

# NOTICE OF MEETING

Notice is hereby given in accordance with  
Section 83 of the *Planning, Development and Infrastructure Act 2016*,

## **Council Assessment Panel Meeting** **of the**



will be held in

**Mallala Council Chamber**  
**Redbanks Road**  
**Mallala**

on

**Wednesday 3 May 2023**  
**at 5:30pm**

  
.....  
Josh Banks  
**ASSESSMENT MANAGER**

# AGENDA

Page  
Number

## **1. ACKNOWLEDGEMENT**

*We acknowledge that we are meeting on traditional Country of the Kurna people of the Adelaide Plains and pay our respect to Elders past and present. We recognise and respect their cultural heritage, beliefs and relationship with the land. We acknowledge that they are of continuing importance to the Kurna people living today.*

## **2 ATTENDANCE RECORD**

- 2.1 Present
- 2.2 Apologies
- 2.3 Not Present/Leave of Absence

## **3 MINUTES**

- 3.1 “that the minutes of the Council Assessment Panel meeting held on Wednesday 5 April 2023, be accepted as read and confirmed.” **4**

## **4 DECLARATION OF INTEREST**

## **5 REPORTS FOR DECISION**

- 5.1 21025487 – 3 Owen Road Mallala - Expansion of an existing grain storage and handling facility to include 2 bunkers having a capacity of 20,000 tonnes, and construction of 2 additional retention dams of approximately 4.5mL capacity for water storage and reuse plus internal roadworks and landscaping (retrospective) – CT 6118/270 **11**
- 5.2 99 Lemmey Road Lower Light - Variation to Major Development Authorisation – Amendment to Environmental Impact Statement – CT 5312/333 **80**

## **6 REPORTS FOR INFORMATION**

Nil

## **7 OTHER BUSINESS**

## **8 CONFIDENTIAL ITEMS**

Nil

**9 NEXT MEETING**

Wednesday 7 June 2023 at 5:30pm

**10 CLOSURE**

# MINUTES

of the

## **Council Assessment Panel Meeting of the**



Pursuant to the provisions of section 83 of the  
Planning, Development and Infrastructure Act 2016

**Two Wells Council Chamber  
65 Old Port Wakefield Road  
Two Wells**

on

**Wednesday 5 April 2023 at 5:30pm**

The Chairperson formally declared the meeting open at 5.30pm.

## 1 ACKNOWLEDGEMENT OF COUNTRY

Council acknowledges that we meet on the traditional country of the Kurna people of the Adelaide Plains and pays respect to elders past, present and emerging. We recognise and respect their cultural heritage, beliefs and relationship with the land and we acknowledge that they are of continuing importance to the Kurna people living today.

## 2 ATTENDANCE RECORD

### 2.1 Present

Chairperson	Mr Nathan Cunningham
Independent Member	Mr Paul Mickan
Independent Member	Ms Susan Giles

### Also in Attendance

Manager Development Assessment	Mr Josh Banks
Planning Officer	Ms Dina Badrun
Group Manager, Development and Community	Mr Mike Ravno
Minute taker	Ms Abbey Cook
Graduate Planning Officer	Ms Anisha Ghimire

### Apologies

Council Member	Ms Margherita Panella
Independent Member	Mr Aaron Curtis

**3 MINUTES**

**3.1 CONFIRMATION OF MINUTES – COUNCIL ASSESSMENT PANEL – 4 MAY 2022**

**COMMITTEE RESOLUTION**

**Moved: Paul Mickan**

**Seconded: Susan Giles**

**“that the minutes of the Council Assessment Panel Meeting held on Wednesday 4 May 2022, be accepted as read and confirmed.”**

**CARRIED**

**4 DECLARATION OF MEMBERS’ INTEREST**

Nil

**5 REPORTS FOR DECISION**

**5.1 22041043 – 168 HAYMAN ROAD LEWISTON – TELECOMMUNICATIONS FACILITY COMPRISING A 30-METRE-HIGH MONOPOLE, ANTENNAS, EQUIPMENT SHELTER AND CABINETS, FENCING AND UTILITY CONNECTIONS – CT 6228/472**

**Representor Tanya Chapman addressed the panel**

**Independent Member Paul Mickan asked questions of the Representor**

**Representor Tanya Chapman answered questions of the Independent Member**

**Applicant Mark Baade joined the meeting at 5:44pm**

**Applicant Mark Baade addressed the Panel**

**Independent Member Paul Mickan asked questions of the Applicant**

**Applicant Mark Baade answered questions of the Independent Member**

**Presiding Member Nathan Cunningham asked questions of the Applicant**

**Applicant Mark Baade answered questions of the Presiding Member**

**Presiding Member Nathan Cunningham asked questions of the Assessment Manager**

**Assessment Manager Josh Banks answered questions of the Presiding Member**

**Independent Member Paul Mickan asked questions of the Assessment Manager**

**Assessment Manager Josh Banks answered questions of Independent Member**

**Moved: Susan Giles**

**Seconded: Paul Mickan**

It is recommended that the Council Assessment Panel resolves that:

1. Pursuant to Section 107(2)(c) of the *Planning, Development and Infrastructure Act 2016*, and having undertaken an assessment of the application against the Planning and Design Code, the application is NOT seriously at variance with the provisions of the Planning and Design Code; and  
2. Development Application Number 22041043 by Stilmark Holdings Ltd for the construction of telecommunications facility comprising a 30-metre-high monopole, antennas, equipment shelter & cabinets, fencing and utility connections at 168 Hayman Road, Lewiston, Hundred of Port Gawler is GRANTED Planning Consent, pursuant to Section 102(a)(i) of the *Planning, Development and Infrastructure Act 2016*, and subject to the following conditions and advisory notes:

**Conditions**

1. The development must be undertaken and completed in accordance with the details, plans, specifications and correspondence submitted with and forming part of this application, except where varied by any condition(s) below.

*Reason: To ensure appropriate, authorised use of the land.*

2. That effective measures be implemented during the construction of the development and on-going use of the land in accordance with this consent to:

- prevent silt run-off from the land to adjoining properties roads and drains
- control dust arising from the construction and other activities, so as not to, in the opinion of Council, be a nuisance to residents or occupiers on adjacent or nearby land
- ensure that soil or mud is not transferred onto the adjacent roadways by vehicles leaving the site
- ensure that all litter and building waste is contained on the subject site in a suitable bin or enclosure
- ensure that no sound is emitted from any device, plant or equipment or from any source or activity to become an unreasonable nuisance, in the opinion of Council, to the occupiers of adjacent land.

*Reason: To minimise potential impacts beyond the site during construction, and to minimise potential impacts to adjoining land.*

3. Unless otherwise approved by Council, external lighting shall be restricted to that necessary for security purposes only and shall be directed and shaded in such a manner so as not to cause light overspill and/or unreasonable nuisance to adjacent occupiers of land to the reasonable satisfaction of Council.

*Reason: To minimise potential impacts to adjoining land.*

4. The proposed monopole must be painted in N53 blue grey within 3 months of erection.

*Reason: To minimise potential impacts to adjoining land.*

**Notes**

1. Once development approval is granted, the development must be:

- a) Substantially commenced within twenty four (24) months from the date of the decision of this Consent or Approval, otherwise this Consent or Approval will lapse at the expiration of twenty four (24) months from this date (unless Council extends this period), and a new development application shall be required;
- b) Fully completed within three (3) years from the date of the decision of this Approval, otherwise this Approval will lapse at the expiration of three (3) years from this date (unless Council extends this period), and a new development application shall be required; and
- c) Any request for an extension of time must be lodged through the Plan SA portal prior to the expiry of the above-mentioned periods.

2. Pursuant to Section 202 of the *Planning, Development and Infrastructure Act 2016*, you have the right of appeal to the Environment, Resources and Development Court against either (1) a refusal of consent or (2) any condition(s) which have been imposed on a consent. Any such appeal must be lodged with the Court within two (2) months from the day on which you receive this notification or such longer period allowed by the Court. The Environment, Resources and Development Court is located in the Sir Samuel Way Building, Victoria Square, Adelaide SA 5000 (GPO Box 2465, Adelaide SA 5001 (Ph. 8204 0289).

CARRIED

5.2 22017105 – 1 COCKATOO ROAD LEWISTON – PARKING OF TWO (2) HEAVY VEHICLES AND TWO (2) ASSOCIATED TRAILERS GREATER THAN 3000KG TAREWEIGHT (RETROSPECTIVE) – CT 5095/732

Independent Member Paul Mickan asked questions of the Assessment Manager

Assessment Manager Josh Banks answered questions of Independent Member

Independent Member Susan Giles asked questions of the Assessment Manager

Assessment Manager Josh Banks answered questions of Independent Member

Presiding Member addressed the Panel

Moved: Paul Mickan

Seconded: Susan Giles

It is recommended that the Council Assessment Panel resolves that:

1. Pursuant to Section 107(2)(c) of the *Planning, Development and Infrastructure Act 2016*, and having undertaken an assessment of the application against the Planning and Design Code, the application is NOT seriously at variance with the provisions of the Planning and Design Code; and
2. Development Application Number 22017105 by Mr David Wayne Williams for the parking of two (2) heavy vehicles and two (2) associated trailers greater than 3000 kg tare weight (retrospective) at 1 Cockatoo Road, Lewiston is GRANTED Planning Consent and Development Approval, pursuant to Section 102(a)(i) of the *Planning, Development and Infrastructure Act 2016*, and subject to the following conditions and advisory notes:



**Conditions**

1. The development must be undertaken and completed in accordance with the details, plans, specifications and correspondence submitted with and forming part of this application, except where varied by any condition(s) below.

*Reason: To ensure appropriate, authorised use of the land.*

2. Heavy vehicle movements entering and exiting the property are restricted to no earlier than 7am and no later than 5pm.

*Reason: To minimise potential impacts to adjoining land.*

3. No maintenance or repairs of heavy vehicles shall occur on site.

*Reason: To minimise potential impacts to adjoining land.*

**Advisory Notes**

1. Once development approval is granted, the development must be:

a) Substantially commenced within twenty four (24) months from the date of the decision of this Consent or Approval, otherwise this Consent or Approval will lapse at the expiration of twenty four (24) months from this date (unless Council extends this period), and a new development application shall be required;

b) Fully completed within three (3) years from the date of the decision of this Approval, otherwise this Approval will lapse at the expiration of three (3) years from this date (unless Council extends this period), and a new development application shall be required; and

c) Any request for an extension of time must be lodged through the Plan SA portal prior to the expiry of the above-mentioned periods.

2. Pursuant to Section 202 of the *Planning, Development and Infrastructure Act 2016*, you have the right of appeal to the Environment, Resources and Development Court against either (1) a refusal of consent or (2) any condition(s) which have been imposed on a consent. Any such appeal must be lodged with the Court within two (2) months from the day on which you receive this notification or such longer period allowed by the Court. The Environment, Resources and Development Court is located in the Sir Samuel Way Building, Victoria Square, Adelaide SA 5000 (GPO Box 2465, Adelaide SA 5001 (Ph. 8204 0289).

**CARRIED**

**5.3 COUNCIL ASSESSMENT PANEL MEETING PROCEDURES**

Moved: Susan Giles

Seconded: Nathan Cunningham

The Adelaide Plains Council Assessment Panel endorse and adopt the revised Council Assessment Panel Meeting Procedures (refer Attachment 1).

**CARRIED**

**6 REPORTS FOR INFORMATION**

Nil

**7 OTHER BUSINESS**

Nil

**8 CONFIDENTIAL ITEMS**

Nil

**9 NEXT MEETING**

Wednesday 3 May 2023 at 5:30pm

**10 CLOSURE**

There being no further business, the Chairperson declared the meeting closed at 6:31pm.

Confirmed as a true record.

Chairperson:.....

Date: \_\_\_/\_\_\_/\_\_\_

SUBJECT TO CONFIRMATION

<b>Application Number</b>	21025487
<b>Applicant</b>	Brad Griffiths
<b>Subject Land</b>	3 OWEN RD MALLALA SA 5502
<b>Nature of Development</b>	Expansion of an existing grain storage and handling facility to include 2 bunkers having a capacity of 20,000 tonnes, and construction of 2 additional retention dams of approximately 4.5mL capacity for water storage and reuse plus internal roadworks and landscaping (retrospective)
<b>Zone</b>	Rural
<b>Technical Numeric Variations</b>	Minimum Site Area (Minimum site area 40 ha)
<b>Overlays</b>	Environment and Food Production Area Hazards (Bushfire - General) Hazards (Flooding - Evidence Required) Native Vegetation Water Resources
<b>Lodgement Date</b>	1 Sep 2021
<b>Relevant Authority</b>	Adelaide Plains Council Assessment Panel
<b>Planning and Design Code Version</b>	2021.12 (26 August 2021)
<b>Category of Development</b>	Code Assessed - Performance Assessed
<b>Public Notification</b>	13 September 2021 to 1 October 2021
<b>Assessing Officer</b>	David Roberts
<b>Statutory Referrals</b>	Nil
<b>Internal Referrals</b>	Infrastructure and Environment

#### **BACKGROUND:**

In 2020 approval was granted for the construction of a grain storage and handling facility on the subject land. This development (referred to as Stage 1) consisted of the following:

- Existing sampling and weighing facilities
- 10,000 tonne grain storage shed, including two 280,000 litre aboveground rainwater storage tanks that are used for the storage of rainwater harvested from the existing shed
- Three 6,000 tonne grain bunker pads and associated internal roadworks, and
- Retention dam.

## **PROPOSAL**

The current application was lodged on 1 September 2021 and at the time of lodgement comprised the following elements:

- 3 Grain Storage Bunkers, each measuring approximately 110m long x 35m wide, each having a capacity of 6000 tonnes
- Construction of a second Retention dam of 4.5Mgl capacity
- A second Grain Storage Shed measuring approximately 33.50m wide x 90m long with a holding capacity of approximately 10,000 tonnes of grain
- 2 additional rainwater storage tanks, each having a capacity of 280,000 litres (Storage of harvested rainwater off the second grain storage shed)
- Relocation of 19-80 tonne grain storage bins that will be relocated from the SCS site at Osborne to Mallala.

Following public notification, the application was subsequently amended in August 2022 to address concerns raised. The amended proposal now before the Panel (referred to as Stage 2) comprises:

- The number of bunkers in Stage 2 have been reduced from 3 bunkers to 2 with the proposed bunkers each having a capacity of 10,000 tonnes - making the total capacity of the site when Stage 2 is completed to be 48,000 tonnes
- The construction of 2 additional retention dams of approximately 4.5mL capacity for water storage and reuse (especially for weed spraying)
- Amended hours of operation (7am - 7pm 7 days a week, with extended operating hours 6am - 10pm during peak season as required).

The 19 – 80 tonne bins that were to be relocated from Osborne to Mallala have been deleted from the proposal, and the second 10,000 tonne grain storage shed has also been deleted.

Refer to **Attachment 1** for a copy of the plans and information submitted.

It has also been noted that the new bunkers appear to have been completed, and as such the nature of development has been modified to include 'retrospective' in the description.

## **SUBJECT LAND & LOCALITY:**

### **Site Description:**

The subject land identified as Allotment 8 is entirely contained within the Rural Zone as depicted on the interactive South Australian Property and Planning Atlas (SAPPA) map-based application and is described as Section 246, D74306, Hundred of Grace in the area known as Mallala and is contained within the Certificate of Title Volume 6118 Folio 270.

The existing grain storage and handling facility is located on the western side of Owen Road (also known as Aerodrome Road) near the intersection of Farrelly Road.

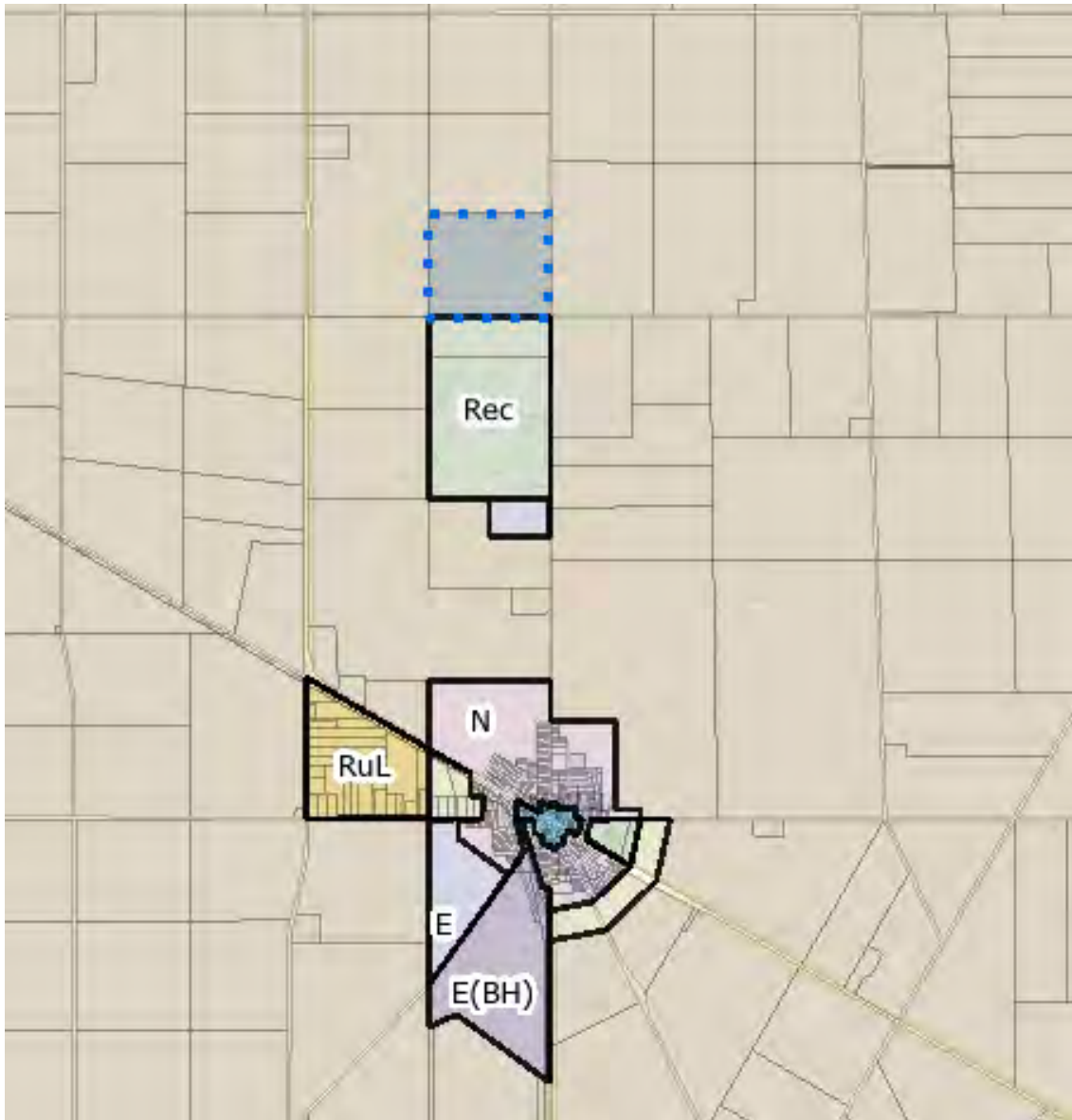


Figure 1 : Subject land (highlighted in blue) and surrounding zoning

### Locality

Located directly south of the proposed development site and located on the same side of Aerodrome Road as the proposed new grain storage facility is the Mallala Motorsports Park. This existing race circuit is now used for various motorsports activities including SA Police driver training, historic race meetings and driving experiences.

Within the locality there are a number of farm house buildings in association with existing primary production activities.

## PUBLIC NOTIFICATION

Each zone contains a 'Procedural Matters – Notification' table that sets out the kinds of developments that are exempt from requiring public notification. The proposal is not listed in this table and therefore notification is required.

The application underwent public notification from 13 September 2021 to 1 October 2021 with adjoining property owners notified. All the public notification documents were also available on the Plan SA website for the duration of the notification period.

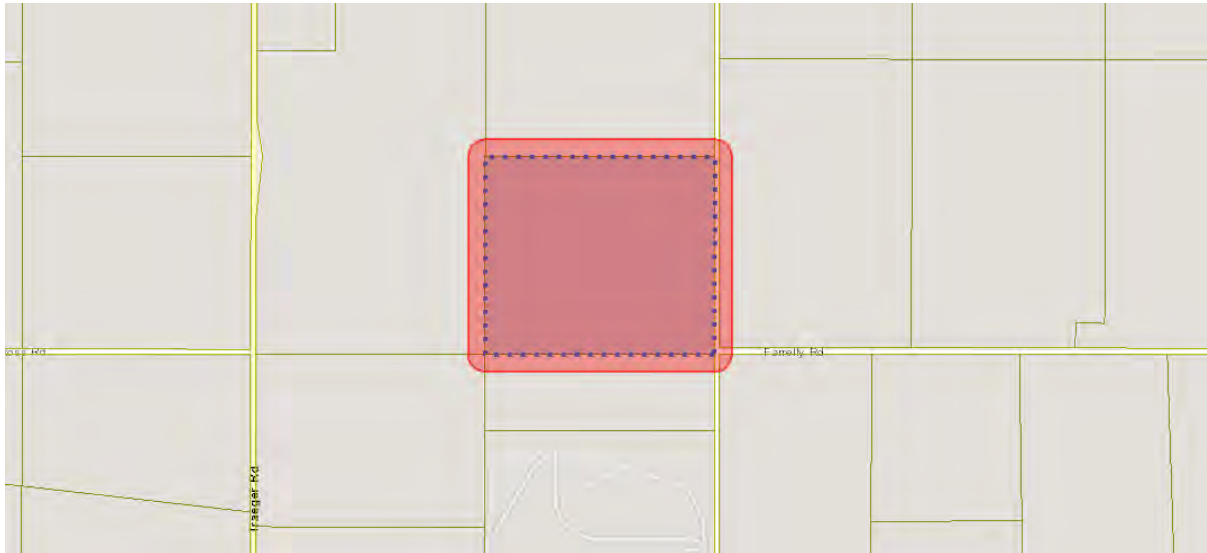


Figure 2: Subject land and adjoining properties that were notified

There were five (5) written representations received during the public notification period with two (2) indicating support for the proposed development (with concerns) and three (3) opposed to the proposed development.

A copy of the representations and the applicant's response is contained within **Attachment 2**.

## REPRESENTATIONS

Name of Represorator	Summary of Submission
Teresa Woollatt	<ul style="list-style-type: none"><li>• Opposes the development</li><li>• Significant damage has been done to Aerodrome Road during the 12 months</li><li>• Suggests damage has been done to their property from the vibrations of the road trains an B doubles constantly passing</li><li>• High volume of vehicles causes a risk to residents</li><li>• Noise pollution impacting the mental health and wellbeing who live in close proximity to the route</li></ul>

	<ul style="list-style-type: none"> <li>• Suggest current roads and infrastructure is not designed for this heavy usage</li> <li>• Heavy vehicle bypass around the town should be implemented instead</li> </ul>
Frank Svetec	<ul style="list-style-type: none"> <li>• Opposes the development</li> <li>• Suggests the proposal is not located within the appropriate zone</li> <li>• Proposal is not setback in accordance with PO 4.3 of the zone</li> <li>• Indicates inconsistency in what is proposed in Stage 1 – Phase 2.</li> <li>• Proposal is not consistent with the general Code parameter Interface between Land Uses PO 4.1.</li> <li>• Proposal is not consistent with the general Code parameter Bulk handling and storage facilities PO 1.1.</li> <li>• Suggests consideration should be given to the increased activity of vehicles conflicting with existing uses within Mallala township</li> <li>• Suggests that access to the site should be via Marshman Road/Trager Road a Farrelly Road/David Road so vehicles avoid the township</li> </ul>
Jane Farrelly	<ul style="list-style-type: none"> <li>• Opposes the development</li> <li>• Witnessed loaded and empty trucks entering the township every 5 minutes</li> <li>• Truck movements regularly continued through the night from the existing use making it difficult to sleep and impacting on mental health</li> <li>• Suggests Aerodrome Road is in poor condition which contributes to the excessive noise from vehicle movements</li> <li>• Suggest trucks should outload via a heavy vehicle bypass and not enter the township</li> <li>• Opposes 24/7 operating hours during peak periods</li> </ul>
Martin Moyse	<ul style="list-style-type: none"> <li>• Supports proposal with concerns</li> <li>• Concern with traffic through the town centre</li> <li>• Suggests condition of Aerodrome and Fidge Roads must be maintained to the existing standard to accommodate the heavy vehicles</li> </ul>
Clare Whitwell	<ul style="list-style-type: none"> <li>• Supports proposal with concerns</li> <li>• Supports proposal overall but objects to an extended hours as it will negatively impact sleeping pattern</li> </ul>

## SUMMARY

The planning issues raised in the written representations are listed below:

1. Noise impacts caused by vehicles through the town of Mallala
2. Impacts caused by 24 hours/7 days operations during harvest and out-turning operations
3. Increased traffic due to Plains Grain
4. Grain vehicles exceeding the speed limit, especially through the town and past the school
5. The proposed bulk handling activity is not consistent with the Rural Zone
6. Setbacks are less than 100 metres and significantly impacts on the rural character and landscape amenity
7. Relocation of the 19-80 tonne bins from the existing SCS site at Osborne.

The applicant's response to the representation is summarised as follows:

Name of Applicant	Summary of Submission
<p>Brad Griffiths C/- Trevor White</p>	<ul style="list-style-type: none"> <li>• Amended operating hours Normal operating hours are between 7am to 7pm 7 days a week. Extended operating hours will be between 6am to 10pm 7 days a week if required during peak periods.</li> <li>• Noise Impacts and traffic operation during harvest Vehicle movements through Mallala will be significantly reduced, no outloading from the site will occur after 10pm.</li> <li>• Traffic due operations 79% of total deliveries come from a catchment North to North East of the site. Grain is moved from the facility to local, interstate and overseas over a long period of time and is undertaken during normal daylight hours, up until 10pm.</li> <li>• Grain vehicles exceeding speed limits Every carrier that delivers grain to the facility is provided with an information package. This package provides detail regarding overloaded vehicles, traffic management plan, safety requirements, speed limits and operating hours.</li> <li>• Bulk handling within the Rural zone The existing use was established under the previous Development Plan where it was considered an envisaged use.</li> <li>• Facility setback less than 100m from primary street Bulk storage and handling facilities are not uncommon in the Rural zone. No setback requirements were outlined in the previous Development Plan. For operational and safety reasons it is inefficient to stagger the proposed bunkers behind the existing ones located on site.</li> <li>• Relocation of 19-80 tonne bins</li> </ul>



	<p>As the 21/22 harvest did not reach predictions, the decision was made to remove the bins from stage 2. In future a silo system may be proposed.</p> <ul style="list-style-type: none"> <li>• PO 1.1 of General Provisions of Bulk Handling and Storage Facilities not met</li> </ul> <p>Identified four sensitive receivers and the Mallala motorsports park and indicates that each receiver is more than 300m from the proposed use.</p> <p>Proposed use is 2.7 km from the Mallala township and as a result is not considered to have any environmental impact</p> <p>Environmental Protection (noise policy) 2007 identifies daylight hours between 7am until 10pm and night time hours between 10pm and 7am the next day – Applicant ensures that operations are contained within these guidelines.</p>
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The concerns raised in the representations have been considered at length which has prompted the applicant to reduce the size of the extension and also not undertaking shipping requirements after 10:00pm which will reduce the number of vehicle movements through the township in the evenings.

It is highlighted again that prior to providing a response to the issues raised above, the applicant has undertaken significant changes to the proposed expansion of the Plains Grain facility for Stage 2 along with operational changes.

#### **AGENCY REFERRALS**

Nil

#### **INTERNAL REFERRALS**

- Infrastructure and Environment – Originally highlighted the need to enter into an Infrastructure Agreement to upgrade sections of Aerodrome Road – which has since been signed and the road upgrade works completed. No other concerns were raised.

#### **ASSESSMENT**

##### **Overlays:**

##### **Environment and Food Production Area**

The application does not include a proposal to divide the land (PO1.1), and therefore this overlay has no role to play.

### Hazards (Bushfire – General)

PO 1.1 - The development involves the construction of 2 new bunkers with a capacity of approximately 10,000 tonnes each and will be located on a compacted crushed rock base and no vegetation, hence the risk of bushfire will be minimal.

In addition, there is adequate water within the existing and proposed second retention basin and the existing rainwater storage tanks constructed as part of Stage 1 to be used for firefighting purposes should the need arise.

### Hazards (Flooding – Evidence Required)

PO 1.1 - The proposed 2 new bunkers will be constructed on compacted crushed rock material that has been graded to ensure stored grain is not subjected to flood inundation that is likely to cause damage.

### Native Vegetation

There is no native vegetation on the existing allotment as the previous use was cereal cropping. A Declaration has also been provided as part of the supporting documentation for this proposal.

### Water Resources

PO 1.1 - Not Applicable there are no existing watercourses on the subject land or the existing and proposed grain storage and handling facility

PO 1.2 - The existing topography of the site falls at a gradient of approximately 0.25% from the east to the west. The development of Stage 1 followed the existing gradient as will the expansion of the site with the construction of Stage 2, thus the proposal does not interfere with existing hydrology or water regimes

PO 1.9 - A retention dam was constructed as part of Stage 1 and 2 similar sized dams will be constructed as part of the Stage 2 development. These dams will be constructed to manage the stormwater run-off from the existing and proposed hard stand area. The dams are of a capacity that there is no overflow from the existing dam nor will there be any when the additional dams to be constructed.

### Subzone

The subject land is not affected by any subzones

### Rural Zone

**PO 1.1** - The existing land use on the subject land is a grain storage and handling facility. Under the new P & D Code there is no definition for a *bulk storage and handling facility* as such the applicant has no option but to select a land use that may fit the expansion to the existing land use and therefore, has chosen to select 'store'.

Whilst a *store* is not an envisaged land use within the Rural Zone, there are a number of other forms of development that comprise elements of the proposal that are envisaged such as industry, transport

distribution and warehouse which, in themselves, would result in an increase of traffic movement and associated impacts on the road network.

On balance it is considered that the proposal generally satisfies PO 1.1

**PO 2.1** - Access to the existing facility is via Owen Road (also known as Aerodrome Road). The expansion of the existing facility (Stage 2) will not require any upgrade to the existing access point nor the construction of any new access points off Owen Road. Owen Road is an all-weather road, with portions of the road being upgraded in readiness for sealing.

Note the applicant has entered into an Infrastructure Agreement with council to contribute to the sealing of Aerodrome Road.

On balance it is considered that the proposal generally satisfies PO 2.1 and DTS/DPF 2.1.

**PO 2.2** - The subject site falls approximately 800mm from the Owen Road boundary to the West over a distance of 315 metres.

The gradient of the site is 0.25% or 1 metre in 400 metres which is substantially less than DTS/DPF 2.1(a) and therefore the construction of Stage 2 will not involve cut or fill operations greater than 1.50 metres from natural ground level.

On balance it is considered that the proposal generally satisfies PO 2.2 and DTS/DPF 2.2.

**PO 4.3** - The Stage 1 development was undertaken in accordance with the boundary setbacks outlined in Councils Development Plan (13 December 2018) which required a setback of 50 metres from Owen Road. However, under the current P & D Code the setback requirement is now 100 metres.

Notwithstanding the above it is considered that the siting of the building in line with the established setback is appropriate. Landscaping is proposed along the property boundaries that will assist in softening and obscuring the built form.

The proposed setback will still provide sufficient space for the unloading and loading on the subject land consistent with the existing pattern of development. Accordingly, the proposal is considered to address DTS/DPF 4.3 (b), (c) and (d). On balance it is considered that the proposal generally satisfies a majority of PO 4.3.

**PO 10.1** - The original proposal involved the construction of a second grain storage shed and the installation of 19-80 tonne bins and 3 bunkers. However, the amended proposal reduces this to an additional two bunkers only and the construction of a second stormwater retention basin and does not involve the construction of any buildings - hence the proposal is not affected by PO 10.1.

## **General Development Policies**

### **Bulk Handling and Storage Facilities**

**PO 1.1** - Located directly south of the proposed development site and located on the same side of Aerodrome Road as the proposed new grain storage facility is the Mallala Motorsports Park.

There presently exists within the immediate locality a number of farmhouse buildings. The table contained in the planning report demonstrates that these sensitive receptors are located well beyond

the 300m criteria. It should be noted that all of the land uses listed are surrounded by existing primary production activities.

On balance it is considered that the proposal satisfies PO 1.1 DO 1.1 as the minimum requirement for facilities handling more than 100 tonnes per day is 300 metres from sensitive receivers that are not associated with the facility.

**PO 2.1** - Landscaping will be incorporated along the Owen Road boundary. In addition, the existing owners have also started planting trees internally. As part of Stage 2 the same form of landscaping will be incorporated along Owen Road as per Stage 1.

The existing grain storage shed is located some 70 metres off the western fenced area and 50 metres from the southern and eastern boundaries and 30 metres off the northern fence. However, the adjoining cropping land is also owned by the same owners as the existing grain storage facility, hence any impact is acknowledged by the existing landowners prior to the establishment of the existing facility.

On balance it is considered that the proposal satisfies PO 2.1.

**PO 2.2** – As part of the Stage 1 construction landscaping will be incorporated along the Owen Road boundary. In addition, the existing owners have also started planting trees internally. As part of Stage 2 the same form of landscaping will be incorporated along Owen Road as per Stage 1.

On balance it is considered that the proposal satisfies PO 2.2

**PO 3.1** – The existing internal roadworks constructed in Stage 1 was constructed on compacted limestone rubble which provides an all-weather surface.

Stage 2 will be constructed of the same compacted limestone material to provide an all-weather surface – It is considered that this form of treatment is acceptable.

On balance it is considered that the proposal satisfies PO 3.1.

### Design

**PO 1.5** – The proposed Stage 2 grain storage shed has been deleted from the proposed expansion - hence the proposal complies with PO 1.5.

**PO 6.1** – There was no wastewater disposal system installed as part of the Stage 1 development as for the harvest period portable toilets are used. The same method will be used for the Stage 2 development.

There are 4 existing carparking spaces provided as part of Stage 1 and there will be an additional 2 spaces provided as part of the Stage 2 development.

On balance it is considered that the proposal satisfies PO 6.1 however there may be requirements that Council's Environmental Health Office may wish to review.

**PO 7.7** – As part of the Stage 1 development a 5.00-metre-wide strip of landscaping was to be provided along the Owen Road boundary, the applicant has advised that the same treatment will be provided for Stage 2, using the same tree species. The Stage 1 landscaping was to assist with minimizing the visual impact of the grain bunkers when viewed from the adjoining public.

On balance it is considered that the proposal satisfies PO 7.7

**PO 8.1** – The area on which Stage 2 is to be constructed predominantly falls approximately 800mm from the Owen Road boundary to the west over a distance of some 315 metres. The gradient of the site is 0.25% or 1 metre in 400 metres which is substantially less than DTS/DPF 8.1 suggests and

therefore the construction of Stage 2 will not involve cut of fill operations greater than 1.00 or combined cut and fill greater than 2.0 metres from natural ground level.

On balance it is considered that the proposal satisfies PO 8.1 and DTS/DPF 8.1.

#### Infrastructure and Renewable Energy

**PO 11.1** – The applicant has advised that two (2) - 280,000 litre aboveground rainwater storage tanks were installed each end of the grain storage shed in Stage 1.

Additionally, it is proposed that two (2)- 4.5mL retention dams will be constructed to manage the stormwater run-off from the hard stand area. The same size dam will also be installed as part of Stage 2 development and there is no need for the site to be connected to mains water.

On balance it is considered that the proposal satisfies PO 11.1 & DTS/DPF 11.1.

#### Interface between Land Uses

**PO 4.1** – The existing grain storage and handling facility is located approximately 2.70 kilometres to the north of the Mallala Township. The subject land or the surrounding area of the site is not primarily intended for sensitive receivers. There are however isolated farmhouses surrounding the site, however the buffer distance from the site to the sensitive receivers ranges from 1.35 to 2.70 kilometres and therefore it is deemed that the existing and proposed operations does not have any impact on those sensitive receivers.

Whilst there is noise generated from the site through the movement of vehicles and the operation of machinery, however the applicant contends the noise generated from the site is no greater than normal farm activities of sowing, harvesting or cultivating.

On balance it is considered that the proposal satisfies PO 4.1 & DTS/DPF 4.1

**PO 4.2** – The existing grain storage and handling facility is entirely located in the Rural Zone and is located approximately 2.70 kilometres to the north of the Mallala Township. The subject land or the surrounding area of the site is not primarily intended for sensitive receivers. There are however isolated farmhouses surrounding the site, however the buffer distance from the site to the sensitive receivers ranges from 1.35 to 2.70 kilometres and therefore it is deemed that the existing and proposed operations does not have any impact on those sensitive receivers

On balance it is considered that the proposal satisfies PO 4.2.

**PO 5.1** – The existing facility, including the proposed extension does not include chimneys, exhaust flues associated with cafes, restaurants etc. The applicant has however, that during dry periods at harvest time the operational staff do use a watercart to minimise the generation of nuisance dust through the movement of vehicles within the site. As the nearest sensitive receiver is more than 1.35 kilometers from the site (a dwelling) it is deemed the dust that may be generated from the site through the movement of traffic would disperse before it reached the nearest dwelling not under the ownership of the applicant -Refer Table in PO 1.1.

On balance it is considered that the proposal satisfies PO 5.1.

**PO 6.1** - The applicant has advised that if during harvest intake and the outturning of grain for export that if it needs to be undertaken during night time hours there will be portable flood lighting to allow for the safe movement of vehicles around the site and also for the welfare of the staff onsite.

However, considering that the nearest sensitive receiver is located more than 1.35 kilometres from the site it is deemed that the use of floodlighting will have no impact on the nearest sensitive receiver.

On balance it is considered that the proposal satisfies PO 6.1.

#### Transport, Access and Parking

**PO 1.4** – The Stage 1 grain storage and handling facility was designed to allow all vehicle movements to occur on the site. With the construction of Stage 2 to the north of the existing site, Stage 2 has been designed in the same manner to ensure all traffic movements on the site are undertaken in a safe and efficient manner.

It is considered that the proposal satisfies PO 1.4 & DTS/DPF 1.4.

**PO 3.1** – Access to the site is gained off Aerodrome Road (also known as Owen Road) is via the access point established as part of the Stage 1 development. It is proposed that the development of Stage 2 will not require any changes to the existing access point nor the creation of any additional access points.

The existing access point is not located within 6m of the intersection of Aerodrome and Farrelly Roads.

It is considered that the proposal satisfies PO 3.1 & DTS/DPF 3.1.

**PO 3.5** – Access to the site is gained off Aerodrome Road (also known as Owen Road) via a lawfully existing or authorised access point established as part of the Stage 1 development. The development of Stage 2 will not require any changes to the existing access point nor the creation of any additional access points

It is considered that the proposal satisfies PO 3.5 & DTS/DPF 3.5.

**PO 6.1** – Both the loading and outloading of grain from the existing and expanded facility occurs on the site. During the harvest intake period grain vehicles will be marshalled within the site and not on the adjoining public roads. In addition, movement between the bunker storage and the existing grain shed is also undertaken without leaving the site and using the adjoining public roads.

It is considered that the proposal satisfies PO 6.1.

**PO 6.6** – Both the loading and outloading of grain from the existing and expanded facility occurs on the site. During the harvest intake period grain vehicles are to be marshalled within the site and not on the adjoining public roads.

It is considered that the proposal satisfies PO 6.6.

#### **SUMMARY**

The proposal for an extension to an existing bulk grain storage and handling facility, has been reduced in scale in response to responses received through the public notification process.

The proposal satisfies the majority of relevant provisions of the Planning and Design Code contained in the Overlays, Performance Outcomes and DTS/DPF Criteria together with the Rural Zone performance outcomes.

The proposed development supports the productive value of rural land for a range of primary production activities where the Zone seeks associated value-adding, processing, warehousing and distribution is supported, protected and maintained.

The proposed development will not prejudice the attainment of the key policy provisions of the Rural Zone. The expansion of the existing grain storage and handling facility is essential for ongoing grain

harvests. The land use already exists on the subject land, provides an alternative grain storage facility for local grain growers, is a value-adding activity to the primary production land use in the Mid North of the State and warrants the granting of Planning Consent.

## RECOMMENDATION

It is recommended that the Council Assessment Panel resolve that:

1. Pursuant to Section 107(2)(c) of the Planning, Development and Infrastructure Act 2016, and having undertaken an assessment of the application against the Planning and Design Code, the application is NOT seriously at variance with the provisions of the Planning and Design Code; and
2. Development Application Number 21025487 by Brad Griffiths at 3 Owen Road Mallala for **expansion of an existing grain storage and handling facility to include 2 bunkers having a capacity of 20,000 tonnes and construction of 2 additional retention dams of approximately 4.5mL capacity for water storage and reuse plus internal roadworks and landscaping (retrospective)**, is GRANTED Planning Consent, pursuant to Section 102(a)(i) of the Planning, Development and Infrastructure Act 2016, and subject to the following conditions:

## CONDITIONS

- 1 The development must be undertaken and completed in accordance with the details, plans, specifications and correspondence submitted with and forming part of this application, *amended planning report date prepared by planning solutions dated August 2021* except where varied by any condition(s) below.

*Reason: To ensure the proposal is developed in accordance with the plans and documentation.*

- 2 The area shown on the Pavement & Landscaping plan and depicted as “Denotes areas of landscaping” shall be established within six months of the date of this consent (or such other time as agreed to by Council in writing) and will be nurtured and maintained in good health and condition at all times with plants replaced should they become diseased or die all to the reasonable satisfaction of Council.

For this purpose, prior to the issuing of Development Approval, a detailed landscape plan and planting schedule prepared by a suitable qualified person in the field of horticulture (minimum Cert iii) depicting the planting of bushes, trees and shrubs (minimum 150mm tube size) that when mature will grow to sufficient height to obscure and soften the built form from the road and adjacent properties.

*Reason: To minimise visual impact to surrounding land.*

- 3 Parking areas, manoeuvring areas and access ways must be constructed of a compacted, all-weather rubble surface to prevent dust and be drained and maintained to the reasonable satisfaction of Council.

*Reason: To minimise impacts to surrounding land.*

# AMENDED PLANNING REPORT

Extension to an existing Bulk Grain Storage and Handling Facility  
located on Section 246, Owen Road at  
MALLALA SA

Prepared for

Mr BRAD GRIFFITHS  
(The Applicant)

August 2022



RURAL & URBAN  
P L A N N E R S



## 1.0 INTRODUCTION:

On behalf of Mr Brad Griffiths, the applicant for this project, have engaged the professional services of Planning Solutions (SA) Pty Ltd, Rural and Urban Planners to prepare an amended development application, associated documents including an amended Planning Report in respect to an extension to an existing bulk grain storage and handling facility, now consisting of 2 additional bunkers, earthworks, internal roadworks, two detention basins and landscaping on allotment 246 in the area known as Mallala.

In preparing the following assessment I confirm that I have viewed the subject land and its locality, viewed the built form and infrastructure on the 'subject land' and in the close proximity to the site and also considered the benefits of the amended proposal in detail, and assessed it against the pertinent Planning and Design Code provisions, including overlays that are applicable to Section 246 located at 3 Owen Road in the area known as Mallala.

In 2020, approval was granted for the construction of bulk storage and handling facility located on Section 246, Owen Road at Mallala. The proposal at the time comprised of a new grain storage shed, bunker storage, aboveground weighbridge and sampling office with an elevated platform. The original application lodged in August 2021 comprised 2 phases of which phase 1 was intended to cater for the looming 2021 harvest which was predicted to be the largest in the States history. However, changes in weather conditions did not reach the harvest predictions anticipated and the applicant sought approval for an emergency bunker to cater the needs of the 2020/2021 harvest intake.

In preparing this document, consideration has been given to the following matters:

- The subject land and its locality;
- Drawings prepared in support of the proposed development;
- Discussions with the applicant in relation to the expansion of the existing storage facility, storage requirements in the future, shipping schedules and demands, operating hours and impacts on the local Mallala community has been the trigger for the amended application.
- *The Planning, Development and Infrastructure Act (2016);*
- *The Planning, Development and Infrastructure (General) Regulations (2017); and*
- The Planning and Design Code.

## 2.0 Need for the Expansion:

The grain industry has evolved substantially over the last 60 years with the most significant change being the introduction of bulk storage and handling facilities in 1956. The current dominant grain storage and handling authority (Vittera Australia) owns and operates most of the grain facilities initiated and developed by SACBH (South Australian Cooperative Bulk Handling). In recent times AWB (Grainflow) have established several large grain storage facilities in strategic locations throughout the State.

However, the agricultural industry has continued to be refined in recent times, primarily due to unpredictable weather conditions during the harvest period. Not only have these unpredictable weather conditions impacted on the quality of grain but has seen more and more farmers setting up on-farm storage through the use of either silo bags, vertical bin and shed storage in order to allow harvesting to continue more quickly before incurring further weather damage to unharvested crops.

Vittera Australia have over recent years continued to develop 'super grain receival points', concentrating on taking large volumes of the most dominant grain varieties. As a direct result of this strategy, grain growers who have smaller parcels of grain or grain that does not meet the Vittera grain receival standards have limited opportunities to deliver this grain. Vittera have also announced for the 2020/2021 grain harvest that the following existing Vittera silo sites will be closed:

- Mallala which is located approximately 5 kilometres from the proposed development site;
- Two Wells which is located some 23 kilometres from the proposed development site; and
- Tarlee which is located 40 kilometres from the proposed development site;

Due to the timing of the original development application the applicant was forced to change strategy and apply for an emergency bunker to cater for the additional grain receivals. Since the 2020/2021 harvest intake the applicant has had more time to re-evaluate the overall development for the site going forward.

As a result of those deliberations, it has been decided to reduce the overall capacity of the site by removing the 19-80 tonne storage bins, the proposed second 10,000 tonne shed and 1 bunker of the three additional bunkers in Stage 2.

#### The Significance of the Agricultural Sector:

The agricultural sector is such a major contributor to the economy within the Adelaide Plains Council Area, through the following contributions:

- 7% of the total State grain harvest (520,000 tonnes) is attributed to the Mallala Council Area:
- 30% of employment direct employment
- 80% of employment within the local regional economy.

However, opportunities still exist to increase the economic output, regional exports, and increased employment opportunities, through:

- Continued support of primary production activities and the agricultural sector:
- Appropriate zoning to allow expansion of existing and the development of new land uses associated with and supporting the agricultural sector:
- Appropriate zoning of existing parcels of land on the northern periphery of the Mallala township to allow for industry expansion associated with the agricultural sector:

### 3.0 SITE & LOCALITY:

The subject land identified as Allotment 8 is entirely contained within the RURAL ZONE as depicted on the interactive South Australian Property and Planning Atlas (SAPPA) map-based application and is described as Section 246, D74306, Hundred of Grace in the area known as Mallala and is contained within the Certificate of Title Volume 6118 Folio 270 (a copy of the Certificate of Title is attached in Appendix 'B')

Section 246, hereafter referred to as the 'subject land' is currently owned by the Griffiths Family who are large primary production producers in the Mallala area. The existing grain storage and handling facility is located on the western side of Owen Road (also known as Aerodrome Road) near the intersection of Farrelly Road.

At the time of writing this report portion of Section 246 contained the existing bulk storage and handling facility constructed in 2020, in readiness for the 2020/2021 grain harvest and the portion of the site that will be used for the expansion was used for cereal cropping until 2021. To provide consistency in development pattern, including consistent and defined internal traffic flows the construction of Stage 2 needed to be constructed directly north of the existing facility (refer to photographs attached in Appendix 'A' and the Concept Plans attached in Appendix 'C') of this document. The total area of Stages 1 and 2 will be confined to an area measuring 315 metres wide x 370 metres long (11.655 hectares or 28.80 acres).

Located directly south of the proposed development site and located on the same side of Aerodrome Road as the proposed new grain storage facility is the Mallala Motorsports Park which in the late 1970's was reopened to circuit racing with a CAMS B class track licence and in 1989 held the 1989 Shell Australia Touring Car Championships returning to Mallala. However, with the initial loss of the V8 Supercars to Clipsal 500 at the Adelaide Street Circuit reduced the number of major events at Mallala. However, new activities such as Club Sprints, Go-kart and motorcycle race meetings, Historic race meetings, drifting, SA Police driver training and motor racing schools and 'driving experiences' have seen the existing circuit used over the year for one of the events listed above.

The following built form is located in the immediate locality of the existing site. It should be noted that all of the land uses listed below are surrounded by existing primary production activities. It should also be noted

that the separation distances listed below for dwellings (farmhouses) are all greater than the 300 metre suggested in DTS/DPF 1.1(b) of the Bulk Storage and Handling General Module

Refer to Table below for land uses and separation distances:

Land Use	Direction from Development Site	Distance in Kilometres
Farmhouse 1 (sensitive receptor)	Directly East of Dev Site	1.60 kilometres – is owned by applicant
Farmhouse 2 (sensitive receptor)	South East	1.35 kilometres
Farmhouse 3 (sensitive receptor)	South West	2.35 kilometres
Farmhouse 4 (sensitive receptor)	North West	1.80 kilometres
Mallala Motorsports Park	South	0.75 kilometres from the site to the Most northern part of the racetrack

The development site is located 2.70 kilometres north of the Mallala township along Owen Road (also known as Aerodrome Road) and due to the separation distance, it is deemed the proposed development will have no impact on the Mallala township from an environmental perspective (noise from the site or any dust generated by the movement of traffic around the site).

The subject land identified as Section 246 is entirely contained within the RURAL ZONE as depicted on the interactive South Australian Property and Planning Atlas (SAPPA) map-based application which supports the economic prosperity of the South Australia primarily through the production, processing, storage and distribution of primary produce, forestry and the generation of energy from renewable sources. The wider locality is characterised by primary production activities and the proposed grain storage and handling facility is not dissimilar to the larger grain growers having onsite farm storage of their own, however, this development will allow grain to be stored from any grain growers in the Lower North of the State, rather than storage for individual farming entities.

At the time of writing this report the existing grain storage facility was fenced on all sides with a 2.100-metre-high security chainmesh fence with the remainder of the allotment being fenced with a traditional rural style fence consisting of post and droppers to which is attached stockproof mesh. As the existing facility is expanded to the north the existing chainmesh fencing located on the northern aspect of the existing facility will be relocated to include the last 10,000 bunker (refer to Concept Plans attached in Appendix 'C').

#### 4.0 PROPOSAL:

The applicant seeks Development Plan Consent for the expansion of the existing grain storage and handling facility (Stage 2) located on section 246, Hundred of Grace, Aerodrome Road at Mallala (a copy of the Concept Plans is attached in Appendix 'C')

Due to the significant grain harvest that was expected in South Australia in 2021, there was significant pressure to provide additional storage to cater for the predicted harvest intake, including the existing Mallala site on Owen Road. The proposed Stage 2 expansion will consist of the following components:

- 2 Grain Storage Bunkers, each measuring approximately 150m long x 35m wide, each having a capacity of 10,000 tonnes (20,000 additional storage);
- Construction of 2 additional Retention dams, each having a capacity approximately of 4.5Mgl capacity.

Stage 2 will provide an additional 20,000 tonnes of storage and an overall storage capacity of 48,000 tonnes for cereal and legumes and when combined with the closure or 'mothballing' of the Vittera Two Wells site, which historically drew a vast proportion of pulses from the cropping land north of Mallala provides an ideal opportunity for this new facility to capture that deficiency for the pulse growers along the above average harvest.

Inloading to Stage 2 bunkers will be undertaken using mechanical hopper and auger equipment at a rate of 200 tph. Outloading from the same will be undertaken using the same equipment when required for either the local domestic markets or overseas destinations.

Truck marshalling for the Stage 1 development was established on the site to cater for the parking of 6 road trains, in three dedicated lanes at anyone time. As the success of the initial Stage 1, evolved additional marshalling area was established on the site. With the construction of Stage 2 the existing truck marshalling area is deemed to be adequate for the expanded facility.

At the time of writing this report the 'subject land' contained the following built form:

- Existing Sampling and weighing facilities
- 10,000 tonne grain storage shed, including 2 – 280,000 litre aboveground rainwater storage tanks that are used for the storage of rainwater harvested from the existing shed, where both can be used for firefighting if the need arises;
- 3-6,000 tonnes grain bunker pad and associated internal roadworks; and
- Retention Dam

### Proposed On-Site Carparking:

As part of the Stage 2 development, there will be an additional 2 on-site carparking spaces provided for the operational staff who will be employed during the harvest intake period, thus making a total of 6 onsite carparking spaces. The proposed additional carparking spaces will be provided in accordance with [AS 2890.1, 2004 - Parking facilities Part 1 Off-street car parking](#). The surface to the car parking area is constructed of compacted locally sourced limestone crushed rock, which is an all-weather surface.

### Access to the 'Subject Land'.

Access to the site will be gained off Aerodrome Road (also known as Owen Road) which is the access point established as part of the Stage 1 development. The development of Stage 2 will not require any changes to the existing access point.

The internal layout established for Stage 1 in 2020 for the proposed bunkers and grain storage shed was designed to cater for the effective and efficient movement of vehicles up to and including 'A' Trains and all combinations of smaller vehicles. Growers delivering to the site were encouraged to use the following road network (all of which have a permit from the National Heavy Vehicle Regulator for vehicles up to 36 metres in length). With the development of Stage 2 growers delivering to the site will be encouraged to use the same route as for the 2020 harvest.

Those selected route is listed below:

- Redbanks Road – Mallala;
- Aerodrome Road – Mallala;
- Owen Road – Mallala;
- Marshman Road – Grace Plains;
- Traeger Road – Grace Plains; and
- Farrelly Road – Mallala,

All of the above mentioned roads are either sealed or constructed from limestone crushed rock which provides an all-weather surface. Whilst Council received some complaints in relation to vehicle movements, it should be acknowledged that the majority of grain received during the 2020 and the 2021 harvest intake periods came from growers north of Mallala, hence if the new grain storage facility was not on Aerodrome Road, then all of the grain vehicles would have passed through the Mallala township to get to Grain Flow site operated by AWB on the southern periphery of the township.

### Vehicle Movements:

The most efficient and economical method of moving grain by road transport is by 'A-Doubles', which was the vehicle size used to design the traffic flow for the existing Stage 1 development in 2020 and 2021 harvest intakes. Should there be a period of inclement weather then the harvest intake period may be extended, depending on the quality and quantity of the weather damaged grain.

The original development application indicated that outloading would occur on a 24 hour basis to meet shipping needs and demands, however, outloading will still occur to meet those demands but will not occur after 10.00pm. There will no longer be any 24 hours outloading from the site, thus significantly reducing the impact on the residents in the Mallala Township.

### Stormwater Run-off:

As per Stage 1, at the completion of Stage 2 stormwater run-off from the proposed extended hardstand area will be graded to create shallow drainage swales that will be directed both north and south of the proposed second grain storage shed. The drainage swales will be directed so that the stormwater run-off discharges into the proposed 2 additional retention basins located west of the bulk handling operations. The proposed 2 new retention basins will measure approximately 30 metres wide x 75 metres long and will each have an overall capacity less than 5 megalitres each.

### Proposed Signage:

The only signage anticipated will be directional signage indicating the site entrance and providing internal speed limits whilst inloading and outloading of grain to and from the existing and expanded facility.

### Grain Fumigation:

With the increase in storage capacity, it may be necessary from time to time to fumigate grain contained in the shed storage or bunkers prior to outloading the grain for shipment or trucking to the domestic or overseas markets. It is proposed that this operation will not be carried out by the applicant, but rather by a suitably qualified and accredited contractor on an as needs basis. It is proposed that tenders will be obtained from organisations such as Australian Fumigation Services and others, who hold the appropriate licenses from the Department of Health, to carry out any fumigation requirements over a nominated period of time.

### Dust Suppression:

All roads leading to the proposed development site are either sealed or constructed of locally sourced limestone crushed rock, thus providing an 'all weather surface'. The internal road network established as part of the Stage 1 development in 2020 was constructed from compacted locally sourced 'limestone' crushed rock material. With expansion of the existing grain storage facility there will be an increase in the number of vehicles movements over this surface there may from time to time be nuisance dust generated and therefore a watercart or equivalent will be used on the vehicle movement areas to provide comfort for the staff and vehicle drivers at the site. As Stage 2 will be constructed to the north of the existing infrastructure the separation distance between the Motorsports Park to the south and nearest farmhouses not owned by the applicant will be increase by an additional 120 metres. However, the extent of dust that may be generated is considered to be no more than general farming operations, hence no impact on those sensitive receptors.

### Noise:

Whilst there may be additional vehicle movements to the proposed expanded development site, with the inloading and outturning of grain, the number of additional vehicle movements (estimated as 18 vehicle movements during the peak intake and outturn periods) is not deemed to have any detrimental increase on the noise generated within the RURAL ZONE.

As the expansion of the existing site will be to the north and the separation distances to all the nearest farmhouses (sensitive receptors) and the Mallala Motorsport Park will be increased by an additional 210 metres which is almost 5 times greater than the recommended separation distance stated in the policy

provisions of the RURAL ZONE for sensitive receptors and therefore the expanded facility will have no impact on the occupiers or owners of the existing farmhouses or other land uses.

### Hours of Operation:

The proposed operating hours of the expanded facility has been categorized into normal and extended operating hours. The type of operating hours has been based on issues such as:

- availability of grain and grain source:
- availability of grain vehicles to deliver grain when required:
- weather condition during harvest:
- deadlines at Export Terminals to meet shipping requirements:
- shipping schedules and loading capabilities.

### Normal operating hours:

- Normal operating hours would be between 7.00am to 7.00pm, seven (7) days a week, if required.

### Extended operating hours:

However, it may be necessary to operate the expanded facility for extended hours especially during the grain harvest period and also when outturning of grain. The extended operating hours will allow the operators of the new grain facility to provide a required level of service to existing and future clients.

- Extended operating hours would be between 6.00am to 10.00pm, seven (7) days a week, if required.

The operating hours have been drastically reduced and therefore outloading for shipping will only occur up to 10.00pm, if required.

### Security Fencing:

During the development of Stage 1 in 2020, the applicant installed a new 2.100 metre high chainmesh security fence (consisting of 1.80m chainmesh and 3 strands of barbed wire on the top) on the eastern, southern and western boundaries of the proposed development site (refer to the Overall Site Plan attached in Appendix 'C') for the extent of the existing security fence. Due to the expansion of the site to the north of the existing facility, the existing security fencing will be relocated further north to encapsulate the expanded facility.

### Employment Opportunities:

As with the 2021 harvest intake there is an opportunity to employ an additional 2 staff, in addition to the existing 4 casuals required under normal harvest conditions. The number of staff will be reduced to 3 for the outloading operations after the harvest intake period has concluded.

## 4.0 PROPOSED DEVELOPMENT:

In assessing the merits of the proposal, I have examined the relevant provisions of the Planning and Design Code in so far as they relate to this proposal, the subject land and the locality.

### 4.1 ZONING:

The subject land identified as Section 246 is entirely contained within the RURAL ZONE as depicted on the interactive South Australian Property and Planning Atlas (SAPPA) map-based application. The zoning of site and surrounding the subject land (Section 246) is depicted on Figure 1 listed below:

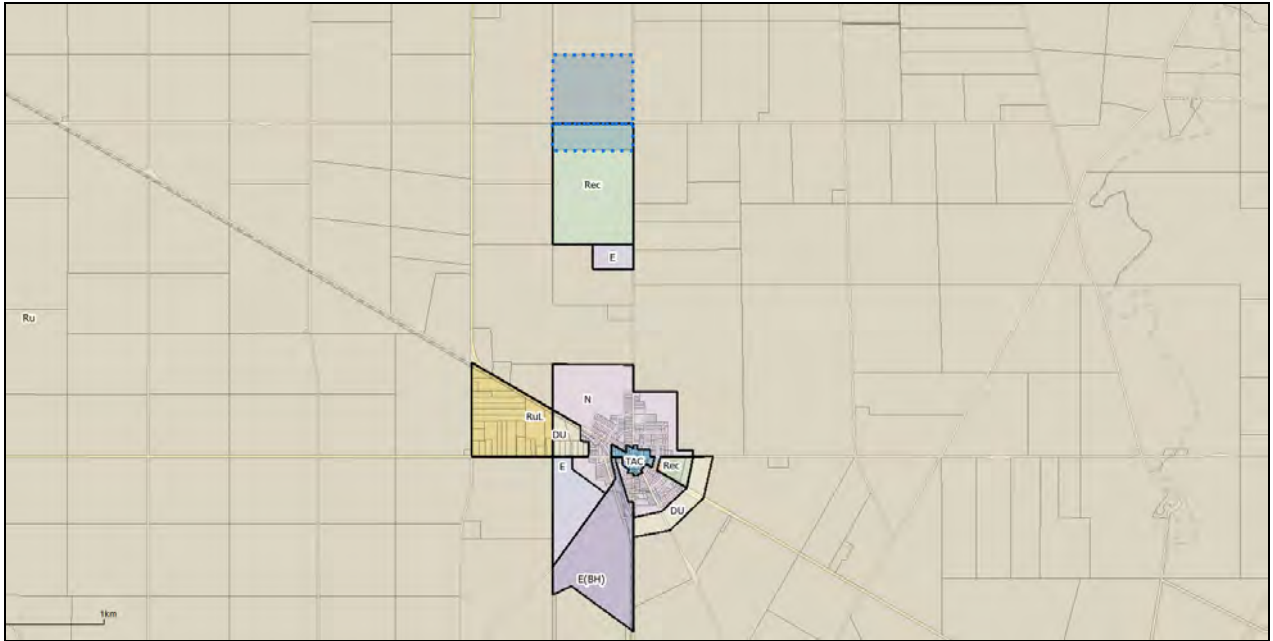


Figure 1: Zoning of Subject land and locality

Source: SA Property and Planning Atlas (Govt SA)

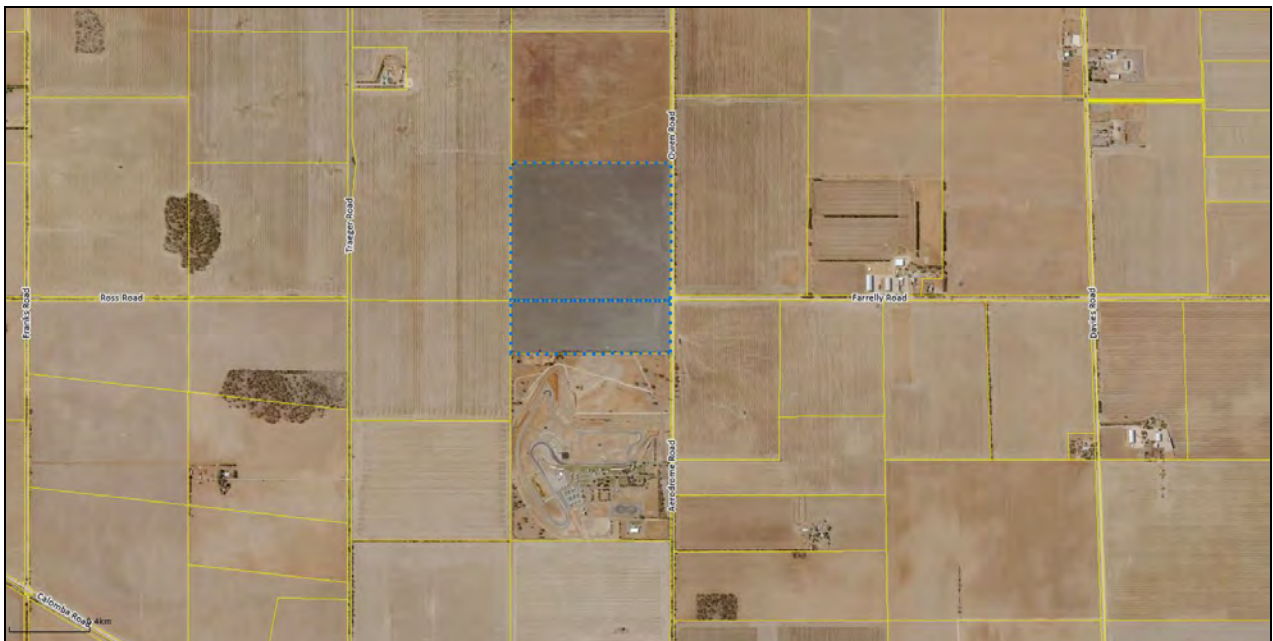


Figure 2: Subject Land and locality

Source: SA Property & Planning Atlas (Govt) SA

It should be noted that the interactive South Australian Property and Planning Atlas (SAPPA) map-based application has included Allotment 792 (zoned Recreation) and is located directly south of Section 246 which is the site on which Stage 1 of the existing grain storage and handling facility was constructed. Allotment 792, whilst in the same ownership as Section 246 is contained within a separate Certificate of Title and should not be included in the assessment of this proposal.

**4.2 DEVELOPMENT ASSESSMENT:**

Reference has been made to Table 4 of the RURAL ZONE which relates to Restricted Development, which confirms that a store in the Rural Zone is not restricted development and therefore the proposal for the extension to the existing grain storage and handling facility will be Code Assessed – Performance Assessed.

**RURAL ZONE:**

Land Use and Intensity		
Performance Outcome	DTS/DPF Criteria	Comments
<p>PO 1.1</p> <p>The productive value of rural land for a range of primary production activities and associated value adding, processing, warehousing and distribution is supported, protected and maintained.</p>	<p>DTS/DPF 1.1</p> <p>Development comprises one or more of the following:</p> <ul style="list-style-type: none"> <li>a) Advertisement</li> <li>b) Agricultural building</li> <li>c) Brewery</li> <li>d) Carport</li> <li>e) Cidery</li> <li>f) Dairy</li> <li>g) Dam</li> <li>h) Distillery</li> <li>i) Dwelling</li> <li>j) Dwelling addition</li> <li>k) Farming</li> <li>l) Horse keeping</li> <li>m) Horticulture</li> <li>n) Industry</li> <li>o) Intensive animal husbandry</li> <li>p) Low intensity animal husbandry</li> <li>q) Outbuilding</li> <li>r) Renewable energy facility</li> <li>s) Shop</li> <li>t) Small-scale ground mounted solar power facility</li> <li>u) Stock slaughter works</li> <li>v) Tourist accommodation</li> <li>w) Transport distribution</li> <li>x) Verandah</li> <li>y) Warehouse</li> <li>z) Winery</li> <li>aa) Workers Accommodation</li> </ul>	<p>The existing land use on the subject land is a grain storage and handling facility. Under the new P &amp; D Code there is no definition for a Bulk Storage and Handling Facility and as such we have been forced to select a land use that may fit the expansion to the existing land use and therefore, we have been forced to select 'STORE'.</p> <p>A STORE is not an envisaged land use within the RURAL Zone using the current P &amp; D Code.</p>
Siting and Design		
Performance Outcome	DTS/DPF Criteria	Comments
<p>PO 2.1</p> <p>Development is provided with suitable vehicle access.</p>	<p>DTS/DPF 2.1</p> <p>Development is serviced by an all-weather trafficable public road.</p>	<p>Access to the existing facility is off Owen Road (also known as Aerodrome Road). The expansion of the existing facility (Stage 2) will not require any upgrade to the existing access point nor the construction of any new access points off Owen Road. Owen Road is an all-weather road, with portions of the road being upgraded in readiness for sealing – <u>hence the proposal complies with PO 2.1</u></p>



Siting and Design (continued)		
Performance Outcome	DTS/DPF Criteria	Comments
<p>PO 2.2</p> <p>Buildings are generally located on flat land to minimise cut and fill and the associated visual impacts</p>	<p>DTS/DPF 2.2</p> <p>Buildings:</p> <ul style="list-style-type: none"> <li>a) are located on sites with a slope not greater than 10% (1-in-10)</li> <li>b) do not result in excavation and/or filling of land greater than 1.5m from natural ground level.</li> </ul>	<p>The area on which Stage 2 will be constructed falls approximately 800mm from the Owen Road boundary to the West over a distance of 315 metres.</p> <p>The gradient of the site is 0.25% or 1 metre in 400 metres which is substantially less than DTS/DPF 2.1(a) and therefore the construction of Stage 2 will not involve cut or fill operations greater than 1.50 metres from natural ground level – <u>hence the proposal complies with PO 2.2</u></p>
Rural Industry		
Performance Outcome	DTS/DPF Criteria	Comments
<p>PO 4.3</p> <p>Industry, storage, warehousing, transport distribution or similar activities are sited, designed and of a scale that maintains rural character and function and respects landscape amenity.</p>	<p>DTS/DPF 4.3</p> <p>Buildings and associated activities:</p> <ul style="list-style-type: none"> <li>a) are set back at least 100m from all road and allotment boundaries</li> <li>b) are not sited within 200m of a sensitive receiver in other ownership</li> <li>c) have a building height not greater than 10m above natural ground level</li> <li>d) incorporate the loading and unloading of vehicles within the confines of the allotment.</li> </ul>	<p>The Stage 1 development was established in accordance with the boundary setbacks outlined in Councils Development Plan (13 December 2018 – consolidated which required a setback of 50 metres from Owen Road. Under the current P &amp; D Code the setback requirement is now 100 metres. Unfortunately, we are not able to comply with the 100 metres setback as that would create impractical vehicles movements within the site</p> <p>However, the proposal can comply with DTS/DPF 4.3 (b), (c) and (d) – <u>hence the proposal complies with the majority of PO 4.3</u></p>
Built Form and Character		
Performance Outcome	DTS/DPF Criteria	Comments
<p>PO 10.1</p> <p>Large buildings are designed and sited to reduce impacts on scenic and rural vistas by:</p> <ul style="list-style-type: none"> <li>a) having substantial setbacks from boundaries and adjacent public roads</li> <li>b) using low-reflective materials and finishes that blend with the surrounding landscape</li> <li>c) being located below ridgelines.</li> </ul>	<p>DTS/DPF 10.1</p> <p>None are Applicable.</p>	<p>The original proposal for Stage 2 involved the construction of a second grain storage shed and the installation of 19-80 tonne bins and 3 bunkers. However, this amended proposal is for an additional 2 bunkers only and the construction of a second stormwater retention basin and does not involve the construction of any buildings - <u>hence the proposal is not affected by PO 10.1</u></p>

OVERLAYS:

Environment Food Protection Area

Built Form and Character		
Performance Outcome	DTS/DPF Criteria	Comments
		<u>Not Applicable</u> as this proposal is for the expansion of an existing Bulk Storage and Handling facility and does not involve a land division being undertaken in accordance with Section 7 of the <i>Planning, Development and Infrastructure Act 2016</i>

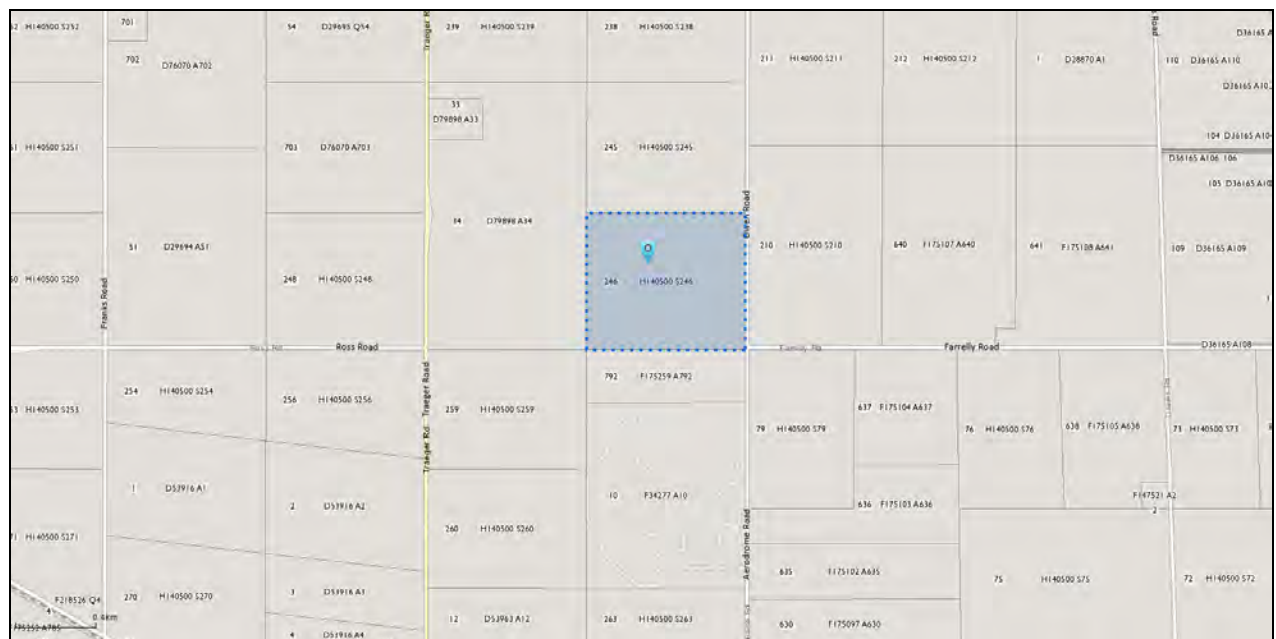


Figure 3: Environment food Protection Overlay

Source: SA Property & Planning Atlas (Govt) SA

Hazards (Bushfire – General Risk) Overlay:

Siting		
Performance Outcome	DTS/DPF Criteria	Comments
PO 1.1 Buildings and structures are located away from areas that pose an unacceptable bushfire risk as a result of vegetation cover and type, and terrain.	DTS/DPF 1.1 None Are Applicable	Stage 2 development involves the construction of 2 new bunkers with a capacity of approximately 10,000 tonnes each and will be located on a compacted crushed rock base and no vegetation, hence the risk of bushfire will be minimal.  In addition, there is adequate water within the existing and proposed second retention basin and the existing rainwater storage tanks constructed as part of Stage 1 to be used for fire fighting purposes should the need arise – <u>hence the proposal complies with PO 1.1</u>

Built Form		
Performance Outcome	DTS/DPF Criteria	Comments
<p>PO 2.1</p> <p>Buildings and structures are designed and configured to reduce the impact of bushfire through using designs that reduce the potential for trapping burning debris against or underneath the building or structure, or between the ground and building floor level in the case of transportable buildings and buildings on stilts.</p>	<p>DTS/DPF 2.1</p> <p>None Are Applicable</p>	<p><u>Not Applicable</u> as the proposed second grain storage shed has been deleted from the Stage 2 expansion. The Stage 1 grain storage shed is constructed at ground level and therefore no debris to be trapped under the building – <u>hence PO 2.1 is not applicable to the Stage 2 expansion</u></p>
<p>PO 2.2</p> <p>Extensions to buildings, outbuildings and other ancillary structures are sited and constructed using materials to minimise the threat of fire spread to residential and tourist accommodation (including boarding houses, hostels, dormitory style accommodation, student accommodation and) in the event of bushfire.</p>	<p>DTS/DPF 2.2</p> <p>None Are Applicable</p>	<p><u>Not Applicable</u> as the proposed 2 new bunkers are for the storage of grain and cannot be used as an outbuilding, residential property or tourist accommodation such as boarding houses, hotels, dormitory style accommodation or student accommodation – <u>hence PO 2.2 is not applicable to this proposal</u></p>
Flood Resilience		
Performance Outcome	DTS/DPF Criteria	Comments
<p>PO 1.1</p> <p>Development is sited, designed and constructed to minimise the risk of entry of potential floodwaters where the entry of flood waters is likely to result in undue damage to or compromise ongoing activities within buildings.</p>	<p>DTS/DPF 1.1</p> <p>Habitable buildings, commercial and industrial buildings, and buildings used for animal keeping incorporate a finished floor level at least 300mm above:</p> <p>a) the highest point of top of kerb of the primary street or b) the highest point of natural ground level at the primary street boundary where there is no kerb</p>	<p>The proposed 2 new bunkers will be constructed on compacted crushed rock material that has been graded to ensure stored grain is not subjected to flood inundation that is likely to cause damage – <u>hence the proposal complies with PO 1.1</u></p>
Environmental Protection		
Performance Outcome	DTS/DPF Criteria	Comments
<p>PO 2.1</p> <p>Buildings and structures used either partly or wholly to contain or store hazardous materials are designed to prevent spills or leaks leaving the confines of the building.</p>	<p>DTS/DPF 2.1</p> <p>Development does not involve the storage of hazardous materials.</p>	<p><u>Not Applicable</u> as the existing grain storage shed is for the storage of grain and NOT hazardous chemicals.</p> <p>There is no additional storage shed as part of the Stage 2 expansion – <u>hence PO 2.1 is not applicable to this proposal</u></p>
Native Vegetation Overlay		
Performance Outcome	DTS/DPF Criteria	Comments
		<p><u>Not Applicable</u> as there is no native vegetation on the existing allotment as the previous use was cereal cropping.</p> <p>A Declaration has also been provided as part of the supporting documentation for this proposal.</p>

Water Resources Overlay:

Water Catchment		
Performance Outcome	DTS/DPF Criteria	Comments
<p>PO 1.1</p> <p>Watercourses and their beds, banks, wetlands and floodplains (1% AEP flood extent) are not damaged or modified and are retained in their natural state, except where modification is required for essential access or maintenance purposes.</p>	<p>DTS/DPF 1.1</p> <p>None are Applicable</p>	<p><u>Not Applicable</u> as there are no existing watercourses on the subject land or the existing and proposed grain storage and handling facility</p>
<p>PO 1.2</p> <p>Development avoids interfering with the existing hydrology or water regime of swamps and wetlands other than to improve the existing conditions to enhance environmental values.</p>	<p>DTS/DPF 1.2</p> <p>None are Applicable</p>	<p>The existing topography of the site falls at a gradient of approximately 0.25% from the east to the west. The development of Stage 1 followed the existing gradient as will the expansion of the site with the construction of Stage 2, thus the proposal does not interfere with existing hydrology or water regimes – <u>hence the proposal complies with PO 1.2</u></p>
<p>PO 1.5</p> <p>Development that increases surface water run-off includes a suitably sized strip of vegetated land on each side of a watercourse to filter runoff to:</p> <ul style="list-style-type: none"> <li>a) reduce the impacts on native aquatic ecosystems</li> <li>b) minimise soil loss eroding into the watercourse.</li> </ul>	<p>DTS/DPF 1.5</p> <p>A strip of land 20m or more wide measured from the top of existing banks on each side of the watercourse is free from development, livestock use and revegetated with locally indigenous vegetation.</p>	<p><u>Not Applicable</u> as there are no watercourses on the subject land or the area used for the stage and handling of grain - <u>hence PO 1.5 is not applicable to this proposal</u></p>
<p>PO 1.6</p> <p>Development resulting in the depositing or placing of an object or solid material in a watercourse or lake occurs only where it involves any of the following:</p> <ul style="list-style-type: none"> <li>a) the construction of an erosion control structure</li> <li>b) devices or structures used to extract or regulate water flowing in a watercourse</li> <li>c) devices used for scientific purposes</li> <li>d) the rehabilitation of watercourses.</li> </ul>	<p>DTS/DPF 1.6</p> <p>None are Applicable</p>	<p><u>Not Applicable</u> as there are no watercourses on the subject land or the area used for the stage and handling of grain - <u>hence PO 1.6 is not applicable to this proposal</u></p>
<p>PO 1.7</p> <p>Watercourses, floodplains (1% AEP flood extent) and wetlands protected and enhanced by retaining and protecting existing native vegetation.</p>	<p>DTS/DPF 1.7</p> <p>None are Applicable</p>	<p><u>Not Applicable</u> as there are no watercourses or native vegetation on the subject land or the area used for the stage and handling of grain - <u>hence PO 1.7 is not applicable to this proposal</u></p>

<p>PO 1.8</p> <p>Watercourses, floodplains (1% AEP flood extent) and wetlands are protected and enhanced by stabilising watercourse banks and reducing sediments and nutrients entering the watercourse.</p>	<p>DTS/DPF 1.8</p> <p>None are Applicable</p>	<p><u>Not Applicable</u> as the existing and proposed extension to the existing grain storage facility is not located in a floodplain nor are there any watercourses on the subject land - <u>hence PO 1.8 is not applicable to this proposal</u></p>
<p>PO 1.9</p> <p>Dams, water tanks and diversion drains are located and constructed to maintain the quality and quantity of flows required to meet environmental and downstream needs.</p>	<p>DTS/DPF 1.9</p> <p>None are Applicable</p>	<p>A retention dam was constructed as part of Stage 1 and 2 similar sized dam will be constructed as part of the Stage 2 development. These dams will be constructed to manage the stormwater run-off from the existing and proposed hard stand area. The dams are of a capacity that there is no overflow from the existing dam nor will there be any when the additional dams to be constructed - <u>hence the proposal complies with PO 1.9</u></p>

GENERAL PROVISIONS:

Bulk Handling and Storage Facilities:

Siting and Design		
Performance Outcome	DTS/DPF Criteria	Comments
<p>PO 1.1</p> <p>Bulk handling and storage facilities are sited and designed to minimise risks of adverse air quality and noise impacts on sensitive receivers.</p>	<p>DTS/DPF 1.1</p> <p>Facilities for the handling, storage and dispatch of commodities in bulk (excluding processing) meet the following minimum separation distances from sensitive receivers:</p> <ul style="list-style-type: none"> <li>a) bulk handling of agricultural crop products, rock, ores, minerals, petroleum products or chemicals at a wharf or wharf side facility (including sea-port grain terminals), where the handling of these materials into or from vessels does not exceed 100 tonnes per day: 300m or more from residential premises not associated with the facility</li> <li>b) bulk handling of agricultural crop products, rock, ores, minerals, petroleum products or chemicals to or from any commercial storage facility: 300m or more from residential premises not associated with the facility</li> <li>c) bulk petroleum storage involving individual containers with a capacity up to 200 litres and a total on-site storage capacity not exceeding 1,000 cubic metres: 500m or more</li> <li>d) coal handling with: <ul style="list-style-type: none"> <li>a. capacity up to 1 tonne per day or a storage capacity up to 50 tonnes: 500m or more</li> <li>b. capacity exceeding 1 tonne per day but not exceeding 100 tonnes per day or a storage capacity exceeding 50 tonnes but not exceeding 5000 tonnes: 1000m or more.</li> </ul> </li> </ul>	<p>An Electricity Declaration has been provided as part of the supporting documentation - <u>hence the proposal complies with PO 1.1</u></p>

Buffers and Landscaping		
Performance Outcome	DTS/DPF Criteria	Comments
<p>PO 2.1</p> <p>Bulk handling and storage facilities incorporate a buffer area for the establishment of dense landscaping adjacent road frontages to enhance the appearance of land and buildings from public thoroughfares.</p>	<p>DTS/DPF 2.1</p> <p>None are Applicable</p>	<p>As part of the Stage 1 construction landscaping will incorporated along the Owen Road boundary. In addition, the existing owners have also started planting trees internally. As part of Stage 2 the same form of landscaping will be incorporated along Owen Road as per Stage 1.</p> <p>The existing Grain Storage shed is located some 70 metres off the western fenced area and 50 metres from the southern and eastern boundaries and 30 metres off the northern fence. However, the adjoining cropping land is also owned by the same owners as the existing grain storage facility, hence any impact is acknowledged by the existing landowners prior to the establishment of the existing facility - <u>hence the proposal complies with PO 2.1</u></p>
<p>PO 2.2</p> <p>Bulk handling and storage facilities incorporate landscaping to assist with screening and dust filtration.</p>	<p>DTS/DPF 2.2</p> <p>None are Applicable</p>	<p>As part of the Stage 1 construction landscaping will incorporated along the Owen Road boundary. In addition, the existing owners have also started planting trees internally. As part of Stage 2 the same form of landscaping will be incorporated along Owen Road as per Stage 1 - <u>hence the proposal complies with PO 2.2</u></p>
Access and Parking		
Performance Outcome	DTS/DPF Criteria	Comments
<p>PO 3.1</p> <p>Roadways and vehicle parking areas associated with bulk handling and storage facilities are designed and surfaced to control dust emissions and prevent drag out of material from the site</p>	<p>DTS/DPF 3.1</p> <p>Roadways and vehicle parking areas are sealed with an all-weather surface.</p>	<p>The existing internal roadworks constructed in Stage 1 was constructed on compacted limestone rubble which provides and all weather surfaces.</p> <p>Stage 2 will be constructed of the same compacted limestone material to provide an all-weather surface – <u>hence the proposal complies with PO 3.1</u></p>

Clearance from Overhead Powerlines:

Clearance from Overhead Powerlines		
Performance Outcome	DTS/DPF Criteria	Comments
<p>PO 1.1</p> <p>Buildings are adequately separated from aboveground powerlines to minimise potential hazard to people and property.</p>	<p>DTS/DPF 1.1</p> <p>One of the following are satisfied:</p> <p>a) A declaration is provided by or on behalf of the applicant to the effect that the proposal would not be contrary to the regulations prescribed for the purposes of section 86 of the Electricity Act 1996.</p> <p>Or</p> <p>b) There are no aboveground powerlines adjoining the site that are the subject of the proposed development.</p>	<p>An Electricity Declaration has been provided as part of the supporting documentation - <u>hence the proposal complies with PO 1.1</u></p>

Design:

Design – External Appearance		
Performance Outcome	DTS/DPF Criteria	Comments
<p>PO 1.5</p> <p>The negative visual impact of outdoor storage, waste management, loading and service areas is minimised by integrating them into the building design and screening them from public view (such as fencing, landscaping and built form) taking into account the form of development contemplated in the relevant zone.</p>	<p>DTS/DPF 1.5</p> <p>None are Applicable</p>	<p><u>Not Applicable</u> as the proposed Stage 2 grain storage shed has been deleted from the proposed expansion - <u>hence the proposal complies with PO 1.5</u></p>
Design – On-Site Waste Water Treatment System		
Performance Outcome	DTS/DPF Criteria	Comments
<p>PO 6.1</p> <p>Dedicated on-site effluent disposal areas do not include any areas to be used for, or could be reasonably foreseen to be used for, private open space, driveways or car parking.</p>	<p>DTS/DPF 6.1</p> <p>Effluent disposal drainage areas do not:</p> <ul style="list-style-type: none"> <li>a) encroach within an area used as private open space or result in less private open space than that specified in Design Table 1 - Private Open Space</li> <li>b) use an area also used as a driveway</li> <li>c) encroach within an area used for on-site car parking or result in less on-site car parking than that specified in Transport, Access and Parking Table 1 - General Off-Street Car Parking Requirements or Table 2 - Off-Street Car Parking Requirements in Designated Areas.</li> </ul>	<p>There was no wastewater disposal system installed as part of the Stage 1 development as for the harvest period portable toilets are used. The same method will be used for the Stage 2 development.</p> <p>There are 4 existing carparking spaces provided as part of Stage 1 and there will be an additional 2 spaces provided as part of the Stage 2 development - <u>hence the proposal complies with PO 6.1</u></p>
Design – Carparking Appearance		
Performance Outcome	DTS/DPF Criteria	Comments
<p>PO 7.7</p> <p>Vehicle parking areas and access ways incorporate integrated stormwater management techniques such as permeable or porous surfaces, infiltration systems, drainage swales or rain gardens that integrate with soft landscaping.</p>	<p>DTS/DPF 7.7</p> <p>None are Applicable</p>	<p>As part of the Stage 1 development a 5.00 metre wide strip of landscaping was to be provided along the Owen Road boundary, it is anticipated that the same treatment will be provided for Stage 2, using the same tree species. The Stage 1 landscaping was to assist with minimising the visual impact of the grain bunkers when viewed from the adjoining public roads - <u>hence the proposal complies with PO 7.7</u></p>

Design: (continued)

Design – Earthworks and Sloping Land		
Performance Outcome	DTS/DPF Criteria	Comments
<p>PO 8.1</p> <p>Development, including any associated driveways and access tracks, minimises the need for earthworks to limit disturbance to natural topography.</p>	<p>DTS/DPF 8.1</p> <p>Development does not involve any of the following:</p> <ul style="list-style-type: none"> <li>a) excavation exceeding a vertical height of 1m</li> <li>b) filling exceeding a vertical height of 1m</li> <li>c) a total combined excavation and filling vertical height of 2m or more.</li> </ul>	<p>The area on which Stage 2 will be constructed predominantly falls approximately 800mm from the Owen Road boundary to the West over a distance of 315 metres. The gradient of the site is 0.25% or 1 metre in 400 metres which is substantially less than DTS/DPF 8.1 suggests and therefore the construction of Stage 2 will not involve cut or fill operations greater than 1.00 or combined cut and fill greater than 2.0 metres from natural ground level - <u>hence the proposal complies with PO 8.1</u></p>

Infrastructure and Renewable Energy:

Infrastructure and Renewable Energy – Water Supply		
Performance Outcome	DTS/DPF Criteria	Comments
<p>PO 11.1</p> <p>Development is connected to an appropriate water supply to meet the ongoing requirements of the intended use.</p>	<p>DTS/DPF 11.1</p> <p>Development is connected, or will be connected, to a reticulated water scheme or mains water supply with the capacity to meet the on-going requirements of the development.</p>	<p>2 - 280,000 litre aboveground rainwater storage tanks were installed each end of the grain storage shed in Stage 1.</p> <p>In addition, 2- 4.5Mgl retention dams will be constructed to manage the stormwater run-off from the hard stand area. The same size dam will also be installed as part of Stage 2 development and there is no need for the site to be connected to mains water - <u>hence the proposal complies with PO 11.1</u></p>

Interface between Land Uses:

Interface between land Uses – Generating Noise and Vibration		
Performance Outcome	DTS/DPF Criteria	Comments
<p>PO 4.1</p> <p>Development that emits noise (other than music) does not unreasonably impact the amenity of sensitive receivers (or lawfully approved sensitive receivers).</p>	<p>DTS/DPF 4.1</p> <p>Noise that affects sensitive receivers achieves the relevant Environment Protection (Noise) Policy criteria.</p>	<p>The existing grain storage and handling facility is located approximately 2.70 kilometres to the north of the Mallala Township. The subject land or the surrounding area of the site is not primarily intended for sensitive receivers. There are however isolated farmhouses surrounding the site, however the buffer distance from the site to the sensitive receivers ranges from 1.35 to 2.70 kilometres and therefore it is deemed that the existing and proposed operations does not have any impact on those sensitive receivers.</p> <p>Yes, there is noise generated from the site through the movement of vehicles and the operation of machinery, however the noise generated from the site is no greater than normal farm activities of sowing, harvesting or cultivating - <u>hence the proposal complies with PO 4.1</u></p>



Interface between Land Uses: (continued)

Interface between land Uses – Generating Noise and Vibration (continued)		
Performance Outcome	DTS/DPF Criteria	Comments
<p>PO 4.2</p> <p>Areas for the on-site manoeuvring of service and delivery vehicles, plant and equipment, outdoor work spaces (and the like) are designed and sited to not unreasonably impact the amenity of adjacent sensitive receivers (or lawfully approved sensitive receivers) and zones primarily intended to accommodate sensitive receivers due to noise and vibration by adopting techniques including:</p> <ul style="list-style-type: none"> <li>a) locating openings of buildings and associated services away from the interface with the adjacent sensitive receivers and zones primarily intended to accommodate sensitive receivers</li> <li>b) when sited outdoors, locating such areas as far as practicable from adjacent sensitive receivers and zones primarily intended to accommodate sensitive receivers</li> <li>c) housing plant and equipment within an enclosed structure or acoustic enclosure</li> <li>d) providing a suitable acoustic barrier between the plant and / or equipment and the adjacent sensitive receiver boundary or zone.</li> </ul>	<p>DTS/DPF 4.2</p> <p>None are Applicable</p>	<p>The existing grain storage and handling facility is entirely located in the RURAL Zone and is located approximately 2.70 kilometres to the north of the Mallala Township. The subject land or the surrounding area of the site is not primarily intended for sensitive receivers. There are however isolated farmhouses surrounding the site, however the buffer distance from the site to the sensitive receivers ranges from 1.35 to 2.70 kilometres and therefore it is deemed that the existing and proposed operations does not have any impact on those sensitive receivers - <u>hence the proposal complies with PO 4.2</u></p>
Interface between land Uses – Air Quality		
Performance Outcome	DTS/DPF Criteria	Comments
<p>PO 5.1</p> <p>Development with the potential to emit harmful or nuisance-generating air pollution incorporates air pollution control measures to prevent harm to human health or unreasonably impact the amenity of sensitive receivers (or lawfully approved sensitive receivers) within the locality and zones primarily intended to accommodate sensitive receivers.</p>	<p>DTS/DPF 5.1</p> <p>None are Applicable</p>	<p>The existing facility, including the proposed extension does not include chimneys, exhaust flues associated with cafes, restaurants etc. However, during dry periods at harvest time the operational staff do use a watercart to minimise the generation of nuisance dust through the movement of vehicles within the site. As the nearest sensitive receiver is more than 1.35 kilometers from the site it is deemed the dust that may be generated from the site through the movement of traffic would disperse before it reached the nearest dwelling not under the ownership of the applicant - <u>hence the proposal complies with PO 5.1</u></p>

Interface between land Uses – Air Quality

Performance Outcome	DTS/DPF Criteria	Comments
<p>PO 5.2</p> <p>Development that includes chimneys or exhaust flues (including cafes, restaurants and fast food outlets) is designed to minimise nuisance or adverse health impacts to sensitive receivers (or lawfully approved sensitive receivers) by:</p> <p>a) incorporating appropriate treatment technology before exhaust emissions are released</p> <p>b) locating and designing chimneys or exhaust flues to maximise the dispersion of exhaust emissions, taking into account the location of sensitive receivers.</p>	<p>DTS/DPF 5.2</p> <p>None are Applicable</p>	<p>The existing facility, including the proposed extension does not include chimneys, exhaust flues associated with cafes, restaurants etc. However, during dry periods at harvest time the operational staff do use a watercart to minimise the generation of nuisance dust through the movement of vehicles within the site. The watercart is used not that the dust is impacting on adjoining landowners, but rather for the welfare of the staff working at the site - <u>hence the proposal complies with PO 5.2</u></p>

Light Spill

Performance Outcome	DTS/DPF Criteria	Comments
<p>PO 6.1</p> <p>External lighting is positioned and designed to not cause unreasonable light spill impact on adjacent sensitive receivers (or lawfully approved sensitive receivers).</p>	<p>DTS/DPF 6.1</p> <p>None are Applicable</p>	<p>During harvest intake and the outturning of grain for export that needs to be undertaken during night time hours there will be portable flood lighting to allow for the safe movement of vehicles around the site and also for the welfare of the staff onsite. However, considering that the nearest sensitive receiver (dwelling) is located more than 1.35 kilometres from the site, it is deemed that the use of floodlighting has no impact on the nearest sensitive receiver - <u>hence the proposal complies with PO 6.1</u></p>

Transport, Access and Parking:

Transport, Access and Parking – Movement Systems

Performance Outcome	DTS/DPF Criteria	Comments
<p>PO 1.4</p> <p>Development is sited and designed so that loading, unloading and turning of all traffic avoids interrupting the operation of and queuing on public roads and pedestrian paths.</p>	<p>DTS/DPF 1.4</p> <p>All vehicle manoeuvring occurs onsite.</p>	<p>The Stage 1 grain storage and handling facility was designed to allow all vehicle movements to occur on the site. With the construction of Stage 2 to the north of the existing site, Stage 2 has been designed in the same manner to ensure all movements on the site are done so in a safe and efficient manner - <u>hence the proposal complies with PO 1.4</u></p>

Transport, Access and Parking: (continued)

Transport, Access and Parking – Vehicle Access		
Performance Outcome	DTS/DPF Criteria	Comments
<p>PO 3.1</p> <p>Safe and convenient access minimises impact or interruption on the operation of public roads.</p>	<p>DTS/DPF 3.1</p> <p>The access is:</p> <ol style="list-style-type: none"> <li>a) provided via a lawfully existing or authorised driveway or access point or an access point for which consent has been granted as part of an application for the division of land</li> <li>or</li> <li>b) not located within 6m of an intersection of 2 or more roads or a pedestrian activated crossing.</li> </ol>	<p>Access to the site is gained off Aerodrome Road (also known as Owen Road) which is the access point established as part of the Stage 1 development. The development of Stage 2 will not require any changes to the existing access point nor the creation of any additional access points</p> <p>The existing access point is NOT located within 6m of the intersection of Aerodrome and Farrelly Roads - <u>hence the proposal complies with PO 3.1</u></p>
<p>PO 3.5</p> <p>Access points are located so as not to interfere with street trees, existing street furniture (including directional signs, lighting, seating and weather shelters) or infrastructure services to maintain the appearance of the streetscape, preserve local amenity and minimise disruption to utility infrastructure assets.</p>	<p>DTS/DPF 3.5</p> <p>Vehicle access to designated car parking spaces satisfy (a) or (b):</p> <ol style="list-style-type: none"> <li>1. is provided via a lawfully existing or authorised access point or an access point for which consent has been granted as part of an application for the division of land</li> <li>2. where newly proposed, is set back: <ol style="list-style-type: none"> <li>i. 0.5m or more from any street furniture, street pole, infrastructure services pit, or other stormwater or utility infrastructure unless consent is provided from the asset owner</li> <li>ii. 2m or more from the base of the trunk of a street tree unless consent is provided from the tree owner for a lesser distance</li> <li>iii. 6m or more from the tangent point of an intersection of 2 or more roads</li> <li>iv. outside of the marked lines or infrastructure dedicating a pedestrian crossing.</li> </ol> </li> </ol>	<p>Access to the site is gained off Aerodrome Road (also known as Owen Road) which is the access point established as part of the Stage 1 development. The development of Stage 2 will not require any changes to the existing access point nor the creation of any additional access points - <u>hence the proposal complies with PO 3.5</u></p>
Transport, Access and Parking – Vehicle Parking Areas		
Performance Outcome	DTS/DPF Criteria	Comments
<p>PO 6.1</p> <p>Vehicle parking areas are sited and designed to minimise impact on the operation of public roads by avoiding the use of public roads when moving from one part of a parking area to another.</p>	<p>DTS/DPF 6.1</p> <p>Movement between vehicle parking areas within the site can occur without the need to use a public road.</p>	<p>Both the loading and unloading of grain from the existing and expanded facility occurs on the site. During the harvest intake period grain vehicles are marshalled within the site and not on the adjoining public roads. In addition, movement between the bunker storage and the existing grain shed is also undertaken without leaving the site and using the adjoining public roads - <u>hence the proposal complies with PO 6.1</u></p>

Transport, Access and Parking – Vehicle Parking Areas (continued)

Performance Outcome	DTS/DPF Criteria	Comments
<p>PO 6.6 Loading areas and designated parking spaces for service vehicles are provided within the boundary of the site.</p>	<p>DTS/DPF 6.6 Loading areas and designated parking spaces are wholly located within the site.</p>	<p>Both the loading and unloading of grain from the existing and expanded facility occurs on the site. During the harvest intake period grain vehicles are marshalled within the site and not on the adjoining public roads - <u>hence the proposal complies with PO 6.6</u></p>

## 5.0 CONCLUSION:

The subject land identified as Section 246 is entirely contained within the RURAL ZONE as depicted on the interactive South Australian Property and Planning Atlas (SAPPA) map-based application which supports the economic prosperity of the South Australia primarily through the production, processing, storage and distribution of primary produce, forestry and the generation of energy from renewable sources.

