, interests, encumbrances and notifications shown in the second schedule.



REGISTRAR OF TITLES

LAND DESCRIPTION:

LOT 320 ON DEPOSITED PLAN 409351

**STATUS ORDER AND PRIMARY INTEREST HOLDER:
(FIRST SCHEDULE)**

STATUS ORDER/INTEREST: RESERVE UNDER MANAGEMENT ORDER

PRIMARY INTEREST HOLDER: CITY OF MANDURAH OF PO BOX 210 MANDURAH WA 6210
(XE N511654) REGISTERED 16 DECEMBER 2016

**LIMITATIONS, INTERESTS, ENCUMBRANCES AND NOTIFICATIONS:
(SECOND SCHEDULE)**

1. N511652 RESERVE 43301 FOR THE PURPOSE OF SEPTAGE DISPOSAL, MUNICIPAL DEPOT AND QUARRY REGISTERED 16.12.2016.
N511654 MANAGEMENT ORDER. CONTAINS CONDITIONS TO BE OBSERVED. WITH POWER TO LEASE FOR ANY TERM NOT EXCEEDING 21 YEARS, SUBJECT TO THE CONSENT OF THE MINISTER FOR LANDS. REGISTERED 16.12.2016.

- Warning: (1) A current search of the sketch of the land should be obtained where detail of position, dimensions or area of the lot is required. Lot as described in the land description may be a lot or location.
(2) The land and interests etc. shown hereon may be affected by interests etc. that can be, but are not, shown on the register.
(3) The interests etc. shown hereon may have a different priority than shown.

-----END OF CERTIFICATE OF CROWN LAND TITLE-----

STATEMENTS:

The statements set out below are not intended to be nor should they be relied on as substitutes for inspection of the land and the relevant documents or for local government, legal, surveying or other professional advice.

SKETCH OF LAND: DP409351.
PREVIOUS TITLE: LR3006-259.
PROPERTY STREET ADDRESS: LOT 320 TIMS THICKET RD, DAWESVILLE.
LOCAL GOVERNMENT AREA: CITY OF MANDURAH.
RESPONSIBLE AGENCY: DEPARTMENT OF LANDS (SLSD).

END OF PAGE 1 - CONTINUED OVER

ORIGINAL CERTIFICATE OF CROWN LAND TITLE
QUALIFIED

REGISTER NUMBER: 320/DP409351

VOLUME/FOLIO: LR3167-656

PAGE 2

NOTE 1: N206419 CORRESPONDENCE FILE 02922-1994-01RO

LANDGATE USE ONLY



Management Order: 24198

LAND ACT 1933

(Section 33(2))

VESTING ORDER

DOLA File 781/955.

I, Major General Philip Michael Jeffery, Officer of the Order of Australia, Military Cross, Governor of the State of Western Australia, do hereby in pursuance of the powers enabling me in that behalf, and under and by virtue of the provisions of Section 33(2) of the Land Act 1933, direct that Reserve No 24198 (Murray Location 1943)

vest in and be held by the City of Mandurah

for the designated purpose of "Camping and Recreation".

Given under my hand, at Perth

this day
23 MAY 1995
of 19



GOVERNOR

13/07/2017

1300 251 070
Level 1, 660 Newcastle St
Leederville WA 6007

PO Box 454
Leederville WA 6903

info@taliconsultants.com.au
www.taliconsultants.com.au

Anthony Sutton
Director

Assessment and Compliance Division/Strategic Policy and Planning Division
Office of the Environmental Protection Authority
Department of Water and Environmental Regulation

BY EMAIL

Dear Anthony,

Tim's Thicket Liquid Waste Facility Upgrade Proposal
Figures of the Development Envelope and Disturbance Footprint - Provision of Additional Information

Following the recent correspondence titled '*Notice Requiring Further Information - Tim's Thicket Liquid Waste Facility Upgrade Proposal*' (CMS17070) between the Office of the Environmental Protection Authority (OEPA) and the City of Mandurah (the City) dated 29 June 2017, Talis Consultants Pty Ltd (Talis) has prepared the following letter on behalf of the City as a response to the OEPA's queries.

Talis remains engaged by the City in relation to this matter and provides its response to the additional information requested by the OEPA.