I have formed the opinion that the extension to the existing grain storage and handling facility to cater for the needs of the 2021 grain harvest was achieved through the construction of an emergency bunker and since the 2021 harvest the overall development of Stage 2 has been significantly reduced and as such the proposed expansion is an appropriate, rational and practical development on the subject land, has no impact on the activities in the immediate locality and warrants the granting of Planning Consent. In forming my opinion, I am mindful that:

- The 'subject land' is of an adequate size to allow for the construction of Stage 2 to the north of the existing facility and has been designed so that the movement of vehicles to and from the site enter and exit the site in a forward direction via the existing access established in Stage 1, thus continuing the safe and efficient movement of grain vehicles on adjacent public roads.
- With the closure of Vittera owned silos at Mallala, Two Wells and Tarlee and production increases due to favourable weather conditions harvest it is expected that higher yields will require additional storage for the grain growers in the Lower North of the State.
- The topography of the 'subject land' for the Stage 2 development requires minimal changes to the existing landform.
- The amended proposal has eliminated the need for 24 hours shipping operations and therefore reduce the impact of traffic movements through the Mallala township, especially after 10.00pm
- Stage 2 of the overall development of the site will be constructed to the north of the existing facility to minimise any impact on the adjoining landowners and also the users of the adjoining public roads.
- The development site is not contained within any floodplain and the grain storage facility constructed in 2020 was designed to ensure that the stored grain within the shed was not affected by flood inundation caused by prolonged inclement weather patterns, however the proposed Stage 2 grain Shed has been deleted from the amended application
- The 'subject land' is devoid of any native vegetation and therefore the proposal does not require the removal of any native vegetation to allow for the expansion of the existing facility to the north.
- The proposed development is adequately serviced by the necessary public infrastructure.
- The orderly nature of the development in its location; and
- The proposed development will not prejudice the attainment of the key policy provisions of the Rural Zone

In my opinion, the expansion of the existing grain storage and handling facility is essential for the forthcoming 2022 grain harvest, the land use already exists on the subject land, provides an alternative grain storage facility for local grain growers, will make a positive contribution to the locality, is a value adding activity to the primary production land use in the Mid North of the State and warrants the granting of Planning Consent.



Trevor V White  
Managing Director  
Planning Solutions (SA) Pty Ltd  
Rural and Urban Planners  
MURP MPIA Grad Cert Bldg & Planning, Dip B

# APPENDIX A

(Site Photographs)



PHOTOGRAPH No.1

DESCRIPTION: Photograph taken looking in a easterly direction showing the existing gates across the existing truck ingress and egress point. Grain vehicles that are marshalled in the truck marshalling area enter the site through this access point and empty grain vehicles exist through the same point.

Photograph provided by Planning Solutions (SA) Pty Ltd – 18 August 2021



PHOTOGRAPH No.2

DESCRIPTION: Photograph taken looking in an easterly direction showing the existing aboveground weighbridge, sampling Office and staff lunch area. As part of Stage 2 there will be no requirement for any extension to these facilities.

Photograph provided by Planning Solutions (SA) Pty Ltd – 18 August 2021





PHOTOGRAPH No.3

DESCRIPTION: Photograph taken from the Elevated Platform on the Sampling Office looking in a north-westerly direction showing the 10,000 tonne grain storage shed constructed in 2020. As part of Stage 2 expansion the second grain storage shed has been deleted from the proposed additional storage.

Photograph provided by Planning Solutions (SA) Pty Ltd – 18 August 2021



PHOTOGRAPH No.4

DESCRIPTION: Photograph taken from the Elevated Platform on the Sampling Office looking in a north-easterly direction showing extent of hardstand area that is used for bunker storage. There were 3 bunkers constructed as part of the Stage 1 construction in 2020. As part of the Stage 2 construction, it is proposed to construct 2 additional bunkers that have a capacity of 8,000 tonnes each

Photograph provided by Planning Solutions (SA) Pty Ltd – 18 August 2021



PHOTOGRAPH No.5

DESCRIPTION: Photograph taken looking in a northerly direction from the security fencing located on the northern aspect of Stage 1 that was constructed in 2020. Stage 2 will consist of an additional 2 bunkers located north of the existing Stage 1 development with the existing security fencing moved to the north to encapsulate the expanded facility.

Photograph provided by Planning Solutions (SA) Pty Ltd – 18 August 2021



PHOTOGRAPH No.6

DESCRIPTION: Photograph taken looking in a westerly direction from Owen Road showing the existing security fencing around Stage 1 that was constructed in 2020. Stage 2 will consist of an additional 2 bunkers located north of the existing Stage 1 development with the existing security fencing moved to the north to encapsulate the expanded facility.

Photograph provided by Planning Solutions (SA) Pty Ltd – 18 August 2021



PHOTOGRAPH No.7

DESCRIPTION: Photograph taken looking in a northerly direction from the existing access point to the truck marshalling area showing the area to the north of the existing facility that will be used for the construction of Stage 2 of the overall development. The area for the proposed Stage 2 development was last cropped in 2021 and was not sown in 2022 to allow for the proposed expansion.

Photograph provided by Planning Solutions (SA) Pty Ltd – 18 August 2021



PHOTOGRAPH No.8

DESCRIPTION: Photograph taken showing the existing access to the truck marshalling area located off Owen Road that was constructed as part of the Stage 1 development of the new grain storage and handling facility. Development of Stage 2 of the proposed facility will not require any changes or modifications to the existing access.

Photograph provided by Planning Solutions (SA) Pty Ltd – 18 August 2021



PHOTOGRAPH No.9

DESCRIPTION: Photograph taken looking in a southerly direction near the entrance to the truck marshalling area showing the extent of compacted crushed rock. Grain Vehicles marshal in this area prior to entering the site where the vehicles are sampled and the produce unloaded to the appropriate storage area.

Photograph provided by Planning Solutions (SA) Pty Ltd – 18 August 2021

# APPENDIX B

(Certificate of Title)

# CERTIFICATE OF TITLE

REAL PROPERTY ACT, 1886



VOLUME 5406 FOLIO 464

Edition 3

Date Of Issue 21/03/1997

Authority CONVERTED TITLE

South Australia

I certify that the registered proprietor is the proprietor of an estate in fee simple (or such other estate or interest as is set forth) in the land within described subject to such encumbrances, liens or other interests set forth in the schedule of endorsements.

REGISTRAR-GENERAL



## REGISTERED PROPRIETOR IN FEE SIMPLE

MALAVON NOMINEES PTY. LTD. OF 9TH FLOOR 111 GAWLER PLACE ADELAIDE SA 5000

## DESCRIPTION OF LAND

SECTION 246  
HUNDRED OF GRACE

## EASEMENTS

NIL

## SCHEDULE OF ENDORSEMENTS

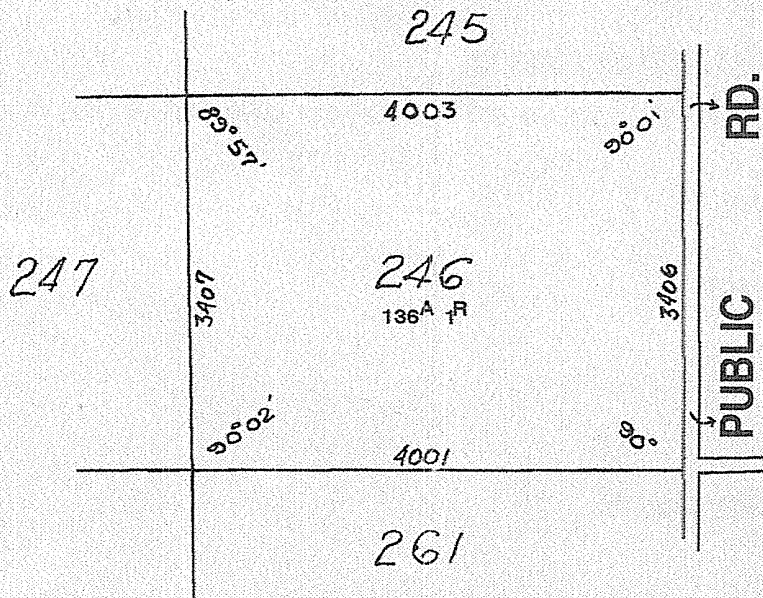
NIL

PAGE 1 OF 2

End of Text.

WARNING: BEFORE DEALING WITH THIS LAND, SEARCH THE CURRENT CERTIFICATE

3

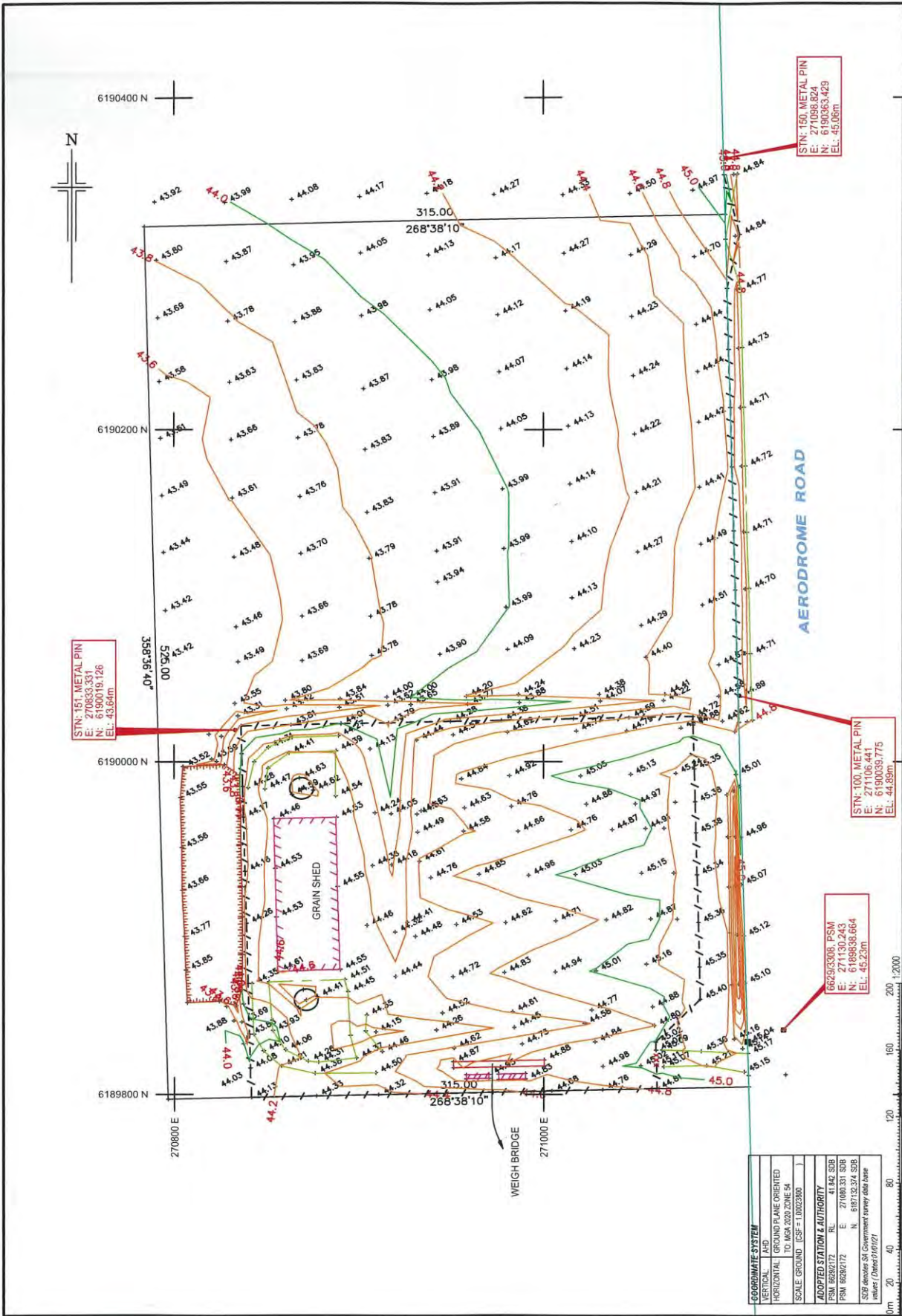


FOR METRIC CONVERSIONS	
1 LINK	= 0.201168 METRES
1 CHAIN	= 100 LINKS
1 ACRE	= 0.404686 HECTARES
1 ROOD	= 1011.7 m <sup>2</sup>
1 PERCH	= 25.29 m <sup>2</sup>

# APPENDIX C

(Concept Plans)





### DETAIL AND LEVEL SURVEY

## PLAINS GRAIN STORAGE FACILITY

### AERODROME ROAD

### MALLALA, SA

STN: 151, METAL PIN  
E: 270833.331  
N: 6190019.126  
EL: 43.64m

STN: 160, METAL PIN  
E: 271002.243  
N: 6190063.429  
EL: 45.06m

STN: 100, METAL PIN  
E: 271106.441  
N: 6190039.775  
EL: 44.89m

CONTOUR INTERVAL: 0.2  
SURVEY: HLD 66021  
DRAWN: HLD 110021  
CHECKED: [ ]

NAME: [ ]  
PROPERTY BOUNDARIES AND ASSESSMENTS SHOWN HEREON HAVE BEEN COMPILATED FROM GOVERNMENT RECORDS AND FIELD SURVEY DATA. BOUNDARIES HAVE NOT BEEN VERIFIED BY FIELD SURVEY. CONSTRUCTION OR DESIGN ON OR NEAR BOUNDARIES OR ASSESSMENTS WILL REQUIRE ADDITIONAL SURVEY WORK.

COORDINATE SYSTEM  
VERTICAL AND HORIZONTAL  
GROUND PLANE ORIENTED  
TO MGA 2020 ZONE 54  
SCALE GROUND (GSE) = 1:1002300

ADOPTED STATION & AUTHORITY  
PSM 86292172 RL 41.842 SDB  
PSM 86292172 E: 271000.331 SDB  
PSM 86292172 N: 6187132.374 SDB  
SDB Revision SA Government survey data base  
revised (Date: 07/01/2021)

662923308: PSM  
E: 271130.243  
N: 6199838.664  
EL: 45.23m

6190400 N

6190200 N

6190000 N

6189800 N

270800 E

271000 E

270000 E

268'38'10"

315.00

315.00

268'38'10"

0m 20 40 80 120 160 200 1:2000

LEGEND

- 6190400 N
- 6190200 N
- 6190000 N
- 6189800 N
- 270800 E
- 271000 E
- 270000 E
- 268'38'10"
- 315.00
- 315.00
- 268'38'10"
- 0m 20 40 80 120 160 200 1:2000

REVISION

NO. 0

SHEET 1 OF 1

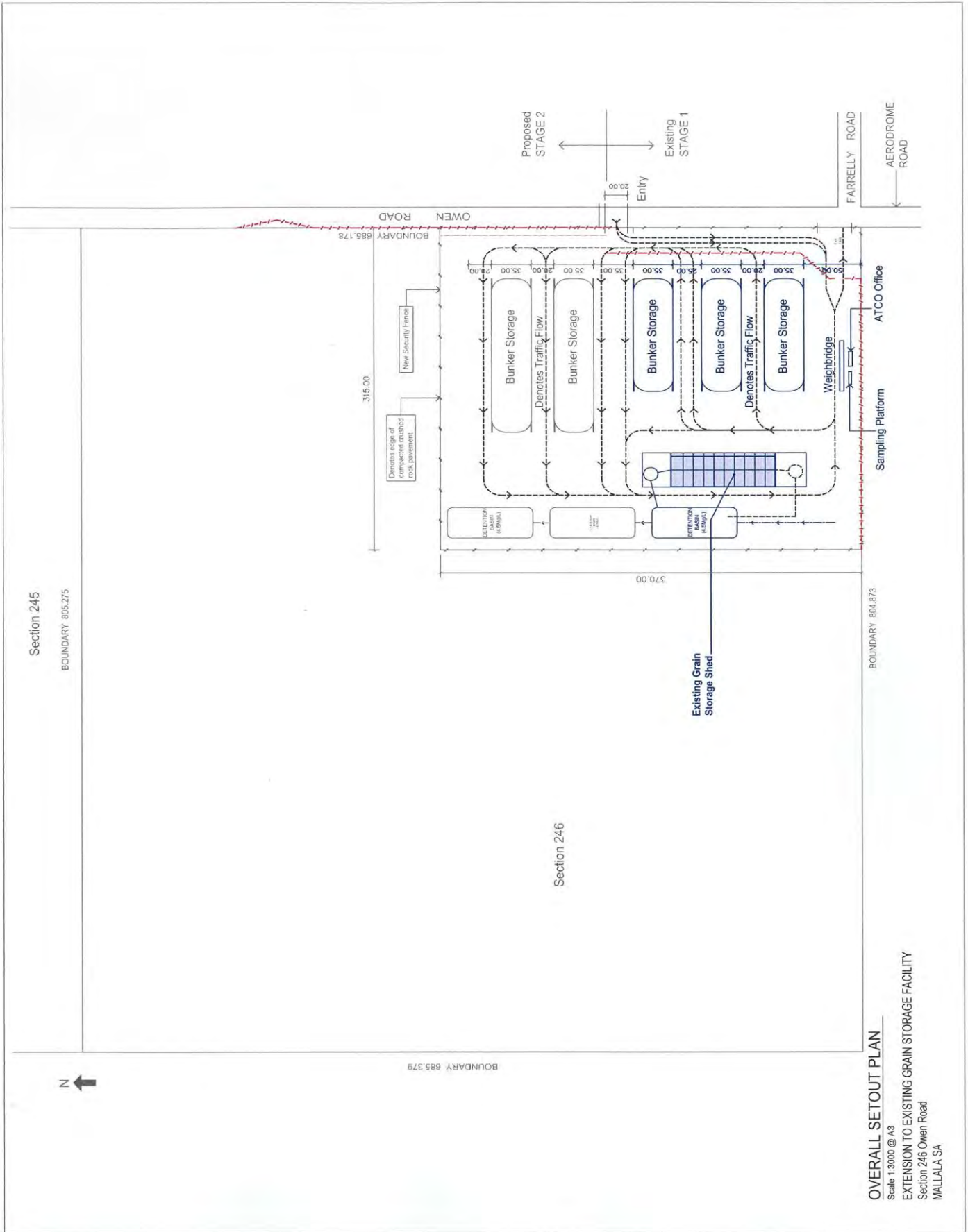
DRAWING NO. 20A0425 Plains Grain Det (0)

SHEET SIZE A3

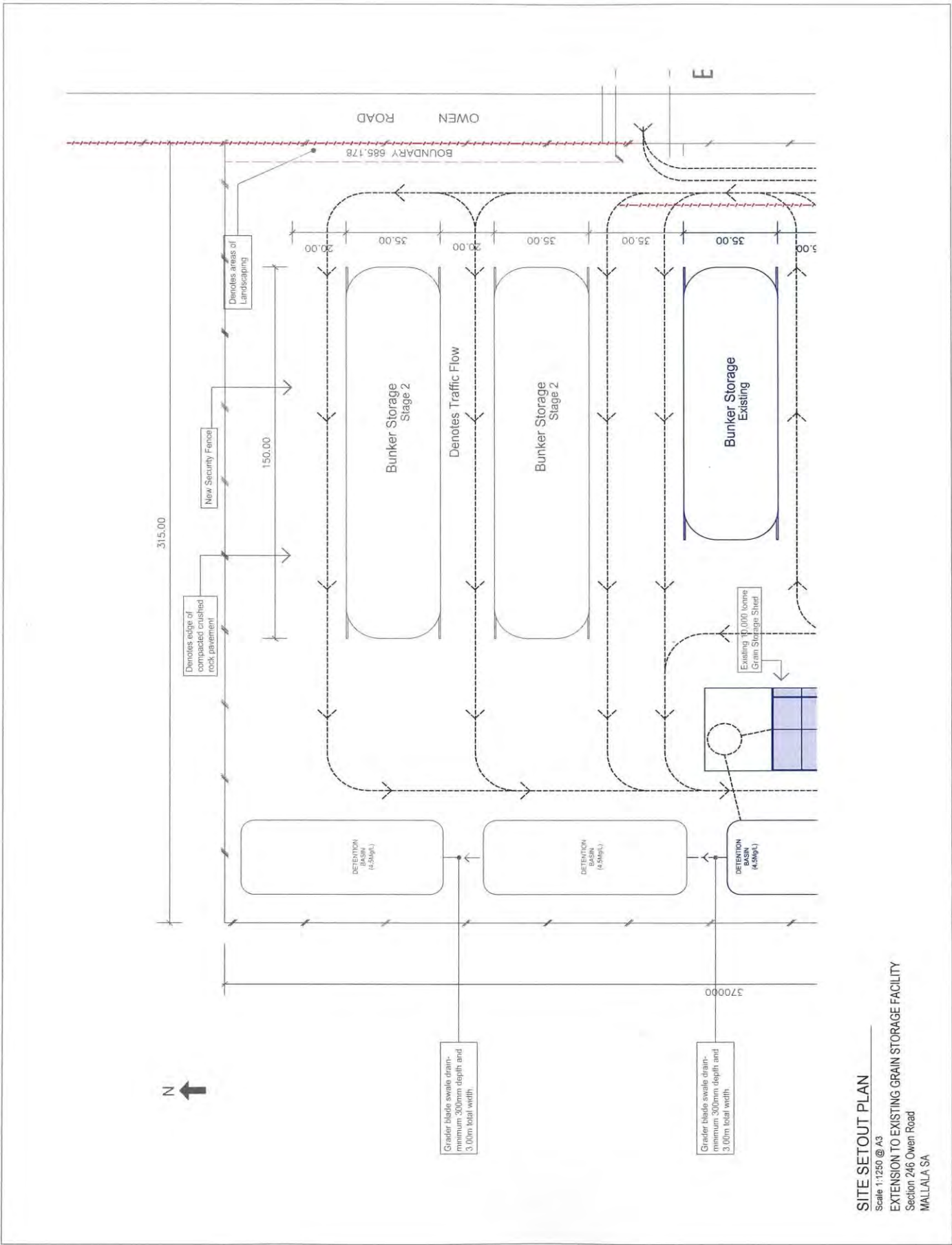
Alexander Symonds  
Surveying  
Consultants

Alexander & Symonds Pty Ltd  
55 King William Street Kent Town,  
SA 5067  
PO Box 1000 Kent Town, SA 5071  
ABN 9300773388  
T (08) 8120 1666  
F (08) 8362 8099  
W www.alexander.com.au  
E info@alexander.com.au

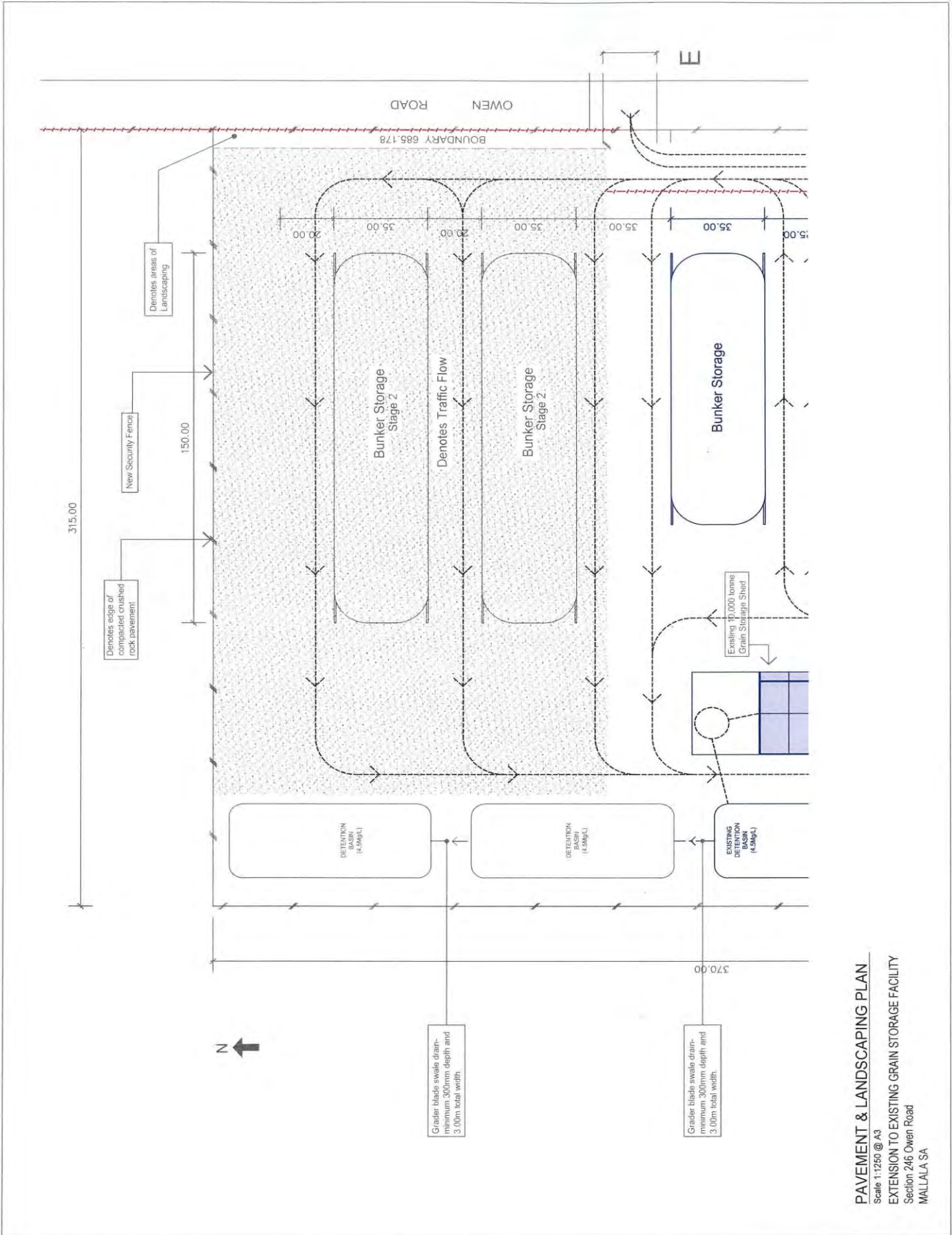
+ Property + Land Development +  
+ Construction + Mining +  
+ Special Information Management +



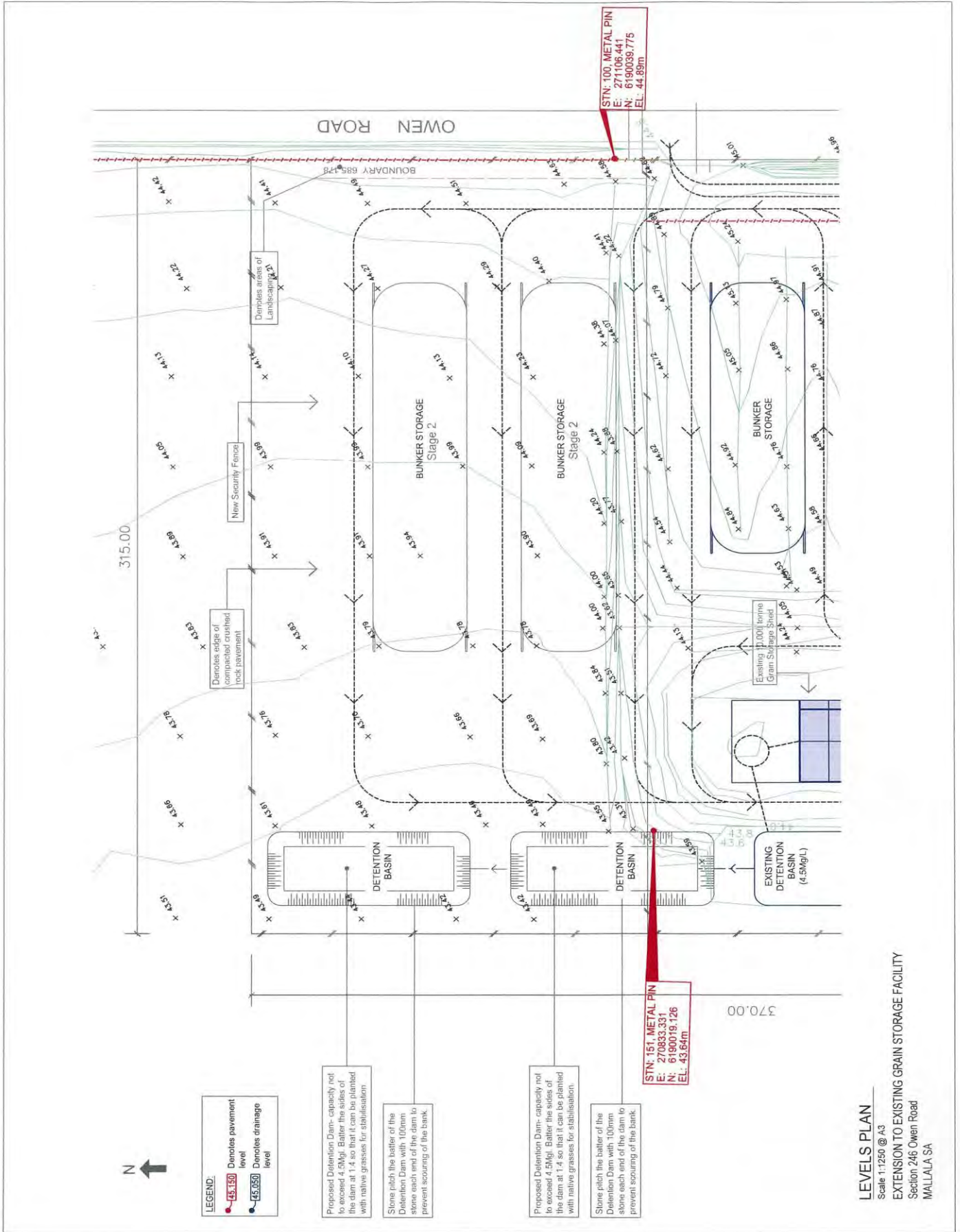
**OVERALL SETOUT PLAN**  
 Scale 1:3000 @ A3  
 EXTENSION TO EXISTING GRAIN STORAGE FACILITY  
 Section 246 Owen Road  
 MALLALA SA



**SITE SETOUT PLAN**  
 Scale 1:1250 @ A3  
 EXTENSION TO EXISTING GRAIN STORAGE FACILITY  
 Section 246 Owen Road  
 MALLALA SA



**PAVEMENT & LANDSCAPING PLAN**  
 Scale 1:1250 @ A3  
 EXTENSION TO EXISTING GRAIN STORAGE FACILITY  
 Section 246 Owen Road  
 MALLALA SA



**LEGEND:**  
● 43.150 Denotes pavement level  
● 45.050 Denotes drainage level

Proposed Detention Dam - capacity not to exceed 4.5Mg/L. Batter the sides of the dam at 1:4 so that it can be planted with native grasses for stabilisation.

Stone pitch the batter of the Detention Dam with 100mm stone each end of the dam to prevent scouring of the bank.

Proposed Detention Dam - capacity not to exceed 4.5Mg/L. Batter the sides of the dam at 1:4 so that it can be planted with native grasses for stabilisation.

Stone pitch the batter of the Detention Dam with 100mm stone each end of the dam to prevent scouring of the bank.

**LEVELS PLAN**  
 Scale 1:1250 @ A3  
 EXTENSION TO EXISTING GRAIN STORAGE FACILITY  
 Section 246 Owen Road  
 MALLALA SA

## Application Summary

Application ID	21025487
Proposal	Expansion of an existing Grain Storage and Handling Facility in the following Phases. STAGE 1 (2021) - construction of 3 additional bunkers, each of 6000 tonne capacity, earthworks and a 4.5 Mgl Retention Dam. STAGE 2 - (2022) - Construction of a 10,000 tonne Grain Storage Shed, internal roadworks relocation of 19-80 tonne storage bins from the SCS Osborne site.
Location	3 OWEN RD MALLALA SA 5502

## Representations

### Representor 1 - Teresa Woollatt

Name	Teresa Woollatt
Address	49 Aerodrome Rd MALLALA SA, 5502 Australia
Phone Number	0417210351
Email Address	teto69@bigpond.com
Submission Date	29/09/2021 11:40 AM
Submission Source	Online
Late Submission	No
Would you like to talk to your representation at the decision-making hearing for this development?	No
My position is	I oppose the development
	<p>This should be refused as the current noise levels and dust from this business exceeds the acceptable noise pollution limits. Last harvest we had Road Trains and B Doubles going past every 10 to 15 minutes in peak times including 24 hours a day. This is causing massive disruption to sleep even when windows and doors are closed the noise still sounds like they are driving through the house. I live in a solid stone home and with normal traffic we barely hear it. The current route through the town poses the added risk of going past the Primary School. Last harvest many trucks were also exceeding the speed limit. The current roads and infrastructure does not currently support this venture. The road from Mallala to Two Wells has been very badly damaged from excessive road train use, this road was not been designed for Road Train use. The impact this business is having on the mental health and wellbeing of the residents living along this route is beyond what is considered acceptable levels. A Heavy</p>

Reasons

Vehicle Bypass around the town should be the only option moving forward. The noise pollution caused by these vehicles far exceeds the acceptable limits for noise by EPA. We will be looking at getting independent legal advice and looking at compensation for loss of property value and the damage caused by all property owners along this proposed route. I have lived in this location for over 22 years it is a beautiful quiet country town location. In the last year the damage to the walls and cracking is excessive the whole house shakes with the vibrations caused by trucks. This business has now destroyed the peace and tranquillity we have enjoyed over the last two decades. We are now also looking at the loss of value in our properties and damage caused from trucks driving past. A Heavy Vehicle Bypass is the only option that should be approved. In conjunction with current underutilised bypass on Barraba Rd Mallala. The route should be Farrelly Rd - Davies Rd - Barabba Rd to Mallala Rd to Port Wakefield Highway. Alternately Farrelly Rd - Davies Rd - Wasleys Rd - Barabba Rd Mallala Rd to Port Wakefield Highway. Both of these routes would use the Heavy Vehicle Bypass in operation and sign posted as such. Please consider the impacts caused to all residents living along this route and the dangers it presents to our community.

## Attached Documents

SubmissionsReceivedByEmail-3OwenRoadMallala-1336227.pdf

## Martin Rutt

---

**From:** Woollatt, Teresa MRS <teresa.woollatt@defence.gov.au>  
**Sent:** Thursday, 30 September 2021 9:04 AM  
**To:** Info  
**Subject:** FW: Objection to Council application [SEC=UNOFFICIAL]  
**Attachments:** Council Letter.pdf

**Importance:** High

**UNOFFICIAL**

**UNOFFICIAL**

Attention David Roberts  
Senior Development Officer Planning  
Adelaide Plains Council  
PO Box 18  
Mallala SA 5502

Good Morning David

We have attached our letter outlining our grave concerns and objections regarding the expansion of the new business venture Plains Grains Brad Griffiths 3 Owen Rd Mallala Application ID 21025487 lodged on 01/09/2021.

The damage done to our road in the last 12 months has been unacceptable. Also we have had damage to our property with cracking caused by the constant vibrations of Road Trains and B Doubles driving past. This venture continues long after harvest finishes with loading ships at Port Adelaide, which is very time sensitive. The amount of damage done to the road to Two Wells this year has also caused a huge safety risk to all local residents and those that travel through our beautiful country town. The added risk to the local children at Mallala Primary School is also unacceptable. They walk along this route twice a day, god forbid one ran out in front of a truck. What risk assessments were completed before this venture was approved last year without any consultation with local residents that live along the route affected. The Noise Pollution is having a huge impact on the residents mental health and wellbeing. These trucks far exceed the acceptable noise levels of a residential area. Moving forward I will be documenting and recording all the noise pollution levels to be submitted to the EPA of South Australia during and after harvest this season.

We expect our objection to be taken very seriously. A Heavy Vehicle Bypass around the town is the only acceptable outcome moving forward. I look forward to hearing from the council with regards to your plans moving forward. We may need to pursue a legal path as a collective of residents moving forward if a satisfactory outcome cannot be achieved. I have also submitted an objection with PlanSA.

Regards

Teresa Woollatt  
49 Aerodrome Rd  
Mallala SA 5502  
0417 210 351

[teresa.woollatt@defence.gov.au](mailto:teresa.woollatt@defence.gov.au)  
[teto69@bigpond.com](mailto:teto69@bigpond.com)



Mr David Roberts  
Senior Development Officer Planning  
Adelaide Plains Council  
PO Box 18  
MALLALA SA 5502

29<sup>th</sup> September 2021

We would like to express our grave concerns and objections regarding the expansion of the new business venture that is having a very negative impact on our lives and the residents around us.

I understand that the new grain storage facility is now in operation at Plains Grains 3 Owen Rd Mallala. Considering the implications and disruption which this enterprise is already causing, a written letter to all affected owners should have been sent out when it was first opened in Nov 2020. We then could have submitted our concerns and objections before approval. I have been informed by another concerned rate payer they are looking at 24/7 approval. Last harvest they were already doing this, obviously without approval if they are only applying for these hours of operation now.

Why has an alternate freight route not been established reducing the risk to residents and children? Many trucks travel at speed through the town causing a huge risk to lives also several have been spotted not stopping the Stop sign. We already have a heavy freight route that is not utilised along Barabba Rd, I believe all this traffic should be diverted around the town. So that the quiet country town that we moved to can continue to be maintained.

The current road and infrastructure is not designed for this type of use, especially with all the damage done during work from recent water works and common effluent systems. Sounds like they are driving over speed humps. I am very concerned with what damage is being caused to our buildings. It makes everything shake I live in a solid stone home and normally don't even hear cars going past. I have lived at 49 Aerodrome Rd now for over 20 years and the amount of cracking in the last 12 months is huge.

Since the start of November 2020 what approvals have been put in place for Road Trains to travel on Aerodrome Rd / Owen Rd Mallala? Since the beginning of November 2020 the increase has been dramatic with them going past often every 10 to 15 minutes. I understand that when harvest is in full swing, but in the last 20 years of living at 49 Aerodrome Rd Mallala I have never experienced anything like the current volume. They are also going 24/7 which is causing huge disruptions to people being able to sleep. I have been woken several times during high peak times and in the early hours of the morning it sounds like they are crashing into the house.

I have lived in Mallala for over 20 years and this is having a very detrimental impact on everyone living along this routes health and wellbeing. The other concern is some are not adhering to speed limits which is also of huge concern. As the local Primary School is on this route is also a large risk.

I would like to know what risk assessments were done with regards to this road becoming a freight route with road trains. Many people walk out to the race track for fitness and exercise. The impact on our mental health during harvest is very detrimental, from the noise pollution and dust alone let alone the damage to local infrastructure.

We will also be getting some independent advice as to what the loss of property values will be for all concerned property owners. As a collective we will be looking at pursuing compensation as to the loss to our property values and damage to infrastructure and properties.

The current road is not designed for this type of use especially with all the patch work from recent water works and new sewage systems. Sounds like they are driving over speed humps.

I think council needs to seriously consider the impact caused by this business to all residents along Aerodrome and Adelaide Rd's in Mallala. I think an independent study should be done with consultation with the EPA. With regards to the neighbourhood nuisance.

For an activity to be considered a nuisance, it must unreasonably interfere with our ability to undertake normal activities that you would reasonably expect to be able to do. Most reasonable hours for noise are 7am to 7pm Monday to Saturday. Last harvest this was far exceeded with no windows or doors being able to be left open 24/7.

This business is creating a very large amount of noise pollution to what once was a very quiet location with only sporadic use of the race track which is not done past 11pm.

Please advise what you are going to do for all the other rate payers along this route to come to a safe and logical outcome moving forward. The perfect solution would be to organise an alternate route / bypass for all road trains and b double trucks which will cause a lot less disruption and unbearable noise pollution going through the town 24/7.

Obviously there are other forms of reducing the noise pollution along the current route, but who is going to pay for any of this. We are entitled to live in clean peaceful environment. Acceptable levels of noise at night should not exceed 45 dB LAeq and 60 dB LAmx so that people may sleep with windows open. These values have been obtained by assuming that the noise inside with the window partly open is 15 dB. What are you going to do so that these levels can be maintained? A safe or acceptable noise level for constant background noise of 80-90 db. I would not believe these levels have been met so far. The noise when constant road trains and b doubles go past far exceeds this.

A Heavy Vehicle Bypass is the only option that should be approved moving forward. In conjunction with current underutilised bypass on Barraba Rd Mallala. The route should be Farrelly Rd - Davies Rd - Barabba Rd to Mallala Rd to Port Wakefield Highway. Alternately Farrelly Rd - Davies Rd - Wasleys Rd - Barabba Rd Mallala Rd to Port Wakefield Highway. Both of these routes would use the Heavy Vehicle Bypass in operation and sign posted as such.

I will be raising my concerns with regards to the noise pollution caused by this venture with the EPA. From the start of this harvest I will be monitoring and documenting all the noise and dust pollution caused by this venture. Also we may need to approach the media in different forms to raise awareness to the lack of consideration taken by Adelaide Plains Council by normal rate payers affected by the business.

Regards *Teresa Woollatt*

Todd & Teresa Woollatt  
49 Aerodrome Rd Mallala SA 5502  
Teresa 0417 210 351 Todd 0400254096

# Representations

## Representor 2 - Jane Farrelly

Name	Jane Farrelly
Address	14 Aerodrome Rd MALLALA SA, 5502 Australia
Phone Number	+61447210663
Email Address	jane@justtherapy.com.au
Submission Date	30/09/2021 03:11 PM
Submission Source	Online
Late Submission	No
Would you like to talk to your representation at the decision-making hearing for this development?	Yes
My position is	I oppose the development
Reasons	<p>There are some key requests in the Development application that will adversely effect residents in the township of Mallala. My main concerns, and reasons I do not support this application are due to the route to and from the storage facility and the extended operating hours that have been applied for. Of particular concern is the outloading to the export terminal. My family and I reside at 14 Aerodrome Road and unfortunately endured the outloading operation from Plains Grains to the export terminal in 2020/2021. During this period loaded trucks entered the township every 10 minutes and empty trucks also drove through town every 10 minutes. Effectively a truck was driving past our home every 5 minutes. The outloading regularly continued throughout the night which made it impossible to sleep and severely impacted the functional capacity and mental health of everyone in our home. We felt trapped in our home, not being able to have windows open, entertain outdoors or sleep due to the relentless never ending and excessive noise of truck activity in our street. Our Council rate assessment and invoice is based on our property being a residential property. It is unreasonable and detrimental to the community in the residential township that trucks pass through the town so frequently and relentlessly for extended periods of time. I believe the first Development application was approved with extended operating hours until 10pm during busy periods. Unfortunately the owners of Plains Grains did not adhere to this curfew, running trucks throughout the night with no regard to the impact their operation had on residents in the township. Trucks should outload via a heavy vehicle bypass which would eliminate this issue for Mallala residents. There is currently a heavy vehicle bypass</p>

which would be convenient for trucks outloading from Plains Grains to export terminals. Aerodrome Road is in poor condition which contributes to the excessive noise as trucks pass through, particularly when they are empty as they bounce and bang along the road. The Development application is very vague and misleading particularly regarding the outloading operation. It includes estimated duration of inloading during harvest but there is no reference to the outloading duration or frequency. Given the applicant has applied to triple the grain storage capacity of the site, outloading potentially could take months. This would make living in our residential township untenable and severely impact the well being and mental health of residents unless trucks were diverted around the residential areas. I also oppose the extended 24/7 operating hours. The application addresses noise levels within the Rural Zone site and the adequate separation distance to all the nearest farmhouses (sensitive receptors). If truck movement occurred only on the Plains Grains storage site there would not be an issue. However, most used access routes to and from the site travel through the Mallala township. It is unacceptable that residents are expected to be exposed and affected by 24/7 noise caused by truck movement. Once again, there is an existing heavy vehicle bypass from Plains grain sites to Adelaide Road which if used would minimise the impact on everyone living in Mallala town. In summary I object to: The facility operating 24/7 during busy periods. This is unreasonable and unnecessary. The selected route to the facility during outloading is not acceptable and trucks need to bypass the Mallala township.

## Attached Documents

## Representations

### Representor 3 - Martin Moyse

Name	Martin Moyse
Address	61 Castle Street EDWARDSTOWN SA, 5039 Australia
Phone Number	
Email Address	mmoyse@dodo.com.au
Submission Date	01/10/2021 08:08 AM
Submission Source	Online
Late Submission	No
Would you like to talk to your representation at the decision-making hearing for this development?	No
My position is	I support the development with some concerns
Reasons	No problems for us, we own the paddock diagonally opposite, Section 79. Only issues I see are traffic, particularly through town centre, past school etc. Though I note the application suggests a neutral effect on those, as the facility will be servicing more northern areas. If there's additional heavy traffic from the north on the unsealed roads that we use, like Aerodrome and Fidge, our only personal concern is that the condition of those roads is maintained to same existing standard. Thanks

### Attached Documents

## Representations

### Representor 4 - Clare Whitwell

Name	Clare Whitwell
Address	17 Adelaide Road MALLALA SA, 5502 Australia
Phone Number	+61439878460
Email Address	kpbruggemann@bigpond.com
Submission Date	01/10/2021 10:55 AM
Submission Source	Online
Late Submission	No
Would you like to talk to your representation at the decision-making hearing for this development?	Yes
My position is	I support the development with some concerns
Reasons	Since the establishment of Plains Grain the frequency of heavy vehicles heading in and out of Mallala and therefore past my residence has increased the noise level and vibrations in the house significantly. We have three small children and often found it difficult last year to settle and sustain their healthy sleep patterns due to increased truck traffic and noise past our house. While I support their expansion I strongly object to any extended inloading and outloading hours, this would make it extremely difficult for our family during the harvest period.

## Attached Documents

## Representations

### Representor 5 - Frank Svetec

Name	Frank Svetec
Address	16 AERODROME ROAD MALLALA SA, 5502 Australia
Phone Number	+61403555906
Email Address	franksvetec@hotmail.com
Submission Date	05/10/2021 10:28 AM
Submission Source	Email
Late Submission	No
Would you like to talk to your representation at the decision-making hearing for this development?	No
My position is	I oppose the development
Reasons	Refer email

### Attached Documents

SubmissionReceivedByEmail-3OwenRoadMallala-1336197.pdf

## **Martin Rutt**

---

**From:** frank svetec <franksvetec@hotmail.com>  
**Sent:** Thursday, 30 September 2021 10:35 PM  
**To:** Info  
**Subject:** Re: 3 Owen Road, Mallala – Grain Storage Facility (21025487)  
**Attachments:** Plains Grains Representation.docx

Attention Mr Martin Rutt,  
Planning Officer,  
APC

Dear Martin,

Please find attached my representation concerning the above Development Application.

I would appreciate if you could confirm by return email that you have received my representation.

Thank you,  
Frank Svetec

0403555906  
16 Aerodrome Road, Mallala  
South Australia, 5502



Development application for 3 Owen Road, Mallala – Grain Storage Facility (21025487)

Dear Mr Martin Rutt,

Please find below information and reasons supporting my representation outlining objections to the above Development application (21025487).

- *The proposed bulk handling activity is not consistent with the Rural Zoning for the site. Existing grain storage facilities (i.e. AWB at 62 Mallala Road (CT6054/203) is zoned as Employment (Bulk Handling) which is an example of appropriate zoning for a land use activity of that proposed in the Planning Report.*
- *Rural Zone – PO 4.3 - As identified within the Planning Report, the proposal is not consistent with the DTS provisions. When assessed on its performance, it is considered that a setback of below 100m will significantly impact on the rural character and landscape amenity.*
- *Inconsistency between what is identified as being constructed in Stage 2 – Phase 1.*
  - o *Letter from Mr Trevor White identifies that the relocation of 19-80 tonne grain storage bins will be relocated from the SCS site at Osborne to Mallala will occur in Stage 2 – Phase 2 in 2022*
  - o *The Planning Report identifies that the relocation of 19-80 tonne bins from the SCS will occur as part of Stage 2 – Phase 1.*
  - o *Planning Report also identifies that the relocation of 19-80 tonne bins from the SCS will occur as part of Stage 2 – Phase 2.*  
*This needs to be clarified prior to contemplation of any decision being made.*
- *While it is correct that the actual site itself will likely have minimal impact from an environmental perspective (noise/dust), consideration of 'sensitive receivers' should be extended to the township of Mallala. This should be considered as the increased intensity of operation of this site and the proposed operational hours will result in significantly increased heavy vehicle movements through the Mallala township during the Harvest period and during the transfer of grain to the export terminal in order to meet shipping timeframe, resulting in a diminished amenity for residents.*
- *The proposal is not consistent with the Interface between Land Uses – PO 4.1*
  - o *The proposal will result in significantly increased noise impacts through the movement of vehicles through the Mallala township (potentially 24 hours a day) that will impact on the amenity of residents within the Mallala township.*  
*Therefore it is considered that Interface between Land uses provision 4.1 cannot be met.*

- *General Provisions: Bulk Handling and Storage Facilities – PO 1.1*
  - *The proposed facility is anticipated to handle materials in excess of 100 tonnes per day when operational, therefore the requirement for being 300m or more from residential premises does not apply.*
  - *Given the size and operational hours (700 tonnes per day, with approximately 14 truck movements with an in-load of 50 tonnes), it can be argued that the interface between land uses extends to the operational routes which vehicles are expected to take to access the site.*
  - *It is considered that the PO 1.1 cannot be met as the proposed bulk handling and storage facilities are not designed and sited to minimise noise impacts on sensitive receivers.*
  - *Vehicle movements to and from the site, particularly the use of brakes (including air brakes) through the Mallala township to reach the proposed site will result on significant noise disruptions to sensitive receivers – particularly if operating outside the proposed 7am – 7pm general operational hours.*
  
- *Under section 4.0 – Proposal – Access to “Subject Land” and section 4.0 – Proposal – Vehicle movements, there is no mention of vehicle movements concerning grain transfers to the export terminal at Port Adelaide. When this is occurring vehicle movement is solely via Aerodrome Road to the grain storage facility and then back to the grain export terminal resulting in very significant and detrimental noise disruptions to property owners residing on Aerodrome Road contributing to poor physical and mental health.*
  
- *Consideration should be given to the increased activity of vehicles conflicting with existing uses within the Mallala township such as the Mallala Primary School which fronts Aerodrome Road, particularly during school drop off and pick up and when the site is proposed to operate on a 24 hour basis. The potential for serious injury and death to a student is extremely high.*
  
- *Access to and from the site for southern vehicle movements should be via Marshman Road/Trager Road and Farrelly Road/Davies Road and avoid the central Mallala township.*
  
- A Traffic Impact Assessment should be developed to understand the likely vehicular impacts during harvest season and to Port Adelaide.
- A Traffic Management Plan should be prepared identifying the requirements for access to and from the site during harvest and to and from Port Adelaide, it should consider:
  - requiring vehicles to access the site using transport routes that avoid the township of Mallala.

Ref: PS/TW711/tw

29 August 2022

Mr Martin Rutt  
Assessment Officer – Planning  
Adelaide Plains Council  
PO Box 18  
MALLALA SA 5502



RURAL & URBAN  
P L A N N E R S

Dear Martin,

RE: DA 21025487 – RESPONSE TO WRITTEN REPRESENTATIONS RECEIVED IN RELATION TO THE EXTENSION TO AN EXISTING BULK GRAIN STORAGE AND HANDLING FACILITY LOCATED ON SECTION 246, OWEN ROAD AT MALLALA

In response to the public notification required for the proposed development, legal representations were received by the Adelaide Plains Council in relation to DA 21025487 and forwarded to the applicant, pursuant to Section 107(3)(c) and 110(2)(c) of the *Planning, Infrastructure and Development Act 2016*. Planning Solutions (SA) Pty Ltd have been authorised by the applicant to prepare and submit the following response to the written representations received, pursuant to Section 51(1) of the *Planning, Development and Infrastructure Regulations 2017*.

This response addresses the issues raised in the written representations and has been prepared in consultation with the Applicant (Mr Brad Griffiths) and the document has also been reviewed by the same, prior to submission to the Barossa Council via the Plan SA portal.

This document will provide a formal response only to the following planning issues raised in the written representation received by the Adelaide Plains Council at the close of the public notification in relation to Development Application 21025487. There were five (5) written representations received during the public notification period with two (2) indicating they supported the proposed development, with concerns and the remaining three (3) were opposed to the proposed development relating to the extension to an existing Bulk Storage and Handling facility located on Section 246, Owen Road in the area known as Mallala.

The planning issues raised in the written representation are listed below:

1. *Noise impacts caused by vehicles through the town of Mallala*
2. *Impacts caused by 24 hours/7 days operations during harvest and outturning operations.*
3. *Increased traffic due to Plains Grain.*
4. *Grain vehicles exceeding the speed limit, especially through the town and past the school.*
5. *The proposed bulk handling activity is not consistent with the Rural Zone.*
6. *Setbacks are less than 100 metres and significantly impacts on the rural character and landscape amenity.*
7. *Relocation of the 19-80 tonne bins from the existing SCS site at Osborne.*
8. *It is considered PO 1.1 cannot be met as the proposed bulk handling and storage facilities are not designed and sited to minimise noise impacts on sensitive receivers.*

Prior to providing a response to the issues raised above there have been significant changes made to the proposed expansion of the Plains Grain facility for Stage 2 along with operational changes.

The most significant changes have been made to the extent of Stages to with the following components being deleted from the proposed expansion.

- The 19 – 80 tonne bins that were to be relocated from Osborne to the Mallala have been deleted from the expansion;
- The second 10,000 tonne grain storage shed has been deleted; and
- The number of bunkers in Stage 2 have been reduced from 3 bunkers to 2 bunkers with the proposed two bunkers having a capacity of 20,000 tonnes making the total capacity of the site when Stage 2 is completed to be 48,000 tonnes.

There have also been significant changes in the hours of operations and also the need for 24 hour shipping:

#### Amended Hours of Operation:

The proposed operating hours of the expanded facility has been categorized into normal and extended operating hours. The type of operating hours has been based on issues such as:

- availability of grain and grain source:
- availability of grain vehicles to deliver grain when required:
- weather condition during harvest:
- deadlines at Export Terminals to meet shipping requirements:
- shipping schedules and loading capabilities.

#### Normal operating hours:

- Normal operating hours would be between 7.00am to 7.00pm, seven (7) days a week, if required.

#### Extended operating hours:

However, it may be necessary to operate the expanded facility for extended hours especially during the grain harvest period and also when outturning of grain. The extended operating hours will allow the operators of the new grain facility to provide a required level of service to existing and future clients.

- Extended operating hours would be between 6.00am to 10.00pm, seven (7) days a week, if required.

The operating hours have been drastically reduced and therefore outloading for shipping will only occur up to 10.00pm, if required.

It is the **applicant's** belief that these significant changes will negate many of the issues raised as a result of the original application for the Stage 2 expansion.

#### Issue 1 and 2:

1. *Noise impacts caused by vehicles through the town of Mallala*
2. *Impacts caused by 24 hours/7 days operations during harvest and outturning operations.*

#### Response 1 and 2:

The number of vehicle movements through the Mallala township will be significantly reduced with no outloading from the site occurring after 10.00pm and as indicated above there will be no 24 hour transfers to meet shipping requirements from the site will be done during extended operating hours which concludes at 10.00pm.

The level of noise from the movement for grain vehicles along Aerodrome Road will be significantly reduced as a direct result in the changes to the original grain movements.

#### Issue 3:

- 2 *Increased traffic due to Plains Grain.*

#### Response 3:

From the mapping of deliveries undertaken by the applicant for future deliveries to the Plains Grain site, approximately 30,000 metric tonnes or 79% of the total deliveries came from a catchment North to North East of the site. The 30,000 metric tonnes (mt) was received at an average of 35mt per consist which equates to a total of 857 individual movements that were reduced moving through the town at the peak of harvest.

This grain was moved to the terminals in Adelaide at 60mt per consist throughout the next 6 – 8 months of which reduced the total individual freight task or traffic by 40%.

The applicant still has to move the grain from the facility to local, interstate and overseas markets, but this activity is undertaken over a longer period of time than the annual harvest intake period and is also undertaken during the normal daylight hours, up until 10.00pm, hence the impact on the Mallala township is reduced and the number of vehicle movements spread over an longer period.

The changes the applicant has made to the extent of the Stage 2 extension along with the changes in the operating hours will reduce the number of vehicle movements through the Mallala township.

#### Issue 4:

- 4 *Grain vehicles exceeding the speed limit, especially through the town and past the school.*

#### Response 4:

The existing Plains Grain facility operators (the applicant) want to minimise any impact on the residential component in the Mallala township and as such provide the following information to carriers when transferring grain from the existing facility:

Every carrier that delivers grain to the Plains Grain facility is provided with an Information Package which includes information, but is not limited to the following:

- Vehicles when outturning grain to the terminal will not be dispatched from the site if they are overloaded;
- Traffic Management Plan that applies to the movement of vehicles within the Plains Grain site, including complying to the 10kph speed limit within the site;
- Safety requirements on the site including the need for all drivers to wear the appropriate safety equipment;
- As outloading during the harvest intake period currently uses Aerodrome Road the drivers are advised that speed limit between the site and the outskirts of the Mallala township is not to exceed 60kph;
- The carriers are also advised that speed limit through the Mallala township should not exceed 30kph due to the speed humps on Aerodrome Road caused by recent water and community wastewater management installations.
- No carrier will be loaded and allowed the leave the grain storage facility after 10.00pm each day

As it can be seen from the above every effort is being made by the applicants to minimise any impact on the residential land uses within the Mallala township.

#### Issue 5:

- 5 *The proposed bulk handing activity is not consistent with the Rural Zone.*

#### Response 5:

In 2020 when the original application was lodge with Council the subject land was contained within the Primary Production Zone of the Mallala Development Plan (18 December 2018 – consolidation).

PDC 1 of the Primary Production Zone, states the following:

*The following forms of development, or combination thereof, are envisaged in the zone:*

- **bulk handling and storage facility**
- **commercial forestry**
- **dairy farming**
- **farming**
- **horticulture (including enclosed horticulture such as greenhouses)**
- **land-based inland aquaculture**
- **intensive animal keeping**

- *tourist accommodation (including through the diversification of existing farming activities and conversion of farm buildings)*
- *wind farms and ancillary development*
- *wind monitoring mast and ancillary development.*

Hence the existing Plains Grain bulk handling and storage facility is clearly an envisaged use within the zone.

Since the original application was lodged and approved by Council the State Government has introduced a new planning framework, including the introduction of the Planning & Design Code.

The only changes the new legislation has made is to change the name of the zone from 'Primary Production Zone' to 'Rural Zone' and introduced setbacks from allotment boundaries. The initial stage of the existing Plains Grain facility was designed to be setback 50 metres from the primary road frontage as there was no setbacks nominated in Council's Development Plan.

As the effective operations of any bulk grain storage and handling facility is focused on the efficient and effective movement of traffic within the site and therefore Stage 2 was designed on the layout of Stage 1 which triggered the requirement for public notification. However, had Stage 2 been designed to comply with the new setbacks, then there would have been no requirement for Stage 2 to be publicly notified.

#### Issue 6:

- 6 *Setbacks are less than 100 metres and significantly impacts on the rural character and landscape amenity.*

#### Response 6:

The location of bulk storage and handling facilities is not uncommon in the Rural Zone, in actual fact the Rural Zone is the most appropriate zone for such a facility. Due to the significant cost of permanent storage bunker storage is an effective and efficient method of grain storage and therefore bunkers are becoming the 'norm' with this form of storage located at a significant number of the 120 grain storage facilities in the State.

As outlined in Response 5 above the setback when the original Stage 1 was constructed had no specific setback requirements and it was agreed that 50 metres was deemed to be an appropriate setback at the time. With the introduction of the new planning framework saw the introduction of a 100 metre setback in the rural zone. However, for operational reasons and to promote safe and efficient movement of grain vehicles within the site a staggered layout of infrastructure becomes inefficient and hence the 50 metres setback was maintained.

#### Issue 7:

- 7 *Relocation of the 19-80 tonne bins from the existing SCS site at Osborne.*

#### Response 7:

At the time of developing the expansion to the existing Plains Grain facility the primary purpose of the expansion was to cater for the predicted 2021/2022 harvest, which PIRSA at the time of lodgement of the Development Application predicted an 8.80 million tonne harvest, which would have been the fourth (4<sup>th</sup>) largest harvest experienced in the State. As part of the initial thinking the applicant thought at the time small segregation bins would have been an added asset for the overall storage provisions.

However, since the 2021/2022 harvest did not reach the predictions anticipated combined with a review of the overall capacity of the facility moving forward the decision has been made by the applicant to delete the bins from Stage 2. However, in the future a silo system may be in place.

In addition, it was also deemed that 19-80mt silos would be inefficient to fill at harvest with the potential for spillage or waste. Any future staged silo system that is planned for the site would be on a smaller footprint than what 19 initial silos would occupy with efficiency on-load and rural aesthetics a determinant on the final design.

#### Issue 8:

- 8 *It is considered PO 1.1 of the General Provisions of the Bulk Handling and Storage Facilities cannot be met as the proposed bulk handling and storage facilities are not designed and sited to minimise noise impacts on sensitive receivers.*

Response 8:

The proposal does meet DO 1.1 of the General Provisions in the Bulk Handling and Storage facilities as the minimum requirement for facilities handling more than 100 tonnes per day is 300 metres from sensitive receivers that are not associated with the facility.

The following built form is located in the immediate locality of the existing site. It should be noted that all of the land uses listed below are surrounded by existing primary production activities. It should also be noted that the separation distances listed below for dwellings (farmhouses) are all greater than the 300 metre suggested in DTS/DPF 1.1(b) of the Bulk Storage and Handling General Module

Refer to Table below for land uses and separation distances:

Land Use	Direction from Development Site	Distance in Kilometres
Farmhouse 1 (sensitive receptor)	Directly East of Dev Site	1.60 kilometres – is owned by applicant
Farmhouse 2 (sensitive receptor)	South East	1.35 kilometres
Farmhouse 3 (sensitive receptor)	South West	2.35 kilometres
Farmhouse 4 (sensitive receptor)	North West	1.80 kilometres
Mallala Motorsports Park	South	0.75 kilometres from the site to the Most northern part of the racetrack

The development site is located 2.70 kilometres north of the Mallala township along Owen Road (also known as Aerodrome Road) and due to the separation distance, it is deemed the proposed development will have no impact on the Mallala township from an environmental perspective (noise from the site or any dust generated by the movement of traffic around the site).

However, the concerns raised in the representations have been considered at length which also prompted the applicant to reduce the size of the Stage 2 extension and also not undertaking shipping requirements after 10.00pm which will reduce the number of vehicle movements through the township after 10.00pm.

Reference has also been made to the Environment Protection (Noise Policy) 2007 which identifies daylight hours between 7.00am until 10.00pm and night time hours between 10.00pm and 7.00am the next day and the applicant also wanted to ensure that the operations were contained within the EPA Noise guidelines, thus reducing the impact on the residential components within the Mallala township

Should you have any queries regarding the information provided, please do not hesitate in contacting the undersigned in the first instance by telephone on 0420 501 680 or by email at [trevor@planningsolutions.com.au](mailto:trevor@planningsolutions.com.au).

Yours sincerely

Trevor V White  
Managing Director

MURP MPIA Grad Cert Blg & Planning, Dip Bus

att: Amended Planning Report and associated documents have been provided to Council

cc: Mr Brad Griffiths, 121 Farrelly Road, MALLALA SA 5502

<b>Application Number</b>	N/A
<b>Applicant</b>	Integrated Waste Services Pty Ltd
<b>Nature of Development</b>	Variation to Major Development Authorisation – Amendment to Environmental Impact Statement
<b>Subject Land</b>	IWS Northern Facility Lot 76, 99 Lemmey Road, Lower Light
<b>Zone</b>	Rural Zone
<b>Subzone</b>	N/A
<b>Overlays</b>	Environment and Food Production Area Hazards (Acid Sulphate Soils) Hazards (Bushfire – General) Hazards (Bushfire – Medium Risk) Hazards (Flooding – Evidence Required) Interface Management Major Urban Transport Routes Native Vegetation State Significant Major Vegetation Traffic Generation Development Water Resources
<b>Technical Numeric Variation</b>	Minimum Site Area 40ha
<b>Relevant Authority</b>	State Planning Commission
<b>Category of Development</b>	Major Projects / Impact Assessed
<b>Recommendation</b>	Provide report and comments to State Commission Assessment Panel

### **BACKGROUND**

The solid waste landfill development, now commonly known as the IWS Northern Facility, was and remains declared a major development under Section 46 of the former Development Act 1993. The development was originally approved by notice in the Government Gazette in 1998 with an Environmental Impact Statement (EIS) being the level of assessment.

There have been a number of subsequent changes to the original approval to increase the range of waste streams, alter the configuration of the facility, and to add buildings and other infrastructure. Further minor



variations over the last three years have included configuration changes, expansion of the bioremediation pad and construction of a large building to internalize material processing.

The applicant has identified a need to vary the proposal to avoid lengthy assessment processes for minor changes to the proposal. Refer to **Attachment 1** for a copy of the 'Addendum to EIS' report forming this application.

Section 1.2 of the report details the full rationale behind this application.

Council was notified of the proposal and the application is visible on Plan SA's website for the general public.

## Major projects / Impact assessed development

Developments that have been declared as impact assessed by the Minister, or prescribed by regulations.

[Learn more about impact assessed developments](#)

All South Australians can [have their say](#) about impact assessed projects that are notified.

### Development Number

N/A

### Applicant

Integrated Waste Services (IWS)

### Subject Land

Lemmey Road, Lower Light (various allotments)

Vary the existing development authorisation to provide increased flexibility in future internal cell configuration and processing pad locations, an increase in permissible maximum landfill height (5 metre increase), removal of volumetric calculations and removal of prescriptive requirements for leachate extraction pumps.

- [Amendment to the EIS \(PDF, 33906 KB\)](#)
- [Public notices \(PDF, 88 KB\)](#)
- [Submission form](#)

### Close Date

01 May 2023

Council have sought and received a short extension of time to provide a submission, to allow the Panel to consider the proposal.

## **PROPOSAL**

The application seeks to vary the proposal as follows:

- To define the facility in a manner that provides for flexibility in future internal configuration. Future cells would still be subject to EPA approval as they are now
- Increase the permissible maximum height of the landfill by 5 metres
- A consequential amendment to remove obsolete volumetric calculations
- Clarify a location for a processing pad more centrally on the site
- For avoidance of doubt, propose that processing pads may be constructed on areas of the site shown as cells
- For avoidance of doubt, propose to remove the prescriptive requirements for the capacity of leachate extraction pumps

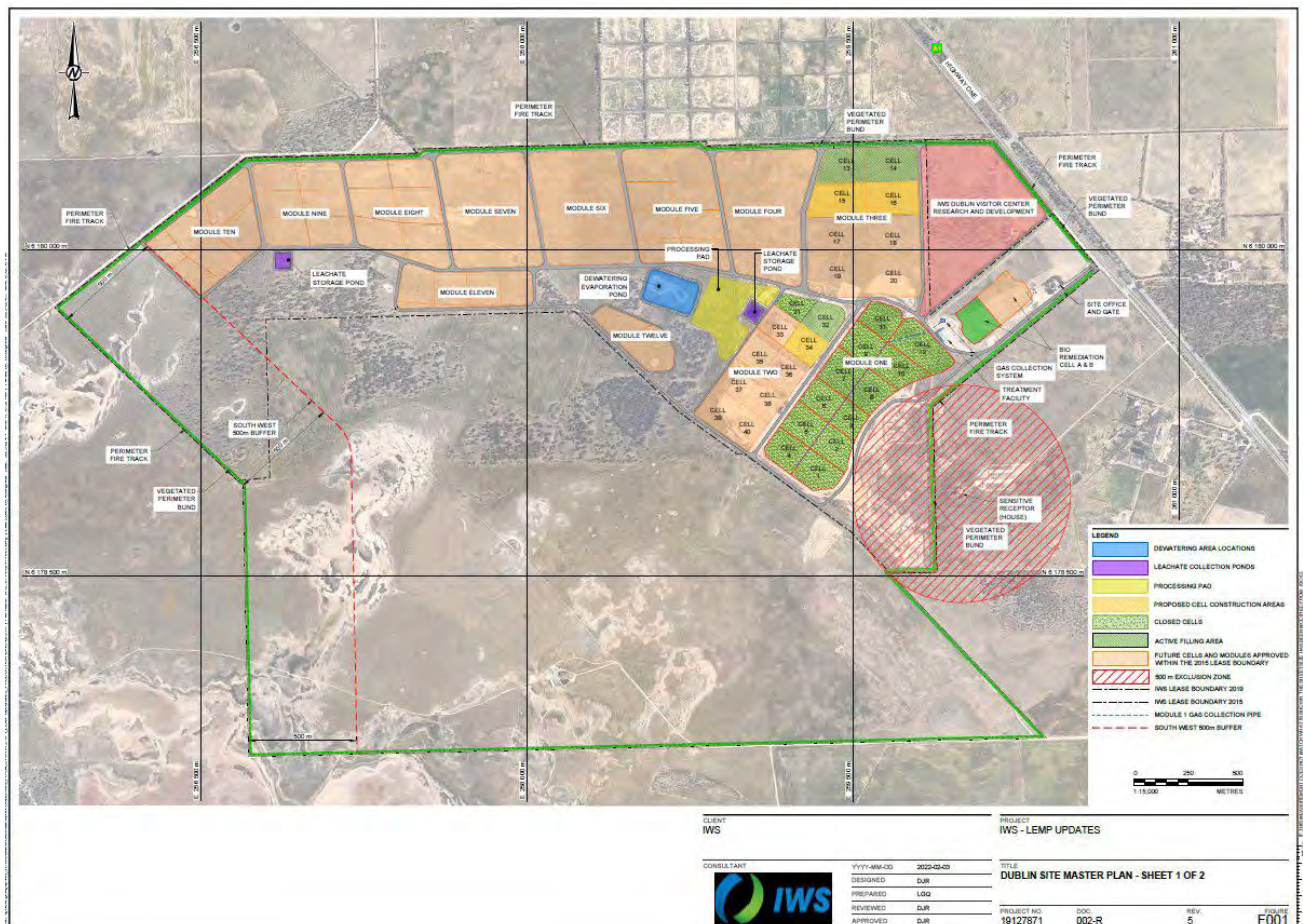
## **DISCUSSION**

Any proposed changes to the site that might include built form or changes in the externalities of the development presently require a formal variation to the existing development approval. This would include a variation application lodged under the *Planning, Development and Infrastructure Act, 2016* and would include a public notification process and an assessment time of some 3 months. Following this, the EPA would undertake their assessment process pursuant to the existing Licence. It is understood this is also a lengthy and 'exhaustive' process and often duplicates on assessment considerations at the planning stage.

The applicant is of the opinion that where changes to the site do not result in a material change to impacts beyond the site boundaries, the process to receive approval is adequately addressed under EPA licencing arrangements. Avoiding the need for a variation development application each time a minor change is proposed has obvious operational benefits for the operator in terms of time and resources. The Administration shares this opinion.

The report also highlights that this proposal will not completely obviate the need for future variations, but rather this proposal seeks to... *"ensure that foreseeable variations with no material planning impact are avoided"*.

The current site master plan is shown below:



Section 7.0 of the report details each of the six points listed to be varied. One of the most notable points of interest is the height increase where the report explains the rationale behind the proposal. This rationale details that the height increase will not be achievable over the entire extent of the module area and explains that the increase will offer improved efficiency, lower carbon footprints, reduced excavation to increase distance to groundwater, and greater flexibility in liner and cap design.

The report also highlights the visual amenity aspect of the proposal being a significant consideration in the original assessment, and that landscaping and screening has been undertaken to date with further plantings forthcoming that will continue to assist in mitigating the visual impact of the modules. Page 27 of the report highlights that... *“irrespective of the approval of this application, it would not alter the approved design of the cells, including the maximum height, already approved by the EPA pursuant to the licence.”*

The applicant has also provided a photographic analysis which represents a worse-than-worst case scenario of the whole landfill area being developed to the maximum theoretical height (refer Appendix K of the report). The Administration agrees with the applicant in that the increased height will be perceptible from some locations outside of the site, however with the existing character of the site present in the locality, the change would be at the lower end of that perceived and not to an unreasonable level.

**SUMMARY**

The Administration is reasonably satisfied that the proposed variation will not result in an intensification of the use of the land nor will it not create any additional unreasonable impacts on adjoining land. The proposed variation is considered supportable, and the Administration recommends to the Panel that appropriate comments be forwarded to the State Planning Commission.

**RECOMMENDATION**

It is recommended that the Council Assessment Panel resolves to provide a copy of this report to the State Planning Commission in response to the notification.

# **ADDENDUM TO EIS**

## **IWS NORTHERN FACILITY**

Lemmey Road, Lower Light  
For Integrated Waste Services



Prepared by  
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**March 2023**



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<b>APPENDIX H</b>	Site Master Plan
<b>APPENDIX I</b>	EPA Licence 51568
<b>APPENDIX J</b>	Golder Cell Module Layout Plan
<b>APPENDIX K</b>	DBD Environmental Visual Impact Assessment Update
<b>APPENDIX L</b>	Assessment Guidelines





## 1.0 BACKGROUND

IWS have developed and operated the facility since its approval in 1998. The approval was subject to the 'Major Project' provisions in Section 49 of the then *Development Act, 1993* with an Environmental Impact Statement ('EIS') being the level of assessment.

Since 1998, the facility has been the subject of a variety of variations, which have increased the range of waste streams accepted, altered the configuration of the facility and provided for the construction of buildings and other infrastructure.

In the last three years, IWS has made a number of small variations to the approval which have changed the configuration of cells, expanded the bioremediation pad and enabled the construction of a large shed to internalise the processing of material from the bioremediation pad. None of these approvals have been deemed as requiring a variation to the EIS.

Due to recent changes of ownership structure, the operator and holder of the Licence for the facility is now Pelican Asset Co Pty Ltd. Notwithstanding this change in ownership structure, the company still trades as and is commonly known as Integrated Waste Services, IWS or IWS Group. For clarity, in this document, the operator of the facility is referred to as IWS.

### 1.1 Outline of Proposed Variation

It is therefore proposed to vary the proposal in seven ways:

1. To define the facility in a manner that provides for flexibility in future internal configuration. Future cells would still be subject to approval by the EPA as they are now.
2. It is proposed to increase the permissible maximum height of the landfill by 5.0 metres.
3. It is proposed as a consequential amendment to remove obsolete volumetric calculations.
4. It is proposed to clarify a location for a processing pad more centrally on the site.
5. It is proposed, for the avoidance of doubt, that processing pads may be constructed on the areas of the site shown as cells.
6. It is proposed, for the avoidance of doubt, to remove the prescriptive requirements for the capacity of leachate extraction pumps.

### 1.2 Rationale for Proposed Variation

Whilst IWS is grateful for the approval of the recent variations to the existing approval, they have shown that the process for the approval of variations to existing major projects, where the declaration remains in place, is not well suited to amendments at the more minor end of the scale. The changes to the *Planning, Development and Infrastructure (General) Regulations, 2017* which have recently been Gazetted, should go some way to resolving this.



Further, it has been noted that there is significant crossover between the approval function exercised by the Environment Protection Authority ('EPA') under the Licence issued pursuant to the *Environment Protection Act (1993)* and the Development Approvals sought in some the recent variations.

The Development Approval provides for landfill cells to be opened, filled, closed and capped in a progressive manner. However, the approval is for a very large facility that will operate over the course of many decades. Whilst the facility has been operating for more than two decades already, only a small proportion (in the order of 10-15 percent of the cell airspace approved has so far been constructed and operated. As the operation of the facility proceeds, the location and design of each cell is subject to detailed technical assessment and approval by the EPA under the Licence.

Variations to the Development Approval are clearly appropriate where the change proposed would result in planning implications, such as a material change in the externalities of the development, or where significant built form is proposed.

In cases where the change to the proposal would not result in a material change in impacts beyond the boundaries of the subject site, there would appear to be little benefit in proceeding through a variation process under the *Planning, Development and Infrastructure Act, 2016*, then followed by a further exhaustive assessment process by the EPA pursuant to the Licence. The key circumstance identified to which this applies is to changes, even minor ones, to the configuration of the site and the location of landfill cells.

Plans which formed part of the original approval in the 1990s have 'flowed through' to the current time, and modifications, even minor changes, to these plans, some of which date from 1997, require a variation to the development approval. The recent cell reconfiguration variation application is an example of this. This does not represent an efficient process and has the potential to result over time in a significant number of variation applications for changes which have little to no impact beyond the boundaries of the subject site.

### **1.3 Consequences of Not Proceeding with Proposed Variation**

The proposed variation seeks to confirm a number of matters to avoid a level of doubt and improve the efficiency of the operations on the subject site. Without formalisation of the matters proposed to be varied, a significant level of inefficiency will remain and potentially increase further over time. Additionally, in respect of several of the issues proposed to be varied, a level of doubt will remain, in particular, on the following:

- Confirming that processing pads can be constructed on the areas of the site shown as cells.
- Removal of the prescriptive requirements (now seen as excessive and obsolete) for the capacity of leachate pumps.



The proposed variation also seeks an increase in air space in which the cells can be constructed in future which allows approval of the maximum theoretical area for cells allows for a single planning assessment to consider the ultimate outcome in terms of extent and height. Whilst in theory this would result in an increase to the total overall air space available on the site, in actual operation the air space of both individual cells and cell modules is constrained by design limitations such as the minimum and maximum slopes for side batters and the tops of the finished cells. These design limitations impose practical limitations which will mean that the size of individual cells and modules should not materially change from those previously developed and operated on the site. The overall configuration of the site will remain as a series of cells, which when closed and capped appear externally as a series of rolling mounds over the site.

Given the process of establishing and closing these cells will continue to be assessed and approved under the EPA licencing arrangement without this overall assessment and approval of the proposed variation there is a duplication of effort, which will continue over the life of the project. Without proceeding with this variation this duplication of process would remain and significant additional resources both of the operator and government agencies will continue to occur as cells are opened, operated and closed and capped in future.

A reduction in the efficiency of the facility is predicted should the variation not proceed. It is proposed to allow for the construction of an additional processing pad centrally to ensure that when the westerly cells are activated (as opposed to the eastern cells currently in operation) such that access to those cells is as efficient as possible. This variation would formalise this efficiency. Additionally, the variation will also confirm that processing pads can be constructed in the locations of the site designated and landfill cells to allow for operational processing to move around the site during the extended timeframe for which it will operate. Without the capacity to locate processing pads in appropriate locations throughout the operational life of the site, additional impacts, resources, cost and time would result in transporting material from one side of the site to the other. In the alternative, additional resources from both the operator and government agencies will continue to be required to assess multiple future variations to seek processing pads as they are required in different locations throughout the life of the site.

The proposal should result in efficient outcomes through:

- Safety resulting in better site access and improved site distances;
- More efficient utilisation of the available site area; and
- Operational efficiency resulting in the reduced fuel and energy consumption by the operations, resulting in a reduced carbon footprint for the operation.

We would note that the variation now proposed will not completely obviate the need for variations in future. Significant variations, including significant built form and those which would result in material changes in site impacts, would still require variations to the Development Approval. The proposal seeks to ensure that foreseeable variations with no material planning impact are avoided.



#### **1.4 Statutory Framework**

To date, a proposed variation has been lodged with Planning and Land Use Services ('PLUS'), who have undertaken an adequacy check, including engagement with the EPA and Department for Infrastructure and Transport ('DIT').

As a result of the adequacy check process and feedback received from agencies, amendments have been made to the proposal, specifically:

- Removal of the proposed changes to operating hours to allow for 24 hour operation of the facility.

Amendments have been made to this report to address the comments made by agencies during the adequacy check process.

Pursuant to engagement with relevant agencies, this report is now submitted to allow PLUS to formally proceed with the proposed variation.

Following this, consideration will be given to the level of assessment required, the nature of any technical information, and the timing on any notification.

As we understand the process from this point, PLUS will now formally consult with the EPA, the Department of Infrastructure and Transport ('DIT') and Adelaide Plains Council.

Concurrently, a fifteen-business day public notification process will be undertaken, with the responses from SA Government agencies and public notification returned to the applicant for a response. A further adequacy check would then be undertaken upon return of the response document to PLUS.

An amendment to the assessment report would then be prepared for the State Planning Commission, and ultimately, a decision by the Minister for Planning.



## 2.0 EXISTING APPROVAL HIERARCHY

The following provides a history of the notices within the SA Government Gazette.

- Originally approved on 29 January 1998. Development authorisation was granted for the development of the waste management facility in the form of a solid waste landfill in the District Council of Mallala as described in an application dated 2 December 1997. This decision was based on the assessment report of 28 November 1997.
- On 8 September 2005, the facility received approval for a variation to receive low-level contaminated soil on the site.
- On 27 August 2009 a variation to the development authorisation was approved proposing the establishment of a Multiple Waste Treatment Facility for the treatment and disposal of high-level contaminated waste at the existing landfill.
- On 2 September 2010 approval was granted for a number of the matters reserved for further assessment and for a variation of the development authorisation relating to the Multiple Waste Treatment Facility ('the MWTF'). The proposed further changes to the MWTF primarily relate to construction being undertaken in one stage (rather than two) and consequent minor modifications to the design of the facility.
- On 24 January 2013 approval was granted for a variation of the development authorisation for the implementation of a '10 Year Masterplan' comprising various changes to the landfill operation and the establishment of a Resource Pad, a Bioremediation Pad, and a Litter Net System.
- 14 May 2020 a variation to the authorisation was approved to permit a modification to the design of the landfill Module 3.
- 3 December 2020 a variation was approved to the authorisation to permit the establishment of a Bioremediation Pad (identified as Cell B—eastern extension).
- On 3 December 2021, a variation for the construction of a sorting and processing shed, with associated site and civil works was approved by the for Planning and Local Government.

**Table 1: Existing Site Approvals**

GAZETTE DATE	REASON FOR GAZETTE	SCHEDULE 1 – PART B OF EP ACT 1993 – LISTED WASTE RECEIVABLE?	DETAIL
29 January 1998	Grant Development Authorisation	NO	Condition 6 – outlines no listed waste will be permitted to be disposed of without further development authorisation (except treated) asbestos.
8 September 2005	Approval to receive low level contaminated soil	NO	Condition 10 – outlines no listed waste will be permitted to be disposed of without further development authorisation (except treated) asbestos.



GAZETTE DATE	REASON FOR GAZETTE	SCHEDULE 1 – PART B OF EP ACT 1993 – LISTED WASTE RECEIVABLE?	DETAIL
27 August 2009	Approval of a Multiple Waste Treatment Facility for the treatment and disposal of high-level contaminated waste (Listed Waste).	YES	<p>All conditions from the 8 September 2005 approval notice were revoked, including condition 10. No such condition was re-inserted in the new conditions as the application was an approval to accept high-level waste.</p> <p>Condition 12 – outlines the unloading and storage of high-level contaminated waste shall be undertaken in accordance with an Environment Protection Authority approved Environmental Management Plan for Stage 1.</p>
2 September 2010	Approval of Reserve Matters and variation of the authorisation relation to the MWTF. Primarily variation related to 1 stage of construction and minor modifications of design.	YES	An Environmental Management Plan (EMP) covering the operation requirements for the MTWF shall be prepared in consultation with the Environment Protection Authority.
24 January 2013	Approval for a variation the implementation of a '10 Year Masterplan' and the establishment of a Resource Pad, Bioremediation Pad and a Litter Net System.	YES	N/A
14 May 2020	Variation of the design of the landfill Module 3.	YES	N/A
3 December 2020	Vary the Solid Waste Landfill (Northern Balefill) near Dublin development authorisation dated 14 May 2020.	YES	N/A
3 December 2021	Variation for the construction of a sorting and processing shed, with associated site and civil works	YES	N/A

The associated Gazette Notices and Decision Notification Forms are contained in **Appendix A**.



### 3.0 REVIEW OF EXISTING EIS AND ADDENDUM TO EIS

A review of the suitability of existing EIS and Addendum is required to justify that a full update is not required, and this addendum is sufficient.

MasterPlan has undertaken a review of the EIS and its subsequent amendments to provide whether a formal update to the EIS is required prior to the proposal being assessed or approved. The following provides an assessment on the currently proposed variations consistency with existing operations on the land, and to determine whether an update is necessary to reflect more recent changes to the operation.

The EIS for the facility was originally prepared in 1997 and has subsequently been amended via an addendum in 2008. There are numerous documents relevant to the EIS that have been prepared since its inception. There have also been various licences issued dealing with the day-to-day operation and management of the facility.

The following documents are considered of primary relevance to the review:

- Environmental Impact Statement, Solid Waste Balefill (February 1997);
- IWS Northern Balefill – Planning Report prepared by MasterPlan & Golder Associates (June 2008); and
- IWS Northern Balefill, Dublin – Multiple Waste Treatment Facility, EIS Amendment (November 2008).

The key objectives of the site as defined in the original EIS (1997, pp. 3) were as follows:

- provide next generation of landfill;
- orderly disposal for shredded, baled, inert demo waste in commercially sound manner;
- landfill using recent and efficient techniques; and
- develop and manage site in an environmentally sustainable manner.

The site continues to achieve these key objectives and the more recent waste management and disposal practices conducted on the land, including bioremediation, are consistent with the original intent for the facility to accommodate environmentally sustainable and efficient waste disposal and treatment practices in a commercially sound manner. It is noted in this regard, that the EPA Guidelines (2005) refer to soil bioremediation as "*an environmentally sound and cost-effective method of treating soils containing organic chemicals*".

The EIS document outlines a 100-year lifespan for the facility. Over the lifespan, it is intended that the site will progressively be rehabilitated as various cells and modules are completed and upon the closure of the facility will be returned to its original site condition. The proposed bioremediation practices conducted on the land assist to achieve this allowing for the recovery of a suitable organic material capable of being used for site rehabilitation.



The original EIS also confirmed the boundaries for the facility within which the operation would progressively expand. It is noted that the boundaries of the licensed facility remain unaltered, and all activities associated with the site, including the proposed additional bioremediation pad, are able to be accommodated within this defined site area.

In 2008, an application was lodged to amend the Development Authorisation to allow for the treatment of contaminated materials at the site.

The application was separated into two (2) stages, as follows:

- Stage 1: Construction and operation of a contaminated material receiving and storage area; and
- Stage 2: A facility to include treatment of contaminated solid and semi-solid waste streams.

The facility outlined for stage 2 proposed the establishment of a pad for the bioremediation of the contaminated material as one of the potential treatment practices. As part of this variation process, an EIS Amendment was undertaken, prepared as an addendum to support the Development Application and update the 1997 EIS to incorporate the proposed contaminated soil treatment and disposal.

The proposed operations were considered to be consistent with the activities documented in the original 1997 EIS and subsequent amendments. The remediation process outlined was to utilise a range of remediation technologies (not just bioremediation) dependant on the waste type (e.g. soil, sediment, fly ash, sludges).

It is noted in the EIS Amendment that:

*'the potential environmental impacts associated with the operation ... are consistent with those assessed and detailed in the previous site Environmental Impact Statement (EIS) ... environmental site conditions will be similar to those assessed in the EIS.'*

From our review of the EIS (1997) and subsequent EIS Amendment (2008), we have formed the opinion that an update of the EIS via a variation is not necessary as the EIS already adequately covers the development and operation of a broad range of receipt, treatment and disposal activities on the land. The proposed amendments at this time do not seek to change the essential nature of the use of the site which has been previously granted Development Approval or the scale of the operation.

This addendum includes a number of components which seek to further clarify the development and create a more efficient operation which would increase productivity and reduce the need for ongoing interaction with the planning system for minor operational changes. It is in this context that the proposal is only an addendum and not a formal update of the EIS. Moreover, the proposed addendum does not introduce new uses nor change the land use or the effects in a manner that would be considered significant.



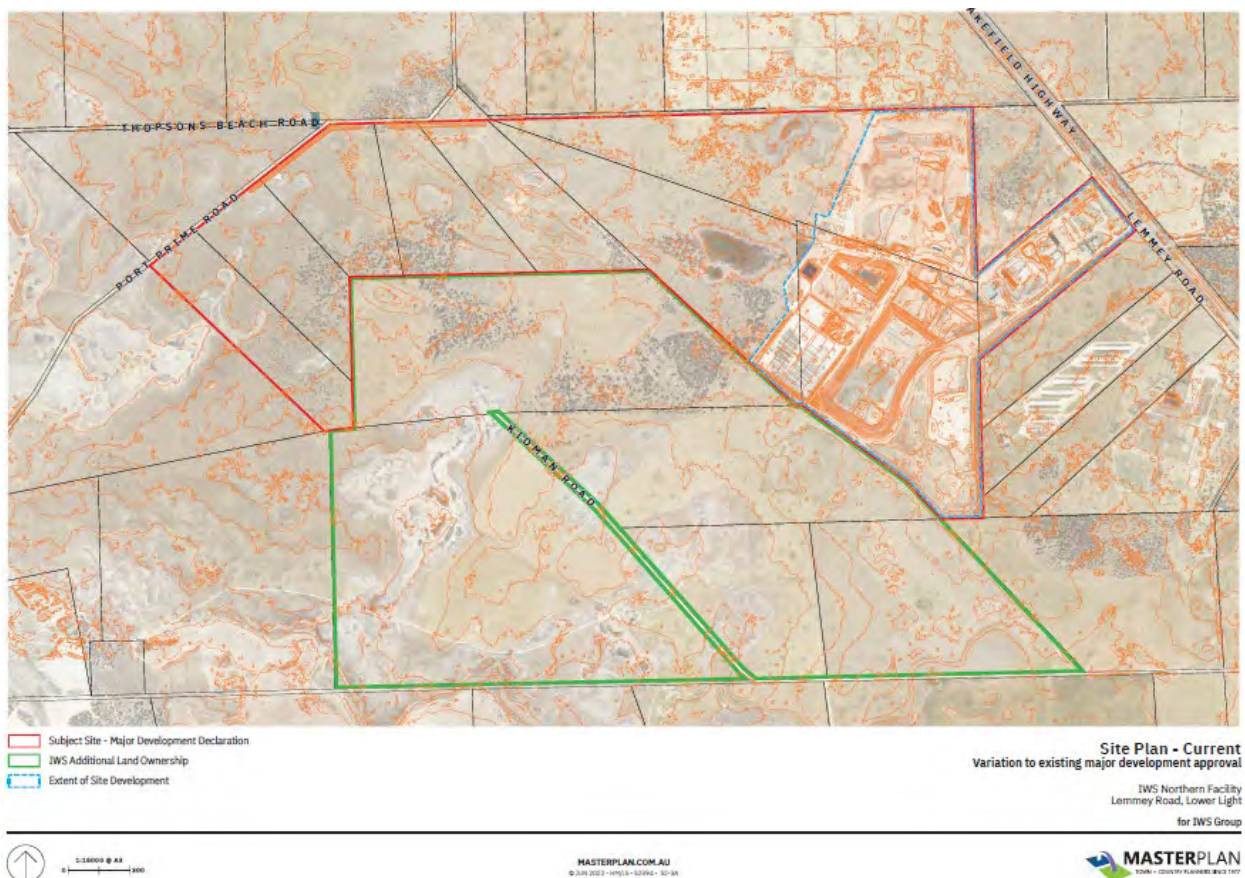


## 4.0 SUBJECT SITE

The subject site is located on the western side of the Port Wakefield Highway, approximately 3.0 kilometres south of Dublin and 50 kilometres north of the Adelaide CBD.

### 4.1 Site Identification

The site is identified on the Site Plan shown in **Figure 4.1** and contained in **Appendix B**.



**Figure 4.1: Site Plan – Current.**

The site being the subject of the approval is outlined in red on **Figure 4.1**.

The site remains the same as that which was the subject of the original proposal and approvals and the major project declaration, being comprised of nine allotments.

The site has a total area of approximately 5.75 square kilometres, and a perimeter of 12.45 kilometres. The site measures approximately 4.5 kilometres from its eastern to western extents. The distance from north to south varies markedly across the site, ranging from 335 metres adjacent the Port Wakefield Highway to a maximum of approximately 2.0 kilometres where the previous and current cells are located.



The subject site is more formally described as being comprised of the following allotments (contained in the following Certificates of Title):

- Allotment 76 in Deposited Plan 26412, Hundred of Dublin (CT Volume 5312 Folio 333);
- Section 311 in Hundred Plan 140400, Hundred of Dublin (CT Volume 5348 Folio 396);
- Section 310 in Hundred Plan 140400, Hundred of Dublin (CT Volume 5348 Folio 390);
- Section 312 in Hundred Plan 140400, Hundred of Dublin (CT Volume 5348 Folio 343);
- Allotment 95 in Filed Plan 173119, Hundred of Dublin (CT Volume 5348 Folio 391);
- Allotment 94 in Filed Plan 173118, Hundred of Dublin (CT Volume 5348 Folio 395);
- Allotment 96 in Filed Plan 173120, Hundred of Dublin (CT Volume 5348 Folio 394);
- Allotment 93 in Filed Plan 173117, Hundred of Dublin (CT Volume 5348 Folio 392); and
- Allotment 92 in Filed Plan 173117, Hundred of Dublin (CT Volume 5348 Folio 393).

Copies of Certificate of Title Register Searches for each of these allotments comprising the subject site are contained in **Appendix C**.

Since the original approval was granted and the operation of the site commenced, IWS have purchased additional land to the north-east and to the south of the land being the subject of the original approval. IWS has, at this time, not sought any approvals (other than demolition of an existing dwelling on the north-eastern allotment) over this additional land, or sought to extend the major project declaration onto this additional land. This additional land, therefore, now represents a further owned buffer between the operations and surrounding locality, and land banked for potential expansion in future, subject to any and all approval requirements at the time such an expansion may be proposed.

For the avoidance of doubt, it is confirmed that the proposed variation now submitted does not seek approval for any activity on the additional land purchased by IWS.

The additional land purchased by IWS, is outlined in green on **Figure 4.1**.

Whilst not the subject of this proposed variation, for reference, the additional land acquired by IWS is more formally described as the following allotments (contained in the following Certificates of Title):

- Allotment 78 in Deposited Plan 26468, Hundred of Dublin (CT Volume 5237 Folio 462);
- Section 306 in Hundred Plan 140400, Hundred of Dublin (CT Volume 5367 Folio 41);
- Section 446 in Hundred Plan 140400, Hundred of Dublin (CT Volume 5367 Folio 39);
- Section 307 in Hundred Plan 140400, Hundred of Dublin (CT Volume 5332 Folio 188);



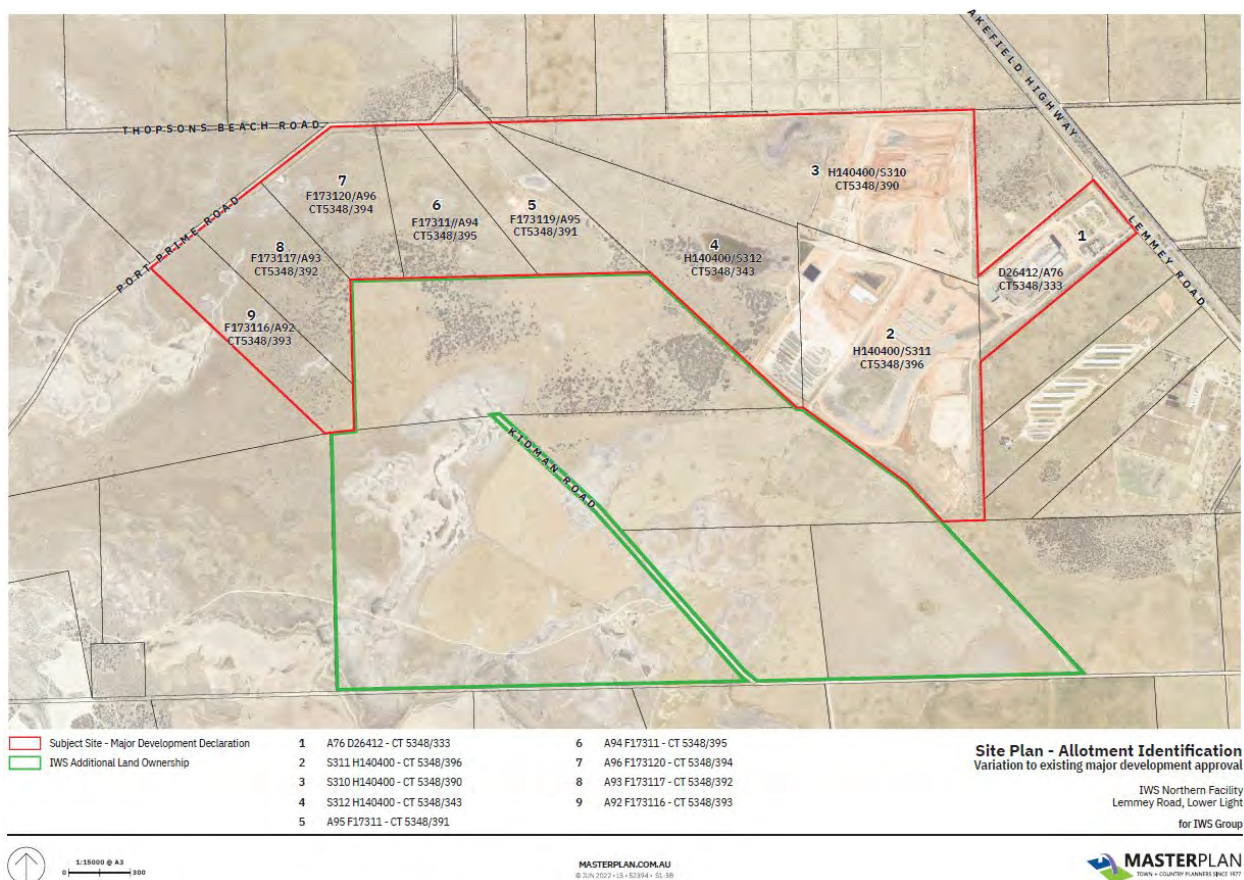
- Section 42 in Hundred Plan 140400, Hundred of Dublin (CT Volume 5367 Folio 33); and
- Section 43 in Hundred Plan 140400, Hundred of Dublin (CT Volume 5367 Folio 40).

Copies of Certificate of Title Register Searches for each of these allotments, comprising the additional land purchased by IWS, but not forming part of the subject site, are contained in **Appendix D**.

It is noted that Kidman Road extends from Crabb Road in a north-west direction within the area of additional land purchased by IWS.

A Site Plan – Allotment Identification, which identifies both the allotments comprising the subject site and the additional land purchased by IWS is shown in **Figure 4.2** and contained in **Appendix E**.

For the purposes of this document references to the ‘subject land’ or ‘subject site’ refer to the land which is the subject of the existing approvals and major project declaration, and not to the additional land which has been purchased by IWS.



**Figure 4.2: Site Plan – Allotment Identification.**

For the purposes of this document, references to the ‘subject land’ or ‘subject site’ refer to the land which is the subject of the existing approvals and major project declaration, and not to the additional land which has been purchased by IWS.



## 4.2 Site Description

The subject land is irregularly shaped with a frontage to Lemmey Road, which performs a service road function to the western side of the Port Wakefield Highway in the vicinity of the subject land. The frontage of the site to Lemmey Road is approximately 335 metres.

Although the subject land also has frontage to Thompsons Beach Road and Port Prime Road, no operational access or egress exists to these roads, with all access and egress occurring via the main entrance to Lemmey Road.

The site slopes gently from east to west, and over its entire distance of the approximately 4.5 kilometres, there is a fall of approximately 10 metres or 0.22 per cent. Prior to development, the land was generally open, rocky, extensive grazing land which was largely denuded of native vegetation and had significant infestation of pest plants and animals. There are areas, predominantly in the western end of the site, where vegetation is in better condition and exhibits a more natural form.

The eastern end of the subject site has now been developed and functions as a very large facility for the reception, treatment, storage and disposal of waste. Adjacent the site entrance on Lemmey Road, is a weighbridge and gatehouse facility. Further west is the bioremediation facility including a large pad on which the waste undergoing remediation through pasteurisation is stockpiled. A large shed for the secondary sorting of remediated waste is shortly to be constructed adjacent the pad.

Further to the west is a large shed which forms the Multi-waste Treatment Facility ('MWTF').

To the west of the MWTF are located the landfill cells. The cells are being established, filled, closed and capped in a progressive manner throughout the life of the project. The cells represent large areas, which are excavated and then filled in a progressive fashion, meaning that activity, operations and material in the cells can range from being located well below ground to well above ground level.

## 4.3 Local Government

The subject site is located entirely within the area of the Adelaide Plains Council.

## 4.4 Zoning and Land Use Policy

As the planning policy which covers the whole of South Australia, the Planning and Design Code covers the subject site.

The following policy is applicable to the subject site:

- Rural Zone;
- Environment and Food Production Area Overlay;
- Hazards (Acid Sulphate Soils) Overlay;
- Hazards (Bushfire – General) Overlay;



- Hazards (Bushfire – Medium Risk) Overlay;
- Hazards (Flooding – Evidence Required) Overlay;
- Interface Management Overlay;
- Major Urban Transport Routes Overlay;
- Native Vegetation Overlay;
- State Significant Major Vegetation Overlay;
- Traffic Generation Development Overlay;
- Water Resources Overlay; and
- TNV – Minimum Site Area – 40ha.

Whilst the Planning and Design Code covers the subject site, the key policy for the assessment of the proposed variation is the Assessment Guidelines.

Notwithstanding, the proposed variation has been considered in the context of the Planning and Design Code in **Section 10** of this report.

#### **4.5 Site History and Other Uses**

The site is located in an area historically associated with, and characterised by, extensive agricultural and farming activities.

Prior to approval for and establishment of the operations on the site for the receipt, treatment, storage and disposal of waste, the site had been subjected to heavy grazing and limited cropping over an extended period. These activities had impacted upon the soils of the subject site, which were generally of poor quality, allowing a variety of pest plants and animals to become established on the site.

A number of the allotments comprising the subject site were the subject of mineral extraction by the then Department of Transport between 1990 and 1994 to provide limestone and other mineral resources for the duplication of the Port Wakefield Highway. This typically involved the removal of between 0.5 and 1.0 metre of rock for use in road construction.

The site, prior to development for the current facility, also indicated use for recreational activities such as motocross and off-road vehicle use, evidenced by a wide network of tracks.

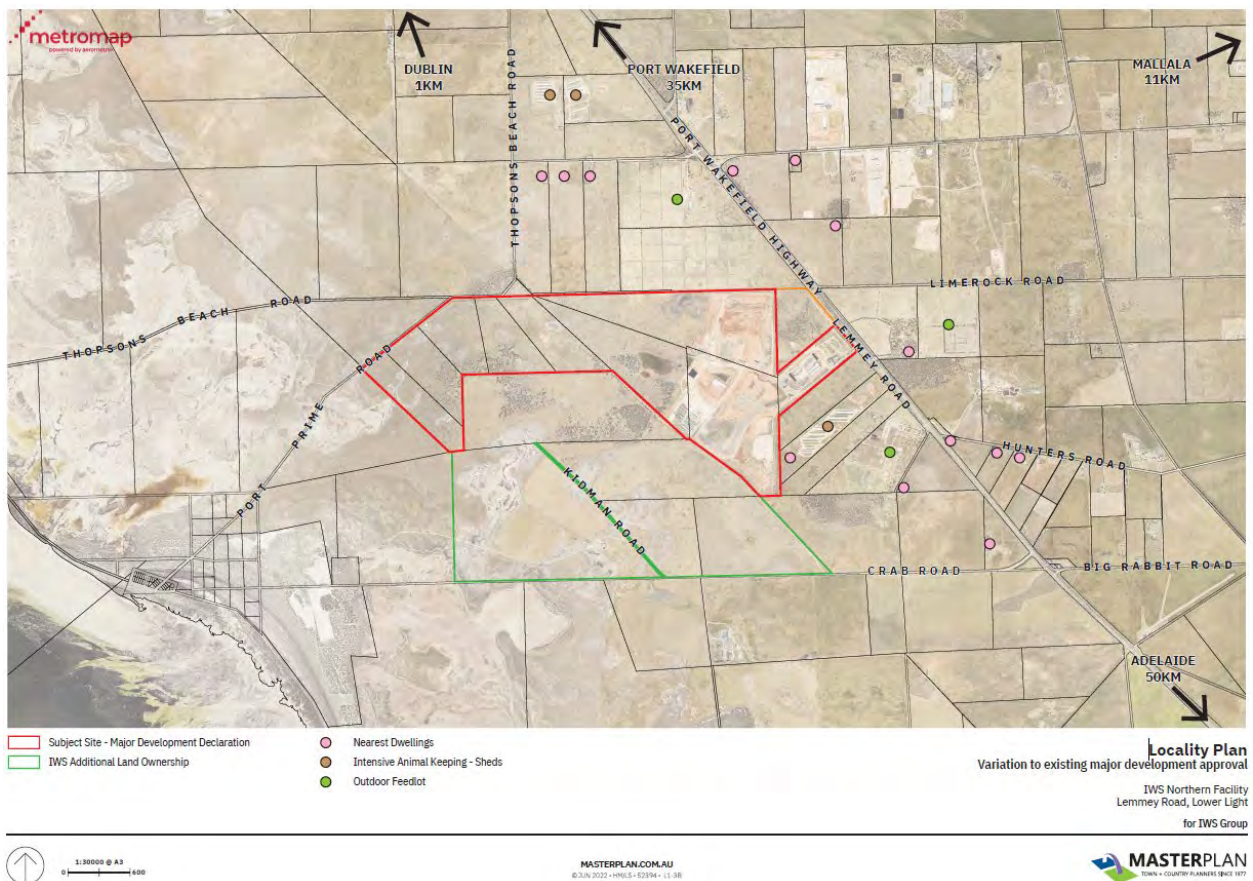
Since the establishment of the current operations on the site, the eastern portion of the site has been substantially transformed by the use. The western portion of the site has remained generally similar to its previous form, however, the exclusion of activities such as the use of off-road vehicles and better management of pest plants and animals sees the western portion of the site, including those areas which are vegetated, in generally better condition than when the operation was originally proposed.



## 5.0 LOCALITY

The locality extends in all directions from the subject site. Given the scale of the subject site and facility, the nature of the operations, and having regard to the topographic, landform and vegetation conditions in the vicinity of the subject site, it is reasonable to infer the locality as extending between 2.0 and 3.0 kilometres from the boundaries of the subject site.

The locality is detailed on the Locality Plan in **Figure 5.1** and contained in **Appendix F**.



**Figure 5.1: Locality Plan.**

The locality is defined by the Port Wakefield Highway which is a divided highway featuring two (2) traffic lanes in each direction. The Port Wakefield Highway in this location forms part of the National Highway network and is the primary road connection between Adelaide and the northern and western parts of the State, and between South Australia and Western Australia and the Northern Territory.

Other local roads traverse the locality, with the majority running in a generally east-west orientation and intersecting with the Port Wakefield Highway.

In general terms, the topography of the locality is typical of the Northern Adelaide Plains, being generally very flat with low surface grades sloping towards the west.

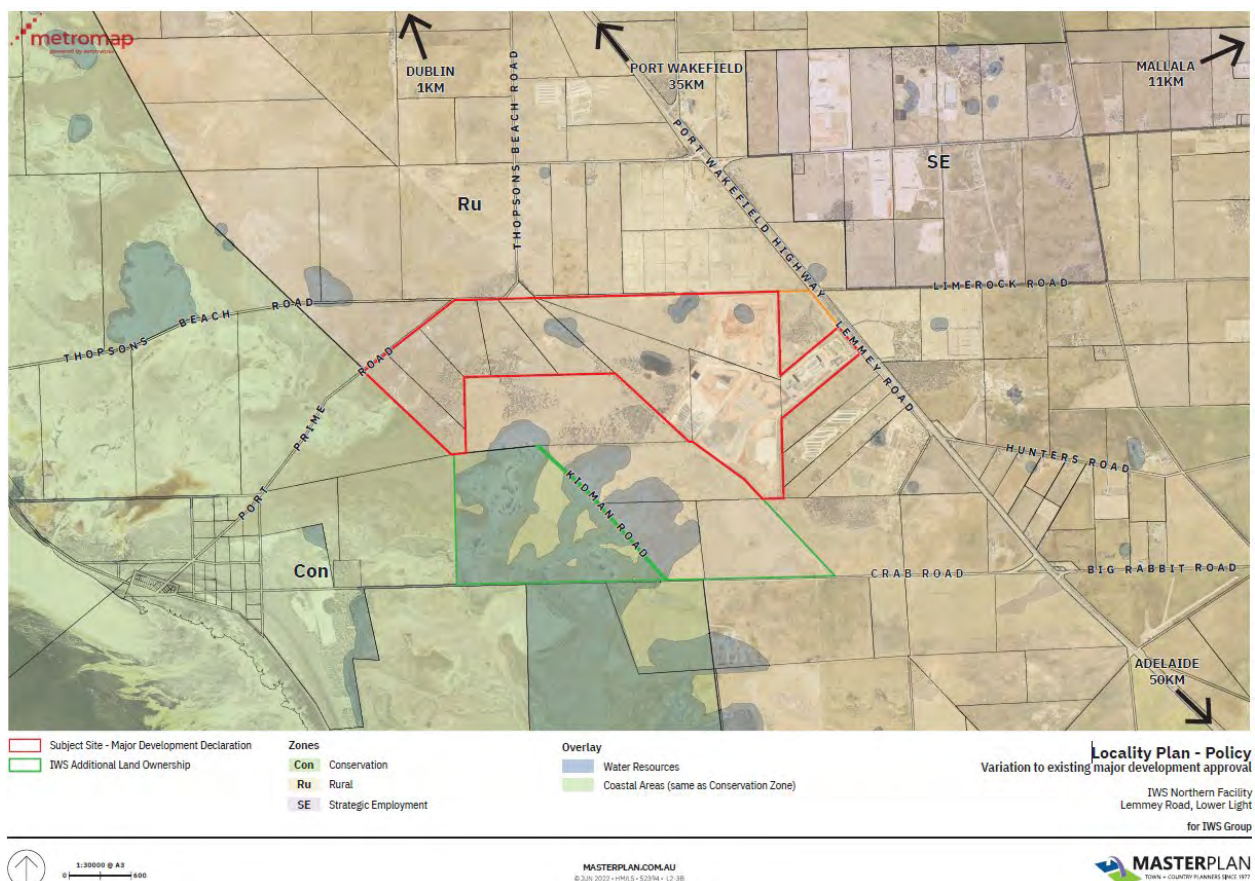


The locality is generally open, with various stands of vegetation. Originally, much of the area was vegetated with mallee scrub, however, the majority of this was cleared when the land was historically converted for primary production uses. It is notable that since the use of the subject site was originally proposed and assessed in the 1990s, the extent and quality of native vegetation in the locality has improved. In particular, vegetation planted in a linear fashion along the Port Wakefield Highway contemporaneously with its duplication has matured considerably, and now forms a notable character element of the locality.

As was the case when the original proposal was assessed, the locality contains a mix of agricultural land uses, but with a predominance of intensive animal husbandry activities. This includes feedlots to the north, feedlots to the east (on the eastern side of the Port Wakefield Highway), feedlots to the south-east and poultry sheds abutting the subject site to the south-east.

Of the remainder of the land in the locality, the majority of the land is utilised for broadacre primary production, predominantly in the form of grazing but also with some cereal cropping.

The locality, including Zoning and relevant Overlays is detailed on the Locality Plan-- Policy in **Figure 5.2** and contained in **Appendix G**.



**Figure 5.2: Locality Plan – Policy.**

The majority of the locality is located in the Rural Zone.



On the eastern side of the Port Wakefield Highway, to the north-east of the subject site, there is an area within the Strategic Employment Zone, where a number of uses have established, including other waste and recycling operations, agricultural value adding, industrial and commercial uses allied with primary production activities.

Soils in the region are typically well drained, highly calcareous and generally low in nitrogen and phosphorus content. Red-brown earths are widespread over the eastern part of the region and generally exhibit poorly structured surface layers which tend to harden significantly on drying, reducing water entry and movement.

To the west of the subject site, closer to the coast, the lower relief increasingly influences the character of the locality as samphire basins and lower shrubby coastal vegetation becomes more prevalent. The coastal areas comprise supratidal flats and coastal dunes, with areas as described above being subject to tidal inundation.

On the coast adjacent to the west of the subject site is the settlement of Port Prime, which is largely a paper town, and is prevented by policy from accommodating material future development. The area does appear to gain significant use for recreational uses including camping and access to the beach. Also located in the vicinity of Port Prime, mineral resources activities in the form of quarrying for sand and shell grit have taken place historically and appear to be continuing at the present time, albeit at a reduced scale.

Dwellings in the locality are sparsely scattered, and on the western side of Port Wakefield Highway are typically on large allotments associated with active primary production uses. On the eastern side of Port Wakefield Highway there are several examples where dwellings have been excised from primary production uses onto smaller allotments. To the south-east of the locality, between Hunters Road and Big Rabbit Road, there is an area which has been historically divided into smaller allotments, more akin to large rural living allotments, on which there is a total of approximately fifteen dwellings. It is noted that this area is separated from the closest extent of the subject site by a feedlot and poultry sheds.

The closest dwelling to the subject site is located to the south-east, at a distance of 110 metres from the subject site boundary. This dwelling is located on land developed with poultry sheds and is located in the immediate vicinity of those sheds. The next nearest dwelling is located to the east of the subject site, on the opposite side of Port Wakefield Highway, approximately 450 metres from the nearest point of the boundary of the subject site.

The town of Dublin is located approximately 3.0 kilometres to the north of the subject site. Dublin has a population of approximately 250 people and contains a grid arrangement of residential allotments, surrounded by parkland and then a belt of rural residential development.

The subject site, and its existing operations, are a significant and notable character element in the locality. The subject site has visibility from the Port Wakefield Highway, most particularly from the north, but to a lesser extent to the south. The site also has visibility from public roads to the north, south and west of the subject site, however, the majority of these views are quite distant, particularly in respect of the current areas of operations.





From the Port Wakefield Highway, the existing roadside vegetation, together with vegetation on the subject site and other adjacent allotments plays a noticeable role in reducing, but not removing the views of the site and its operations. While the site is clearly visible from both Port Wakefield Highway and other positions in the locality, the operations are not visually oppressive, nor do they dominate vistas or views throughout the locality.

Whilst the site is a significant and notable character element in the locality, other activities are also visible, and in many cases prominent, including the poultry sheds and feedlots to the north and south-east of the subject site, and the various activities in the Strategic Employment Zone to the north-east of Port Wakefield Highway.

The level of amenity in the locality would be best characterised as low to moderate. From a visual perspective, the locality is influenced by a four-lane national highway, the subject site, large scale buildings for intensive animal keeping, outdoor feedlots and other industrial buildings, structures and activities. In this way the appearance is typical and expected of a rural area providing for intensive animal husbandry, waste management and allied industrial activities, together with scattered residential dwellings.

The visual appearance is aided by the vegetation, which has improved considerably in condition, scale, maturity and extent since the development of the subject site was originally approved and operations commenced.

The locality will potentially be subject to some environmental and amenity impacts, including noise, dust and odour. It is noteworthy, however, that whilst the nature of operations on the site has the potential to contribute to these adverse environmental and amenity impacts which affect amenity, other uses, particularly the intensive animal keeping, also have significant adverse amenity potential, particularly in respect of odour. Impacts which lower the level of amenity in the locality come from a range of sources other than the subject site. The complaint history of the subject site is low, with any complaints typically being infrequent, transient and appropriately managed by the operator.



## 6.0 EXISTING OPERATIONS

The subject site currently operates as a facility for the receipt, treatment, storage and disposal of waste by landfill.

The subject site operates pursuant to the existing approvals granted pursuant to Section 46 and Section 48 of the *Development Act, 1993*, the most recent variation granted pursuant to Section 126 of the *Planning, Development and Infrastructure Act, 2016*.

In addition to the Development Approval and subsequent approved variations, the site operates pursuant to an authorisation (commonly referred to as a 'Licence') under the *Environment Protection Act, 1993*.

The current Site Master Plan, prepared by IWS, is shown in **Figure 6.1** and contained in **Appendix H**.

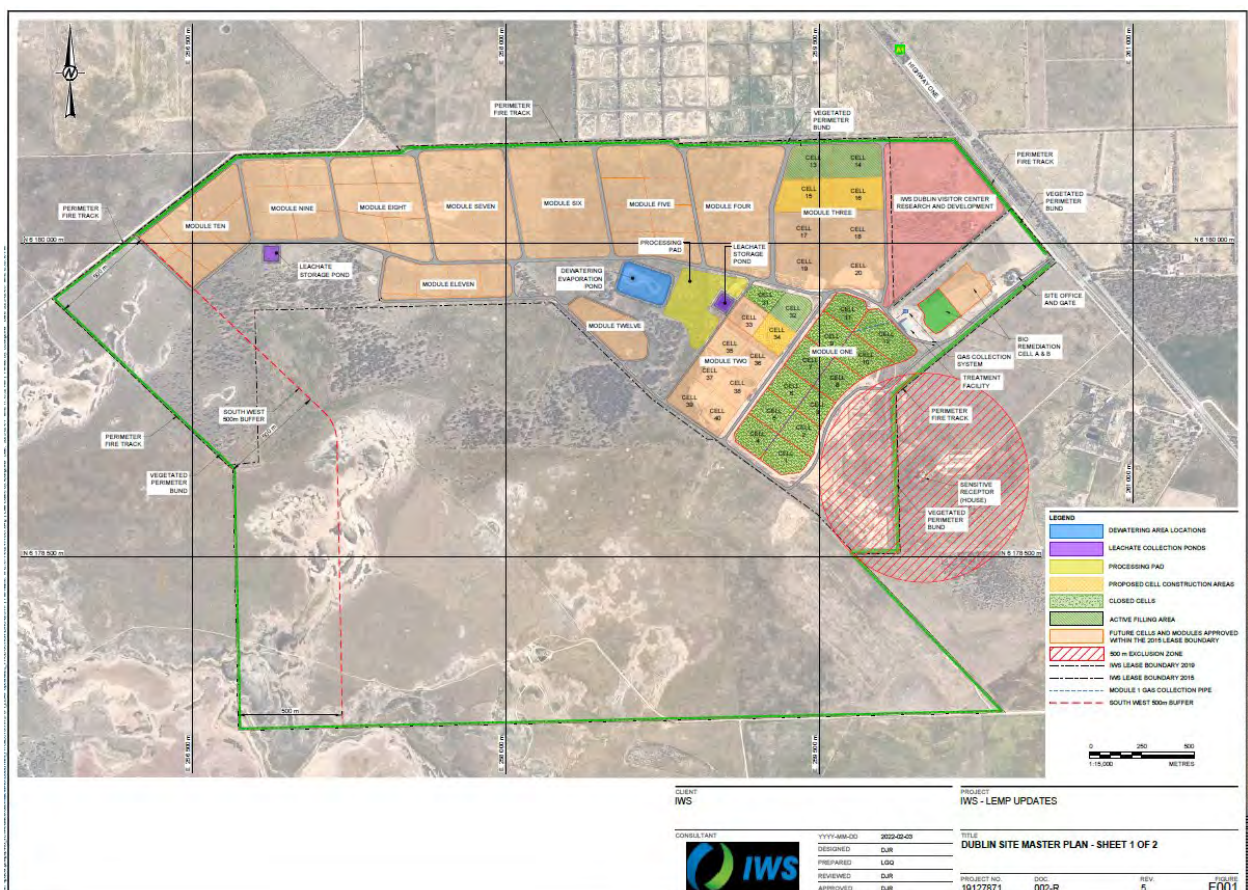


Figure 6.1: Site Master Plan (Source: IWS).

A copy of the Licence for the site, reference 51568 is contained in **Appendix I**.

The Licence requires by Condition 3.11, that IWS prepare a Landfill Environmental Management Plan ('LEMP') which deals with the ongoing operational management of the facility. The LEMP forms a detailed ongoing operation management tool, agreed between the owner and the EPA, which details the manner in which the site will operate, and the steps that will be taken to mitigate potential environmental and amenity impacts.



The existing development at the subject site receives baled and unbaled non-recyclable wastes, unbaleable construction & demolition wastes and contaminated wastes are transported to the subject site for disposal. The subject site has been developed to the highest standards with the following features:

- Dual weighbridge system.
- Landfill cells with full environmental controls including groundwater control, base liner system, leachate collection system, daily/ intermediate/ final cover system, landfill gas control system, netting system.
- The landfill cells have been developed so separate materials can be baled at Wingfield, stored in cells and position recorded. Should future technologies enable the use of that material as a secondary resource, the material would be able to be recovered for that purpose in the future.
- Low Level Contaminated Waste and Liquid Treatment Plant Residue disposal facility with double liner system and dedicated wheel wash.
- Enclosed Multi-purpose Waste Treatment Facility and Outdoor Bioremediation Facility.
- Biopad for processing of organic materials (referred in the Licence as Municipal Solid Waste Trommel Fines) in order to production of Compost Like Output (CLO) for use in the landfill capping.
- Secondary processing shed for bioremediated waste (currently under construction).
- Revegetated perimeter buffer zones and vegetation mounds.
- Fully sealed and landscaped entrance roadway and main site access road.
- Stormwater management system.
- Vehicle wheel wash.
- Environmental monitoring and post closure planning to be undertaken in accordance with the Development Approval, LEMP and statutory requirements.

The existing Development Approval and Licence permit the following waste streams to be received at the site:

- Asbestos (Friable).
- Asbestos (Non-Friable).
- Commercial and Industrial Waste (General).
- Commercial and Industrial Waste (Listed).
- Compostable Organic Waste.
- Construction and Demolition Waste (Mixed).
- Construction and Demolition Waste (Inert).
- Domestic Waste.



- Green Waste.
- Inert waste.
- Municipal Solid Waste – Domestic Sources.
- Municipal Solid Waste – Hard Waste.
- Municipal Solid Waste – Kerbside Bin Collection.
- Putrescible Waste.
- Quarantine Waste.
- Used Tyres.
- Waste Fill.
- Intermediate Waste Soil.
- Low Level Contaminated Waste Soil.
- Low Level Contaminated Waste.
- Organochlorine Pesticide (OCP) Waste.
- Used Foundry Sand.
- Grease Trap Waste
- Treatment Plant Residues.
- Listed Waste.
- Controlled Waste.
- Unclassified Waste Soil.
- Waste Soil.

The existing Development Approval and Licence permit the following waste streams to be disposed at the subject site:

- Asbestos (Friable).
- Asbestos (Non-Friable).
- Commercial and Industrial Waste (General).
- Commercial and Industrial waste (Listed).
- Compostable Organic Waste.
- Construction and Demolition Waste (Mixed).
- Construction and Demolition Waste (Inert).



- Domestic Waste.
- Green Waste.
- Inert Waste.
- Municipal Solid Waste – Domestic Sources.
- Municipal Solid Waste – Hard Waste.
- Municipal Solid Waste – Kerbside Bin Collection.
- Putrescible Waste.
- Quarantine Waste.
- Shredded Tyres.
- Waste Fill.
- Intermediate Waste Soil.
- Intermediate Waste.
- Used Foundry Sand.
- Low Level Contaminated Waste Soil.
- Low Level Contaminated Waste.

The proposed variation does not seek to modify the waste streams able to be received or disposed of at the site.

Much of the waste being received at the subject site will have gone through preliminary sorting and blending at the IWS facility at Wingfield. Other waste will be transported directly to the subject site from various locations.

Material being transported to the site will enter the site at the main entrance on Lemmey Road. The truck will pass over the weighbridge, and have details recorded. Material will then be directed within the site based on its nature and requirement for further sorting and treatment prior to beneficial reuse or disposal.

Material received at the site may undergo various forms of treatment, which may occur:

- within the MWTF shed;
- on the bioremediation pad and within the adjacent secondary sorting area (shed);
- on resource pads around the site; and
- within landfill cells.

Material received at the site which cannot be treated or has no beneficial reuse following treatment will be disposed of to the landfill cells.



Disposal cell categories at the Northern Balefill are defined as either General Waste Cells or Low Level Contaminated Waste Cells.

Wastes permitted to be disposed of in the general cell are as follows:

- baled waste;
- unbaled waste;
- asbestos;
- CCA treated timber;
- waste soil (Classified as WF or ILC); and
- miscellaneous wastes approved by the EPA.

Wastes permitted to be disposed of in the Low Level Contaminated Waste Cells are as follows:

- contaminated soil (Classified as LLCW, ILC or WF);
- liquid treatment plant residue (LTPR);
- paint residues;
- incinerator waste; and
- miscellaneous wastes approved by the EPA.

The site features extensive design elements to manage the potential environmental and amenity impacts of the facility including:

- engineered landfill cell design;
- groundwater and leachate management systems;
- engineered liner design;
- engineered cap design;
- litter management fencing in operational areas;
- vegetation mounding; and
- site revegetation.

In addition to the site design elements, detailed operational management practices as set out in the LEMP and nominated sub-plans are implemented on an ongoing basis to ensure appropriate environmental performance and limit the potential for adverse amenity impacts.



## 7.0 PROPOSED VARIATION

It is proposed to vary the proposal in six (6) ways:

1. To define the facility in a manner that provides for flexibility in future internal configuration. Future cells would still be subject to approval by the EPA as they are now.
2. It is proposed to increase the maximum permitted height of the landfill by 5.0 metres.
3. It is proposed as a consequential amendment to remove obsolete volumetric calculations.
4. It is proposed to clarify a location for a processing pad more centrally on the site.
5. It is proposed, for the avoidance of doubt, that processing pads may be constructed on the areas of the site shown as cells.
6. It is proposed, for the avoidance of doubt, to remove and prescriptive requirements for the capacity of leachate extraction pumps.

Plans prepared by Golder detail the theoretical cell module extent sought in Amendments 1 and 2 and the central processing pad sought in Amendment 4 are contained in **Appendix J**.

Each of these elements is described separately as follows:

### 7.1 Flexibility in Internal Configuration

The original plans for the project detailed a series of modules, each containing multiple cells in defined spatial locations within the subject site. Between the cells was sited various site infrastructure including access roadways, swales, services, ponds and dams, buildings and suchlike.

As the site has been developed, experience has refined the manner in which both the individual cells, multiple cells making up modules, and the supporting site infrastructure is developed. As detailed design for site elements is undertaken, refinements result in optimisation of the design and operation. Over such a large site, such optimisations lead to significant gains both in safety and efficiency of site operations.

The experience gained from over two (2) decades of operation means that future cells and modules, each containing multiple cells will not be developed in accordance with the existing approved plan. IWS has developed site master plan options based on the current knowledge and best practice. However, given the long lead time between the opening of each subsequent module, which can be in the order of 10-15 years, it is highly probable that the current concept will be outdated and need to be further updated by the time the next module is ready to be opened.

It is noted that in comparing the current Site Master Plan, prepared by IWS, which is shown in **Figure 6.1** and contained in **Appendix H** with the original approved concept for the site, the concept layout of the cells and the modules has changed based on the operational experience gained. This includes reconfiguring the modules to be more rectangular in shape and optimising the width-to-length ratios to make the most efficient use of the available airspace during the construction, operation and closure of the cells and the modules comprised of multiple cells.



The current Site Master Plan represents best practice thinking at the current point in time. However, it is recognised that with ongoing learning and operational experience, the Site Master Plan will remain a 'living' document which is subject to regular review in the future.

IWS has given careful thought, together with their advisors, on an approach which would enable suitable flexibility going forward, whilst ensuring that relevant planning issues have been appropriately addressed.

The approach selected involves removing the existing approved plans showing the location of individual cells and modules, each containing multiple cells. Rather than substituting the current Site Master Plan, in their place will be a plan which shows an above ground three-dimensional space within which cells and modules, each containing multiple cells will be constructed. Modules will continue to be developed in a manner which leads to them being, post completion, individual land forms with sloped sides and a lower sloped top, with air space in between them. The overarching three-dimensional space approved will define a surface within which all modules, containing multiple cells are contained.

Plans prepared by Golder which detail the theoretical maximum three-dimensional space in which modules and cells are contained in **Appendix J**.

The approach selected recognises that:

- the EPA will continue to approve the design of each module and cell before it is opened;
- the size of each module, containing multiple cells is ultimately limited by the slope of the sides and top, meaning that enlarging a module beyond a certain footprint the slope of the top of the cell results in a dramatic reduction of airspace compared to using multiple cells;
- The final landform will remain as separated closed and capped cells, and the modules, containing multiple cells will not be linked to form a single land mass, meaning that the theoretical maximum three-dimensional space shown on the plan prepared by Golder represents only the maximum space in which modules and cells can be located, not the maximum volume which can be occupied by modules and cells;
- roads and other supporting infrastructure will continue to be located proximate to the modules, containing multiple cells; and
- differing configuration of modules, containing multiple cells within the defined space is considered unlikely to have material planning impacts, if any, outside of the site.

The approval of the maximum theoretical area for modules, containing multiple cells allows for a single planning assessment to consider the maximum outcome in terms of extent and height. Technical design issues embodied in the concept can also be considered, providing a clear understanding of the evolution of the broad technical parameters of the design, such as slope and cross sections, since the original approval. Cross sections of the site boundaries, including landscaping mounds and access roads, are also included.





Should the planning assessment of the proposed amendment result in an approval, the location and configuration of future individual modules, containing multiple cells, individual cells and supporting infrastructure would not require further development approval and would, instead, just be subject to approval by the EPA under the licence. Only in the event that there was a penetration of the maximum approved surface or another element which was not consistent with the approval, would a further variation to the development approval be required.

## 7.2 Height Increase

It is proposed to increase the maximum permitted height of the finished landfill cells from 23.00 metres AHD to 28.00 metres AHD. This increase in height will be subject to the sections developed by Golder and will not be achievable over the entire extent of the area in which modules, containing multiple cells are located. The increase in height does not mean that future cells will all achieve such a height over any or all of their area, but rather provides a maximum three-dimensional space within which the future modules, containing multiple cells could be developed. Typically modules, containing multiple cells will reach their greatest height in the centre, with low slope downwards to the 'shoulder' where a steeper batter will extend down to adjacent finished ground level.

In summarising the basis for the proposed increase in height, the flexibility and efficiency provided for future operation will be as follows:

- providing for the most efficient and lowest carbon footprint operation possible;
- providing for reduced excavation where appropriate to increase distance to groundwater;
- allowing for option cell and module configurations to be adopted whilst retaining airspace;
- allowing for balance of excavated material to be optimised;
- allowing for greater flexibility in liner design; and
- allowing for greater flexibility in cap design.

The basis for the maximum permissible height is the finished landfill cells, following closure and capping and allowing for any settlement. This approach has been adopted, as it is consistent with the approach of the existing approval. It is acknowledged that whilst a cell is being constructed, filled or capped, there will be periods where the cell or associated infrastructure protrudes above the maximum permitted height of the cell. This is the case with the 23 metres AHD restriction which is currently in place, and reflects that in comparison to the height of the finished landfill cells, which is a permanent modification of the landform, the operations associated with the construction, filling and capping occupies a relatively short period of time in conjunction to the operational lifespan of the entire facility or the permanent modification of the landform by finished landfill cells.



The approach adopted to referencing the permitted height is consistent with the current approach, and allows for appropriate assessment and consideration of visual amenity impacts and operational impacts which result from the height increase.

The height increase will allow for flexibility in several ways. It will potentially allow for additional airspace for landfilling, however, the amount of available airspace does not represent a barrier to operations of the facility in implementing the current approval, so that amount of material disposed to the facility is not expected to change as a result of the proposal. In practical terms, given the lifespan of the facility, the additional height will provide for greater design flexibility such as not excavating cells as deep (potentially increasing the distance to groundwater) and changing the configuration or thickness of both the liner and the cap, all subject to EPA approval.

The construction of landfill cells is a component of the overall cost base of the operation. The ability to optimise cells through additionally available height has the potential to optimise the cost of each cell, and, therefore, the unit cost of disposal of waste to landfill at the facility. The construction of the existing cells have required a large over-excavation of clay material. The additional flexibility gained through the height increase will enable a better balance of the volume of clay excavated and subsequently available for use in cell construction and capping throughout the life of the project.

Increased focus on mass balance and overall operational efficiency will reduce the long-term fuel and energy consumption of the operation, which should also serve to reduce the carbon footprint. By having flexibility to increase the height of the cells and modules, containing multiple cells, the opportunity exists to optimise the construction through excavating the cells less deep, or by increasing the volume of individual cells where the excavated material has a specifically identified site based reuse in close proximity to the excavation. This flexibility will provide for more precise short, medium and long-term planning of site excavation, landfilling, capping and mass balance, having the potential to significantly reduce the machinery operation (being a major source of modifiable carbon emissions from the operation) associated with the operation of the facility.

It is noted that visual amenity was a significant consideration in the original assessment of the proposal. Considerable work was undertaken by IWS in the original application in mapping the visual impact on the locality and developing design outcomes which mitigated the visual impact. Significant landscaping and screening work has also been undertaken over the life of the project to date, and further work in the construction of screens and the establishment of additional landscaping which is already approved but not yet constructed will occur progressively throughout the life of the facility.

It is confirmed that the proposed height increase will not result in changes to the operation of cells which have already been completed without further EPA approval being sought and obtained. All cells at the facility require approval by the EPA pursuant to the Licence, and thus irrespective of the approval of this application, it would not alter the approved designs of cells, including the maximum height, already approved by the EPA pursuant to the licence.



IWS has engaged DBD Environmental to conduct a preliminary assessment of the visual impacts of the proposed facility, with the height variation included.

A copy of the work undertaken by DBD Environmental is contained in **Appendix K**.

The work by DBD Environmental includes a photographic analysis which matches, as closely as can be achieved, the visual amenity assessment of the original application. The work represents a worse-than-worst-case scenario as it assumes that the whole of the landfill area will be developed to the proposed maximum theoretical size, when in reality the development will be of discrete modules, containing multiple cells which are angled on all sides with air space in between them.

When the original proposal was assessed, it was a new intrusion in the locality. Over time, as the facility has been established, it has become an existing character element of the locality. It is noteworthy that the assumptions contained in the original assessment document in respect of the development of screening vegetation have been largely borne out. The locality now features a significant amount of mature vegetation which contributes significantly to character and assists in the screening of the facility. This bodes well for the establishment and maturation of further screening landscaping in future.

The work by DBD shows that the increased height will be perceptible from a number of locations outside the site, however, in each of the locations analysed the additional height is likely to result in minimal change to the visual impact on the locality.

From many locations outside of the site, and the additional land purchased by IWS since the facility became operational, the change in height will be at the lower extent of that perceivable.

Our preliminary assessment is that whilst the proposed height increase will have visual impacts on the locality, having regard to the existing use of the site, the extent of the proposed height increase and the context of the locality, those impacts should be reasonable and within that anticipated.

The proposed amendment does not include additional landscape mounds beyond those previously approved on the subject land as a component of the approval. Whilst the visual analysis undertaken by DBD Environmental does include an analysis of the impact of additional landscaping mounts located on the additional land owned by IWS, this is for the purpose of illustrating that such mounds will not make a significant impact on the reduction of visual impacts, and are therefore not required to support the proposed variation.

### **7.3 Remove Volumetric Calculations**

The historic plans detail volumetric calculations for each of the modules, containing multiple cells. Having regard to the extremely long lifespan of the development, currently estimated to be well in excess of 100 years, the volumetric calculations are largely meaningless in consideration of the impacts of the proposal. Only a tiny fraction of the total airspace of the facility will be constructed and operational for landfilling at any particular time given the modular cell design and cell-by-cell approval and construction process.



The ultimate volumetric capacity of the facility is represented by the volumetric calculation of each cell as actually approved by the EPA pursuant to the Licence and subsequently constructed. Given the lifespan of the development and anticipated continuing evolution of landfill cell design and technology, the total final volume of landfill cannot be accurately calculated.

Maximising the amount of airspace available should result in operational improvements, as detailed in the previous sections, with should also serve to reduce fuel and energy inputs associated with the operation of the facility, and a resultant reduction in the carbon footprint of the operation.

Whilst consideration has been given to a maximum volume of any individual cell, as raised by the EPA, it is not considered that this is required for the purposes of a varied Development Approval for the site. The EPA will retain complete control over the maximum size of individual cells and of modules, containing multiple cells. Such parameters change over time based on cell technology and increased knowledge. The purpose of not having these requirements as part of the development approval allows the EPA to make a performance based assessment at the time that new cells are proposed. This assessment would be based on the cell technology and methods of the day at the time a cell is proposed.

#### **7.4 Central Processing Pad**

As the development of the site proceeds, the progressive opening of modules, containing multiple cells will progress in a westerly direction. Over time, this will result in the focus of operations on the site being located further to the west than is currently the case. At the present time, processing and operations occurring on the site are focussed on the eastern end of the site between the entrance and Modules 1 and 2. As the focus of operations on the site moves further to the west, it will become progressively less efficient to have all operations concentrated at the eastern end of the site.

Additionally, since the facility was originally approved, there has been an increasing focus on the treatment and management of waste to recover a greater proportion of waste and reduce the amount of waste going to landfill. It is expected that the focus on recovery will continue in future as technology further improves and the emphasis on circularity in the economy continues to grow. Additional processing and resource recovery require additional space, as material, particularly organic material frequency needs to be held for a specific period of time during treatment.

Accordingly, it is proposed to nominate an area as a processing pad more centrally on the site. This area would, subject to any required approvals be used for various processing and staging operations.

The location of the processing pad is detailed on the Plans prepared by Golder which are contained in **Appendix J**.

It should be noted that the location of the processing pad shown on the plans represents the maximum extent of the area in which the future processing pad can be located. It does not represent an actual processing pad or implies that the processing pad would take up the entirety of the identified area.



The use and size of areas for future use as processing pads would be subject to approval by the EPA pursuant to the licence. If any activities or building works on the processing pads were proposed that were outside of the ambit of existing approvals, development approval would also be required.

## **7.5 Confirm Use of Areas Shown as Cells for Processing Pads**

At many landfills, areas that are to be developed as cells in future are developed and used as processing pads prior to being developed as cells.

For the avoidance of any doubt, it is proposed to specify that areas shown as cells on the plans may be utilised as processing pads, prior to being opened as cells.

The use of areas as processing pads would be subject to approval by the EPA pursuant to the licence. If any activities or building works on the processing pads were proposed that were outside of the ambit of existing approvals, development approval would also be required. Processing pads are not proposed to be constructed on areas which have been previously filled as cells.

During the adequacy check process, the EPA identified that the establishment of processing pads upon any identified cell location may lead to changes to the environmental impacts profile of the site's activities through externalities including visual amenity, noise, dust and odour.

Whilst it is acknowledged that this is a potential outcome, having regard to the existing approvals of the site, the setbacks from the nearest sensitive receivers and the nature of surrounding uses, it is considered unlikely that such impacts would be materially different from the situation (or potential situation as the development of the site proceeds) from that enabled by the existing Development Approval.

It is noted that ongoing requirements in respect of acoustic performance and air quality will continue to apply to the site operation, and approval for processing pads to be established will continue to be required to be assessed under the licence.

The EPA also suggested that IWS may seek to exclude some areas of the site (cells) that would be excluded from the potential development of processing pads. Having regard to the long-term nature of the operations of the site, it is considered that such an approach is not appropriate, other than in respect of confirming that areas which have been previously filled as cells, as the nature of any impacts from a processing pad proposed in future will depend on the nature of surrounding development at the time the processing pad is proposed. Given the potential length of time involved, the development in the locality of the subject site, including sensitive receivers may change significantly between the present time, and when processing pads are actually required to be established.

## **7.6 Leachate Extraction Pumps**

The various approval documents contain some prescriptive requirements in respect of leachate extraction pumps, imposing a minimum requirement for performance of 40 litres per second. To date, the technology employed in the construction of the cells has not resulted in the generation of large amounts



of leachate. Data gained through operations indicates that the quantitative level of performance specified is greater than required based on current and future cell construction. Over-specifying pumps result in excessive capital cost and potential operational failure through pumps not appropriately handling flows lower than that for which they are designed.

For the avoidance of doubt, it is proposed to remove any prescriptive requirements for the capacity of leachate pumps from the Development Approval, and allow this capacity to be assessed by IWS and subsequently approved by the EPA as part of the day-to-day operations of the facility.



## 8.0 IMPACT ASSESSMENT METHODOLOGY

In assessing the impacts of the proposed amendments, IWS have followed the approach recommended by PLUS following an initial request by IWS for the variation to their existing approval.

On this basis, the impact assessment herein is undertaken in three parts:

1. Impact Assessment having regard to the Assessment Guidelines.
2. Impact Assessment having regard to relevant Provisions of the Planning and Design Code.
3. Assessment of the Social, Economic and Environmental Impacts of the proposed variation.

Applications for development covered by the major project declaration on the subject site have been assessed against a set of Assessment Guidelines prepared prior to the preparation of the initial EIS. These guidelines remain the relevant guidelines for the assessment of variations to the proposal.

A copy of the Assessment Guidelines is contained in **Appendix L**.

The Assessment Guidelines, whilst relatively brief in length, set out a comprehensive basis for the assessment of the proposal under the following headings:

- Introduction.
- The EIS Process.
- The EIS Document.
- Public Participation.
- Legislation and Codes of Practice / Environmental Safeguards and Standards.
- Monitoring and Review.
- Sources of Information.
- Appendices.

The Guidelines stated, in respect of the process:

*'An Environmental Impact Statement, as defined in the Development Act, means a statement of the expected social, economic and environmental effects of the development or project. The EIS should consider the extent to which the expected effects of the development or project are consistent with the provisions of any relevant Development Plan, the Planning Strategy, and any matters prescribed by the Regulations. The EIS should also state the conditions (if any) that should be observed in order to satisfactorily manage and control and potentially adverse effects of the development or project on the Environment. Further it should consider any other particulars required by the Minister or the Regulations.'*



As outlined in previous sections, the existing EIS and 2008 EIS Amendment is still considered, on a holistic basis to provide an appropriate basis for the assessment and consideration of variations to the project. This is evidenced by recent variations (including for the cell and module reconfiguration, biopad extension and secondary processing shed) being considered without a requirement for any amendment or addendum to the EIS.

Given the nature of amendments now proposed being more significant than the three (3) recent variations, it has been determined following review of the amendments proposed that an addendum to the EIS is required to assess and consider the extent to which the proposal varies from the existing approval, and existing operational practices.

To assist in structuring the impact assessment, a review of the structure sought by the Assessment Guidelines was undertaken, together with consideration of the manner in which the impacts were assessed in the EIS, the Response Document and the 2008 EIS Amendment.

It has been determined that the most appropriate approach is to adopt a similar structure to the assessment of issues adopted in the original Response Document. This is considered more useful than following the approach adopted by the 2008 EIS Amendment on the basis of the amendment being confined to a specific set of changes which were sought that that time.

The impact assessment is undertaken in the following three (3) sections of this report, firstly against the Assessment Guidelines, secondly against the Planning and Design Code and finally in respect of broader Social, Economic and Environmental impacts.





## 9.0 ASSESSMENT AGAINST ASSESSMENT GUIDELINES

The following assessment against the Assessment Guidelines is undertaken for each variation proposed, and within each variation is separately considered for each issue.

A consolidation of the issues, as extracted from the guidelines is as follows:

- Site Operation.
- Groundwater.
- Surface Water.
- Landfill Gas Management.
- Environment/Amenity.
- Visual Amenity.
- Air Quality.
- Acoustic Impacts.
- Traffic Impacts.
- Pest Plant and Animal Management.
- Community Engagement.
- Post Closure Management

For a number of the amendments, only a limited number of the issues are relevant, as set out in the matrix in **Table 9.1** below.

**Table 9.1: Assessment Matrix**

	Internal Configuration Flexibility	Height Increase	Removal of Volumetric Calculations	Central Processing Pad	Cell Processing Pads	24 Hour Operation (deleted from proposal)	Leachate Pumps
Site Operation	X	X	X	X	X		X
Groundwater	X	X	X	X	X		X
Surface Water	X	X	X	X	X		X
Landfill Gas Management		X	X				



	Internal Configuration Flexibility	Height Increase	Removal of Volumetric Calculations	Central Processing Pad	Cell Processing Pads	24 Hour Operation (deleted from proposal)	Leachate Pumps
Visual Amenity	X	X	X		X		
Air Quality					X		
Acoustic Impacts					X		
Traffic Impacts							
Pest Plant and Animal Management	X	X	X	X	X		
Community Engagement	X	X	X	X	X		X
Post Closure Management	X	X	X	X	X		X

### 9.1 Internal Configuration Flexibility

*Relevant Assessment Issues: Site Operations, Groundwater, Surface Water, Visual Amenity, Pest Plant and Animal Management, Community Engagement, Post Closure Management.*

Removing the existing module and cell positions from their current status of being enshrined in the development approval will provide the proponent with significant additional operational flexibility in being able to adjust the configuration of the site as the development progresses over an extended period.

Unlike many developments, the proposal will continue to operate for a very long period of time. The operation of the proposal will involve a continuous, incremental development process as modules, containing multiple cells (and individual cells) are constructed, operated and then completed. The operational complexity of the proposal is reflected in the requirement for a Licence under the *Environment Protection Act, 1993* and the ongoing monitoring by and liaison with the EPA.

In considering the additional internal configuration flexibility, which is proposed, it is necessary to having regard to the following:

- How will the proposed change affect the appearance and impact of the facility beyond the site?
- How will the proposed change affect the environmental impacts of the proposal from a 'static' perspective?
- How will the proposed changes result in operational changes which may affect the environmental impacts of the proposal?



In essence, the internal configuration flexibility which is sought will allow the configuration of modules, containing multiple cells (and individual cells) to be altered, within a redefined extent, without a requirement for further amendment to the development approval.

In considering the scope of the proposed amendment, it is noted that the ultimate development of the site will still result in modules, containing multiple cells (and individual cells) being developed within an outer boundary that remains largely unchanged from that which has previously been approved.

The scale and configuration of individual modules, containing multiple cells (and individual cells) is governed by a range of factors; however, principal constraints including the slope requirements for the top and sides of the cell. There is an optimum size and shape for modules, containing multiple cells (and individual cells) which provides the largest volume of air space for the disposal of waste, with modules, containing multiple cells becoming less efficient as they deviate from the optimum configuration in both larger and smaller directions. This means that the size of individual modules, containing multiple cells is limited in practical terms, as larger modules, containing multiple cells do not continue to provide optimal air space in a linear fashion.

The ultimate development of the site will therefore remain as a series of individual modules, containing multiple cells with low-sloping tops and steeper battered sides, separated by access roadways and infrastructure services. From external to the site, the configuration changes which will be enabled by the proposed variation are likely to vary between being imperceptible and minor from a visual perspective.

Individual cell configuration and design will still need to be approved by the EPA in respect of each cell, pursuant to the licence.

It is considered appropriate that a condition be applied, which highlights that the design and configuration of all future modules, containing multiple cells (and individual cells) are to be endorsed by the EPA on an ongoing basis.

## **9.2 Height Increase**

*Relevant Assessment Issues: Site Operation, Groundwater, Surface Water, Landfill Gas Management, Visual Amenity, Pest Plant and Animal Management, Community Engagement, Post Closure Management.*

### **9.2.1 Site Operation**

It is proposed to increase the permitted height of the landfill cells from a currently approved maximum of 23.00 metres AHD to a revised maximum of 28.00 metres AHD.

The increase in the maximum finished height proposed reflects a better understanding of the operational and geotechnical conditions, changes in cell design and liner technology, changes in capping design and technology and the need to optimise operations on the site.

The revised maximum finished height will, when combined with no change in the depth to which cells can be constructed, result in an increase in the air space available over the life of the facility. In practical terms, however, the additional height will permit a number of operational and design changes which result in any increase in the available airspace being considerably less than the theoretical increase proposed.



These are as follows:

- the increase in total available height from the bottom of the excavation to the top of the cell may allow for the depth of total excavation to be reduced;
- the increase in total available height from the bottom of the excavation to the top of the cell may allow for alternative liner designs which have a greater thickness;
- the increase in total available height from the bottom of the excavation to the top of the cell may allow for alternative cap designs which have a greater thickness; and
- the additional height above ground does not permit a linear increase in volume due to the requirements for batter slopes on the sides and top of the finished cell.

The increase in available cell height will not result in a fundamental change to site use. The cells will still be constructed in similar locations, operated in a similar fashion and operated once closed and capped in a similar fashion. It does, however, have the potential to result in significant improvement in operational efficiency through better balancing of the material excavated from the landfill cells prior to their construction.

From locations external to the site, it is not considered that the additional cell height will result in a material and perceptible change to the nature and intensity of operations occurring on the site.

### 9.2.2 Groundwater

The proposed increase in cell height is not anticipated to result in material changes to groundwater impacts from the facility, from a development assessment perspective.

Landfill cells have the potential to impact groundwater, and the design, construction and operation of the cells have specific and extensive regard to the management and mitigation of potential groundwater impacts.

The proposed cell height increase has the potential to provide additional flexibility in the management and mitigation of potential groundwater impacts in the following manner:

- Providing greater flexibility to reduce the extent of excavation, increasing the potential distance between the cell and groundwater.
- Providing greater flexibility in the design of the liner and leachate extraction systems to increase efficiency and reduce risk.
- Providing greater flexibility in the design of the capping, allowing for better management of surface water and reducing the risk of surface water/groundwater interaction.

Each landfill cell will continue to be designed in a comprehensive manner and will require approval from the EPA prior to construction pursuant to the licence. For cells constructed on the site to date, groundwater impacts have primarily been assessed during the consideration of the detailed design of the cell by the EPA pursuant to the licence.



### 9.2.3 Surface Water

The proposed increase in cell height is not anticipated to result in material changes to surface water impacts from the facility, from a development perspective.

The total area that will be occupied by landfill cells will not materially change as a result of the proposal. The amount of surface water generated is therefore likely to remain largely the same as would be the case pursuant to the existing approval.

The proposed maximum finished height increase has the potential to provide additional flexibility in the design of and capping of cells to provide for better management of surface water on the site. Additional flexibility in capping design has the potential to provide for capping systems which reduce the rate of surface water generation during rainfall events.

Each landfill module, containing multiple cells (and individual cells) will continue to be designed in a comprehensive manner, and the management of surface water is a key consideration in the design of each cell. Approval from the EPA pursuant to the licence, which will extend to the assessment of the proposed management of surface water prior to the construction of each cell.

### 9.2.4 Landfill Gas Management

The proposed increase in cell height is not anticipated to have a material impact on landfill gas generation or management. The nature of the waste being disposed into the cells will not change as a result of the configuration change.

The theoretical increase in the volume of the cell has the potential to increase the volume of gas generated, however, in the context of the overall site, this increase is not identified as being significant.

Landfill gas is managed by the proponent on an ongoing basis pursuant to the licence, with the EPA playing a key role in the assessment of this issue, pursuant to the licence.

### 9.2.5 Visual Amenity

Potential visual amenity impacts are identified as being the most significant impact of the proposed increase in maximum finished height.

Visual amenity impact was a significant issue during the original assessment of the facility, and a detailed assessment was undertaken, post public exhibition of the EIS and included in the response document. At the time of the original proposal, the facility was being assessed as a new land use in the locality. That land use is now established and substantially progressed and represents a significant character element in the locality. The assessment at this point is therefore of the impact of the proposed change from the currently approved maximum height to the new permitted maximum height.

Additionally, given the time that has elapsed since the facility was established, many of the mitigations employed to lessen the originally forecast visual amenity impacts have been implemented and are able to be considered in the context of their performance to date.



The Assessment Report concluded the following in respect of visual amenity impacts:

*'In conclusion, the visual impact of the proposed landfill would be expected to change over time. Initially, the erection of the screen mound and outer slope of each active stage would gradually establish prominent features on the landscape that, whilst screened to a large degree by vegetation, would be highly visible due to their large scale and slightly elevated height (i.e. compared to the relatively flat nature of the topography). They would remain obvious because of their green cover of native vegetation, especially during times of year when the surrounding country has browned off.*

*The completed site is expected to have the appearance of a series of large vegetated mounds within a largely cleared flat landscape. Progressive and final revegetation of the landfill and the establishment of screen plantings around the site perimeter, and possibly adjoining roadside reserves should adequately mitigate the visual impact of the site, especially from Pt Wakefield Road and Prime Beach Road.'*

This summation in the Assessment Report provides a clear basis for the expected visual outcomes of the facility. It acknowledged that there would be a change in visual impact over time, with periods where the visual impact is greater and periods where it is less. It acknowledged the change in landform through the excavation, filling of the cells and final form post-closure of cells. It further acknowledged that the final form would retain the significantly altered topography but would also change character by virtue of its revegetation which would be a significant visual element in the locality, particularly during the summer months when its appearance was in contrast to surrounding cleared areas.

Thus, the approval clearly acknowledged that there would be a material change in visual amenity through landform and appearance, that the change would progress in an evolutionary manner and that the level of impact would continue to alter over time.

The extensive assessment of visual amenity undertaken during the original assessment of the proposal provides a clear reference for consideration of the extent to which:

- the visual amenity impacts predicated in the original proposal and assessment thereof have been borne out; and
- the extent to which the mitigations implemented have been successful in ameliorating the visual amenity impacts.

Since the original approval, IWS has acquired a significant amount of additional land contiguous to their site. This includes land to the north-east adjacent the Port Wakefield Highway and a very significant amount of land to the south. The acquisition of this additional land, whilst it is not included within the subject site for assessment purposes has provided for additional mitigation of visual amenity impacts through:

- reducing the number of adjacent properties from which visual amenity impacts from the facility can be experienced; and
- allowing for the future construction of additional mounding and screening, located further from the facility and closer to locations from which views can be obtained (although it is noted that approval for such future construction is not sought by the amendment now submitted).



The Visual Amenity Assessment Update, prepared by DBD Environmental, hereinafter referred to as the 'VAAU' provides a reference from which the impact of the proposed variation can be assessed.

Having regard to the scale of the subject site, and the staged nature of its operation, the visual amenity impacts vary significantly in different locations within the locality. The specific impacts, therefore, need to be assessed in different locations, and then a cumulative assessment undertaken of the overall impact.

The VAAU undertakes the assessment in a number of ways. Firstly, it specifically includes the photographic assessment undertaken for the original application. Wherever access was available, it has sought to replicate photos from the same locations from where the original photos were taken. Subsequently, it introduces a number of additional photo points, which reference the actual impacts of the current disposition of the facility. Finally, it includes some photomontages which superimpose the proposed height increase and the final nature of the landform and planting over the photography.

The VAAU review the impacts in a logical fashion, moving relative to the subject site in an anti-clockwise direction, starting from the Port Wakefield Highway to the southwest of the subject site.

It is noted that the original 1997 photos were taken in summer, while the photos in the VAAU were taken when the open areas of the locality were green, and this should be accounted for in the assessment of the photos from the different dates.

#### VAAU Figure 8.1 – Lemmey Road

From Lemmey Road looking west, the VAAU Figure 8.1 compares the 1997 view with a view in 2021. This figure is instructive as it has direct views, similar to those obtained by drivers heading northwards on the Port Wakefield Highway, but not being occluded by roadside vegetation.

The 1997 photo shows the open area, with the vegetation evident on the southern boundary of the subject site adjacent Port Wakefield Highway in the distance. The 1997 photo shows a broad, open landscape, with the stand of vegetation mentioned above, other scattered vegetation visible in the distance, stock fencing and roadways.

In the 2021 photo, Module 1, the highest and most complete existing cell module on the site and the MWTF shed are visible. The cell module is visible in respect of its height, when reference is made to the 1997 photo, however, in its form, the cell module itself still references as a very wide civil structure, with a very low ratio of height to width. With a height above ground of some 14 metres at a maximum, compared to a width, which is quite apparent in its expression in this photo over 800 metres, the cell has a height above ground of less than 2.0 per cent of its width. The cell does not dominate the landscape, particularly in a vertical perspective, which is partly a function of being located over 1.0 kilometre from the points from which the photo was taken.

In a similar nature, the MWTF is clearly visible in the photo, but is not a dominant element in the landscape, either in respect of width or height. Being located some 950 metres from the point from which the photo was taken, the MWTF sits in similar reference to the intensive animal keeping sheds, which have a lower apparent height but greater apparent width in the photos.



It is noted that with the 2021 photo having been taken when the open areas are green, the contrast of the cell module, which is not yet revegetated, would be expected to be highest at this time of year.

#### VAAU Figure 8.1a – Lemmey Road

From Lemmey Road, this figure duplicates the 1997 view from Figure 8.1, but includes a closer view of the vegetation at the entrance of the subject site.

The photo shows that the vegetation is considerably greater in maturity and density than in 1997, and viewed from a position similar to that drivers would experience heading north on Port Wakefield Highway, provides substantial screening of the gatehouse and site office in the foreground and the biopad, equipment storage and MWTF shed in the background.

#### VAAU Figure 8.2 – Lemmey Road

From Lemmey Road looking south-west, the VAAU Figure 8.2 compares the 1997 view with a view in 2021. This figure is instructive as it has direct views, similar to those obtained by drivers heading northwards on the Port Wakefield Highway.

In the 1997 photo, there is no vegetation present along the boundary when viewed from the road. The vegetation is that surrounding the, then, dwelling. The view shows a broad flat landscape, with the perimeter vegetation surrounding the dwelling and its curtilage.

In the 2021 photo, the perimeter screening vegetation is visible in the foreground behind the site fencing, with the screening mound visible behind, it is noted that the screening mound, which has been quite recently constructed, is currently a quite bright red/orange colour, reflecting the nature of excavated soil. From other examples surrounding the site, the contrast of this soil colour is expected to diminish over time as the soil weathers and surface vegetation establishes.

In the 2021 photo there is some limited visibility of equipment parked on the storage pad behind the vegetation and screening mound. The former dwelling and the gatehouse also have some limited visibility. It is noted, however, that notwithstanding the photo being oriented directly towards the MWTF and Cell Module 1, neither of these elements are visible.

#### VAAU Figure 8.3 – Lemmey Road

From Lemmey Road looking west, this figure is taken from the northern extent of Lemmey Road, which is also the northern extent of the subject site. To the north is the additional land which has been purchased by IWS. The photo looks towards Cell Module 3, which is currently being progressively filled.

The 1997 photo shows a broadly open landscape, with vegetation surrounding the former dwelling on the land to the north of the subject site (which has now been demolished). The vegetation surrounding the former dwelling on the subject site is visible to the left of the image.





The 2021 photo shows the screening mound which has been constructed on the additional land purchased by IWS. At the time the photo was taken the screening mound had only recently been constructed, and the colour contrast outlined in respect of the image above is clearly evident. The screening bund occludes all ground-level features with the tops of the mature trees on the land remaining visible. From the photo, no views of the landfill cell or operations are visible.

The VAAU includes a photomontage, which is representative of the 2021 view with the establishment of groundcovers and landscaping superimposed on the screening mound.

#### VAAU Figure 8.3a – Port Wakefield Highway

From the Port Wakefield Highway, this photo looks south-west towards the facility, over the allotment recently purchased by IWS to the north-west. This photo looks towards the closest location of cells to the Port Wakefield Highway.

There was no photo taken in 1997 from this position.

The 2021 photo shows the screening mound currently under construction on the allotment recently purchased by IWS to the north-west. The photo also shows the current operations of Cell Module 2, which are occurring in the closest position of the subject site (where landfill cells are located) to Port Wakefield Highway.

The landfill operations are visible, however, are significantly occluded by roadside vegetation in this view. In this location, the closest point of the cell module is located just over 300 metres from Port Wakefield Highway. This contributes to the apparent vertical element of the cell being more significant in the landscape.

The VAAU includes a photomontage, which is representative of the 2021 view, with the screening mounds having been established along the entirety of the Port Wakefield Highway boundary and returning around the northern boundary. The photomontage is also representative of the screening mound having established groundcovers and landscaping.

#### VAAU Figure 8.3b – Subject Site North

From the allotment adjacent Port Wakefield Highway directly to the north of the subject site, this photo views the operational Cell Module 2 from a distance of approximately 100 metres. This photo is representative of something close to the worst-case visual impact from the facility, given the broad nature of existing cell operations in this location, the presence of litter netting structures adding additional verticality and there being no screening vegetation established on the batter slope. The batter slope in this location in points reaches or potentially exceeds the maximum finished height of the cell (noting the finished height may be exceeded whilst a cell is being developed and operated).

There is no photo taken in 1997 from this position.



In the 2021 photo the height of the cell module is clearly apparent, accentuated by the contrasting colour with the green open area in the foreground. Whilst the height evident in the photo is impactful from a visual perspective, it is the breadth of the cell module that is the most dominant visual feature. Viewed as a whole, the cell module and associated litter netting structures present as a low-scale but very broad and large civil structure within the landscape. The photo shows the screening bund which has been established adjacent the current cell module, albeit without significant landscaping yet having been established on it.

The photo illustrates that the screening bunds are at their most effective when they are established immediately adjacent the position from where views are obtained. In this case, where the screening mound is adjacent the cell module, but well removed from the viewing point, the additional height of the module is clearly apparent behind the screening mound.

The VAAU includes a photomontage, which is representative of the 2021 view, with the cell module having been completed, and Cell Module 5 having been established, operated and completed further to the west. The overall height in the photomontage has been increased to the 28 metre AHD maximum height proposed in the amendment. The litter netting posts are still visible, and provide a reference to the additional height proposed, however in reality would have been removed once operations have been completed. The photomontage shows groundcover and screening vegetation established on the existing screening bund. The establishment of vegetation will provide some degree of screening of the cell module behind, but is unlikely to substantially occlude it from this viewpoint.

#### VAAU Figure 8.3c – Subject Site North

This photo is taken from the eastern side of Port Wakefield Highway, approximately 1.0 kilometre north of the northern boundary of the subject site. The photo is representative of what a driver travelling south on the Port Wakefield Highway would see. Looking south-south-west towards the cell modules, this photo is representative of the worst-case view of the subject site heading south on Port Wakefield Highway.

There is no photo taken in 1997 from this position.

The 2021 photo illustrates that the vegetation in the centre of Port Wakefield Highway is significantly mature and moderately to substantially occludes views of the subject site, depending on the density of the vegetation in any particular location. Electricity infrastructure is visible along the western edge of the Port Wakefield Highway, introducing a vertical element into the landscape. The existing cell module is visible through the vegetation in the median, being a readily apparent, but not dominant feature in the landscape.

The VAAU includes a photomontage, which is representative of the 2021 view, with the cell module having been completed and Cell Modules 5 and 6 having been established, operated and completed further to the west. The overall height in the photomontage has been increased to the 28 metres AHD maximum height proposed in the amendment. The very broad nature of the cell modules in the photomontage serves to limit the impact of their apparent height from views obtained from this position.



#### VAAU Figure 8.3d – Thompson Road

This photo is taken from Thompson Road, approximately 50 metres west of the intersection with the Port Wakefield Highway. The photo is looking south towards the northern boundary of the subject site, with the entrance to the allotment on the southern side of Thompson Road in the foreground.

There is no photo taken in 1997 from this position.

The 2021 photo shows the current operating cell module in the background to the left of the site entrance in the foreground. The site operations are a relatively recessive element in the photo, which is dominated by the site entrance fencing and gate and the vegetation in the foreground. The visibility of the existing site operations emanates, to a large degree from the contrast in colour of the operations against the green vegetation which dominates the photo.

The VAAU includes a photomontage in this location which includes the proposed increase in height of the fished cell modules, together with the establishment of screening and landscaping. The distance between the photo point and the northern boundary of the subject site is approximately 1.3 kilometres. From this distance, the cell module is apparent as a broad civil structure, which is evident, but not dominant in the landscape, particularly in respect of its vertical element.

#### VAAU Figure 8.3e – Thompson Road

This photo is taken from Thompson Road, approximately 500 metres west of the intersection with Port Wakefield Highway. The photo is looking south towards the northern boundary of the subject site.

There is no photo taken from 1997 in this position.

The 2021 photo shows that dense screening vegetation has been established in the verge of Thompson Road and adjacent within the allotment immediately adjacent to the south of Thompson Road. The vegetation is mature and varies in height between approximately 2.0 metres and 6.0 metres.

From the photo position, the vegetation almost completely occludes any view of the subject site to the south. The position from which the photo has been taken is located to the west of the current Cell Module 3 on the subject site. Notwithstanding this, if the vegetation was not present, it would be expected from this position to obtain clear views of Cell Module 3 to the south-east at a distance of approximately 1.4 kilometres.

The photo illustrates the effectiveness of screening immediately adjacent the point from which views are obtained.

#### VAAU Figure 8.4 – Thompson Road

This photo is taken from Thompson Road, approximately 900 metres to the west of the intersection with Port Wakefield Highway. The photo is looking south towards the northern boundary of the subject site.



The 1997 photo shows a broad open landscape, with a dwelling to the right hand side. Distant vegetation is evident to the background of the majority of the landscape.

The VAAU includes a photomontage of the 2021 photo which was taken slightly to the east of the 1997 photo.

The dwelling still exists the same position, however, is now substantially surrounded by mature vegetation. The vegetation evident in the 1997 photo has matured substantially in the 2021 photo. That vegetation almost completely screens the existing operations of Cell Module 3, which would be expected to be visible in the left portion of the photo if the vegetation was not present.

The photomontage shows cell modules having been completed across the entire background of the photo. At a distance of approximately 1.25 kilometres, the cell modules, at their proposed height of 28 metres AHD, form an apparent but highly recessive element of the view.

#### VAAU Figure 8.4a – Thompson Road

This photo is taken from Thompson Road, approximately 1.1 kilometres to the west of the intersection with Port Wakefield Highway. The photo is looking south-southeast towards the northern boundary of the subject site.

There is no photo taken from 1997 in this position.

The photo shows the existing dwelling which was showing in the 1997 photo in VAAU Figure 8.4. Whilst in 1997 this dwelling was in a totally open position, it was by 2021 completely surrounded by dense vegetation, which largely occludes views of the dwelling from Thompson Road. The vegetation is a dominant element in the photo. From the photo point, the vegetation surrounding this dwelling almost completely occludes visibility of the operations of Cell Module 3.

The VAAU includes a photomontage of the 2021 photo. This shows Cell Module 7 having been established, operated and closed and capped at the proposed maximum height of 28 metres AHD. At a distance of approximately 1.25 kilometres, the cell module forms an apparent but highly recessive element of the view.

The presence of vegetation in the view shows the extent to which vegetation close to the viewpoint can obscure the operations and structures on the subject site. It is possible to infer that the vegetation as it is currently would materially obscure views of the existing and future operations on the subject site from the dwelling, both now and into the future.

#### VAAU Figure 8.4b – Thompson Road

This photo is taken from Thompson Road, approximately 1.55 kilometres to the west of the intersection with Port Wakefield Highway. The photo is looking south towards the northern boundary of the subject site.

There is no photo taken from 1997 in this position.



The photo illustrates the existing dwelling and ancillary structures, which are located approximately 120 metres from Thompsons Road. As contrasted to the dwelling further to the east, this dwelling is not surrounded by as significant an amount of vegetation. The existing operations on the subject site are not visible in this photo, being located a significant distance to the east, and to the extent that they would be visible, are completely occluded by the dwelling, ancillary structures and vegetation.

Visible in the background is the existing vegetation located within the subject site, which is mature and variable in its density. Future cell modules will be located behind this vegetation and a further vegetated screening mound.

The VAAU includes a photomontage of the 2021 photo. This shows Cell Module 8 and Cell Module 9 having been constructed, operated and closed and capped at the proposed maximum height of 28 metres AHD. The photomontage indicates that the position and height of the existing vegetation will align closely with the finished height of the cell modules at a maximum of 28 metres AHD. The vegetation will partially, but not completely screen the cell modules, both during operation and following their closure.

#### VAAU Figure 8.4c – Thompson Beach Road

This photo is taken from Thompson Beach Road, looking south-east, approximately 400 metres south of the intersection from Thompson Road. The photo is looking south-east towards the northern boundary of the subject site at an oblique angle.

There is no photo taken from 1997 in this position.

The photo looks across an area between the photo point and the subject site, which is in at a lower relief and features scattered native vegetation, including groundcovers, low shrubs and moderately sized scattered trees. The western side of Cell Module 3 is visible in the photo, however, will eventually be occluded by future cell modules located between Cell Module 3 and the viewpoint.

The photo features roadside screening vegetation which varies in density along the road. This vegetation is relatively mature and varies in height between approximately 600 millimetres and 3.0 metres. The overall landscape is quite significantly influenced by the vegetation, which is located in the foreground, mid-ground and background, including the screening vegetation along the northern boundary of the subject site.

The western side of existing Cell Module 3 is visible, but not a dominant element in the overall photo.

THE VAAU includes a photomontage of the 2021 photo. This shows the future cells, completed to a height of 28 metres AHD, extending across the majority of the background of the photo. Because of the oblique nature of the viewpoint, relative to the northern boundary of the subject site, the cell modules will be least apparent to the left side of the photo (where they are at their most distant), increasing in relative appearance to the right-hand side of the photo, where the distance reduced from over 2.0 kilometres to approximately 875 metres.



### VAAU Figure 8.5 – Thompson Beach Road

This photo is taken from Thompson Beach Road, looking south, approximately 150 metres from the northern boundary of the subject site.

The 1997 photo shows a moderately open landscape, with mature vegetation to the western side of the road (right in the photo), and scattered vegetation on the eastern side of the road (left in the photo). Further vegetation, located on the subject site and the sites to the south of the subject site, is visible in the background.

The VAAU includes a photomontage of the 2021 photo. This shows the future cell modules, completed to a height of 28 metres AHD. Given the close proximity of the cell modules to the photo point, the apparent height of the cell modules is significantly greater in this location. A screening bund was installed within the boundaries of the subject site in this location and is evident in the 2021 photo.

The figure also includes a cross-section showing the arrangement of the existing screening bund, a secondary screening bund and the landfill cell modules in this portion of the site.

Having regard to the arrangement of the cell modules relative to the road, the facility will be a dominant character element in this location. Where Thompson Beach Road runs immediately adjacent the subject site boundary, the screening bund will offer a degree of screening, particularly as the vegetation matures over time, however, the cell modules will remain visible in both their operating and completed phases.

In comparing the impact of the existing approval with the proposed height increase, it is noted that the natural ground level in this area of the site varies between 5.0 and 8.0 metres AHD. The existing approval allows for a maximum height of 23 metres AHD, meaning that the height above ground level will vary between 15 and 18 metres above natural ground level. At these levels, and taking into account the mitigations installed and proposed, the existing approval will result in the cell modules being a dominant element in the landscape.

The proposed increase in height will result in the height above ground level increasing to between 20 and 23 metres above ground level. The increase is likely to be noticeable, resulting in a large dominant element becoming a somewhat larger dominant element.

It is noted that the views from this location will only be obtained by the small number of vehicles on Thompsons Beach Road. The nearest dwelling is located over 1.0 kilometre to the north, from where the impact, particularly that of the proposed height increase will be far more recessive.

### VAAU Figure 8.5a – Port Prime Road

This photo is taken from Port Prime Road looking south-south-east approximately 50 metres from the boundary of the subject site.

There is no photo taken from 1997 in this position.



The 2021 photo looks directly towards the screening mound constructed adjacent Port Prime Road in this location. In the photo, the mound illustrates scattered shrubs and trees with a low to moderate level of density. Owing to the time of the year that the photo was taken, the groundcover of the mound is green, matching the groundcover in the foreground.

None of the existing activities on the site are visible in the 2021 photo.

The VAAU includes a photomontage of the 2021 photo. This shows the future cell modules, compared to a completed to a height of 28 metres AHD. Similarly to the previous figure, given the close proximity of the cell modules to the photo point, the apparent height of the cell modules is significantly greater in this location.

The figure also includes a cross-section showing the arrangement of the existing screening bund, a secondary screening bund and the landfill cell modules in this portion of the site.

Having regard to the arrangement of the cell modules relative to the road, the facility will be a dominant character element in this location. Where Thompson Beach Road runs immediately adjacent the subject site boundary, the screening bund will offer a degree of screening, particularly as the vegetation matures over time, however, the cell modules will remain visible in both their operating and completed phases.

In comparing the impact of the existing approval with the proposed height increase, it is noted that the natural ground level in this area of the site varies between 5.0 and 8.0 metres AHD. The existing approval allows for a maximum height of 23 metres AHD, meaning that the height above ground level will vary between 15 and 18 metres above natural ground level. At these levels, and taking into account the mitigations proposed, the existing approval will result in the cell modules being a dominant element in the landscape.

The proposed increase in height will result in the height above ground level increasing to between 20 and 23 metres above ground level. The increase is likely to be noticeable, resulting in a large dominant element becoming a somewhat larger dominant element.

It is noted that, similarly to the figure above, the views from this location will only be obtained by the small number of vehicles on Thompsons Beach Road. The nearest dwelling is located over 1.5 kilometres to the north-east, from where the impact, particularly that of the proposed height increase will be far more recessive.

#### VAAU Figure 8.6 – Port Prime Road

This photo is taken from Port Prime Road approximately 450 metres west from the westernmost point of the subject site. The photo looks east back across the subject site. It is noted that the original approval includes a 500-metre buffer between the western extent of the site and the westernmost extent of landfill cells.

The 1997 photo shows a largely open landscape, with low coastal shrubland in the foreground, and more significant vegetation in the far background. Port Prime Road is evidently leading in an easterly direction.



The VAAU includes two (2) photomontages of the 2021 photo.

The first photomontage shows the future cell modules, compared to a completed to a height of 28 metres AHD. The closest point of the cell modules is located approximately 950 metres from the photo point (being approximately 450 metres to the property boundary and the 500-metre setback within the property boundary). The photomontage shows the cell modules completed but without any screening having been established. Cell Module 10, located at a distance of approximately 950 metres is a notable character element, with a broad, low topographic profile. Cell Module 11 is located at a distance of approximately 1.9 kilometres is visible to the right of cell Module 10, and forms a visible, but more recessive element, owing to the increased distance.

The second photomontage shows the future cell modules, but also includes a screening mound on the western property boundary. The screening mound would be established at approximately half the distance between the viewpoint and Cell Module 10. The screening mound appears as a low landscaped element running across the majority of the photo, together with screening vegetation. It obscures the view of the lower part of the cell modules, whilst the upper part of the cell modules remains visible.

Having regard to the nature of the vegetation between the viewpoint and the screening mound being lower coastal vegetation, the screening mound provides a greater level of contrast to the landscape to those further north. Whilst the screening mound is projected to be effective at partially occluding the view of the cell modules, having regard to the existing landscape and the distance from which the cell modules are viewed, the limited visual impact of the cell modules in this location and the effect of the screening mound makes the screening mound potentially less valuable in this location than those described in the previous images.

#### VAAU Figure 8.6a – Crabb Road

This photo is taken from Crabb Road, approximately 2.7 kilometres west of Port Wakefield Road. The photo looks north towards the subject site.

There is no photo taken from 1997 in this location.

The 2021 photo looks north towards Cell Module 1 and Cell Module 2, which have limited visibility. The MWTF shed is also visible in the facility, forming a small, but a clearly visible element in the view, sky lining above the topography.

The nature of the topography results in the existing Cell Module 1 and Cell Module 2 having limited visibility, with the closest point of Cell Module 1 being at a distance of approximately 1.1 kilometres.

The site features, whilst visible, have a limited impact on the view obtained from this location.

The VAAU includes two (2) photomontages of the 2021 photo.





The first photomontage shows the future cell modules, compared to a completed to a height of 28 metres AHD. There is predicted to be some additional visibility of Cell Module 1, 2 and 11, which will extend to a slightly higher level above the existing topography.

The second photomontage shows the future cell modules, but also includes a screening mound on the southern property boundary. The screening mound is located immediately adjacent the road, which having regard to the distance to the cell modules and infrastructure on the subject site, is projected to completely obscure these elements.

Having regard to the limited visual impact of the facility, including the height increase in this location, the screening mound is not considered to be required to ameliorate visual impacts.

It is noted that this screening mound is not currently approved, nor is approval sought in this variation.

#### VAAU Figure 8.6b – Crabb Road

This photo is taken from Crabb Road, approximately 1.5 kilometres west of Port Wakefield Road. The photo looks north-west towards the subject site, at an angle which is largely perpendicular to Cell Module 1.

There is no photo taken from 1997 in this location.

The 2021 photo looks north-west toward Cell Module 1, which is located behind dense vegetation located on the allotment located Crabb Road (not owned by IWS) and screening vegetation on the eastern boundary of the subject site. Module 1 is glimpsing visible through the vegetation but is a low, broad and recessive element in the overall landscape, which is dominated by the paddock in the foreground.

The VAAU includes a photomontage of the 2021 photo. This shows the future cell modules, compared to a completed height of 28 metres AHD. The distance from which the cell modules are viewed and the significant vegetation between the viewpoint and the cell modules screens the predicted form, resulting in a limited change to the view.

#### VAAU Figure 8.6c – Lemmey Road

This photo is taken from Lemmey Road, adjacent the entrance to the feedlot operation. The photo looks west towards the subject site at an oblique angle to Cell Module 1. Both the feedlot operation and the poultry sheds are located between the viewpoint and the subject site.

There is no photo taken from 1997 in this location.

The 2021 photo shows the MWTF shed being visible in the background in the middle of the picture. Roadside vegetation is visible in the foreground, with vegetation on the allotment of the feedlot operation visible in the mid-distance. Screening vegetation along the southern side of the allotment of the subject site adjacent Lemmey Road is also visible. Electricity infrastructure is also visible, adding an additional vertical element to the foreground of the view.



The MWFT is visible, but not dominant as a character element. Cell Module 1 is difficult to discern in the photo, but potentially has some glimpsing visibility between the vegetation in the mid-ground. It is notable that infrastructure, civil formations and sheds associated with the feedlot and poultry operations also have visibility.

The photo illustrates the effectiveness of mature screening vegetation, particularly when it is located at the roadside, or close to the viewpoint.

#### VAAU Figure 8.6d – Lemmey Road

This photo is taken from the same location on Lemmey Road as Figure 8.6c, above, however, is directed to the north-west, parallel to Port Wakefield Highway. The photo looks directly towards the southern side of the allotment of the subject site adjacent Lemmey Road which contains the gatehouse, equipment storage area and biopad facilities.

There is no photo taken from 1997 in this location.

The photo clearly illustrates the mature vegetation in the Port Wakefield Highway verge, together with the screening vegetation along the southern side of the allotment of the subject site adjacent Lemmey Road is also being visible.

Infrastructure on the subject site is difficult to discern in the photo, but potentially has some glimpsing visibility between the vegetation in the background.

#### Overall Visual Impact

The VAAU provides a more granular assessment of the proposed height increase around the subject site. Having regard to the nature of the facility, the nature and level of visual impact varies significantly in these different locations.

In considering the visual impact of the proposal in a holistic manner, it is necessary to have clear regard to what is currently approved, what is proposed and the extent to which the difference will change the impact.

The existing facility is a very large facility, which has a clear impact on the visual amenity over a wide area of a large locality. This is an existing situation and is an entrenched component of the existing approval. Whilst it is notable that the visual impact of the proposal was a significant assessment issue during the original EIS process since the facility has been established and commenced operation, it is noted that it is operational issues such as odour, dust and litter management that have been the primary focus of community interest in the facility.

The operation of the facility over two decades has shown that the visual mitigations proposed in the original assessment have performed as forecast and proved materially effective in reducing the visual amenity impacts of the proposal. In particular, the dense and mature vegetation established along the Port Wakefield Highway has significantly ameliorated visual amenity impacts from the proposal.



Notwithstanding the mitigations, elements of the facility, including the operations, structures and topographic changes do have visibility. This is expected, and again, was a forecast outcome in the original assessment.

In considering the receivers of views from the site, they fit broadly into three groups:

- vehicles on Port Wakefield Highway;
- vehicles on Council roads; and
- occupiers of land in the locality.

Vehicles on Port Wakefield Highway will form the largest number of receivers of views of the site. These people will typically be in vehicles, travelling at up to the 110 kilometres per hour speed limit, gaining some views for a period extending up to several minutes. The views of the facility are more significant travelling southbound than northbound.

Considering the journey along Port Wakefield Highway between the northern extent of the Adelaide metropolitan area and Port Wakefield township, a broad range of industrial, commercial, residential, infrastructure and primary production uses are visible along the journey. The visual impact of these is highly variable. It is not considered that the facility, either in its approved form, or as proposed to be varied, is a facility which is particularly impactful in the context of such a journey.

The impact upon Council roads in the locality is variable around the site. It is considered to be greatest along Thompson Beach Road and Port Prime Road adjacent the north-western extent of the subject site where the cell modules are closest to the road. In these locations, the cell modules will be highly visible and dominant character elements. Notwithstanding this, the visual effect of the current approval will result in the same outcomes in these locations. The views would largely be experienced by a small number of drivers for a short period of time, who would be unlikely to stop and leave their cars whilst transiting the areas where such views are obtained.

Having regard to the views obtained from dwellings in the locality, the existing dwellings on the western side of Port Wakefield Road will be the most affected by the proposal. The proposed cell height increase does not change the proximity of the cells relative to the location of the existing dwellings.

The closest dwelling to the site is located to the east of the subject site, approximately 500 metres from Cell Module 1. The proposal will have some visual impact on this dwelling; however, it is noted that the dwelling is located on the same site as poultry sheds, is screened by vegetation immediately adjacent to the dwelling and is also screened by vegetation on the eastern and southern boundaries of the subject site. Having regard to the existing approval and form of development, and the proposed height increase, the visual impact on this dwelling is considered reasonable.

The next most affected dwellings are the three dwellings located on the southern side of Thompson Road. These three dwellings are located approximately 1.0 kilometres from the closest extent of the cell modules.



The three (3) dwellings are currently screened by variable amounts of the vegetation immediately adjacent to the dwellings and vegetation along the northern boundary of the subject site. Having regard to the existing approval and form of development, the distance between the subject site and the dwellings, the proposed height increase and the additional mitigation measures available, the visual impact on these dwellings is considered reasonable.

Other dwellings in proximity to the subject site, including those located to the south, and those located to the east are considered to be less impacted, to the point that the proposed increase in height from that currently approved will not result in a material visual impact.

Overall, it is considered that whilst the proposed height increase will increase the scale and visual impact of an already large facility, the extent of the increase in visual impact, balanced against the number and location of receivers of views of the facility results in the impact of the height increase being limited and acceptable.

#### **9.2.6 Pest Plant and Animal Management**

The additional maximum finished height is not anticipated to significantly impact the requirement for pest plant and animal management of the facility. IWS undertakes both preventative and reactive management of pest plants and vermin, and this process will not alter as a consequence of the cell height increase.

#### **9.2.7 Community Engagement**

Pursuant to its Licence, IWS has formed a community consultative committee which meets on a regular basis and includes representatives from Council, key stakeholders and the community. This provides for continuous and ongoing feedback on the performance of the facility and an opportunity to receive feedback and track improvement on an ongoing basis.

In addition to this, IWS meets regularly with representatives of the Council to receive feedback and provide information in respect of operations.

IWS also conducts targeted community engagement when changes are proposed to operations.

Lastly, IWS receives and responds directly to any feedback, comments or complaints received from stakeholders, Council, agencies or the community. IWS has a complaint-handling process pursuant to its licence and takes seriously its responsibility to respond to any community interest in its operations.

IWS have presented the proposed height increase element of the variation to the community consultative committee and have received unanimous support for this element of the variation from this group.

It is noted that the proposed variation, including the cell height increase proposal, will be subject to public consultation.



### 9.3 Post Closure Management

The increase in maximum finished height is not anticipated to significantly impact the post closure management of the facility. As outlined above, the additional total cell height available has the opportunity to provide more flexibility in capping design, which potentially allows for improved management of the facility post closure.

### 9.4 Removal of Volumetric Limitations

*Relevant Assessment Issues: Site Operation, Groundwater, Surface Water, Landfill Gas Management, Visual Amenity, Pest Plant and Animal Management, Community Engagement, Post Closure Management.*

The existing approval refers to plans which outline specific individual cell positions, and in doing so nominate volumetric calculations for each cell. The volumetric calculations were defined based on a series of assumptions that were made when the proposal was originally proposed and assessed. Changes in cell design and configuration since that time have resulted in changes to the volumetric results, even where the cells are similar in location and extent to those originally proposed.

Notwithstanding the volumetric calculations shown on the originally approved plans, there does not appear to be any ultimate volumetric limit on the proposal set out in the EIS, Response Document or the conditions of the Development Approval.

It is important to consider the purpose of volumetric calculations in respect of the facility in terms of what they are seeking to achieve. In typical planning processes, a quantitative limit sets a clear boundary as to the scale or extent of a proposal or an element of a proposal. It provides a degree of certainty over the maximum extent of a building, structure or operation.

In the case of the facility, the imposition of a total volumetric limitation for the site has limited relevance to the environmental and amenity impacts resulting from the proposal. Since the proposal was originally approved, there has been a substantial increase in the amount of material which is diverted from landfill. This occurs throughout the logistic chain from reduced waste generation, improved source separation and improved processing, including by IWS, both at the subject site and at their other facilities. The result in the increase in diversion from landfill is that even allowing for population growth, the volume of material ultimately ending up in landfill cells is expected to reduce over time.

Considering policies for increased circularity in the economy and expected continuing technological progress, it is highly likely that waste volumes will continue to decline on a per capital basis, offset to a degree by population growth.

IWS has calculated, based on existing approved air space at the subject site as shown on the plans, at current landfilling volumes, the site has a lifespan of significantly more than 100 years from the present time. Whilst, as stated above, the amount of waste to landfill is expected to reduce, there will always be a residual waste fraction, including hazardous waste, for which landfilling in a properly designed and managed landfill cell is an essential service for the protection of the community from amenity, environmental and health impacts.



Given the facility has existing capacity to accept and dispose of waste to landfill for over 100 years, the total volume received at the site is of limited relevance, as the waste being received, managed and disposed at any particular time is more representative of the impacts emanating from the facility, particularly in respect of amenity impacts.

Whilst it is always possible to calculate volume based on the design of a specific cell, the actual volume of waste will vary over time based on factors such as the design of the cell, liner and cap. Having regard to advances in cap design, the ratio of cap-to-waste within a cell can vary very substantially, making gross volumetric calculations significantly less relevant.

It is acknowledged that the total volume of material ultimately disposed of on the site may result in cumulative environmental impacts. These are managed and mitigated through the extensive design, monitoring and management of the site, pursuant to the licence and closely supervised by the EPA on an ongoing basis throughout the life of the development. Further, in having a small number of large facilities for the disposal of waste serving metropolitan Adelaide, it ensures that the impacts are confined to a limited number of locations, which have an adequate scale to provide the level of operational skill and ongoing management required to mitigate potential impacts. The subject site is an existing facility, approved for such a purpose, meaning that its efficient operation over its lifespan will ensure that demand for the disposal of waste, without creating pressure for a proliferation of facilities, can be appropriately met.

It cannot be excluded that the removal of reference to quantitative volumetric caps may result in an increase in the total amount of waste which is ultimately disposed of at the site over its lifespan. However, as proposed by the variation, the extent of material able to be disposed of will still be limited by a defined three-dimensional physical extent of cell space. Any such increase resulting from the removal of reference to volumetric caps is unlikely to represent a significant increase in the overall scale of the facility.

The approach proposed provides a greater level of certainty in respect of the physical and visual manifestation of the ultimate development of the site, rather than considering total volumetric calculations which have less relevance to either the point-in-time environmental impacts or accommodating changes in cell design which have already occurred during the life of the facility to date and are anticipated to continue to occur over time.

For the avoidance of future doubt, it is recommended that an appropriate condition be applied, which highlights that the extent of the ultimate development is defined by the three-dimensional plan of the site showing the ultimate cell extent and not by any volumetric details contained within any of the application documents or previous approvals.

Where appropriate, the EPA will retain the ability to impose volumetric limitations on individual cells where design dictates that to be appropriate.



## 9.5 Central Processing Pad

*Relevant Assessment Issues: Site Operation, Groundwater, Surface Water, Pest Plant and Animal Management, Community Engagement, Post Closure Management.*

As the development of the site proceeds, the progressive opening of cells will progress in a westerly direction. Over time, this will result in the focus of operations on the site being located further to the west than is currently the case. At the present time, processing and operations occurring on the site are focussed on the eastern end of the site between the entrance to the facility from Port Wakefield Highway and Modules 1 and 2. As the focus of operations on the site moves further to the west, it will become progressively less efficient to have all operations concentrated at the eastern end of the site.

Accordingly, it is proposed to nominate an area as a processing made more centrally on the site. This area would, subject to any required approvals be used for various processing and staging operations.

The realignment of this pad more centrally provides significant operational benefits. As outlined above more westerly operations will, over time, require the material is transported further into the site. To have the material prepared adjacent new cells will be advantageous and remove the need for additional traffic movements from one side of the site to the other.

The proposal would be subject to appropriate groundwater separation in the form of barrier separation, which would mirror current processing pad outcomes and be in accordance with EPA licensing requirements.

The proposed central processing pad would also be constructed to ensure all surface water is captured and disposed of in accordance with the existing approved or updated Stormwater Management Plan as required by the licence.

The use of areas as processing pads would be subject to approval by the EPA pursuant to the licence. If any activities or building works on the processing pads were proposed that were outside of the ambit of existing approvals, development approval would also be required.

## 9.6 Cell Processing Pads

*Relevant Assessment Issues: Site Operation, Groundwater, Surface Water, Visual Amenity, Air Quality, Acoustic Impacts, Pest Plant and Animal Management, Community Engagement, Post Closure Management.*

It is proposed to specify that areas shown as cells on the plans may be utilised as processing pads prior to their use as a landfill cell. By utilising cell areas as processing pads, this allows for a significantly increased efficiency in the movement of material through the site. Being a transitional only process means the material would only be processed on the site and moved into a cell as soon as practicable. Given the processing would be undertaken on the site in any case it is not expected that there would be any significant additional impacts to this alteration.



Potential additional impacts in respect of Visual Amenity, Air Quality and Acoustic Impacts were identified by the EPA as a result of processing pads being constructed on top of closed and capped cells, due to the height at which the activity was occurring. There is some potential that having a processing pad at an elevated position results in impacts over a greater area due to a greater line-of-sight and/or localised meteorological effects. However, such impacts would vary widely based on where the processing pad was constructed, the nature of activities undertaken on the processing pad and the nature of mitigations employed.

Where processing pads were located on areas of future cells located well beyond the inside the boundary of the site or where the location is screened by already closed and capped cells from external receivers, any potential increase in impact arising from the height is likely to be substantively mitigated. Even where processing pads were located closer to the boundary of the site, the likely impacts would be akin to those arising from the operation of the cells in those locations.

Additionally, the acceptability of impacts would also vary widely based on factors such as the length and intensity of activities.

The use of areas as processing pads would be subject to approval by the EPA pursuant to the licence due to potential micro-siting matters. Additional analysis would be undertaken to ensure the processing pad is developed in accordance with industry best practice. This would include ensuring the processing pad is separated from groundwater and that all surface water is captured and disposed of in accordance with the existing approved Stormwater Management Plan.

If any activities or building works on the processing pads were proposed that were outside of the ambit of existing approvals, development approval would also be required.

By their nature, processing pads on cell areas would tend towards being short terms operations to enable processing efficiencies in the vicinity of the active landfill cells over the life of the project.

## **9.7 Leachate Pumps**

*Relevant Assessment Issues: Site Operation, Groundwater, Surface Water, Community Engagement, Post Closure Management.*

Leachate collection and monitoring systems allow for the recording of the volumes of leachate produced. It is important that the pumps specified for leachate collection systems are sufficiently sized to enable them to manage the volume of leachate produced within their specified duty.

Data collected by IWS has indicated that some leachate collection pumps are over-specified based on the amount of leachate being produced, however, uncertainty in approval requirements results in minimum specifications being enshrined in the development approval.

All leachate collection systems on the site are required to be designed in consultation with the EPA, pursuant to the licence for the site.





It is considered that removing requirements for sizing of pumps currently in the development approval will still result in adequate leachate collection systems to mitigate the risk of environmental harm through comprehensive assessment and approval by the EPA pursuant to the licence. This is a detailed scientific and technical assessment that should occur on a case-by-case basis. It is considered that the proposed approach will enable the operational flexibility of not over-specifying pumps and therefore resulting in expenditure which is unnecessary.

It is considered appropriate that a condition be applied, which highlights that the sizing of leachate pumps is adequate to maintain leachate levels effectively and efficiently, as may be required by the EPA.



## 10.0 ASSESSMENT AGAINST PLANNING AND DESIGN CODE

### 10.1 Rural Zone

Whilst the operation has existing use rights, it is appropriate to completeness to review the relevant zone in which the existing development and subsequent variation proposal is located.

The entirety of the site of the waste transfer station is within the Rural Zone. The Rural Zone is a zone supporting the economic prosperity of South Australia primarily through the production, processing, storage and distribution of primary produce, forestry and the generation of energy from renewable sources.

The zone also supports diversification of existing businesses that promote value-adding such as industry, storage and warehousing activities, the sale and consumption of primary produce, tourist development and accommodation.

Acceptable land uses the productive value of rural land for a range of primary production activities and associated value adding, processing, warehousing and distribution is supported, protected and maintained.

As an existing industrial development, the land use rights are already established. The addendum seeks some clarification and efficiencies in the operation of this existing use. It is therefore appropriate that this addendum be considered an acceptable land use in this Zone and locality.

In terms of siting and design, the development is provided with suitable vehicle access and is located on land which is suitable for this use in terms of a minimal slope.

The built form and character have already been established it is generally in accordance with the Rural Zone and in terms of Built Form and Character as PO 10.1 outlines:

**PO 10.1 Large buildings are designed and sited to reduce impacts on scenic and rural vistas by:**

- a) **having substantial setbacks from boundaries and adjacent public roads**
- b) **using low-reflective materials and finishes that blend with the surrounding landscape**
- c) **being located below ridgelines.**

The site of the development is set well back and suitably screened from Port Wakefield Highway, with the existing structures constructed using low-reflective materials and finishes. Whilst the setback is significant, the use itself would have an impact on rural vistas. However, considering the existing approved use, it has already been assessed as suitable that the impact can be managed on the site from a visual perspective. The increase in height would not change the nature of this impact and would create a minimal increased impact over what has already been approved.



## 10.2 Overlay Assessment

The following overlays cover the site of the addendum. Commentary is provided addressing each overlay.

### 10.2.1 Environment and Food Production Area Overlay

**DO 1 Protection of valuable rural, landscape, environmental and food production areas from urban encroachment.**

The proposed addendum does not seek to expand into any areas outside of the existing approved allotments designated for this operation. Therefore, there would be no additional impact on designated food production areas.

### 10.2.2 Hazards (Acid Sulphate Soils) Overlay

**DO 1 Development is located and undertaken to minimise disturbance of potential or actual acid sulfate soils and / or the release of acid drainage.**

The existing development is an EPA licenced operation in which the operation incorporates suitable barriers between it and the local geology. It is not anticipated that the ongoing operation would disturb acid sulphate soils, however, this will continue to be assessed and managed during the detailed design process for future cells and other site infrastructure.

### 10.2.3 Hazards (Bushfire – General) and (Bushfire – Medium Risk) Overlay

**DO 1 Development, including land division responds to the general level of bushfire risk by siting and designing buildings in a manner that mitigates the threat and impact of bushfires on life and property taking into account the increased frequency and intensity of bushfires as a result of climate change.**

**DO 2 To facilitate access for emergency service vehicles to aid the protection of lives and assets from bushfire danger.**

The currently approved operation has an Environmental Management Plan which includes a Fire Risk Management Plan. This plan is considered applicable and suitable for the proposed addendum and would ensure that any ongoing operations would mitigate the threat and impact of bushfires.

### 10.2.4 Hazards (Flooding – Evidence Required) Overlay

**DO 1 Development adopts a precautionary approach to mitigate potential impacts on people, property, infrastructure, and the environment from potential flood risk through the appropriate siting and design of development.**

The currently approved operation has an Environmental Management Plan which includes a Surface Water and Drainage Management Plan. This plan is considered applicable and suitable for the proposed addendum and would ensure that the operation continues to mitigate potential flood risk.



### 10.2.5 Interface Management Overlay

- DO 1 Development of sensitive receivers in a manner that mitigates potential adverse environmental and amenity impacts generated by the lawful operation of neighbouring and proximate land uses.**

This is not applicable to this development as the operation is not considered a sensitive receiver.

### 10.2.6 Major Urban Transport Routes Overlay

- DO 1 Safe and efficient operation of Major Urban Transport Routes for all road users.**
- DO 2 Provision of safe and efficient access to and from Major Urban Transport Routes.**

The access arrangements for this operation are already established. It is not proposed to alter these arrangements in this addendum. Therefore, the continued safe and efficient access would not change.

### 10.2.7 Native Vegetation Overlay

- DO 1 Areas of native vegetation are protected, retained and restored in order to sustain biodiversity, threatened species and vegetation communities, fauna habitat, ecosystem services, carbon storage and amenity values.**

The industrial nature of this land use has been established. Assessment on the original condition of native vegetation was assessed and approved during the original EIS assessment. The addendum does not propose to impact upon any additional areas of native vegetation outside of the footprint of the originally approved development.