Figures of the Development Envelope and Disturbance Footprint

Please provide figures which clearly delineate the Development Envelope and the Disturbance Footprint for the proposal. The Disturbance Footprint should be wholly within the Development Envelope. Care should be taken to ensure that the areas within the Development Envelope match those within Ministerial Statement 375.

Please also provide the area (in hectares) within the Development Envelope and the Disturbance Footprint; you may also provide the indicative breakdown of the different aspects of the proposal (i.e. the area of the landfill/quarry, waste transfer station, irrigation area and Liquid Waste Facility).

In response to the above, please see attached Figures 1, 2 and 3. These figures have been developed based on the above as well as direction provided by OEPA assessing officers Nicole Zago and Leanne Zheng on 27 June 2017 and 30 June 2017 respectively.

Figure 1

Figure 1 depicts the proposed Development Envelope. This Development Envelope is proposed to supersede the existing Ministerial Statement 375 boundary.

Figure 2

Figure 2 depicts the proposed Disturbance Footprint that will be in operation ahead of the construction and operation of the Waste Transfer Station.

Figure 3

Figure 3 depicts the proposed Disturbance Footprint that will be in operation once the Waste Transfer station is constructed.

Please note that the Waste Transfer Station does not form part of this referral process and has only been included within the Figures as a result of a direct request from the OEPA.

Provision of spatial data

Spatial data has been provided as an attachment to this letter that conforms to the parameters stipulated in the OEPA letter.

Closing

We trust that the information provided here is sufficient to recommence the assessment of the proposal pursuant to section 38A(1) of *the Environmental Protection Act 1986*. Should you have any queries relating to this matter, please do not hesitate to contact me.

Yours sincerely,



Josh Matthews

Environmental Consultant

TALIS CONSULTANTS

e – josh.matthews@talisconsultants.com.au

m – 0498 141 722

- enc. Figure 1 – Development Envelope
 Figure 2 – Initial Disturbance Footprint
 Figure 3 – Future Disturbance Footprint
 Supporting Spatial Data
- Cc. Kyle Boardman
 Andrew Mack



LEGEND

- Development Envelope
- Reserve 43301
- Other Land Parcels

© Talis Consultants Pty Ltd ("Talis") Copyright in the drawings, information and data recorded in this document ("the information") is the property of Talis. This document and the information may not be used, transferred or reproduced in whole or part for any purpose other than that which it is supplied by Talis without written consent. Talis makes no representation, undertakes no duty and accepts no responsibility to any third party who may use or rely upon this document or the information.