### 10.2.8 State Significant Native Vegetation Overlay

- DO 1 Protect, retain and restore significant areas of native vegetation.**

The industrial nature of this land use has been established. Assessment on the original condition of native vegetation was assessed and approved during the original EIS assessment. The addendum does not propose to impact upon any additional areas of native vegetation outside of the footprint of the originally approved development.

### 10.2.9 Traffic Generating Development Overlay

- DO 1 Safe and efficient operation of Urban Transport Routes and Major Urban Transport Routes for all road users.**
- DO 2 Provision of safe and efficient access to and from urban transport routes and major urban transport routes.**

The access arrangements for this operation are already established. It is not proposed to alter these arrangements in this addendum. Therefore, the continued safe and efficient access would not change.



### 10.2.10 Water Resources Overlay

- DO 1 Protection of the quality of surface waters considering adverse water quality impacts associated with projected reductions in rainfall and warmer air temperatures as a result of climate change.**
- DO 2 Maintain the conveyance function and natural flow paths of watercourses to assist in the management of flood waters and stormwater runoff.**

The current approved operation has an Environmental Management Plan which includes a Surface Water and Drainage Management Plan. This plan is considered applicable and suitable for the proposed addendum and would ensure that the operation continues to mitigate potential flood risk.

### 10.2.11 Technical and Numeric Variations (TNV)

The only TNV evident is that land for development have a minimum site area of 40 ha which the existing approved development meets.

## 10.3 General Policies

### 10.3.1 Waste Treatment and Management Facilities

The general policies seek that waste treatment and management facilities mitigate the potential environmental and amenity impacts. Practically this equates to the incorporation of separation distances and attenuation measures within the site between waste operations areas (including all closed and capped, operating and future cells) and sensitive receivers and sensitive environmental features to mitigate off-site impacts from noise, air and dust emissions. In addition, waste treatment and management facilities should be screened, located, and designed to minimise adverse visual impacts on amenity.

In terms of the addendum, the increase in maximum finished height of 5.0 metres would be considered to potentially impact upon the locality. As previously discussed, the preliminary assessment is that whilst the proposed height increase will have visual impacts on the locality, having regard to the existing use of the site, the extent of the proposed height increase and the context of the locality, those impacts should be reasonable and within that anticipated.



## 11.0 ASSESSMENT OF SOCIAL, ECONOMIC AND ENVIRONMENTAL IMPACTS

### 11.1 Social Impacts

#### 11.1.1 Original EIS Assessment

In terms of social impact assessment, the original EIS focussed on:

- Heritage
  - In summary the EIS outlined that there were no impacts upon either European or Aboriginal Heritage as no features of heritage value were identified.
- Land Use Change
  - The land was considered in an already highly disturbed and degraded state. The poor soil quality, low rainfall, high soil salinity and sparse vegetation restricted the land use options at the time.
  - It was also anticipated that the development would have minimal effects on adjacent land uses.
- Visual Amenity
  - Visual impacts and obtrusiveness created by the development was considered to be minimal through design of the re-vegetation, landscaping program and naturally by the lie of the land. There was anticipated to be little view of the filling activity from Port Wakefield Road and adjoining properties.
- Mining Tenements
  - It was expected that landfilling operations would not impact existing tenements regarding groundwater resources, given the hydrogeological conditions at the site, nor was it expected that litter would be an issue due to the modus operandi and the form of the waste received.
- Public Health and Safety
  - The impacts from landfill operations on public health and safety arise from leachate generation, litter (poor covering operations), dust and noise (earthmoving equipment and truck movements), vermin, birds, physical hazards, and fires. Given the design and operation details of the landfill at the time, any detrimental effects to public welfare were expected to be avoided.
- Property Values
  - It was expected that in overall terms, the subject land, its boundaries and the view of the site would be considerably enhanced and would have a minimal impact on the amenity and/or value of properties surrounding the site.



### 11.1.2 Addendum Impacts

In terms of social impact, the only matter of impact from above is visual impact. A full assessment of the visual impact of the proposed addendum is located in **Section 9.2** with the conclusion being that the impact of an increased maximum height of 5.0 metres is considered negligible.

## 11.2 Environmental Impacts

### 11.2.1 Original EIS Assessment

The original EIS assessment on the environmental impacts focussed upon:

- Groundwater
  - No adverse effects on groundwater in the area were expected, with a groundwater monitoring program to be implemented.
- Noise
  - To summarise, the EIS outlined that the contribution of noise associated with landfill activities would not be significantly above that of existing background noise levels.
- Air Quality
  - The balefill method of disposal of waste ensures the waste is not worked over and hence no odours would be released that would be detectable at the site boundary with minimal odour at the filling face.
- Litter
  - Due to the bailing and proposed wind breaks it was not expected that escaped litter would be significantly evident in and around the site.
- Landfill Gas
  - A best practice landfill gas strategy would be implemented.
- Traffic
  - Impacts on the major traffic routes were assessed to be negligible as they are main, heavy vehicle routes such that the types and numbers of vehicles generated will have minor impacts on existing heavy traffic volumes and flows.
- Surface Water
  - Surface water run-off would be controlled through diversion drains, salt marsh and retention basin system. Surface water would be contained and treated within the site.



- Flora/Fauna/Pests
  - Collectively it was expected that the filling operations would not adversely impact the existing natural biological environment. It was also stated that due to the operating conditions detailed in the EIS, in the long term an improvement of local environmental quality is anticipated.

### 11.2.2 Addendum Impacts

The development has now been operating for years and has proven that it can operate in accordance with approval conditions and the licence granted by the EPA. It is not anticipated that the addendum would create significant additional environmental impact over and above what has already been assessed and approved as outlined above.

## 11.3 Economic Impacts

### 11.3.1 Original EIS Assessment

At the time of the original EIS, an assessment was undertaken to provide an indication of the cost of waste disposal at the landfill, together with total waste handling costs (collection – transfer – haulage – disposal).

The expenditures at the time represented a very significant investment in the South Australian economy that would create employment opportunities and the use of local skills and services.

It was also provided that if this facility was not proceeded with, other alternatives such as conventional landfilling, enclosed vessel digestion and composting, incineration etc were not seen to be economically or environmentally viable.

### 11.3.2 Addendum Impacts

As waste treatment and management technology have progressed, the existing operation must respond to these matters to ensure it is being operated at current time best practice. This addendum seeks to improve the site operations in terms of efficiency and longevity. It has become a critical waste management facility from an economic standpoint.



# **APPENDIX A**

## **Gazette Notices and Decision Notification Form**

- (c) any related or ancillary development associated with development or a project within the ambit of a preceding paragraph (whether undertaken within the site specified in Schedule 2 or on, under or over adjacent land (including a road, street, footpath or thoroughfare)),

but not including:

- (d) any work associated with siteworks and services for existing facilities that is not related or ancillary to development or a project within the ambit of a preceding paragraph including any work associated with any of the following:
- (i) pavements;
  - (ii) landscaping/furniture;
  - (iii) fencing and gates;
  - (iv) signage;
  - (v) scoreboards;
  - (vi) upgrading underground services;
  - (vii) upgrading utilities;
  - (viii) security/access lighting;
  - (ix) public address and telephone systems.
- (e) any other minor development relating to existing uses which does not affect the range of development described in paragraph (a).

#### SCHEDULE 2

The site referred to in Schedule 1 comprises portion of the Adelaide Parklands area immediately north of Memorial Drive between King William Street and Morphett Street, in the suburb of North Adelaide, as delineated by the area marked X in GRO Plan GP 12/98 (comprising portions or all of leases granted by the Adelaide City Council to Tennis SA, the Memorial Drive Tennis Club and the SA Cricket Association).

DIANA LAIDLAW, Minister for Transport and Urban Planning

#### DEVELOPMENT ACT 1993: SECTION 48

##### *Decision by the Governor*

##### *Preamble*

1. A proposal for a new waste management facility in the form of a solid waste landfill (IWS Northern Balefill) in the District Council of Mallala has been under consideration.
2. The development has been the subject of an environmental impact statement under section 46 of the Development Act 1993, taken to be an environmental impact statement under section 46B of the Development Act 1993, pursuant to section 18 of the Statutes Repeal and Amendment (Development) Act 1993.
3. Application has now been made to the Governor under section 48 of the Development Act 1993, for the approval of the development.
4. I am satisfied that an appropriate environmental impact statement, and an Assessment Report, that encompass the development have been prepared.
5. I have, in considering the application, had regard to all relevant matters under section 48 (5) of the Development Act 1993.

##### *Decision*

PURSUANT to section 48 of the Development Act 1993 and with the advice and consent of the Executive Council:

- (a) I grant development authorisation for the development of the waste management facility in the form of a solid waste landfill in the District Council of Mallala as described in an application dated 2 December 1997, including the Development Application Report—Northern Balefill for integrated Waste Services Pty Ltd (dated 28 November 1997), subject to the conditions attached and entitled 'Conditions (9) for Development Approval (Application dated 2 December 1997)—Northern Balefill for Integrated Waste Services Pty Ltd'; and

- (b) pursuant to section 48 (7) I specify all matters relating to the management and operation of the use of the site for waste disposal relevant to this authorisation as matters in relation to which I may vary or revoke conditions of this authorisation or attach new conditions to it.

Dated 29 January 1998.

E. J. NEAL, Governor

#### *Conditions (9) for Development Approval (Application Dated 2 December 1997) Northern Balefill for Integrated Waste Services Pty Ltd*

1. The work must be carried out as shown on the plans in the application (Figures 3.1 to 3.9) and supporting documentation in the Development Application, except as varied by the conditions listed below, or varied directly in consequence to any subsequent licence requirement of the Environment Protection Authority (EPA).

2. All perimeter plantings must be started as early as practicable after the date of this authorisation to achieve maximum amelioration of visual impacts. Plantings along the north-western boundaries must commence no later than after the granting of the EPA licence.

3. Screening by suitable plantings where adequate natural screening is not provided, must be provided for the perimeter fence, all built structures, stockpiles and internal roads (where practicable) using suitable species in accordance with the Vegetation Management and Revegetation Plan proposed as part of the Landfill Environmental Management Plan (LEMP).

4. All firebreaks and external drainage channels must be located on the inner edge of the vegetation screen and existing stands of native vegetation. In the event that drainage channels are required to be located close to the site boundary, their redesign to form low-lying wetland/saltmarsh communities as part of the vegetated screen must be investigated.

5. A leachate monitoring bore must be installed within each cell to assist with leachate management particularly if leachate recirculation is incorporated into the management strategy.

6. No Listed Waste as prescribed in Schedule 1, Part B of the Environment Protection Act 1993, other than asbestos bound in a cement matrix or otherwise treated to the requirements of the EPA, will be permitted to be disposed of without further development authorisation.

7. The proponent shall pay all reasonable costs of the detailed design and construction of any public roadworks made necessary by this development. Such works may include the opening and associated left turn deceleration lane from Port Wakefield Road, and the upgrading of the entrance to balefill junction to the satisfaction of the Department for Transport, Urban Planning and the Arts (Transport SA) formerly DoT.

8. The proponent must seal (two coat spray seal) the internal site access road for a minimum of 520 m from the nearest residence.

9. The applicant must prepare a Vegetation Management and Revegetation Plan to the reasonable satisfaction of the Development Assessment Commission. The Plan should be prepared in consultation with relevant Government agencies, such as Department for Environment, Heritage and Aboriginal Affairs and Department of Primary Industries and Resources, and the local community and have regard to the measures suggested in the Assessment Report particularly in section 6. The Plan may be included in the LEMP. The applicant shall comply with such Plan upon approval of it.

##### *Notes to the Applicant:*

1. The Environment Protection Authority will require the proponent to prepare a Landfill Environmental Management Plan (LEMP) to satisfy the Authority's licensing requirements. Such a plan will be required to include provisions for the review, from time to time, of waste treatment and disposal methods to facilitate implementation of continuous improvement programs. The LEMP will be required to incorporate specific plans in relation to groundwater and leachate management, surface water management, vegetation and revegetation, soil erosion and drainage and the management of pest plants and animals as outlined in the Assessment Report. It will also be

required to include provisions for implementation of corrective actions in the event of any failure of the leachate and groundwater management systems.

2. Control over the types of waste to be received at the site will be exercised by the Environment Protection Authority through conditions of environmental authorisation or requirements under a relevant Environment Protection Policy, rather than through conditions of development authorisation with the exception that no Listed Waste as prescribed in Schedule 1, Part B of the Environment Protection Act 1993, other than asbestos bound in a cement matrix, will be permitted to be disposed of without further development authorisation. (See condition 6).

3. A financial assurance in accordance with the provisions of section 51 of the Environment Protection Act 1993, will be required by the Environment Protection Authority as a condition of licence.

4. To provide additional screening and wildlife habitat the following options could be investigated by the proponent, council, community and local landowners:

- revegetation of the road reserve along prime Beach Road, in conjunction with the District Council of Mallala and the community;
- revegetation of the road reserve along Port Wakefield, in conjunction with the Department for Transport, Urban Planning and the Arts (Transport SA) to further reduce views from the eastern direction;
- plantings on private property along fence lines adjoining the site, in conjunction with landowners and the community.

5. All sedimentation basins, evaporation ponds, and surface water drainage channels should be suitably located, designed and managed to ensure native vegetation (esp. low-lying saltmarsh communities) is not adversely affected by construction activities or groundwater mounding and, if possible, the ecological value enhanced.

6. A comprehensive Pest Plant and Animal Management Plan must be implemented prior to landfill operations commencing to ensure the site is free of as many pest species as possible from the onset and adequate monitoring and follow-up control should occur, as discussed in the Assessment Report.

7. Whilst not totally within the control of the proponent, monitoring and control programs to reduce the risk of disease transmission between activities in the area may ideally be prepared by adopting a district approach, in co-ordination with the Adelaide Plains Animal and Plan Control Board, Department of Primary Industries and Resources and landowners.

8. To minimise and control any onsite soil erosion (particularly of stockpiled material) a Soil Erosion and Drainage Management Plan (SEDMP) as described in the Office of Environment Protection's 'Stormwater Pollution Prevention Codes of Practice', must be prepared and approved, as part of the LEMP, before the site becomes operational.

9. As part of the LEMP, a Surface Water Management Plan must be prepared by the proponent to the satisfaction of the EPA prior to receipt of any waste. The plan should address the collection and management of all onsite surface water (including any contaminated runoff originating from roadways, carparks and hardstands, the vehicle workshop or wheel washing facility) and management of all surface water flows entering the site from land external to the site in particular to ensure their final discharge does not impact adversely on any downstream wetlands.

10. A monitoring program must be established to record levels of coastal flooding in the western section of the site and, if results indicate a significant risk, a review process be undertaken (ideally through any relevant local community consultative committee) to determine whether to proceed with Stage 9.

11. If blasting is required to remove any of the Ripon Calcrete, explosion vibration characteristics and monitoring requirements must be determined in consultation with the Environment Protection Authority and District Council of Mallala prior to commencement.

12. The Office of Environment Protection must be provided with all additional data concerning the site geology as it becomes available as this could necessitate minor changes to landfill design or method of operation and the installation of additional groundwater monitoring bores.

13. To enable detailed design of the proposed groundwater protection system, to determine the minimum depth at which the landfill cells should be based and to enable detailed design of the surface water management system, further investigation of groundwater levels and behaviour on the site must be undertaken prior to finalisation of the detailed design of the landfill and preparation of management plans.

14. As part of the LEMP, a detailed Groundwater and Leachate Management Plan must be prepared by the proponent to the satisfaction of the Environment Protection Authority, prior to receipt of any waste. The plan must demonstrate how the method of hydraulic containment proposed can be practically achieved. Further hydrogeological investigations must be carried out prior to the commencement of any landfill construction in order to fully define the dewatering and groundwater disposal requirements and to provide details of how the cells can be dewatered and constructed for full hydraulic containment of leachate. In particular, monitoring of watertable levels must commence immediately after the granting of the development authorisation in order that the magnitude of seasonal fluctuations can be fully established prior to construction of the landfill. The plan may provide for staging of leachate and groundwater management works which may be required as a result of the staging of waste disposal activities upon the site, and should include contingency measures to be implemented in the event of any failure of the leachate management system.

15. A more sustainable after-use for the site that will encourage the regeneration and rehabilitation of natural communities must be considered during future post closure planning.

16. If appropriate with the desired end use to be determined in more detail at a later stage, the entire landform may be planted with appropriate types of native vegetation cover.

17. Determination of interim and post closure land uses of the site, proposed to be undertaken in association with any relevant local community consultative committee, must be undertaken as required by the Environment Protection Authority as part of the LEMP.

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## DEVELOPMENT ACT 1993: SECTION 48

### *Notice By The Governor*

#### *Preamble*

1. I have given a development authorisation, pursuant to section 48 of the Development Act 1993, for a new waste management facility in the form of a landfill (IWS Northern Balefill) in the District Council of Mallala.

2. It is appropriate to delegate certain powers to the Development Assessment Commission in relation to this matter.

#### *Delegation*

PURSUANT to section 48 (8) of the Development Act 1993, and with the advice and consent of the Executive Council, I delegate to the Development Assessment Commission, in relation to the development authorisation referred to in clause 1 above given by me this day:

- (a) the power to grant or permit any variation associated with that development authorisation (provided that the essential nature of the development is not changed); and
- (b) in relation to that development authorisation, or any variation—the power to vary or revoke conditions under section 48 (7) of the Act in relation to any conditions.

Dated 29 January 1998.

E. J. NEAL, Governor

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## CROWN LANDS ACT 1929: SECTION 5

TAKE NOTICE that pursuant to the Crown Lands Act 1929, I, JOHN HILL, Minister for Environment and Conservation, Minister of the Crown to whom the administration of the Crown Lands Act 1929 is committed DO HEREBY:

1. Resume the land defined in The First Schedule.
2. Dedicate the Crown Land defined in The Second Schedule as an Emergency Services Reserve and declare that such land shall be under the care, control and management of the Minister for Emergency Services.
3. Dedicate the Crown Land defined in The Third Schedule as a Recreation Reserve and declare that such land shall be under the care, control and management of the Kangaroo Island Council.

**The First Schedule**

1. Emergency Services Reserve, Allotment 69, Town of Parndana, Hundred of Seddon, County of Carnarvon, the notice of which was published in the *Government Gazette* of 23 October 2003 at pages 3852 and 3853, The Second Schedule, being the whole of the land comprised in Crown Record Volume 5756 Folio 700.
2. Plantation Reserve, Allotment 96, Town of Parndana, Hundred of Seddon, County of Carnarvon, the proclamation of which, together with other land was published in the *Government Gazette* of 9 July 1981 at page 72, The Second Schedule, being portion of the land comprised in Crown Record Volume 5756 Folio 701.

**The Second Schedule**

Allotment 1 of Deposited Plan 67932, Hundred of Seddon, County of Carnarvon, exclusive of all necessary roads.

**The Third Schedule**

Allotment 2 of Deposited Plan 67932, Hundred of Seddon, County of Carnarvon, exclusive of all necessary roads.

Dated 8 September 2005.

J. HILL, Minister for Environment  
and Conservation

DEH 12/0841

## DANGEROUS SUBSTANCES ACT 1979

*Appointments*

I, MICHAEL JOHN WRIGHT, Minister for Industrial Relations in and for the State of South Australia, hereby appoint each of the following persons as an Authorised Officer for the purposes of the Dangerous Substances Act 1979, pursuant to section 7 (1) of the Dangerous Substances Act 1979:

Ann Marie Boland  
Alison Sarah Cupper  
Jenny Diener  
Nicole Georgette Dyer  
Corinne Marion Harvie  
Michelle Anne Horning  
Theresa Christine Houghton  
Mark Stanley Hulme  
John Peter Kirkham  
Frances Vanessa Lloyd  
James McComb  
Rachel Simone Ronan  
Sagar Saeed  
Alexandria Mary Teresa Villacorta  
Graham Henderson Warren

Dated 30 August 2005.

MICHAEL WRIGHT, Minister for Industrial Relations

## DEVELOPMENT ACT 1993, SECTION 26 (9): CITY OF PORT ADELAIDE ENFIELD—NORTHFIELD (STAGE 3) PLAN AMENDMENT

*Preamble*

1. The Development Plan amendment entitled 'City of Port Adelaide Enfield—Northfield (Stage 3) Plan Amendment' (the Plan Amendment) has been finalised in accordance with the provisions of the Development Act 1993.
2. The Minister for Urban Development and Planning has decided to approve the Plan Amendment.

## NOTICE

PURSUANT to section 26 of the Development Act 1993, I—

- (a) approve the Plan Amendment; and
- (b) fix the day on which this notice is published in the *Gazette* as the day on which the Plan Amendment will come into operation.

Dated 8 September 2005.

PAUL HOLLOWAY, Minister for Urban  
Development and Planning

PLN 04/0159

## DEVELOPMENT ACT 1993, SECTION 48: DECISION BY HER EXCELLENCY THE GOVERNOR

*Preamble*

1. The Governor, by a decision made on 29 January 1998 and published in the *Gazette* of that date at pages 320-321, granted development authorisation under section 48 of the Development Act 1993, for the development of a waste management facility in the form of a solid waste landfill in the area of the District Council of Mallala. That development authorisation was subject to the 9 conditions attached to the authorisation.

2. By a notice published in the *Gazette* of the same date at page 321, the Governor acting under section 48 (8) of the Development Act 1993, delegated the power under section 48 (7) of that Act to revoke or vary the conditions of that development authorisation to the Development Assessment Commission.

3. Integrated Waste Services Pty Ltd, the person having the benefit of the development authorisation has applied for an amendment to that development authorisation to receive low level contaminated soil and liquid treatment plant residues at the approved solid waste landfill depot and dispose of these wastes into cells that are separate from those currently used to dispose solid wastes.

4. The proposal has been the subject of an Amended Environmental Impact Statement and an Amendment to the Assessment Report under the Development Act 1993.

5. I am satisfied that an appropriate Amended Environmental Impact Statement, and an Amendment to the Assessment Report that encompasses the amended development have been prepared, and have, in considering the application, had regard to all relevant matters under section 48 (5) of the Development Act 1993.

*Decision*

PURSUANT to section 48 of the Development Act 1993, and with the advice and consent of the Executive Council, and having due regard to the matters set out in section 48 (5) and all other relevant matters, I:

- (a) grant a provisional development authorisation in relation to the proposed Amended Major Development referred to in the Preamble and subject to the Conditions and Notes to the applicant below;
- (b) reserve my decision on the following matters (upon application of further information) pursuant to section 48 (6) and Regulation 64 (1):

- (i) compliance with the Building Rules in relation to all aspects of the proposed Amended Major Development relating to building works (refer to Conditions and Notes to Applicant below);
- (c) specify all matters relating to this amended development authorisation as matters in respect of which conditions of this authorisation may be varied or revoked, or new conditions attached;
- (d) specify, for the purposes of section 48 (11) (b) of the Development Act 1993, the period of two years from the date hereof, as the time within which substantial work must be commenced in relation to the amendment indicated in the preamble, failing which I may cancel the authorisation relating to the receipt and disposal of low level contaminated soil and liquid treatment plant residues.

#### CONDITIONS OF APPROVAL

##### *Solid Waste Balefill*

1. The work shall be carried out as shown on the plans (Figures 3.1 to 3.9) in the Development Application Report dated 28 November 1997, included with the Development Application dated 2 December 1997, except as varied by these conditions.

2. Subject to conditions 3, 4 and 5, all waste received for disposal at the facility shall be shredded and baled.

3. Unbaled green waste or unbaled construction or demolition waste of appropriate particle sizes may be placed and compacted in any voids unavoidably occurring between bales and the inclined surface of the cells in which those bales are placed to the reasonable satisfaction of the Environment Protection Authority ('the EPA') and in accordance with any applicable requirements of a relevant environmental authorisation.

4. Waste materials received for disposal at the facility need not be shredded before baling where shredding of those materials is not required for the purpose of producing bales of a density and structural integrity that satisfy the applicable requirements of any relevant environmental authorisation.

5. Non-friable asbestos waste shall not be shredded or baled but shall be disposed of in accordance with the applicable requirements of any relevant environmental authorisation.

6. All perimeter plantings shall be started as early as practicable after the date of this authorisation to achieve maximum amelioration of visual impacts.

7. Screening by suitable plantings where adequate natural screening is not provided, shall be provided for the perimeter fence, all built structures, stockpiles and internal roads (where practicable) using suitable species in accordance with the Vegetation Management and Revegetation Plan proposed as part of the Landfill Environmental Management Plan (LEMP).

8. All firebreaks and external drainage channels shall be located on the inner edge of the vegetation screen and existing stands of native vegetation. In the event that drainage channels are required to be located close to the site boundary, their redesign to form low-lying wetland/saltmarsh communities as part of the vegetation screen shall be undertaken and implemented to the satisfaction of the EPA.

9. A leachate monitoring bore shall be installed within each cell to assist with leachate management, particularly if leachate circulation is incorporated in the Landfill Environmental Management Plan (LEMP).

10. No Listed Waste as prescribed in Schedule 1, Part B of the Environment Protection Act 1993, other than asbestos bound in a cement matrix or otherwise treated to the requirements of the EPA, may be disposed of.

11. The proponent shall pay all reasonable costs of the detailed design and construction of any public roadworks made necessary by this development. Such works may include the opening and associated left turn deceleration lane from Port Wakefield Road, and the upgrading of the entrance to balefill junction to the satisfaction of the Commissioner of Highways.

12. The proponent shall seal (two coat spray seal) the internal site access road for a minimum of 520 m from the nearest residence.

13. The applicant shall prepare a Vegetation Management and Revegetation Plan (which may be included in the LEMP) to the reasonable satisfaction of the Development Assessment Commission and must implement that Plan once it has been approved by the Development Assessment Commission.

##### *Low Level Contaminated Soil and Liquid Treatment Plant Residues*

14. Low Level Contaminated Soil (LLCS) and Liquid Treatment Plant Residues (LTPR) are not required to be baled or shredded.

15. The work shall be carried in accordance with the following documents and plans:

- EIS Amendment, Receipt of Low Level Contaminated Soil and Liquid Waste Treatment Plant Residues at the IWS Northern Balefill, dated July 2003.
- Response Document on the EIS Amendment for the Receipt of Low Level Contaminated Soil and Liquid Waste Treatment Plant Residues (Revised), dated 30 April 2004.
- Supplementary Information EIS Amendment Receipt of Low Level Contaminated Soil and Liquid Waste Treatment Plant Residues at the IWS Northern Balefill, dated 26 November 2004.
- Landfill Environmental Management Plan, dated 2001 or as varied by any applicable requirements of a licence from the Environment Protection Authority.
- Drawings:
  - 3307DO1, 4/11/2004—cell 31 design plan;
  - 3307DO2, Drawn 25/8/2004 and checked 18/2/2005—Section A, liner and sump design;
  - 3307DO3, 10/8/2004—liner design sections and details;
  - 3307DO4, 14/10/2004—cell 31 interim capping design;
  - 3307DO5, 13/8/2004—landfill staging plan;
  - 3307DO6, 13/8/2004—final surface water control;
  - 3307DO8, Drawn 27/8/2004 and checked 26/11/2004—interim surface water control;
  - 3307DO9 P1, Drawn 4/11/2004 and checked 26/11/2004—cell design plan line 2;
  - 3307DO10, Drawn 29/8/2004 and checked 26/11/2004—sections D and E, swale drain design.

16. Distance to groundwater requirements shall be as follows:

- Based on groundwater level monitoring results and interpolated highest groundwater levels for Cell 31, including a 0.1 m buffer; the base of the sump shall be at 9.1 m AHD.
- Notwithstanding the above requirement, a minimum separation distance of 2 m between the underside of the lowest portion of the lining system (including the sump area) and the underlying groundwater shall be maintained at all times.

17. Leachate collection and extraction system requirements shall be as follows:

- Leachate removal shall implement a system which accommodates the installation of the pumps at the leachate riser access point.
- Following cell completion and until the entire cell base is covered with a minimum of 1.5 m of waste, a pump with a flow capacity of a minimum of 40 litres per second shall be installed.
- After it can be demonstrated that leachate production has declined to less than 1 litre per second, this pump can be replaced by a pump of lesser flow capacity.
- A back-up pump with the relevant capacity shall be readily available on-site at all times.

18. Leachate treatment requirements shall be as follows:

- Leachate may be managed and treated by means of:
  - Direct extraction into an on-site leachate evaporation pond which shall meet the minimum design specification as follows:

- composite lining system comprising a 1 m low permeability clay liner with  $k < 1 \times 10^{-9}$  m/s compacted to 95% Maximum Dry Density by standard compaction, and a moisture content between 0% and +4% wet of Optimum Moisture Content, overlaid by a 2 mm high density polyethylene (HDPE) liner (welded);
  - minimum of 600 mm freeboard;
  - modelling with HELP or LANDSIM shall consider a 1 in 25, 24h duration storm event;
  - a minimum separation distance of 2 m between the underside of the lowest portion of the lining system and the underlying groundwater shall be maintained at all times.
- Direct extraction into an on-site tank vehicle suitable for the transport of leachate into an on-site leachate evaporation pond.
- Direct extraction into a licensed vehicle and transported to an off-site EPA licensed Waste Water Treatment Plant.
- Direct extraction into a suitably designed, temporary on-site storage tank prior to off-site disposal by an EPA licensed vehicle at an EPA licensed Waste Water Treatment Plant or prior to on-site transport to an on-site leachate evaporation pond.
19. Leachate management requirements shall be as follows:
- The head of leachate on the liner shall not exceed 300 mm (excluding the sump) at all times. To facilitate this, the trigger level for leachate extraction out of the leachate sump shall be set at 290 mm.
  - In addition to automatic leachate data readings, a manual monitoring probe shall be installed and calibrated to allow for direct readings of the vertical elevation of leachate in the riser pipe and conversion to the maximum leachate head on top of the liner.
  - Leachate levels shall be read manually daily and recorded in the on-site operations logbook or as specified otherwise in the EPA licence.
20. Distance between LLCS/LTPR cells and Balefill cells (reference drawing 3307D03, 18/8/2004) shall be as follows:
- The distance between LLCS/LTPR cells and Balefill cells shall be at a minimum of 5 m, measured between the toe of the LLCS cell structure (that is where the outer surface of the cap of the completed LLCS/LTPR cell joins the outer surface of the underlying clay liner for the same cell) and the cap of the nearest balefill cell (that is where the outer surface of the cap of a completed balefill cell joins the outer surface of the underlying clay liner).
21. Level 1 Supervision requirements shall be as follows:
- The construction of the clay liner of the cell shall be carried out under Level 1 Supervision in accordance with AS 3798-1996, Appendix B.
  - The construction of the HDPE liner shall be carried out under the full time supervision of a suitably qualified geotechnical consultant with experience in the construction and supervision of the construction of HDPE lining systems, quality control procedures and testing.
22. 'As Constructed Report' requirements shall be as follows:
- An 'As Constructed Report' certifying compliance with the approved design for the lining system, including a Construction Quality Assurance Report (CQA) for the HDPE liner and the Level 1 Supervision Report, shall be submitted to the EPA for acceptance prior to the commencement of the receipt and disposal of waste in each cell. No waste shall be received and disposed of prior to written acceptance of the 'As Constructed Report' by the EPA.
23. Coverage of waste requirements shall be as follows:
- All waste shall be covered as soon as reasonable practicable after the receipt of waste and placement in the cell or at close of business on each business day with at least 150 mm of cover material (waste fill or intermediate landfill cover with the restriction to a maximum particle size of 100 mm).
  - If a load of particularly odorous material is received at the LLCS/LTPR cell, it shall be covered immediately with a minimum of 150 mm cover material.
  - During periods when the LLCS/LTPR cell is not operating, routine monitoring for odorous gases shall be carried out as part of the site monitoring program and may trigger the application of additional cover material.
  - Alternative cover materials may be used after the proponent:
    - has demonstrated to the EPA that the proposed material and placement method result in an equivalent or better performance compared to the approved material; and
    - has received written approval from the EPA prior to the use of alternative materials and placement methods.
24. Groundwater management requirements shall be as follows:
- An additional groundwater well shall be installed west of cell 30 and the first round of groundwater sampling and testing shall be completed at least two weeks prior to commencement of construction of cell 31.
  - Groundwater level monitoring shall commence at least two weeks before commencement of construction of cell 31; groundwater levels shall be taken weekly and reported to the EPA monthly (datasheet and graph) or as specified otherwise in the EPA authorisation.
  - Four monitoring rounds at three monthly intervals in the first 12 months of operation shall be carried out to establish additional background analyte levels around cell 31.
  - Six monthly monitoring rounds shall be undertaken following the completion of the initial 12 months of groundwater monitoring or as specified otherwise in the EPA licence.
  - Prior to the commencement of construction of any other cell for the receipt of LLCS/LTPR, the groundwater management and monitoring program shall be reviewed and submitted for EPA approval.
25. Surface Water Management requirements shall be as follows:
- A stormwater management plan shall be developed and submitted for EPA's approval addressing all issues related to the staged construction of LLCS/LTPR cells on-site prior to commencement of construction of cell 31.
  - The stormwater management plan shall provide surface water control and management measures for:
    - surface water or stormwater run-off that does not interact with the waste material or other operational areas of the site and is considered to be uncontaminated;
    - surface water that comes into contact with waste materials or is collected from landfill areas or other operational areas and is considered to be contaminated;
    - surface run-off from the final landfill cap which has to be controlled;
    - diversion of surface water run-off from perimeter areas away from the operating cell.
26. Landfill Environmental Management Plan (LEMP) requirements shall be as follows:
- The new section of the LEMP ('section 17') shall be completed and incorporated in the revised LEMP document.
  - The complete revised LEMP document shall be finalised and submitted to the EPA for approval prior to the receipt and disposal of LLCS/LTPR on the premises.
27. A wheel wash with water sprays shall be installed to ensure removal of residues from the wheels and underside of the vehicles transporting low level contaminated soil and liquid treatment plant residues to the site. Building rules certification shall be obtained in accordance with conditions 27 and 28.
- BUILDING RULES**
28. No part of the Major Development deemed to be building work shall commence until a favourable decision has been notified to the applicant by me or my delegate in respect of the reserved matter referred to in subparagraph (i) in paragraph (b) of the Decision section above.

29. A decision on building rules compliance will only be made after a Building Rules assessment and certification has been undertaken and issued by the District Council of Mallala, or a private certifier, in accordance with the provisions of the Development Act 1993, and after the Minister for Urban Development and Planning receives a copy of all relevant certification documentation, as outlined in Regulation 64 of the Development Regulations 1993 (refer to 'Notes to Applicant' below for further information).

#### NOTES TO THE APPLICANT

1. To provide additional screening and wildlife habitat the following options could be investigated by the proponent, council, community and local landowners:

- revegetation of the road reserve along Prime Beach Road, in conjunction with the District Council of Mallala and the community;
- revegetation of the road reserve along Port Wakefield Road, in conjunction with the Department of Transport and Urban Planning (Transport SA) to further reduce views from the eastern direction;
- plantings on private property along fence lines adjoining the site, in conjunction with landowners and the community.

2. All sedimentation basins, evaporation ponds, and surface water drainage channels should be suitably located, designed and managed to ensure native vegetation (especially low-lying salt-marsh communities) is not adversely affected by construction activities or groundwater mounding and, if possible, the ecological value enhanced.

3. A comprehensive Pest Plant and Animal Management Plan must be implemented prior to landfill operations commencing, to ensure the site is free of as many pest species as possible from the onset and adequate monitoring and follow-up control should occur, as discussed in the Assessment Report.

4. Whilst not totally within the control of the proponent, monitoring and control programs to reduce the risk of disease transmission between activities in the area may ideally be prepared by adopting a district approach, in co-ordination with the Adelaide Plains Animal and Plant Control Board, Department of Primary Industries and Resources and landowners.

5. To minimise and control any on-site soil erosion (particularly of stockpiled material), a Soil Erosion and Drainage Management Plan (SEDMP) as described in the Environment Protection Agency's 'Stormwater Pollution Prevention Codes of Practice', must be prepared and approved as part of the LEMP, before the site becomes operational.

6. As part of the LEMP, a Surface Water Management Plan must be prepared by the proponent to the satisfaction of the EPA prior to receipt of any waste. The plan should address the collection and management of all on-site surface water (including any contaminated run-off originating from roadways, carparks and hardstands, the vehicle workshop or wheel washing facility) and management of all surface water flows entering the site from land external to the site, in particular to ensure their final discharge does not impact adversely on any downstream wetlands.

7. A monitoring program must be established to record levels of coastal flooding in the western section of the site and, if results indicate a significant risk, a review process be undertaken (ideally through any relevant local community consultative committee) to determine whether to proceed with Stage 9.

8. If blasting is required to remove any of the Ripon Calcrete, explosion vibration characteristics and monitoring requirements must be determined in consultation with the Environment Protection Authority and District Council of Mallala, prior to commencement.

9. The Environment Protection Agency must be provided with all additional data concerning the site geology as it becomes available, as this could necessitate minor changes to landfill design or method of operation and the installation of additional groundwater monitoring bores.

10. To enable detailed design of the proposed groundwater protection system, to determine the minimum depth at which the landfill cells should be based and to enable detailed design of the surface water management system; further investigation of

groundwater levels and behaviour on the site must be undertaken prior to finalisation of the detailed design of the landfill and preparation of management plans.

11. As part of the LEMP, a detailed Groundwater and Leachate Management Plan must be prepared by the proponent to the satisfaction of the Environment Protection Authority, prior to receipt of any waste. The Plan must demonstrate how the method of hydraulic containment proposed can be practically achieved. Further hydrogeological investigations must be carried out prior to the commencement of any landfill construction in order to fully define the dewatering and groundwater disposal requirements and to provide details of how the cells can be dewatered and constructed for full hydraulic containment of leachate. In particular, monitoring of watertable levels must commence immediately after the granting of the development authorisation in order that the magnitude of seasonal fluctuations can be fully established prior to construction of the landfill. The Plan may provide for staging of leachate and groundwater management works which may be required as a result of the staging of waste disposal activities upon the site, and should include contingency measures to be implemented in the event of any failure of the leachate management system.

12. A more sustainable after-use for the site that will encourage the regeneration and rehabilitation of natural communities must be considered during future post closure planning.

13. If appropriate with the desired end use to be determined in more detail at a later stage, the entire landform may be planted with appropriate types of native vegetation cover.

14. Determination of interim and post closure land uses of the site, proposed to be undertaken in association with any relevant local community consultative committee, must be undertaken as required by the Environment Protection Authority as part of the LEMP.

15. Pursuant to Development Regulation 64, the applicant is advised that the District Council of Mallala or private certifier conducting a Building Rules assessment is required to:

- (a) provide to the Minister a certification in the form set out in Schedule 12A of the Development Regulations 1993 in relation to the building works in question; and
- (b) to the extent that may be relevant and appropriate:
  - (i) issue a Schedule of Essential Safety Provisions under Division 4 of Part 12;
  - (ii) assign a classification of the building under these regulations; and
  - (iii) ensure that the appropriate levy has been paid under the Construction Industry Training Fund 1993.

Regulation 64 of the Development Regulations 1993, provides further information about the type and quantity of all Building Rules certification documentation for Major Developments required for referral to the Minister for Urban Development and Planning.

16. The District Council of Mallala or private certifier undertaking Building Rules assessments is required to ensure that the assessment and certification are consistent with this provisional development authorisation (including any Conditions or Notes that apply in relation to this provisional development authorisation).

Given under my hand at Adelaide, 8 September 2005.

MARJORIE JACKSON-NELSON, Governor

## DEVELOPMENT ACT 1993: SECTION 48

### *Notice by the Governor*

#### *Preamble*

1. I have given a provisional development authorisation pursuant to section 48 of the Development Act 1993, concerning an amendment to the approved IWS Northern Balefill Development, located on Port Wakefield Road, near Dublin for the receipt of low level contaminated soil and liquid treatment plant residues at the site.

2. It is appropriate to delegate certain powers to the Development Assessment Commission in relation to this matter.

*Delegation*

PURSUANT to section 48 (8) of the Development Act 1993 and with the advice and consent of the Executive Council, I delegate to the Development Assessment Commission, in relation to the provisional development authorisation referred to in clause 1 above given by me this day:

- (a) the power to make a decision on any reserved matters specified within that provisional development authorisation (provided that the essential nature of the development is not changed); and
- (b) the power to grant or permit any variation associated with that provisional development authorisation (provided that the essential nature of the development is not changed); and
- (c) in relation to that provisional development authorisation, or any variation—the power to vary or revoke conditions, or to attach new conditions, under section 48 (7) of the Development Act 1993 (provided that the essential nature of the development is not changed).

Given under my hand at Adelaide, 8 September 2005.

MARJORIE JACKSON-NELSON, Governor

## FISHERIES ACT 1982: SECTION 59

TAKE notice that pursuant to section 59 of the Fisheries Act 1982, Thierry Laperousaz and Greg Rouse from the Division of Natural Science, South Australian Museum, North Terrace, Adelaide, S.A. 5000 (the 'exemption holders') or a person acting as their agent, are exempt from the provisions of the Fisheries (Aquatic Reserves) Regulations 1989 and Clauses 1, 48 and 65 of Schedule 1 of the Fisheries (General) Regulations 2000 but only insofar as the exemption holders may collect aquatic organisms from South Australian coastal waters including intertidal 'rocky' reefs using the gear specified in Schedule 1 or by using chemical anaesthetics (the 'exempted activity'), subject to the conditions set out in Schedule 2, from 8 September 2005 until 30 June 2006, unless varied or revoked earlier.

## SCHEDULE 1

3 hoop nets	5 shrimp traps
3 octopus pots	2 dab nets
1 mussel dredge	2 plankton nets
1 hand spear per person	1 spear gun per person

## SCHEDULE 2

1. The specimens collected by the exemption holders are to be used for scientific purposes only and must not be sold.

2. Before conducting the exempted activity, the exemption holder must contact the PIRSA Fisheries Compliance Unit on 1800 065 522 and answer a series of questions about the exempted activity. You will need to have a copy of your exemption with you at the time of making the call, and be able to provide information about the area and time of the exempted activity, the vehicles and/or boats involved, the number of agents undertaking the exempted activity and other related issues.

3. While engaged in the exempted activity, the exemption holders and their agents must be in possession of a copy of this notice. Such notice must be produced to a PIRSA Fisheries Officer if requested.

4. The exemption holder must not contravene or fail to comply with the Fisheries Act 1982 or any regulations made under that Act, except where specifically exempted by this notice.

Dated 5 September 2005.

W. ZACHARIN, Director of Fisheries



## CONTROLLED SUBSTANCES ACT 1984

*Prohibition of Administering Prescription Drugs*

TAKE notice that on 17 August 2009, I, Keith Evans, Executive Director, Drug and Alcohol Services South Australia, having formed the opinion that Dr Brian Reading Moore has prescribed, supplied and administered a prescription drug in an irresponsible manner, exercised the authority delegated by the Minister for Mental Health and Substance Abuse under section 62A of the Controlled Substances Act 1984 and made the following order under section 57 (1) (c) of the Act:

Dr Brian Reading Moore,

is prohibited from supplying, prescribing, administering using or having possession of the following substances or class of substances:

- a drug of dependence as declared by Regulation 7A of the Controlled Substances (Poisons) Regulations 1996, pursuant to section 12 (3) of the Controlled Substances Act 1984, namely any poison listed in Schedule 8 of the Standard for the Uniform Scheduling of Drugs and Poisons as published and amended by the National Drugs and Poisons Schedule Committee under the Commonwealth's Therapeutic Goods Act 1989, and
- prescription drugs that contain codeine or dextro-propoxyphene.

This Order does not apply to any of the above drugs or class of drugs lawfully supplied or prescribed for the treatment of Dr Brian Reading Moore by a dentist or medical practitioner or by a veterinary surgeon for administration to an animal in his care.

This order took effect when it was served on Dr Brian Reading Moore on 19 August 2009.

K. EVANS, Delegate for the Minister for  
Mental Health and Substance Abuse

## DEVELOPMENT ACT 1993: SECTION 48

## NOTICE BY THE GOVERNOR

*Preamble*

1. I have given a development authorisation pursuant to section 48 of the Development Act 1993 for the establishment of a Multiple Waste Treatment Facility (for treating high level contaminated waste) at the existing Northern Balefill (landfill) near Dublin, by Integrated Waste Services Pty Ltd, which authorisation is published in the *Gazette* of 27 August 2009.

2. I wish to delegate certain of my powers under section 48 to the Minister for Urban Development and Planning.

*Delegation*

PURSUANT to section 48 (8) of the Development Act 1993 and with the advice and consent of the Executive Council I make the following delegations:

I delegate to the Minister for Urban Development and Planning:

- (a) my power to assess and approve the reserved matters specified in the said provisional development authorisation (provided the essential nature of the development is not changed);
- (b) my power under section 48 (7a) to grant or permit any variation associated with the said provisional development authorisation (provided the essential nature of the development is not changed);
- (c) in relation to the said provisional development authorisation, or any variation thereof- my power to vary or revoke conditions, or to attach new conditions, under section 48 (7) (provided the essential nature of the development is not changed);
- (d) if all reserved matters specified in the said provisional development authorisation have been approved, my power to grant the development authorisation required under section 48 (2) (b) (i) (provided there has been no alteration to the Environmental Impact Statement to which section 47 (2) (b) has applied);

(e) my power under section 48 (2) (a) to indicate that a development authorisation will not be granted, should there be any amendment to the Environmental Impact Statement to which section 47 (2) (b) has applied; and

(f) my power to grant the development authorisation required under section 48 (2) (b) (i) if there has been any amendment to the Environmental Impact Statement to which section 47 (2) (b) has applied.

Given under my hand at Adelaide, 27 August 2009.

KEVIN SCARCE, Governor

## DEVELOPMENT ACT 1993: SECTION 48

## DECISION BY THE GOVERNOR

*Preamble*

1. On 19 October 1994 the Minister for Housing, Urban Development and Local Government Relations, being of the opinion that a proposed development of a waste management facility in the form of a solid waste landfill (Northern Balefill) near Dublin ('the development') was a development of major social, economic or environmental importance, directed the proponent to prepare an Environmental Impact Statement pursuant to section 46 of the Development Act 1993.

2. On 22 April 1996 an Environmental Impact Statement for the development was published in accordance with section 46 of the Development Act 1993. Subsequently, the Minister prepared an Assessment Report in accordance with section 46 of the Development Act 1993.

3. On 29 January 1998 the Governor gave notice in the *Government Gazette* that pursuant to section 48 of the Development Act 1993 a development authorisation was granted to the development subject to conditions specified in that notice.

4. Following an application by the beneficiary of the development authorisation for a variation to the authorisation to allow the receipt and disposal of low level contaminated waste, the development was the subject of an Amended Environmental Impact Statement and an Amendment to the Assessment Report under section 47 of the Development Act 1993 ('the amended development').

5. On 8 September 2005 the Governor gave notice in the *Government Gazette* that provisional development consent, reserving specific matters for further assessment, was granted for the amended development subject to conditions specified in that notice.

6. On 30 June 2008 Integrated Waste Services Pty Ltd, the company now having the benefit of the development authorisation applied for a second amendment to the development authorisation proposing the establishment of a Multiple Waste Treatment Facility for the treatment and disposal of high level contaminated waste at the existing landfill.

7. The proposal has been the subject of an Amended Environmental Impact Statement and an Amended Assessment Report under the section 47 of the Development Act 1993, and is hereafter referred to as the 'proposed amended Major Development'.

8. I am satisfied that an appropriate Amended Environmental Impact Statement and an Amendment to the Assessment Report have been prepared in relation to the proposed amended Major Development, in accordance with section 47, Division 2 of Part 4 of the Development Act 1993, and have had regard, when considering the proposed amended Major Development, to all relevant matters under section 48 (5) of the Development Act 1993.

9. I have decided to grant provisional development authorisation to the proposed Major Development under section 48 (6) of the Development Act 1993, whilst reserving the decision on specified matters until further assessment of the proposed development.

10. For ease of reference, I have decided to revoke all conditions previously imposed on the provisional development authorisation and to substitute therefore the reserved matters and conditions contained herein. Conditions that pertain to the second amendment are contained in conditions 1-25. Conditions that relate to the current operation of the landfill have been retained and are reimposed in conditions 26-51.

11. Contemporaneously with the issuing of this Notice, I intend pursuant to section 48(8) of the Development Act to delegate to the Minister (a) the power to assess and make a decision on matters specified as reserved and to grant a final development authorisation for the purposes of section 48 (2) (b) (i) of the Act; (b) the power pursuant to section 48B to grant or permit any variation associated with that development application and associated document (provided the essential nature of the development is not changed); and (c) in relation to that development authorisation, or any variation—the power to revoke conditions, or to attach new conditions, under section 48 (7) of the Development Act 1993 (provided the essential nature of the development is not changed).

#### Decision

PURSUANT to section 48 of the Development Act 1993 and with the advice and consent of the Executive Council, and having due regard to the matters set out in section 48 (5) and all other relevant matters, I:

- (a) grant a provisional development authorisation in relation to the proposed amended Major Development under section 48 (6) subject to the conditions set out in Part B below;
- (b) pursuant to section 48 (6) reserve my decision on the reserved matters specified in Part A below;
- (c) specify all matters relating to this provisional development authorisation as matters in respect of which conditions of this authorisation may be varied or revoked, or new conditions attached;
- (d) specify for the purposes of section 48 (11) (b) the period of two years from the date of this provisional development authorisation as the time within which substantial work must be commenced on site, failing which I may cancel this authorisation.

#### PART A: RESERVED MATTERS

The following are the matters reserved for further assessment:

- (a) compliance with the Building Rules in relation to all aspects of the proposed Major Development;
- (b) final plans, cross-sections and elevations for the Multiple Waste Treatment Facility building;
- (c) an Environmental Management Plan for the operation of Stage 1 of the Multiple Waste Treatment Facility.

#### PART B: CONDITIONS OF PROVISIONAL DEVELOPMENT AUTHORISATION

#### General Conditions

1. The development authorisation granted hereunder is provisional only, does not operate as a final development authorisation, and does not therefore authorise implementation of the proposed amended Major Development. Only an authorisation granted under section 48 (2) (b) (i) can operate to authorise implementation of the proposed amended Major Development, which authorisation will only be granted after the reserved matters have been assessed and approved.

2. Except where minor amendments may be required by other legislation, or by conditions imposed herein, the proposed Major Development shall be undertaken in strict accordance with the following documents:

- Development application dated 30 June 2008;
- Environmental Impact Statement Amendment, Integrated Waste Services Northern Balefill Dublin Multiple Waste Treatment Facility EIS Amendment prepared by Golder Associates, dated 24 November 2008, but in the case of conflict with a specific condition below the specific condition shall apply;
- proponent's response to submissions, letter from Connor Holmes to the Department of Planning and Local Government dated 3 April 2009, but in the case of conflict with a specific condition below the specific condition shall apply;
- correspondence from Connor Holmes to the Department of Planning & Local Government containing additional information on the proposal dated 27 May 2009, but in the case of conflict with a specific condition below the specific condition shall apply.

3. Before any building work is undertaken on the site, the building work is to be certified by a private certifier, or by some person determined by the Minister for Urban Development and Planning, as complying with the provisions of the Building Rules (or the Building Rules as modified according to criteria prescribed by the Regulations).

#### Multiple Waste Treatment Facility (MWTF)

4. The design of the MWTF shall be amended to include coloured metal cladding on all sides of the building, so as to enclose the whole of the facility.

5. Designs for the effluent treatment and disposal system shall be prepared to the reasonable satisfaction of the District Council of Mallala.

6. An automated wind monitoring station shall be established next to Stage 1 of the MWTF, prior to the commencement of operation of Stage 1.

7. Upon the completion of Stage 1 construction, the interim storage of High Level Contaminated Waste shall not exceed 3 500m<sup>3</sup> of materials, until Stage 2 construction is complete.

8. Construction of Stage 2 shall commence immediately upon the completion of construction of Stage 1.

9. Stage 2 shall be completed within 12 months of the commencement of construction.

10. Treatment of waste material shall not occur until the construction of the entire MWTF has been completed, to the reasonable satisfaction of the EPA.

11. High Level Contaminated Waste is not required to be baled or shredded.

12. The unloading and storage of High Level Contaminated Waste for Stage 1 shall be undertaken in accordance with an Environment Protection Authority approved Environmental Management Plan for Stage 1.

13. The unloading of High Level Contaminated Waste shall only occur during conditions where the wind speed measured on-site is less than or equal to 15 knots/hr.

14. High Level Contaminated Waste materials shall be wetted down during unloading.

15. High Level Contaminated Waste materials shall be covered with an impervious cover (such as High Density Polyethylene plastic) immediately after unloading, in order to prevent air emissions and rainfall infiltration.

16. The impervious cover shall be securely held down.

17. A truck wash with water sprays shall be installed for the removal of residues from vehicles transporting High Level Contaminated Waste to the site. All transport vehicles shall not leave the site unless they have gone through the truck wash.

18. All unloading and storage activities for Stage 1 shall be supervised and inspected by a suitably qualified and experienced environmental consultant, to the reasonable satisfaction of the Environment Protection Authority, to ensure activities are undertaken in accordance with the Environmental Management Plan for Stage 1. Stored materials shall be inspected quarterly to ensure they are covered in a secure manner.

19. Treatment of the stored materials shall only commence once the completed MTWF is approved by the Environment Protection Authority to commence operation.

20. Bioremediation and stabilisation are the only treatment processes that shall be used in the MWTF.

21. Pre-remediation trials shall be conducted on all contaminated materials, prior to delivery to the MWTF, to determine if treatment methods approved by the Environment Protection Authority would be successful. Trial results shall be submitted to the Environment Protection Authority for assessment, prior to delivery of contaminated materials to the MWTF.

22. Post-remediation testing on treated materials shall be undertaken to assess its suitability to be disposed of or reused. Testing results shall be submitted to the Environment Protection Authority for assessment, prior to disposal or reuse.

23. Future treatment options shall undergo pre-trial assessment, to the reasonable satisfaction of the Environment Protection Authority, before they can be adopted.

24. An Environmental Management Plan (EMP) for activities associated with the MWTF, prepared to the reasonable satisfaction of the Environment Protection Authority, must be in place prior to the receipt, storage and treatment of contaminated materials in Stage 2.

#### *Solid Waste Balefill*

25. The work shall be carried out as shown on the plans (Figures 3.1 to 3.9) in the Development Application Report dated 28 November 1997, included with the Development Application dated 2 December 1997, except as varied by these conditions.

26. Subject to conditions 25, 26 and 27, all waste received for disposal at the facility shall be shredded and baled.

27. Unbaled green waste or unbaled construction or demolition waste of appropriate particle sizes may be placed and compacted in any voids unavoidably occurring between bales and the inclined surface of the cells in which those bales are placed to the reasonable satisfaction of the Environment Protection Authority and in accordance with any applicable requirements of a relevant environmental authorisation.

28. Waste materials received for disposal at the facility need not be shredded before baling where shredding of those materials is not required for the purpose of producing bales of a density and structural integrity that satisfy the applicable requirements of any relevant environmental authorisation.

29. Non-friable asbestos waste shall not be shredded or baled but shall be disposed of in accordance with the applicable requirements of any relevant environmental authorisation.

30. All perimeter plantings shall be started as early as practicable after the date of this authorisation to achieve maximum amelioration of visual impacts.

31. Screening by suitable plantings where adequate natural screening is not provided, shall be provided for the perimeter fence, all built structures, stockpiles and internal roads (where practicable) using suitable species in accordance with the Vegetation Management and Revegetation Plan proposed as part of the Landfill Environmental Management Plan (LEMP).

32. All firebreaks and external drainage channels shall be located on the inner edge of the vegetation screen and existing stands of native vegetation. In the event that drainage channels are required to be located close to the site boundary, their redesign to form low-lying wetland/saltmarsh communities as part of the vegetation screen shall be undertaken and implemented to the satisfaction of the Environment Protection Authority.

33. A leachate monitoring bore shall be installed within each cell to assist with leachate management, particularly if leachate circulation is incorporated in the Landfill Environmental Management Plan (LEMP).

34. The proponent shall pay all reasonable costs of the detailed design and construction of any public roadworks made necessary by this development. Such works may include the opening and associated left turn deceleration lane from Port Wakefield Road, and the upgrading of the entrance to balefill junction to the satisfaction of the Commissioner of Highways.

35. The proponent shall seal (two coat spray seal) the internal site access road for a minimum of 520 m from the nearest residence.

36. The applicant shall prepare a Vegetation Management and Revegetation Plan (which may be included in the LEMP) to the reasonable satisfaction of the Development Assessment Commission and must implement that Plan once it has been approved by the Development Assessment Commission.

#### *Low Level Contaminated Soil and Liquid Treatment Plant Residues*

37. Low level contaminated soil (LLCS) and liquid treatment plant residues (LLTR) are not required to be baled or shredded.

38. The work shall be carried in accordance with the following documents and plans:

- EIS Amendment, Receipt of Low Level Contaminated Soil and Liquid Waste Treatment Plant Residues at the IWS Northern Balefill, dated July 2003;
- Response Document on the EIS Amendment for the Receipt of Low Level Contaminated Soil and Liquid Waste Treatment Plant Residues (Revised), dated 30 April 2004;

- Supplementary Information EIS Amendment Receipt of Low Level Contaminated Soil and Liquid Waste Treatment Plant Residues at the IWS Northern Balefill, dated 26 November 2004;

- Landfill Environmental Management Plan, dated 2001 or as varied by any applicable requirements of a licence from the Environment Protection Authority;

- Drawings:

- 3307DO1, 4/11/2004—cell 31 design plan;
- 3307DO2, Drawn 25/8/2004 and checked 18/2/2005—Section A, liner and sump design;
- 3307DO3, 10/8/2004—liner design sections and details;
- 3307DO4, 14/10/2004—cell 31 interim capping design;
- 3307DO5, 13/8/2004—landfill staging plan;
- 3307DO6, 13/8/2004—final surface water control;
- 3307DO8, Drawn 27/8/2004 and checked 26/11/2004—interim surface water control;
- 3307DO9 P1, Drawn 4/11/2004 and checked 26/11/2004—cell design plan line 2;
- 3307DO10, Drawn 29/8/2004 and checked 26/11/2004—sections D and E, swale drain design.

39. Distance to groundwater requirements shall be as follows:

- based on groundwater level monitoring results and interpolated highest groundwater levels for Cell 31, including a 0.1 metre buffer; the base of the sump shall be at 9.1 m AHD;
- not withstanding the above requirement, a minimum separation distance of 2 m between the underside of the lowest portion of the lining system (including the sump area) and the underlying groundwater shall be maintained at all times.

40. Leachate collection and extraction system requirements shall be as follows:

- leachate removal shall implement a system which accommodates the installation of the pumps at the leachate riser access point;
- following cell completion and until the entire cell base is covered with a minimum of 1.5 metres of waste, a pump with a flow capacity of a minimum of 40 litres per second shall be installed;
- after it can be demonstrated that leachate production has declined to less than 1 litre per second, this pump can be replaced by a pump of lesser flow capacity;
- a back-up pump with the relevant capacity shall be readily available on site at all time.

41. Leachate treatment requirements shall be as follows:

- Leachate may be managed and treated by means of:
  - direct extraction into an on-site leachate evaporation pond which shall meet the minimum design specification as follows:
    - composite lining system comprising a 1 metre low permeability clay liner with  $k < 1 \times 10^{-9}$  m/s compacted to 95% Maximum Dry Density by standard compaction, and a moisture content between 0% and +4% wet of Optimum Moisture Content, overlaid by a 2mm high density polyethylene (HDPE) liner (welded);
    - minimum of 600 mm freeboard;
    - modelling with HELP or LANDSIM shall consider a 1 in 25, 24h duration storm event;
    - a minimum separation distance of 2 metres between the underside of the lowest portion of the lining system and the underlying groundwater shall be maintained at all times.
  - direct extraction into an onsite tank vehicle suitable for the transport of leachate into an onsite leachate evaporation pond;

- direct extraction into a licensed vehicle and transported to an off-site Environment Protection Authority licensed Waste Water Treatment Plant;
  - direct extraction into a suitably designed, temporary on-site storage tank prior to off-site disposal by an Environment Protection Authority licensed vehicle at an Environment Protection Authority licensed Waste Water Treatment Plant or prior to on-site transport to an onsite leachate evaporation pond.
42. Leachate management requirements shall be as follows:
- the head of leachate on the liner shall not exceed 300 mm (excluding the sump) at all times. To facilitate this, the trigger level for leachate extraction out of the leachate sump shall be set at 290 mm;
  - in addition to automatic leachate data readings, a manual monitoring probe shall be installed and calibrated to allow for direct readings of the vertical elevation of leachate in the riser pipe and conversion to the maximum leachate head on top of the liner;
  - leachate levels shall be read manually daily and recorded in the onsite operations logbook or as specified otherwise in the Environment Protection Authority licence.
43. Distance between LLCS/LTPR cells and Balefill cells (reference drawing 3307D03, 18/8/2004) shall be as follows:
- the distance between LLCS/LTPR cells and Balefill cells shall be at a minimum of 5 metres, measured between the toe of the LLCS cell structure (that is where the outer surface of the cap of the completed LLCS/LTPR cell joins the outer surface of the underlying clay liner for the same cell) and the cap of the nearest balefill cell (that is where the outer surface of the cap of a completed balefill cell joins the outer surface of the underlying clay liner).
44. Level 1 Supervision requirements shall be as follows:
- the construction of the clay liner of the cell shall be carried out under Level 1 Supervision in accordance with AS 3798-1996, Appendix B;
  - the construction of the HDPE liner shall be carried out under the full time supervision of a suitably qualified geotechnical consultant with experience in the construction and supervision of the construction of HDPE lining systems, quality control procedures and testing.
45. 'As Constructed Report' requirements shall be as follows:
- an 'As Constructed Report' certifying compliance with the approved design for the lining system, including a Construction Quality Assurance Report (CQA) for the HDPE liner and the Level 1 Supervision Report, shall be submitted to the Environment Protection Authority for acceptance prior to the commencement of the receipt and disposal of waste in each cell. No waste shall be received and disposed of prior to written acceptance of the 'As Constructed Report' by the Environment Protection Authority.
46. Coverage of waste requirements shall be as follows:
- all waste shall be covered as soon as reasonable practicable after the receipt of waste and placement in the cell or at close of business on each business day with at least 150 mm of cover material (waste fill or intermediate landfill cover with the restriction to a maximum particle size of 100 mm);
  - if a load of particularly odorous material is received at the LLCS/LTPR cell, it shall be covered immediately with a minimum of 150 mm cover material;
  - during periods when the LLCS/LTPR cell is not operating, routine monitoring for odorous gases shall be carried out as part of the site monitoring program and may trigger the application of additional cover material;
  - alternative cover materials may be used after the proponent:
    - has demonstrated to the Environment Protection Authority that the proposed material and placement method result in an equivalent or better performance compared to the approved material; and
    - has received written approval from the EPA prior to the use of alternative materials and placement methods.
47. Groundwater management requirements shall be as follows:
- an additional groundwater well shall be installed west of cell 30 and the first round of groundwater sampling and testing shall be completed at least 2 weeks prior to commencement of construction of cell 31;
  - groundwater level monitoring shall commence at least 2 weeks before commencement of construction of cell 31; groundwater levels shall be taken weekly and reported to the Environment Protection Authority monthly (datasheet and graph) or as specified otherwise in the EPA authorisation;
  - four monitoring rounds at three monthly intervals in the first 12 months of operation shall be carried out to establish additional background analyte levels around cell 31;
  - six monthly monitoring rounds shall be undertaken following the completion of the initial 12 months of groundwater monitoring or as specified otherwise in the Environment Protection Authority licence;
  - prior to the commencement of construction of any other cell for the receipt of LLCS/LTPR, the groundwater management and monitoring program shall be reviewed and submitted for Environment Protection Authority approval.
48. Surface Water Management requirements shall be as follows:
- a stormwater management plan shall be developed and submitted for Environment Protection Authority's approval addressing all issues related to the staged construction of LLCS/LTPR cells on site prior to commencement of construction of cell 31;
  - the stormwater management plan shall provide surface water control and management measures for:
    - surface water or stormwater runoff that does not interact with the waste material or other operational areas of the site and is considered to be uncontaminated;
    - surface water that comes into contact with waste materials or is collected from landfill areas or other operational areas and is considered to be contaminated;
    - surface runoff from the final landfill cap which has to be controlled;
    - diversion of surface water run-off from perimeter areas away from the operating cell.
49. Landfill Environmental Management Plan (LEMP) requirements shall be as follows:
- the new section of the LEMP ('Section 17') shall be completed and incorporated in the revised LEMP document;
  - the complete revised LEMP document shall be finalised and submitted to the Environment Protection Authority for approval prior to the receipt and disposal of LLCS/LTPR on the premises.
50. A wheel wash with water sprays shall be installed ensure removal of residues from the wheels and underside of the vehicles transporting low level contaminated soil and liquid treatment plant residues to the site.

#### PART C: NOTES TO PROPONENT

##### *Building Rules*

- The proponent shall obtain a Building Rules assessment and certification for any building work from either the Wakefield Regional Council or a private certifier (at the proponent's option) and forward to the Minister for Urban Development and Planning all relevant certification documents as outlined in Regulation 64 of the Development Regulations 2008.
- Pursuant to Development Regulation 64, the proponent is especially advised that the District Council of Mallala or private certifier conducting a Building Rules assessment must:
  - provide to the Minister for Urban Development and Planning a certification in the form set out in Schedule 12A of the Development Regulations 2008 in relation to the building works in question; and

- to the extent that may be relevant and appropriate:
  - (i) issue a Schedule of Essential Safety Provisions under Division 4 of Part 12;
  - (ii) assign a classification of the building under these regulations; and
  - (iii) ensure that the appropriate levy has been paid under the Construction Industry Training Fund 1993.
- Regulation 64 of the Development Regulations 2008 provides further information about the type and quantity of all Building Rules certification documentation for Major Developments required for referral to the Minister for Urban Development and Planning. The District Council of Mallala or private certifier undertaking Building Rules assessments must ensure that the assessment and certification are consistent with this provisional development authorisation (including its Conditions and Notes).

#### *Environmental Management Plan for the Multiple Waste Treatment Facility (MWTF)*

- An Environmental Management Plan (EMP) covering the operation requirements for the MTWF shall be prepared in consultation with the Environment Protection Authority.
- The EMP shall include an air quality monitoring programme to ensure air emissions from the MWTF do not contain contaminants at levels that may be harmful to nearby residents and land uses.
- The EMP shall include protocols for testing/trialling the suitability and effectiveness of treatment methods for batches of contaminated materials that could potentially be treated at the MWTF, prior to the receipt of such material.
- The EMP shall include contingencies for dealing with contaminated materials that cannot meet disposal criteria after treatment.
- The EMP shall include a detailed risk assessment protocol for all contaminated waste types to be treated.
- The EMP shall include a Fire Risk Management Plan.
- The EMP shall include a Hazardous Substances Management Plan.
- The EMP shall include an Occupational Health, Safety and Welfare Plan prepared in consultation with the Department of Health.
- The EMP shall include a financial assurance strategy.
- The EMP shall be amended if new treatment options, that have been approved by the Environment Protection Authority, are adopted in the future.
- The current Landfill Environmental Management Plan (LEMP) shall be amended, to the reasonable satisfaction of the Environment Protection Authority, to address the management of soil erosion and stormwater and the upgrading of existing screens and/or mounds or the establishment of new vegetated screens and/or mounds associated with the MWTF.
- The amendment of the LEMP and the upgrading of the site infrastructure, including but not limited to vegetated screens and/or mounds, shall be undertaken prior to commencement of the MWTF operations.

#### *EPA Licensing and General Environmental Duty of Care*

- The applicant is reminded of its general environmental duty, as required by section 25 of the Environment Protection Act 1993, to take all reasonable and practical measures to ensure that the activities on the whole site, including during both construction and operation, do not pollute the environment in a way which causes or may cause environmental harm.
- Environmental authorisation in the form of an amended licence will be required for the construction and/or operation of this development. The applicant is advised to contact the Environment Protection Authority before acting on this approval to ascertain licensing requirements.
- It is likely that as a condition of such a licence the Environment Protection Authority will require the licensee to carry out specified environmental monitoring of air and water quality and to make reports of the results of such monitoring to it.

#### *General Landfill Operations*

- To provide additional screening and wildlife habitat the following options could be investigated by the proponent, council, community and local landowners:
  - revegetation of the road reserve along Prime Beach Road, in conjunction with the District Council of Mallala and the community;
  - revegetation of the road reserve along Port Wakefield Road, in conjunction with the Department of Transport and Urban Planning (Transport SA) to further reduce views from the eastern direction;
  - plantings on private property along fence lines adjoining the site, in conjunction with landowners and the community.
- All sedimentation basins, evaporation ponds, and surface water drainage channels should be suitably located, designed and managed to ensure native vegetation (especially low-lying saltmarsh communities) is not adversely affected by construction activities or groundwater mounding and, if possible, the ecological value enhanced.
- A comprehensive Pest Plant and Animal Management Plan must be implemented prior to landfill operations commencing, to ensure the site is free of as many pest species as possible from the onset and adequate monitoring and follow-up control should occur, as discussed in the Assessment Report.
- Whilst not totally within the control of the proponent, monitoring and control programs to reduce the risk of disease transmission between activities in the area may ideally be prepared by adopting a district approach, in co-ordination with the Adelaide Plains Animal and Plant Control Board, Department of Primary Industries and Resources and landowners.
- To minimise and control any onsite soil erosion (particularly of stockpiled material), a Soil Erosion and Drainage Management Plan (SEDMP) as described in the Environment Protection Agency's 'Stormwater Pollution Prevention Codes of Practice', must be prepared and approved as part of the LEMP, before the site becomes operational.
- As part of the LEMP, a Surface Water Management Plan must be prepared by the proponent to the satisfaction of the EPA prior to receipt of any waste. The plan should address the collection and management of all onsite surface water (including any contaminated run-off originating from roadways, carparks and hardstands, the vehicle workshop or wheel washing facility) and management of all surface water flows entering the site from land external to the site, in particular to ensure their final discharge does not impact adversely on any downstream wetlands.
- A monitoring program must be established to record levels of coastal flooding in the western section of the site and, if results indicate a significant risk, a review process be undertaken (ideally through any relevant local community consultative committee) to determine whether to proceed with Stage 9.
- If blasting is required to remove any of the Ripon Calcrete, explosion vibration characteristics and monitoring requirements must be determined in consultation with the Environment Protection Authority and District Council of Mallala, prior to commencement.
- The Environment Protection Agency must be provided with all additional data concerning the site geology as it becomes available, as this could necessitate minor changes to landfill design or method of operation and the installation of additional groundwater monitoring bores.
- To enable detailed design of the proposed groundwater protection system, to determine the minimum depth at which the landfill cells should be based and to enable detailed design of the surface water management system; further investigation of groundwater levels and behaviour on the site must be undertaken prior to finalisation of the detailed design of the landfill and preparation of management plans.

- As part of the LEMP, a detailed Groundwater and Leachate Management Plan must be prepared by the proponent to the satisfaction of the Environment Protection Authority, prior to receipt of any waste. The Plan must demonstrate how the method of hydraulic containment proposed can be practically achieved. Further hydrogeological investigations must be carried out prior to the commencement of any landfill construction in order to fully define the dewatering and groundwater disposal requirements and to provide details of how the cells can be dewatered and constructed for full hydraulic containment of leachate. In particular, monitoring of watertable levels must commence immediately after the granting of the development authorisation in order that the magnitude of seasonal fluctuations can be fully established prior to construction of the landfill. The Plan may provide for staging of leachate and groundwater management works which may be required as a result of the staging of waste disposal activities upon the site, and should include contingency measures to be implemented in the event of any failure of the leachate management system.
- A more sustainable after-use for the site that will encourage the regeneration and rehabilitation of natural communities must be considered during future post closure planning.
- If appropriate with the desired end use to be determined in more detail at a later stage, the entire landform may be planted with appropriate types of native vegetation cover.
- Determination of interim and post closure land uses of the site, proposed to be undertaken in association with any relevant local community consultative committee, must be undertaken as required by the Environment Protection Authority as part of the LEMP.

Given under my hand at Adelaide, 27 August 2009.

KEVIN SCARCE, Governor

DEVELOPMENT ACT 1993, SECTION 25 (17): CITY OF ONKAPARINGA—LOCAL HERITAGE (ONKAPARINGA) DEVELOPMENT PLAN AMENDMENT

*Preamble*

1. The Development Plan amendment entitled 'City of Onkaparinga—Local Heritage (Onkaparinga) Development Plan Amendment' (the Plan Amendment) has been finalised in accordance with the provisions of the Development Act 1993.

2. The Minister for Urban Development and Planning has decided to approve the Plan Amendment.

NOTICE

PURSUANT to section 25 of the Development Act 1993, I—

- approve the Plan Amendment; and
- fix the day on which this notice is published in the *Gazette* as the day on which the Plan Amendment will come into operation.

Dated 27 August 2009.

PAUL HOLLOWAY Minister for Urban Development and Planning

DEVELOPMENT ACT 1993, SECTION 29 (2) (b) (i): AMENDMENT TO THE PORT ADELAIDE ENFIELD (CITY) DEVELOPMENT PLAN

*Preamble*

It is necessary to amend the Port Adelaide Enfield (City) Development Plan (the Plan) dated 11 June 2009 and as amended by the Industry Zones Part One Development Plan Amendment approved on 6 August 2009 and by the Outdoor Advertisements Development Plan Amendment approved on 13 August 2009.

NOTICE

PURSUANT to section 29 (2) (b) (i) of the Development Act 1993, I, Paul Holloway, being the Minister administering the Act, amend the Port Adelaide Enfield (City) Development Plan dated 11 June 2009 as follows, remove the entire Council Wide section 'Outdoor Advertising' as inserted into the Plan by the Industry Zones Part One Development Plan Amendment approved on the 6 August 2009, namely:

*'Outdoor Advertising*

- 103 Advertising displays associated with industrial development should comprise free standing signs.
- 104 On land having up to and including 50 metres frontage to a public road, advertising displays should comprise a single free standing sign that does not have a total height in excess of 6 metres and a total face area in excess of 6 square metres.
- 105 On land having more than 50 metres frontage to a public road, advertising displays may comprise:
  - (a) a single free-standing sign that may exceed both the maximum height of 6 metres by 1 metre and the maximum face area of 6 square metres by 1 square metre for every additional 10 metres of frontage or part thereof to a maximum height of 10 metres and a maximum face area of 10 square metres; or alternatively
  - (b) up to two free standing signs each of which do not have a total height in excess of 6 metres and a total face area in excess of 6 square metres.
- 106 Third party advertisements (i.e. advertisements related to messages or products that are not directly associated with the activity lawfully occurring on the land on which the advertisement is to be displayed) should not be erected.'

Dated 27 August 2009.

PAUL HOLLOWAY, Minister for Urban Development and Planning

EQUAL OPPORTUNITY TRIBUNAL

No. 207 OF 2009

NOTICE OF EXEMPTION

*Before Deputy Presiding Officer Cole and Members Bachmann and Jasinski*

I HEREBY certify that on 18 August 2009, the Equal Opportunity Tribunal of South Australia, on the application of Pembroke School Inc. made the following orders for exemption:

1. Pembroke School Inc. is exempted from the operation of section 37 of the Equal Opportunity Act 1984, to permit it to favour girls or boys in respect of applications for enrolment at all year levels from its Early Learning Centre to Year 7, inclusive, for the purpose of obtaining gender balance in each year.

2. This exemption will be in force for three years from the date of its gazettal.

Dated 20 August 2009.

BJORN DE JAGER for I. PHILLIPS, Registrar,  
Equal Opportunity Tribunal

FISHERIES MANAGEMENT ACT 2007: SECTION 115

TAKE notice that pursuant to section 115 of the Fisheries Management Act 2007, Dr Peter Gill of Blue Whale Study Inc., 25 Priestly Road, Tyrendarra, Vic. 3285 (the 'exemption holder') or a person acting as his agent, is exempt from section 71 of the Fisheries Management Act 2007, but only insofar as they may engage in the activities specified in Schedule 1 (the 'exempted activity'), subject to the conditions set out in Schedule 2, from 21 August 2009 until 30 June 2010, unless varied or revoked earlier.

SCHEDULE 1

The taking of biopsies and attachment of satellite and suction-cup dive-logger tags to blue whales (*Balaenoptera musculus*) in South Australian waters and collection of krill using hand nets, excluding aquatic reserves and the waters of the Adelaide Dolphin Sanctuary.

SCHEDULE 2

1. The specimens collected by the exemption holder are for scientific and research purposes only and must not be sold.

2. Any specimens not returned to the water must be lodged with the South Australian Museum as voucher specimens.

DEVELOPMENT ACT 1993, SECTION 48: DECISION BY THE MINISTER FOR URBAN DEVELOPMENT AND PLANNING UNDER DELEGATION FROM THE GOVERNOR

*Preamble*

1. On 19 October 1994, the Minister for Housing, Urban Development and Local Government Relations, being of the opinion that a proposed development of a waste management facility in the form of a solid waste landfill (Northern Balefill) near Dublin ('the development') was a development of major social, economic or environmental importance, directed the proponent to prepare an Environmental Impact Statement pursuant to section 46 of the Development Act 1993.

2. On 22 April 1996, an Environmental Impact Statement for the development was published in accordance with section 46 of the Development Act 1993. Subsequently, the Minister prepared an Assessment Report in accordance with section 46 of the Development Act 1993.

3. By notice in the *Government Gazette* on 29 January 1998, the Governor granted development authorisation to the development subject to conditions specified in that notice pursuant to section 48 of the Development Act 1993.

4. Following an application by the beneficiary of the development authorisation for a variation to the authorisation to allow the receipt and disposal of low level contaminated waste, the development was the subject of an Amended Environmental Impact Statement dated June 1998 and an Amended Assessment Report dated December 1998, under section 47 of the Development Act 1993 ('the amended Major Development').

5. By notice in the *Government Gazette* on 8 September 2005, the Governor granted provisional development authorisation to the amended Major Development, reserving specific matters for further assessment.

6. On 30 June 2008, Integrated Waste Services Pty Ltd applied for a second amendment to the development authorisation proposing the establishment of a Multiple Waste Treatment Facility for the treatment and disposal of high level contaminated waste at the existing landfill. The proposal was the subject of an Amended Environmental Impact Statement and an Amended Assessment Report under section 47 of the Development Act 1993 ('the further amended Major Development').

7. By notice in the *Government Gazette* on 27 August 2009, the Governor granted provisional development authorisation to the further amended Major Development, reserving specific matters for further assessment.

8. On 19 May 2010, Integrated Waste Services Pty Ltd applied for approval of the matters reserved for further assessment and for a variation of the development authorisation relating to the Multiple Waste Treatment Facility ('the MWTF'). The proposed further changes to the MWTF primarily relate to construction being undertaken in one stage (rather than two) and consequent minor modifications to the design of the facility.

9. By notice in the *Government Gazette* on 27 August 2009, the Governor delegated the following powers to the Minister pursuant to section 48 (8) of the Development Act 1993:

- (a) the power to assess and make a decision on matters specified as reserved and to grant a final development authorisation for the purposes of section 48 (2) (b) (i) of the Act;
- (b) the power pursuant to section 48B of the Act to grant or permit any variation associated with that development authorisation and associated document (provided the essential nature of the development is not changed); and
- (c) in relation to that development authorisation, or any variation thereto—the power to revoke conditions, or to attach new conditions, under section 48 (7) of the Act (provided the essential nature of the development is not changed).

10. I am satisfied that the application for variation of the development authorisation does not require the preparation of a further or amended Environmental Impact Statement and that the application does not change the essential nature of the development.

11. I have assessed the matters reserved for further assessment having regard to all relevant matters in accordance with section 48 (5) of the Development Act 1993, and I am satisfied that the further amended Major Development can now be granted development authorisation.

12. I have decided to grant the requested variation to the amended Major Development by the variation of conditions of the authorisation and the addition of new conditions pursuant to section 48 (7) (b) of the Development Act 1993 and grant development authorisation to the further amended Major Development under section 48 (2) (b) (i) of the Act.

*Decision*

PURSUANT to section 48 of the Development Act 1993, having due regard to the matters set out in section 48 (5) and all other relevant matters, I:

- (a) vary the amended Major Development by:
  - (i) revoking Conditions 6, 7, 8, 9, 12, 13, 14, 15, 16 and 18 of the provisional development authorisation dated 27 August 2009, in relation to the matter reserved for further assessment in paragraph (c) of the provisional development authorisation dated 27 August 2009;
  - (ii) revoking Condition 1 of the provisional development authorisation dated 27 August 2009;
  - (iii) varying Condition 2 of the provisional development authorisation dated 27 August 2009, by adding the following:
    - 'Correspondence from Integrated Waste Services to the Department of Planning and Local Government applying for approval of reserved matters and variations related to the Multiple Waste Treatment Facility dated 19 May 2010, but in the case of conflict with a specific condition below the specific condition shall apply;
    - Correspondence from Integrated Waste Services to the Department of Planning and Local Government providing additional information to support application dated 11 May 2010, but in the case of conflict with a specific condition below the specific condition shall apply;
    - Correspondence from Katnitch Dodd for Stage 1—Civil and Structural Work dated 31 March 2010 and accompanying certified plans;
    - Correspondence from Katnitch Dodd for Final Stage—Services and Fitout Works dated 31 March 2010 and accompanying certified plans'; and
  - (iv) consolidating and re-numbering the remaining conditions of development authorisation as reproduced below;
- (b) grant development authorisation in relation to the matters reserved for further assessment in paragraphs (a) and (b) of the provisional development authorisation dated 27 August 2009;
- (c) specify for the purposes of section 48 (7) (b) (i) of the Development Act 1993, that all matters relating to this development authorisation are matters in respect of which conditions of this authorisation may be varied or revoked, or new conditions attached;
- (d) specify for the purposes of section 48 (11) (b) the period until 27 August 2011, as the time within which substantial work must be commenced on site, failing which I may cancel this authorisation.

CONSOLIDATED CONDITIONS OF DEVELOPMENT AUTHORISATION

*General Conditions*

1. Except where minor amendments may be required by other legislation, or by conditions imposed herein, the proposed Major Development shall be undertaken in strict accordance with the following documents:

- Development application dated 30 June 2008;

- Environmental Impact Statement Amendment, Integrated Waste Services Northern Balefill Dublin Multiple Waste Treatment Facility EIS Amendment prepared by Golder Associates, dated 24 November 2008, but in the case of conflict with a specific condition below the specific condition shall apply;
- Proponent's response to submissions, letter from Connor Holmes to the Department of Planning and Local Government dated 3 April 2009, but in the case of conflict with a specific condition below the specific condition shall apply;
- Correspondence from Connor Holmes to the Department of Planning and Local Government containing additional information on the proposal dated 27 May 2009, but in the case of conflict with a specific condition below the specific condition shall apply;
- Correspondence from Integrated Waste Services to the Department of Planning and Local Government applying for approval of reserved matters and variations related to the Multiple Waste Treatment Facility dated 19 May 2010, but in the case of conflict with a specific condition below the specific condition shall apply;
- Correspondence from Integrated Waste Services to the Department of Planning and Local Government providing additional information to support application dated 11 May 2010, but in the case of conflict with a specific condition below the specific condition shall apply;
- Correspondence from Katnitch Dodd for Stage 1—Civil and Structural Work dated 31 March 2010 and accompanying certified plans;
- Correspondence from Katnitch Dodd for Final Stage—Services and Fitout Works dated 31 March 2010 and accompanying certified plans.

2. Before any building work is undertaken on the site, the building work is to be certified by a private certifier, or by some person determined by the Minister for Urban Development and Planning, as complying with the provisions of the Building Rules (or the Building Rules as modified according to criteria prescribed by the Regulations).

#### *Multiple Waste Treatment Facility (MWTF)*

3. The design of the MWTF shall be amended to include coloured metal cladding on all sides of the building, so as to enclose the whole of the facility.

4. Designs for the effluent treatment and disposal system shall be prepared to the reasonable satisfaction of the District Council of Mallala.

5. Treatment of waste material shall not occur until the construction of the entire MWTF has been completed, to the reasonable satisfaction of the EPA.

6. High Level Contaminated Waste is not required to be baled or shredded.

7. A truck wash with water sprays shall be installed for the removal of residues from vehicles transporting High Level Contaminated Waste to the site. All transport vehicles shall not leave the site unless they have gone through the truck wash.

8. Treatment of the stored materials shall only commence once the completed MWTF is approved by the Environment Protection Authority to commence operation.

9. Bio-remediation and stabilisation are the only treatment processes that shall be used in the MWTF.

10. Pre-remediation trials shall be conducted on all contaminated materials, prior to delivery to the MWTF, to determine if treatment methods approved by the Environment Protection Authority would be successful. Trial results shall be submitted to the Environment Protection Authority for assessment, prior to delivery of contaminated materials to the MWTF.

11. Post-remediation testing on treated materials shall be undertaken to assess its suitability to be disposed of or reused. Testing results shall be submitted to the Environment Protection Authority for assessment, prior to disposal or reuse.

12. Future treatment options shall undergo pre-trial assessment, to the reasonable satisfaction of the Environment Protection Authority, before they can be adopted.

13. An Environmental Management Plan (EMP) for activities associated with the MWTF, prepared to the reasonable satisfaction of the Environment Protection Authority, must be in place prior to the receipt, storage and treatment of contaminated materials.

#### *Solid Waste Balefill*

14. The work shall be carried out as shown on the plans (Figures 3.1 to 3.9) in the Development Application Report dated 28 November 1997, included with the Development Application dated 2 December 1997, except as varied by these conditions.

15. Subject to Conditions 25, 26 and 27, all waste received for disposal at the facility shall be shredded and baled.

16. Unbaled green waste or unbaled construction or demolition waste of appropriate particle sizes may be placed and compacted in any voids unavoidably occurring between bales and the inclined surface of the cells in which those bales are placed to the reasonable satisfaction of the Environment Protection Authority and in accordance with any applicable requirements of a relevant environmental authorisation.

17. Waste materials received for disposal at the facility need not be shredded before baling where shredding of those materials is not required for the purpose of producing bales of a density and structural integrity that satisfy the applicable requirements of any relevant environmental authorisation.

18. Non-friable asbestos waste shall not be shredded or baled but shall be disposed of in accordance with the applicable requirements of any relevant environmental authorisation.

19. All perimeter plantings shall be started as early as practicable after the date of this authorisation to achieve maximum amelioration of visual impacts.

20. Screening by suitable plantings where adequate natural screening is not provided, shall be provided for the perimeter fence, all built structures, stockpiles and internal roads (where practicable) using suitable species in accordance with the Vegetation Management and Revegetation Plan proposed as part of the Landfill Environmental Management Plan (LEMP).

21. All firebreaks and external drainage channels shall be located on the inner edge of the vegetation screen and existing stands of native vegetation. In the event that drainage channels are required to be located close to the site boundary, their redesign to form low-lying wetland/saltmarsh communities as part of the vegetation screen shall be undertaken and implemented to the satisfaction of the Environment Protection Authority.

22. A leachate monitoring bore shall be installed within each cell to assist with leachate management, particularly if leachate circulation is incorporated in the Landfill Environmental Management Plan (LEMP).

23. The proponent shall pay all reasonable costs of the detailed design and construction of any public roadworks made necessary by this development. Such works may include the opening and associated left turn deceleration lane from Port Wakefield Road, and the upgrading of the entrance to balefill junction to the satisfaction of the Commissioner of Highways.

24. The proponent shall seal (two coat spray seal) the internal site access road for a minimum of 520 m from the nearest residence.

25. The applicant shall prepare a Vegetation Management and Revegetation Plan (which may be included in the LEMP) to the reasonable satisfaction of the Development Assessment Commission and must implement that Plan once it has been approved by the Development Assessment Commission.

#### *Low Level Contaminated Soil and Liquid Treatment Plant Residues*

26. Low Level Contaminated Soil (LLCS) and Liquid Treatment Plant Residues (LTPR) are not required to be baled or shredded.

27. The work shall be carried out in accordance with the following documents and plans:

- EIS Amendment, Receipt of Low Level Contaminated Soil and Liquid Treatment Plant Residues at the IWS Northern Balefill, dated July 2003.
- Response Document on the EIS Amendment for the Receipt of Low Level Contaminated Soil and Liquid Treatment Plant Residues (Revised), dated 30 April 2004.



- Supplementary Information EIS Amendment Receipt of Low Level Contaminated Soil and Liquid Treatment Plant Residues at the IWS Northern Balefill, dated 26 November 2004.
  - Landfill Environmental Management Plan, dated 2001 or as varied by any applicable requirements of a licence from the Environment Protection Authority.
  - Drawings:
    - 3307DO1, 4/11/2004 – cell 31 design plan;
    - 3307DO2, Drawn 25/8/2004 and checked 18/2/2005—section A, liner and sump design;
    - 3307DO3, 10/8/2004—liner design sections and details;
    - 3307DO4, 14/10/2004—cell 31 interim capping design;
    - 3307DO5, 13/8/2004—landfill staging plan;
    - 3307DO6, 13/8/2004—final surface water control;
    - 3307DO8, Drawn 27/8/2004 and checked 26/11/2004—interim surface water control;
    - 3307DO9 P1, Drawn 4/11/2004 and checked 26/11/2004—cell design plan line 2; and
    - 3307DO10, Drawn 29/8/2004 and checked 26/11/2004—sections D and E, swale drain design.
28. Distance to groundwater requirements shall be as follows:
- Based on groundwater level monitoring results and interpolated highest groundwater levels for Cell 31, including a 0.1 m buffer; the base of the sump shall be at 9.1 m AHD;
  - Notwithstanding the above requirement, a minimum separation distance of 2 m between the underside of the lowest portion of the lining system (including the sump area) and the underlying groundwater shall be maintained at all times.
29. Leachate collection and extraction system requirements shall be as follows:
- Leachate removal shall implement a system which accommodates the installation of the pumps at the leachate riser access point.
  - Following cell completion and until the entire cell base is covered with a minimum of 1.5 m of waste, a pump with a flow capacity of a minimum of 40 litres per second shall be installed.
  - After it can be demonstrated that leachate production has declined to less than 1 litre per second, this pump can be replaced by a pump of lesser flow capacity.
  - A back-up pump with the relevant capacity shall be readily available on site at all time.
30. Leachate treatment requirements shall be as follows:
- Leachate may be managed and treated by means of:
    - direct extraction into an on-site leachate evaporation pond which shall meet the minimum design specification as follows:
      - composite lining system comprising a 1 m low permeability clay liner with  $k < 1 \times 10^{-7}$  m/s compacted to 95% Maximum Dry Density by standard compaction, and a moisture content between 0% and +4% wet of Optimum Moisture Content, overlaid by a 2 mm high density polyethylene (HDPE) liner (welded);
      - minimum of 600 mm freeboard;
      - modelling with HELP or LANDSIM shall consider a 1 in 25, 24h duration storm event;
      - a minimum separation distance of 2 m between the underside of the lowest portion of the lining system and the underlying groundwater shall be maintained at all times.
    - Direct extraction into an on-site tank vehicle suitable for the transport of leachate into an onsite leachate evaporation pond.
    - Direct extraction into a licensed vehicle and transported to an off-site Environment Protection Authority licensed Waste Water Treatment Plant.
    - Direct extraction into a suitably designed, temporary on-site storage tank prior to off-site disposal by an Environment Protection Authority licensed vehicle at an Environment Protection Authority licensed Waste Water Treatment Plant or prior to on-site transport to an on-site leachate evaporation pond.
31. Leachate management requirements shall be as follows:
- The head of leachate on the liner shall not exceed 300 mm (excluding the sump) at all times. To facilitate this, the trigger level for leachate extraction out of the leachate sump shall be set at 290 mm.
  - In addition to automatic leachate data readings, a manual monitoring probe shall be installed and calibrated to allow for direct readings of the vertical elevation of leachate in the riser pipe and conversion to the maximum leachate head on top of the liner.
  - Leachate levels shall be read manually daily and recorded in the on-site operations logbook or as specified otherwise in the Environment Protection Authority licence.
32. Distance between LLCS/LTPR cells and Balefill cells (reference drawing 3307D03, 18/8/2004) shall be as follows:
- The distance between LLCS/LTPR cells and Balefill cells shall be at a minimum of 5 m, measured between the toe of the LLCS cell structure (that is where the outer surface of the cap of the completed LLCS/LTPR cell joins the outer surface of the underlying clay liner for the same cell) and the cap of the nearest balefill cell (that is where the outer surface of the cap of a completed balefill cell joins the outer surface of the underlying clay liner).
33. Level 1 Supervision requirements shall be as follows:
- The construction of the clay liner of the cell shall be carried out under Level 1 Supervision in accordance with AS 3798-1996, Appendix B.
  - The construction of the HDPE liner shall be carried out under the full-time supervision of a suitably qualified geotechnical consultant with experience in the construction and supervision of the construction of HDPE lining systems, quality control procedures and testing.
34. 'As Constructed Report' requirements shall be as follows:
- An 'As Constructed Report' certifying compliance with the approved design for the lining system, including a Construction Quality Assurance Report (CQA) for the HDPE liner and the Level 1 Supervision Report, shall be submitted to the Environment Protection Authority for acceptance prior to the commencement of the receipt and disposal of waste in each cell. No waste shall be received and disposed of prior to written acceptance of the 'As Constructed Report' by the Environment Protection Authority.
35. Coverage of waste requirements shall be as follows:
- All waste shall be covered as soon as reasonable practicable after the receipt of waste and placement in the cell or at close of business on each business day with at least 150 mm of cover material (waste fill or intermediate landfill cover with the restriction to a maximum particle size of 100 mm).
  - If a load of particularly odorous material is received at the LLCS/LTPR cell, it shall be covered immediately with a minimum of 150 mm cover material.
  - During periods when the LLCS/LTPR cell is not operating, routine monitoring for odorous gases shall be carried out as part of the site monitoring program and may trigger the application of additional cover material.
  - Alternative cover materials may be used after the proponent:
    - has demonstrated to the Environment Protection Authority that the proposed material and placement method result in an equivalent or better performance compared to the approved material; and

- has received written approval from the EPA prior to the use of alternative materials and placement methods.
36. Groundwater management requirements shall be as follows:
- An additional groundwater well shall be installed west of cell 30 and the first round of groundwater sampling and testing shall be completed at least two weeks prior to commencement of construction of cell 31.
  - Groundwater level monitoring shall commence at least two weeks before commencement of construction of cell 31; groundwater levels shall be taken weekly and reported to the Environment Protection Authority monthly (datasheet and graph) or as specified otherwise in the EPA authorisation.
  - Four monitoring rounds at three monthly intervals in the first 12 months of operation shall be carried out to establish additional background analyte levels around cell 31.
  - Six monthly monitoring rounds shall be undertaken following the completion of the initial 12 months of groundwater monitoring or as specified otherwise in the Environment Protection Authority licence.
  - Prior to the commencement of construction of any other cell for the receipt of LLCS/LTPR, the groundwater management and monitoring program shall be reviewed and submitted for Environment Protection Authority approval.
37. Surface Water Management requirements shall be as follows:
- A stormwater management plan shall be developed and submitted for Environment Protection Authority's approval addressing all issues related to the staged construction of LLCS/LTPR cells on site prior to commencement of construction of cell 31.
  - The stormwater management plan shall provide surface water control and management measures for:
    - surface water or stormwater runoff that does not interact with the waste material or other operational areas of the site and is considered to be uncontaminated;
    - surface water that comes into contact with waste materials or is collected from landfill areas or other operational areas and is considered to be contaminated;
    - surface runoff from the final landfill cap which has to be controlled; and
    - diversion of surface water runoff from perimeter areas away from the operating cell.
38. Landfill Environmental Management Plan (LEMP) requirements shall be as follows:
- The new section of the LEMP ('section 17') shall be completed and incorporated in the revised LEMP document.
  - The complete revised LEMP document shall be finalised and submitted to the Environment Protection Authority for approval prior to the receipt and disposal of LLCS/LTPR on the premises.
39. A wheel wash with water sprays shall be installed ensure removal of residues from the wheels and underside of the vehicles transporting low level contaminated soil and liquid treatment plant residues to the site.

## NOTES TO PROPONENT

*Building Rules*

- The proponent shall obtain a Building Rules assessment and certification for any building work from either the Wakefield Regional Council or a private certifier (at the proponent's option) and forward to the Minister for Urban Development and Planning all relevant certification documents as outlined in Regulation 64 of the Development Regulations 2008.
- Pursuant to Development Regulation 64, the proponent is especially advised that the District Council of Mallala or private certifier conducting a Building Rules assessment must:
  - provide to the Minister for Urban Development and Planning a certification in the form set out in Schedule 12A of the Development Regulations 2008, in relation to the building works in question; and
  - to the extent that may be relevant and appropriate:
    - (i) issue a Schedule of Essential Safety Provisions under Division 4 of Part 12;
    - (ii) assign a classification of the building under these regulations; and
    - (iii) ensure that the appropriate levy has been paid under the Construction Industry Training Fund 1993.

- Regulation 64 of the Development Regulations 2008, provides further information about the type and quantity of all Building Rules certification documentation for Major Developments required for referral to the Minister for Urban Development and Planning. The District Council of Mallala or private certifier undertaking Building Rules assessments must ensure that the assessment and certification are consistent with this provisional development authorisation (including its Conditions and Notes).

*Environmental Management Plan for the Multiple Waste Treatment Facility (MWTF)*

- An Environmental Management Plan (EMP) covering the operation requirements for the MTWF shall be prepared in consultation with the Environment Protection Authority.
- The EMP shall include an air quality monitoring programme to ensure air emissions from the MWTF do not contain contaminants at levels that may be harmful to nearby residents and land uses.
- The EMP shall include protocols for testing/trialling the suitability and effectiveness of treatment methods for batches of contaminated materials that could potentially be treated at the MWTF, prior to the receipt of such material.
- The EMP shall include contingencies for dealing with contaminated materials that cannot meet disposal criteria after treatment.
- The EMP shall include a detailed risk assessment protocol for all contaminated waste types to be treated.
- The EMP shall include a Fire Risk Management Plan.
- The EMP shall include a Hazardous Substances Management Plan.
- The EMP shall include an Occupational Health, Safety and Welfare Plan prepared in consultation with the Department of Health.
- The EMP shall include a financial assurance strategy.
- The EMP shall be amended if new treatment options, that have been approved by the Environment Protection Authority, are adopted in the future.
- The current Landfill Environmental Management Plan (LEMP) shall be amended, to the reasonable satisfaction of the Environment Protection Authority, to address the management of soil erosion and stormwater and the upgrading of existing screens and/or mounds or the establishment of new vegetated screens and/or mounds associated with the MWTF.
- The amendment of the LEMP and the upgrading of the site infrastructure, including but not limited to vegetated screens and/or mounds, shall be undertaken prior to commencement of the MWTF operations.

*EPA Licensing and General Environmental Duty of Care*

- The applicant is reminded of its general environmental duty, as required by section 25 of the Environment Protection Act 1993, to take all reasonable and practical measures to ensure that the activities on the whole site, including during both construction and operation, do not pollute the environment in a way which causes or may cause environmental harm.
- Environmental authorisation in the form of an amended licence will be required for the construction and/or operation of this development. The applicant is advised to contact the Environment Protection Authority before acting on this approval to ascertain licensing requirements.

- It is likely that as a condition of such a licence the Environment Protection Authority will require the licensee to carry out specified environmental monitoring of air and water quality and to make reports of the results of such monitoring to it.

#### General Landfill Operations

- To provide additional screening and wildlife habitat the following options could be investigated by the proponent, council, community and local landowners:
  - revegetation of the road reserve along Prime Beach Road, in conjunction with the District Council of Mallala and the community;
  - revegetation of the road reserve along Port Wakefield Road, in conjunction with the Department of Transport and Urban Planning (Transport SA) to further reduce views from the eastern direction;
  - plantings on private property along fence lines adjoining the site, in conjunction with landowners and the community.
- All sedimentation basins, evaporation ponds, and surface water drainage channels should be suitably located, designed and managed to ensure native vegetation (especially low-lying saltmarsh communities) is not adversely affected by construction activities or groundwater mounding and, if possible, the ecological value enhanced.
- A comprehensive Pest Plant and Animal Management Plan must be implemented prior to landfill operations commencing, to ensure the site is free of as many pest species as possible from the onset and adequate monitoring and follow-up control should occur, as discussed in the Assessment Report.
- Whilst not totally within the control of the proponent, monitoring and control programs to reduce the risk of disease transmission between activities in the area may ideally be prepared by adopting a district approach, in co-ordination with the Adelaide Plains Animal and Plant Control Board, Department of Primary Industries and Resources and landowners.
- To minimise and control any on-site soil erosion (particularly of stockpiled material), a Soil Erosion and Drainage Management Plan (SEDMP) as described in the Environment Protection Agency's 'Stormwater Pollution Prevention Codes of Practice', must be prepared and approved as part of the LEMP, before the site becomes operational.
- As part of the LEMP, a Surface Water Management Plan must be prepared by the proponent to the satisfaction of the EPA prior to receipt of any waste. The plan should address the collection and management of all on-site surface water (including any contaminated runoff originating from roadways, carparks and hardstands, the vehicle workshop or wheel washing facility) and management of all surface water flows entering the site from land external to the site, in particular to ensure their final discharge does not impact adversely on any downstream wetlands.
- A monitoring program must be established to record levels of coastal flooding in the western section of the site and, if results indicate a significant risk, a review process be undertaken (ideally through any relevant local community consultative committee) to determine whether to proceed with Stage 9.
- If blasting is required to remove any of the Ripon Calcrete, explosion vibration characteristics and monitoring requirements must be determined in consultation with the Environment Protection Authority and District Council of Mallala, prior to commencement.
- The Environment Protection Agency must be provided with all additional data concerning the site geology as it becomes available, as this could necessitate minor changes to landfill design or method of operation and the installation of additional groundwater monitoring bores.

- To enable detailed design of the proposed groundwater protection system, to determine the minimum depth at which the landfill cells should be based and to enable detailed design of the surface water management system; further investigation of groundwater levels and behaviour on the site must be undertaken prior to finalisation of the detailed design of the landfill and preparation of management plans.
- As part of the LEMP, a detailed Groundwater and Leachate Management Plan must be prepared by the proponent to the satisfaction of the Environment Protection Authority, prior to receipt of any waste. The Plan must demonstrate how the method of hydraulic containment proposed can be practically achieved. Further hydrogeological investigations must be carried out prior to the commencement of any landfill construction in order to fully define the dewatering and groundwater disposal requirements and to provide details of how the cells can be dewatered and constructed for full hydraulic containment of leachate. In particular, monitoring of watertable levels must commence immediately after the granting of the development authorisation in order that the magnitude of seasonal fluctuations can be fully established prior to construction of the landfill. The Plan may provide for staging of leachate and groundwater management works which may be required as a result of the staging of waste disposal activities upon the site, and should include contingency measures to be implemented in the event of any failure of the leachate management system.
- A more sustainable after-use for the site that will encourage the regeneration and rehabilitation of natural communities must be considered during future post closure planning.
- If appropriate with the desired end use to be determined in more detail at a later stage, the entire landform may be planted with appropriate types of native vegetation cover.
- Determination of interim and post closure land uses of the site, proposed to be undertaken in association with any relevant local community consultative committee, must be undertaken as required by the Environment Protection Authority as part of the LEMP.

Given under my hand at Adelaide, 2 September 2010.

PAUL HOLLOWAY, Minister for Urban  
Development and Planning

#### FISHERIES MANAGEMENT ACT 2007: SECTION 79

TAKE note that pursuant to section 79 of the Fisheries Management Act 2007, I hereby declare that it is unlawful for a person to engage in the fishing activities specified in Schedule 1 during the periods specified in Schedule 2 in the waters of the Southern Zone Rock Lobster Fishery.

#### SCHEDULE 1

Taking southern rock lobster (*Jasus edwardsii*) for a commercial purpose.

Fishing pursuant to a commercial Southern Zone Rock Lobster Fishery Licence using a rock lobster pot.

Taking southern rock lobster (*Jasus edwardsii*) for a non-commercial purpose.

Fishing using a rock lobster pot registered for the purpose of non-commercial fishing pursuant to Regulation 10 of the Fisheries Management (General) Regulations 2007.

#### SCHEDULE 2

1. From 0600 hours on 1 October 2010 to 0600 hours on 1 November 2010.

2. From 1800 hours on 30 April 2011 to 1800 hours on 31 May 2011.

Dated 2 September 2010.

MICHAEL O'BRIEN, Minister for Agriculture,  
Food and Fisheries

pollutes, or may pollute, without taking all reasonable and practical measures to prevent or minimise harm to the environment.

5. The proponent is advised of the requirement to comply with the EPA's 'Stormwater Pollution Prevention Code of Practice for the Building and Construction Industry' during demolition and construction of the development.

6. The proponent is advised that the Development Act 1993 outlines the roles and responsibilities of the applicant and the City of Playford for matters relating to building works during and after construction of the neighbourhood centre and display village and associated works.

7. Partial closure of Legoe Road under Part 7A (Section 34C (2) (a) (ii)) of the Roads (Opening and Closing) Act 1991 as described in drawing number 19000PO2—r5 Issue 5—Sheets 1-4 to take effect on a day to be fixed by subsequent order of the Governor or Planning Minister published in the *Gazette*, once surveyed Land Division plans have been submitted and alternate physical access is provided to all affected allotments.

8. Section 51 of the Development Act 1993 will apply to the land division in that the proponent will need to satisfy the requirements of this section in order to implement this land division, including completion of the signalised intersection at the junction of Port Wakefield Road/Legoe Road.

9. This approval does not include any approval for dwellings as it is not part of this application.

10. This approval does not include any approval for signs (as defined as 'Development' under the Development Act 1993) as it is not part of this application.

11. The provisions of the Food Act 2001, and associated food regulations apply

12. Any Sanitation units installed in the Neighbourhood Centre will be installed as per the requirements of the Public and Environmental Health Act (1987).

13. That provision shall be made for secure storage of shopping trolleys within the neighbourhood complex at night to the reasonable satisfaction of the City of Playford.

14. In addition to the Building Code of Australia, the proponent must comply with the Commonwealth Disability Discrimination Act, 1992 in planning access for the disabled.

15. The main standard for traffic control devices is the Manual of Uniform Traffic Control Devices—AS 1742. There are many standards under AS 1742 covering the various traffic control devices that may need to be referred to.

16. As per Schedule 8, Item 23, Development Regulations 2008, and the Affordable Housing Act 2007 for the proposal to include 15% affordable housing.

17. The proponent should note that they and their contractors must comply with the requirements of the Aboriginal Heritage Act, 1988.

18. The proponent should note that they and their contractors must comply with the Adelaide Dolphin Sanctuary Act 2005 and the general duty of care under that Act.

19. Proponent to undertake vegetation surveys and to complete a Significant Environmental Benefit (SEB) with attached Vegetation Management Plans to the satisfaction of the Department of Environment, Water and Natural Resources for Stages 2-5 where native vegetation exists on the site (there is no native vegetation in Stage 1).

20. Approval for further Road closures under the Roads (Opening and Closing Act) 1991 will be required in future stages of the development and will proceed through the normal (Council) process in relation to this matter.

21. The Minister has a specific power to require testing, monitoring and auditing under Section 48C of the Development Act 1993.

Given under my hand at Adelaide, 21 December 2012.

T. BYRT, Presiding Member Development Assessment Commission

## DEVELOPMENT ACT 1993: SECTION 48

### DECISION BY THE DEVELOPMENT ASSESSMENT COMMISSION UNDER DELEGATION FROM THE GOVERNOR

#### *Preamble*

1. On 19 October 1994 the Minister for Housing, Urban Development and Local Government Relations, being of the opinion that a proposed development of a waste management facility in the form of a solid waste landfill (Northern Balefill) near Dublin ('the development') was a development of major social, economic or environmental importance, directed the proponent to prepare an Environmental Impact Statement, pursuant to Section 46 of the Development Act 1993.

2. On 22 April 1996 an Environmental Impact Statement for the development was published in accordance with Section 46 of the Development Act 1993. Subsequently, the Minister prepared an Assessment Report in accordance with Section 46 of the Development Act 1993.

3. By notice in the *South Australian Government Gazette* on 29 January 1998 the Governor granted development authorisation to the development, subject to conditions specified in that notice, pursuant to Section 48 of the Development Act 1993.

4. Following an application by the beneficiary of the development authorisation for a variation to the authorisation to allow the receipt and disposal of low level contaminated waste, the proposed development was the subject of an Amended Environmental Impact Statement dated June 1998 and an Amended Assessment Report dated December 1998 under Section 47 of the Development Act 1993 ('the amended Major Development').

5. By notice in the *Government Gazette* on 8 September 2005 the Governor granted provisional development authorisation to the amended Major Development, reserving specific matters for further assessment.

6. Following an application by the beneficiary of the development authorisation for a variation to the authorisation to allow for the establishment of a Multiple Waste Treatment Facility for the treatment and disposal of high level contaminated waste at the existing landfill, the proposed development was the subject of an Amended Environmental Impact Statement dated 24 November 2008 and an Amended Assessment Report under Section 47 of the Development Act 1993 ('the further amended Major Development').

7. By notice in the *Government Gazette* on 27 August 2009 the Minister for Urban Development and Planning, under delegation from the Governor, granted provisional development authorisation to the further amended Major Development, reserving specific matters for further assessment.

8. By notice in the *Government Gazette* on 2 September 2010 the Minister for Urban Development and Planning, under delegation from the Governor, assessed the matters reserved for further assessment and a variation to the design of the Multiple Waste Treatment Facility and granted development authorisation to the further amended Major Development.

9. Further application has been made to the Development Assessment Commission, as delegate of the Governor, for a variation of the development authorisation for the implementation of a '10 Year Masterplan' comprising various changes to the landfill operation and the establishment of a Resource Pad, a Bioremediation Pad and a Litter Net System.

10. The Development Assessment Commission has, in considering the application, had regard to all relevant matters under Section 48 (5) of the Development Act 1993.

11. The Development Assessment Commission is satisfied that the application for a variation of the development authorisation does not require the preparation of a further or amended Environmental Impact Statement and that the application does not change the essential nature of the development.

#### *Decision*

PURSUANT to Section 48 of the Development Act 1993, the Development Assessment Commission, as delegate of the Governor, grants provisional development authorisation to the amended solid waste landfill (Northern Balefill) near Dublin subject to the Conditions and Notes to the applicant below:

- (a) reserve a decision on the following matters (upon application of further information) pursuant to Section 48 (6) and Regulation 64 (1):
- (i) Further assessment and certification in respect of the Building Rules, for the Resource Pad, a Bioremediation Pad and a Litter Net System components of the development (refer to Conditions and Notes to Applicant below).
- (b) specify for the purposes of Section 48 (7) (b) (i) of the Development Act 1993 that all matters relating to this development authorisation are matters in respect of which conditions of this authorisation may be varied or revoked, or new conditions attached;
- (c) specify for the purposes of Section 48 (11) (b) the period of two years from the date of this provisional development authorisation as the time within which substantial work must be commenced on site, failing which I may cancel this authorisation under Section 48 (11) and proceed to refuse a final development authorisation under Section 48 (2) (a).

CONSOLIDATED CONDITIONS OF  
DEVELOPMENT AUTHORISATION

*General Conditions*

1. Except where minor amendments may be required by other legislation or by conditions imposed herein, the proposed Major Development shall be undertaken in strict accordance with the following documents:

- Development application dated 30 June 2008;
- Environmental Impact Statement Amendment, Integrated Waste Services Northern Balefill Dublin Multiple Waste Treatment Facility EIS Amendment prepared by Golder Associates, dated 24 November 2008, but in the case of conflict with a specific condition below the specific condition shall apply;
- Proponent's response to submissions, letter from Connor Holmes to the Department of Planning and Local Government dated 3 April 2009, but in the case of conflict with a specific condition below the specific condition shall apply;
- Correspondence from Connor Holmes to the Department of Planning and Local Government containing additional information on the proposal dated 27 May 2009, but in the case of conflict with a specific condition below the specific condition shall apply;
- Correspondence from Integrated Waste Services to the Department of Planning and Local Government applying for approval of reserved matters and variations related to the Multiple Waste Treatment Facility dated 19 May 2010, but in the case of conflict with a specific condition below the specific condition shall apply;
- Correspondence from Integrated Waste Services to the Department of Planning and Local Government providing additional information to support application dated 11 May 2010, but in the case of conflict with a specific condition below the specific condition shall apply;
- Correspondence from Katnitch Dodd for Stage 1—Civil and Structural Work dated 31 March 2010 and accompanying certified plans;
- Correspondence from Katnitch Dodd for Final Stage—Services and Fitout Works dated 31 March 2010 and accompanying certified plans.
- Application for a Variation of the Governors Major Development Authorisation—IWS Northern Balefill, Lower Light dated 5 October 2012, prepared by Integrated Waste Services.

2. Before any building work is undertaken on the site, the building work is to be certified by a private certifier, or by some person determined by the Minister for Planning, as complying with the provisions of the Building Rules (or the Building Rules as modified according to criteria prescribed by the Regulations).

*Multiple Waste Treatment Facility (MWTF)*

3. The design of the MWTF shall be amended to include coloured metal cladding on all sides of the building, so as to enclose the whole of the facility.

4. Designs for the effluent treatment and disposal system shall be prepared to the reasonable satisfaction of the District Council of Mallala.

5. Treatment of waste material shall not occur until the construction of the entire MWTF has been completed, to the reasonable satisfaction of the Environment Protection Authority (EPA).

6. High Level Contaminated Waste is not required to be baled or shredded.

7. A truck wash with water sprays shall be installed for the removal of residues from vehicles transporting High Level Contaminated Waste to the site. All transport vehicles shall not leave the site unless they have gone through the truck wash.

8. Treatment of the stored materials shall only commence once the completed MWTF is approved by the EPA to commence operation.

9. Bioremediation and stabilisation are the only treatment processes that shall be used in the MWTF.

10. Pre-remediation trials shall be conducted on all contaminated materials, prior to delivery to the MWTF and the Bioremediation Pad, to determine if treatment methods approved by the EPA would be successful. Trial results shall be submitted to the EPA for assessment, prior to delivery of contaminated materials to the MWTF and the Bioremediation Pad.

11. Post-remediation testing on treated materials shall be undertaken to assess its suitability to be disposed of or reused. Testing results shall be submitted to the EPA for assessment, prior to disposal or reuse.

12. Future treatment options shall undergo pre-trial assessment, to the reasonable satisfaction of the EPA, before they can be adopted.

13. An Environmental Management Plan (EMP) for activities associated with the MWTF, prepared to the reasonable satisfaction of the EPA, must be in place prior to the receipt, storage and treatment of contaminated materials.

*Solid Waste Balefill*

14. The work shall be carried out as shown on the plans (Figures 3.1 to 3.9) in the Development Application Report dated 28 November 1997, included with the Development Application dated 2 December 1997, except as varied by these conditions.

15. Subject to Conditions 16, 17 and 18, all waste received for disposal at the facility shall be shredded and baled.

16. Unbaled commercial/industrial or construction/demolition waste of appropriate particle sizes may be placed and compacted in any voids unavoidably occurring between bales and the inclined surface of the cells in which those bales are placed or within a suitable netting system to the reasonable satisfaction of the EPA and in accordance with any applicable requirements of a relevant environmental authorisation.

17. Waste materials received for disposal at the facility need not be shredded before baling where shredding of those materials is not required for the purpose of producing bales of a density and structural integrity that satisfy the applicable requirements of any relevant environmental authorisation.

18. Non-friable asbestos waste shall not be shredded or baled but shall be disposed of in accordance with the applicable requirements of any relevant environmental authorisation.

19. All perimeter plantings shall be started as early as practicable after the date of this authorisation to achieve maximum amelioration of visual impacts.

20. Screening by suitable plantings where adequate natural screening is not provided, shall be provided for the perimeter fence, all built structures, stockpiles and internal roads (where practicable) using suitable species in accordance with the Vegetation Management and Revegetation Plan proposed as part of the Landfill Environmental Management Plan (LEMP).

21. All firebreaks and external drainage channels shall be located on the inner edge of the vegetation screen and existing stands of native vegetation. In the event that drainage channels are required to be located close to the site boundary, their redesign to form low-lying wetland/saltmarsh communities as part of the vegetation screen shall be undertaken and implemented to the satisfaction of the Environment Protection Authority.

22. A leachate monitoring bore shall be installed within each cell to assist with leachate management, particularly if leachate circulation is incorporated in the Landfill Environmental Management Plan (LEMP).

23. The proponent shall pay all reasonable costs of the detailed design and construction of any public roadworks made necessary by this development. Such works may include the opening and associated left turn deceleration lane from Port Wakefield Road, and the upgrading of the entrance to balefill junction to the satisfaction of the Commissioner of Highways.

24. The proponent shall seal (two coat spray seal) the internal site access road for a minimum of 520 m from the nearest residence.

25. The applicant shall prepare a Vegetation Management and Revegetation Plan (which may be included in the LEMP) to the reasonable satisfaction of the Development Assessment Commission and must implement that Plan once it has been approved by the Development Assessment Commission.

#### *Low Level Contaminated Soil and Liquid Treatment Plant Residues*

26. Low level contaminated soil (LLCS) and liquid treatment plant residues (LTPR) are not required to be baled or shredded.

27. The work shall be carried in accordance with the following documents and plans:

- EIS Amendment, Receipt of Low Level Contaminated Soil and Liquid Waste Treatment Plant Residues at the IWS Northern Balefill, dated July 2003.
- Response Document on the EIS Amendment for the Receipt of Low Level Contaminated Soil and Liquid Waste Treatment Plant Residues (Revised), dated 30 April 2004.
- Supplementary Information EIS Amendment Receipt of Low Level Contaminated Soil and Liquid Waste Treatment Plant Residues at the IWS Northern Balefill, dated 26 November 2004.
- Landfill Environmental Management Plan, dated 2001 or as varied by any applicable requirements of a licence from the Environment Protection Authority.
- Drawings
  - 3307DO1, 4/11/2004—cell 31 design plan.
  - 3307DO2, Drawn 25/8/2004 and checked 18/2/2005—Section A, liner and sump design.
  - 3307DO3, 10/8/2004—liner design sections and details.
  - 3307DO4, 14/10/2004—cell 31 interim capping design.
  - 3307DO5, 13/8/2004—landfill staging plan.
  - 3307DO6, 13/8/2004—final surface water control.
  - 3307DO8, Drawn 27/8/2004 and checked 26/11/2004—interim surface water control.
  - 3307DO9 P1, Drawn 4/11/2004 and checked 26/11/2004—cell design plan line 2.
  - 3307DO10, Drawn 29/8/2004 and checked 26/11/2004—Sections D and E, swale drain design.

28. Distance to groundwater requirements shall be as follows:

- Based on groundwater level monitoring results and interpolated highest groundwater levels for Cell 31, including a 0.1 metre buffer; the base of the sump shall be at 9.1 m AHD;
- Notwithstanding the above requirement, a minimum separation distance of 2 m between the underside of the lowest portion of the lining system (including the sump area) and the underlying groundwater shall be maintained at all times.

29. Leachate collection and extraction system requirements shall be as follows:

- Leachate removal shall implement a system which accommodates the installation of the pumps at the leachate riser access point.
- Following cell completion and until the entire cell base is covered with a minimum of 1.5 metres of waste, a pump with a flow capacity of a minimum of 40 litres per second shall be installed.

- After it can be demonstrated that leachate production has declined to less than one litre per second, this pump can be replaced by a pump of lesser flow capacity.

- A back-up pump with the relevant capacity shall be readily available on site at all time.

30. Leachate treatment requirements shall be as follows:

- Leachate may be managed and treated by means of:

- o direct extraction into an on-site leachate evaporation pond which shall meet the minimum design specification as follows:

- composite lining system comprising a one metre low permeability clay liner with  $k < 1 \times 10^{-9}$  m/s compacted to 95% Maximum Dry Density by standard compaction, and a moisture content between 0% and +4% wet of Optimum Moisture Content, overlaid by a 2mm high density polyethylene (HDPE) liner (welded).
- minimum of 600 mm freeboard.
- modelling with HELP or LANDSIM shall consider a one in 25, 24 hour duration storm event.

- a minimum separation distance of two metres between the underside of the lowest portion of the lining system and the underlying groundwater shall be maintained at all times.

- o Direct extraction into an onsite tank vehicle suitable for the transport of leachate into an onsite leachate evaporation pond.

- o Direct extraction into a licensed vehicle and transported to an off-site Environment Protection Authority licensed Waste Water Treatment Plant.

- o Direct extraction into a suitably designed, temporary on-site storage tank prior to off-site disposal by an Environment Protection Authority licensed vehicle at an Environment Protection Authority licensed Waste Water Treatment Plant or prior to on-site transport to an onsite leachate evaporation pond.

31. Leachate management requirements shall be as follows:

- The head of leachate on the liner shall not exceed 300 mm (excluding the sump) at all times. To facilitate this, the trigger level for leachate extraction out of the leachate sump shall be set at 290 mm.

- In addition to automatic leachate data readings, a manual monitoring probe shall be installed and calibrated to allow for direct readings of the vertical elevation of leachate in the riser pipe and conversion to the maximum leachate head on top of the liner.

- Leachate levels shall be read manually daily and recorded in the onsite operations logbook or as specified otherwise in the Environment Protection Authority licence.

32. Distance between LLCS/LTPR cells and Balefill cells (reference drawing 3307D03, 18/8/2004) shall be as follows:

- The distance between LLCS/LTPR cells and Balefill cells shall be at a minimum of 5 metres, measured between the toe of the LLCS cell structure (that is where the outer surface of the cap of the completed LLCS/LTPR cell joins the outer surface of the underlying clay liner for the same cell) and the cap of the nearest balefill cell (that is where the outer surface of the cap of a completed balefill cell joins the outer surface of the underlying clay liner).

33. Level 1 Supervision requirements shall be as follows:

- The construction of the clay liner of the cell shall be carried out under Level 1 Supervision in accordance with AS 3798-1996, Appendix B.

- The construction of the HDPE liner shall be carried out under the full time supervision of a suitably qualified geotechnical consultant with experience in the construction and supervision of the construction of HDPE lining systems, quality control procedures and testing.

34. 'As Constructed Report' requirements shall be as follows:

- An 'As Constructed Report' certifying compliance with the approved design for the lining system, including a Construction Quality Assurance Report (CQA) for the

HDPE liner and the Level 1 Supervision Report, shall be submitted to the Environment Protection Authority for acceptance prior to the commencement of the receipt and disposal of waste in each cell. No waste shall be received and disposed of prior to written acceptance of the 'As Constructed Report' by the Environment Protection Authority.

35. Coverage of waste requirements shall be as follows:

- All waste shall be covered as soon as reasonable practicable after the receipt of waste and placement in the cell or at close of business on each business day with at least 150 mm of cover material (waste fill or intermediate landfill cover with the restriction to a maximum particle size of 100 mm).
- If a load of particularly odorous material is received at the LLCS/LTPR cell, it shall be covered immediately with a minimum of 150 mm cover material.
- During periods when the LLCS/LTPR cell is not operating, routine monitoring for odorous gases shall be carried out as part of the site monitoring program and may trigger the application of additional cover material.
- Alternative cover materials may be used after the proponent:
  - o has demonstrated to the Environment Protection Authority that the proposed material and placement method result in an equivalent or better performance compared to the approved material; and
  - o has received written approval from the EPA prior to the use of alternative materials and placement methods.

36. Groundwater management requirements shall be as follows:

- An additional groundwater well shall be installed west of cell 30 and the first round of groundwater sampling and testing shall be completed at least two weeks prior to commencement of construction of cell 31
- Groundwater level monitoring shall commence at least two weeks before commencement of construction of cell 31; groundwater levels shall be taken weekly and reported to the Environment Protection Authority monthly (datasheet and graph) or as specified otherwise in the EPA authorisation.
- Four monitoring rounds at three monthly intervals in the first 12 months of operation shall be carried out to establish additional background analyte levels around cell 31
- Six monthly monitoring rounds shall be undertaken following the completion of the initial 12 months of groundwater monitoring or as specified otherwise in the Environment Protection Authority licence
- Prior to the commencement of construction of any other cell for the receipt of LLCS/LTPR, the groundwater management and monitoring program shall be reviewed and submitted for Environment Protection Authority approval.

37. Surface Water Management requirements shall be as follows:

- A stormwater management plan shall be developed and submitted for Environment Protection Authority's approval addressing all issues related to the staged construction of LLCS/LTPR cells on site prior to commencement of construction of cell 31.
- The stormwater management plan shall provide surface water control and management measures for:
  - o surface water or stormwater runoff that does not interact with the waste material or other operational areas of the site and is considered to be uncontaminated.
  - o surface water that comes into contact with waste materials or is collected from landfill areas or other operational areas and is considered to be contaminated.
  - o surface runoff from the final landfill cap which has to be controlled.
  - o diversion of surface water runoff from perimeter areas away from the operating cell.

38. Landfill Environmental Management Plan (LEMP) requirements shall be as follows:

- The new section of the LEMP ('Section 17') shall be completed and incorporated in the revised LEMP document.
- The complete revised LEMP document shall be finalised and submitted to the Environment Protection Authority for approval prior to the receipt and disposal of LLCS/LTPR on the premises.

39. A wheel wash with water sprays shall be installed ensure removal of residues from the wheels and underside of the vehicles transporting low level contaminated soil and liquid treatment plant residues to the site.

#### NOTES TO PROPONENT

##### *Building Rules*

- The proponent shall obtain a Building Rules assessment and certification for any building work from either the District Council of Mallala or a private certifier (at the proponent's option) and forward to the Minister for Urban Development and Planning all relevant certification documents as outlined in Regulation 64 of the Development Regulations 2008.
- Pursuant to Development Regulation 64, the proponent is especially advised that the District Council of Mallala or private certifier conducting a Building Rules assessment must:
  - provide to the Minister for Urban Development and Planning a certification in the form set out in Schedule 12A of the Development Regulations 2008 in relation to the building works in question; and
  - to the extent that may be relevant and appropriate:
    - (i) issue a Schedule of Essential Safety Provisions under Division 4 of Part 12;
    - (ii) assign a classification of the building under these regulations; and
    - (iii) ensure that the appropriate levy has been paid under the Construction Industry Training Fund 1993.
- Regulation 64 of the Development Regulations 2008 provides further information about the type and quantity of all Building Rules certification documentation for Major Developments required for referral to the Minister for Urban Development and Planning. The District Council of Mallala or private certifier undertaking Building Rules assessments must ensure that the assessment and certification are consistent with this provisional development authorisation (including its Conditions and Notes).

##### *Environmental Management Plan for the Multiple Waste Treatment Facility (MWTF)*

- An Environmental Management Plan (EMP) covering the operation requirements for the MWTF shall be prepared in consultation with the Environment Protection Authority.
- The EMP shall include an air quality monitoring programme to ensure air emissions from the MWTF do not contain contaminants at levels that may be harmful to nearby residents and land uses.
- The EMP shall include protocols for testing/trialling the suitability and effectiveness of treatment methods for batches of contaminated materials that could potentially be treated at the MWTF, prior to the receipt of such material.
- The EMP shall include contingencies for dealing with contaminated materials that cannot meet disposal criteria after treatment.
- The EMP shall include a detailed risk assessment protocol for all contaminated waste types to be treated.
- The EMP shall include a Fire Risk Management Plan.
- The EMP shall include a Hazardous Substances Management Plan.
- The EMP shall include an Occupational Health, Safety and Welfare Plan prepared in consultation with the Department of Health.
- The EMP shall include a financial assurance strategy.

- The EMP shall be amended if new treatment options, that have been approved by the Environment Protection Authority, are adopted in the future.
- The current Landfill Environmental Management Plan (LEMP) shall be amended, to the reasonable satisfaction of the Environment Protection Authority, to address the management of soil erosion and stormwater and the upgrading of existing screens and/or mounds or the establishment of new vegetated screens and/or mounds associated with the MWTF.
- The amendment of the LEMP and the upgrading of the site infrastructure, including but not limited to vegetated screens and/or mounds, shall be undertaken prior to commencement of the MWTF operations.

#### *EPA Licensing and General Environmental Duty of Care*

- The applicant is reminded of its general environmental duty, as required by Section 25 of the Environment Protection Act 1993, to take all reasonable and practical measures to ensure that the activities on the whole site, including during both construction and operation, do not pollute the environment in a way which causes or may cause environmental harm.
- Environmental authorisation in the form of an amended licence will be required for the construction and/or operation of this development. The applicant is advised to contact the Environment Protection Authority before acting on this approval to ascertain licensing requirements.
- It is likely that as a condition of such a licence the Environment Protection Authority will require the licensee to carry out specified environmental monitoring of air and water quality and to make reports of the results of such monitoring to it.

#### *General Landfill Operations*

- To provide additional screening and wildlife habitat the following options could be investigated by the proponent, council, community and local landowners:
  - revegetation of the road reserve along Prime Beach Road, in conjunction with the District Council of Mallala and the community;
  - revegetation of the road reserve along Port Wakefield Road, in conjunction with the Department of Transport and Urban Planning (Transport SA) to further reduce views from the eastern direction;
  - plantings on private property along fence lines adjoining the site, in conjunction with landowners and the community.
- All sedimentation basins, evaporation ponds, and surface water drainage channels should be suitably located, designed and managed to ensure native vegetation (especially low-lying saltmarsh communities) is not adversely affected by construction activities or groundwater mounding and, if possible, the ecological value enhanced.
- A comprehensive Pest Plant and Animal Management Plan must be implemented prior to landfill operations commencing, to ensure the site is free of as many pest species as possible from the onset and adequate monitoring and follow-up control should occur, as discussed in the Assessment Report.
- Whilst not totally within the control of the proponent, monitoring and control programs to reduce the risk of disease transmission between activities in the area may ideally be prepared by adopting a district approach, in co-ordination with the Adelaide Plains Animal and Plant Control Board, Department of Primary Industries and Resources and landowners.
- To minimise and control any onsite soil erosion (particularly of stockpiled material), a Soil Erosion and Drainage Management Plan (SEDMP) as described in the Environment Protection Agency's 'Stormwater Pollution Prevention Codes of Practice', must be prepared and approved as part of the LEMP, before the site becomes operational.
- As part of the LEMP, a Surface Water Management Plan must be prepared by the proponent to the satisfaction of the EPA prior to receipt of any waste. The plan should address

the collection and management of all onsite surface water (including any contaminated runoff originating from roadways, carparks and hardstands, the vehicle workshop or wheel washing facility) and management of all surface water flows entering the site from land external to the site, in particular to ensure their final discharge does not impact adversely on any downstream wetlands.

- A monitoring program must be established to record levels of coastal flooding in the western section of the site and, if results indicate a significant risk, a review process be undertaken (ideally through any relevant local community consultative committee) to determine whether to proceed with Stage 9.
- If blasting is required to remove any of the Ripon Calcrete, explosion vibration characteristics and monitoring requirements must be determined in consultation with the Environment Protection Authority and District Council of Mallala, prior to commencement.
- The Environment Protection Agency must be provided with all additional data concerning the site geology as it becomes available, as this could necessitate minor changes to landfill design or method of operation and the installation of additional groundwater monitoring bores.
- To enable detailed design of the proposed groundwater protection system, to determine the minimum depth at which the landfill cells should be based and to enable detailed design of the surface water management system; further investigation of groundwater levels and behaviour on the site must be undertaken prior to finalisation of the detailed design of the landfill and preparation of management plans.
- As part of the LEMP, a detailed Groundwater and Leachate Management Plan must be prepared by the proponent to the satisfaction of the Environment Protection Authority, prior to receipt of any waste. The Plan must demonstrate how the method of hydraulic containment proposed can be practically achieved. Further hydrogeological investigations must be carried out prior to the commencement of any landfill construction in order to fully define the dewatering and groundwater disposal requirements and to provide details of how the cells can be dewatered and constructed for full hydraulic containment of leachate. In particular, monitoring of watertable levels must commence immediately after the granting of the development authorisation in order that the magnitude of seasonal fluctuations can be fully established prior to construction of the landfill. The Plan may provide for staging of leachate and groundwater management works which may be required as a result of the staging of waste disposal activities upon the site, and should include contingency measures to be implemented in the event of any failure of the leachate management system.
- A more sustainable after-use for the site that will encourage the regeneration and rehabilitation of natural communities must be considered during future post closure planning.
- If appropriate with the desired end use to be determined in more detail at a later stage, the entire landform may be planted with appropriate types of native vegetation cover.
- Determination of interim and post closure land uses of the site, proposed to be undertaken in association with any relevant local community consultative committee, must be undertaken as required by the Environment Protection Authority as part of the LEMP.

Given under my hand at Adelaide, 21 December 2012.

T. BYRT, Presiding Member, Development Assessment Commission

#### DEVELOPMENT ACT 1993: SECTION 48

DECISION BY THE DEVELOPMENT ASSESSMENT COMMISSION  
AS DELEGATE OF THE GOVERNOR

#### *Preamble*

1. On 19 October 2006 notice of the Governor's decision to grant a development authorisation under Section 48 of the Development Act 1993, in respect of the Southern Ocean Lodge located at Hanson Bay on Kangaroo Island was published in the *South Australian Government Gazette* at page 3723.



# STATE GOVERNMENT INSTRUMENTS

## DEVELOPMENT ACT 1993

### SECTION 48

#### *Decision by the State Commission Assessment Panel as Delegate of the Governor*

#### *Preamble*

1. On 19 October 1994 the Minister for Housing, Urban Development and Local Government Relations, being of the opinion that a proposed development of a waste management facility in the form of a solid waste landfill (Northern Balefill) near Dublin ('the development') was a development of major social, economic or environmental importance, directed the proponent to prepare an Environmental Impact Statement, pursuant to Section 46 of the Development Act 1993.
2. On 22 April 1996 an Environmental Impact Statement for the development was published in accordance with Section 46 of the Development Act 1993. Subsequently, the Minister prepared an Assessment Report in accordance with Section 46 of the Development Act 1993.
3. By notice in the *South Australian Government Gazette* on 29 January 1998 at p 30 the Governor granted development authorisation to the development, subject to conditions specified in that notice, pursuant to Section 48 of the Development Act 1993.
4. Following an application by the beneficiary of the development authorisation for a variation to the authorisation to allow the receipt and disposal of low level contaminated waste, the proposed development was the subject of an Amended Environmental Impact Statement dated June 1998 and an Amended Assessment Report dated December 1998 under Section 47 of the Development Act 1993 ('the amended Major Development').
5. By notice in the *Government Gazette* on 8 September 2005 at p 3255 the Governor granted provisional development authorisation to the amended Major Development, reserving specific matters for further assessment.
6. Following an application by the beneficiary of the development authorisation for a variation to the authorisation to allow for the establishment of a Multiple Waste Treatment Facility for the treatment and disposal of high level contaminated waste at the existing landfill, the proposed development was the subject of an Amended Environmental Impact Statement dated 24 November 2008 and an Amended Assessment Report under Section 47 of the Development Act 1993 ('the further amended Major Development').
7. By notice in the *Government Gazette* on 27 August 2009 the Governor granted provisional development authorisation to the further amended Major Development, reserving specific matters for further assessment.
8. By notice in the *Government Gazette* on 2 September 2010 at p 4662 the Minister for Urban Development and Planning, under delegation from the Governor, assessed the matters reserved for further assessment and a variation to the design of the Multiple Waste Treatment Facility and granted development authorisation to the further amended Major Development.
9. By notice in the *Government Gazette* on 24 January 2013 at p 103 the Development Assessment Commission, as delegate of the Governor, approved a variation of the development authorisation for the implementation of a '10 Year Masterplan' comprising various changes to the landfill operation and the establishment of a Resource Pad, a Bioremediation Pad and a Litter Net System.
10. By letter dated 11 March 2020, Integrated Waste Management Services Pty Ltd, being the beneficiary of the development authorisation sought a variation to the authorisation so as the permit a modification to the design of the landfill module 3.
11. I am satisfied that the Environmental Impact Statement (as amended) and Assessment Report (as amended) in relation to the Major Development are appropriate and have had regard, when considering the proposed variation, to all relevant matters under Section 48 (5) of the Development Act 1993.
12. For ease of reference the conditions attached to the Solid Waste Landfill (Northern Balefill) near Dublin development authorisation are republished in full hereunder.

#### *Decision*

PURSUANT to Section 48 (7) (b) (ii) of the Development Act 1993; and having due regard to the matters set out in Section 48 (5) and all other relevant matters; and exercising the power of the Governor, I:

- (a) vary the Solid Waste Landfill (Northern Balefill) near Dublin development authorisation dated 24 January 2013, subject to the conditions set out below; and
- (b) specify under Section 48 (7) (b) (iii) all matters which are the subject of conditions herein as matters in respect of which the conditions of this authorisation may be varied or revoked, or new conditions attached.

#### CONSOLIDATED VERSION OF CONDITIONS OF AUTHORISATION

#### *General Conditions*

1. Except where minor amendments may be required by other legislation or by conditions imposed herein, the proposed Major Development shall be undertaken in strict accordance with the following documents:
  - Development application dated 30 June 2008;
  - Environmental Impact Statement Amendment, Integrated Waste Services Northern Balefill Dublin Multiple Waste Treatment Facility EIS Amendment prepared by Golder Associates, dated 24 November 2008, but in the case of conflict with a specific condition below the specific condition shall apply;
  - Proponent's response to submissions, letter from Connor Holmes to the Department of Planning and Local Government dated 3 April 2009, but in the case of conflict with a specific condition below the specific condition shall apply;
  - Correspondence from Connor Holmes to the Department of Planning and Local Government containing additional information on the proposal dated 27 May 2009, but in the case of conflict with a specific condition below the specific condition shall apply;
  - Correspondence from Integrated Waste Services to the Department of Planning and Local Government applying for approval of reserved matters and variations related to the Multiple Waste Treatment Facility dated 19 May 2010, but in the case of conflict with a specific condition below the specific condition shall apply;
  - Correspondence from Integrated Waste Services to the Department of Planning and Local Government providing additional information to support application dated 11 May 2010, but in the case of conflict with a specific condition below the specific condition shall apply;

- Correspondence from Katnitch Dodd for Stage 1—Civil and Structural Work dated 31 March 2010 and accompanying certified plans;
  - Correspondence from Katnitch Dodd for Final Stage—Services and Fitout Works dated 31 March 2010 and accompanying certified plans.
  - Application for a variation to the development authorisation from Integrated Waste Services dated 5 October 2012, except as varied by the conditions listed below or to the extent that they are varied by the plans and drawings listed below.
  - Application for a variation to the development authorisation from Masterplan (on behalf of Integrated Waste Services P/L) dated 11 March 2020, including plans titled 'Site Layout' (prepared by Golder, dated 2020-02-26), 'Module 3 Cap' (prepared by Golder, dated 2020-02-26) and 'Longsection' (prepared by Golder, dated 2020-02-26).
2. Before any building work is undertaken on the site, the building work is to be certified by a private certifier, or by some person determined by the Minister for Planning, as complying with the provisions of the Building Rules (or the Building Rules as modified according to criteria prescribed by the Regulations).

*Multiple Waste Treatment Facility (MWTF)*

3. The design of the MWTF shall be amended to include coloured metal cladding on all sides of the building, so as to enclose the whole of the facility.
4. Designs for the effluent treatment and disposal system shall be prepared to the reasonable satisfaction of the District Council of Mallala.
5. Treatment of waste material shall not occur until the construction of the entire MWTF has been completed, to the reasonable satisfaction of the Environment Protection Authority (EPA).
6. High Level Contaminated Waste is not required to be baled or shredded.
7. A truck wash with water sprays shall be installed for the removal of residues from vehicles transporting High Level Contaminated Waste to the site. All transport vehicles shall not leave the site unless they have gone through the truck wash.
8. Treatment of the stored materials shall only commence once the completed MWTF is approved by the EPA to commence operation.
9. Bioremediation and stabilisation are the only treatment processes that shall be used in the MWTF.
10. Pre-remediation trials shall be conducted on all contaminated materials, prior to delivery to the MWTF and the Bioremediation Pad, to determine if treatment methods approved by the EPA would be successful. Trial results shall be submitted to the EPA for assessment, prior to delivery of contaminated materials to the MWTF and the Bioremediation Pad.
11. Post-remediation testing on treated materials shall be undertaken to assess its suitability to be disposed of or reused. Testing results shall be submitted to the EPA for assessment, prior to disposal or reuse.
12. Future treatment options shall undergo pre-trial assessment, to the reasonable satisfaction of the EPA, before they can be adopted.
13. An Environmental Management Plan (EMP) for activities associated with the MWTF, prepared to the reasonable satisfaction of the EPA, must be in place prior to the receipt, storage and treatment of contaminated materials.

*Solid Waste Balefill*

14. The work shall be carried out as shown on the plans (Figures 3.1 to 3.9) in the Development Application Report dated 28 November 1997, included with the Development Application dated 2 December 1997, except as varied by these conditions.
15. Subject to Conditions 16, 17 and 18, all waste received for disposal at the facility shall be shredded and baled.
16. Unbaled commercial/industrial or construction/demolition waste of appropriate particle sizes may be placed and compacted in any voids unavoidably occurring between bales and the inclined surface of the cells in which those bales are placed or within a suitable netting system to the reasonable satisfaction of the EPA and in accordance with any applicable requirements of a relevant environmental authorisation.
17. Waste materials received for disposal at the facility need not be shredded before baling where shredding of those materials is not required for the purpose of producing bales of a density and structural integrity that satisfy the applicable requirements of any relevant environmental authorisation.
18. Non-friable asbestos waste shall not be shredded or baled but shall be disposed of in accordance with the applicable requirements of any relevant environmental authorisation.
19. All perimeter plantings shall be started as early as practicable after the date of this authorisation to achieve maximum amelioration of visual impacts.
20. Screening by suitable plantings where adequate natural screening is not provided, shall be provided for the perimeter fence, all built structures, stockpiles and internal roads (where practicable) using suitable species in accordance with the Vegetation Management and Revegetation Plan proposed as part of the Landfill Environmental Management Plan (LEMP).
21. All firebreaks and external drainage channels shall be located on the inner edge of the vegetation screen and existing stands of native vegetation. In the event that drainage channels are required to be located close to the site boundary, their redesign to form low-lying wetland/saltmarsh communities as part of the vegetation screen shall be undertaken and implemented to the satisfaction of the Environment Protection Authority.
22. A leachate monitoring bore shall be installed within each cell to assist with leachate management, particularly if leachate circulation is incorporated in the Landfill Environmental Management Plan (LEMP).
23. The proponent shall pay all reasonable costs of the detailed design and construction of any public roadworks made necessary by this development. Such works may include the opening and associated left turn deceleration lane from Port Wakefield Road, and the upgrading of the entrance to balefill junction to the satisfaction of the Commissioner of Highways.
24. The proponent shall seal (two coat spray seal) the internal site access road for a minimum of 520 m from the nearest residence.
25. The applicant shall prepare a Vegetation Management and Revegetation Plan (which may be included in the LEMP) to the reasonable satisfaction of the Development Assessment Commission and must implement that Plan once it has been approved by the Development Assessment Commission.

*Low Level Contaminated Soil and Liquid Treatment Plant Residues*

26. Low level contaminated soil (LLCS) and liquid treatment plant residues (LTPR) are not required to be baled or shredded.
27. The work shall be carried in accordance with the following documents and plans:
  - EIS Amendment, Receipt of Low Level Contaminated Soil and Liquid Waste Treatment Plant Residues at the IWS Northern Balefill, dated July 2003.

- Response Document on the EIS Amendment for the Receipt of Low Level Contaminated Soil and Liquid Waste Treatment Plant Residues (Revised), dated 30 April 2004.
  - Supplementary Information EIS Amendment Receipt of Low Level Contaminated Soil and Liquid Waste Treatment Plant Residues at the IWS Northern Balefill, dated 26 November 2004.
  - Landfill Environmental Management Plan, dated 2001 or as varied by any applicable requirements of a licence from the Environment Protection Authority.
  - Drawings
    - 3307DO1, 4/11/2004—cell 31 design plan.
    - 3307DO2, Drawn 25/8/2004 and checked 18/2/2005—Section A, liner and sump design.
    - 3307DO3, 10/8/2004—liner design sections and details.
    - 3307DO4, 14/10/2004—cell 31 interim capping design.
    - 3307DO5, 13/8/2004—landfill staging plan.
    - 3307DO6, 13/8/2004—final surface water control.
    - 3307DO8, Drawn 27/8/2004 and checked 26/11/2004—interim surface water control.
    - 3307DO9 P1, Drawn 4/11/2004 and checked 26/11/2004—cell design plan line 2.
    - 3307DO10, Drawn 29/8/2004 and checked 26/11/2004—Sections D and E, swale drain design.
28. Distance to groundwater requirements shall be as follows:
- Based on groundwater level monitoring results and interpolated highest groundwater levels for Cell 31, including a 0.1 metre buffer; the base of the sump shall be at 9.1 m AHD;
  - Notwithstanding the above requirement, a minimum separation distance of 2 m between the underside of the lowest portion of the lining system (including the sump area) and the underlying groundwater shall be maintained at all times.
29. Leachate collection and extraction system requirements shall be as follows:
- Leachate removal shall implement a system which accommodates the installation of the pumps at the leachate riser access point.
  - Following cell completion and until the entire cell base is covered with a minimum of 1.5 metres of waste, a pump with a flow capacity of a minimum of 40 litres per second shall be installed.
  - After it can be demonstrated that leachate production has declined to less than one litre per second, this pump can be replaced by a pump of lesser flow capacity.
  - A back-up pump with the relevant capacity shall be readily available on site at all time.
30. Leachate treatment requirements shall be as follows:
- Leachate may be managed and treated by means of:
    - o direct extraction into an on-site leachate evaporation pond which shall meet the minimum design specification as follows:
      - composite lining system comprising a one metre low permeability clay liner with  $k < 1 \times 10^{-9}$  m/s compacted to 95% Maximum Dry Density by standard compaction, and a moisture content between 0% and +4% wet of Optimum Moisture Content, overlaid by a 2mm high density polyethylene (HDPE) liner (welded).
      - minimum of 600 mm freeboard.
      - modelling with HELP or LANDSIM shall consider a one in 25, 24 hour duration storm event.
      - a minimum separation distance of two metres between the underside of the lowest portion of the lining system and the underlying groundwater shall be maintained at all times.
    - o Direct extraction into an onsite tank vehicle suitable for the transport of leachate into an onsite leachate evaporation pond.
    - o Direct extraction into a licensed vehicle and transported to an off-site Environment Protection Authority licensed Waste Water Treatment Plant.
    - o Direct extraction into a suitably designed, temporary on-site storage tank prior to off-site disposal by an Environment Protection Authority licensed vehicle at an Environment Protection Authority licensed Waste Water Treatment Plant or prior to on-site transport to an onsite leachate evaporation pond.
31. Leachate management requirements shall be as follows:
- The head of leachate on the liner shall not exceed 300 mm (excluding the sump) at all times. To facilitate this, the trigger level for leachate extraction out of the leachate sump shall be set at 290 mm.
  - In addition to automatic leachate data readings, a manual monitoring probe shall be installed and calibrated to allow for direct readings of the vertical elevation of leachate in the riser pipe and conversion to the maximum leachate head on top of the liner.
  - Leachate levels shall be read manually daily and recorded in the onsite operations logbook or as specified otherwise in the Environment Protection Authority licence.
32. Distance between LLCS/LTPR cells and Balefill cells (reference drawing 3307D03, 18/8/2004) shall be as follows:
- The distance between LLCS/LTPR cells and Balefill cells shall be at a minimum of 5 metres, measured between the toe of the LLCS cell structure (that is where the outer surface of the cap of the completed LLCS/LTPR cell joins the outer surface of the underlying clay liner for the same cell) and the cap of the nearest balefill cell (that is where the outer surface of the cap of a completed balefill cell joins the outer surface of the underlying clay liner).
33. Level 1 Supervision requirements shall be as follows:
- The construction of the clay liner of the cell shall be carried out under Level 1 Supervision in accordance with AS 3798-1996, Appendix B.
  - The construction of the HDPE liner shall be carried out under the full time supervision of a suitably qualified geotechnical consultant with experience in the construction and supervision of the construction of HDPE lining systems, quality control procedures and testing.
34. 'As Constructed Report' requirements shall be as follows:
- An 'As Constructed Report' certifying compliance with the approved design for the lining system, including a Construction Quality Assurance Report (CQA) for the HDPE liner and the Level 1 Supervision Report, shall be submitted to the Environment Protection Authority for acceptance prior to the commencement of the receipt and disposal of waste in each cell. No waste shall be received and disposed of prior to written acceptance of the 'As Constructed Report' by the Environment Protection Authority.
35. Coverage of waste requirements shall be as follows:
- All waste shall be covered as soon as reasonable practicable after the receipt of waste and placement in the cell or at close of business on each business day with at least 150 mm of cover material (waste fill or intermediate landfill cover with the restriction to a maximum particle size of 100 mm).

- If a load of particularly odorous material is received at the LLCS/LTPR cell, it shall be covered immediately with a minimum of 150 mm cover material.
  - During periods when the LLCS/LTPR cell is not operating, routine monitoring for odorous gases shall be carried out as part of the site monitoring program and may trigger the application of additional cover material.
  - Alternative cover materials may be used after the proponent:
    - o has demonstrated to the Environment Protection Authority that the proposed material and placement method result in an equivalent or better performance compared to the approved material; and
    - o has received written approval from the EPA prior to the use of alternative materials and placement methods.
36. Groundwater management requirements shall be as follows:
- An additional groundwater well shall be installed west of cell 30 and the first round of groundwater sampling and testing shall be completed at least two weeks prior to commencement of construction of cell 31
  - Groundwater level monitoring shall commence at least two weeks before commencement of construction of cell 31; groundwater levels shall be taken weekly and reported to the Environment Protection Authority monthly (datasheet and graph) or as specified otherwise in the EPA authorisation.
  - Four monitoring rounds at three monthly intervals in the first 12 months of operation shall be carried out to establish additional background analyte levels around cell 31
  - Six monthly monitoring rounds shall be undertaken following the completion of the initial 12 months of groundwater monitoring or as specified otherwise in the Environment Protection Authority licence
  - Prior to the commencement of construction of any other cell for the receipt of LLCS/LTPR, the groundwater management and monitoring program shall be reviewed and submitted for Environment Protection Authority approval.
37. Surface Water Management requirements shall be as follows:
- A stormwater management plan shall be developed and submitted for Environment Protection Authority's approval addressing all issues related to the staged construction of LLCS/LTPR cells on site prior to commencement of construction of cell 31.
  - The stormwater management plan shall provide surface water control and management measures for:
    - o surface water or stormwater runoff that does not interact with the waste material or other operational areas of the site and is considered to be uncontaminated.
    - o surface water that comes into contact with waste materials or is collected from landfill areas or other operational areas and is considered to be contaminated.
    - o surface runoff from the final landfill cap which has to be controlled.
    - o diversion of surface water runoff from perimeter areas away from the operating cell.
38. Landfill Environmental Management Plan (LEMP) requirements shall be as follows:
- The new section of the LEMP ('Section 17') shall be completed and incorporated in the revised LEMP document.
  - The complete revised LEMP document shall be finalised and submitted to the Environment Protection Authority for approval prior to the receipt and disposal of LLCS/LTPR on the premises.
39. A wheel wash with water sprays shall be installed ensure removal of residues from the wheels and underside of the vehicles transporting low level contaminated soil and liquid treatment plant residues to the site.

## NOTES TO PROPONENT

*Building Rules*

- The proponent shall obtain a Building Rules assessment and certification for any building work from either the District Council of Mallala or a private certifier (at the proponent's option) and forward to the Minister for Urban Development and Planning all relevant certification documents as outlined in Regulation 64 of the Development Regulations 2008.
- Pursuant to Development Regulation 64, the proponent is especially advised that the District Council of Mallala or private certifier conducting a Building Rules assessment must:
  - provide to the Minister for Urban Development and Planning a certification in the form set out in Schedule 12A of the Development Regulations 2008 in relation to the building works in question; and
  - to the extent that may be relevant and appropriate:
    - (i) issue a Schedule of Essential Safety Provisions under Division 4 of Part 12;
    - (ii) assign a classification of the building under these regulations; and
    - (iii) ensure that the appropriate levy has been paid under the Construction Industry Training Fund 1993.
- Regulation 64 of the Development Regulations 2008 provides further information about the type and quantity of all Building Rules certification documentation for Major Developments required for referral to the Minister for Urban Development and Planning. The District Council of Mallala or private certifier undertaking Building Rules assessments must ensure that the assessment and certification are consistent with this provisional development authorisation (including its Conditions and Notes).

*Environmental Management Plan for the Multiple Waste Treatment Facility (MWTF)*

- An Environmental Management Plan (EMP) covering the operation requirements for the MTWF shall be prepared in consultation with the Environment Protection Authority.
- The EMP shall include an air quality monitoring programme to ensure air emissions from the MWTF do not contain contaminants at levels that may be harmful to nearby residents and land uses.
- The EMP shall include protocols for testing/trialling the suitability and effectiveness of treatment methods for batches of contaminated materials that could potentially be treated at the MWTF, prior to the receipt of such material.
- The EMP shall include contingencies for dealing with contaminated materials that cannot meet disposal criteria after treatment.
- The EMP shall include a detailed risk assessment protocol for all contaminated waste types to be treated.
- The EMP shall include a Fire Risk Management Plan.
- The EMP shall include a Hazardous Substances Management Plan.
- The EMP shall include an Occupational Health, Safety and Welfare Plan prepared in consultation with the Department of Health.
- The EMP shall include a financial assurance strategy.
- The EMP shall be amended if new treatment options, that have been approved by the Environment Protection Authority, are adopted in the future.
- The current Landfill Environmental Management Plan (LEMP) shall be amended, to the reasonable satisfaction of the Environment Protection Authority, to address the management of soil erosion and stormwater and the upgrading of existing screens and/or mounds or the establishment of new vegetated screens and/or mounds associated with the MWTF.

- The amendment of the LEMP and the upgrading of the site infrastructure, including but not limited to vegetated screens and/or mounds, shall be undertaken prior to commencement of the MWTF operations.

#### *EPA Licensing and General Environmental Duty of Care*

- The applicant is reminded of its general environmental duty, as required by Section 25 of the Environment Protection Act 1993, to take all reasonable and practical measures to ensure that the activities on the whole site, including during both construction and operation, do not pollute the environment in a way which causes or may cause environmental harm.
- Environmental authorisation in the form of an amended licence will be required for the construction and/or operation of this development. The applicant is advised to contact the Environment Protection Authority before acting on this approval to ascertain licensing requirements.
- It is likely that as a condition of such a licence the Environment Protection Authority will require the licensee to carry out specified environmental monitoring of air and water quality and to make reports of the results of such monitoring to it.

#### *General Landfill Operations*

- To provide additional screening and wildlife habitat the following options could be investigated by the proponent, council, community and local landowners:
  - revegetation of the road reserve along Prime Beach Road, in conjunction with the District Council of Mallala and the community;
  - revegetation of the road reserve along Port Wakefield Road, in conjunction with the Department of Transport and Urban Planning (Transport SA) to further reduce views from the eastern direction;
  - plantings on private property along fence lines adjoining the site, in conjunction with landowners and the community.
- All sedimentation basins, evaporation ponds, and surface water drainage channels should be suitably located, designed and managed to ensure native vegetation (especially low-lying saltmarsh communities) is not adversely affected by construction activities or groundwater mounding and, if possible, the ecological value enhanced.
- A comprehensive Pest Plant and Animal Management Plan must be implemented prior to landfill operations commencing, to ensure the site is free of as many pest species as possible from the onset and adequate monitoring and follow-up control should occur, as discussed in the Assessment Report.
- Whilst not totally within the control of the proponent, monitoring and control programs to reduce the risk of disease transmission between activities in the area may ideally be prepared by adopting a district approach, in co-ordination with the Adelaide Plains Animal and Plant Control Board, Department of Primary Industries and Resources and landowners.
- To minimise and control any onsite soil erosion (particularly of stockpiled material), a Soil Erosion and Drainage Management Plan (SEDM) as described in the Environment Protection Agency's 'Stormwater Pollution Prevention Codes of Practice', must be prepared and approved as part of the LEMP, before the site becomes operational.
- As part of the LEMP, a Surface Water Management Plan must be prepared by the proponent to the satisfaction of the EPA prior to receipt of any waste. The plan should address the collection and management of all onsite surface water (including any contaminated runoff originating from roadways, carparks and hardstands, the vehicle workshop or wheel washing facility) and management of all surface water flows entering the site from land external to the site, in particular to ensure their final discharge does not impact adversely on any downstream wetlands.
- A monitoring program must be established to record levels of coastal flooding in the western section of the site and, if results indicate a significant risk, a review process be undertaken (ideally through any relevant local community consultative committee) to determine whether to proceed with Stage 9.
- If blasting is required to remove any of the Ripon Calcrete, explosion vibration characteristics and monitoring requirements must be determined in consultation with the Environment Protection Authority and District Council of Mallala, prior to commencement.
- The Environment Protection Agency must be provided with all additional data concerning the site geology as it becomes available, as this could necessitate minor changes to landfill design or method of operation and the installation of additional groundwater monitoring bores.
- To enable detailed design of the proposed groundwater protection system, to determine the minimum depth at which the landfill cells should be based and to enable detailed design of the surface water management system; further investigation of groundwater levels and behaviour on the site must be undertaken prior to finalisation of the detailed design of the landfill and preparation of management plans.
- As part of the LEMP, a detailed Groundwater and Leachate Management Plan must be prepared by the proponent to the satisfaction of the Environment Protection Authority, prior to receipt of any waste. The Plan must demonstrate how the method of hydraulic containment proposed can be practically achieved. Further hydrogeological investigations must be carried out prior to the commencement of any landfill construction in order to fully define the dewatering and groundwater disposal requirements and to provide details of how the cells can be dewatered and constructed for full hydraulic containment of leachate. In particular, monitoring of watertable levels must commence immediately after the granting of the development authorisation in order that the magnitude of seasonal fluctuations can be fully established prior to construction of the landfill. The Plan may provide for staging of leachate and groundwater management works which may be required as a result of the staging of waste disposal activities upon the site, and should include contingency measures to be implemented in the event of any failure of the leachate management system.
- A more sustainable after-use for the site that will encourage the regeneration and rehabilitation of natural communities must be considered during future post closure planning.
- If appropriate with the desired end use to be determined in more detail at a later stage, the entire landform may be planted with appropriate types of native vegetation cover.
- Determination of interim and post closure land uses of the site, proposed to be undertaken in association with any relevant local community consultative committee, must be undertaken as required by the Environment Protection Authority as part of the LEMP.

Dated: 23 April 2020

SIMONE FOGARTY  
Presiding Member  
State Commission Assessment Panel

# STATE GOVERNMENT INSTRUMENTS

## DEVELOPMENT ACT 1993

### SECTION 48

*Decision by the State Commission Assessment Panel as Delegate of the Governor*

#### *Preamble*

1. On 19 October 1994 the Minister for Housing, Urban Development and Local Government Relations, being of the opinion that a proposed development of a waste management facility in the form of a solid waste landfill (Northern Balefill) near Dublin ('the development') was a development of major social, economic or environmental importance, directed the proponent to prepare an Environmental Impact Statement, pursuant to Section 46 of the *Development Act 1993*.
2. On 22 April 1996 an Environmental Impact Statement for the development was published in accordance with Section 46 of the *Development Act 1993*. Subsequently, the Minister prepared an Assessment Report in accordance with Section 46 of the *Development Act 1993*.
3. By notice in the *South Australian Government Gazette* on 29 January 1998 at page 30 the Governor granted development authorisation to the development, subject to conditions specified in that notice, pursuant to Section 48 of the *Development Act 1993*.
4. Following an application by the beneficiary of the development authorisation for a variation to the authorisation to allow the receipt and disposal of low level contaminated waste, the proposed development was the subject of an Amended Environmental Impact Statement dated June 1998 and an Amended Assessment Report dated December 1998 under Section 47 of the *Development Act 1993* ('the amended Major Development').
5. By notice in the *Government Gazette* on 8 September 2005 at page 3255 the Governor granted provisional development authorisation to the amended Major Development, reserving specific matters for further assessment.
6. Following an application by the beneficiary of the development authorisation for a variation to the authorisation to allow for the establishment of a Multiple Waste Treatment Facility for the treatment and disposal of high level contaminated waste at the existing landfill, the proposed development was the subject of an Amended Environmental Impact Statement dated 24 November 2008 and an Amended Assessment Report under Section 47 of the *Development Act 1993* ('the further amended Major Development').
7. By notice in the *Government Gazette* on 27 August 2009 the Governor granted provisional development authorisation to the further amended Major Development, reserving specific matters for further assessment.
8. By notice in the *Government Gazette* on 2 September 2010 at page 4662 the Minister for Urban Development and Planning, under delegation from the Governor, assessed the matters reserved for further assessment and a variation to the design of the Multiple Waste Treatment Facility and granted development authorisation to the further amended Major Development.
9. Variations to the development authorisation were notified in the *Government Gazette* on 24 January 2013 at page 103 (for the implementation of a '10 Year Masterplan' comprising various changes to the landfill operation and the establishment of a Resource Pad, a Bioremediation Pad and a Litter Net System) and on 14 May 2020 at page 969 (for a modification to the design of the landfill module 3).
10. By letter dated 20 September 2019, Integrated Waste Management Services Pty Ltd, being the beneficiary of the development authorisation, sought a variation to the authorisation to permit the establishment of a Bioremediation Pad (identified as Cell B—eastern extension).
11. I am satisfied that the Environmental Impact Statement (as amended) and Assessment Report (as amended) in relation to the Major Development are appropriate and have had regard, when considering the proposed variation, to all relevant matters under Section 48 (5) of the *Development Act 1993*.
12. For ease of reference the conditions attached to the Solid Waste Landfill (Northern Balefill) near Dublin development authorisation are republished in full hereunder.

#### *Decision*

PURSUANT to Section 48 (7a) and (7) (b) (ii) of the *Development Act 1993*; and having due regard to the matters set out in Section 48 (5) and all other relevant matters; and exercising the power of the Governor, I:

- (a) vary the Solid Waste Landfill (Northern Balefill) near Dublin development authorisation dated 14 May 2020, subject to the conditions set out below; and
- (b) specify under Section 48 (7) (b) (iii) all matters which are the subject of conditions herein as matters in respect of which the conditions of this authorisation may be varied or revoked, or new conditions attached.

#### CONSOLIDATED VERSION OF CONDITIONS OF AUTHORISATION

#### *General Conditions*

1. Except where minor amendments may be required by other legislation or by conditions imposed herein, the proposed Major Development shall be undertaken in strict accordance with the following documents:
  - Development application dated 30 June 2008;
  - Environmental Impact Statement Amendment, Integrated Waste Services Northern Balefill Dublin Multiple Waste Treatment Facility EIS Amendment prepared by Golder Associates, dated 24 November 2008, but in the case of conflict with a specific condition below the specific condition shall apply;
  - Proponent's response to submissions, letter from Connor Holmes to the Department of Planning and Local Government dated 3 April 2009, but in the case of conflict with a specific condition below the specific condition shall apply;
  - Correspondence from Connor Holmes to the Department of Planning and Local Government containing additional information on the proposal dated 27 May 2009, but in the case of conflict with a specific condition below the specific condition shall apply;
  - Correspondence from Integrated Waste Services to the Department of Planning and Local Government applying for approval of reserved matters and variations related to the Multiple Waste Treatment Facility dated 19 May 2010, but in the case of conflict with a specific condition below the specific condition shall apply;
  - Correspondence from Integrated Waste Services to the Department of Planning and Local Government providing additional information to support application dated 11 May 2010, but in the case of conflict with a specific condition below the specific condition shall apply;

- Correspondence from Katnitch Dodd for Stage 1—Civil and Structural Work dated 31 March 2010 and accompanying certified plans;
  - Correspondence from Katnitch Dodd for Final Stage—Services and Fitout Works dated 31 March 2010 and accompanying certified plans.
  - Application for a variation to the development authorisation from Integrated Waste Services dated 5 October 2012, except as varied by the conditions listed below or to the extent that they are varied by the plans and drawings listed below.
  - Application for a variation to the development authorisation from Masterplan (on behalf of Integrated Waste Services P/L) dated 11 March 2020, including plans titled ‘Site Layout’ (prepared by Golder, dated 2020-02-26), ‘Module 3 Cap’ (prepared by Golder, dated 2020-02-26) and ‘Longsection’ (prepared by Golder, dated 2020-02-26).
  - Application for a variation to the development authorisation from Masterplan (on behalf of Integrated Waste Services P/L) dated 20 September 2019, including plans titled ‘Clearing and Grubbing Layout Plan’, (prepared by Golder, dated 2019-09-13), ‘Design Layout Plan’ (prepared by Golder, dated 2019-09-13), ‘Design Surface Top of Subgrade Layout Plan’ (prepared by Golder, dated 2019-09-13), Cross Sections—Sheet 1 of 2’ (prepared by Golder, dated 2019-09-13), Cross Sections—Sheet 2 of 2’ (prepared by Golder, dated 2019-09-13), ‘Typical Sections and Details’ (prepared by Golder, dated 2019-09-13) and ‘Indicative Aeration Pipe Layout Plan and Typical Section’ (prepared by Golder, dated 2019-09-13); and the ‘Integrated Waste Services—Organics Processing Pad Cell B—Technical Specification’ (1654805-020-TS-Rev0) by Golder dated 5 November 2019.
2. Before any building work is undertaken on the site, the building work is to be certified by a private certifier, or by some person determined by the Minister for Planning and Local Government, as complying with the provisions of the Building Rules (or the Building Rules as modified according to criteria prescribed by the Regulations).

*Multiple Waste Treatment Facility (MWTF)*

3. The design of the MWTF shall be amended to include coloured metal cladding on all sides of the building, so as to enclose the whole of the facility.
4. Designs for the effluent treatment and disposal system shall be prepared to the reasonable satisfaction of the Adelaide Plains Council.
5. Treatment of waste material shall not occur until the construction of the entire MWTF has been completed, to the reasonable satisfaction of the Environment Protection Authority (EPA).
6. High Level Contaminated Waste is not required to be baled or shredded.
7. A truck wash with water sprays shall be installed for the removal of residues from vehicles transporting High Level Contaminated Waste to the site. All transport vehicles shall not leave the site unless they have gone through the truck wash.
8. Treatment of the stored materials shall only commence once the completed MWTF is approved by the EPA to commence operation.
9. Bioremediation and stabilisation are the only treatment processes that shall be used in the MWTF.
10. Pre-remediation trials shall be conducted on all contaminated materials, prior to delivery to the MWTF and the Bioremediation Pad, to determine if treatment methods approved by the EPA would be successful. Trial results shall be submitted to the EPA for assessment, prior to delivery of contaminated materials to the MWTF and the Bioremediation Pad.
11. Post-remediation testing on treated materials shall be undertaken to assess its suitability to be disposed of or reused. Testing results shall be submitted to the EPA for assessment, prior to disposal or reuse.
12. Future treatment options shall undergo pre-trial assessment, to the reasonable satisfaction of the EPA, before they can be adopted.
13. An Environmental Management Plan (EMP) for activities associated with the MWTF, prepared to the reasonable satisfaction of the EPA, must be in place prior to the receipt, storage and treatment of contaminated materials.

*Solid Waste Balefill*

14. The work shall be carried out as shown on the plans (Figures 3.1 to 3.9) in the Development Application Report dated 28 November 1997, included with the Development Application dated 2 December 1997, except as varied by these conditions.
15. Subject to Conditions 16, 17 and 18, all waste received for disposal at the facility shall be shredded and baled.
16. Unbaled commercial/industrial or construction/demolition waste of appropriate particle sizes may be placed and compacted in any voids unavoidably occurring between bales and the inclined surface of the cells in which those bales are placed or within a suitable netting system to the reasonable satisfaction of the EPA and in accordance with any applicable requirements of a relevant environmental authorisation.
17. Waste materials received for disposal at the facility need not be shredded before baling where shredding of those materials is not required for the purpose of producing bales of a density and structural integrity that satisfy the applicable requirements of any relevant environmental authorisation.
18. Non-friable asbestos waste shall not be shredded or baled but shall be disposed of in accordance with the applicable requirements of any relevant environmental authorisation.
19. All perimeter plantings shall be started as early as practicable after the date of this authorisation to achieve maximum amelioration of visual impacts.
20. Screening by suitable plantings where adequate natural screening is not provided, shall be provided for the perimeter fence, all built structures, stockpiles and internal roads (where practicable) using suitable species in accordance with the Vegetation Management and Revegetation Plan proposed as part of the Landfill Environmental Management Plan (LEMP).
21. All firebreaks and external drainage channels shall be located on the inner edge of the vegetation screen and existing stands of native vegetation. In the event that drainage channels are required to be located close to the site boundary, their redesign to form low-lying wetland/saltmarsh communities as part of the vegetation screen shall be undertaken and implemented to the satisfaction of the Environment Protection Authority.
22. A leachate monitoring bore shall be installed within each cell to assist with leachate management, particularly if leachate circulation is incorporated in the Landfill Environmental Management Plan (LEMP).
23. The proponent shall pay all reasonable costs of the detailed design and construction of any public roadworks made necessary by this development. Such works may include the opening and associated left turn deceleration lane from Port Wakefield Road, and the upgrading of the entrance to balefill junction to the satisfaction of the Commissioner of Highways.
24. The proponent shall seal (two coat spray seal) the internal site access road for a minimum of 520 m from the nearest residence.
25. The applicant shall prepare a Vegetation Management and Revegetation Plan (which may be included in the LEMP) to the reasonable satisfaction of the Development Assessment Commission and must implement that Plan once it has been approved by the Development Assessment Commission.

*Low Level Contaminated Soil and Liquid Treatment Plant Residues*

26. Low level contaminated soil (LLCS) and liquid treatment plant residues (LTPR) are not required to be baled or shredded.
27. The work shall be carried in accordance with the following documents and plans:
- EIS Amendment, Receipt of Low Level Contaminated Soil and Liquid Waste Treatment Plant Residues at the IWS Northern Balefill, dated July 2003.
  - Response Document on the EIS Amendment for the Receipt of Low Level Contaminated Soil and Liquid Waste Treatment Plant Residues (Revised), dated 30 April 2004.
  - Supplementary Information EIS Amendment Receipt of Low Level Contaminated Soil and Liquid Waste Treatment Plant Residues at the IWS Northern Balefill, dated 26 November 2004.
  - Landfill Environmental Management Plan, dated 2001 or as varied by any applicable requirements of a licence from the Environment Protection Authority.
  - Drawings
    - 3307DO1, 4/11/2004—cell 31 design plan.
    - 3307DO2, Drawn 25/8/2004 and checked 18/2/2005—Section A, liner and sump design.
    - 3307DO3, 10/8/2004—liner design sections and details.
    - 3307DO4, 14/10/2004—cell 31 interim capping design.
    - 3307DO5, 13/8/2004—landfill staging plan.
    - 3307DO6, 13/8/2004—final surface water control.
    - 3307DO8, Drawn 27/8/2004 and checked 26/11/2004—interim surface water control.
    - 3307DO9 P1, Drawn 4/11/2004 and checked 26/11/2004—cell design plan line 2.
    - 3307DO10, Drawn 29/8/2004 and checked 26/11/2004—Sections D and E, swale drain design.
28. Distance to groundwater requirements shall be as follows:
- Based on groundwater level monitoring results and interpolated highest groundwater levels for Cell 31, including a 0.1 m buffer; the base of the sump shall be at 9.1 m AHD;
  - Notwithstanding the above requirement, a minimum separation distance of 2 m between the underside of the lowest portion of the lining system (including the sump area) and the underlying groundwater shall be maintained at all times.
29. Leachate collection and extraction system requirements shall be as follows:
- Leachate removal shall implement a system which accommodates the installation of the pumps at the leachate riser access point.
  - Following cell completion and until the entire cell base is covered with a minimum of 1.5 metres of waste, a pump with a flow capacity of a minimum of 40 litres per second shall be installed.
  - After it can be demonstrated that leachate production has declined to less than one litre per second, this pump can be replaced by a pump of lesser flow capacity.
  - A back-up pump with the relevant capacity shall be readily available on site at all time.
30. Leachate treatment requirements shall be as follows:
- Leachate may be managed and treated by means of:
    - direct extraction into an on-site leachate evaporation pond which shall meet the minimum design specification as follows:
      - composite lining system comprising a one metre low permeability clay liner with  $k < 1 \times 10^{-9}$  m/s compacted to 95% Maximum Dry Density by standard compaction, and a moisture content between 0% and +4% wet of Optimum Moisture Content, overlaid by a 2 mm high density polyethylene (HDPE) liner (welded).
      - minimum of 600 mm freeboard.
      - modelling with HELP or LANDSIM shall consider a one in 25, 24 hour duration storm event.
      - a minimum separation distance of two metres between the underside of the lowest portion of the lining system and the underlying groundwater shall be maintained at all times.
    - Direct extraction into an onsite tank vehicle suitable for the transport of leachate into an onsite leachate evaporation pond.
    - Direct extraction into a licensed vehicle and transported to an off-site Environment Protection Authority licensed Waste Water Treatment Plant.
    - Direct extraction into a suitably designed, temporary on-site storage tank prior to off-site disposal by an Environment Protection Authority licensed vehicle at an Environment Protection Authority licensed Waste Water Treatment Plant or prior to on-site transport to an onsite leachate evaporation pond.
31. Leachate management requirements shall be as follows:
- The head of leachate on the liner shall not exceed 300 mm (excluding the sump) at all times. To facilitate this, the trigger level for leachate extraction out of the leachate sump shall be set at 290 mm.
  - In addition to automatic leachate data readings, a manual monitoring probe shall be installed and calibrated to allow for direct readings of the vertical elevation of leachate in the riser pipe and conversion to the maximum leachate head on top of the liner.
  - Leachate levels shall be read manually daily and recorded in the onsite operations logbook or as specified otherwise in the Environment Protection Authority licence.
32. Distance between LLCS/LTPR cells and Balefill cells (reference drawing 3307D03, 18/8/2004) shall be as follows:
- The distance between LLCS/LTPR cells and Balefill cells shall be at a minimum of 5 metres, measured between the toe of the LLCS cell structure (that is where the outer surface of the cap of the completed LLCS/LTPR cell joins the outer surface of the underlying clay liner for the same cell) and the cap of the nearest balefill cell (that is where the outer surface of the cap of a completed balefill cell joins the outer surface of the underlying clay liner).



33. Level 1 Supervision requirements shall be as follows:

- The construction of the clay liner of the cell shall be carried out under Level 1 Supervision in accordance with AS 3798-1996, Appendix B.
- The construction of the HDPE liner shall be carried out under the full time supervision of a suitably qualified geotechnical consultant with experience in the construction and supervision of the construction of HDPE lining systems, quality control procedures and testing.

34. 'As Constructed Report' requirements shall be as follows:

- An 'As Constructed Report' certifying compliance with the approved design for the lining system, including a Construction Quality Assurance Report (CQA) for the HDPE liner and the Level 1 Supervision Report, shall be submitted to the Environment Protection Authority for acceptance prior to the commencement of the receipt and disposal of waste in each cell. No waste shall be received and disposed of prior to written acceptance of the 'As Constructed Report' by the Environment Protection Authority.

35. Coverage of waste requirements shall be as follows:

- All waste shall be covered as soon as reasonable practicable after the receipt of waste and placement in the cell or at close of business on each business day with at least 150 mm of cover material (waste fill or intermediate landfill cover with the restriction to a maximum particle size of 100 mm).
- If a load of particularly odorous material is received at the LLCS/LTPR cell, it shall be covered immediately with a minimum of 150 mm cover material.
- During periods when the LLCS/LTPR cell is not operating, routine monitoring for odorous gases shall be carried out as part of the site monitoring program and may trigger the application of additional cover material.
- Alternative cover materials may be used after the proponent:
  - has demonstrated to the Environment Protection Authority that the proposed material and placement method result in an equivalent or better performance compared to the approved material; and
  - has received written approval from the EPA prior to the use of alternative materials and placement methods.

36. Groundwater management requirements shall be as follows:

- An additional groundwater well shall be installed west of cell 30 and the first round of groundwater sampling and testing shall be completed at least two weeks prior to commencement of construction of cell 31.
- Groundwater level monitoring shall commence at least two weeks before commencement of construction of cell 31; groundwater levels shall be taken weekly and reported to the Environment Protection Authority monthly (datasheet and graph) or as specified otherwise in the EPA authorisation.
- Four monitoring rounds at three monthly intervals in the first 12 months of operation shall be carried out to establish additional background analyte levels around cell 31.
- Six monthly monitoring rounds shall be undertaken following the completion of the initial 12 months of groundwater monitoring or as specified otherwise in the Environment Protection Authority licence.
- Prior to the commencement of construction of any other cell for the receipt of LLCS/LTPR, the groundwater management and monitoring program shall be reviewed and submitted for Environment Protection Authority approval.

37. Surface Water Management requirements shall be as follows:

- A stormwater management plan shall be developed and submitted for Environment Protection Authority's approval addressing all issues related to the staged construction of LLCS/LTPR cells on site prior to commencement of construction of cell 31.
- The stormwater management plan shall provide surface water control and management measures for:
  - surface water or stormwater runoff that does not interact with the waste material or other operational areas of the site and is considered to be uncontaminated.
  - surface water that comes into contact with waste materials or is collected from landfill areas or other operational areas and is considered to be contaminated.
  - surface runoff from the final landfill cap which has to be controlled.
  - diversion of surface water runoff from perimeter areas away from the operating cell.

38. Landfill Environmental Management Plan (LEMP) requirements shall be as follows:

- The new section of the LEMP ('Section 17') shall be completed and incorporated in the revised LEMP document.
- The complete revised LEMP document shall be finalised and submitted to the Environment Protection Authority for approval prior to the receipt and disposal of LLCS/LTPR on the premises.

39. A wheel wash with water sprays shall be installed ensure removal of residues from the wheels and underside of the vehicles transporting low level contaminated soil and liquid treatment plant residues to the site.

*Bioremediation Pad—Cell B (Eastern Extension)*

40. The applicant must provide an 'as constructed' report to the reasonable satisfaction of the Environment Protection Authority (EPA) confirming compliance with the design and construction specifications prior to the commencement of any receipt, storage, and treatment of waste at the expanded bioremediation pad.

41. Reuse of treated organic waste derived from mixed waste (including municipal solid waste or commercial and industrial waste) must not be permitted outside of the lined landfill cells.

#### NOTES TO PROPONENT

##### *Building Rules*

- The proponent shall obtain a Building Rules assessment and certification for any building work from either the Adelaide Plains Council or a private certifier (at the proponent's option) and forward to the Minister for Planning and Local Government all relevant certification documents as outlined in Regulation 64 of the *Development Regulations 2008*.

- Pursuant to Development Regulation 64, the proponent is especially advised that the Adelaide Plains Council or private certifier conducting a Building Rules assessment must:
  - provide to the Minister for Planning and Local Government a certification in the form set out in Schedule 12A of the *Development Regulations 2008* in relation to the building works in question; and
  - to the extent that may be relevant and appropriate:
    - (i) issue a Schedule of Essential Safety Provisions under Division 4 of Part 12;
    - (ii) assign a classification of the building under these regulations; and
    - (iii) ensure that the appropriate levy has been paid under the Construction Industry Training Fund 1993.
- Regulation 64 of the *Development Regulations 2008* provides further information about the type and quantity of all Building Rules certification documentation for Major Developments required for referral to the Minister for Planning and Local Government. The Adelaide Plains Council or private certifier undertaking Building Rules assessments must ensure that the assessment and certification are consistent with this provisional development authorisation (including its Conditions and Notes).

#### *Environmental Management Plan for the Multiple Waste Treatment Facility (MWTF)*

- An Environmental Management Plan (EMP) covering the operation requirements for the MWTF shall be prepared in consultation with the Environment Protection Authority.
- The EMP shall include an air quality monitoring programme to ensure air emissions from the MWTF do not contain contaminants at levels that may be harmful to nearby residents and land uses.
- The EMP shall include protocols for testing/trialling the suitability and effectiveness of treatment methods for batches of contaminated materials that could potentially be treated at the MWTF, prior to the receipt of such material.
- The EMP shall include contingencies for dealing with contaminated materials that cannot meet disposal criteria after treatment.
- The EMP shall include a detailed risk assessment protocol for all contaminated waste types to be treated.
- The EMP shall include a Fire Risk Management Plan.
- The EMP shall include a Hazardous Substances Management Plan.
- The EMP shall include an Occupational Health, Safety and Welfare Plan prepared in consultation with the Department of Health.
- The EMP shall include a financial assurance strategy.
- The EMP shall be amended if new treatment options that have been approved by the Environment Protection Authority, are adopted in the future.
- The current Landfill Environmental Management Plan (LEMP) shall be amended, to the reasonable satisfaction of the Environment Protection Authority, to address the management of soil erosion and stormwater and the upgrading of existing screens and/or mounds or the establishment of new vegetated screens and/or mounds associated with the MWTF.
- The amendment of the LEMP and the upgrading of the site infrastructure, including but not limited to vegetated screens and/or mounds, shall be undertaken prior to commencement of the MWTF operations.

#### *EPA Licensing and General Environmental Duty of Care*

- The applicant is reminded of its general environmental duty, as required by Section 25 of the *Environment Protection Act 1993*, to take all reasonable and practical measures to ensure that the activities on the whole site, including during both construction and operation, do not pollute the environment in a way which causes or may cause environmental harm.
- Environmental authorisation in the form of an amended licence will be required for the construction and/or operation of this development. The applicant is advised to contact the Environment Protection Authority before acting on this approval to ascertain licensing requirements.
- It is likely that as a condition of such a licence the Environment Protection Authority will require the licensee to carry out specified environmental monitoring of air and water quality and to make reports of the results of such monitoring to it.

#### *General Landfill Operations*

- To provide additional screening and wildlife habitat the following options could be investigated by the proponent, council, community and local landowners:
  - revegetation of the road reserve along Prime Beach Road, in conjunction with the Adelaide Plains Council and the community;
  - revegetation of the road reserve along Port Wakefield Road, in conjunction with the Department of Infrastructure and Transport to further reduce views from the eastern direction;
  - plantings on private property along fence lines adjoining the site, in conjunction with landowners and the community.
- All sedimentation basins, evaporation ponds, and surface water drainage channels should be suitably located, designed and managed to ensure native vegetation (especially low-lying saltmarsh communities) is not adversely affected by construction activities or groundwater mounding and, if possible, the ecological value enhanced.
- A comprehensive Pest Plant and Animal Management Plan must be implemented prior to landfill operations commencing, to ensure the site is free of as many pest species as possible from the onset and adequate monitoring and follow-up control should occur, as discussed in the Assessment Report.
- Whilst not totally within the control of the proponent, monitoring and control programs to reduce the risk of disease transmission between activities in the area may ideally be prepared by adopting a district approach, in co-ordination with the Adelaide Plains Animal and Plant Control Board, Department of Primary Industries and Resources and landowners.
- To minimise and control any onsite soil erosion (particularly of stockpiled material), a Soil Erosion and Drainage Management Plan (SEDMP) as described in the Environment Protection Agency's 'Stormwater Pollution Prevention Codes of Practice', must be prepared and approved as part of the LEMP, before the site becomes operational.
- As part of the LEMP, a Surface Water Management Plan must be prepared by the proponent to the satisfaction of the EPA prior to receipt of any waste. The plan should address the collection and management of all onsite surface water (including any contaminated runoff originating from roadways, carparks and hardstands, the vehicle workshop or wheel washing facility) and management of all surface water flows entering the site from land external to the site, in particular to ensure their final discharge does not impact adversely on any downstream wetlands.

- A monitoring program must be established to record levels of coastal flooding in the western section of the site and, if results indicate a significant risk, a review process be undertaken (ideally through any relevant local community consultative committee) to determine whether to proceed with Stage 9.
- If blasting is required to remove any of the Ripon Calcrete, explosion vibration characteristics and monitoring requirements must be determined in consultation with the Environment Protection Authority and Adelaide Plains Council, prior to commencement.
- The Environment Protection Agency must be provided with all additional data concerning the site geology as it becomes available, as this could necessitate minor changes to landfill design or method of operation and the installation of additional groundwater monitoring bores.
- To enable detailed design of the proposed groundwater protection system, to determine the minimum depth at which the landfill cells should be based and to enable detailed design of the surface water management system; further investigation of groundwater levels and behaviour on the site must be undertaken prior to finalisation of the detailed design of the landfill and preparation of management plans.
- As part of the LEMP, a detailed Groundwater and Leachate Management Plan must be prepared by the proponent to the satisfaction of the Environment Protection Authority, prior to receipt of any waste. The Plan must demonstrate how the method of hydraulic containment proposed can be practically achieved. Further hydrogeological investigations must be carried out prior to the commencement of any landfill construction in order to fully define the dewatering and groundwater disposal requirements and to provide details of how the cells can be dewatered and constructed for full hydraulic containment of leachate. In particular, monitoring of water table levels must commence immediately after the granting of the development authorisation in order that the magnitude of seasonal fluctuations can be fully established prior to construction of the landfill. The Plan may provide for staging of leachate and groundwater management works which may be required as a result of the staging of waste disposal activities upon the site, and should include contingency measures to be implemented in the event of any failure of the leachate management system.
- A more sustainable after-use for the site that will encourage the regeneration and rehabilitation of natural communities must be considered during future post closure planning.
- If appropriate with the desired end use to be determined in more detail at a later stage, the entire landform may be planted with appropriate types of native vegetation cover.
- Determination of interim and post closure land uses of the site, proposed to be undertaken in association with any relevant local community consultative committee, must be undertaken as required by the Environment Protection Authority as part of the LEMP.

Dated: 18 November 2020

REBECCA THOMAS  
Presiding Member  
State Commission Assessment Panel

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GAMBLING ADMINISTRATION ACT 2019

South Australia

## Gaming Machines Code of Practice Prescription Notice 2020

under the *Gambling Administration Act 2019*

### 1—Short title

This notice may be cited as the *Gaming Machines Code of Practice Notice 2020*.

### 2—Commencement

This notice comes into operation on 3 December 2020.

### 3—Revocation of existing codes of practice

In accordance with section 15(6) of the *Gambling Administration Act 2019*, the provisions of an advertising code of practice or a responsible gambling code of practice made and in force under the *Gaming Machines Act 1992* are, insofar as they apply to the holder of a licence under the *Gaming Machines Act 1992*, revoked.

### 4—Code of Practice

The Gaming Machines Code of Practice as set out in Schedule 1 is prescribed under section 15 of the *Gambling Administration Act 2019*, for the purposes of the *Gaming Machines Act 1992*.

# DECISION NOTIFICATION FORM

Section 126(1) of the *Planning, Development and Infrastructure Act 2016*

## TO THE APPLICANT:

Name:	Integrated Waste Management Services Pty Ltd
Postal address:	c/- Masterplan, 33 Carrington Street, Adelaide SA 5000
Email:	<a href="mailto:MichaelR@masterplan.com.au">MichaelR@masterplan.com.au</a>

## IN REGARD TO:

Development application no.: 312/P001/18 V3	Lodged on: 12 May 2021
Nature of proposed development: Variation to a previously approved Major Development – IWS Northern Balefill Facility - Construction of a sorting and processing shed, with associated site and civil works	

## LOCATION OF PROPOSED DEVELOPMENT:

Street address: name: 99 Lemey Road, Lower Light			
Lot no. 76, DP26412	Hundred Dublin	Volume 5312	Folio 333

## DECISION:

Decision type	Decision	Decision date	No. of conditions	Entity responsible for decision
Development authorisation	GRANTED	23 December 2021	42	Minister for Planning and Local Government
Building Certification	STILL REQUIRED	-	-	TO BE DETERMINED

FROM THE RELEVANT AUTHORITY: Minister for Planning and Local Government
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HON JOSH TEAGUE MP  
MINISTER FOR PLANNING AND LOCAL GOVERNMENT

## **PREAMBLE:**

- a. On 19 October 1994 the Minister for Housing, Urban Development and Local Government Relations, being of the opinion that a proposed development of a waste management facility in the form of a solid waste landfill (Northern Balefill) near Dublin ('the development') was a development of major social, economic or environmental importance, directed the proponent to prepare an Environmental Impact Statement, pursuant to Section 46 of the Development Act 1993.
- b. On 22 April 1996 an Environmental Impact Statement for the development was published in accordance with Section 46 of the *Development Act 1993*. Subsequently, the Minister prepared an Assessment Report in accordance with Section 46 of the Development Act 1993.
- c. By notice in the *Government Gazette* on 29 January 1998 at p 30 the Governor granted development authorisation to the development, subject to conditions specified in that notice, pursuant to Section 48 of the Development Act 1993.
- d. Following an application by the beneficiary of the development authorisation for a variation to the authorisation to allow the receipt and disposal of low level contaminated waste, the proposed development was the subject of an Amended Environmental Impact Statement dated June 1998 and an Amended Assessment Report dated December 1998 under Section 47 of the Development Act 1993 ('the amended Major Development').
- e. By notice in the *Government Gazette* on 8 September 2005 at p 3255 the Governor granted provisional development authorisation to the amended Major Development, reserving specific matters for further assessment.
- f. Following an application by the beneficiary of the development authorisation for a variation to the authorisation to allow for the establishment of a Multiple Waste Treatment Facility for the treatment and disposal of high level contaminated waste at the existing landfill, the proposed development was the subject of an Amended Environmental Impact Statement dated 24 November 2008 and an Amended Assessment Report under Section 47 of the Development Act 1993 ('the further amended Major Development').
- g. By notice in the *Government Gazette* on 27 August 2009 the Governor granted provisional development authorisation to the further amended Major Development, reserving specific matters for further assessment.
- h. By notice in the *Government Gazette* on 2 September 2010 at p 4662 the Minister for Urban Development and Planning, under delegation from the Governor, assessed the matters reserved for further assessment and a variation to the design of the Multiple Waste Treatment Facility and granted development authorisation to the further amended Major Development.
- i. Variations to the development authorisation were notified in the *Government Gazette* on 24 January 2013 at p 103 (for the implementation of a '10 Year Masterplan' comprising various changes to the landfill operation and the establishment of a Resource Pad, a Bioremediation Pad and a Litter Net System), 14 May 2020 at p 969 (for a modification to the design of the landfill module 3) and 3 December 2020 at p 5464 (for the establishment of an additional Bioremediation Pad [identified as Cell B – eastern extension]).
- j. By letter dated 12 May 2021, Integrated Waste Management Services Pty Ltd, being the beneficiary of the development authorisation, sought a variation to the authorisation to permit the construction of a sorting and processing shed.
- k. I am satisfied that the Environmental Impact Statement (as previously approved) in relation to this impact assessed development continues to be appropriate and have had regard, when considering the proposed variation, to all relevant matters under Section 115 of the *Planning, Development and Infrastructure Act 2016*.
- l. For ease of reference, previous conditions attached to the approval and subsequent variations to the establishment of a Solid Waste Landfill (Northern Balefill) development authorisation are reprinted hereunder.

## **RESERVED MATTERS:**

NIL

## CONDITIONS OF PLANNING CONSENT:

1. Except where minor amendments may be required by other legislation or by conditions imposed herein, the approved development shall be undertaken in strict accordance with the following documents:

### Current Authorisation

- Development application dated 30 June 2008;
- Environmental Impact Statement Amendment, Integrated Waste Services Northern Balefill Dublin Multiple Waste Treatment Facility EIS Amendment prepared by Golder Associates, dated 24 November 2008, but in the case of conflict with a specific condition below the specific condition shall apply;
- Proponent's response to submissions, letter from Connor Holmes to the Department of Planning and Local Government dated 3 April 2009, but in the case of conflict with a specific condition below the specific condition shall apply;
- Correspondence from Connor Holmes to the Department of Planning and Local Government containing additional information on the proposal dated 27 May 2009, but in the case of conflict with a specific condition below the specific condition shall apply;
- Correspondence from Integrated Waste Services to the Department of Planning and Local Government applying for approval of reserved matters and variations related to the Multiple Waste Treatment Facility dated 19 May 2010, but in the case of conflict with a specific condition below the specific condition shall apply;
- Correspondence from Integrated Waste Services to the Department of Planning and Local Government providing additional information to support application dated 11 May 2010, but in the case of conflict with a specific condition below the specific condition shall apply;
- Correspondence from Katnitch Dodd for Stage 1—Civil and Structural Work dated 31 March 2010 and accompanying certified plans;
- Correspondence from Katnitch Dodd for Final Stage—Services and Fitout Works dated 31 March 2010 and accompanying certified plans.
- Application for a variation to the development authorisation from Integrated Waste Services dated 5 October 2012, except as varied by the conditions listed below or to the extent that they are varied by the plans and drawings listed below.
- Application for a variation to the development authorisation from Masterplan (on behalf of Integrated Waste Services P/L) dated 11 March 2020, including plans titled 'Site Layout' (prepared by Golder, dated 2020-02-26), 'Module 3 Cap' (prepared by Golder, dated 2020-02-26) and 'Longsection' (prepared by Golder, dated 2020-02-26).
- Application for a variation to the development authorisation from Masterplan (on behalf of Integrated Waste Services P/L) dated 20 September 2019, including plans titled 'Clearing and Grubbing Layout Plan', (prepared by Golder, dated 2019-09-13), 'Design Layout Plan' (prepared by Golder, dated 2019-09-13), 'Design Surface Top of Subgrade Layout Plan' (prepared by Golder, dated 2019-09-13), Cross Sections – Sheet 1 of 2' (prepared by Golder, dated 2019-09-13), Cross Sections – Sheet 2 of 2' (prepared by Golder, dated 2019-09-13), 'Typical Sections and Details' (prepared by Golder, dated 2019-09-13) and 'Indicative Aeration Pipe Layout Plan and Typical Section' (prepared by Golder, dated 2019-09-13); and the 'Integrated Waste Services – Organics Processing Pad Cell B – Technical Specification' (1654805-020-TS-Rev0) by Golder dated 5 November 2019.

### Varied Authorisation – Stage 2 Processing Shed – September 2021

- Letter from MasterPlan dated 12 May 2021
- Letter from MasterPlan dated 22 June 2021
- Ahrens – Stage 2 Processing Shed – DA Submission – Project No DSK21211 – Drawings A01-01 to A30-02 – Sheets:7 Rev: EE-GG (as indicated) and dated 6.9.2021).

### Multiple Waste Treatment Facility (MWTF)

3. The design of the MWTF shall be amended to include coloured metal cladding on all sides of the building, so as to enclose the whole of the facility.
4. Designs for the effluent treatment and disposal system shall be prepared to the reasonable satisfaction of the Adelaide Plains Council.
5. Treatment of waste material shall not occur until the construction of the entire MWTF has been completed, to the reasonable satisfaction of the Environment Protection Authority (EPA).

6. High Level Contaminated Waste is not required to be baled or shredded.
7. A truck wash with water sprays shall be installed for the removal of residues from vehicles transporting High Level Contaminated Waste to the site. All transport vehicles shall not leave the site unless they have gone through the truck wash.
8. Treatment of the stored materials shall only commence once the completed MWTF is approved by the EPA to commence operation.
9. Bioremediation and stabilisation are the only treatment processes that shall be used in the MWTF.
10. Pre-remediation trials shall be conducted on all contaminated materials, prior to delivery to the MWTF and the Bioremediation Pad, to determine if treatment methods approved by the EPA would be successful. Trial results shall be submitted to the EPA for assessment, prior to delivery of contaminated materials to the MWTF and the Bioremediation Pad.
11. Post-remediation testing on treated materials shall be undertaken to assess its suitability to be disposed of or reused. Testing results shall be submitted to the EPA for assessment, prior to disposal or reuse.
12. Future treatment options shall undergo pre-trial assessment, to the reasonable satisfaction of the EPA, before they can be adopted.
13. An Environmental Management Plan (EMP) for activities associated with the MWTF, prepared to the reasonable satisfaction of the EPA, must be in place prior to the receipt, storage and treatment of contaminated materials.

#### **Solid Waste Balefill**

14. The work shall be carried out as shown on the plans (Figures 3.1 to 3.9) in the Development Application Report dated 28 November 1997, included with the Development Application dated 2 December 1997, except as varied by these conditions.
15. Subject to Conditions 16, 17 and 18, all waste received for disposal at the facility shall be shredded and baled.
16. Unbaled commercial/industrial or construction/demolition waste of appropriate particle sizes may be placed and compacted in any voids unavoidably occurring between bales and the inclined surface of the cells in which those bales are placed or within a suitable netting system to the reasonable satisfaction of the EPA and in accordance with any applicable requirements of a relevant environmental authorisation.
17. Waste materials received for disposal at the facility need not be shredded before baling where shredding of those materials is not required for the purpose of producing bales of a density and structural integrity that satisfy the applicable requirements of any relevant environmental authorisation.
18. Non-friable asbestos waste shall not be shredded or baled but shall be disposed of in accordance with the applicable requirements of any relevant environmental authorisation.
19. All perimeter plantings shall be started as early as practicable after the date of this authorisation to achieve maximum amelioration of visual impacts.
20. Screening by suitable plantings where adequate natural screening is not provided, shall be provided for the perimeter fence, all built structures, stockpiles and internal roads (where practicable) using suitable species in accordance with the Vegetation Management and Revegetation Plan proposed as part of the Landfill Environmental Management Plan (LEMP).
21. All firebreaks and external drainage channels shall be located on the inner edge of the vegetation screen and existing stands of native vegetation. In the event that drainage channels are required to be located close to the site boundary, their redesign to form low-lying wetland/saltmarsh communities as part of the vegetation screen shall be undertaken and implemented to the satisfaction of the Environment Protection Authority.
22. A leachate monitoring bore shall be installed within each cell to assist with leachate management, particularly if leachate circulation is incorporated in the Landfill Environmental Management Plan (LEMP).
23. The proponent shall pay all reasonable costs of the detailed design and construction of any public roadworks made necessary by this development. Such works may include the opening and associated left turn deceleration lane from Port Wakefield Road, and the upgrading of the entrance to balefill junction to the satisfaction of the Commissioner of Highways.