LOCALITY

0 45 90 180 270 360 km

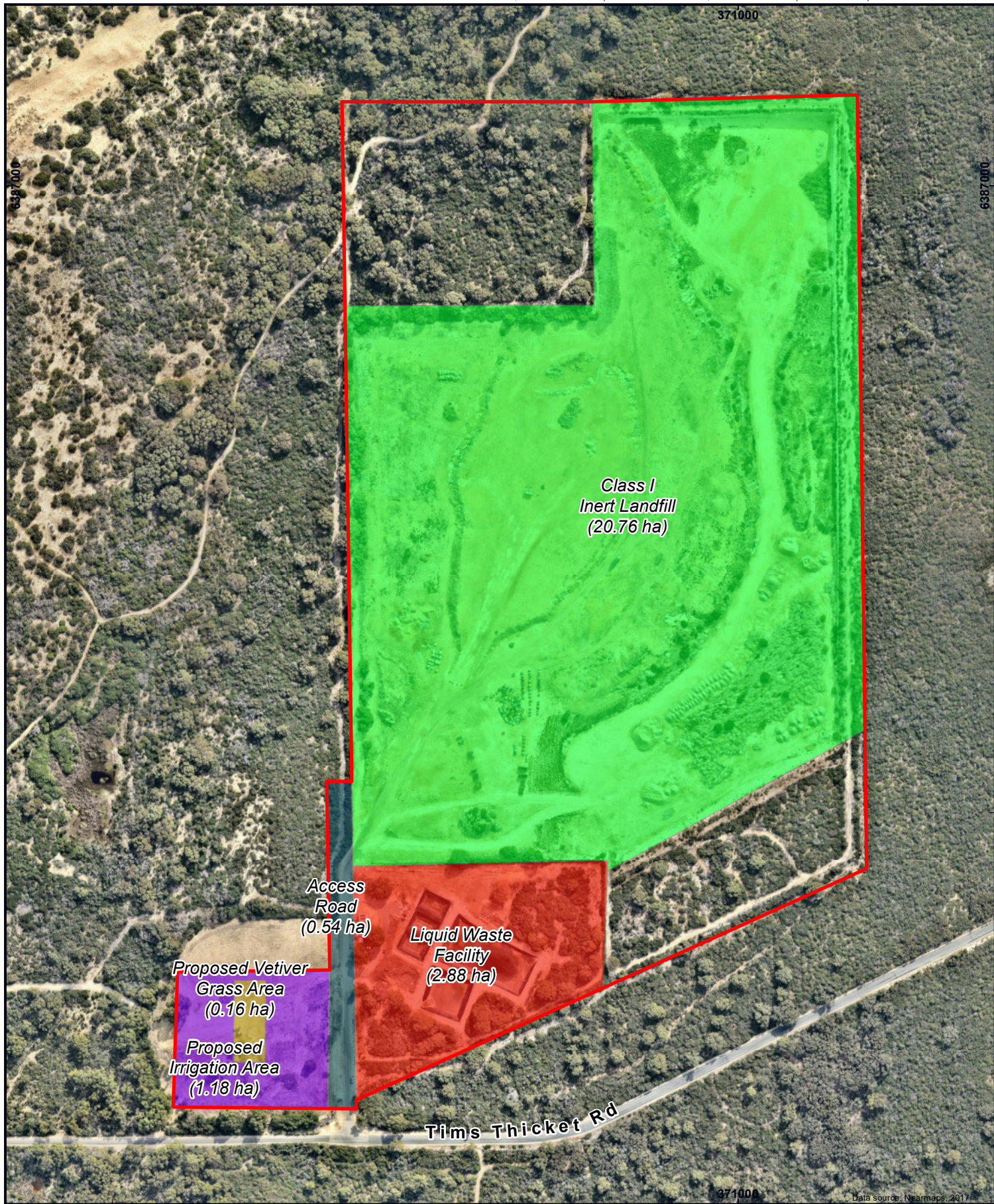
CITY OF MANDURAH
Tims Thicket Liquid Waste Facility Upgrade
and Licence Amendment
DEVELOPMENT ENVELOPE

0 25 50 75 100 metres
Coordinate System: GDA 1994 MGA Zone 50
Projection: Transverse Mercator, Datum: GDA 1994

Scale @ A4: 1:4,000

Prepared: N King
Reviewed: F Walker
Checked: J Matthews
Project: TE17007
Revision: B
Date: 11/07/2017

Figure 01



LEGEND

- Development Envelope
- Initial Disturbance**
- Class I Inert Landfill
- Liquid Waste Facility
- Proposed Irrigation Area
- Proposed Vetiver Grass Area
- Access Road

© Talis Consultants Pty Ltd ("Talis"). Copyright in the drawings, information and data recorded in this document ("the information") is the property of Talis. This document and the information are solely for the use of the authorized recipient and this document may not be used, transferred or reproduced in whole or part for any purpose other than that which it is supplied by Talis without written consent. Talis makes no representation, undertakes no duty and accepts no responsibility to any third party who may use or rely upon this document or the information.