24. The proponent shall seal (two coat spray seal) the internal site access road for a minimum of 520 m from the nearest residence.
25. The applicant shall prepare a Vegetation Management and Revegetation Plan (which may be included in the LEMP) to the reasonable satisfaction of the Development Assessment Commission and must implement that Plan once it has been approved by the Development Assessment Commission.

### **Low Level Contaminated Soil and Liquid Treatment Plant Residues**

26. Low level contaminated soil (LLCS) and liquid treatment plant residues (LTPR) are not required to be baled or shredded.
27. The work shall be carried in accordance with the following documents and plans:
  - EIS Amendment, Receipt of Low Level Contaminated Soil and Liquid Waste Treatment Plant Residues at the IWS Northern Balefill, dated July 2003.
  - Response Document on the EIS Amendment for the Receipt of Low Level Contaminated Soil and Liquid Waste Treatment Plant Residues (Revised), dated 30 April 2004.
  - Supplementary Information EIS Amendment Receipt of Low Level Contaminated Soil and Liquid Waste Treatment Plant Residues at the IWS Northern Balefill, dated 26 November 2004.
  - Landfill Environmental Management Plan, dated 2001 or as varied by any applicable requirements of a licence from the Environment Protection Authority.
  - Drawings
    - 3307DO1, 4/11/2004—cell 31 design plan.
    - 3307DO2, Drawn 25/8/2004 and checked 18/2/2005—Section A, liner and sump design.
    - 3307DO3, 10/8/2004—liner design sections and details.
    - 3307DO4, 14/10/2004—cell 31 interim capping design.
    - 3307DO5, 13/8/2004—landfill staging plan.
    - 3307DO6, 13/8/2004—final surface water control.
    - 3307DO8, Drawn 27/8/2004 and checked 26/11/2004—interim surface water control
    - 3307DO9 P1, Drawn 4/11/2004 and checked 26/11/2004—cell design plan line 2.
    - 3307DO10, Drawn 29/8/2004 and checked 26/11/2004—Sections D and E, swale drain design.
28. Distance to groundwater requirements shall be as follows:
  - Based on groundwater level monitoring results and interpolated highest groundwater levels for Cell 31, including a 0.1 metre buffer; the base of the sump shall be at 9.1 m AHD;
  - Notwithstanding the above requirement, a minimum separation distance of 2 m between the underside of the lowest portion of the lining system (including the sump area) and the underlying groundwater shall be maintained at all times.
29. Leachate collection and extraction system requirements shall be as follows:
  - Leachate removal shall implement a system which accommodates the installation of the pumps at the leachate riser access point.
  - Following cell completion and until the entire cell base is covered with a minimum of 1.5 metres of waste, a pump with a flow capacity of a minimum of 40 litres per second shall be installed.
  - After it can be demonstrated that leachate production has declined to less than one litre per second, this pump can be replaced by a pump of lesser flow capacity.
  - A back-up pump with the relevant capacity shall be readily available on site at all time.
30. Leachate treatment requirements shall be as follows:
  - Leachate may be managed and treated by means of:
    - Direct extraction into an on-site leachate evaporation pond which shall meet the minimum design specification as follows:
      - composite lining system comprising a one metre low permeability clay liner with  $k < 1 \times 10^{-9} \text{m/s}$  compacted to 95% Maximum Dry Density by standard compaction, and a moisture content between 0% and +4% wet of Optimum Moisture Content, overlaid by a 2mm high density polyethylene (HDPE) liner (welded).
      - minimum of 600 mm freeboard.
      - modelling with HELP or LANDSIM shall consider a one in 25, 24 hour duration storm event.
      - a minimum separation distance of two metres between the underside of the lowest portion of the lining system and the underlying groundwater shall be maintained at all times.
    - Direct extraction into an onsite tank vehicle suitable for the transport of leachate into an onsite leachate evaporation pond.



- Direct extraction into a licensed vehicle and transported to an off-site Environment Protection Authority licensed Waste Water Treatment Plant.
  - Direct extraction into a suitably designed, temporary on-site storage tank prior to off-site disposal by an Environment Protection Authority licensed vehicle at an Environment Protection Authority licensed Waste Water Treatment Plant or prior to on-site transport to an onsite leachate evaporation pond.
31. Leachate management requirements shall be as follows:
- The head of leachate on the liner shall not exceed 300 mm (excluding the sump) at all times. To facilitate this, the trigger level for leachate extraction out of the leachate sump shall be set at 290 mm.
  - In addition to automatic leachate data readings, a manual monitoring probe shall be installed and calibrated to allow for direct readings of the vertical elevation of leachate in the riser pipe and conversion to the maximum leachate head on top of the liner.
  - Leachate levels shall be read manually daily and recorded in the onsite operations logbook or as specified otherwise in the Environment Protection Authority licence.
32. Distance between LLCS/LTPR cells and Balefill cells (reference drawing 3307D03, 18/8/2004) shall be as follows:
- The distance between LLCS/LTPR cells and Balefill cells shall be at a minimum of 5 metres, measured between the toe of the LLCS cell structure (that is where the outer surface of the cap of the completed LLCS/LTPR cell joins the outer surface of the underlying clay liner for the same cell) and the cap of the nearest balefill cell (that is where the outer surface of the cap of a completed balefill cell joins the outer surface of the underlying clay liner).
33. Level 1 Supervision requirements shall be as follows:
- The construction of the clay liner of the cell shall be carried out under Level 1 Supervision in accordance with AS 3798-1996, Appendix B.
  - The construction of the HDPE liner shall be carried out under the full time supervision of a suitably qualified geotechnical consultant with experience in the construction and supervision of the construction of HDPE lining systems, quality control procedures and testing.
34. 'As Constructed Report' requirements shall be as follows:
- An 'As Constructed Report' certifying compliance with the approved design for the lining system, including a Construction Quality Assurance Report (CQA) for the HDPE liner and the Level 1 Supervision Report, shall be submitted to the Environment Protection Authority for acceptance prior to the commencement of the receipt and disposal of waste in each cell. No waste shall be received and disposed of prior to written acceptance of the 'As Constructed Report' by the Environment Protection Authority.
35. Coverage of waste requirements shall be as follows:
- All waste shall be covered as soon as reasonable practicable after the receipt of waste and placement in the cell or at close of business on each business day with at least 150 mm of cover material (waste fill or intermediate landfill cover with the restriction to a maximum particle size of 100 mm).
    - If a load of particularly odorous material is received at the LLCS/LTPR cell, it shall be covered immediately with a minimum of 150 mm cover material.
  - During periods when the LLCS/LTPR cell is not operating, routine monitoring for odorous gases shall be carried out as part of the site monitoring program and may trigger the application of additional cover material.
  - Alternative cover materials may be used after the proponent:
    - has demonstrated to the Environment Protection Authority that the proposed material and placement method result in an equivalent or better performance compared to the approved material; and
    - has received written approval from the EPA prior to the use of alternative materials and placement methods.
36. Groundwater management requirements shall be as follows:
- An additional groundwater well shall be installed west of cell 30 and the first round of groundwater sampling and testing shall be completed at least two weeks prior to commencement of construction of cell 31
  - Groundwater level monitoring shall commence at least two weeks before commencement of construction of cell 31; groundwater levels shall be taken weekly and reported to the Environment Protection Authority monthly (datasheet and graph) or as specified otherwise in the EPA authorisation.
  - Four monitoring rounds at three monthly intervals in the first 12 months of operation shall be carried out to establish additional background analyte levels around cell 31
  - Six monthly monitoring rounds shall be undertaken following the completion of the initial 12 months of groundwater monitoring or as specified otherwise in the Environment Protection Authority licence
  - Prior to the commencement of construction of any other cell for the receipt of LLCS/LTPR, the groundwater management and monitoring program shall be reviewed and submitted for Environment Protection Authority approval.

37. Surface Water Management requirements shall be as follows:
- A stormwater management plan shall be developed and submitted for Environment Protection Authority's approval addressing all issues related to the staged construction of LLCS/LTPR cells on site prior to commencement of construction of cell 31.
  - The stormwater management plan shall provide surface water control and management measures for:
    - surface water or stormwater runoff that does not interact with the waste material or other operational areas of the site and is considered to be uncontaminated.
    - surface water that comes into contact with waste materials or is collected from landfill areas or other operational areas and is considered to be contaminated.
    - surface runoff from the final landfill cap which has to be controlled.
    - diversion of surface water runoff from perimeter areas away from the operating cell.
38. Landfill Environmental Management Plan (LEMP) requirements shall be as follows:
- The new section of the LEMP ('Section 17') shall be completed and incorporated in the revised LEMP document.
  - The complete revised LEMP document shall be finalised and submitted to the Environment Protection Authority for approval prior to the receipt and disposal of LLCS/LTPR on the premises.
39. A wheel wash with water sprays shall be installed ensure removal of residues from the wheels and underside of the vehicles transporting low level contaminated soil and liquid treatment plant residues to the site.

#### **Bioremediation Pad – Cell B (Eastern Extension)**

40. The applicant must provide an 'as constructed' report to the reasonable satisfaction of the Environment Protection Authority (EPA) confirming compliance with the design and construction specifications prior to the commencement of any receipt, storage, and treatment of waste at the expanded bioremediation pad.
41. Reuse of treated organic waste derived from mixed waste (including municipal solid waste or commercial and industrial waste) must not be permitted outside of the lined landfill cells.

#### **Stage 2 Processing Shed**

42. A landscape screen with a suitable mix of native species shall be re-established to the immediate north of the Stage 2 processing shed within six months of the operational use of the facility.

#### **CONDITIONS OF BUILDING CERTIFICATION:**

To be determined.

#### **ADVISORY NOTES:**

- The proponent shall obtain Building certification for any building work to be undertaken from either the Adelaide Plains Council or an accredited professional (at the proponent's option) and forward to the Minister for Planning and Local Government all relevant certification documents for final approval.
- The Adelaide Plains Council or accredited professional undertaking the Building certification must ensure that the assessment is consistent with this development authorisation (including its Conditions and Notes).

#### *Environmental Management Plan for the Multiple Waste Treatment Facility (MWTF)*

- An Environmental Management Plan (EMP) covering the operation requirements for the MTWF shall be prepared in consultation with the Environment Protection Authority, and include the following requirements:
  - an air quality monitoring programme to ensure air emissions from the MWTF do not contain contaminants at levels that may be harmful to nearby residents and land uses.
  - protocols for testing/trialling the suitability and effectiveness of treatment methods for batches of contaminated materials that could potentially be treated at the MWTF, prior to the receipt of such material.
  - contingencies for dealing with contaminated materials that cannot meet disposal criteria after treatment.
  - a detailed risk assessment protocol for all contaminated waste types to be treated.
  - a Fire Risk Management Plan.
  - a Hazardous Substances Management Plan.
  - an Occupational Health, Safety and Welfare Plan prepared in consultation with the Department of Health.
  - a financial assurance strategy.

The EMP shall be amended if new treatment options that have been approved by the Environment Protection Authority, are adopted in the future.

- The current Landfill Environmental Management Plan (LEMP) shall be amended, to the reasonable satisfaction of the Environment Protection Authority, to address the management of soil erosion and stormwater and the upgrading of existing screens and/or mounds or the establishment of new vegetated screens and/or mounds associated with the MWTF.
- The amendment of the LEMP and the upgrading of the site infrastructure, including but not limited to vegetated screens and/or mounds, shall be undertaken prior to commencement of the MWTF operations.

#### *EPA Licensing and General Environmental Duty of Care*

- The applicant is reminded of its general environmental duty, as required by Section 25 of the Environment Protection Act 1993, to take all reasonable and practical measures to ensure that the activities on the whole site, including during both construction and operation, do not pollute the environment in a way which causes or may cause environmental harm.
- Environmental authorisation in the form of an amended licence will be required for the construction and/or operation of this development. The applicant is advised to contact the Environment Protection Authority before acting on this approval to ascertain licensing requirements.
- It is likely that as a condition of such a licence the Environment Protection Authority will require the licensee to carry out specified environmental monitoring of air and water quality and to make reports of the results of such monitoring to it.

#### *General Landfill Operations*

- To provide additional screening and wildlife habitat the following options could be investigated by the proponent, council, community and local landowners:
  - revegetation of the road reserve along Prime Beach Road, in conjunction with the Adelaide Plains Council and the community;
  - revegetation of the road reserve along Port Wakefield Road, in conjunction with the Department of Infrastructure and Transport to further reduce views from the eastern direction;
  - plantings on private property along fence lines adjoining the site, in conjunction with landowners and the community.
- All sedimentation basins, evaporation ponds, and surface water drainage channels should be suitably located, designed and managed to ensure native vegetation (especially low-lying saltmarsh communities) is not adversely affected by construction activities or groundwater mounding and, if possible, the ecological value enhanced.
- A comprehensive Pest Plant and Animal Management Plan must be implemented prior to landfill operations commencing, to ensure the site is free of as many pest species as possible from the onset and adequate monitoring and follow-up control should occur, as discussed in the Assessment Report.
- Whilst not totally within the control of the proponent, monitoring and control programs to reduce the risk of disease transmission between activities in the area may ideally be prepared by adopting a district approach, in co-ordination with the Adelaide Plains Animal and Plant Control Board, Department of Primary Industries and Resources and landowners.
- To minimise and control any onsite soil erosion (particularly of stockpiled material), a Soil Erosion and Drainage Management Plan (SEDMP) as described in the Environment Protection Agency's 'Stormwater Pollution Prevention Codes of Practice', must be prepared and approved as part of the LEMP, before the site becomes operational.
- As part of the LEMP, a Surface Water Management Plan must be prepared by the proponent to the satisfaction of the EPA prior to receipt of any waste. The plan should address the collection and management of all onsite surface water (including any contaminated runoff originating from roadways, carparks and hardstands, the vehicle workshop or wheel washing facility) and management of all surface water flows entering the site from land external to the site, in particular to ensure their final discharge does not impact adversely on any downstream wetlands.

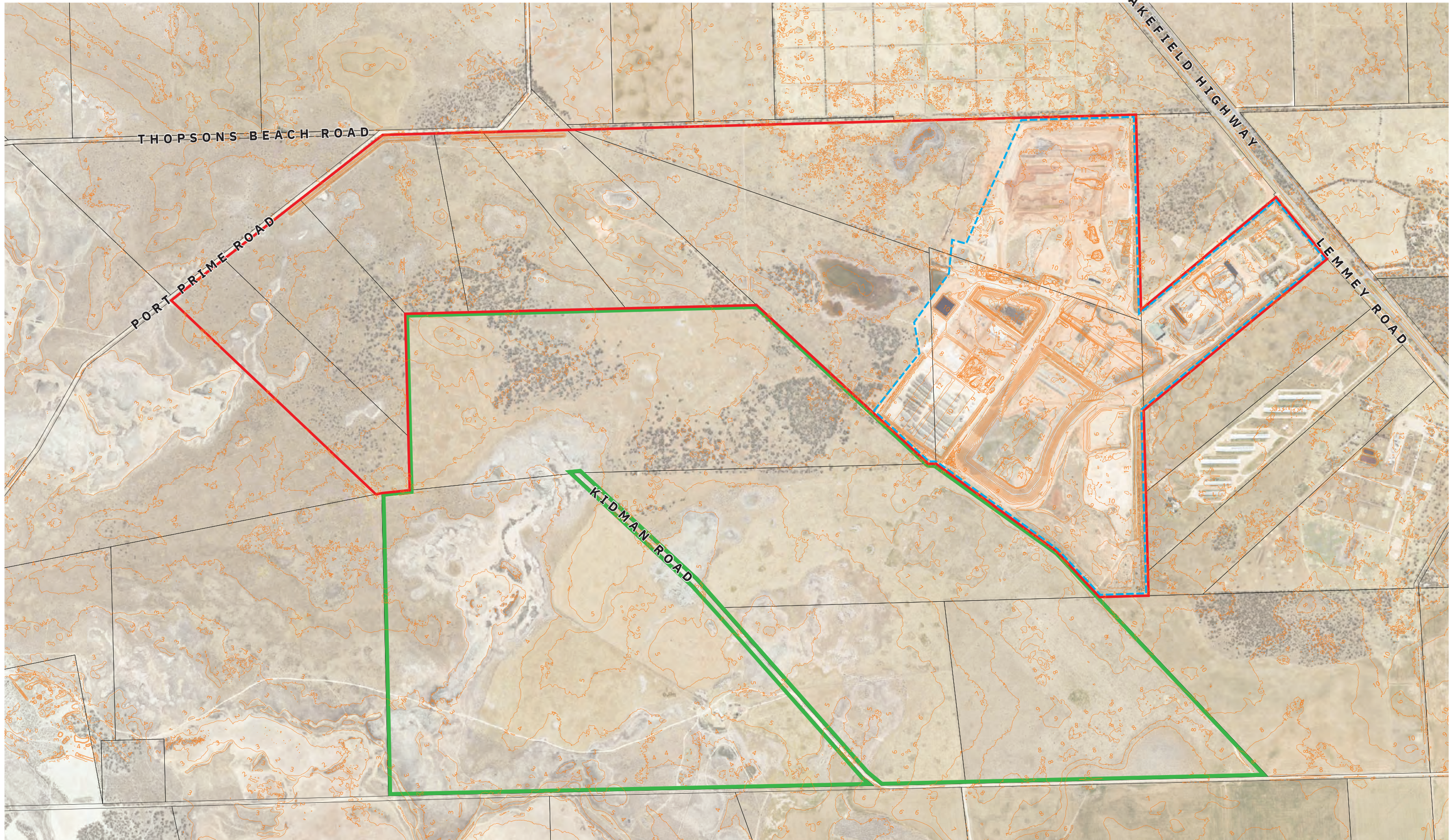
- A monitoring program must be established to record levels of coastal flooding in the western section of the site and, if results indicate a significant risk, a review process be undertaken (ideally through any relevant local community consultative committee) to determine whether to proceed with Stage 9.
- If blasting is required to remove any of the Ripon Calcrete, explosion vibration characteristics and monitoring requirements must be determined in consultation with the Environment Protection Authority and Adelaide Plains Council, prior to commencement.
- The Environment Protection Agency must be provided with all additional data concerning the site geology as it becomes available, as this could necessitate minor changes to landfill design or method of operation and the installation of additional groundwater monitoring bores.
- To enable detailed design of the proposed groundwater protection system, to determine the minimum depth at which the landfill cells should be based and to enable detailed design of the surface water management system; further investigation of groundwater levels and behaviour on the site must be undertaken prior to finalisation of the detailed design of the landfill and preparation of management plans.
- As part of the LEMP, a detailed Groundwater and Leachate Management Plan must be prepared by the proponent to the satisfaction of the Environment Protection Authority, prior to receipt of any waste. The Plan must demonstrate how the method of hydraulic containment proposed can be practically achieved. Further hydrogeological investigations must be carried out prior to the commencement of any landfill construction in order to fully define the dewatering and groundwater disposal requirements and to provide details of how the cells can be dewatered and constructed for full hydraulic containment of leachate. In particular, monitoring of watertable levels must commence immediately after the granting of the development authorisation in order that the magnitude of seasonal fluctuations can be fully established prior to construction of the landfill. The Plan may provide for staging of leachate and groundwater management works which may be required as a result of the staging of waste disposal activities upon the site, and should include contingency measures to be implemented in the event of any failure of the leachate management system.
- A more sustainable after-use for the site that will encourage the regeneration and rehabilitation of natural communities must be considered during future post closure planning.
- If appropriate with the desired end use to be determined in more detail at a later stage, the entire landform may be planted with appropriate types of native vegetation cover.
- Determination of interim and post closure land uses of the site, proposed to be undertaken in association with any relevant local community consultative committee, must be undertaken as required by the Environment Protection Authority as part of the LEMP.

#### CONTACT DETAILS OF CONSENT AUTHORITIES:

Name: Minister for Planning and Local Government	Type of consent: Development authorisation
Postal Address: c/- AGD-PLUS, GPO 1815, ADELAIDE SA 5001	
Telephone: 08 7109 7060	Email: <a href="mailto:spcapplications@sa.gov.au">spcapplications@sa.gov.au</a>

# **APPENDIX B**

## **Site Plan**



- Subject Site - Major Development Declaration
- IWS Additional Land Ownership
- Extent of Site Development

**Site Plan - Current**  
 Variation to existing major development approval

IWS Northern Facility  
 Lemmey Road, Lower Light

for IWS Group



1:15000 @ A3  
 Council Assessment Panel  
 0 300

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# **APPENDIX C**

## **CT Register Searches – Subject Site**

REAL PROPERTY ACT, 1886



South Australia

The Registrar-General certifies that this Title Register Search displays the records maintained in the Register Book and other notations at the time of searching.



## Certificate of Title - Volume 5312 Folio 333

Parent Title(s) CT 4361/766  
Creating Dealing(s) CONVERTED TITLE  
Title Issued 06/12/1995 Edition 8 Edition Issued 16/02/2022

### Estate Type

FEE SIMPLE

### Registered Proprietor

PELICAN LAND CO. PTY. LTD. (ACN: 651 534 682)  
OF 99 LEMMEY ROAD LOWER LIGHT SA 5501

### Description of Land

ALLOTMENT 76 DEPOSITED PLAN 26412  
IN THE AREA NAMED LOWER LIGHT  
HUNDRED OF DUBLIN

### Easements

NIL

### Schedule of Dealings

Dealing Number	Description
13704463	MORTGAGE TO MCH AGENCY SERVICES PTY. LTD. (ACN: 636 392 928)

### Notations

Dealings Affecting Title NIL

Priority Notices NIL

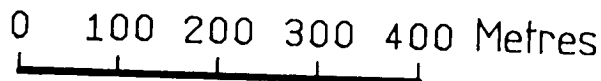
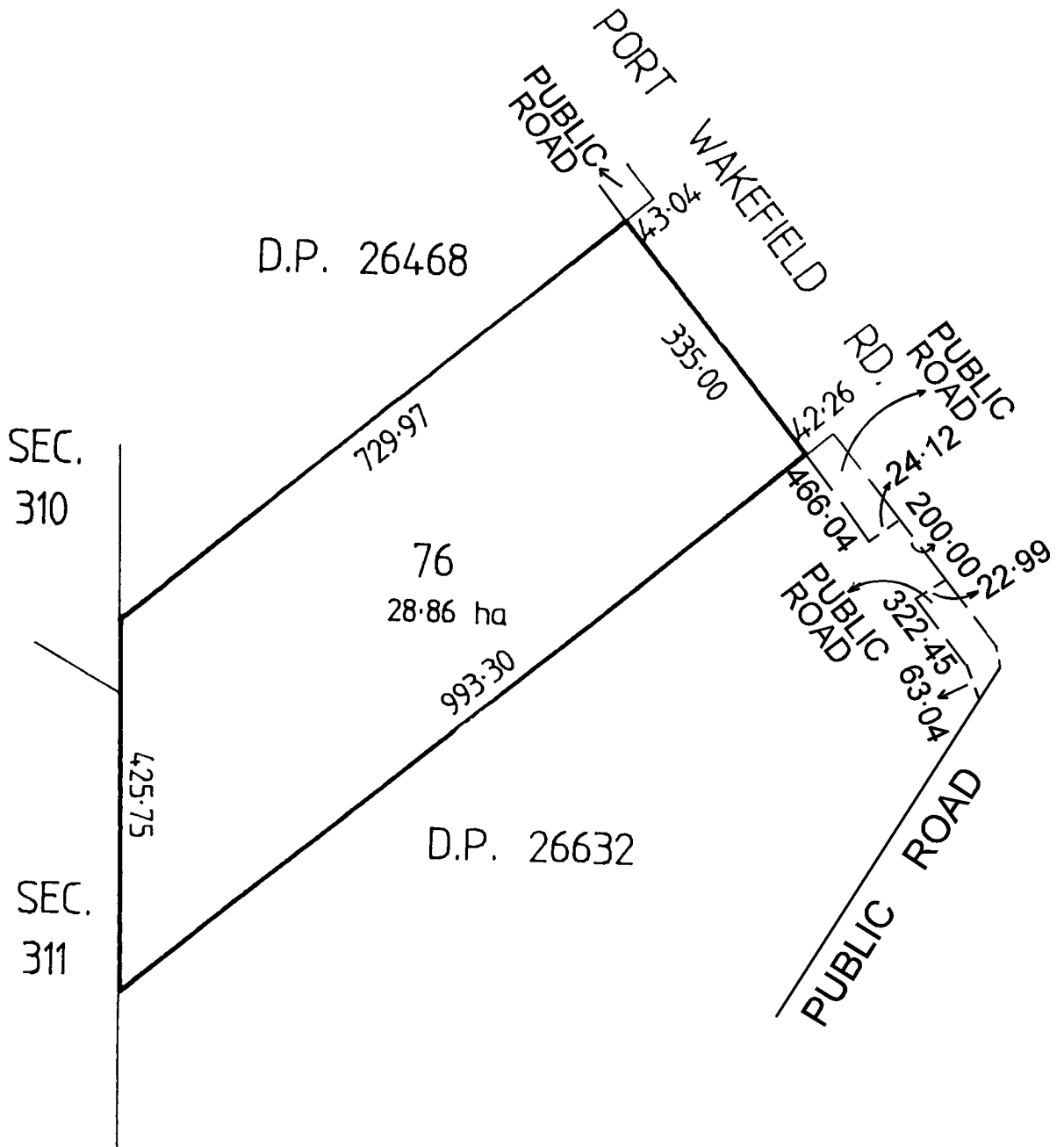
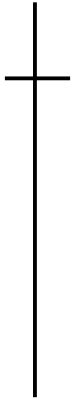
Notations on Plan NIL

### Registrar-General's Notes

AMENDMENT TO DIAGRAM VIDE 444/2001

Administrative Interests NIL





REAL PROPERTY ACT, 1886



The Registrar-General certifies that this Title Register Search displays the records maintained in the Register Book and other notations at the time of searching.



## Certificate of Title - Volume 5348 Folio 343

Parent Title(s) CT 3465/55  
Creating Dealing(s) CONVERTED TITLE  
Title Issued 25/06/1996 Edition 7 Edition Issued 16/02/2022

### Estate Type

FEE SIMPLE

### Registered Proprietor

PELICAN LAND CO. PTY. LTD. (ACN: 651 534 682)  
OF 99 LEMMEY ROAD LOWER LIGHT SA 5501

### Description of Land

SECTION 312  
HUNDRED OF DUBLIN  
IN THE AREA NAMED LOWER LIGHT

### Easements

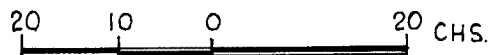
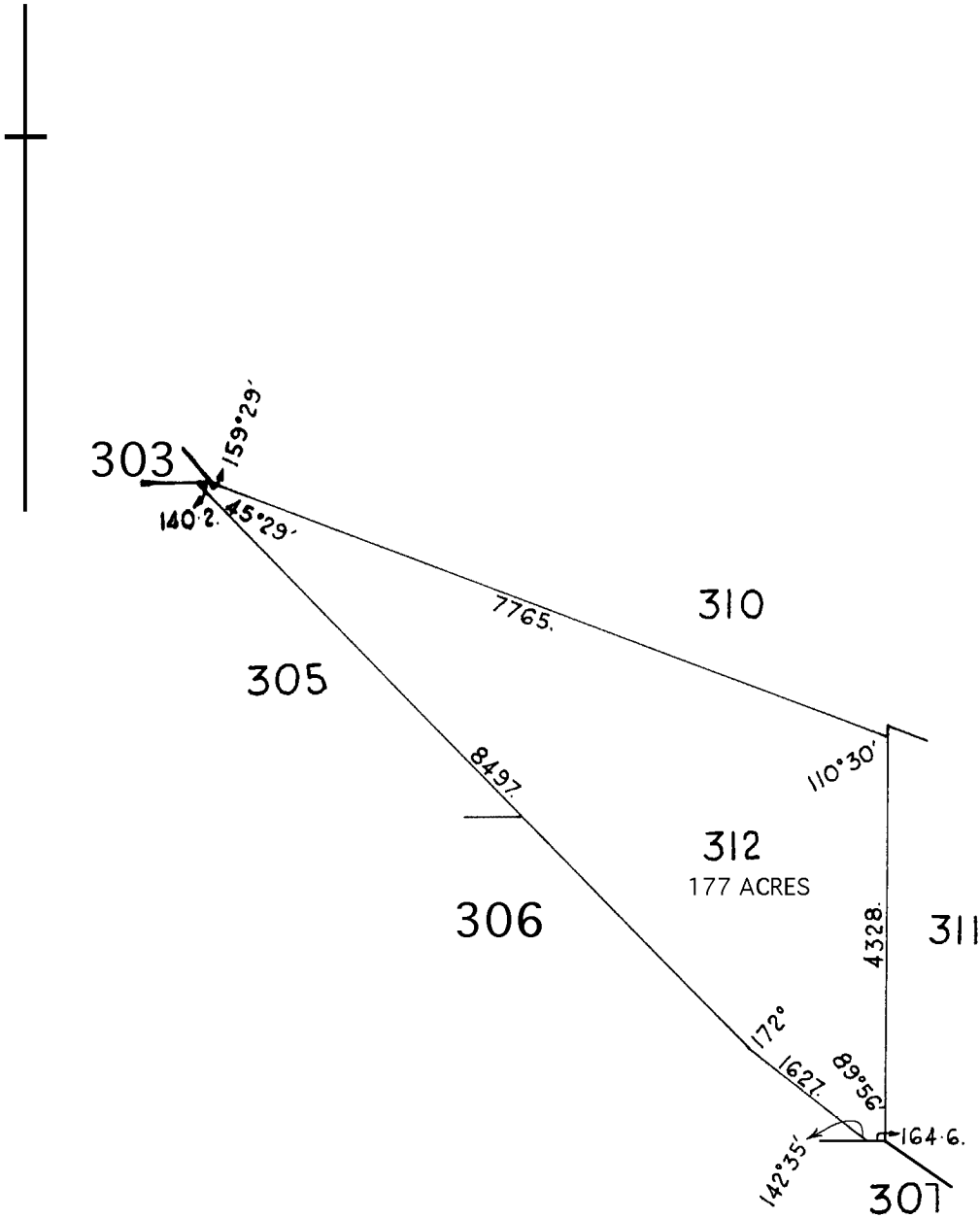
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### Schedule of Dealings

Dealing Number	Description
13704463	MORTGAGE TO MCH AGENCY SERVICES PTY. LTD. (ACN: 636 392 928)

### Notations

Dealings Affecting Title	NIL
Priority Notices	NIL
Notations on Plan	NIL
Registrar-General's Notes	NIL
Administrative Interests	NIL



FOR METRIC CONVERSION	
1 LINK	= 0.201168 metres
1 CHAIN	= 100 LINKS
1 ACRE	= 0.404686 hectares
1 ROOD	= 1011.7 m <sup>2</sup>
1 PERCH	= 25.29 m <sup>2</sup>

REAL PROPERTY ACT, 1886



The Registrar-General certifies that this Title Register Search displays the records maintained in the Register Book and other notations at the time of searching.



## Certificate of Title - Volume 5348 Folio 390

Parent Title(s) CT 3465/50  
Creating Dealing(s) CONVERTED TITLE  
Title Issued 25/06/1996 Edition 7 Edition Issued 16/02/2022

### Estate Type

FEE SIMPLE

### Registered Proprietor

PELICAN LAND CO. PTY. LTD. (ACN: 651 534 682)  
OF 99 LEMMEY ROAD LOWER LIGHT SA 5501

### Description of Land

SECTION 310  
HUNDRED OF DUBLIN  
IN THE AREA NAMED LOWER LIGHT

### Easements

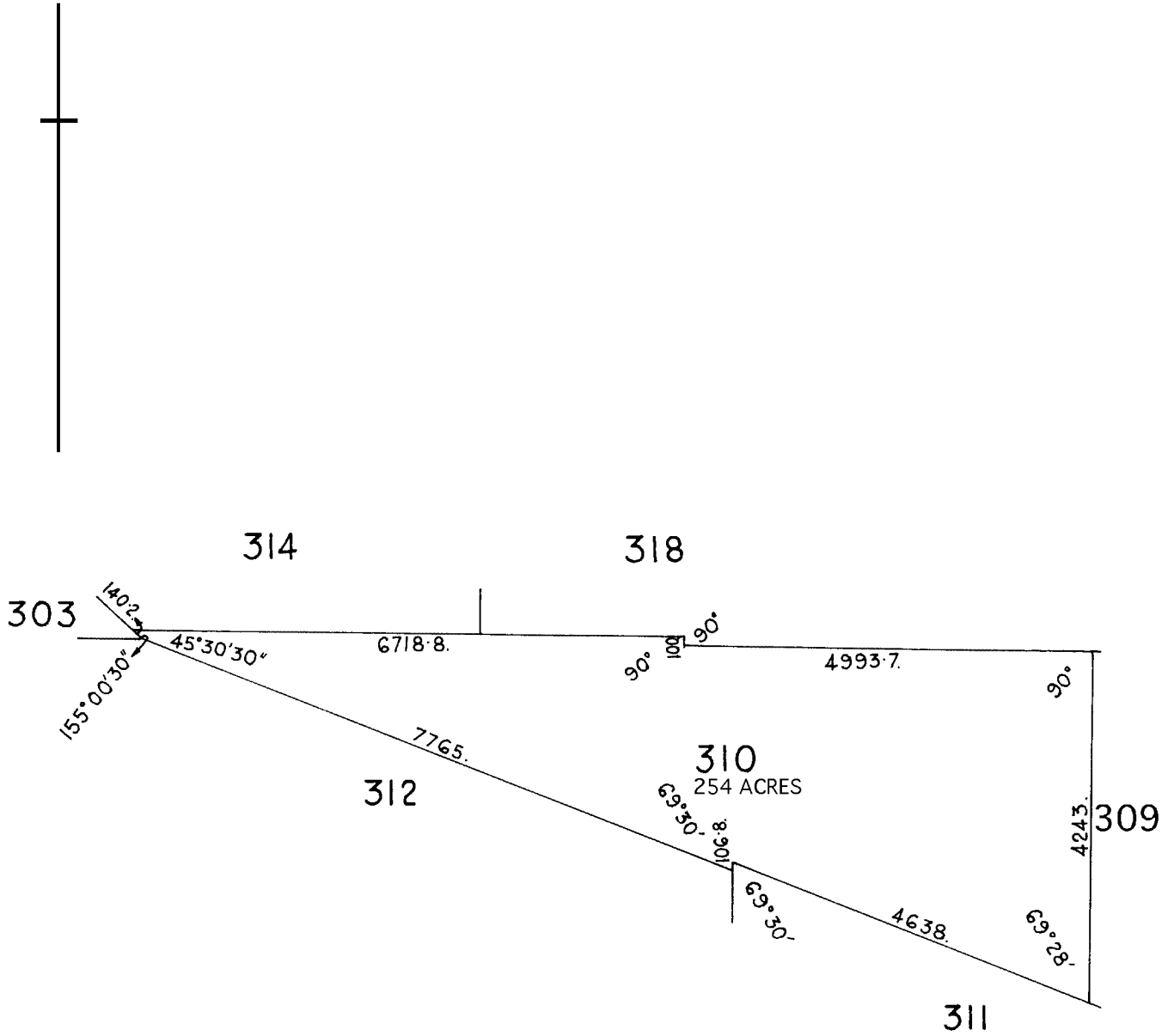
NIL

### Schedule of Dealings

Dealing Number	Description
13704463	MORTGAGE TO MCH AGENCY SERVICES PTY. LTD. (ACN: 636 392 928)

### Notations

Dealings Affecting Title	NIL
Priority Notices	NIL
Notations on Plan	NIL
Registrar-General's Notes	NIL
Administrative Interests	NIL



FOR METRIC CONVERSION	
1 LINK	= 0.201168 metres
1 CHAIN	= 100 LINKS
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1 PERCH	= 25.29 m <sup>2</sup>

REAL PROPERTY ACT, 1886



The Registrar-General certifies that this Title Register Search displays the records maintained in the Register Book and other notations at the time of searching.



## Certificate of Title - Volume 5348 Folio 391

Parent Title(s) CT 4056/707  
Creating Dealing(s) CONVERTED TITLE  
Title Issued 25/06/1996 Edition 7 Edition Issued 16/02/2022

### Estate Type

FEE SIMPLE

### Registered Proprietor

PELICAN LAND CO. PTY. LTD. (ACN: 651 534 682)  
OF 99 LEMMEY ROAD LOWER LIGHT SA 5501

### Description of Land

ALLOTMENT 95 FILED PLAN 173119  
IN THE AREA NAMED LOWER LIGHT  
HUNDRED OF DUBLIN

### Easements

NIL

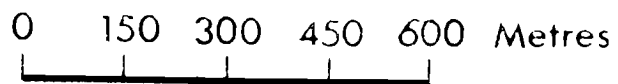
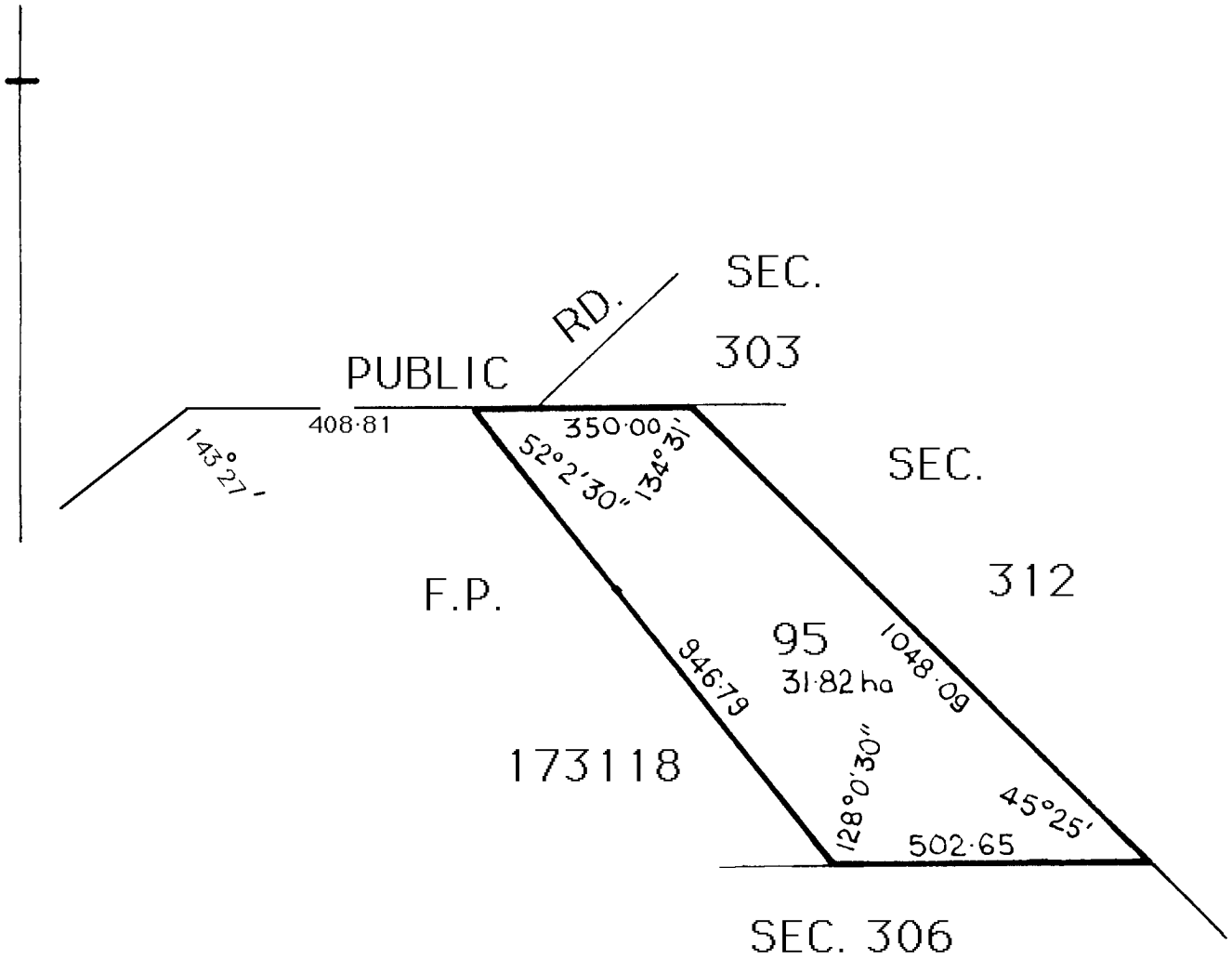
### Schedule of Dealings

Dealing Number	Description
13704463	MORTGAGE TO MCH AGENCY SERVICES PTY. LTD. (ACN: 636 392 928)

### Notations

Dealings Affecting Title	NIL
Priority Notices	NIL
Notations on Plan	NIL
Registrar-General's Notes	NIL
Administrative Interests	NIL

THIS PLAN IS SCANNED FOR CERTIFICATE OF TITLE 4056/707



**NOTE: SUBJECT TO ALL LAWFULLY EXISTING PLANS OF DIVISION**

REAL PROPERTY ACT, 1886



The Registrar-General certifies that this Title Register Search displays the records maintained in the Register Book and other notations at the time of searching.



## Certificate of Title - Volume 5348 Folio 392

Parent Title(s) CT 4056/705  
Creating Dealing(s) CONVERTED TITLE  
Title Issued 25/06/1996 Edition 7 Edition Issued 16/02/2022

### Estate Type

FEE SIMPLE

### Registered Proprietor

PELICAN LAND CO. PTY. LTD. (ACN: 651 534 682)  
OF 99 LEMMEY ROAD LOWER LIGHT SA 5501

### Description of Land

ALLOTMENT 93 FILED PLAN 173117  
IN THE AREA NAMED LOWER LIGHT  
HUNDRED OF DUBLIN

### Easements

NIL

### Schedule of Dealings

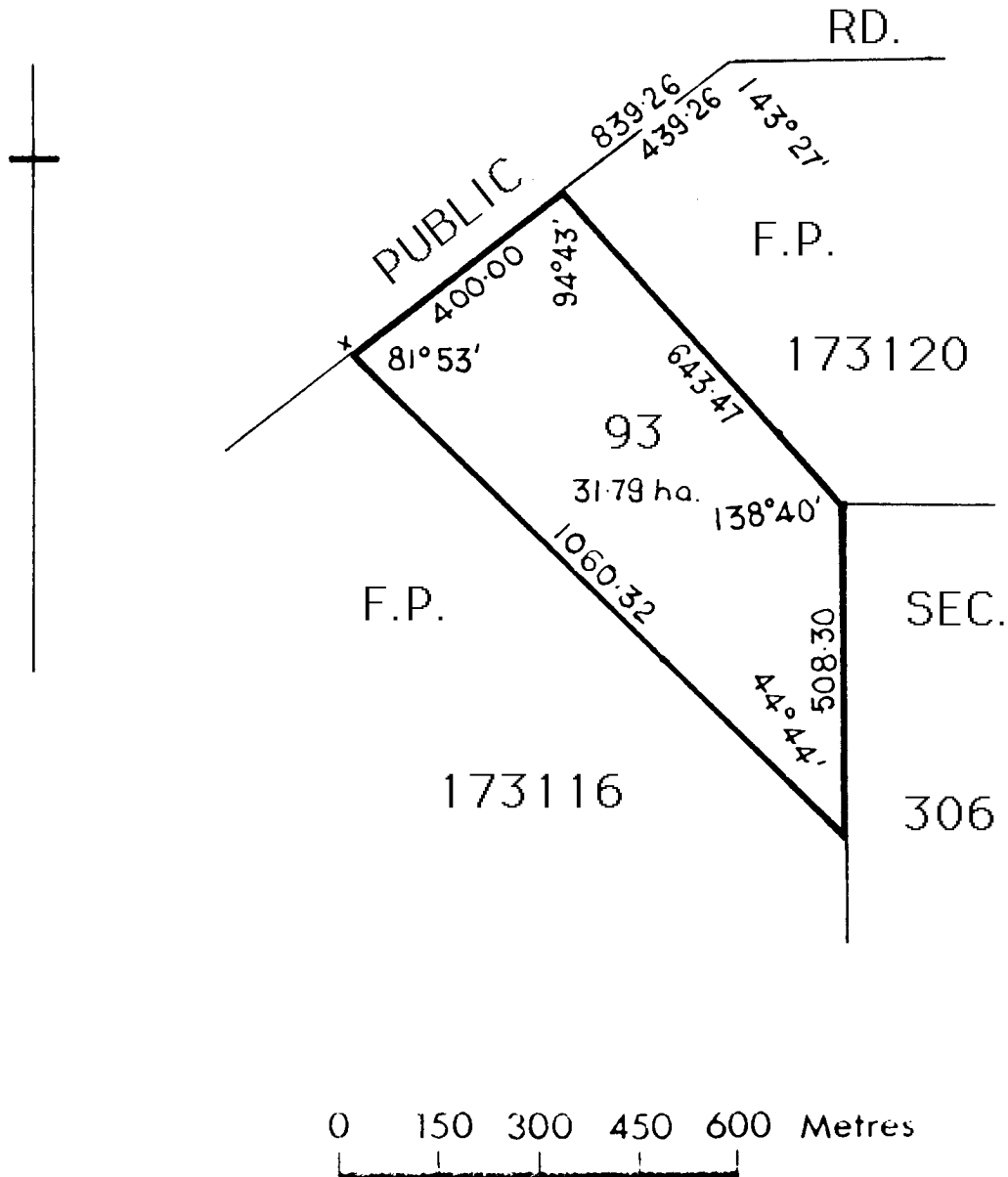
Dealing Number	Description
13704463	MORTGAGE TO MCH AGENCY SERVICES PTY. LTD. (ACN: 636 392 928)

### Notations

Dealings Affecting Title	NIL
Priority Notices	NIL
Notations on Plan	NIL
Registrar-General's Notes	NIL
Administrative Interests	NIL



THIS PLAN IS SCANNED FOR CERTIFICATE OF TITLE 4056/705



**NOTE: SUBJECT TO ALL LAWFULLY EXISTING PLANS OF DIVISION**

REAL PROPERTY ACT, 1886



The Registrar-General certifies that this Title Register Search displays the records maintained in the Register Book and other notations at the time of searching.



## Certificate of Title - Volume 5348 Folio 393

Parent Title(s) CT 4056/704  
Creating Dealing(s) CONVERTED TITLE  
Title Issued 25/06/1996 Edition 7 Edition Issued 16/02/2022

### Estate Type

FEE SIMPLE

### Registered Proprietor

PELICAN LAND CO. PTY. LTD. (ACN: 651 534 682)  
OF 99 LEMMEY ROAD LOWER LIGHT SA 5501

### Description of Land

ALLOTMENT 92 FILED PLAN 173116  
IN THE AREA NAMED LOWER LIGHT  
HUNDRED OF DUBLIN

### Easements

NIL

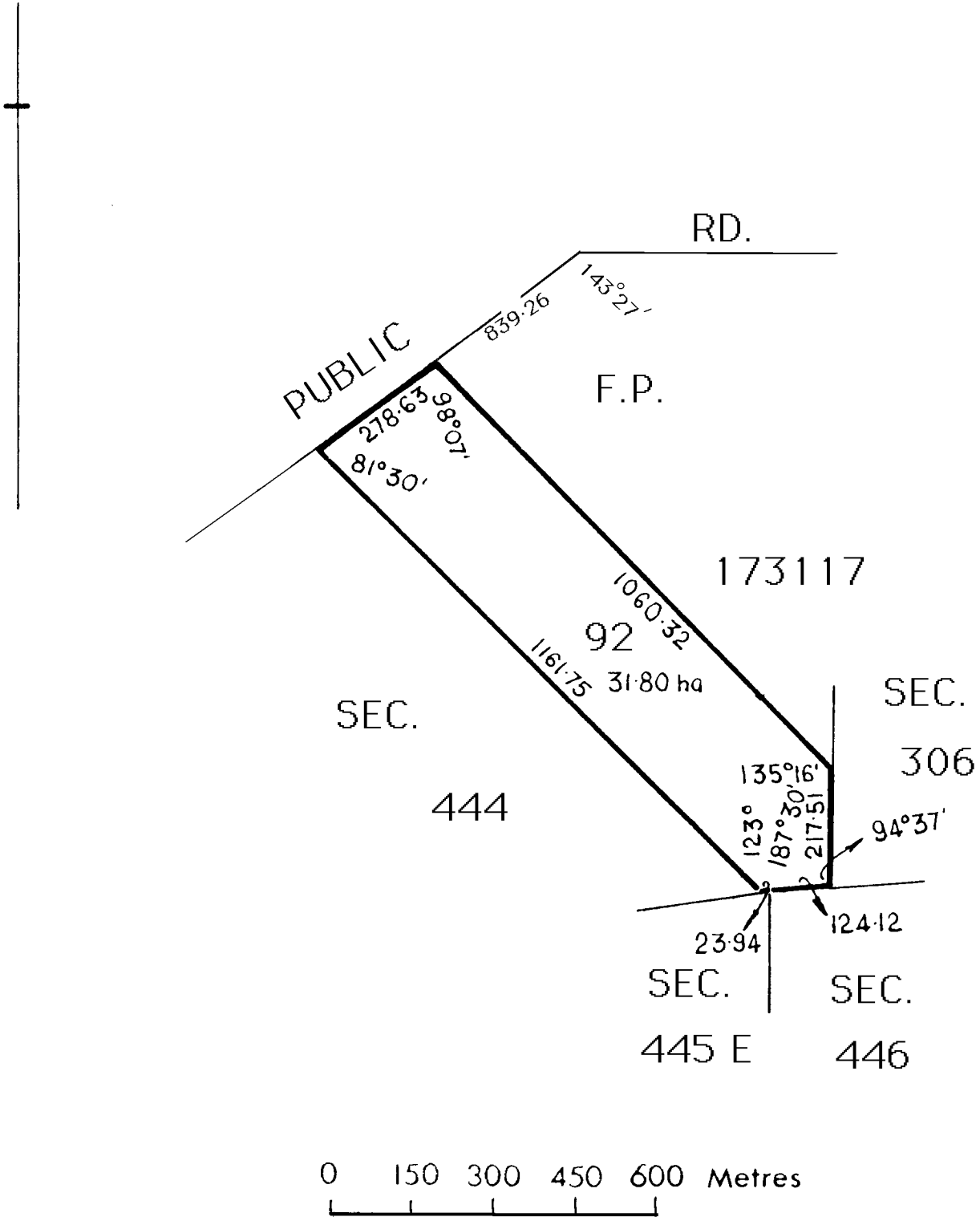
### Schedule of Dealings

Dealing Number	Description
13704463	MORTGAGE TO MCH AGENCY SERVICES PTY. LTD. (ACN: 636 392 928)

### Notations

Dealings Affecting Title	NIL
Priority Notices	NIL
Notations on Plan	NIL
Registrar-General's Notes	NIL
Administrative Interests	NIL

THIS PLAN IS SCANNED FOR CERTIFICATE OF TITLE 4056/704



**NOTE: SUBJECT TO ALL LAWFULLY EXISTING PLANS OF DIVISION**

REAL PROPERTY ACT, 1886



The Registrar-General certifies that this Title Register Search displays the records maintained in the Register Book and other notations at the time of searching.



## Certificate of Title - Volume 5348 Folio 394

Parent Title(s) CT 4056/708  
Creating Dealing(s) CONVERTED TITLE  
Title Issued 25/06/1996 Edition 7 Edition Issued 16/02/2022

### Estate Type

FEE SIMPLE

### Registered Proprietor

PELICAN LAND CO. PTY. LTD. (ACN: 651 534 682)  
OF 99 LEMMEY ROAD LOWER LIGHT SA 5501

### Description of Land

ALLOTMENT 96 FILED PLAN 173120  
IN THE AREA NAMED LOWER LIGHT  
HUNDRED OF DUBLIN

### Easements

NIL

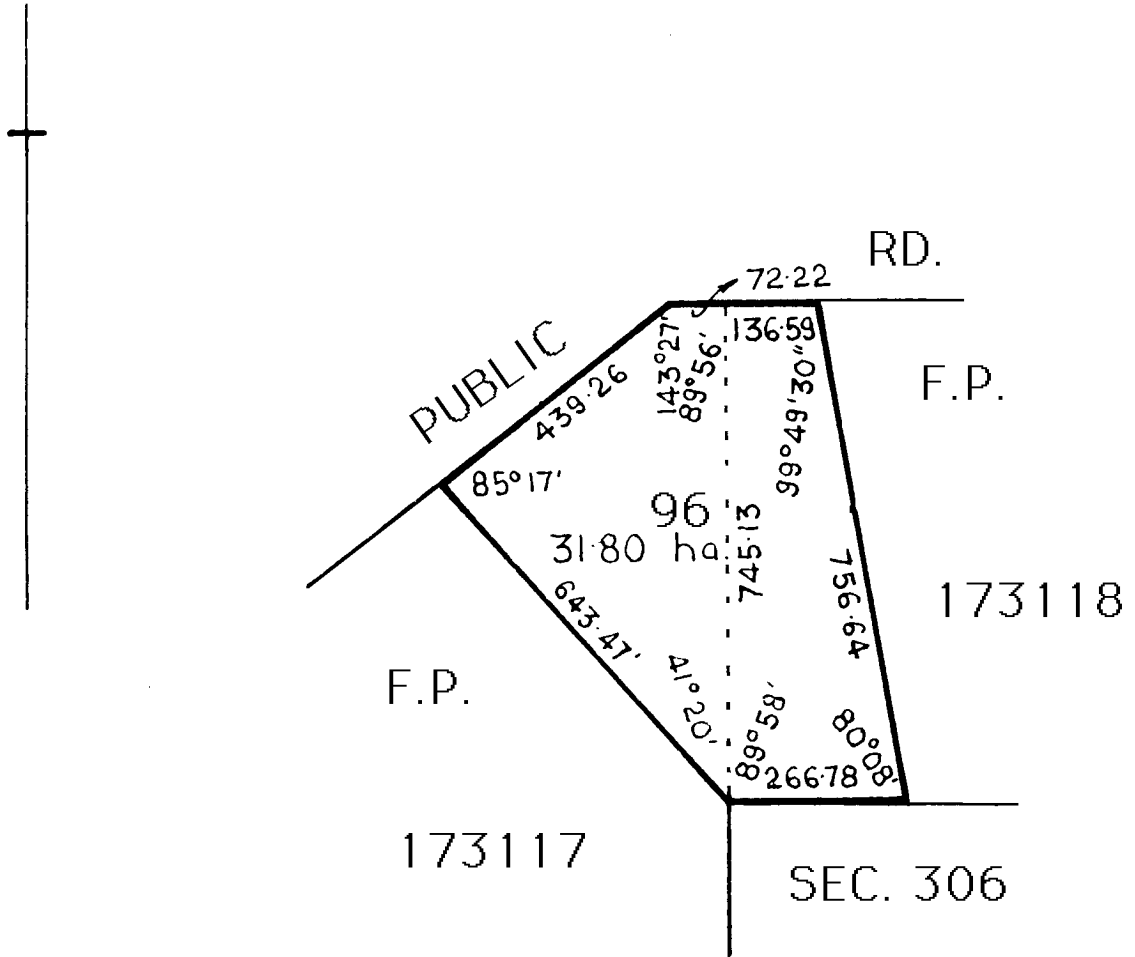
### Schedule of Dealings

Dealing Number	Description
13704463	MORTGAGE TO MCH AGENCY SERVICES PTY. LTD. (ACN: 636 392 928)

### Notations

Dealings Affecting Title	NIL
Priority Notices	NIL
Notations on Plan	NIL
Registrar-General's Notes	NIL
Administrative Interests	NIL

THIS PLAN IS SCANNED FOR CERTIFICATE OF TITLE 4056/708



**NOTE: SUBJECT TO ALL LAWFULLY EXISTING PLANS OF DIVISION**

REAL PROPERTY ACT, 1886



The Registrar-General certifies that this Title Register Search displays the records maintained in the Register Book and other notations at the time of searching.



## Certificate of Title - Volume 5348 Folio 395

Parent Title(s) CT 4056/706  
Creating Dealing(s) CONVERTED TITLE  
Title Issued 25/06/1996 Edition 7 Edition Issued 16/02/2022

### Estate Type

FEE SIMPLE

### Registered Proprietor

PELICAN LAND CO. PTY. LTD. (ACN: 651 534 682)  
OF 99 LEMMEY ROAD LOWER LIGHT SA 5501

### Description of Land

ALLOTMENT 94 FILED PLAN 173118  
IN THE AREA NAMED LOWER LIGHT  
HUNDRED OF DUBLIN

### Easements

NIL

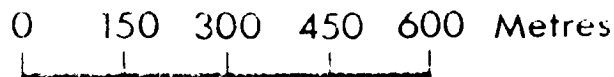
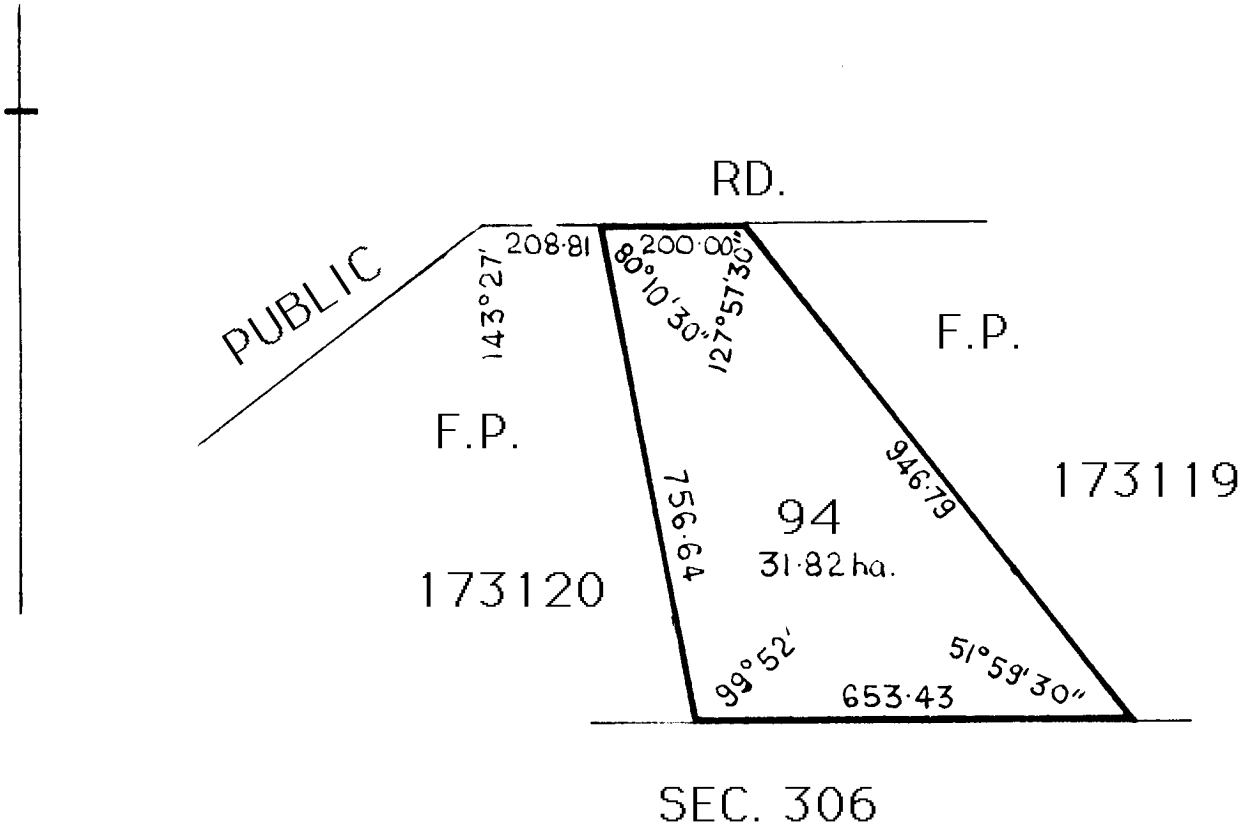
### Schedule of Dealings

Dealing Number	Description
13704463	MORTGAGE TO MCH AGENCY SERVICES PTY. LTD. (ACN: 636 392 928)

### Notations

Dealings Affecting Title	NIL
Priority Notices	NIL
Notations on Plan	NIL
Registrar-General's Notes	NIL
Administrative Interests	NIL

THIS PLAN IS SCANNED FOR CERTIFICATE OF TITLE 4056/706



**NOTE: SUBJECT TO ALL LAWFULLY EXISTING PLANS OF DIVISION**

REAL PROPERTY ACT, 1886



The Registrar-General certifies that this Title Register Search displays the records maintained in the Register Book and other notations at the time of searching.



## Certificate of Title - Volume 5348 Folio 396

Parent Title(s) CT 3469/82  
Creating Dealing(s) CONVERTED TITLE  
Title Issued 25/06/1996 Edition 7 Edition Issued 16/02/2022

### Estate Type

FEE SIMPLE

### Registered Proprietor

PELICAN LAND CO. PTY. LTD. (ACN: 651 534 682)  
OF 99 LEMMEY ROAD LOWER LIGHT SA 5501

### Description of Land

SECTION 311  
HUNDRED OF DUBLIN  
IN THE AREA NAMED LOWER LIGHT

### Easements

NIL

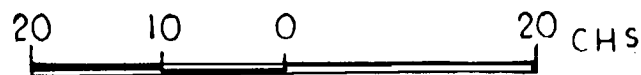
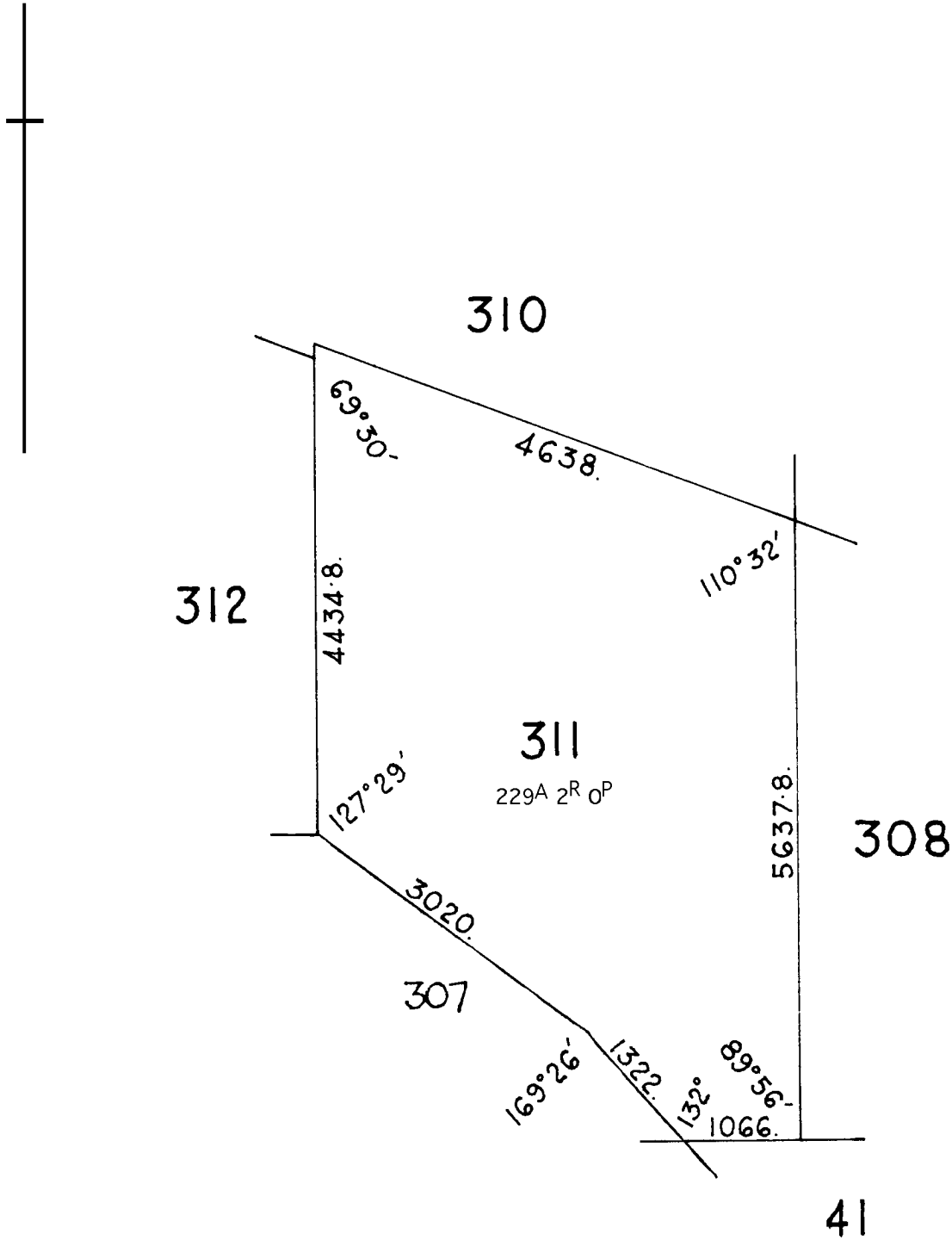
### Schedule of Dealings

Dealing Number	Description
13704463	MORTGAGE TO MCH AGENCY SERVICES PTY. LTD. (ACN: 636 392 928)

### Notations

Dealings Affecting Title	NIL
Priority Notices	NIL
Notations on Plan	NIL
Registrar-General's Notes	NIL
Administrative Interests	NIL





FOR METRIC CONVERSION	
1 LINK	= 0.201168 metres
1 CHAIN	= 100 LINKS
1 ACRE	= 0.404686 hectares
1 ROOD	= 1011.7 m <sup>2</sup>
1 PERCH	= 25.29 m <sup>2</sup>

# **APPENDIX D**

## **CT Register Searches – Other IWS Land**

REAL PROPERTY ACT, 1886



The Registrar-General certifies that this Title Register Search displays the records maintained in the Register Book and other notations at the time of searching.



## Certificate of Title - Volume 5237 Folio 462

Parent Title(s) CT 4361/890  
Creating Dealing(s) CONVERTED TITLE  
Title Issued 21/12/1994 Edition 6 Edition Issued 25/01/2022

### Estate Type

FEE SIMPLE

### Registered Proprietor

PELICAN LAND CO. PTY. LTD. (ACN: 651 534 682)  
OF 131 LEMMEY ROAD LOWER LIGHT SA 5501

### Description of Land

ALLOTMENT 78 DEPOSITED PLAN 26468  
IN THE AREA NAMED LOWER LIGHT  
HUNDRED OF DUBLIN

### Easements

NIL

### Schedule of Dealings

Dealing Number	Description
13704465	MORTGAGE TO MCH AGENCY SERVICES PTY. LTD. (ACN: 636 392 928)

### Notations

Dealings Affecting Title NIL

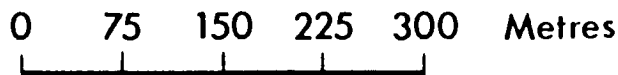
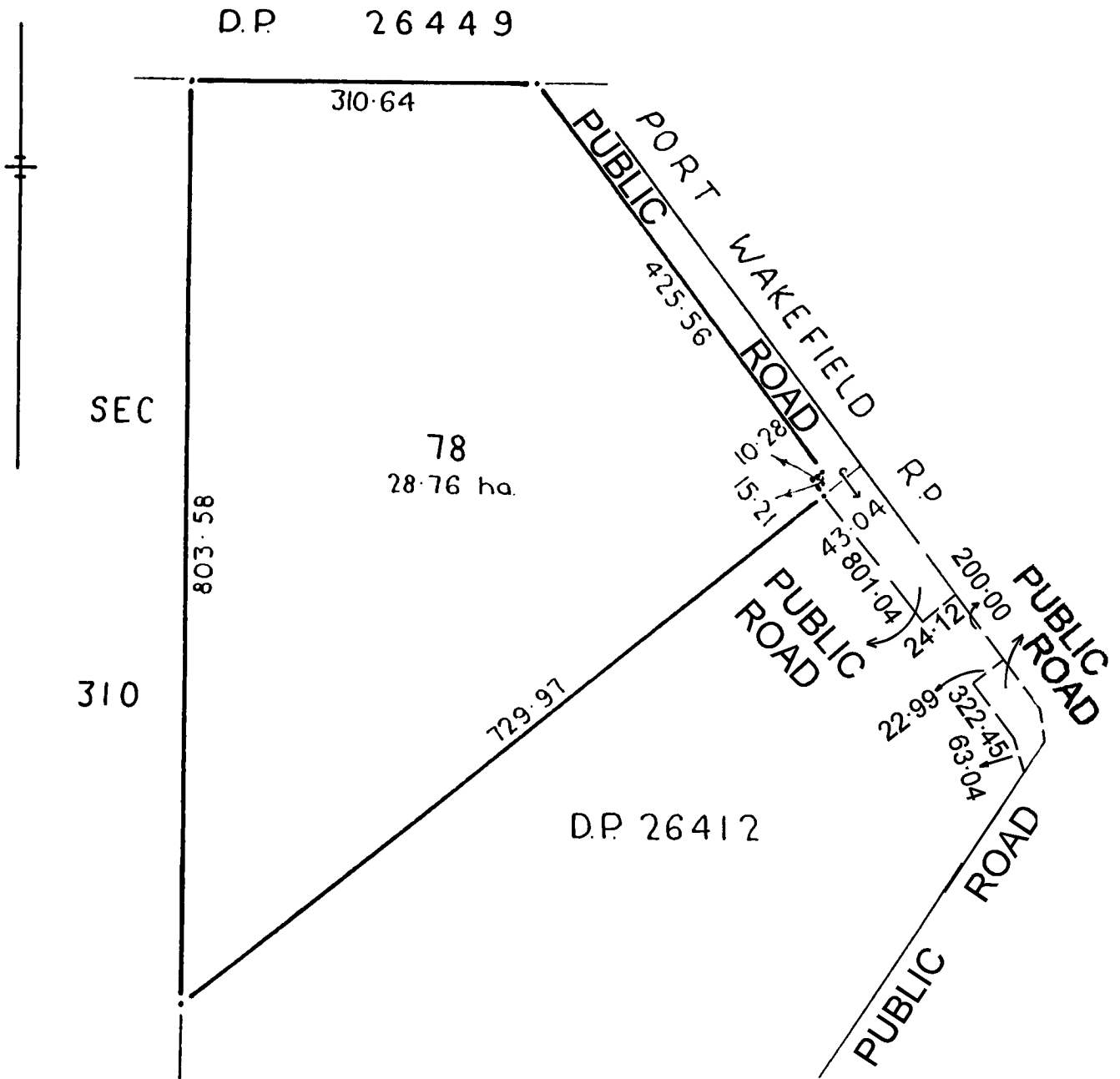
Priority Notices NIL

Notations on Plan NIL

### Registrar-General's Notes

CONTROLLED ACCESS ROAD VIDE PLAN 111  
AMENDMENT TO DIAGRAM VIDE 444/2001

Administrative Interests NIL



REAL PROPERTY ACT, 1886



The Registrar-General certifies that this Title Register Search displays the records maintained in the Register Book and other notations at the time of searching.



## Certificate of Title - Volume 5332 Folio 188

Parent Title(s) CT 3588/139  
Creating Dealing(s) CONVERTED TITLE  
Title Issued 28/03/1996 Edition 8 Edition Issued 24/01/2022

### Estate Type

FEE SIMPLE

### Registered Proprietor

PELICAN LAND CO. PTY. LTD. (ACN: 651 534 682)  
OF 53 KIDMAN ROAD LOWER LIGHT SA 5501

### Description of Land

SECTION 307  
HUNDRED OF DUBLIN  
IN THE AREA NAMED LOWER LIGHT

### Easements

NIL

### Schedule of Dealings

Dealing Number	Description
11079807	LEASE TO MACDONALD CRABB COMMENCING ON 14/11/2008 AND EXPIRING ON 13/11/2038
13704461	MORTGAGE TO MCH AGENCY SERVICES PTY. LTD. (ACN: 636 392 928)

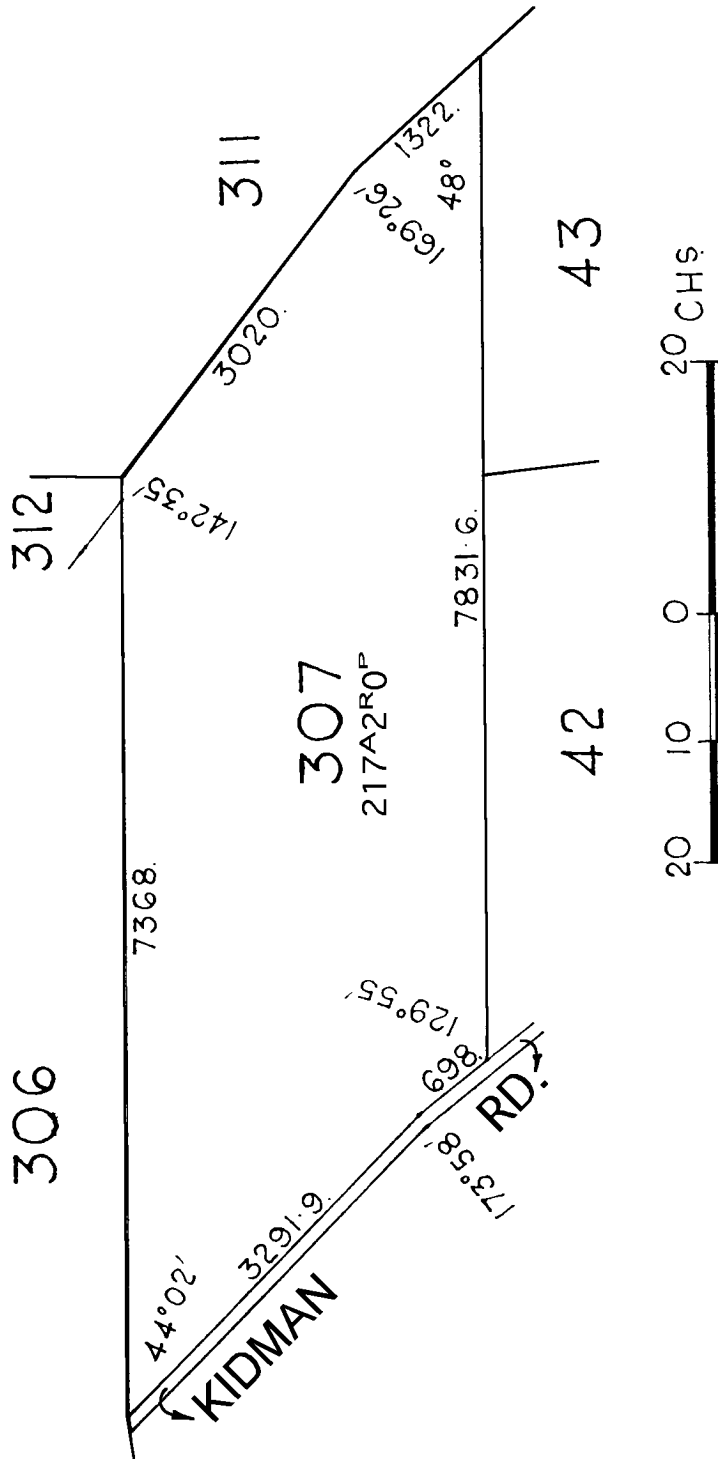
### Notations

Dealings Affecting Title	NIL
Priority Notices	NIL
Notations on Plan	NIL

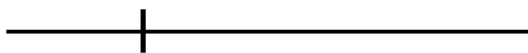
### Registrar-General's Notes

AMENDMENT TO DIAGRAM VIDE 94/2008

Administrative Interests	NIL
--------------------------	-----



FOR METRIC CONVERSION	
1 LINK	= 0.201168 metres
1 CHAIN	= 100 LINKS
1 ACRE	= 0.404686 hectares
1 ROOD	= 1011.7 m <sup>2</sup>
1 PERCH	= 25.29 m <sup>2</sup>





The Registrar-General certifies that this Title Register Search displays the records maintained in the Register Book and other notations at the time of searching.



## Certificate of Title - Volume 5367 Folio 33

Parent Title(s) CT 4395/178  
Creating Dealing(s) CONVERTED TITLE  
Title Issued 08/10/1996 Edition 7 Edition Issued 24/01/2022

### Estate Type

FEE SIMPLE

### Registered Proprietor

PELICAN LAND CO. PTY. LTD. (ACN: 651 534 682)  
OF 53 KIDMAN ROAD LOWER LIGHT SA 5501

### Description of Land

SECTION 42  
HUNDRED OF DUBLIN  
IN THE AREA NAMED LOWER LIGHT

### Easements

NIL

### Schedule of Dealings

Dealing Number	Description
11079807	LEASE TO MACDONALD CRABB COMMENCING ON 14/11/2008 AND EXPIRING ON 13/11/2038
13704461	MORTGAGE TO MCH AGENCY SERVICES PTY. LTD. (ACN: 636 392 928)

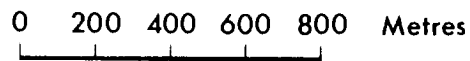
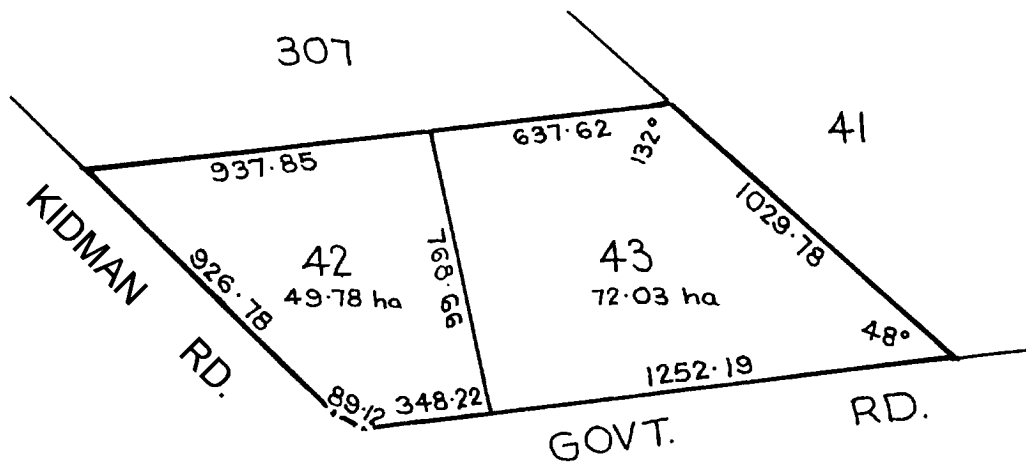
### Notations

Dealings Affecting Title	NIL
Priority Notices	NIL
Notations on Plan	NIL

### Registrar-General's Notes

AMENDMENT TO DIAGRAM VIDE 94/2008

Administrative Interests NIL





REAL PROPERTY ACT, 1886



The Registrar-General certifies that this Title Register Search displays the records maintained in the Register Book and other notations at the time of searching.



## Certificate of Title - Volume 5367 Folio 39

Parent Title(s) CT 4151/37  
Creating Dealing(s) CONVERTED TITLE  
Title Issued 08/10/1996 Edition 7 Edition Issued 24/01/2022

### Estate Type

FEE SIMPLE

### Registered Proprietor

PELICAN LAND CO. PTY. LTD. (ACN: 651 534 682)  
OF 53 KIDMAN ROAD LOWER LIGHT SA 5501

### Description of Land

SECTION 446  
HUNDRED OF DUBLIN  
IN THE AREA NAMED LOWER LIGHT

### Easements

SUBJECT TO EASEMENT(S) OVER THE LAND MARKED A TO THE MINISTER FOR INFRASTRUCTURE (VM 7739364)

### Schedule of Dealings

Dealing Number	Description
11079807	LEASE TO MACDONALD CRABB COMMENCING ON 14/11/2008 AND EXPIRING ON 13/11/2038
13704461	MORTGAGE TO MCH AGENCY SERVICES PTY. LTD. (ACN: 636 392 928)

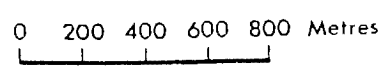
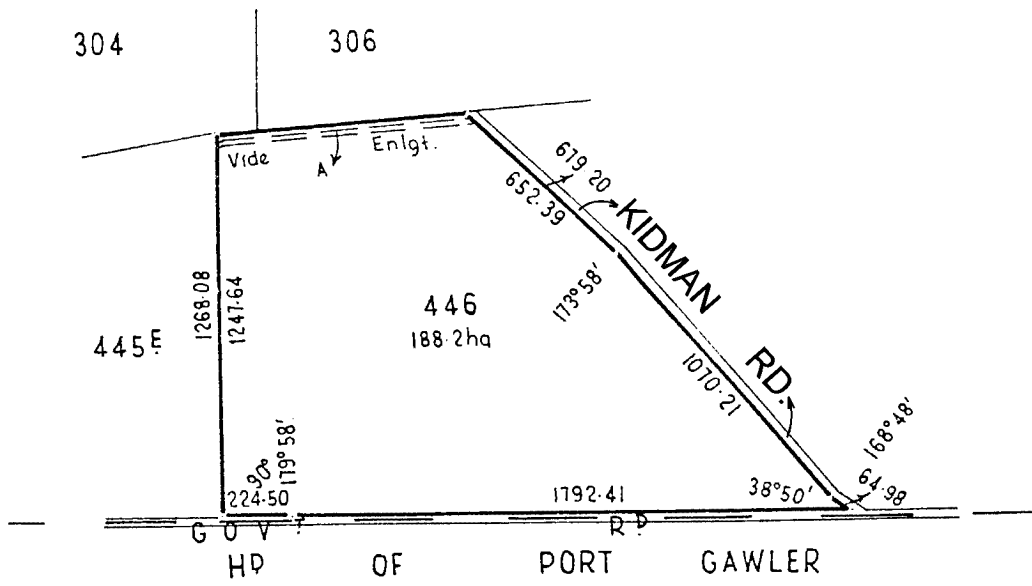
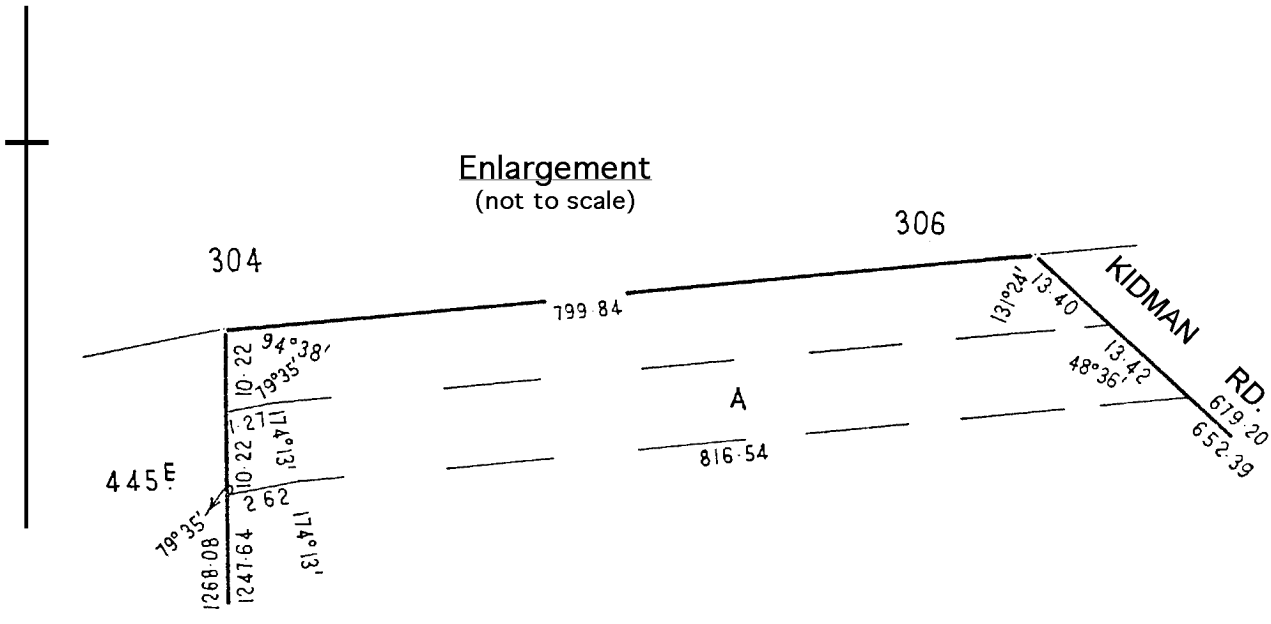
### Notations

Dealings Affecting Title NIL  
Priority Notices NIL  
Notations on Plan NIL

### Registrar-General's Notes

AMENDMENT TO DIAGRAM VIDE 94/2008

Administrative Interests NIL





The Registrar-General certifies that this Title Register Search displays the records maintained in the Register Book and other notations at the time of searching.



## Certificate of Title - Volume 5367 Folio 40

Parent Title(s) CT 4395/179  
Creating Dealing(s) CONVERTED TITLE  
Title Issued 08/10/1996 Edition 10 Edition Issued 24/01/2022

### Estate Type

FEE SIMPLE

### Registered Proprietor

PELICAN LAND CO. PTY. LTD. (ACN: 651 534 682)  
OF 53 KIDMAN ROAD LOWER LIGHT SA 5501

### Description of Land

SECTION 43  
HUNDRED OF DUBLIN  
IN THE AREA NAMED LOWER LIGHT

### Easements

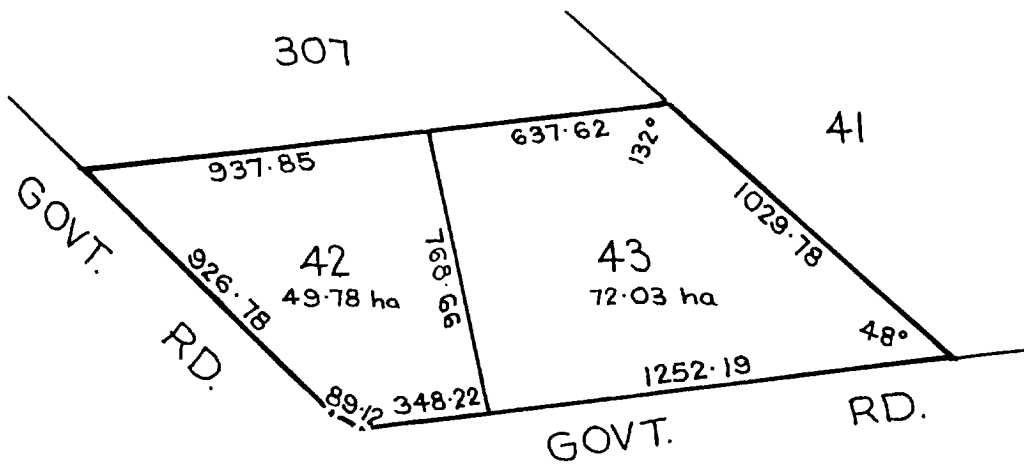
NIL

### Schedule of Dealings

Dealing Number	Description
13704461	MORTGAGE TO MCH AGENCY SERVICES PTY. LTD. (ACN: 636 392 928)

### Notations

Dealings Affecting Title	NIL
Priority Notices	NIL
Notations on Plan	NIL
Registrar-General's Notes	NIL
Administrative Interests	NIL



REAL PROPERTY ACT, 1886



The Registrar-General certifies that this Title Register Search displays the records maintained in the Register Book and other notations at the time of searching.