LOCALITY

0 45 90 180 270 360 km

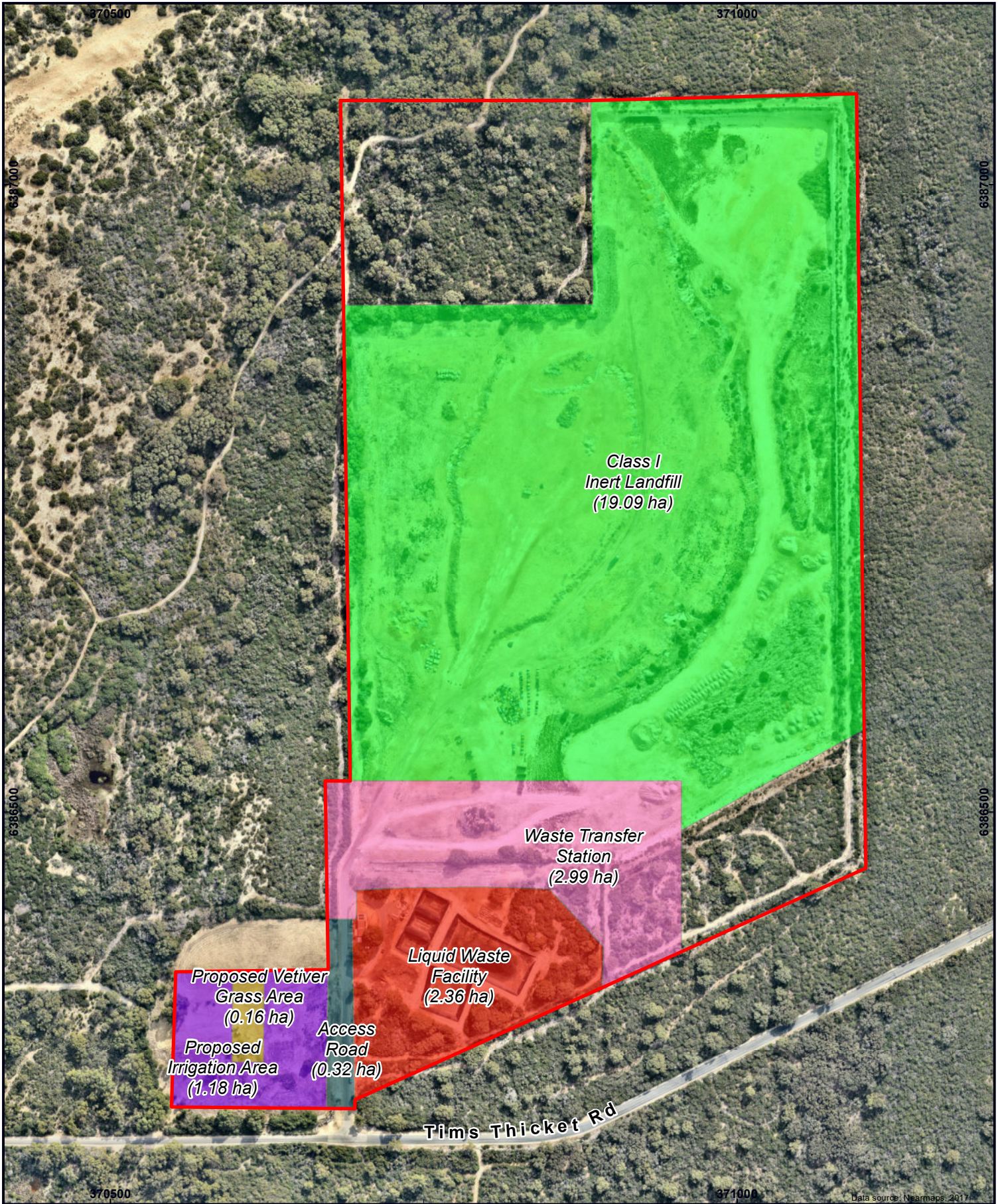
CITY OF MANDURAH
Tims Thicket Liquid Waste Facility Upgrade
and Licence Amendment
INITIAL DISTURBANCE FOOTPRINT

0 25 50 75 100 metres
Coordinate System: GDA 1994 MGA Zone 50
Projection: Transverse Mercator, Datum: GDA 1994

Scale @ A4: 1:4,000

Prepared:	N King
Reviewed:	F Walker
Checked:	J Matthews
Project:	TE17007
Revision:	B
Date:	11/07/2017

Figure 02



Data source: Nearmaps, 2017

LEGEND

- Development Envelope
- Access Road
- Future Disturbance**
- Class I Inert Landfill
- Liquid Waste Facility
- Waste Transfer Station
- Proposed Irrigation Area
- Proposed Vetiver Grass Area

LOCALITY



CITY OF MANDURAH
Tims Thicket Liquid Waste Facility Upgrade
and Licence Amendment
FUTURE DISTURBANCE FOOTPRINT

0 25 50 75 100 metres

Coordinate System: GDA 1994 MGA Zone 50
Projection: Transverse Mercator, Datum: GDA 1994

Scale @ A4: 1:4,000

Prepared: N King
Reviewed: F Walker
Checked: J Matthews
Project: TE17007
Revision: B
Date: 11/07/2017

Figure 03

© Talis Consultants Pty Ltd ("Talis"). Copyright in the drawings, information and data recorded in this document ("the information") is the property of Talis. This document and the information may not be used, transferred or reproduced in whole or part for any purpose other than that which it is supplied by Talis without written consent. Talis makes no representation, undertakes no duty and accepts no responsibility to any third party who may use or rely upon this document or the information.