## Certificate of Title - Volume 5367 Folio 41

Parent Title(s) CT 1945/86  
Creating Dealing(s) CONVERTED TITLE  
Title Issued 08/10/1996 Edition 7 Edition Issued 24/01/2022

### Estate Type

FEE SIMPLE

### Registered Proprietor

PELICAN LAND CO. PTY. LTD. (ACN: 651 534 682)  
OF 53 KIDMAN ROAD LOWER LIGHT SA 5501

### Description of Land

SECTION 306  
HUNDRED OF DUBLIN  
IN THE AREA NAMED LOWER LIGHT

### Easements

NIL

### Schedule of Dealings

Dealing Number	Description
11079807	LEASE TO MACDONALD CRABB COMMENCING ON 14/11/2008 AND EXPIRING ON 13/11/2038
13704461	MORTGAGE TO MCH AGENCY SERVICES PTY. LTD. (ACN: 636 392 928)

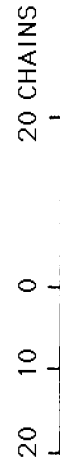
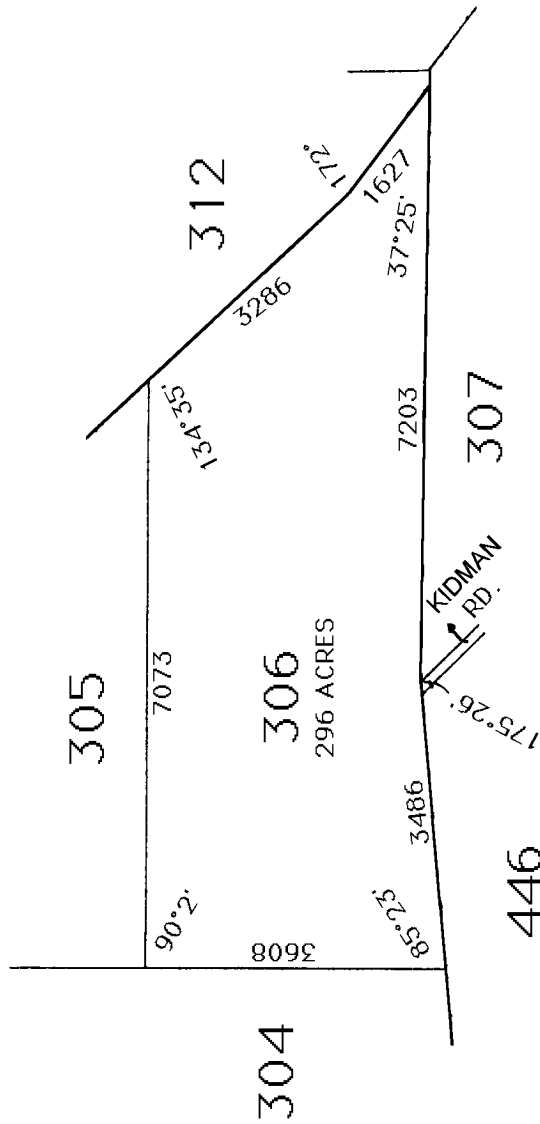
### Notations

Dealings Affecting Title	NIL
Priority Notices	NIL
Notations on Plan	NIL

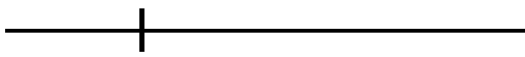
### Registrar-General's Notes

AMENDMENT TO DIAGRAM VIDE 94/2008

Administrative Interests	NIL
--------------------------	-----

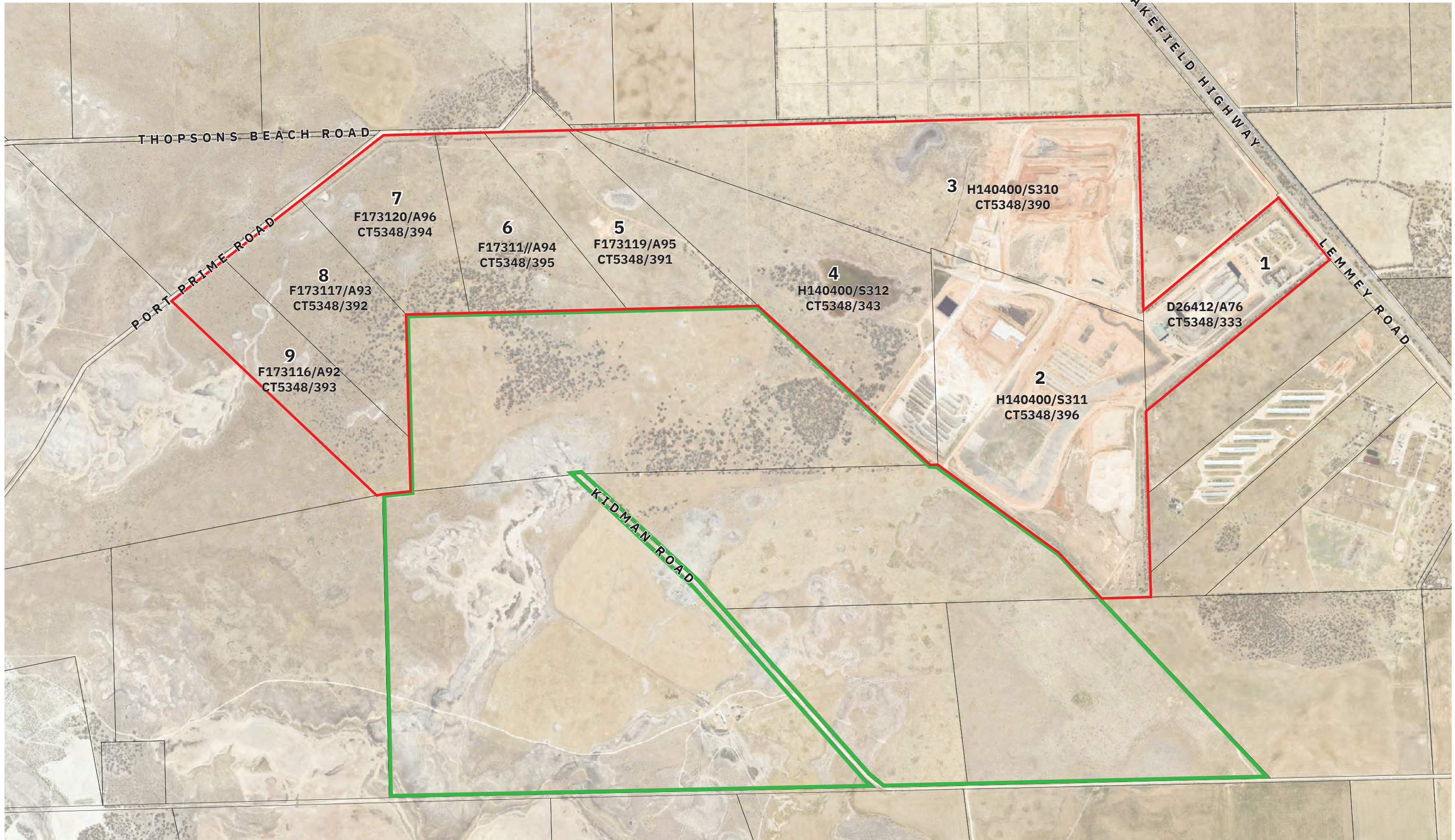


FOR METRIC CONVERSIONS	
1 LINK	= 0.201168 METRES
1 CHAIN	= 100 LINKS
1 ACRE	= 0.404688 HECTARES
1 ROOD	= 1011.7 m <sup>2</sup>
1 PERCH	= 25.29 m <sup>2</sup>



# **APPENDIX E**

## **Site Plan – Allotment Identification**



Subject Site - Major Development Declaration  
 IWS Additional Land Ownership

- |  |  |
|--|--|
| <p><b>1</b> A76 D26412 - CT 5348/333</p> <p><b>2</b> S311 H140400 - CT 5348/396</p> <p><b>3</b> S310 H140400 - CT 5348/390</p> <p><b>4</b> S312 H140400 - CT 5348/343</p> <p><b>5</b> A95 F17311 - CT 5348/391</p> | <p><b>6</b> A94 F17311 - CT 5348/395</p> <p><b>7</b> A96 F173120 - CT 5348/394</p> <p><b>8</b> A93 F173117 - CT 5348/392</p> <p><b>9</b> A92 F173116 - CT 5348/393</p> |
|--|--|

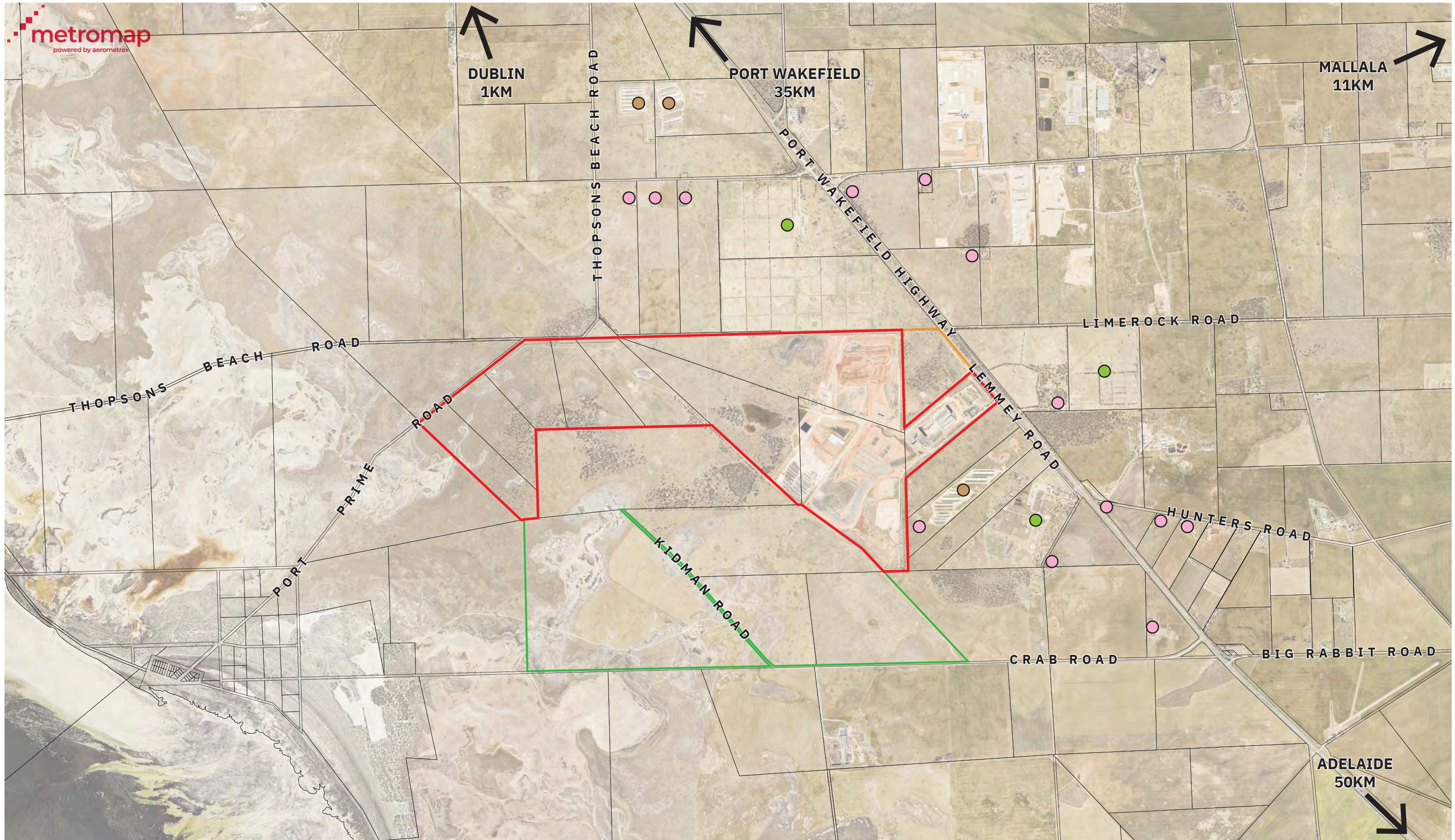
**Site Plan - Allotment Identification**  
Variation to existing major development approval

IWS Northern Facility  
Lemmey Road, Lower Light  
for IWS Group



# **APPENDIX F**

## **Locality Plan**



Subject Site - Major Development Declaration

IWS Additional Land Ownership

● Nearest Dwellings

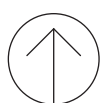
● Intensive Animal Keeping - Sheds

● Outdoor Feedlot

**Locality Plan**  
Variation to existing major development approval

IWS Northern Facility  
Lemmey Road, Lower Light

for IWS Group



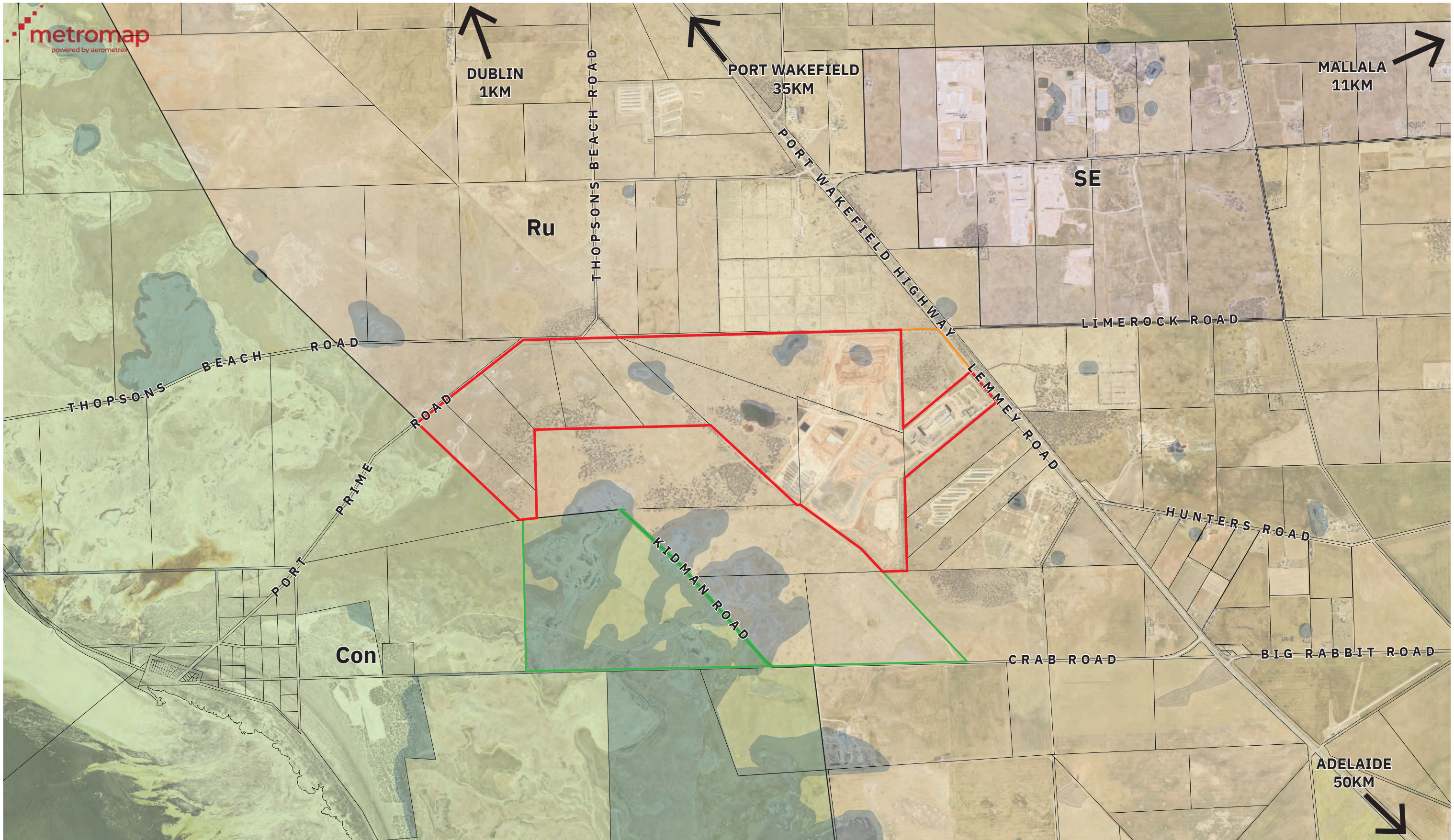
1:30000 @ A3  
Council Assessment Panel  
0 600

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# **APPENDIX G**

## **Locality Plan – Policy**



Subject Site - Major Development Declaration

IWS Additional Land Ownership

**Zones**

**Con** Conservation

**Ru** Rural

**SE** Strategic Employment

**Overlay**

Water Resources

Coastal Areas (same as Conservation Zone)

**Locality Plan - Policy**  
Variation to existing major development approval

IWS Northern Facility  
Lemmey Road, Lower Light

for IWS Group



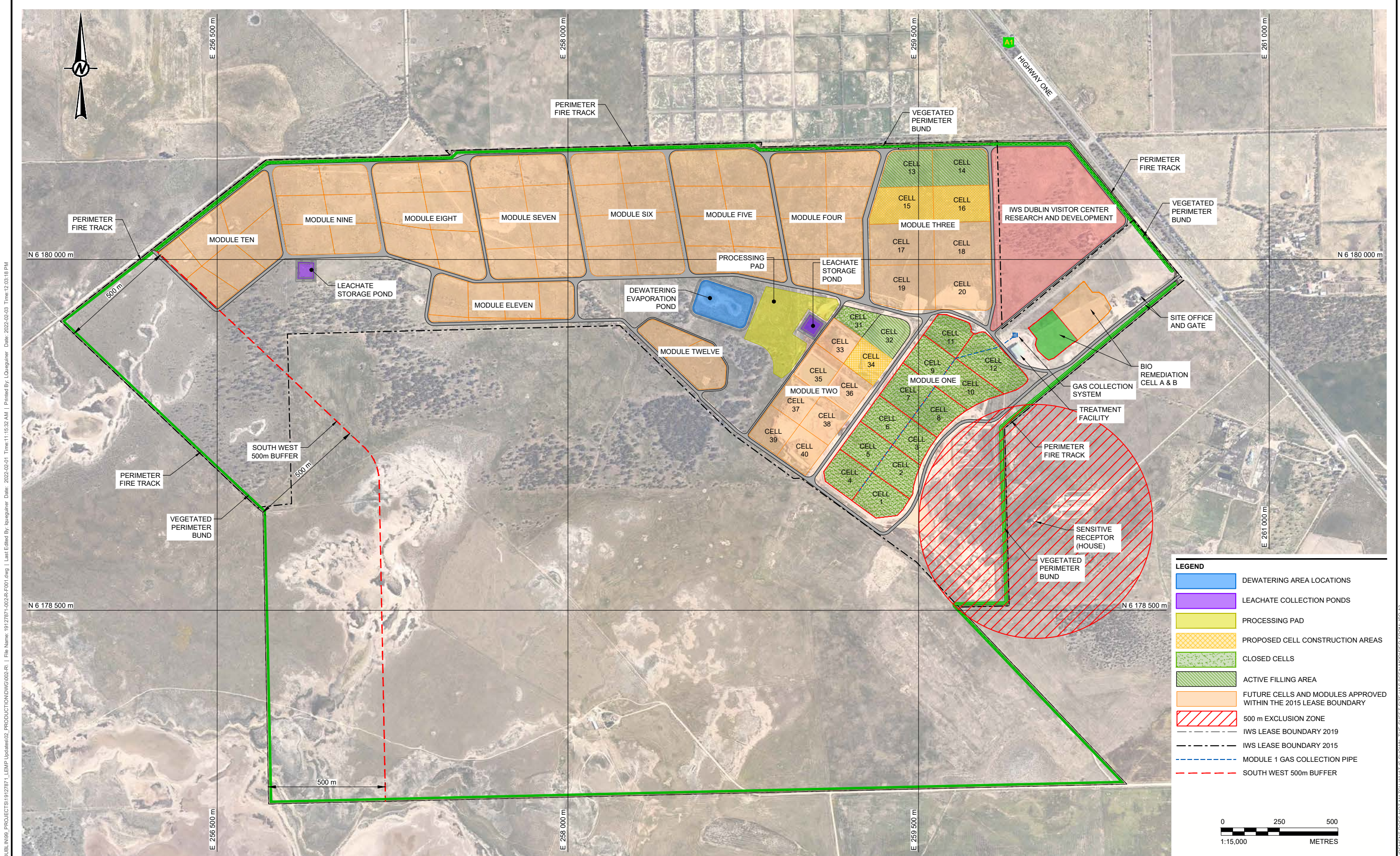
1:30000 @ A3  
Council Assessment Panel  
0 600

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# **APPENDIX H**

## **Site Master Plan**



Path: \\gdp\gdp\AU\_VDP\Advised\Com\IWS\Dublin\IWS09\_PROJECTS\19127871\_LEMP\_Updates\02\_PRODUCTION\WG02\01 | File Name: 19127871-002-R-F001.dwg | Last Edited By: haraguner | Date: 2022-02-03 | Time: 11:15:32 AM | Printed By: haraguner | Date: 2022-02-03 | Time: 12:03:19 PM

CLIENT IWS	PROJECT IWS - LEMP UPDATES
CONSULTANT 	TITLE DUBLIN SITE MASTER PLAN - SHEET 1 OF 2
YYYY-MM-DD    2022-02-03 DESIGNED        DJR PREPARED        LGQ REVIEWED        DJR APPROVED        DJR	PROJECT NO.    19127871 DOC.              002-R REV                3 DATE              Wednesday 3 May 2023 FIGURE            F001

25 mm IF THIS MEASUREMENT DOES NOT MATCH WHAT IS SHOWN, THE SHEET SIZE HAS BEEN MODIFIED FROM: ISO A3

# **APPENDIX I**

## **EPA Licence 51568**



**Licence No. 51568**

**PELICAN ASSET CO PTY LTD**

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**ISSUED:**

18 Jan 2022

**EXPIRY:**

28 Feb 2025

**ACN:**

651 535 401

---

Environmental Authorisation  
under Part 6 of the  
*Environment Protection  
Act 1993*

---

**South Australian  
Environment  
Protection Authority**  
GPO Box 2607  
Adelaide SA 5001  
Tel: 08 8204 2004





# Environment Protection Authority

**LICENCE NUMBER** 51568

## LICENSEE DETAILS

Licence Holder: PELICAN ASSET CO PTY LTD  
ACN: 651 535 401  
Registered Address: TWR 3 International Towers, Level 5, 300 Barangaroo Avenue, SYDNEY NSW 2000

## LICENSED ACTIVITIES

The Licensee is authorised to undertake, at the location(s) shown above, the following prescribed activities of environmental significance under Schedule 1 Part A of the Act, subject to the conditions in this Licence.

3(2)(a)	Composting works
3(3)(a)	Landfill Depot

## TERMS OF LICENCE

Commencement Date: 18 Jan 2022  
Expiry Date: 28 Feb 2025

## PREMISES ADDRESS

Port Wakefield Road Port Wakefield Road,  
LOWER LIGHT SA 5501

## Table of Contents

Licence Explanatory Notes – Do Not Form Part of the Licence .....	5
Definitions .....	6
Acronyms .....	10
Conditions of Licence .....	11
Attachments .....	33

## Licence Explanatory Notes – Do Not Form Part of the Licence

### Compliance with this licence

The EPA seeks to ensure that all reasonable and practicable measures are taken to protect, restore and enhance the quality of the environment according to the principles of ecologically sustainable development. To achieve this objective, the EPA uses a number of regulatory decision making principles and actions outlined in the 'Compliance and enforcement regulatory options and tools' document available on the EPA website.

### Notification – serious or material environmental harm caused or threatened

If serious or material environmental harm from pollution is caused or threatened in the course of an activity, the licence holder must, as soon as reasonably practicable after becoming aware of the harm or threatened harm, notify the EPA (preferably on EPA emergency phone number 1800 100 833) of the harm or threatened harm, its nature, the circumstances in which it occurred and the action taken to deal with it in accordance with section 83 of the [Environment Protection Act 1993](#) (the Act). In the event that the primary emergency phone number is out of order, the licence holder should phone (08) 8204 2004.

### Variations, transfers and surrender of a licence

The EPA may impose or vary the conditions of a licence by notice in writing to the licence holder in accordance with sections 45 and 46 of the Act. Public notice may be required where the variation of licence conditions results in a relaxation of the requirements imposed for the protection or restoration of the environment and results in an adverse effect on any adjoining land or its amenity.

If a licence holder wishes to vary the conditions of a licence, transfer a licence to another entity, or surrender a licence, the licence holder must submit an application to the EPA in accordance with the applicable provisions of the Act (sections 45, 49 and 56, respectively). A licence remains in effect and in its original form until such time as any proposed variation, application for surrender, or transfer has been made and approved in writing by the EPA.

### Suspension or cancellation of a licence

The EPA may suspend or cancel a licence by notice in writing to the licence holder in accordance with section 55 of the Act if satisfied the licence holder has either obtained the licence improperly, contravened a requirement under the Act or if the holder is a body corporate, a director of the body corporate has been guilty of misconduct of a prescribed kind (whether in this State or elsewhere).

### Responsibilities under Environment Protection legislation

In addition to the conditions of any licence, a licence holder must comply with their obligations under all State and Federal legislation (as amended from time to time) including: the [Environment Protection Act 1993](#); the [Environment Protection Regulations 2009](#); all Environment Protection Policies made under the [Environment Protection Act 1993](#); and any National Environment Protection Measures not operating as an Environment Protection Policy under the [Environment Protection Act 1993](#)

### Public Register Information

The EPA maintains and makes available a Public Register of details related to its determinations and other information it considers appropriate (i.e. excluding trade processes or financial information) in accordance with section 109 of the Act. These details include, but are not limited to:

- licensing and beverage container applications and approvals
- enforcement actions
- site contamination
- serious or material environmental harm caused or threatened in the course of an activity
- environment improvement programmes and environment performance agreements
- environment assessment reports; results of testing, monitoring or evaluation required by a licence
- EPA advice or direction regarding development approvals referred to the EPA by a planning authority

## Definitions

Unless the contrary intention appears, terms used in this licence that are defined in the Act (including any regulations or environment protection policies made pursuant to the Act) have the respective meanings assigned to those terms by the Act.

**THE ACT:** The *Environment Protection Act 1993*

**PREMISES:** The whole of the land comprised in Titles Register - Certificate of Title, Crown Lease and Crown Record.

CT5348/396	CT5348/393
CT5348/391	CT5312/333
CT5348/392	CT5348/343
CT5348/390	CT5348/395
CT5348/394	/

**ALTERNATIVE DAILY COVER- GENERAL:** Alternative Daily Cover as detailed in the specification attachment to this licence entitled 'Alternative Daily Cover Suitable for Use in General Waste Cells' (ADC – General);

**ALTERNATIVE DAILY COVER- LLCW:** Alternative Daily Cover as detailed in the specification attachment to this licence entitled 'Alternative Daily Cover Suitable for Use in Low Level Contaminated Waste Cells' (ADC – LLCW);

**AUTHORISATION FEE PAYMENT DATE:** means the anniversary of the grant or renewal of this authorisation.

**AUTHORISED SURVEYOR:** means either:

1. a licensed or registered surveyor under the Survey Act 1992; or
2. a person who is a full member of at least one of the following bodies:
  - 2.1 the Institution of Surveyors, Australia Incorporated;
  - 2.2 the Association of Consulting Surveyors South Australia Incorporated; or
  - 2.3 the Institution of Engineering and Mining Surveyors Australia Incorporated.

**COMMERCIAL AND INDUSTRIAL WASTE (GENERAL):** means the solid component of the waste stream arising from commercial, industrial, government, public or domestic premises (not collected as Municipal Solid Waste), but does not contain Listed Waste, Hazardous Waste or Radioactive Waste.

**COMMERCIAL AND INDUSTRIAL WASTE (LISTED):** The solid component of the waste stream arising from commercial, industrial, government, public or domestic premises (not collected as Municipal Solid Waste), that contains or consists of Listed Waste.

**COMPOST:** means pasteurised material resulting from the controlled microbiological transformation of compostable organic waste under aerobic and thermophilic conditions for at least six weeks.

**COMPOSTABLE ORGANIC WASTE:** The biodegradable component of the waste stream that is of biological origin but does not contain any Listed Waste, Radioactive Waste or Hazardous Waste.

Notes: These organic materials may be processed through composting works to formulate

valuable recycled organic products.

Suitability of compostable organic waste as a feedstock is dependent on the location, site design, processes and potential to cause environmental harm.

**CONSTRUCTION AND DEMOLITION WASTE (INERT):** means the solid inert component of the waste stream arising from the construction, demolition or refurbishment of buildings or infrastructure but does not contain Municipal Solid Waste, Commercial and Industrial Waste (General), Listed Waste, Hazardous Waste or Radioactive Waste. NOTES. C&D waste (Inert) should be such that the entire composition of the C&D materials is Inert Waste with no contamination by foreign material. As such it is acknowledged that, with the aim of no contamination, there may be some negligible components of foreign material contained in the waste (as a guide, 0 to 5% maximum by volume per load). C&D waste (Inert) includes bricks, concrete, tiles and ceramics, steel and inert soils. Foreign material includes green waste, plastics, electrical wiring, timber, paper, insulation, tins, packaging and other waste associated with construction or demolition of a building or other infrastructure. Foreign material must not be Municipal Solid Waste, Liquid, Listed, Hazardous or Radioactive Waste.

**CONSTRUCTION AND DEMOLITION WASTE (MIXED):** means the solid component of the waste stream arising from the construction, demolition or refurbishment of buildings or infrastructure which contains some foreign material (as set out below), but does not contain Municipal Solid Waste, Commercial and Industrial Waste (General), Listed Waste, Hazardous Waste or Radioactive Waste. NOTES. C&D Waste is considered C&D (Mixed) waste if it contains significant foreign materials from construction and demolition activities that would render the load of waste no longer inert (as a guide, 5 to 25% maximum by volume per load). Foreign material includes green waste, plastics, electrical wiring, timber, paper, insulation, tins, packaging and other waste associated with construction or demolition of a building or other infrastructure. Foreign material must not be Municipal Solid Waste, Liquid, Listed, Hazardous or Radioactive Waste. Where waste from construction and demolition sites contains predominantly foreign materials or domestic waste, such as waste from household clean ups collected by commercial skip bins, this is Commercial and Industrial Waste (General).

**CONTAMINATED STORMWATER:** is as defined in the Environment Protection (Water Quality) Policy 2015.

**CONTROLLED WASTE:** means any wastes of a category listed in Column 1 of the Table in Schedule 1 that has 1 or more characteristics listed in the Table in Schedule 2 of the Environment Protection (movement of Controlled Waste) Policy 2014.

**DAILY COVER:** means soil, clay, silt, sand, gravel, rock, concrete or brick (or any combination thereof) which does not exceed 200mm in any dimension and does not exceed the chemical criteria for Intermediate Waste Soil.

**DOMESTIC WASTE:** means the waste produced in the course of a domestic activity.

**ENVIRONMENTAL HARM:** means the same as is defined in section 5 of the Environment Protection Act 1993.

**FINAL SURFACE LEVEL:** means the final filling height which excludes interim cover and capping.

**FRIABLE ASBESTOS:** means:

(a) non-bonded asbestos fabric; or

(b) asbestos-containing material that:

(i) is in the form of powder; or

(ii) can be crumbled, pulverised or reduced to powder by hand pressure when dry.

**GREEN WASTE:** means the vegetative portion of the waste stream arising from various sources including waste from domestic and commercial premises and municipal operations.

**HIGH LEVEL CONTAMINATED WASTE SOIL:** means Waste Soil that exceeds the

chemical characteristics for Low Level Contaminated Waste Soil

**INERT WASTE:** solid waste that has no active chemical or biological properties. These wastes do not undergo environmentally significant physical, chemical or biological transformation and have negligible potential to cause environmental harm.

**INTERMEDIATE WASTE:** means waste soil or other industrial and commercial waste that meets the chemical criteria specified in the EPA Information Sheet entitled 'Waste disposal - current criteria for the classification of waste - including Industrial and Commercial Waste (Listed) and Waste Soil', issued March 2010.

**INTERMEDIATE WASTE SOIL:** means waste soil that meets the chemical criteria specified in the attachment titled 'Intermediate Waste Soil', appended to this licence.

**LEACHATE:** means a liquid that has percolated through and/or been generated by decomposition of waste material. It includes water that comes into contact with waste and is potentially contaminated by nutrients, metals, salts and other soluble or suspended components and/or products of decomposition of the waste.

**LISTED WASTE:** means wastes listed in Part B of Schedule 1 of the Environment Protection Act 1993.

**LITTER CONTROL NETTING SYSTEM:** Litter Control Netting System: Means a system of nets placed so as to enclose the active disposal area and prevent the escape of litter.

**LOW LEVEL CONTAMINATED WASTE SOIL:** means waste soil that meets the chemical criteria specified in the attachment titled 'Low Level Contaminated Waste Soil' attached to this licence.

**MUNICIPAL SOLID WASTE - DOMESTIC SOURCES:** The solid component of the waste stream arising from domestic premises that is received directly from the public, it is not received as Municipal Solid Waste - Kerbside bin collection.

**MUNICIPAL SOLID WASTE - HARD WASTE:** means the solid component of the waste stream arising from domestic premises which is not suitable for collection using a kerbside bin system, but does not contain Commercial and Industrial Waste (General), Listed Waste, Hazardous Waste, Radioactive Waste or waste that is not deemed suitable for collection by local councils.

NOTE: MSW (Hard Waste) is typically collected in campaigns by local councils, which also advise on what wastes are suitable for that collection.

**MUNICIPAL SOLID WASTE - KERBSIDE BIN COLLECTION:** means the solid component of the waste stream arising from mainly domestic but also commercial, industrial, government and public premises including waste from council operations, services and facilities that is collected by or on behalf of the council by kerbside collection, but does not contain Commercial and Industrial Waste (General), Listed Waste, Hazardous Waste or Radioactive Waste.

**NON-FRIABLE ASBESTOS:** means asbestos-containing material in which the asbestos fibres are bonded by cement, vinyl, resin or other similar material, for example asbestos cement.

Advice on the requirements for handling and transport of this waste can found in EPA Guideline 414/05 - Wastes containing asbestos - removal, transport and disposal

**PUTRESCIBLE WASTE:** The component of the waste stream liable to become putrid.

For example: organic matter which has the potential to decompose with the formation of malodorous substances; usually refers to vegetative, food and animal products.

**QUARANTINE WASTE:** means material or goods of quarantine concern as determined by the Australian Quarantine and Inspection Service (AQIS) and which is subject to and or identified under Commonwealth Legislation (Quarantine Act 1908) and associated

regulations and proclamations.

This includes:

- a) material used to pack and stabilise imported goods;
- b) galley food and other waste from overseas vessels;
- c) human, animal or plant waste brought into Australia;
- d) refuse or sweepings from a hold of an overseas vessel;
- e) any other waste or other material, which comes into contact with Quarantine Waste;
- f) contents of AQIS airport amnesty bins; and
- g) articles seized by AQIS and/or not collected by clients.

**SHREDDED TYRES:** means tyre pieces that do not exceed 250 millimetres in any direction.

**SITE CONTAMINATION AUDITOR:** means a person accredited under Division 4 of 10A of the Environment Protection Act, 1993 as a site contamination auditor.

**SITE CONTAMINATION CONSULTANT:** means a person other than a site contamination auditor who, for fee or reward, assesses the existence or nature or extent of site contamination.

**STORMWATER:** is as defined in the Environment Protection (Water Quality) Policy 2015.

**SUITABLY QUALIFIED CONSULTANT:** means a person who holds relevant qualifications, has demonstrated professional experience and expertise encompassing an appropriate range of competencies, and is either a full member or is eligible for full membership of one of the following or equivalent professional organisations:

1. The Institution of Engineers Australia
2. The Association of Consulting Engineers Australia
3. The Australian Contaminated Land Consultants Association Incorporated.

**TREATMENT PLANT RESIDUES:** Means all waste residues generated during the treatment of wastes, which are received from sites regulated under Environmental Authorisation No. 2897 & 2672 (Veolia Environmental Services (Australia) Pty Ltd) and Environmental Authorisation No. 15195 (Cleanaway Operations Pty Ltd), or from any other sites approved in writing by the EPA.

**UNCLASSIFIED WASTE SOIL:** means Waste Soil that is yet to be analysed to determine its classification for reuse or disposal.

**USED TYRES:** means used whole tyres and tyre pieces exceeding 250 millimetres in any dimension.

**WASTE:** means -

1. As defined under the Environment Protection Act 1993,

1(a) any discarded, dumped, rejected, abandoned, unwanted or surplus matter, whether or not intended for sale or for purification or resource recovery by a separate operation from that which produced the matter; or

1(b) any matter declared by regulation to be waste for the purposes of this Act (following consultation by the Minister on the regulation with prescribed bodies in accordance with the regulations); or

1(c) any matter declared by an environment protection policy to be waste for the purposes of this Act,

whether or not of value.

2. However, waste does not include—



2(a) an approved recovered resource whilst it is being dealt with in accordance with the declaration of that resource—see section 4A; or

2(b) anything declared by regulation or an environment protection policy not to be waste for the purposes of this Act,

even though the resource or the thing so declared might otherwise, but for the declaration, fall within the definition of waste in subsection (1).

**WASTE DERIVED FILL:** A consistent, homogenous material for the beneficial filling of land that consists of or contains waste or material recovered from waste (including waste soil, industrial residues and recycled waste) which meets an approved specification, is fit for purpose and will not cause harm to the environment or human health when used as fill, such as for development of infrastructure.

**WASTE FILL:** means waste consisting of clay, concrete, rock, sand, soil or other inert mineralogical matter in pieces not exceeding 100 millimetres in length and containing chemical substances in concentrations (calculated in a manner determined by the EPA) less than the concentrations for those substances set out in Regulation 3 - Interpretation, but does not include waste consisting of or containing asbestos or bitumen.

The Waste Fill concentration criteria as specified in Regulation 3 - Interpretation, contained within the Environment Protection Regulations 2009 - is attached.

**WASTE FILL CRITERIA:** For the purposes of the SA EPA Standard for the production and use of waste derived Fill (the WDF Standard), the 'waste fill criteria' consists of the chemical and physical criteria listed in Appendix 1 of the WDF Standard.

**WASTE SOIL:** means soil classified as Waste Fill, Intermediate Waste Soil, Low Level Contaminated Waste Soil, High Level Contaminated Waste Soil and Unclassified Waste Soil awaiting testing and classification.

## Acronyms

**EPA:** means Environment Protection Authority

**NATA:** means National Association of Testing Authorities.

**QA:** means Quality Assurance.

**QC:** means Quality Control.

**WTC:** means Waste Transport Certificate.

## Conditions of Licence

The Licensee is authorised to conduct the prescribed activities as described in this Licence at the Premises nominated, subject to the following conditions:

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### 1 CONTROL OF EMISSIONS

#### 1.1 DUST PREVENTION (S - 7)

The Licensee must take all reasonable and practicable measures to prevent dust from leaving the Premises.

#### 1.2 LANDFILL STORMWATER MANAGEMENT (S - 126)

The Licensee must:

- 1.2.1 take all reasonable and practicable measures to divert stormwater away from active landfill cells; and
- 1.2.2 take all reasonable and practicable measures to prevent contamination of stormwater at the Premises; and
- 1.2.3 implement appropriate contingency measures to contain any contaminated stormwater at the Premises unless and until the contaminated stormwater is treated to remove the contamination, or is disposed of at an appropriately licensed facility.

#### 1.3 LEACHATE LEVEL MANAGEMENT (U - 968)

The Licensee must ensure that:

- 1.3.1 leachate within any active disposal cell does not exceed a 300 millimetre head above the clay liner outside the area of the sump;
- 1.3.2 leachate in any closed cell maintains a freeboard level of 500 millimetres below the surrounding groundwater outside of the cell;
- 1.3.3 leachate in any LLCW cell does not exceed a 300 millimetre head above the liner;

#### 1.4 LEACHATE MANAGEMENT (U - 967)

The Licensee must:

- 1.4.1 record leachate levels for all leachate sumps on a daily basis
- 1.4.2 retain the records of leachate levels and make them available to the EPA upon request;
- 1.4.3 ensure the leachate extraction pump is capable of removing leachate at a capacity of 40 litres per second in each new cell;

- 1.4.4 not alter the pump capacity until there is a minimum of 1.5 metres of waste disposed in the cell and leachate production has declined to less than 1 litre per second;
- 1.4.5 ensure leachate is not re-circulated into any cell;
- 1.4.6 ensure all leachate volumes extracted from any cell are recorded and that records of those volumes are maintained
- 1.4.7 ensure a backup leachate extraction pump with sufficient capacity is available on the Premises at all times
- 1.4.8 only dispose of leachate at the Premises in a lined evaporation pond approved by the EPA; and
- 1.4.9 ensure a two metre separation distance exists between the underside of the leachate pond lining system and the underlying groundwater

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## **2 WASTE MANAGEMENT**

### **2.1 LITTER PREVENTION (U - 667)**

The Licensee must:

- 2.1.1 take all reasonable and practicable measures to prevent the escape of litter from the Premises; and
- 2.1.2 collect and dispose of any litter that escapes from the Premises on or before the close of each day's operations.

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## **3 OPERATIONAL MANAGEMENT**

### **3.1 ASBESTOS MANAGEMENT (U - 1083)**

The Licensee must:

- 3.1.1 only receive:
  - a non-friable asbestos that has been wrapped and sealed in plastic of no less than 200 microns thickness; and
  - b friable asbestos that is contained within sealed and air tight steel or heavy duty plastic containers;
- 3.1.2 not remove asbestos from the container or package in which it is received at the Premises;
- 3.1.3 not remove or expose any asbestos that has previously been disposed of at the Premises;
- 3.1.4 on or before the close of each days operations, cover:
  - a any friable asbestos disposed at the Premises with no less than 300 millimetres of Daily Cover or an alternative daily cover approved in writing by the EPA; and
  - b any non-friable asbestos disposed at the Premises with no less than 150 millimetres of Daily Cover or an alternative daily cover approved in writing by the EPA;

- 3.1.5 not dispose of:
  - a friable asbestos within two metres of the Final Surface Level for the cell at the Premises; or
  - b non-friable asbestos within one metre of the Final Surface Level for the cell at the Premises.
- 3.1.6 only dispose of asbestos in the areas of the bale fill cells designated for that purpose;
- 3.1.7 display a sign at the designated asbestos disposal areas stating that it is a friable and/or non-friable asbestos disposal area;
- 3.1.8 keep records of the location of buried asbestos at the Premises for the term of the Licence;
- 3.1.9 take all reasonable and practicable measures to prevent the generation of asbestos dust

### **3.2 BALED WASTE TO REMAIN BALED (U - 1082)**

The Licensee must not dismantle baled waste at the Premises.

### **3.3 CAPPING DESIGN REPORT (U - 1084)**

The Licensee must:

- 3.3.1 develop and submit to the satisfaction of the EPA, by 30 June 2021, a Capping Design Specification for Module 3, identified in the Attachment entitled "Phase 2 – Full Site Capacity Analysis Appendix 3" attached to this licence; and
- 3.3.2 ensure that the Capping Design Specification includes but is not limited to:
  - a methods to ensure the cap is designed to:
    - i provide a long-term and stable separation layer between the waste and the final surface that protects human health and the environment;
    - ii minimise the generation of leachate;
    - iii safeguard surface and groundwater in accordance with the Environment Protection (Water Quality) Policy 2015;
    - iv be compatible with the landfill gas management system;
    - v be geotechnically stable and can be maintained and will continue to meet the objectives and required outcomes; and
    - vi achieve performance equivalent to the measures specified in Appendix 1 of the EPA Guideline entitled "Environmental Management of Landfill Facilities - Solid Waste Disposal" dated April 2019.

#### **NOTES**

Compliance Date: 30 Jun 2021

### 3.4 CELL SEPARATION DISTANCE (U - 1085)

The Licensee must ensure the capping systems for the LLCW and bale fill cells are separated by a minimum of 5 metres measured from the toe of the cap.

### 3.5 COMPLAINTS REGISTER (S - 1)

The Licensee must:

- 3.5.1 prepare and maintain a register of all complaints concerning environmental issues.
- 3.5.2 ensure the register includes:
  - a the date and time that the complaint was made;
  - b details of the complaint including the likely cause of events giving rise to the complaint;
  - c the contact details of the complainant (if permitted by the complainant); and
  - d details of any action taken in response to the complaint by the Licensee.

### 3.6 COMPOST AND MULCH USE (U - 1097)

The Licensee must ensure that compost and mulch used at the Premises:

- 3.6.1 is only used in accordance with those details identified on the attachments entitled, 'Dublin Northern Bale Fill Facility Figure 1 Site Layout' and 'Phase 2 – Full Site Capacity Analysis Appendix A3, Figure 2 Resource Demand' attached to this licence, except as varied below:
  - a perimeter vegetation mounding in Figures 1 and 2 must only be capped with products recovered in accordance with Australian Standard 4454-2012 composted product; Australian Standard 4454-2012 non-pasteurised product; Australian Standard 4454-2012 pasteurised product; Australian Standard 4454-2012 raw mulch, or other suitable materials approved in writing by the EPA.
  - b materials that incorporate mixed waste from Municipal Solid Waste – kerbside bin collection and/or Commercial and Industrial waste (general) sources must not be used in capping of the perimeter vegetation mounding in Figures 1 and 2 unless approved in writing by the EPA .
  - c only pasteurised compost derived from source segregated green waste and mulch derived from clean untreated timber may be used in the re-vegetation zones in Figure 2 A, B and C.

### 3.7 DAILY COVER (U - 1234)

The Licensee must:

- 3.7.1 subject to conditions 2 and 4 cover all wastes on or before the close of each business day with at least 150 millimetres of Daily Cover, Alternative Daily Cover or intermediate waste soil as detailed in attachment "Intermediate Waste Soil" as attached to this licence, except for vertical faces of exposed wastes which, must be covered at the close of each business day with tarpaulins or similar suitable covers approved in writing by the EPA;
- 3.7.2 where active cells are not used for the purpose of disposal for 30 days or more, an interim cover of 300 millimetres of soil that meets the physical and chemical criteria for waste fill or intermediate waste soil as detailed in the attachments entitled 'Waste Fill- Regulation 3' and 'Intermediate Waste Soil' as attached to this licence, must be applied to all faces.
- 3.7.3 immediately cover highly odorous material that is received in the LLCW cell with a minimum of 150 millimetres of either:
  - a Daily Cover; or
  - b ADC – General and/or ADC – LLCW (and/or such other specification as approved in writing by the EPA), or
  - c intermediate waste soil as detailed in the attachment entitled "Intermediate Waste Soil" attached to this licence; and
- 3.7.4 where using Alternative Daily Cover in general waste cells only use ADC - General (and/or such other specification of ADC as approved in writing by the EPA);
- 3.7.5 where using Alternative Daily Cover in Low Level Contaminated waste cells only use ADC – General and/or ADC – LLCW (and/or such other specification of ADC as approved in writing by the EPA).

#### NOTES

The specifications provide that Alternative Daily Cover suitable for use in Low Level Contaminated Waste Cells must not be used in general waste cells.

### 3.8 DESIGN AND CONSTRUCTION OF NEW CELLS (S - 155)

The Licensee must:

- 3.8.1 not construct any new landfill cell unless a design specification for that cell has been approved in writing by the EPA;
- 3.8.2 submit an "As Constructed Report" to the EPA following construction of any new landfill cell; and
- 3.8.3 not dispose of any waste within a new landfill cell unless an As Constructed Report for that cell has been approved in writing by the EPA.

### 3.9 DESIGN AND CONSTRUCTION OF NEW LEACHATE EVAPORATION PONDS (U - 1093)

The Licensee must:

- 3.9.1 not construct any new leachate evaporation pond unless a design specification for that pond has been approved in writing by the EPA;
- 3.9.2 following construction of any new leachate evaporation pond submit an "As Constructed Report" to the EPA; and

- 3.9.3 not dispose of any leachate within a new leachate evaporation pond unless an As Constructed Report for that pond has been approved in writing by the EPA.

### **3.10 DEWATERING OF LANDFILL CELLS (U - 1088)**

The Licensee must not cease dewatering any disposal cell at the Premises until documentation has been provided to the EPA that demonstrates the weight of the waste on the cell liner is greater than the hydraulic pressure beneath the cell, and that documentation is approved in writing by the EPA.

### **3.11 EMP - DEVELOP & SUBMIT (U - 1086)**

In accordance with the terms stated for revisions by IWS in the current Environmental Management Plan, the Licensee must develop and submit to the satisfaction of the EPA by 30 August 2020 a revised Environment Management Plan (EMP) for the Multipurpose Waste Treatment Facility, Bio-Remediation Pad and Resources Pad

### **3.12 FENCING (S - 227)**

The Licensee must maintain a fence around the Premises that is suitable for preventing unauthorised access.

### **3.13 GROUNDWATER SEPARATION DISTANCE (U - 1089)**

The Licensee must at all times maintain a minimum separation distance of two metres between the underside of the lowest portion of the LLCW disposal cell lining system, including the sump area, and the underlying groundwater.

### **3.14 GROUNDWATER SURFACE LEVELS (U - 1090)**

The Licensee must, prior to disposing of any waste into any landfill cell at the Premises:

- 3.14.1 ensure that during dewatering of active cells, the groundwater is at least two metres beneath the underside of the clay liner, which includes the sump;
- 3.14.2 establish the surface water controls in respect of each cell or stage;
- 3.14.3 ensure that all the water resulting from cell dewatering is pumped directly to the groundwater evaporation pond located at the Premises; and

- 3.14.4 ensure a backup generator and pump for cell dewatering is available at the Premises at all times.

### **3.15 LANDFILL GAS MANAGEMENT & MONITORING (U - 1092)**

The Licensee must:

- 3.15.1 take all reasonable and practicable measures to minimise the emission of landfill gas from the Premises by implementing measures which include:
- a installing a landfill gas management system to all new and existing waste cells;
  - b operating and maintaining the landfill gas management system so that the concentrations of methane and carbon dioxide in the monitoring wells located at the Premises do not exceed 1.00% and 1.5% respectively;
  - c enclosing the flare system in a caged unit to prevent debris from entering the flare;
  - d maintaining a 30 metre cleared buffer around the flare system;
  - e undertaking landfill gas monitoring at all monitoring wells at the Premises during March, June, September and December of each calendar year for the following:
    - i methane concentrations;
    - ii carbon dioxide concentrations;
    - iii carbon monoxide concentrations;
    - iv oxygen concentrations;
    - v landfill gas temperature and pressure; and
    - vi atmospheric temperature and pressure
  - f notifying the EPA forthwith if concentrations of methane exceed 1%;
  - g notifying the EPA forthwith if concentrations of carbon dioxide exceed 1.5%; and
  - h submitting to the EPA, by 30 January each year, the results of all landfill gas monitoring undertaken in accordance with requirement e of this condition.

### **3.16 LEACHATE DISPOSAL (U - 1121)**

The Licensee:

- 3.16.1 must only dispose of leachate into a leachate evaporation pond that is constructed in accordance with condition DESIGN AND CONSTRUCTION OF NEW LEACHATE EVAPORATION PONDS of this licence;
- 3.16.2 must ensure a two metre separation distance exists between the underside of the leachate evaporation pond lining system and the underlying groundwater;



- 3.16.3 must not allow discharge of leachate outside of the leachate evaporation pond; and
- 3.16.4 must ensure that there is at least 600 millimetres of freeboard in the leachate evaporation pond at all times.

### **3.17 LISTED WASTE AND/OR CONTROLLED WASTE DESTINATION FACILITY (S - 168)**

The Licensee must:

- 3.17.1 ensure that a WTC is completed upon the receipt of any waste specified in the Listed Waste attachment and/or Controlled Waste attachment to this licence;
- 3.17.2 provide hard copies of the WTC to the EPA; and
- 3.17.3 retain hard copies of all completed WTC's for a period of not less than 12 months.

### **3.18 LITTER CONTROL – BALEFILL CELLS (U - 1080)**

The Licensee must

- 3.18.1 dispose of all unbaled waste within a litter control netting system;
- 3.18.2 for each active disposal area, have a complete litter control netting system installed at all times;
- 3.18.3 cover all waste with not less than 150 millimetres of waste fill or alternative daily cover prior to lowering or moving the litter netting control system;
- 3.18.4 have a spare litter control netting system available at all times;
- 3.18.5 maintain the litter control netting system to ensure that litter does not escape from the active disposal area;
- 3.18.6 ensure that all reasonable and practicable measures are taken to prevent the escape of litter from the active disposal area at the Premises; and
- 3.18.7 ensure that all reasonable and practicable measures are taken to prevent the escape of litter from the Premises.

### **3.19 MUNICIPAL SOLID WASTE-DERIVED TROMMEL FINES (IWS DUBLIN) (U - 1105)**

The Licensee must:

- 3.19.1 develop and submit to the satisfaction of the EPA by 31 March 2020 a risk assessment proposal setting out:
  - a a specification for the production of trommel fines derived from municipal solid waste (Trommel Fines (IWS Dublin)); and
  - b a plan for the proposed use of the Trommel Fines (IWS Dublin) at the Premises;

- 3.19.2 ensure the methods for sampling the characteristics of Trommel Fines (IWS Dublin) are approved in writing by the EPA; and
- 3.19.3 ensure that testing of samples of Trommel Fines (IWS Dublin) is undertaken by a NATA accredited laboratory;

### **3.20 NOTIFICATION OF STORMWATER CONTAMINATION OR DISCHARGE (67 - 300)**

The Licensee must notify the EPA as soon as practicable and, in any case, within two hours of becoming aware that stormwater contamination has occurred at the Premises or in the event of a discharge of stormwater from the sedimentation ponds.

### **3.21 OPERATING HOURS (U - 1095)**

The Licensee must only operate the waste depot between the hours of 5.00 am and 7.30 pm.

### **3.22 PERMITTED WASTES DISPOSAL (U - 823)**

The Licensee must only dispose of the following waste streams at the Premises:

- 3.22.1 Asbestos (Friable)
- 3.22.2 Asbestos (Non- friable)
- 3.22.3 Commercial and Industrial Waste (General)
- 3.22.4 Commercial and Industrial Waste (Listed)
- 3.22.5 Compostable Organic Waste
- 3.22.6 Construction and Demolition Waste (Mixed)
- 3.22.7 Construction and Demolition Waste (Inert)
- 3.22.8 Domestic Waste
- 3.22.9 Green Waste
- 3.22.10 Inert Waste
- 3.22.11 Municipal Solid Waste- Domestic Sources
- 3.22.12 Municipal Solid Waste- Hard Waste
- 3.22.13 Municipal Solid Waste- Kerbside Bin Collection
- 3.22.14 Putrescible Waste
- 3.22.15 Quarantine Waste
- 3.22.16 Shredded Tyres
- 3.22.17 Waste Fill

- 3.22.18 Intermediate Waste Soil
- 3.22.19 Intermediate Waste
- 3.22.20 Used Foundry Sand
- 3.22.21 Low Level Contaminated Waste Soil
- 3.22.22 Low Level Contaminated Waste

### **3.23 PERMITTED WASTES RECEIPT (U - 822)**

The Licensee must only receive the following waste streams at the Premises:

- 3.23.1 Asbestos (Friable)
- 3.23.2 Asbestos (Non-friable)
- 3.23.3 Commercial and Industrial Waste (General)
- 3.23.4 Commercial and Industrial Waste (Listed)
- 3.23.5 Compostable Organic Waste
- 3.23.6 Construction and Demolition Waste (Mixed)
- 3.23.7 Construction and Demolition Waste (Inert)
- 3.23.8 Domestic Waste
- 3.23.9 Green Waste
- 3.23.10 Inert Waste
- 3.23.11 Municipal Solid Waste- Domestic Sources
- 3.23.12 Municipal Solid Waste- Hard Waste
- 3.23.13 Municipal Solid Waste- Kerbside Bin Collection
- 3.23.14 Putrescible Waste
- 3.23.15 Quarantine Waste
- 3.23.16 Used Tyres
- 3.23.17 Waste Fill
- 3.23.18 Intermediate Waste Soil
- 3.23.19 Intermediate Waste
- 3.23.20 Low Level Contaminated Waste Soil
- 3.23.21 Low Level Contaminated Waste
- 3.23.22 Organochlorine Pesticide (OCP) Waste
- 3.23.23 Used Foundry Sand
- 3.23.24 Grease Trap Waste
- 3.23.25 Treatment Plant Residues
- 3.23.26 Listed Waste
- 3.23.27 Controlled Waste

3.23.28 Unclassified Waste Soil

3.23.29 Waste Soil

### **3.24 PREMISES FIRE MANAGEMENT (S - 130)**

The Licensee must:

- 3.24.1 not cause or permit any waste to be burned at the Premises;
- 3.24.2 notify the EPA as soon as reasonably practicable after becoming aware of a fire at the Premises; and
- 3.24.3 within 72 hours of bringing the fire under control, provide a written report to the EPA setting out the following:
  - a date of the fire;
  - b approximate time of the fire;
  - c cause of the fire (if known);
  - d area of the Premises where the fire occurred;
  - e measures used to extinguish the fire and to manage any environmental impacts; and
  - f appropriate measures that will be taken to reduce the risk of further fire at the Premises.

### **3.25 RECEIPT OF TREATMENT PLANT RESIDUES (U - 1081)**

The Licensee must:

- 3.25.1 only receive Treatment Plant Residues (TPRs) at the Premises if accompanied by written, signed and dated certification from the TPR producer stating that it complies with Low Level Contaminated Waste criteria as defined in this licence;
- 3.25.2 only dispose of TPRs within a Low Level Contaminated Waste cell; and
- 3.25.3 keep all certification records for a period not less than 12 months from the date of receipt.

### **3.26 RECEIPT OF WASTE SOILS - INTERMEDIATE WASTE SOIL (S - 146)**

The Licensee must:

- 3.26.1 ensure that Intermediate Waste Soil received at the Premises is accompanied by written, signed and dated certification from a suitably qualified consultant, site contamination consultant or site contamination auditor, stating that the waste complies with the definition of Intermediate Waste Soil, unless otherwise approved by the EPA in writing; and

- 3.26.2 keep all certification records for a period of not less than 12 months from the date of receipt.

### **3.27 RECEIPT OF WASTE SOILS - WASTE FILL (S - 145)**

The Licensee must:

- 3.27.1 ensure that Waste Fill received at the Premises that exceeds 100 tonne from a single source site is accompanied by written, signed and dated certification from a suitably qualified consultant, site contamination consultant or site contamination auditor stating that the waste complies with the definition of Waste Fill unless otherwise approved by the EPA in writing; and
- 3.27.2 keep all certification records for a period of not less than 12 months from the date of receipt.

### **3.28 RECOVERED PRODUCTS PLAN (S - 242)**

The Licensee must:

- 3.28.1 develop and submit to the EPA by the compliance date listed below, a Recovered Products Plan (Plan) for the production of Waste Derived Fill to the satisfaction of the EPA;
- 3.28.2 ensure that the Plan submitted under clause 1 specifies the details required by the South Australian EPA 'Standard for the production and use of Waste Derived Fill' (WDF Standard), including but not limited to the following:
- a the incoming waste streams to be treated in the production of Waste Derived Fill;
  - b the treatment methodology of the incoming waste streams;
  - c the chemical and physical specifications of the Waste Derived Fill to be produced;
  - d the QA/QC procedures to be employed to ensure that the Waste Derived Fill:
    - i meets waste fill criteria (see definition) in Appendix 1 of the WDF Standard or is approved in accordance with the Plan, and
    - ii is fit for purpose; and
  - e a contingency plan to manage incoming wastes and treated wastes intended for reuse, removal or disposal that do not meet the specifications in the Plan;
- 3.28.3 implement and comply with the approved Plan upon notice of approval in writing by the EPA;
- 3.28.4 not treat (including processing by any means, physical or chemical), reuse, remove or dispose of waste except in accordance with the approved Plan or this Licence;

3.28.5 ensure that any variation to the Plan is approved in writing by the EPA.

#### NOTES

The EPA will assess the appropriateness of the Recovered Products Plan against the South Australian EPA 'Standard for the production and use of Waste Derived Fill', in particular but not limited to Section 6.1.1. This document is available on the EPA website at

[http://www.epa.sa.gov.au/environmental\\_info/waste\\_management/solid\\_waste/waste\\_derived\\_fill](http://www.epa.sa.gov.au/environmental_info/waste_management/solid_waste/waste_derived_fill)

**Compliance Date: 31-May-2020**

### 3.29 REVISED LANDFILL ENVIRONMENT MANAGEMENT PLAN (U - 1091)

The Licensee must:

3.29.1 develop and submit to the satisfaction of the EPA by 30 August 2020 a Revised Landfill Environment Management Plan (RLEMP).

3.29.2 The RLEMP must include, but need not be limited to:

- a the identification, as far as is reasonably practicable, of all environmental risks associated with conducting the approved prescribed activities undertaken at the Premises;
- b details of the methods and timeframes to manage the identified risks;
- c details of the methods and timeframes for:
  - i the management of storage, stockpiling, treatment and disposal of wastes permitted to be received at the Premises;
  - ii the prevention or minimisation of the generation of litter, dust, noise and odour;
  - iii the monitoring of landfill gas and, in the event of a landfill gas management system failure, management of that failure;
  - iv the monitoring of ground water, surface water and leachate;
  - v the management of soil erosion;
- d details of fire prevention and control methods, including:
  - i infrastructure details;
  - ii staff training in fire risk identification and fire response procedures; and
  - iii a plan of the stormwater drain locations for the Premises;
- e details of batter management including:
  - i how batters are to be maintained
  - ii methods of revegetation
  - iii timeframes for actions to be taken

### **3.30 SECURITY (S - 157)**

The Licensee must take all reasonable and practicable measures to prevent unauthorised access to the Premises.

### **3.31 SIGNAGE (S - 98)**

The Licensee must display a sign at the entrance to the Premises clearly stating:

- 3.31.1 the Licensee's name;
- 3.31.2 the Licensee's authorisation number;
- 3.31.3 an emergency contact name and telephone number; and
- 3.31.4 the type of wastes that can be received subject to this Authorisation.

### **3.32 UNCLASSIFIED WASTE SOIL (U - 1100)**

The Licensee must comply with the following requirements in relation to any Unclassified Waste Soil received at the Premises:

- 3.32.1 record details of the source and quantity of Unclassified Waste Soil upon receipt at the Premises and keep those records for a period of not less than 12 months from the date of receipt;
- 3.32.2 store Unclassified Waste Soil within the Multi-purpose Waste Treatment Facility (MWTF);
- 3.32.3 sample and analyse Unclassified Waste Soil to determine its classification in accordance with the attachments entitled "Waste Fill- Regulation 3"; "Intermediate Waste Soil" and "Low Level Contaminated Waste Soil" attached to this licence, within 120 days of receipt;
- 3.32.4 retain all sampling and analysis results for a period of not less than 12 months from the date of receipt;
- 3.32.5 notify the EPA as soon as reasonably practicable where sampling results exceed Low Level Contaminated Waste criteria;
- 3.32.6 where the results of the sampling and analysis of Unclassified Waste Soil required by this condition determine that the waste meets Low Level Contaminated Waste criteria, that waste must only be disposed in the LLCW cell.
- 3.32.7 where the results of the sampling and analysis of Unclassified Waste Soil required by this condition determine that the waste meets High Level Contaminated Waste criteria, the following conditions of this licence must be complied with in relation to that waste:
  - a High Level Contaminated Waste Validation

### **3.33 VERMIN PREVENTION (S - 70)**

The Licensee must take all reasonable and practicable measures to prevent the presence of vermin at the Premises.

### **3.34 WASTE DERIVED MATERIALS (U - 1096)**

The Licensee must ensure that Waste Derived Fill used for the construction of internal or perimeter roads:

- 3.34.1 is produced in accordance with the EPA's "Standard for the production and use of Waste Derived Fill, 2013" as updated from time to time;
- 3.34.2 is used in accordance with those details identified on the attachments entitled, 'Dublin Northern Bale Fill Facility Figure 1 Site Layout' and 'Phase 2 – Full Site Capacity Analysis Appendix A3, Figure 2 Resource Demand' attached to this licence, except as varied below:
  - a perimeter roads must not exceed three metres in width (excluding a 0.5 metre embankment on each side) and 300 millimetres in depth;
  - b internal roads must not exceed twenty one metres in width (excluding a two metre embankment on each side) and 300 millimetres in depth.

### **3.35 WASTE SOIL - RECEIPT OF CONTAMINATED WASTE SOIL (U - 446)**

The Licensee must:

- 3.35.1 Ensure that Waste Soil classified as Low Level Contaminated or High Level Contaminated is only received at the Premises if accompanied with written, signed and dated certification from a suitably qualified consultant, site contamination consultant or site contamination auditor, stating that the waste complies with the definition of Low Level Contaminated Waste Soil or High Level Contaminated Waste Soil in accordance with the definitions and attachment titled "Low Level Contaminated Waste Soil" appended to this licence unless otherwise approved in writing by the EPA.; and
- 3.35.2 Keep all certification records for a period of not less than 12 months from the date of receipt.

### **3.36 WASTE SOIL STORAGE AND TREATMENT (U - 1094)**

The Licensee must:



- 3.36.1 ensure that LLCW/HLCW/Unclassified Waste Soils received at the Premises are:
  - a delivered and treated inside the undercover and enclosed Multi-purpose Waste Treatment Facility (MWTF);
  - b separately stockpiled by waste soil classification and origin; and
  - c stored at a minimum distance of three metres between stockpiles measured at the toe of the stockpile.
- 3.36.2 ensure that all reasonable and practicable measures are taken to:
  - a prevent cross-contamination between stockpiles;
  - b minimise the potential for dust and odour;
- 3.36.3 ensure that the treatment of wastes is only through the approved methods of Bio-remediation and stabilisation outlined in the document entitled "Integrated Waste Services Pty Ltd (IWS) Multipurpose Waste Treatment Facility Environment Management Plan, May 2010", unless otherwise approved in writing by the EPA;
- 3.36.4 not treat HLCW at the Premises unless a Waste Treatment Proposal for that waste has been approved in writing by the EPA.

### **3.37 WASTE SOIL STORAGE AND TREATMENT (U - 1103)**

The Licensee must:

- 3.37.1 ensure that all Low Level Contaminated Waste Soil (LLCWS) and High Level Contaminated Waste Soil (HLCWS) is received, stored and treated within the MWTF;
- 3.37.2 ensure that the treatment of wastes at the MWTF is only through the approved methods of Bio-remediation and stabilisation, unless otherwise approved in writing by the EPA;
- 3.37.3 not treat High Level Contaminated Waste at the Premises unless a Waste Treatment Proposal for that waste has been approved in writing by the EPA
- 3.37.4 ensure post-remediation testing on treated materials:
  - a is undertaken to assess its suitability to be disposed of or reused; and
  - b testing results are submitted to the EPA for assessment, prior to disposal or reuse;

### **3.38 WASTE TRANSPORT VEHICLE WHEEL WASH (U - 1099)**

The Licensee must:

- 3.38.1 ensure that all vehicles transporting LLCW/HLCW are washed in a wheel wash incorporating water sprays designed to remove residues from the wheels and underside of the vehicles when exiting the Premises;
- 3.38.2 ensure that all waste transport vehicles have their wheels washed at the truck and wheel wash upon exiting the Premises; and

- 3.38.3 treat all wastewater from the truck and wheel wash as leachate and dispose of this to the on-site leachate pond or to a licensed waste water treatment facility.

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## **4 MONITORING AND REPORTING**

### **4.1 ANNUAL COASTAL FLOODING REPORT (U - 1101)**

The Licensee must:

- 4.1.1 record all coastal flooding (using AHD as the datum) at the western end of the Premises and make the records available to the EPA upon request; and
- 4.1.2 keep those records for a period of not less than 12 months.

### **4.2 ANNUAL REPORT ON TESTING AND RESULTS (U - 969)**

The Licensee must:

- 4.2.1 on or before 30 June each year, provide the EPA with an annual report detailing the testing and results required by Conditions 'GROUND WATER MONITORING, LEACHATE SAMPLING, SURFACE WATER MONITORING, GROUNDWATER AND LEACHATE LEVELS REGISTER, LEACHATE LEVEL MANAGEMENT, GROUNDWATER LEVEL RECORDING GW-11' contained in this licence, for the previous 12 months;
- 4.2.2 provide a copy of any results from the six monthly water quality analysis required by Condition 'GROUND WATER MONITORING' (2) by 31 December and 30 June each year; and
- 4.2.3 ensure that the reports required by paragraphs 1 and 2 hereof are in a written form.

### **4.3 DEVELOP STOCKPILE MANAGEMENT PLAN (U - 1106)**

The Licensee must:

- 4.3.1 develop and submit to the satisfaction of the EPA, by 31 May 2020, a Stockpile Management Plan (SpMP);
- 4.3.2 ensure that the SpMP includes, but is not limited to, the following:
- a actions to be undertaken and the timing of those actions required to achieve compliance with condition MAXIMUM ALLOWABLE STOCKPILE LIMITS of this licence; and
  - b a reporting method to the EPA, including frequency, that demonstrates progress and completion of compliance actions

#### **4.4 GROUNDWATER AND LEACHATE LEVELS REGISTER (U - 966)**

The Licensee must:

- 4.4.1 record daily groundwater and leachate level measurements from the automatic data loggers for any cell that is being dewatered;
- 4.4.2 record weekly groundwater and leachate level measurements from the automatic data loggers for any cell in which the dewatering system has been decommissioned;
- 4.4.3 in the event the automatic data loggers fail, implement manual monitoring within 24 hours; and
- 4.4.4 notify the EPA as soon as practicable of any exceedances to conditions 'Groundwater Surface Levels' and 'Leachate Management' of this licence.

#### **4.5 GROUNDWATER LEVEL RECORDING - GW11 (U - 1102)**

The Licensee must:

- 4.5.1 manually measure and record at weekly intervals groundwater levels from the groundwater monitoring well identified as GW11 in the attachment entitled 'Map of Groundwater monitoring bores' attached to this licence; and
- 4.5.2 retain those records for the operational lifespan of the landfill.

#### **4.6 GROUNDWATER MONITORING (U - 1126)**

The Licensee must:

- 4.6.1 take groundwater samples for water quality analysis at six monthly intervals from bores GW1, GW2, GW3, GW4, GW5, GW6, GW7, GW8, GW9A, WQ10, GW11, GW12 as identified on the map of groundwater bores in the attachment entitled "Map of groundwater monitoring bores" attached to this licence and have the samples analysed for trigger parameters as specified in the attachment entitled 'Groundwater Guidelines' (Table 1- Laboratory Measured Parameters) attached to this licence;
- 4.6.2 take groundwater samples from the groundwater control system extraction well for each closed cell at 12-monthly intervals, and analyse for trigger parameters as specified in Table 1 of the Groundwater Guidelines attachment;
- 4.6.3 ensure all sampling and assessment of groundwater is undertaken by a suitably qualified consultant experienced in water monitoring assessment;
- 4.6.4 ensure that the analysis of samples is undertaken by a NATA accredited laboratory to undertake the analysis; and

- 4.6.5 submit an annual groundwater monitoring report to the EPA within three months of the completion of the final round of sampling, assessment and analysis for that 12 month period.

#### **4.7 HIGH LEVEL CONTAMINATED WASTE VALIDATION (U - 305)**

The Licensee must:

- 4.7.1 ensure validation testing of treated High Level Contaminated waste is undertaken by a suitably qualified consultant;
- 4.7.2 provide a validation report including laboratory test results to the EPA;
- 4.7.3 only dispose of treated High Level Contaminated Waste if approved in writing by the EPA;
- 4.7.4 develop and submit a contingency plan to the satisfaction of the EPA should treated High Level Contaminated Waste not be suitable for disposal; and
- 4.7.5 implement the contingency plan upon approval in writing by the EPA.

#### **4.8 LEACHATE SAMPLING (U - 1127)**

The Licensee must:

- 4.8.1 take leachate samples at six-monthly intervals from each operating and closed cell;
- 4.8.2 analyse those samples for the chemical parameters contained in the attachment entitled "Groundwater Guidelines (Table 1 - Laboratory Measured Parameters)" attached to this licence;
- 4.8.3 ensure all sampling and assessment of leachate is undertaken by a suitably qualified consultant experienced in water monitoring assessment; and
- 4.8.4 ensure that the analysis of samples is undertaken by a NATA accredited laboratory to undertake the analysis.

#### **4.9 MANAGEMENT OF STOCKPILE LIMITS FOR ALTERNATIVE DAILY COVER (U - 1221)**

The Licensee must:

- 4.9.1 submit to the EPA on or before 30 March 2021 a stockpile management plan (SpMP) for the receipt and storage of ADC – General and ADC – LLCW to the satisfaction of the EPA.

- 4.9.2 ensure that the SpMP includes, but is not limited to, the following:
- a a site plan which specifies that storage of Alternative Daily Cover must be contained within the active landfill disposal cells; and
  - b that stockpiles of Alternative Daily Cover do not exceed 500 tonnes at any given time in the general waste disposal cells and 500 tonnes at any given time in Low Level Contaminated Waste cells in accordance with Attachment A1 – Stockpile Limits; and
  - c that only ADC – General is used in the general waste cells at the Premises; and
  - d that only either ADC - General and/or ADC – LLCW is used in the Low Level Contaminated Waste cells at the Premises;
  - e procedures to prevent environmental nuisance caused by dust, litter and odour from stockpiles.
- 4.9.3 implement the approved SpMP when storing Alternative Daily Cover at the Premises.

#### **4.10 MAXIMUM ALLOWABLE STOCKPILE LIMITS (U - 1122)**

The Licensee must:

- 4.10.1 ensure stockpiled waste not requiring undercover storage is confined to the Resources Pad and Bio-remediation Pad at the Premises unless otherwise approved in writing by the EPA; and
- 4.10.2 not exceed the stockpile limits in table 1 of Attachment A1 entitled “Stockpile Limits” attached to this licence

#### **4.11 NATA ACCREDITED LABORATORY (U - 1129)**

The Licensee must ensure that:

- 4.11.1 all groundwater quality, leachate quality and surface water sampling and testing is carried out by a specialist testing organisation accredited by NATA for the analytical methods used by that testing organisation; and
- 4.11.2 appropriate QA and QC procedures are followed for the said sampling and testing.

#### **4.12 STOCKPILE LIMIT COMPLIANCE CERTIFICATE (U - 1123)**

The Licensee must submit to the EPA a certificate of compliance (pursuant to section 54B(1) of the Environment Protection Act 1993) on or before 30 September each year. The certificate of compliance must include information on the extent to which the specified requirements under condition MAXIMUM ALLOWABLE STOCKPILE LIMITS have or have not been complied with.

#### **4.13 SURFACE WATER MONITORING (U - 1130)**

The Licensee must:

- 4.13.1 take surface water samples from the sedimentation ponds at the Premises at 12 monthly intervals when there is pooling in the sedimentation ponds;
- 4.13.2 have the surface water samples analysed for trigger parameters specified in the attachment entitled "Surface Water – Table 1 Laboratory Measured Parameters" attached to this licence;
- 4.13.3 design, construct and maintain the surface water infrastructure to ensure that:
  - a perimeter swales, drains and ponds manage and control surface water at the Premises up to a one in 100 year ARI;
  - b the sedimentation ponds have the capacity for a one in 25 year, 24 hour duration storm; and
  - c other containment ponds have the capacity to contain a one year ARI, 24 hour duration storm.

#### **4.14 VOLUMETRIC SURVEY PRIOR TO DISPOSAL (67 - 307)**

The Licensee must provide the EPA with a volumetric survey, prepared by an Authorised Surveyor, of the capacity of each cell prior to disposing of any waste into the cell and upon completion of each cell.

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### **5 ADMINISTRATION**

#### **5.1 ANNUAL RETURN AND PAYMENT OF ANNUAL FEES (A - 4)**

For the purposes of section 48(2)(a) of the Act, the date in each year for the lodgement of the Annual Return is no later than 90 days before the anniversary of the grant or renewal of the Licence; and

- 5.1.1 For the purposes of section 48(2)(b) of the Act, the date in each year for the payment of Annual Authorisation Fee is the anniversary of the grant of the Licence.

#### **5.2 APPROVAL OF OPERATING PROCESSES (A - 6)**

The Licensee must not undertake changes to operating processes conducted pursuant to the Licence at the Premises without written approval from the EPA, where such changes:

- 5.2.1 have the potential to increase emissions or alter the nature of pollutants or waste currently generated by, or from the licensed activity; or
- 5.2.2 have the potential to increase the risk of environmental harm; or

5.2.3 would relocate the point of discharge of pollution or waste at the Premises.

### **5.3 APPROVAL OF WORKS (A - 5)**

The Licensee must not construct or alter a building or structure, or install or alter any plant or equipment, for use of an activity undertaken pursuant to the Licence at the Premises without written approval from the EPA, where such changes:

- 5.3.1 have the potential to increase the emissions or alter the nature of pollutants or waste currently generated by, or from the licensed activity; or
- 5.3.2 have the potential to increase the risk of environmental harm; or
- 5.3.3 would relocate the point of discharge of pollution or waste at the Premises.

### **5.4 CHANGE OF LICENSEE DETAILS (A - 3)**

If the Licensee's name or postal address (or both) changes, the Licensee must inform the EPA within 28 days of the change occurring.

### **5.5 FINANCIAL ASSURANCE (U - 965)**

The Licensee must:

- 5.5.1 retain the financial assurance provided to the EPA in accordance with section 51 of the Act to the amount of \$50,000.00;
- 5.5.2 ensure that the financial assurance is maintained and provided to the EPA as a bond or bank guarantee, the discharge or repayment of which is conditional upon the Licensee complying with Conditions LANDFILL GAS MANAGEMENT (paragraphs 1 and 2), LEACHATE MANAGEMENT, GROUNDWATER MONITORING, LEACHATE SAMPLING, SURFACE WATER MONITORING, NOTIFICATION OF STORMWATER CONTAMINATION OR DISCHARGE and ANNUAL COASTAL FLOODING REPORT of this licence

### **5.6 LICENCE RENEWAL (A - 2)**

For the purposes of section 43(3) of the Act, an application for Renewal of the Licence must be made no later than 90 days before the expiry date of the Licence.

## **5.7 OBLIGATIONS TO EMPLOYEES, AGENTS AND CONTRACTORS (A - 1)**

The Licensee must ensure that every employee, agent or contractor responsible for undertaking any activity regulated by the Licence, is informed as to the conditions of the Licence.

## **5.8 VARIATION OF CONDITIONS OF LICENCE (pursuant to section 45(3) of the Environment Protection Act 1993) (U - 1128)**

The EPA may:

- 5.8.1 impose conditions or vary conditions of this licence at any time by notice in writing to the Licensee where:
- a any approved Plans or Programs required by this licence are not meeting the required environmental outcomes;
  - b progress of the implementation of the Plans or Programs is not meeting the required environmental outcomes;
  - c the reporting required under the Plans or Programs has proved inadequate in achieving the required environmental outcomes;
  - d the results of monitoring conducted indicate further monitoring is required to understand environmental outcomes; and
  - e incident management has proven to be inadequate in achieving the required environmental outcomes.

## **Attachments**

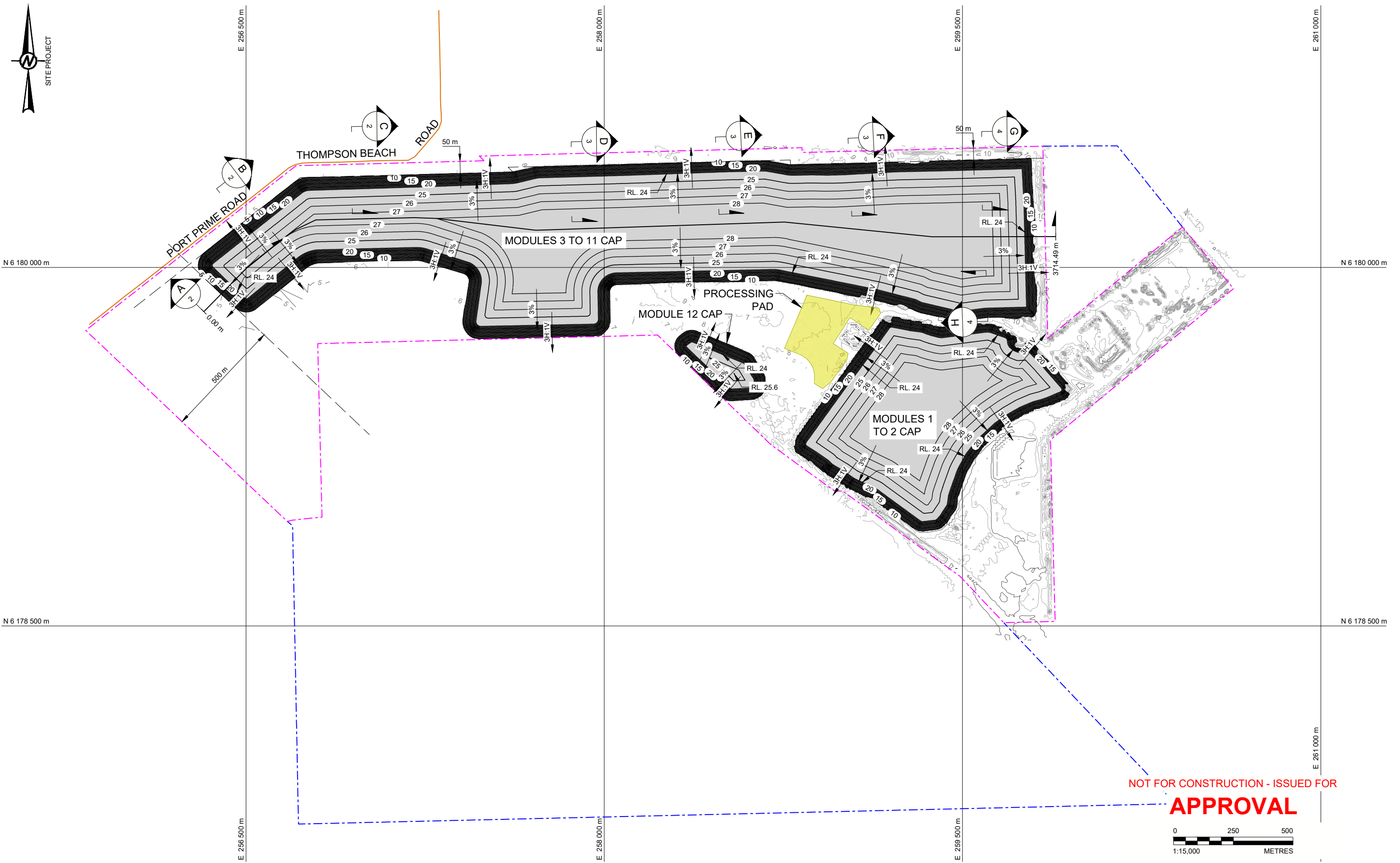
There are no documents attached to this licence.



# **APPENDIX J**

## **Golder Cell Module Layout Plan**

Path: \\golder-gdb\gpa\A\JDI\Asst\del\Gom\com\IWS\Dublin\IWS9\_PROJECTS\21470561\_IWS\_Dublin\_Module 3\_Emp\tramp\tramp\Cap\02\_PRODUCTION\DOC\_002 | File Name: 21470561-IWS\_Dublin\_Module 3\_Emp\tramp\tramp\Cap\02\_PRODUCTION\DOC\_002 | Printed By: L.O'Connell | Date: 2022-02-03 | Time: 12:09:14 PM



NOT FOR CONSTRUCTION - ISSUED FOR  
**APPROVAL**



**LEGEND**

	EXISTING SURVEY 1 m CONTOURS
	MODULES 1 TO 2 CAP, MODULES 3 TO 11 CAP AND MODULE 12 CAP DESIGN SURFACE 1 m CONTOURS
	ROAD CENTRELINE
	ADDITIONAL IWS TENURE
	IWS MAJOR DEVELOPMENT BOUNDARY Council Assessment Panel

PROCESSING PAD

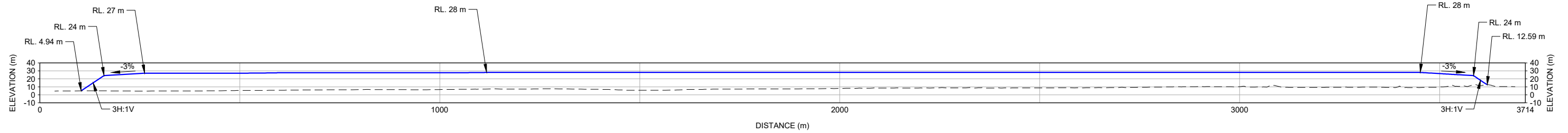
**REFERENCE(S)**  
 SURVEY SHOWN/GENERATED FROM INFORMATION PROVIDED IN STEED SURVEYORS FILE: A11130C85E20.0.dwg, DATED 08 OCTOBER 2021.

**NOTE(S)**  
 SHOULDER HEIGHT IS 24 m FOR ALL CAPS.

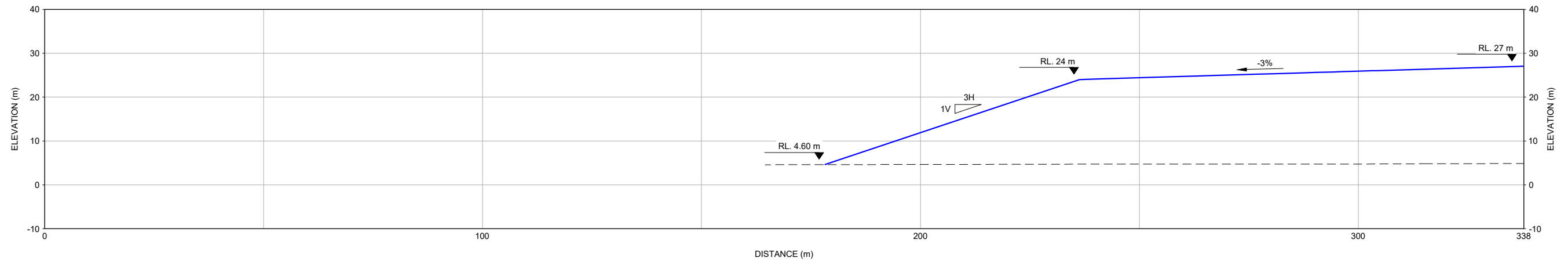
CLIENT <b>INTEGRATED WASTE SERVICES</b>	PROJECT <b>DUBLIN          MODULES 1 TO 12 CAPS</b>	TITLE <b>MODULES 1 TO 2 CAP, MODULES 3 TO 11 CAP AND MODULE 12 CAP - LAYOUT PLAN</b>
CONSULTANT <b>GOLDER</b> MEMBER OF WSP	YYY-MM-DD    2022-02-03 DESIGNED    DJR PREPARED    LGQ REVIEWED    DJR APPROVED    DJR	PROJECT NO.    21470561    DOC.    002 REV    3 Wednesday 3 May 2023

25 mm IF THIS MEASUREMENT DOES NOT MATCH WHAT IS SHOWN, THE SHEET SIZE HAS BEEN MODIFIED FROM ISO A3

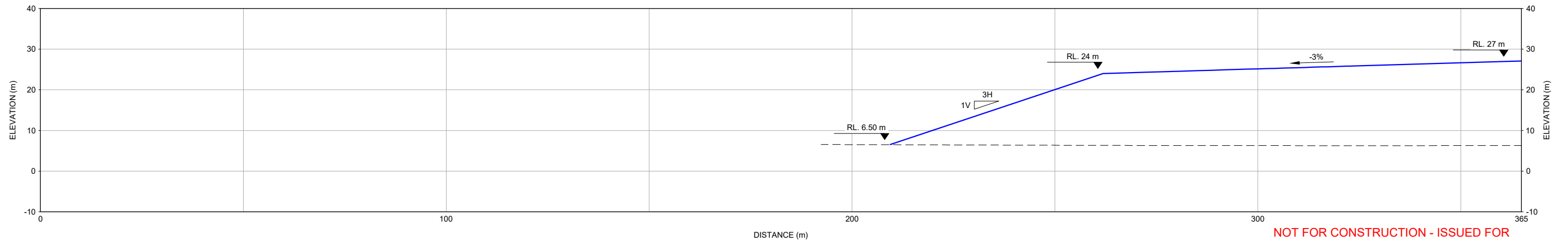
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 VERT. SCALE 1:5,000 m  
**A** LONG SECTION  
 1

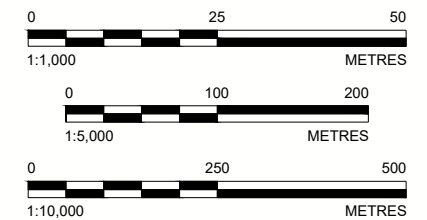


HORIZ. SCALE 1:1,000 m  
 VERT. SCALE 1:1,000 m  
**B** SECTION  
 1



HORIZ. SCALE 1:1,000 m  
 VERT. SCALE 1:1,000 m  
**C** SECTION  
 1

NOT FOR CONSTRUCTION - ISSUED FOR  
**APPROVAL**



- LEGEND**
- EXISTING SURVEY
  - MODULES 3 TO 11 TOP OF CAP (DESIGN)

CLIENT  
 INTEGRATED WASTE SERVICES

PROJECT  
 DUBLIN  
 MODULES 1 TO 12 CAPS

CONSULTANT



YYYY-MM-DD	2022-02-03
DESIGNED	DJR
PREPARED	LGQ
REVIEWED	DJR
APPROVED	DJR

TITLE  
**MODULES 3 TO 11 CAP  
 SECTIONS - SHEET 1 OF 3**

PROJECT NO.  
 21470561

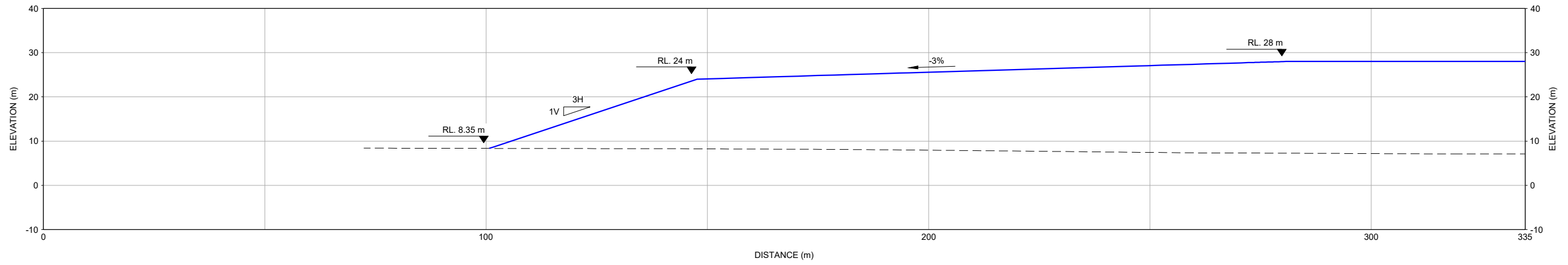
DOC.  
 002

REV  
 3  
 Wednesday 3 May 2023

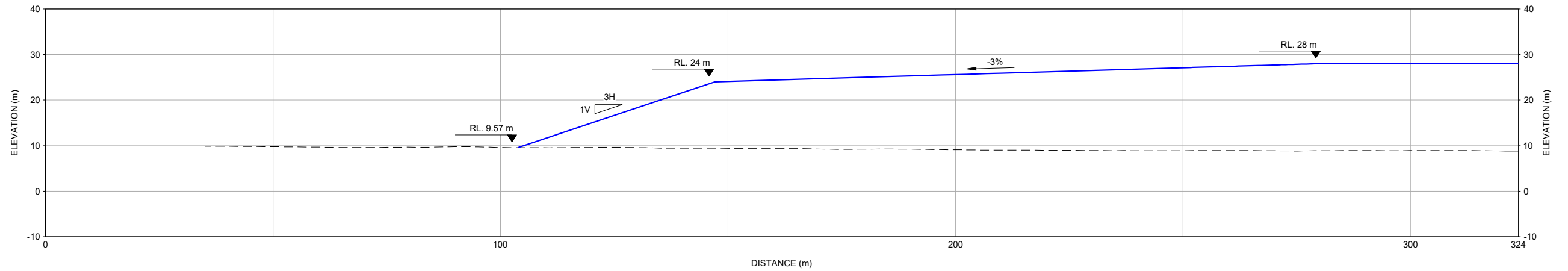
FIGURE  
 2

25 mm IF THIS MEASUREMENT DOES NOT MATCH WHAT IS SHOWN, THE SHEET SIZE HAS BEEN MODIFIED FROM ISO A3

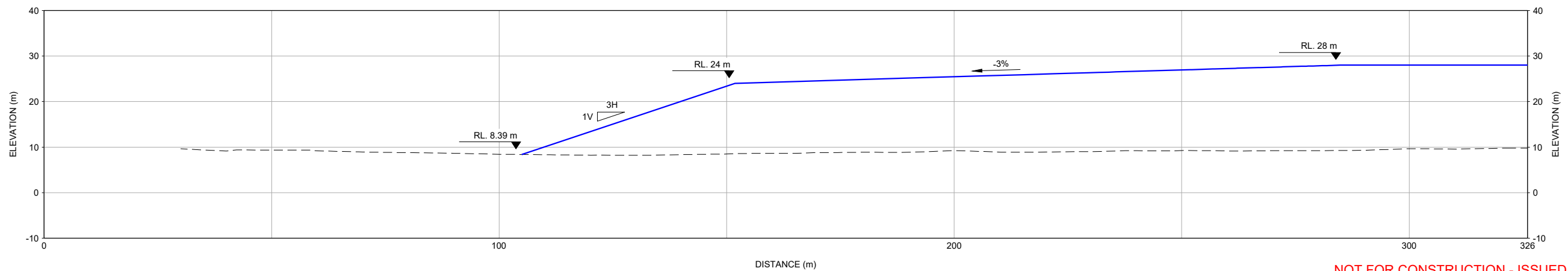
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HORIZ. SCALE 1:1,000 m  
 VERT. SCALE 1:1,000 m  
**D SECTION**  
 1



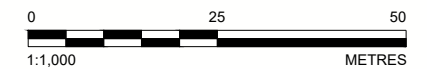
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 VERT. SCALE 1:1,000 m  
**E SECTION**  
 1



HORIZ. SCALE 1:1,000 m  
 VERT. SCALE 1:1,000 m  
**F SECTION**  
 1

NOT FOR CONSTRUCTION - ISSUED FOR

**APPROVAL**



- LEGEND**
- EXISTING SURVEY
  - MODULES 3 TO 11 TOP OF CAP (DESIGN)

CLIENT  
 INTEGRATED WASTE SERVICES

PROJECT  
 DUBLIN  
 MODULES 1 TO 12 CAPS

CONSULTANT



YYYY-MM-DD	2022-02-03
DESIGNED	DJR
PREPARED	LGQ
REVIEWED	DJR
APPROVED	DJR

TITLE  
**MODULES 3 TO 11 CAP  
 SECTIONS - SHEET 2 OF 3**

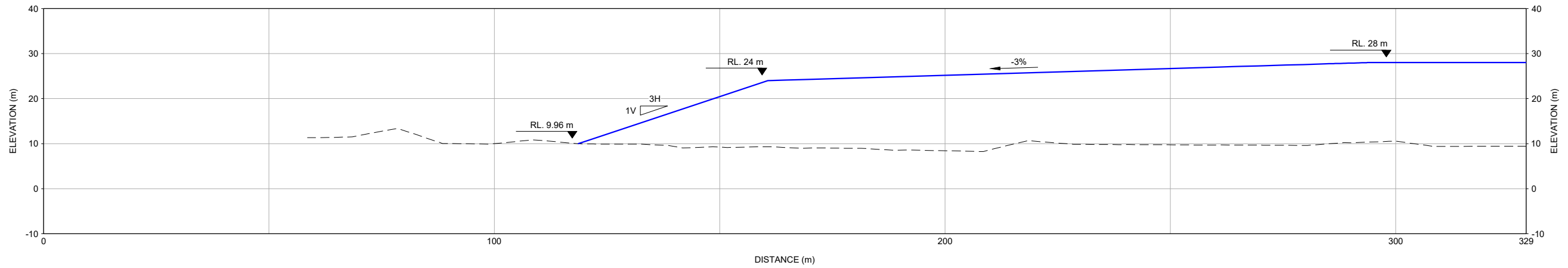
PROJECT NO. 21470561  
 DOC. 002

Wednesday 3 May 2023  
 REV 3

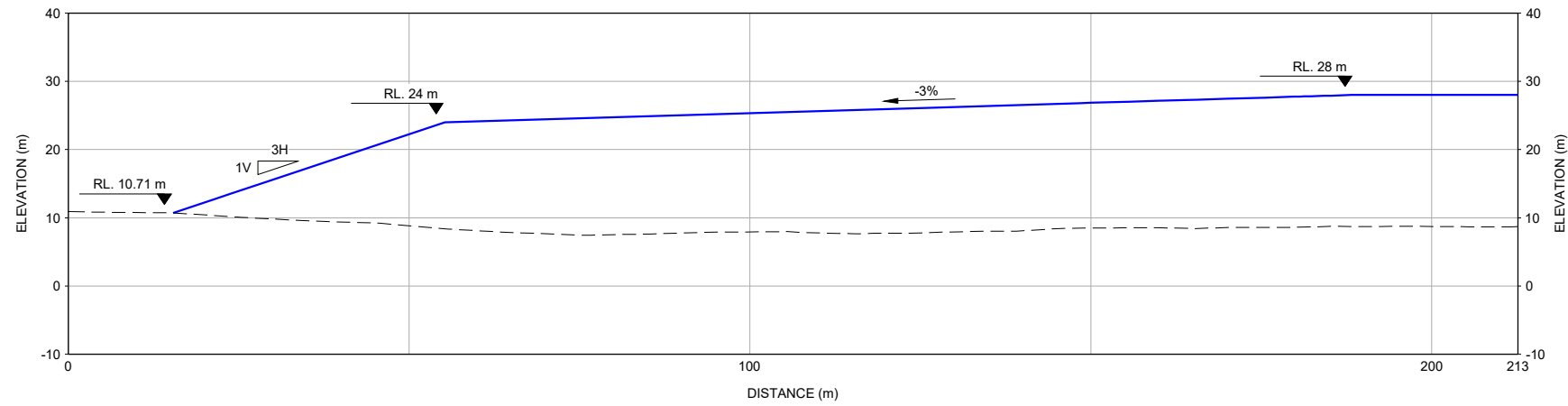
FIGURE 3

25 mm IF THIS MEASUREMENT DOES NOT MATCH WHAT IS SHOWN, THE SHEET SIZE HAS BEEN MODIFIED FROM ISO A3

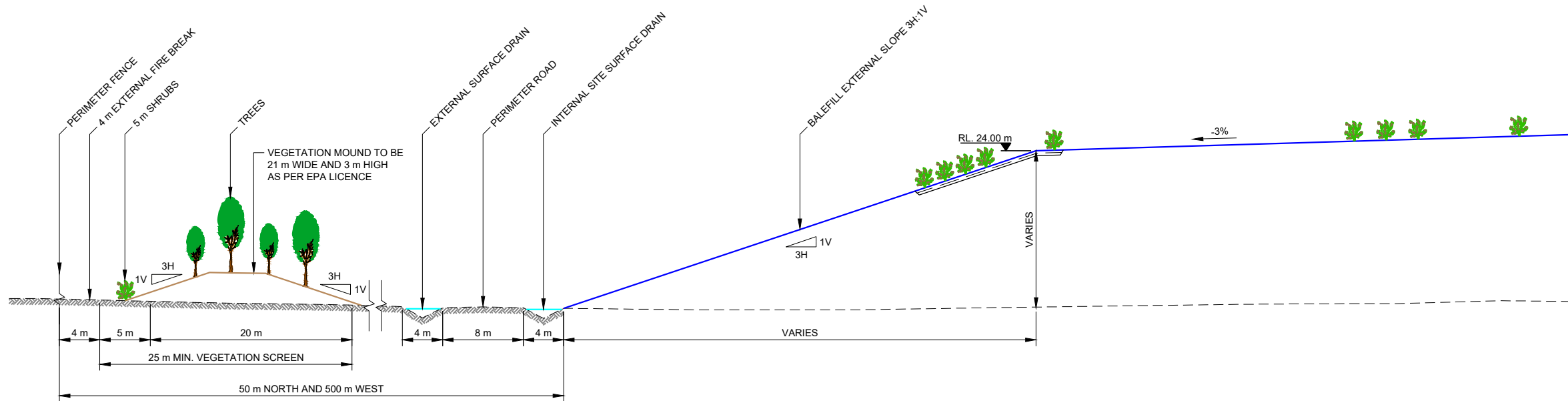
Path: \\golder-gdp\ppl\AU\_VDP\Asst\Geomatics\WSD\Dublin\09\_PROJECTS\21470561\_LMS\_Dublin\_Modules\_3\_Empowerment\Cap02\_PRODUCTION\DOC\_002 | File Name: 21470561-002-FIGURE.dwg | Last Edited By: Sriragular Date: 2022-01-31 Time: 4:28:16 PM | Printed By: Sriragular Date: 2022-02-03 Time: 12:16 PM



HORIZ. SCALE 1:1,000 m  
 VERT. SCALE 1:1,000 m  
**G SECTION**  
 1

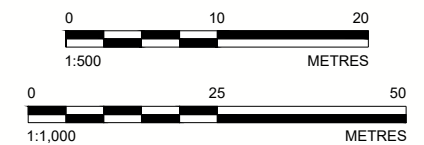


HORIZ. SCALE 1:1,000 m  
 VERT. SCALE 1:1,000 m  
**H SECTION**  
 1



**TYPICAL PERIMETER PROFILE**  
 SCALE 1:500 m

NOT FOR CONSTRUCTION - ISSUED FOR  
**APPROVAL**



- LEGEND**
- EXISTING SURVEY
  - MODULES 3 TO 11 TOP OF CAP (DESIGN)

CLIENT  
**INTEGRATED WASTE SERVICES**

PROJECT  
**DUBLIN  
 MODULES 1 TO 12 CAPS**

CONSULTANT



YYYY-MM-DD	2022-02-03
DESIGNED	DJR
PREPARED	LGQ
REVIEWED	DJR
APPROVED	DJR

TITLE  
**MODULES 3 TO 11 CAP  
 SECTIONS - SHEET 3 OF 3**

PROJECT NO.  
 21470561

DOC.  
 002

REV  
 3  
 Wednesday 3 May 2023

FIGURE  
 4

# **APPENDIX K**

## **DBD Environmental Visual Impact Assessment Update**

# INTEGRATED WASTE SERVICES

## DUBLIN

### VISUAL IMPACT ASSESSMENT UPDATE



DRAWING SCHEDULE	
SHEET No.	DRAWING TITLE
--	DRAWING INDEX
Fig 8.1	ORIGINAL FIGURE WITH SITE PHOTO
Fig 8.1a	NEW FIGURE
Fig 8.2	ORIGINAL FIGURE WITH SITE PHOTO
Fig 8.3	ORIGINAL FIGURE WITH SITE PHOTO
Fig 8.3a	NEW FIGURE
Fig 8.3b	NEW FIGURE
Fig 8.3c	NEW FIGURE
Fig 8.3d	NEW FIGURE
Fig8.3e	NEW FIGURE
Fig 8.4	ORIGINAL FIGURE WITH SITE PHOTO
Fig 8.4a	NEW FIGURE
Fig 8.4b	NEW FIGURE
Fig 8.4c	NEW FIGURE
Fig 8.5	ORIGINAL FIGURE WITH SITE PHOTO
Fig 8.5a	NEW FIGURE
Fig 8.6	ORIGINAL FIGURE WITH SITE PHOTO
Fig 8.6a	NEW FIGURE
Fig 8.6b	NEW FIGURE
Fig 8.6c	NEW FIGURE
Fig 8.6d	NEW FIGURE

NOTE:  
 FIGURE NAMES WITH A SUFFIX LETTER ARE NEW FIGURES THAT HAVE BEEN ADDED TO THE VISUAL IMPACT ASSESSMENT, HENCE A COMPARISON TO AN ORIGINAL SITE PHOTO IS NOT POSSIBLE.

**NOT FOR CONSTRUCTION**



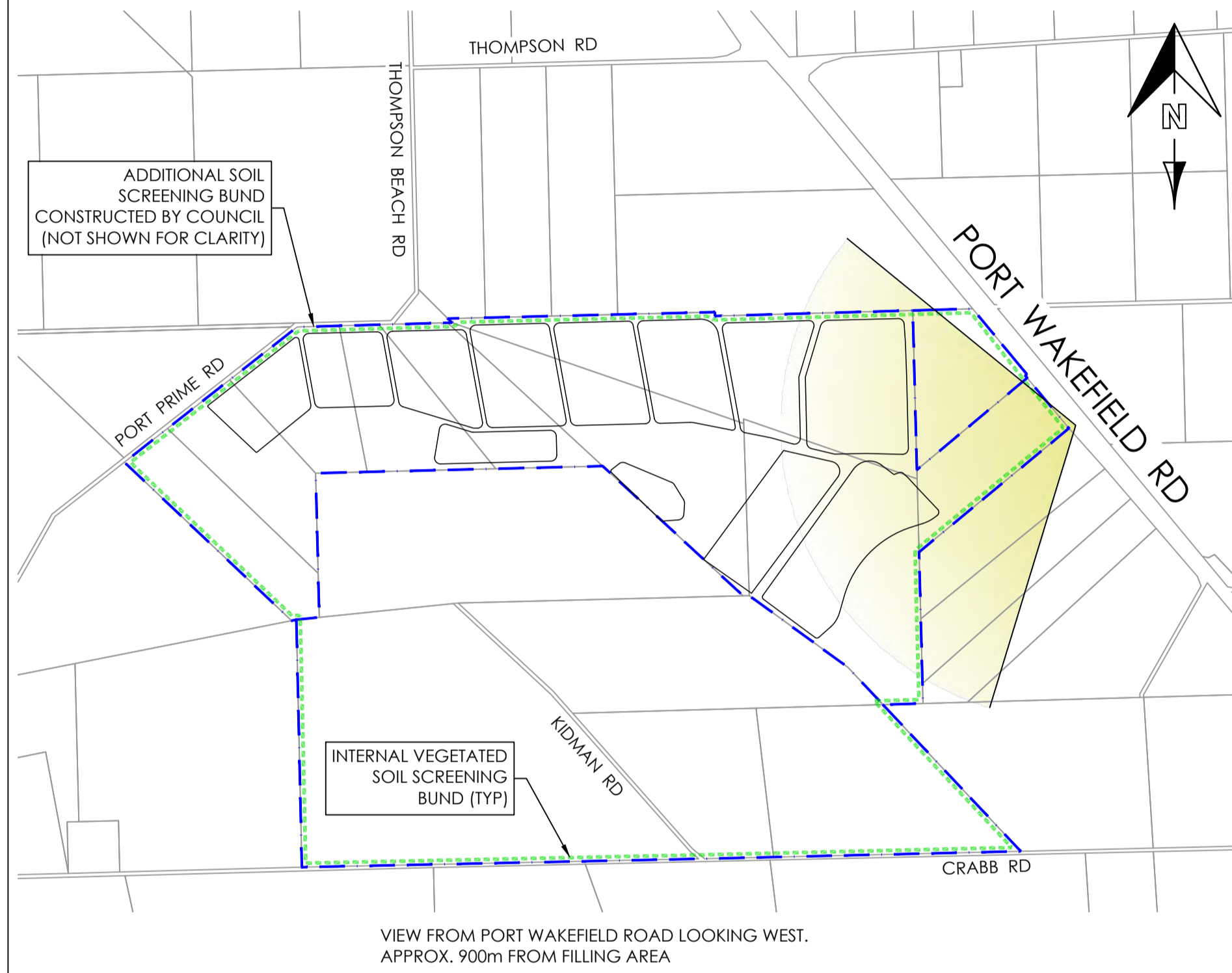
100mm ON ORIGINAL PRINT. DO NOT SCALE

SCALE:	SHEET SIZE: A1
SURVEYED:	DATE:
COORDINATES: MGA2020 Zone54	DATUM: mAHD
THIS DRAWING IS INTENDED TO BE VIEWED AND PRINTED IN COLOUR. LOCATION OF ALL SERVICES SHALL BE CONFIRMED BY THE CONTRACTOR PRIOR TO ANY EXCAVATION WORK.	

INTEGRATED WASTE SERVICES  
 DUBLIN  
 UPDATED VISUAL IMPACT ASSESSMENT

PROJECT No.	SHEET No.	REVISION
0180IWS	-	

REV	DATE	AMENDMENT DESCRIPTION	DES	DRN	CHK	APPR



ORIGINAL SITE PHOTO - 1997  
(MISLABELLED AS FIG 8.3 - CORRECTED TO FIG 8.1)



CURRENT SITE PHOTO - 2021

**NOT FOR CONSTRUCTION**



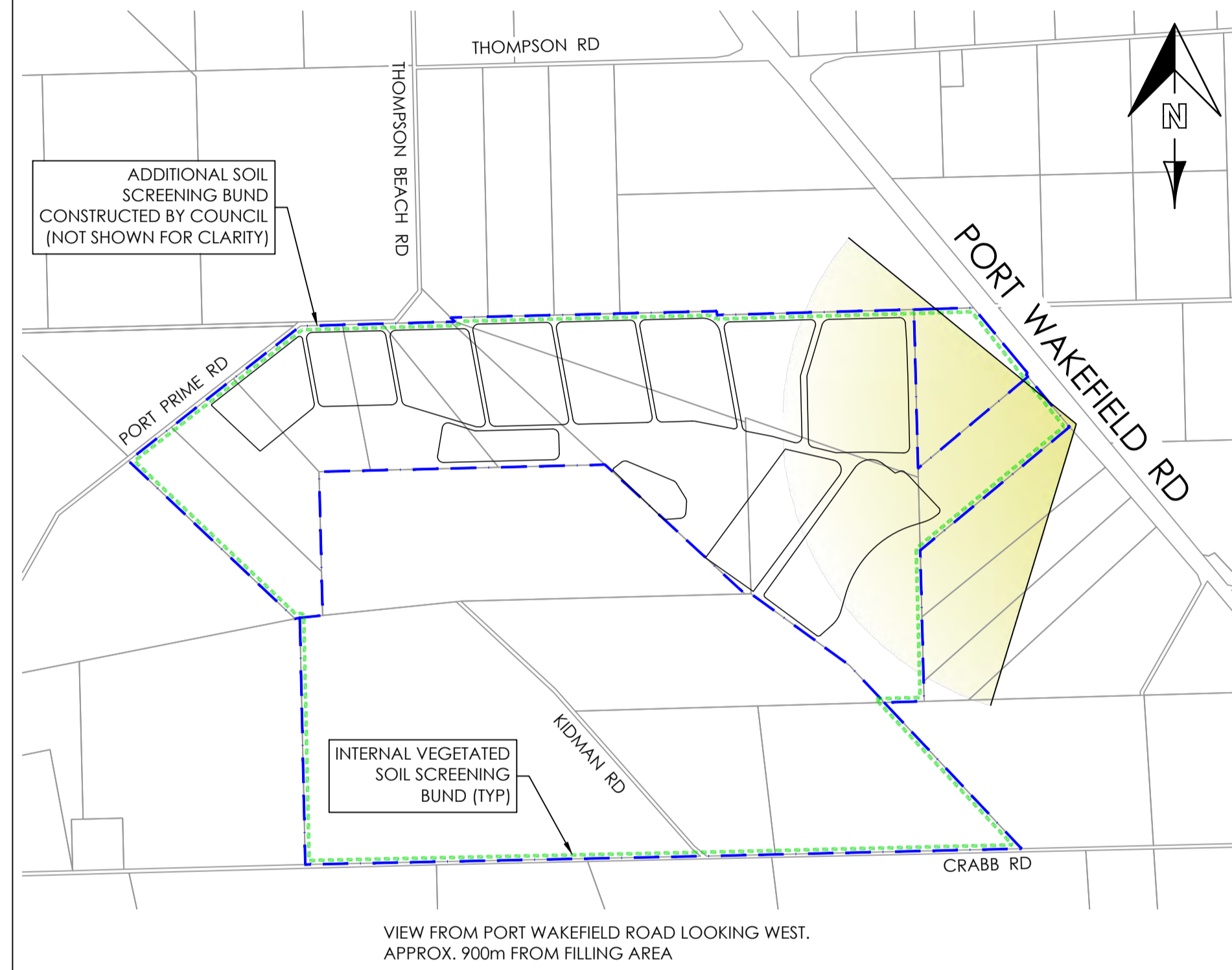
REV	DATE	AMENDMENT DESCRIPTION	DES	DRN	CHK	APPR

SCALE:	SHEET SIZE: A1
SURVEYED:	DATE:
COORDINATES: MGA2020 Zone54	DATUM: mAHD
THIS DRAWING IS INTENDED TO BE VIEWED AND PRINTED IN COLOUR. LOCATION OF ALL SERVICES SHALL BE CONFIRMED BY THE CONTRACTOR PRIOR TO ANY EXCAVATION WORK.	

INTEGRATED WASTE SERVICES		
DUBLIN		
UPDATED VISUAL IMPACT ASSESSMENT		
PROJECT No.	SHEET No.	REVISION
0180IWS	Fig 8.1	

100mm ON ORIGINAL PRINT. DO NOT SCALE





ORIGINAL SITE PHOTO - 1997  
 (THIS IMAGE IS TAKEN FROM THE INTERSECTION OF LEMMEY RD AND AN UNNAMED ROAD TO THE SOUTH OF THE IWS ENTRANCE)



CURRENT SITE PHOTO - 2021

**NOT FOR CONSTRUCTION**

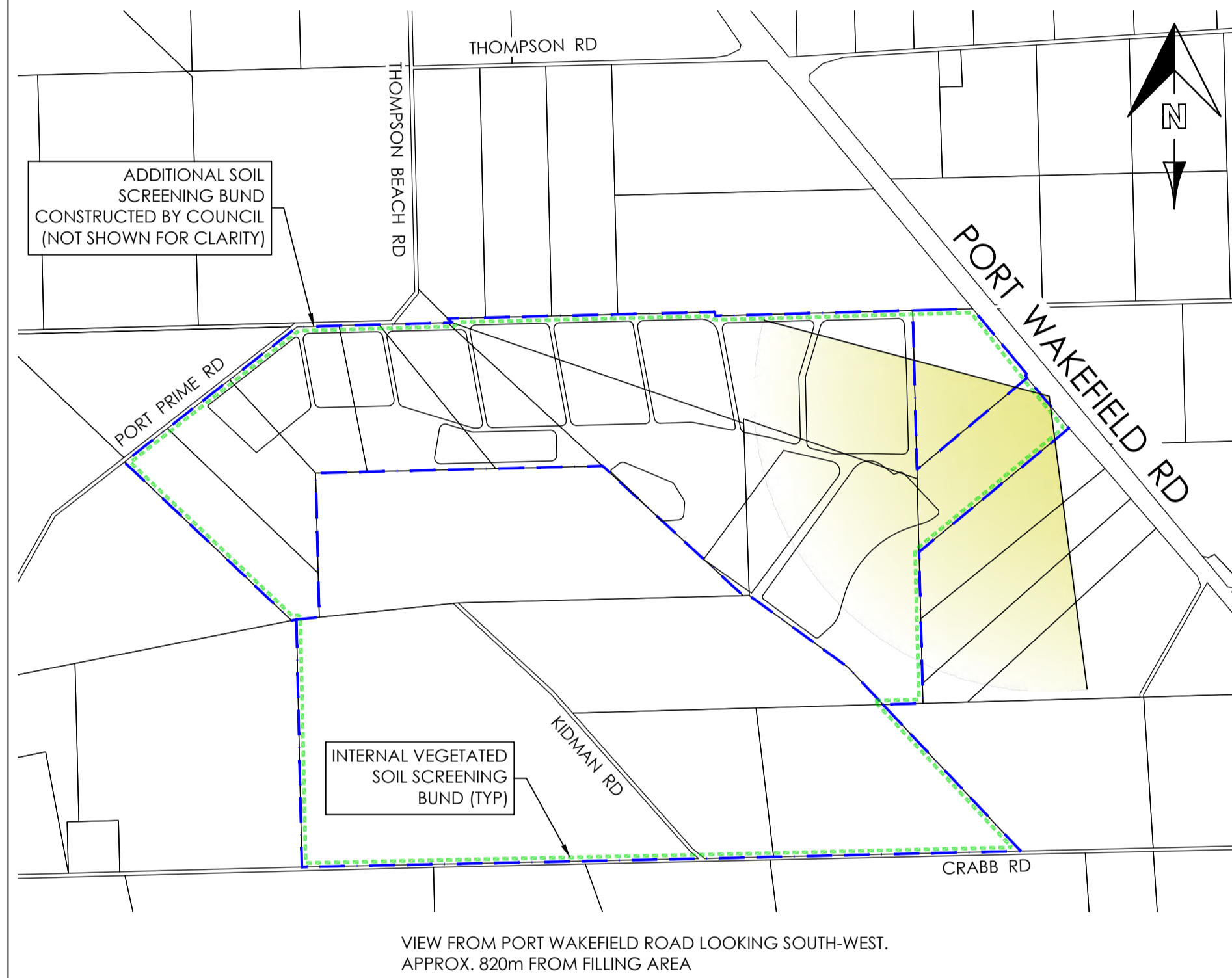
REV	DATE	AMENDMENT DESCRIPTION	DES	DRN	CHK	APPR



100mm ON ORIGINAL PRINT. DO NOT SCALE

SCALE:	SHEET SIZE: A1
SURVEYED:	DATE:
COORDINATES: MGA2020 Zone54	DATUM: mAHD
THIS DRAWING IS INTENDED TO BE VIEWED AND PRINTED IN COLOUR. LOCATION OF ALL SERVICES SHALL BE CONFIRMED BY THE CONTRACTOR PRIOR TO ANY EXCAVATION WORK.	

INTEGRATED WASTE SERVICES DUBLIN		
UPDATED VISUAL IMPACT ASSESSMENT		
PROJECT No. 0180IWS	SHEET No. Fig 8.1a	REVISION



ORIGINAL SITE PHOTO - 1997



CURRENT SITE PHOTO - 2021

**NOT FOR CONSTRUCTION**



REV	DATE	AMENDMENT DESCRIPTION	DES	DRN	CHK	APPR

100mm ON ORIGINAL PRINT. DO NOT SCALE

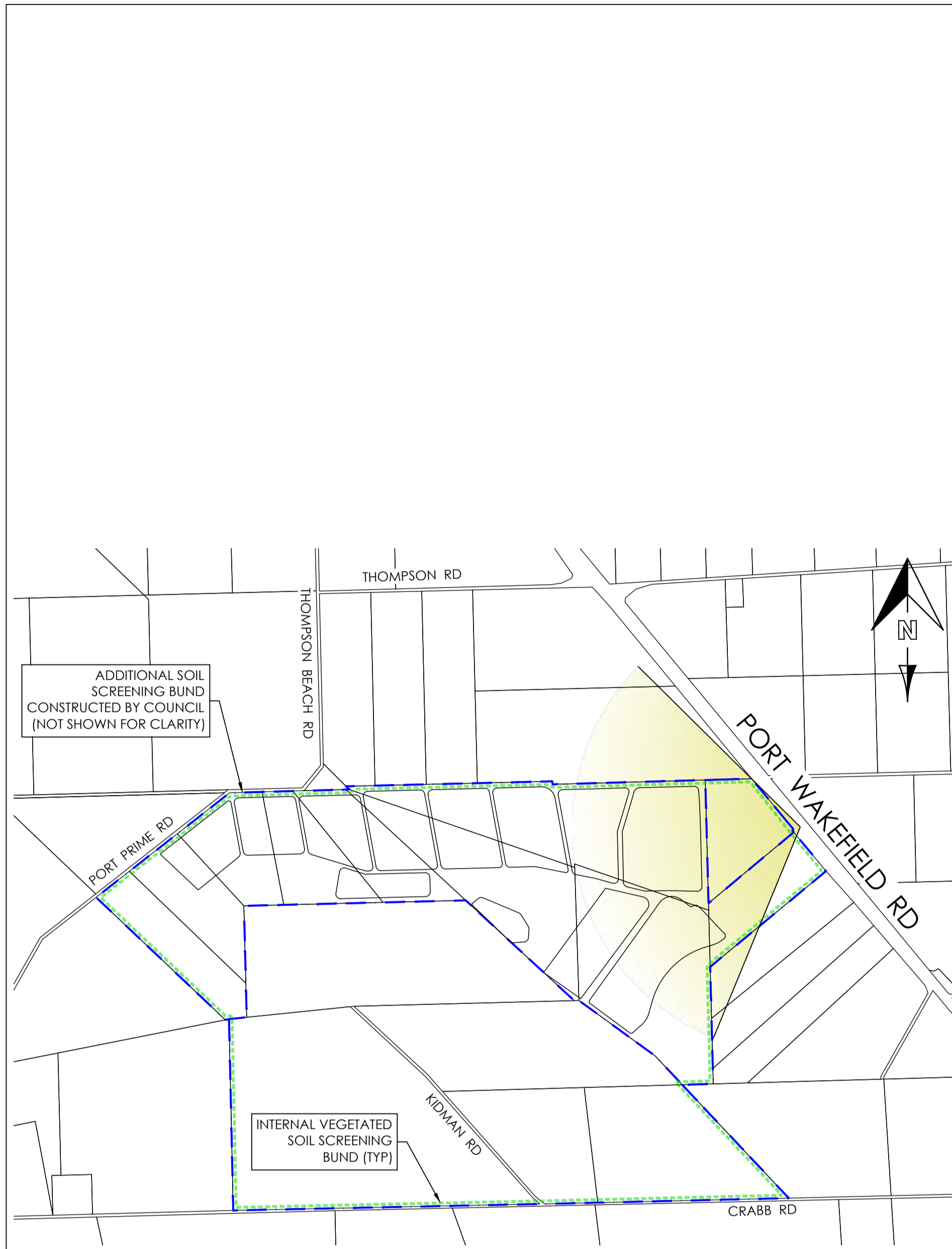
SCALE:	SHEET SIZE: A1
SURVEYED:	DATE:
COORDINATES: MGA2020 Zone54	DATUM: mAHD

THIS DRAWING IS INTENDED TO BE VIEWED AND PRINTED IN COLOUR. LOCATION OF ALL SERVICES SHALL BE CONFIRMED BY THE CONTRACTOR PRIOR TO ANY EXCAVATION WORK.

INTEGRATED WASTE SERVICES  
DUBLIN

UPDATED VISUAL IMPACT ASSESSMENT

PROJECT No. <b>0180IWS</b>	SHEET No. <b>Fig 8.2</b>	REVISION
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**LEGEND**

SOIL SCREENING BUND WITH VEGETATION (ESTIMATED)



ORIGINAL SITE PHOTO - 1997  
(MISLABELLED AS FIG 8.1 - CORRECTED TO FIG 8.3)



CURRENT SITE PHOTO - 2021



PROJECTED SITE PHOTO  
(BASED ON 2021 SITE PHOTO)

**NOT FOR CONSTRUCTION**

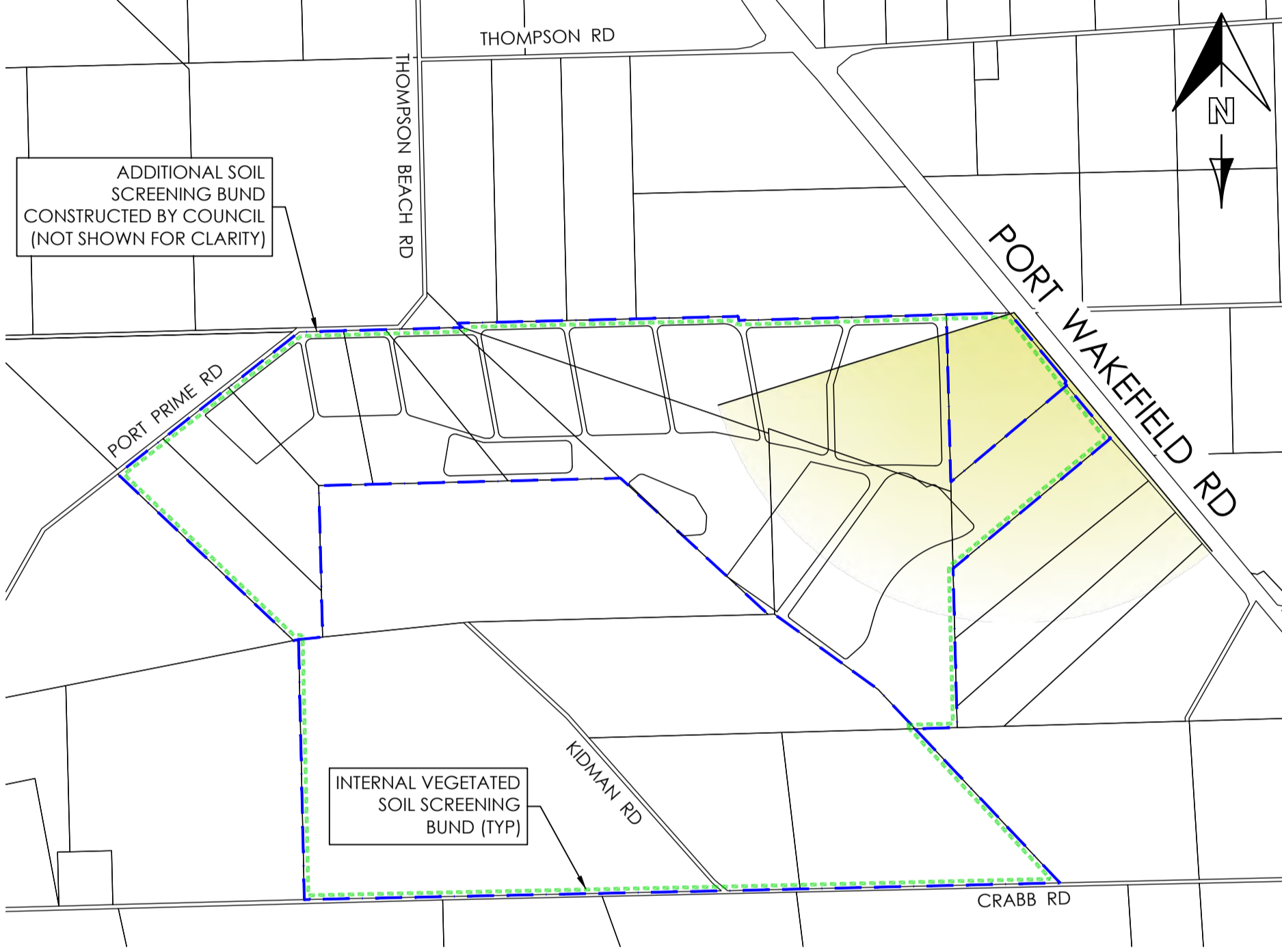
REV	DATE	AMENDMENT DESCRIPTION	DES	DRN	CHK	APPR



100mm ON ORIGINAL PRINT. DO NOT SCALE

SCALE:	SHEET SIZE: A1
SURVEYED:	DATE:
COORDINATES: MGA2020 Zone54	DATUM: mAHD
THIS DRAWING IS INTENDED TO BE VIEWED AND PRINTED IN COLOUR. LOCATION OF ALL SERVICES SHALL BE CONFIRMED BY THE CONTRACTOR PRIOR TO ANY EXCAVATION WORK.	

INTEGRATED WASTE SERVICES DUBLIN		
UPDATED VISUAL IMPACT ASSESSMENT		
PROJECT No. <b>0180IWS</b>	SHEET No. <b>Fig 8.3</b>	REVISION



VIEW FROM PORT WAKEFIELD ROAD LOOKING SOUTH, APPROX. 420m FROM FILLING AREA

**LEGEND**

- PROJECTED TOP OF CAP (ESTIMATED)
- LANDFILL SURFACE WITH COMPOST LAYER
- SOIL SCREENING BUND WITH VEGETATION (ESTIMATED)



CURRENT SITE PHOTO - 2021



PROJECTED SITE PHOTO  
(BASED ON CURRENT SITE PHOTO - 2021)

**NOT FOR CONSTRUCTION**



REV	DATE	AMENDMENT DESCRIPTION	DES	DRN	CHK	APPR

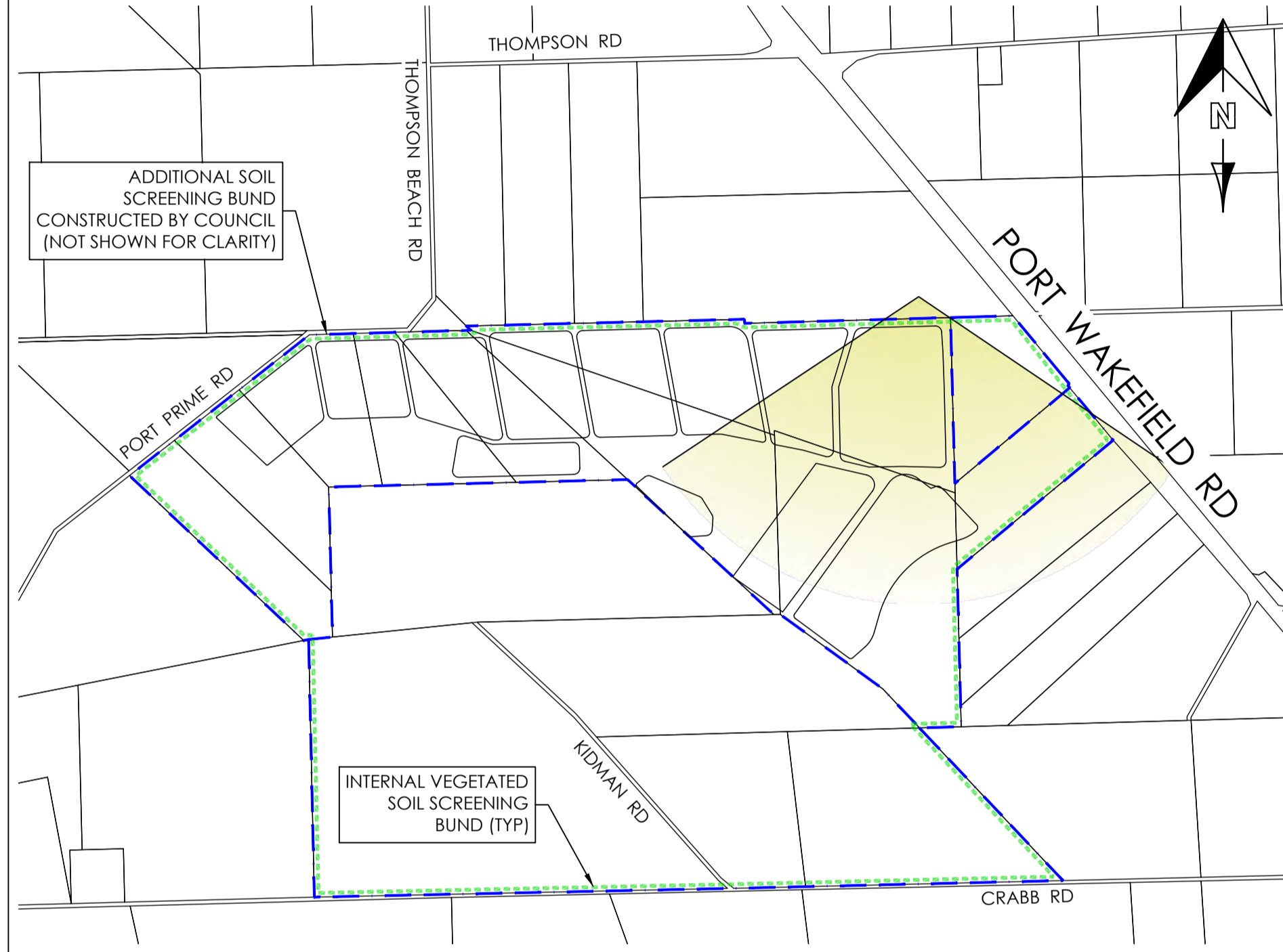
100mm ON ORIGINAL PRINT. DO NOT SCALE

SCALE:	SHEET SIZE: <b>A1</b>
SURVEYED:	DATE:
COORDINATES: MGA2020 Zone54	DATUM: mAHD
THIS DRAWING IS INTENDED TO BE VIEWED AND PRINTED IN COLOUR. LOCATION OF ALL SERVICES SHALL BE CONFIRMED BY THE CONTRACTOR PRIOR TO ANY EXCAVATION WORK.	

<b>INTEGRATED WASTE SERVICES</b>		
DUBLIN		
UPDATED VISUAL IMPACT ASSESSMENT		
PROJECT No.	SHEET No.	REVISION
<b>0180IWS</b>	<b>Fig 8.3a</b>	



CURRENT SITE PHOTO - 2021



VIEW FROM PORT WAKEFIELD ROAD LOOKING SOUTH, APPROX. 160m FROM FILLING AREA

- LEGEND**
- PROJECTED TOP OF CAP (ESTIMATED)
  - LANDFILL SURFACE WITH COMPOST LAYER
  - SOIL SCREENING BUND WITH VEGETATION (ESTIMATED)



PROJECTED SITE PHOTO (BASED ON CURRENT SITE PHOTO - 2021)

**NOT FOR CONSTRUCTION**



SCALE:	SHEET SIZE: A1
SURVEYED:	DATE:
COORDINATES: MGA2020 Zone54	DATUM: mAHD

THIS DRAWING IS INTENDED TO BE VIEWED AND PRINTED IN COLOUR. LOCATION OF ALL SERVICES SHALL BE CONFIRMED BY THE CONTRACTOR PRIOR TO ANY EXCAVATION WORK.

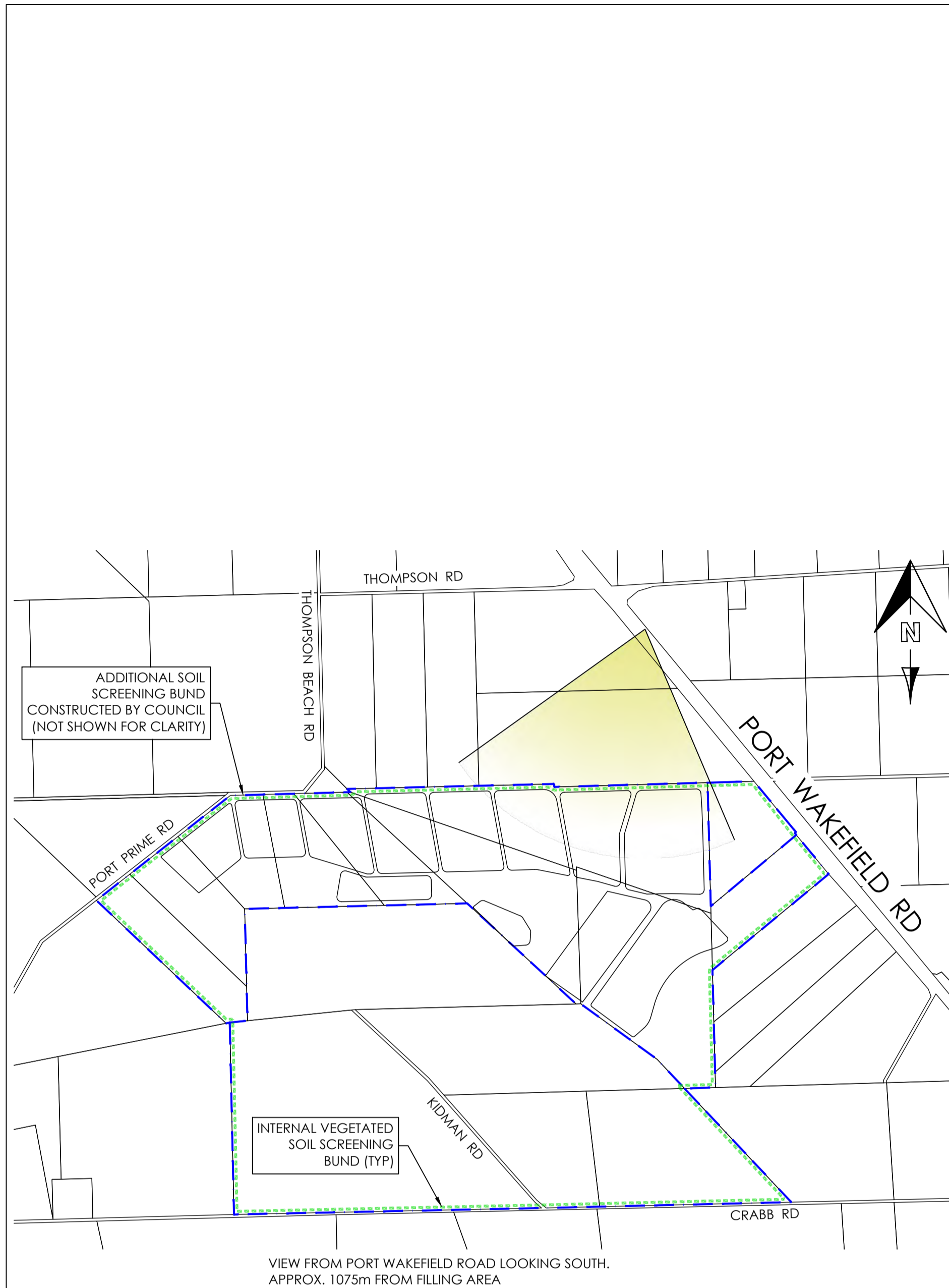
INTEGRATED WASTE SERVICES  
DUBLIN

UPDATED VISUAL IMPACT ASSESSMENT

PROJECT No. 0180IWS	SHEET No. Fig 8.3b	REVISION
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REV	DATE	AMENDMENT DESCRIPTION	DES	DRN	CHK	APPR

100mm ON ORIGINAL PRINT. DO NOT SCALE



**LEGEND**

- PROJECTED TOP OF CAP (ESTIMATED)
- LANDFILL SURFACE WITH COMPOST LAYER



CURRENT SITE PHOTO - 2021



PROJECTED SITE PHOTO  
(BASED ON CURRENT SITE PHOTO - 2021)

NOTE:  
SOIL SCREENING BUND AND PLANTINGS NOT PRACTICALLY VISIBLE FROM THIS LOCATION

**NOT FOR CONSTRUCTION**



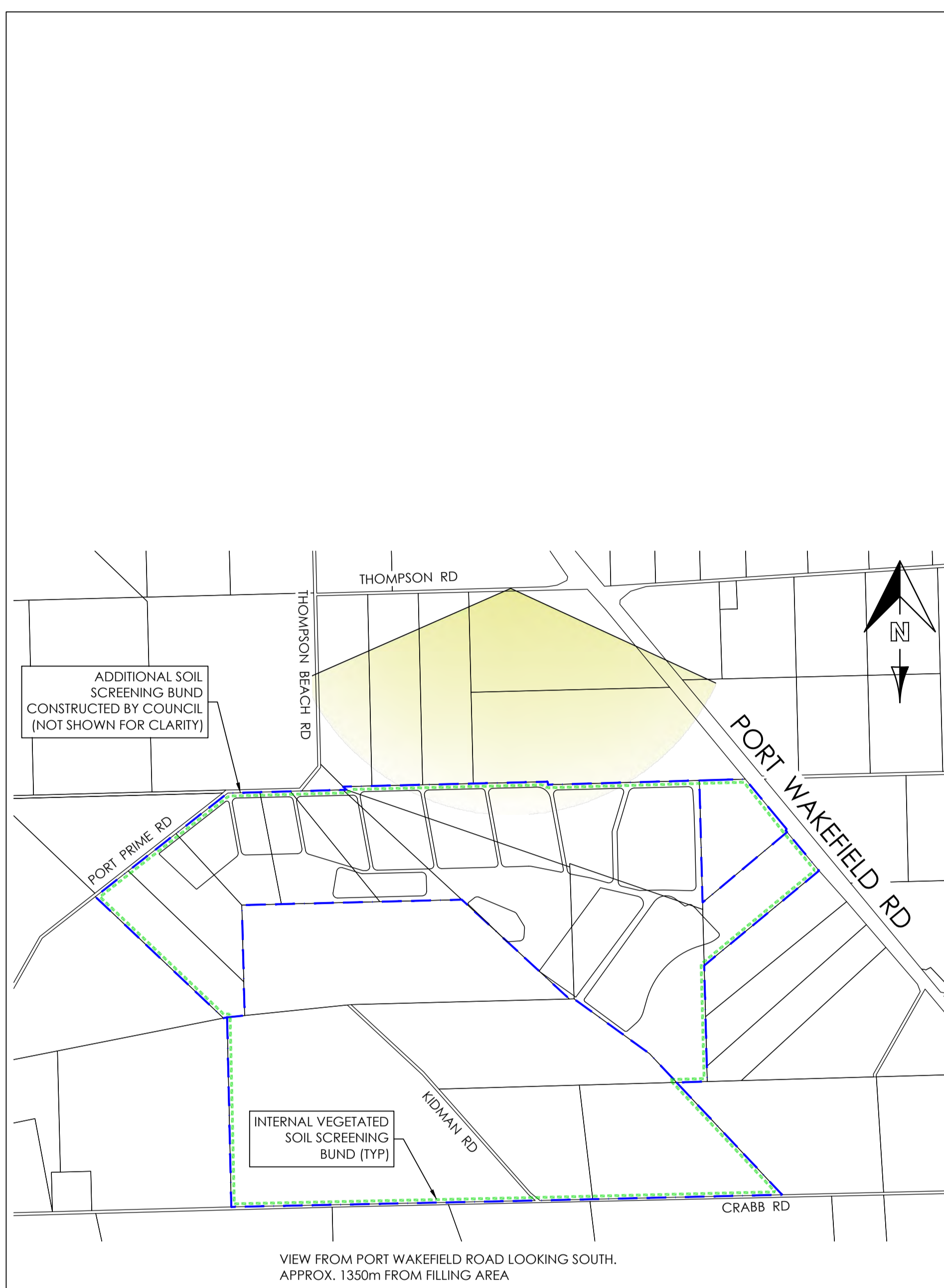
REV	DATE	AMENDMENT DESCRIPTION	DES	DRN	CHK	APPR

SCALE:	SHEET SIZE: <b>A1</b>
SURVEYED:	DATE:
COORDINATES: MGA2020 Zone54	DATUM: mAHd
THIS DRAWING IS INTENDED TO BE VIEWED AND PRINTED IN COLOUR. LOCATION OF ALL SERVICES SHALL BE CONFIRMED BY THE CONTRACTOR PRIOR TO ANY EXCAVATION WORK.	

<b>INTEGRATED WASTE SERVICES</b>	
DUBLIN	
UPDATED VISUAL IMPACT ASSESSMENT	
PROJECT No. <b>0180IWS</b>	SHEET No. <b>Fig 8.3c</b>
REVISION	

100mm ON ORIGINAL PRINT. DO NOT SCALE





CURRENT SITE PHOTO - 2021

**NOT FOR CONSTRUCTION**



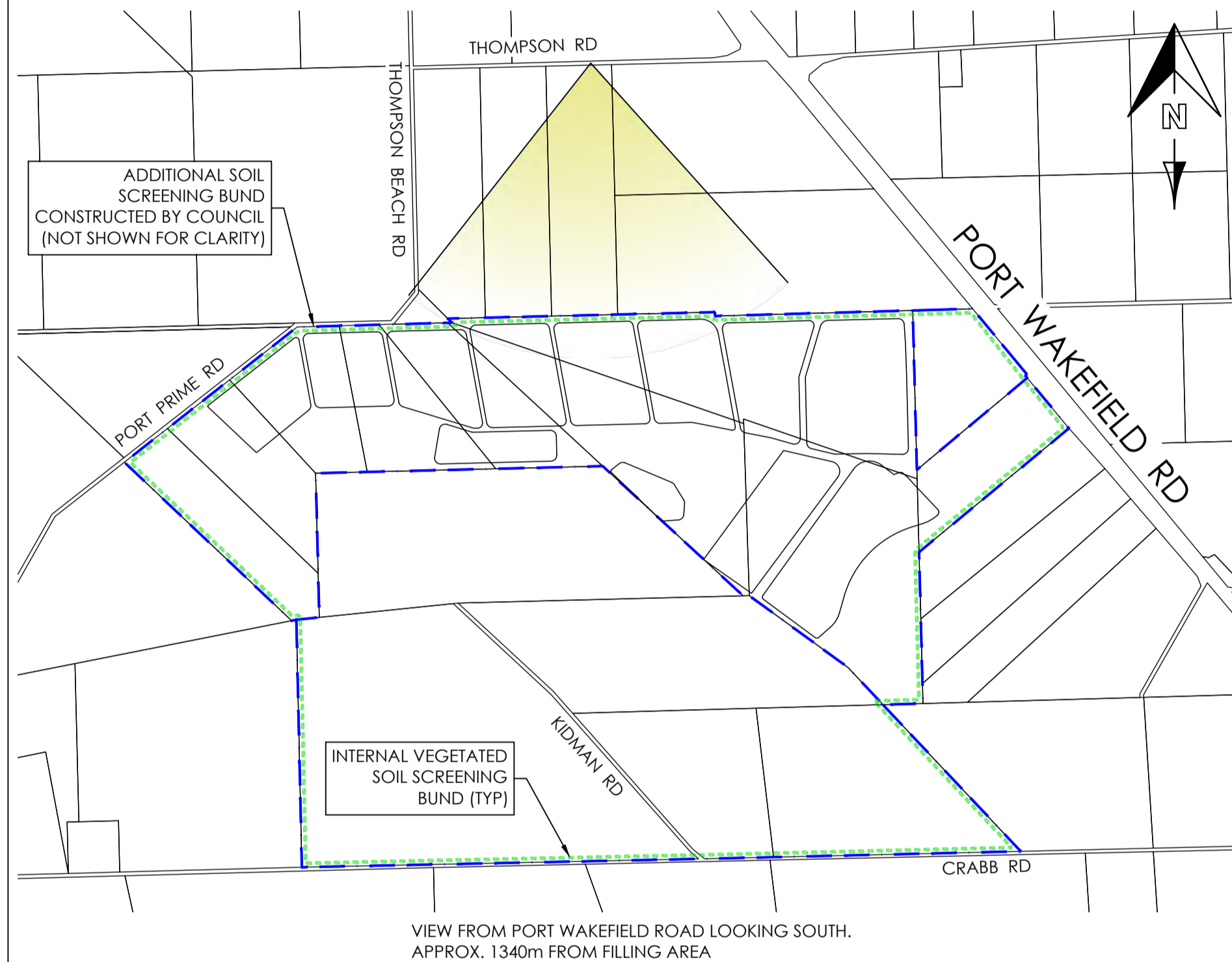
REV	DATE	AMENDMENT DESCRIPTION	DES	DRN	CHK	APPR

100mm ON ORIGINAL PRINT. DO NOT SCALE

SCALE:	SHEET SIZE: A1
SURVEYED:	DATE:
COORDINATES: MGA2020 Zone54	DATUM: mAHD
THIS DRAWING IS INTENDED TO BE VIEWED AND PRINTED IN COLOUR. LOCATION OF ALL SERVICES SHALL BE CONFIRMED BY THE CONTRACTOR PRIOR TO ANY EXCAVATION WORK.	

INTEGRATED WASTE SERVICES DUBLIN	
UPDATED VISUAL IMPACT ASSESSMENT	
PROJECT No. <b>0180IWS</b>	SHEET No. <b>Fig 8.3e</b>
REVISION	





**LEGEND**

- PROJECTED TOP OF CAP (ESTIMATED)
- LANDFILL SURFACE WITH COMPOST LAYER



ORIGINAL SITE PHOTO - 1997



CURRENT SITE PHOTO - 2021

NOTE:  
SOIL SCREENING BUND AND PLANTINGS NOT PRACTICALLY VISIBLE FROM THIS LOCATION

**NOT FOR CONSTRUCTION**



SCALE:	SHEET SIZE: A1
SURVEYED:	DATE:
COORDINATES: MGA2020 Zone54	DATUM: mAHd

THIS DRAWING IS INTENDED TO BE VIEWED AND PRINTED IN COLOUR. LOCATION OF ALL SERVICES SHALL BE CONFIRMED BY THE CONTRACTOR PRIOR TO ANY EXCAVATION WORK.

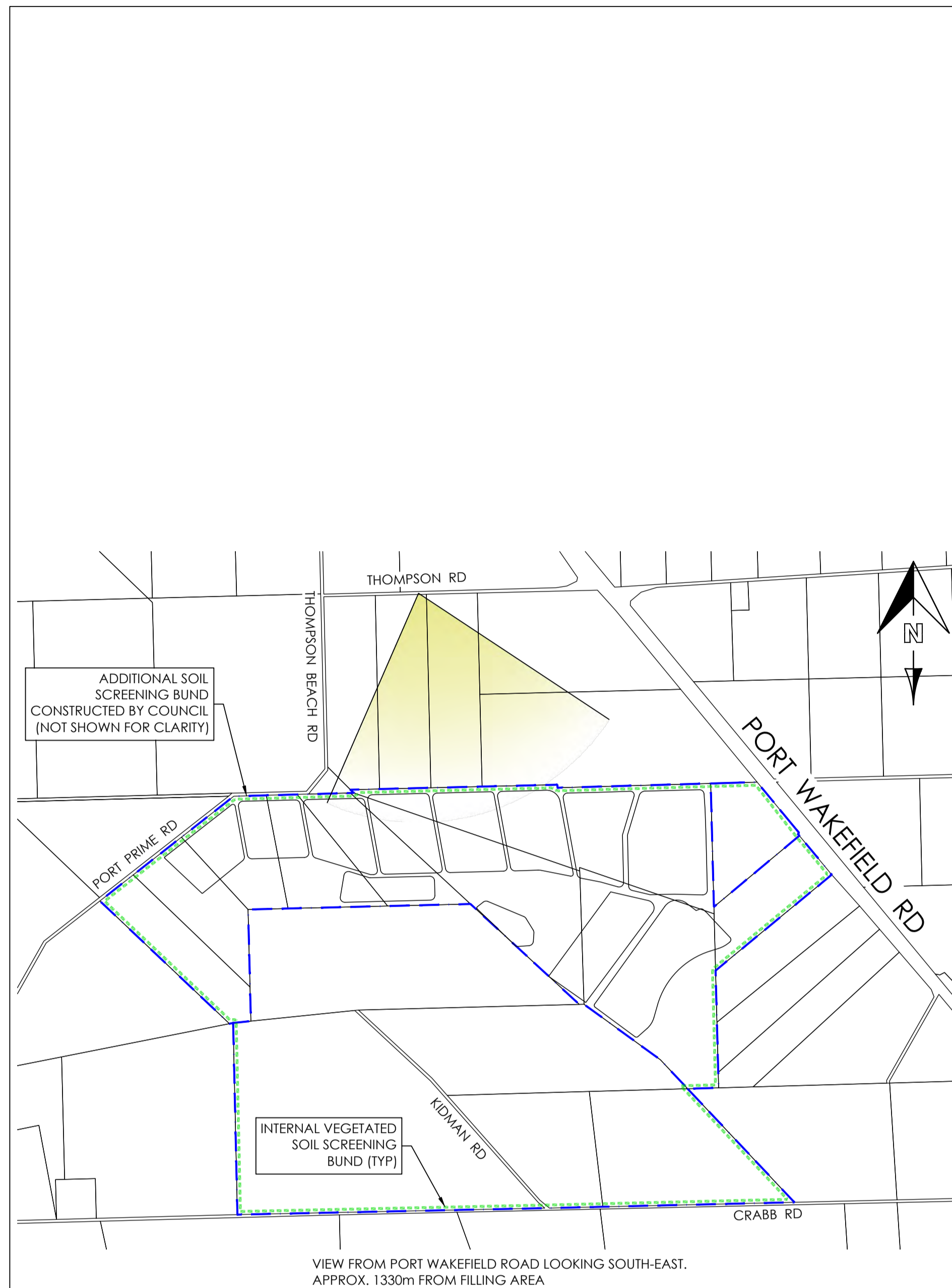
INTEGRATED WASTE SERVICES  
DUBLIN

UPDATED VISUAL IMPACT ASSESSMENT

PROJECT No. <b>0180IWS</b>	SHEET No. <b>Fig 8.4</b>	REVISION
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REV	DATE	AMENDMENT DESCRIPTION	DES	DRN	CHK	APPR

100mm ON ORIGINAL PRINT. DO NOT SCALE



**LEGEND**

- PROJECTED TOP OF CAP (ESTIMATED)
- LANDFILL SURFACE WITH COMPOST LAYER



CURRENT SITE PHOTO - 2021



PROJECTED SITE PHOTO  
(BASED ON CURRENT SITE PHOTO - 2021)

**NOTE:**  
SOIL SCREENING BUND AND PLANTINGS NOT PRACTICALLY VISIBLE FROM THIS LOCATION

**NOT FOR CONSTRUCTION**

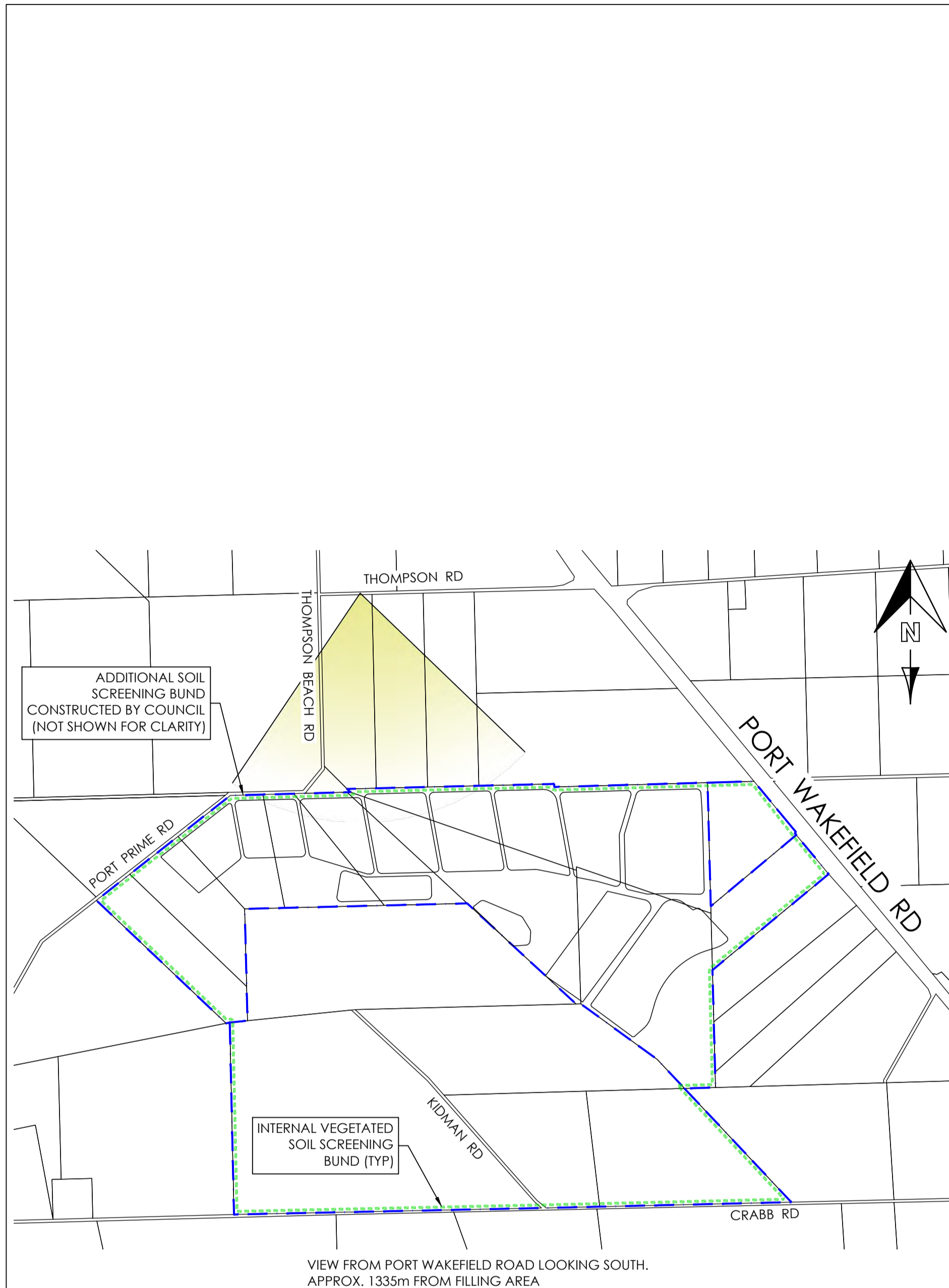
REV	DATE	AMENDMENT DESCRIPTION	DES	DRN	CHK	APPR



100mm ON ORIGINAL PRINT. DO NOT SCALE

SCALE:	SHEET SIZE: <b>A1</b>
SURVEYED:	DATE:
COORDINATES: MGA2020 Zone54	DATUM: mAHD
THIS DRAWING IS INTENDED TO BE VIEWED AND PRINTED IN COLOUR. LOCATION OF ALL SERVICES SHALL BE CONFIRMED BY THE CONTRACTOR PRIOR TO ANY EXCAVATION WORK.	

<b>INTEGRATED WASTE SERVICES</b>	
DUBLIN	
UPDATED VISUAL IMPACT ASSESSMENT	
PROJECT No. <b>0180IWS</b>	SHEET No. <b>Fig 8.4a</b>
REVISION	



CURRENT SITE PHOTO - 2021



PROJECTED SITE PHOTO (BASED ON CURRENT SITE PHOTO - 2021)

NOTE:  
SOIL SCREENING BUND AND PLANTINGS NOT PRACTICALLY VISIBLE FROM THIS LOCATION

**NOT FOR CONSTRUCTION**

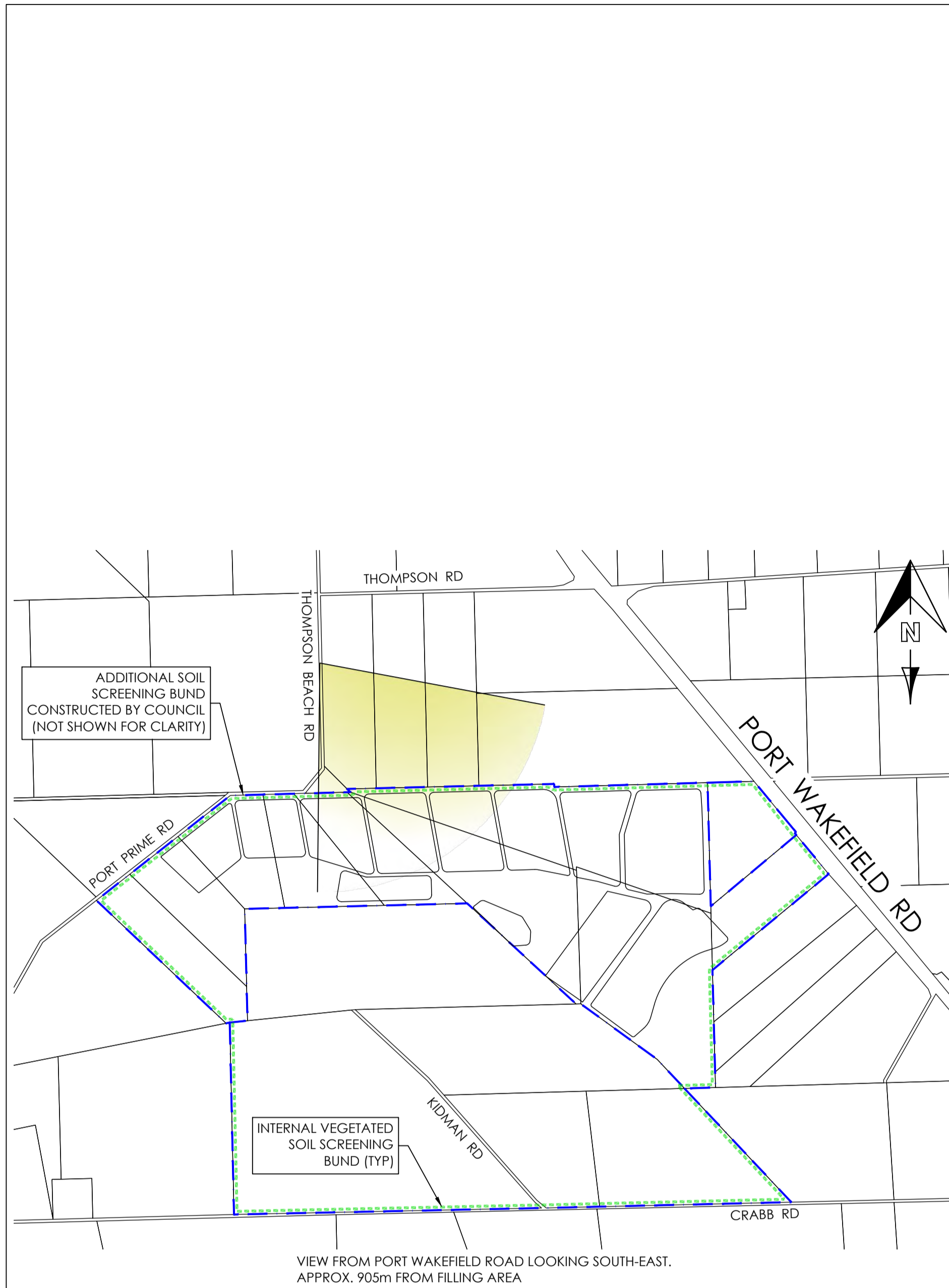
REV	DATE	AMENDMENT DESCRIPTION	DES	DRN	CHK	APPR



100mm ON ORIGINAL PRINT. DO NOT SCALE

SCALE:	SHEET SIZE: A1
SURVEYED:	DATE:
COORDINATES: MGA2020 Zone54	DATUM: mAHD
THIS DRAWING IS INTENDED TO BE VIEWED AND PRINTED IN COLOUR. LOCATION OF ALL SERVICES SHALL BE CONFIRMED BY THE CONTRACTOR PRIOR TO ANY EXCAVATION WORK.	

INTEGRATED WASTE SERVICES	
DUBLIN	
UPDATED VISUAL IMPACT ASSESSMENT	
PROJECT No.	SHEET No.
0180IWS	Fig 8.4b
REVISION	



**LEGEND**

- - - - - PROJECTED TOP OF CAP (ESTIMATED)
- LANDFILL SURFACE WITH COMPOST LAYER



CURRENT SITE PHOTO - 2021



PROJECTED SITE PHOTO  
(BASED ON CURRENT SITE PHOTO - 2021)

**NOTE:**  
SOIL SCREENING BUND AND PLANTINGS NOT PRACTICALLY VISIBLE FROM THIS LOCATION

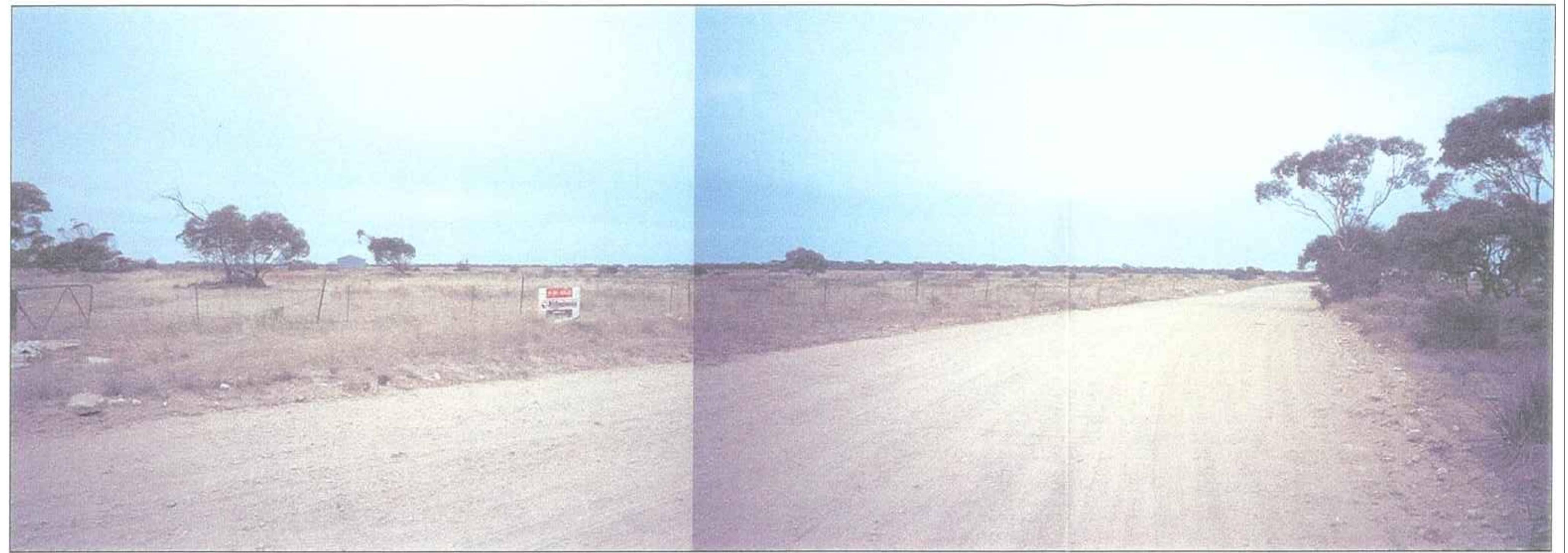
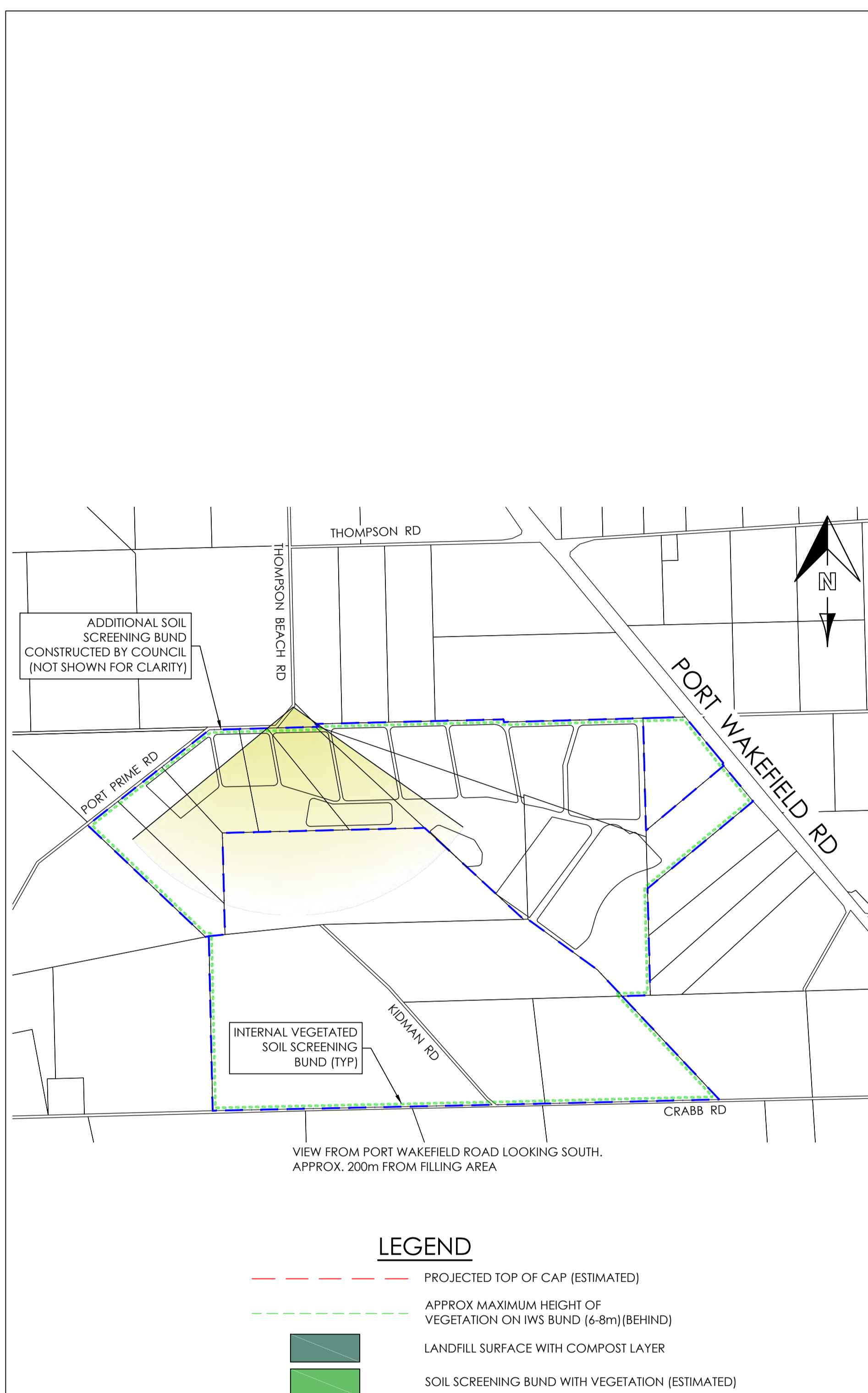
**NOT FOR CONSTRUCTION**



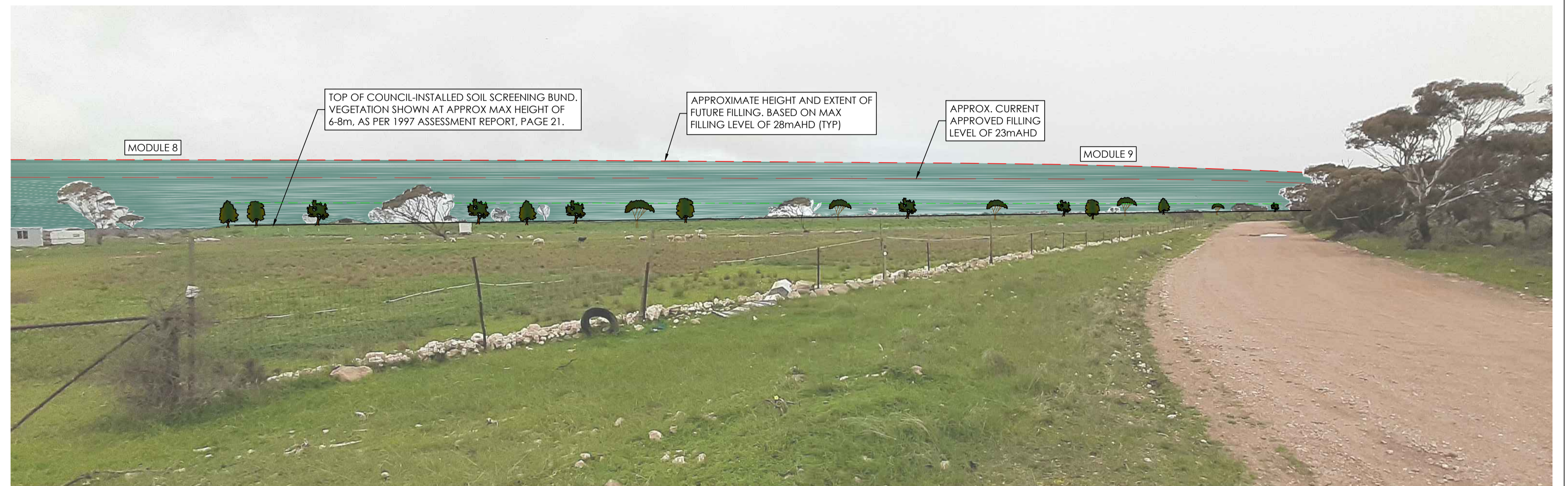
REV	DATE	AMENDMENT DESCRIPTION	DES	DRN	CHK	APPR

100mm ON ORIGINAL PRINT. DO NOT SCALE

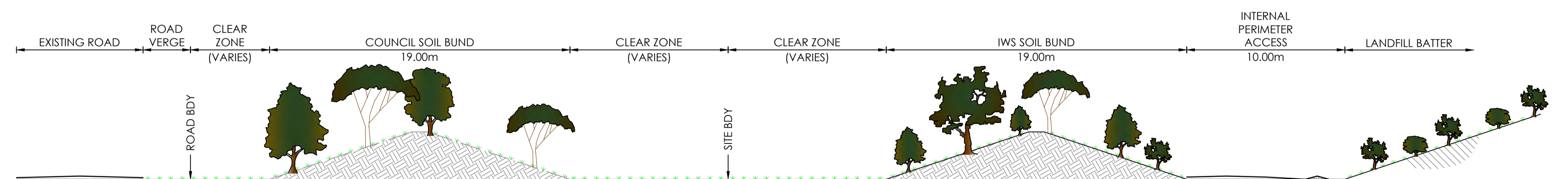
SCALE:	SHEET SIZE: <b>A1</b>	<b>INTEGRATED WASTE SERVICES</b> DUBLIN	
SURVEYED:	DATE:		
COORDINATES: MGA2020 Zone54	DATUM: mAHD	UPDATED VISUAL IMPACT ASSESSMENT	
THIS DRAWING IS INTENDED TO BE VIEWED AND PRINTED IN COLOUR. LOCATION OF ALL SERVICES SHALL BE CONFIRMED BY THE CONTRACTOR PRIOR TO ANY EXCAVATION WORK.		PROJECT No.	REVISION
		<b>0180IWS</b>	<b>Fig 8.4c</b>



ORIGINAL SITE PHOTO (1997)



CURRENT SITE PHOTO (2021)



TYPICAL ROAD AND BUNDS PROFILE

**NOT FOR CONSTRUCTION**

REV	DATE	AMENDMENT DESCRIPTION	DES	DRN	CHK	APPR



100mm ON ORIGINAL PRINT. DO NOT SCALE

SCALE:	SHEET SIZE: A1
SURVEYED:	DATE:
COORDINATES: MGA2020 Zone54	DATUM: mAHD
THIS DRAWING IS INTENDED TO BE VIEWED AND PRINTED IN COLOUR. LOCATION OF ALL SERVICES SHALL BE CONFIRMED BY THE CONTRACTOR PRIOR TO ANY EXCAVATION WORK.	

INTEGRATED WASTE SERVICES  
DUBLIN

UPDATED VISUAL IMPACT ASSESSMENT

PROJECT No. <b>0180IWS</b>	SHEET No. <b>Fig 8.5</b>	REVISION
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CURRENT SITE PHOTO - 2021



VIEW FROM PORT WAKEFIELD ROAD LOOKING SOUTH-EAST. APPROX. 100m FROM FILLING AREA



COUNCIL-INSTALLED SOIL SCREENING BUND. VEGETATION SHOWN AT APPROX MAX HEIGHT OF 6-8m, AS PER 1997 ASSESSMENT REPORT, PAGE 21.

APPROXIMATE HEIGHT AND EXTENT OF FUTURE FILLING, BASED ON MAX FILLING LEVEL OF 28m AHD (TYP)

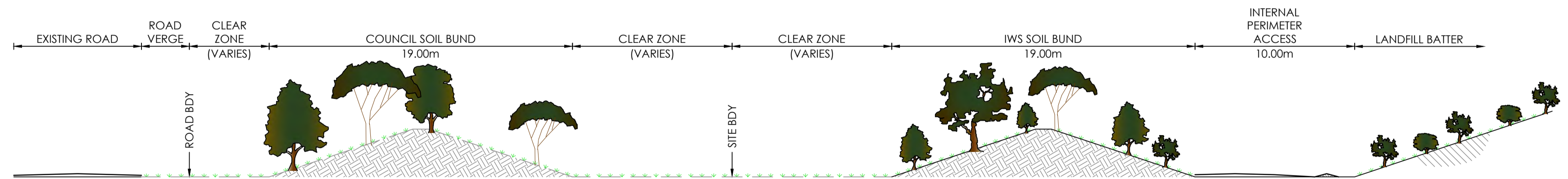
MODULE 9

**LEGEND**

- PROJECTED TOP OF CAP (ESTIMATED)
- APPROX MAXIMUM HEIGHT OF VEGETATION ON IWS BUND (6-8m) (BEHIND)
- LANDFILL SURFACE WITH COMPOST LAYER

PROJECTED SITE PHOTO (BASED ON CURRENT SITE PHOTO - 2021)

NOTE:  
IWS PROPOSED SOIL SCREENING BUND AND PLANTINGS WILL BE SITUATED BEHIND COUNCIL BUND, AND WILL NOT BE PRACTICALLY VISIBLE FROM THIS LOCATION.



TYPICAL ROAD AND BUNDS PROFILE

**NOT FOR CONSTRUCTION**



SCALE:	SHEET SIZE: A1
SURVEYED:	DATE:
COORDINATES: MGA2020 Zone54	DATUM: mAHD

THIS DRAWING IS INTENDED TO BE VIEWED AND PRINTED IN COLOUR. LOCATION OF ALL SERVICES SHALL BE CONFIRMED BY THE CONTRACTOR PRIOR TO ANY EXCAVATION WORK.

INTEGRATED WASTE SERVICES  
DUBLIN

UPDATED VISUAL IMPACT ASSESSMENT

PROJECT No.	SHEET No.	REVISION
0180IWS	Fig 8.5a	

REV	DATE	AMENDMENT DESCRIPTION	DES	DRN	CHK	APPR

100mm ON ORIGINAL PRINT. DO NOT SCALE



ORIGINAL SITE PHOTO - 1997



CURRENT SITE PHOTO - 2021



PROJECTED ELEVATION WITH 3m HIGH VEGETATED SOIL SCREENING BUND



VIEW FROM PORT WAKEFIELD ROAD LOOKING EAST.  
APPROX. 1010m FROM FILLING AREA

**LEGEND**

- PROJECTED TOP OF CAP (ESTIMATED)
- LANDFILL SURFACE WITH COMPOST LAYER
- SOIL SCREENING BUND WITH VEGETATION (ESTIMATED)

**NOT FOR CONSTRUCTION**



SCALE:	SHEET SIZE: A1
SURVEYED:	DATE:
COORDINATES: MGA2020 Zone54	DATUM: mAHD

THIS DRAWING IS INTENDED TO BE VIEWED AND PRINTED IN COLOUR. LOCATION OF ALL SERVICES SHALL BE CONFIRMED BY THE CONTRACTOR PRIOR TO ANY EXCAVATION WORK.

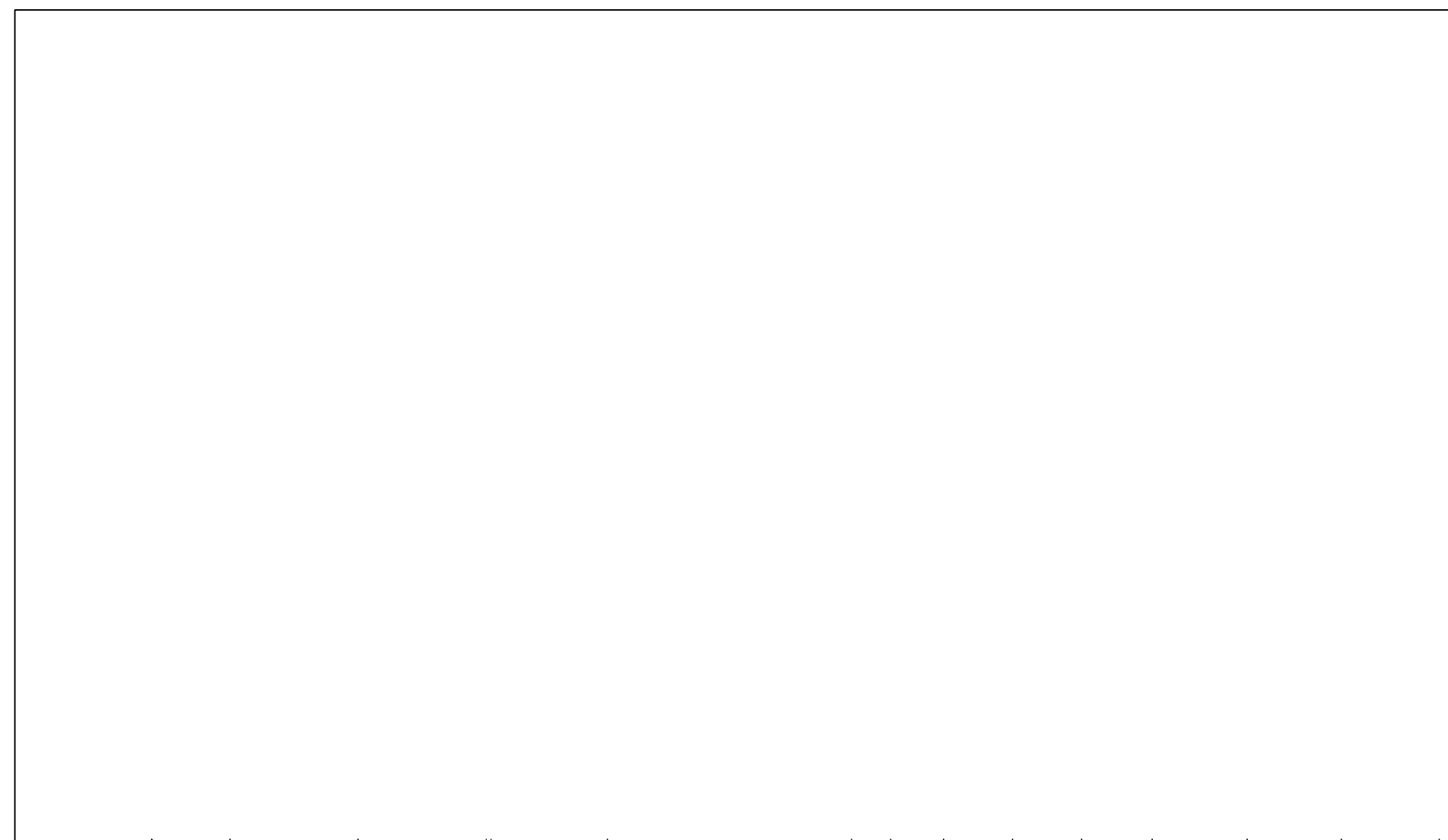
INTEGRATED WASTE SERVICES  
DUBLIN

UPDATED VISUAL IMPACT ASSESSMENT

PROJECT No. <b>0180IWS</b>	SHEET No. <b>Fig 8.6</b>	REVISION
-------------------------------	-----------------------------	----------

REV	DATE	AMENDMENT DESCRIPTION	DES	DRN	CHK	APPR

100mm ON ORIGINAL PRINT. DO NOT SCALE



CURRENT SITE PHOTO - 2021



VIEW FROM PORT WAKEFIELD ROAD LOOKING NORTH.  
APPROX. 1185m FROM FILLING AREA

**LEGEND**

- PROJECTED TOP OF CAP (ESTIMATED)
- LANDFILL SURFACE WITH COMPOST LAYER
- SOIL SCREENING BUND WITH VEGETATION (ESTIMATED)



PROJECTED SITE PHOTO  
(BASED ON CURRENT SITE PHOTO - 2021)



PROJECTED ELEVATION WITH 3m HIGH VEGETATED SOIL SCREENING BUND

**NOT FOR CONSTRUCTION**

REV	DATE	AMENDMENT DESCRIPTION	DES	DRN	CHK	APPR
B	16.11.2022	Removed proposed	PB	BH	AS	PB



100mm ON ORIGINAL PRINT. DO NOT SCALE

SCALE:	SHEET SIZE: A1
SURVEYED:	DATE:
COORDINATES: MGA2020 Zone54	DATUM: mAHD
THIS DRAWING IS INTENDED TO BE VIEWED AND PRINTED IN COLOUR. LOCATION OF ALL SERVICES SHALL BE CONFIRMED BY THE CONTRACTOR PRIOR TO ANY EXCAVATION WORK.	

INTEGRATED WASTE SERVICES DUBLIN		
UPDATED VISUAL IMPACT ASSESSMENT		
PROJECT No. <b>0180IWS</b>	SHEET No. <b>Fig 8.6a</b>	REVISION <b>B</b>





CURRENT SITE PHOTO - 2021



VIEW FROM PORT WAKEFIELD ROAD LOOKING NORTH-WEST.  
APPROX. 1800m FROM FILLING AREA

**LEGEND**

- PROJECTED TOP OF CAP (ESTIMATED)
- LANDFILL SURFACE WITH COMPOST LAYER
- SOIL SCREENING BUND WITH VEGETATION (ESTIMATED)



PROJECTED SITE PHOTO  
(BASED ON CURRENT SITE PHOTO - 2021)

**NOT FOR CONSTRUCTION**



REV	DATE	AMENDMENT DESCRIPTION	DES	DRN	CHK	APPR
B	16.11.2022	removed proposed	PB	BH	AS	PB

100mm ON ORIGINAL PRINT. DO NOT SCALE

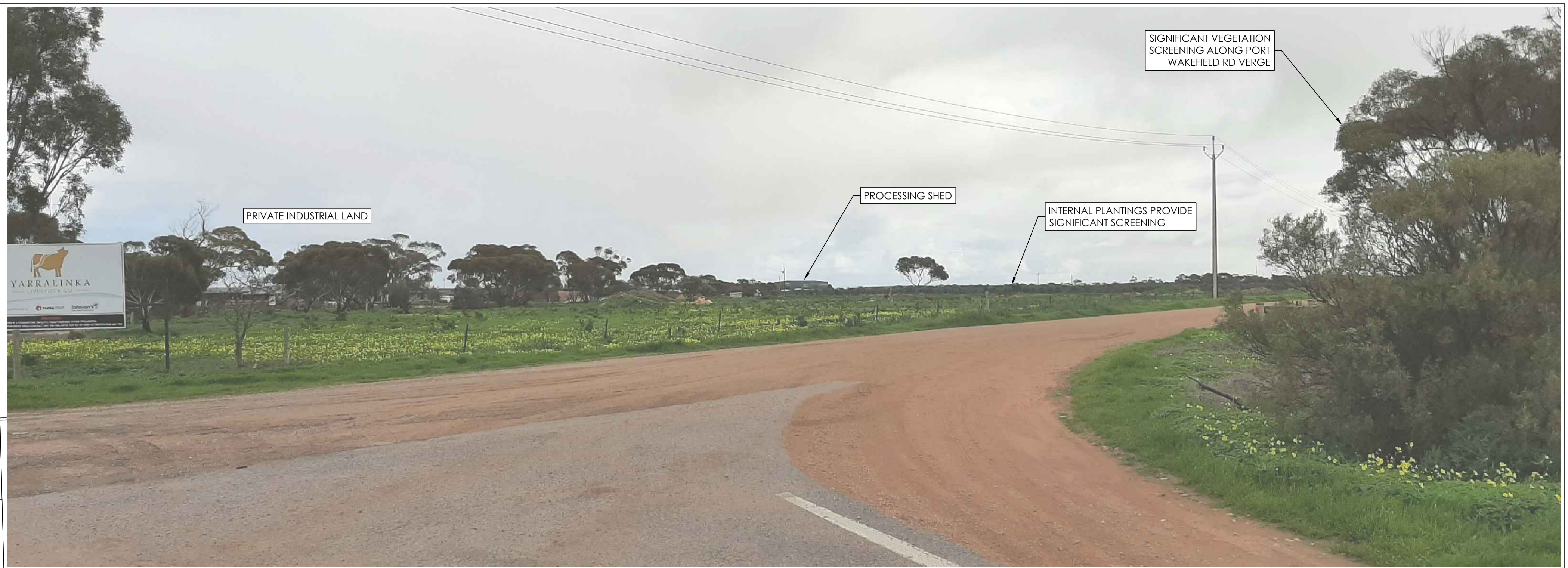
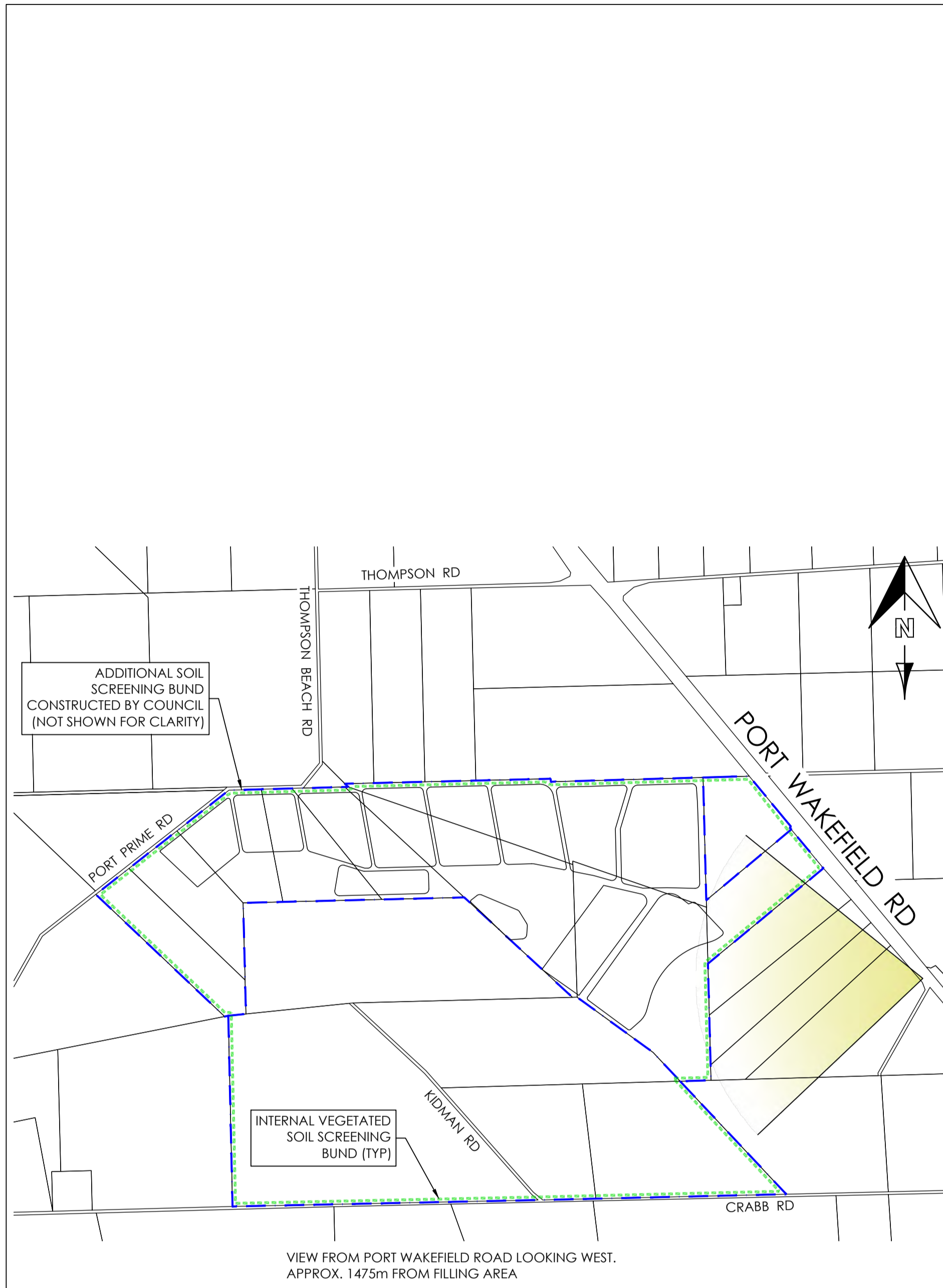
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SURVEYED:	DATE:
COORDINATES: MGA2020 Zone54	DATUM: mAHD

THIS DRAWING IS INTENDED TO BE VIEWED AND PRINTED IN COLOUR. LOCATION OF ALL SERVICES SHALL BE CONFIRMED BY THE CONTRACTOR PRIOR TO ANY EXCAVATION WORK.

INTEGRATED WASTE SERVICES  
DUBLIN

UPDATED VISUAL IMPACT ASSESSMENT

PROJECT No.	SHEET No.	REVISION
0180IWS	Fig 8.6b	B



CURRENT SITE PHOTO - 2021

**NOT FOR CONSTRUCTION**

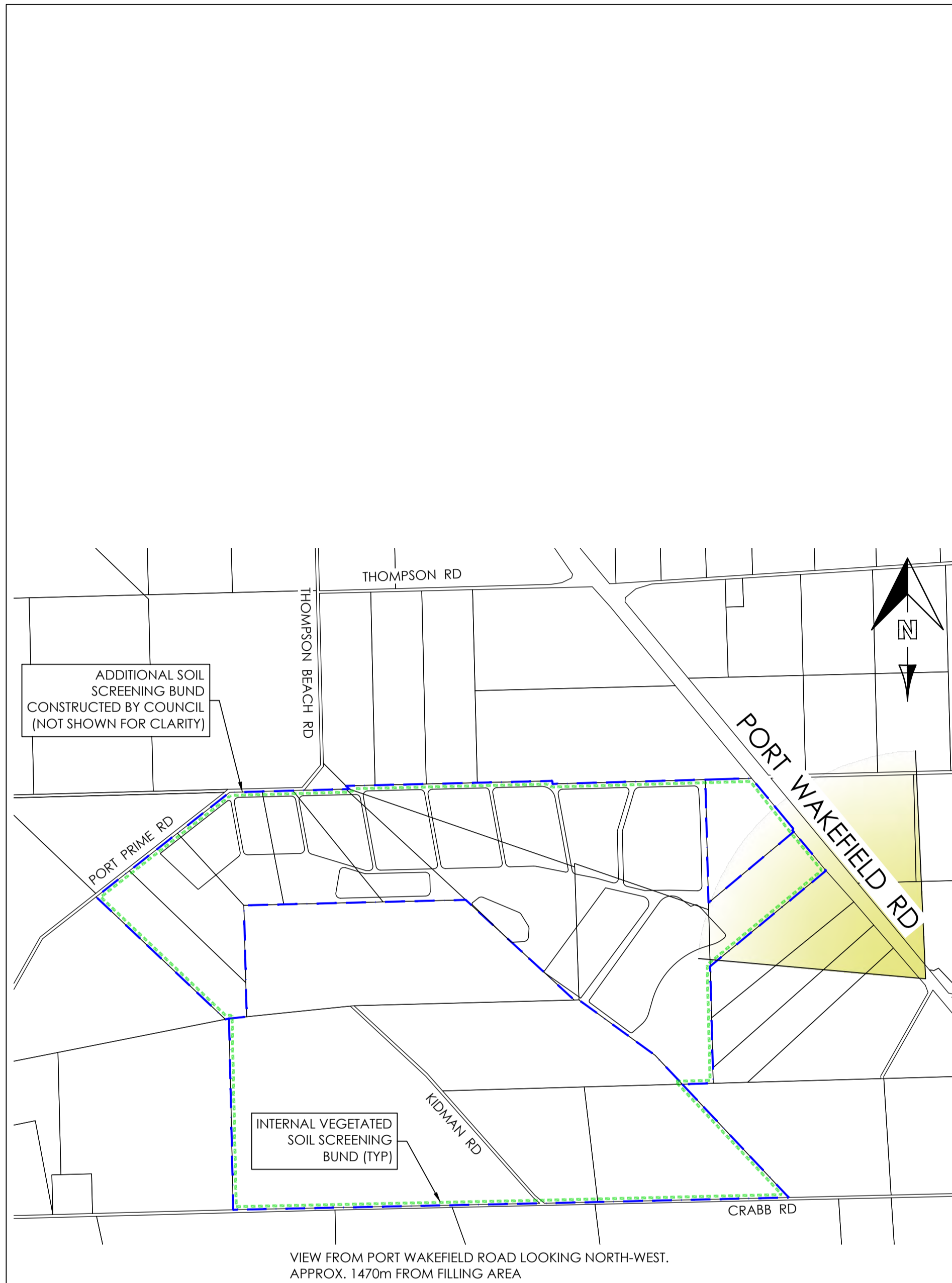


REV	DATE	AMENDMENT DESCRIPTION	DES	DRN	CHK	APPR

100mm ON ORIGINAL PRINT. DO NOT SCALE

SCALE:	SHEET SIZE: <b>A1</b>
SURVEYED:	DATE:
COORDINATES: MGA2020 Zone54	DATUM: mAHD
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<b>INTEGRATED WASTE SERVICES</b>		
DUBLIN		
UPDATED VISUAL IMPACT ASSESSMENT		
PROJECT No.	SHEET No.	REVISION
<b>0180IWS</b>	<b>Fig 8.6c</b>	



CURRENT SITE PHOTO - 2021

**NOT FOR CONSTRUCTION**

REV	DATE	AMENDMENT DESCRIPTION	DES	DRN	CHK	APPR



100mm ON ORIGINAL PRINT. DO NOT SCALE

SCALE:	SHEET SIZE: A1
SURVEYED:	DATE:
COORDINATES: MGA2020 Zone54	DATUM: mAHD
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INTEGRATED WASTE SERVICES DUBLIN	
UPDATED VISUAL IMPACT ASSESSMENT	
PROJECT No. <b>0180IWS</b>	SHEET No. <b>Fig 8.6d</b>
REVISION	

# **APPENDIX L**

## **Assessment Guidelines**

**ENVIRONMENTAL IMPACT STATEMENT**  
**GUIDELINES FOR A SOLID WASTE LANDFILL DEPOT**  
**DISTRICT COUNCIL OF MALLALA**

**INTRODUCTION**

The Minister for Housing, Urban Development and Local Government Relations decided in October 1994 that an Environmental Impact Assessment (EIS) would be required under Section 46 of the Development Act 1993 for the landfill proposal in the District Council of Mallala. An EIS under the Development Act is intended to address the critical issues relating to a proposal.

The proponent is P. & M. Borrelli and Sons Pty Ltd. The proposal is for a landfill for disposing of domestic, solid industrial and commercial waste. Hazardous liquids or chemical wastes will not be accepted at this site. The site chosen covers 440 hectares. The landfill operational life is envisaged to be between for 30-55 years.

**THE EIS PROCESS**

An Environmental Impact Statement, as defined in the Development Act, means a statement of the expected social, economic, and environmental effects of the development or project. The EIS should consider the extent to which the expected effects of the development or project are consistent with the provisions of any relevant Development Plan, the Planning Strategy, and any matters prescribed by the Regulations. The EIS should also state the conditions (if any) that should be observed in order to avoid or satisfactorily manage and control any potentially adverse effects of the development or project on the environment. Further it should consider any other particulars required by the Minister or by the Regulations.

The EIS process is intended to ensure that the implications of a project considered to be of environmental, social or economic importance are examined, these can then be taken into consideration by the decision-makers.

The EIS process allows public participation at several points and is conducted with reference to a timeframe agreed by the proponent and the Environmental Impact Assessment Branch (EIA Branch) of the Department of Housing and Urban Development (DHUD). The steps of the process where public input is invited are marked with an asterisk \* as follows:-

- EIS required
- \* Guidelines prepared and exhibited publicly
- Proponent prepares EIS document
- \* Public exhibition of EIS document (at least 6 weeks). Written submissions invited. Public meeting may be held during the exhibition period to assist people in the preparation of their submissions
- Proponent responds to public submissions and any other matters required by the Minister
- The Assessment Report is prepared for the Minister by the EIA Branch of DHUD.

The EIS, response, Assessment Report and development application are then sent to the Governor who is the decision maker. There is no appeal against a Governor's decision.

Copies of the EIS, response and Assessment Report will be publicly available for inspection and purchase at a place determined by the Minister and notified in public advertisements.

A flow chart describing the process is attached in Appendix A.

## THE EIS DOCUMENT

The following should guide the production of the EIS document.

The document can be presented in two main sections

Part A Draft Waste Depot Management Plan describes the environment, the proposal, and how the depot is to operate. (Appendix B contains the index for the plan)

Part B Environmental Impacts discusses the environmental, social and economic impacts and how they have been considered in formulating the operating plan ( including monitoring and rehabilitation) and seeking planning approval. It must also deal with any matter set out in Section 46(1) of the Development Act not already referred to.

The Document should provide the following.

### SUMMARY

The Environmental Impact Statement (EIS) should incorporate a discussion of the matters set out in Section 46(1) and include a concise summary of all aspects covered under the headings set out in the guidelines below, in order for the reader to obtain a quick but thorough understanding of the proposal and the resulting environmental impact.

### BROAD OBJECTIVES OF THE PROPOSED DEVELOPMENT

The EIS introduction should contain a brief statement of the objectives of the proposed development with reference to the present and future operations of the company/developer, the nature of the waste disposal operation, type of waste, and the timing of the operation. Alternative locations within the region should be discussed. Reference should be made to current waste management plans prepared by the S.A. Environment Protection Authority - Recycling and Waste Branch.

### PART A WASTE DEPOT MANAGEMENT PLAN (WDMP)

Appendix B contains the Index provided to the applicant for the preparation of the Plan (as required by the Environment Protection Authority for licensing purposes) which should identify the nature of the site, the proposal and the details of how the depot will be operated.

The General Conditions of Licence Applying to Solid Waste Depots are attached in Appendix C.

### PART B ENVIRONMENTAL IMPACTS

This section should provide the information and discussion of the issues which have been considered and evaluated in arriving at the proposed operation outlined in the Waste Depot Management Plan (WDMP) described in Part A.

3.

This part of the EIS should describe all other factors of the existing environment which have not been included in the WDMP and evaluate the potential environmental impact of the development, both direct and indirect, both beneficial and detrimental, using the description of the existing environment (site and surrounding area) as a baseline. Due consideration should be given to the short-term effects of construction and establishment as well as those of long term operation, site rehabilitation and future use. It should give due regard to Section 46(1) of the Development Act which states:

"environmental impact statement", in relation to a development or project, means a statement of -

- (a) the expected social, economic and environmental effects of the development or project;
- (b) the extent to which the expected effects of the development or project are consistent with the provisions of -
  - (i) any relevant Development Plan; and
  - (ii) the Planning Strategy; and
  - (iii) any matters prescribed by the regulations;
- (c) the conditions (if any) that should be observed in order to avoid or satisfactorily manage and control any potentially adverse effects of the development or project on the environment;
- (d) any other particulars in relation to the development or project required -
  - (i) by the regulations; or
  - (ii) by the Minister.

Description of Existing Environment - off site

This section should include information on those other characteristics of the environment not incorporated in the WDMP. These should include;

meteorological data - rainfall, temperature, wind, air quality  
nature and type of adjacent land uses

Potential Environmental Impact

The following points should be addressed in the evaluation of the potential environmental impact of the proposed waste disposal site development and operation.

1. Location

Site Area Required for Development

The effects of the proposed land use change, given the area required for the development, and adjacent existing land uses should be examined.

Constraints on Proposal

This section should discuss how constraints on the proposal are to be resolved.

Constraints to be considered include;

- proximity of other land uses including other similar operations;
- suitability of local geology and soil conditions;
- impact on existing road access and current users (Pt Wakefield Rd and local roads);
- existence of local surface water movement;
- impact of the proposal on local regional groundwater systems and the environment.

Groundwater

Impact of the proposal on groundwater, the aquifers, recharge/leakage/outflow, water quality, existing uses and the potential effects on the Gulf should be examined.

Visual Impact

Visual representations of the waste disposal depot at progressive stages would be useful. The general visual impact of the depot on the local area in both the short and long terms should be described and evaluated. The estimated time for rehabilitation to take effect should be discussed, and the visual impact of the proposed future use described.

Noise

The frequency, regularity, sources and impacts of any noise associated with depot preparation and operation should be evaluated with respect to accepted standards and legislation.

Air quality

The proposal's acceptability in terms of standards and legislation for air quality should be discussed and any significant source of pollutant material (including dust) in the proposal examined and remedial measures to be adopted described.

Cost and Economic Impact

A cost estimate should include site acquisition, planning development, operation and rehabilitation costs. Consideration should also be given to costs associated with the adoption of safeguards and standards for the protection of the environment. The undertakings proposed should be included in the Appendices to the WDMP. Regional economic consequences should be addressed. Employment opportunities and the sections of the community affected must be addressed.

## 2. Site Preparation and Operation Implications

Describe in detail the implications of site preparation and depot operation methods to be used, and any environmentally sensitive aspects where impacts should be minimised. Protective measures for sensitive areas should be described. The results of many of these investigations will be in the WDMP.



5.

#### Resources Required

The impacts of the type of material required for site preparation and operation, sources of materials, and transportation methods to and within the depot location should be described.

#### Solid Waste Characteristics

The reasons for the choice of operation and procedures to be used should be discussed in relation to the sources, quantity and nature of wastes to be disposed at the site. Reference should be made to alternative methods and appropriate legislation and regulations. Litter management on and off site should be addressed.

#### Leachate Control and Disposal

Provision should be made for the minimisation of leachate. The document should evaluate the potential for leachate, and migration of leachate, and include plans for the environmentally acceptable disposal of any leachate which may occur.

#### Construction and Operating Traffic

Measures to restrict traffic or the impacts of traffic in environmentally sensitive areas should be described.

#### Rehabilitation Measures

Proposed measures for rehabilitation, which may include landscaping, topsoil conservation and native seedling protection, the expected final state of the site, and possible end use of the land should be described. The commitments to be made by the applicant should be included in the WDMP.

#### Public Health

Measures to be taken to protect public health should be discussed and the commitments included in the WDMP.

### 3. Associated Biophysical and Social Impact

#### Flora

Consideration should be given to impacts on population stability and the ability of the flora to regenerate after disturbance. The conservation significance of the flora should be indicated, and any significant associations discussed. A discussion of any expected impact on protected, rare and endangered plant species should quantify affected plants and analyse the effect on the viability of the populations.

#### Fauna

The impacts of the proposed waste disposal depot on fauna (aquatic and terrestrial) should be evaluated (e.g. destruction of habitats, disturbance of breeding patterns, etc.). It should be ensured that adequate feeding and breeding grounds are maintained in an undisturbed state for the region's fauna.

Natural Drainage

Impacts on natural drainage patterns, including both semi-permanent and permanent swamps, and measures to minimise these impacts should be discussed. The ecological value of local wetland habitats should be assessed.

Erosion

The probabilities of erosion resulting from the project should be evaluated and appropriate ameliorative measures proposed. Specific problem areas should be discussed separately.

Introduction of Pests

The risk of escalation of vermin should be investigated in relation to construction and operation of the depot, and the potential impacts on the surrounding areas and uses of the lands. Preventive and control measures should be described and incorporated in the WDMP.

Heritage

Sites of archaeological, anthropological or historical significance should be recorded and legislative requirements observed. Their conservation significance should be evaluated and protective measures proposed if they are likely to suffer detrimental impact from the proposal.

PUBLIC PARTICIPATION

The level of public involvement in the planning and decision-making process leading to the compilation of the application and the EIS document should be described. Outline the nature of objections raised in any known public response.

LEGISLATION AND CODES OF PRACTICE/ENVIRONMENTAL SAFEGUARDS AND STANDARDS

The appropriate legislation and codes of practice applying to the proposal should be identified and its compliance discussed.

The safeguards and/or standards proposed to minimise the environmental effects of the proposed action should be discussed, together with the costs and benefits of adoption or non-adoption of such safeguards and standards. Reference should be made to existing environmental legislation and relevant codes of practice, such as those relating to noise, leachate and dust control with the intended actions described. Some of this information will be included in the WDMP.

Contingency plans should be formulated to deal with accident events, such as fire, and surface flooding. Commitments to ameliorative action could include measures such as special equipment, drainage, fencing, hours of operation, restricted access, restriction of traffic movement and special rehabilitation measures.

## MONITORING AND REVIEW

Monitoring is required to determine the actual environmental impact of the proposal after commencement of operation. Baseline data extracted from the survey of the existing environment are necessary to gauge relative changes in environmental parameters. This will enable the effectiveness of environmental safeguards and standards that have been incorporated into the development and the actual environmental impact of the project to be checked and compared with the predicted impacts. A monitoring programme for this purpose should be formulated and discussed in this section and the appropriate section of the WDMP. These monitoring studies should be carried out over a time span long enough to obtain information on any seasonal or long-term changes, they should be commenced prior to operations starting and continue until long-term impacts are fully documented.

Monitoring is also required during the initial site preparation phase to cover those areas likely to be affected by that activity. If monitoring gives an indication of unacceptable environmental degradation, there must be provision in the design to allow for tightening of the initial standards and rectification of damage where possible.

## SOURCES OF INFORMATION

The sources of information (e.g. reference documents, literature sources, research projects, authorities consulted) should be fully referenced. Where judgements are made, these will need to be clearly identified and the basis on which these judgements are made and the expertise of those making the judgements will need to be spelled out. The qualifications of consultants and authorities should also be provided.

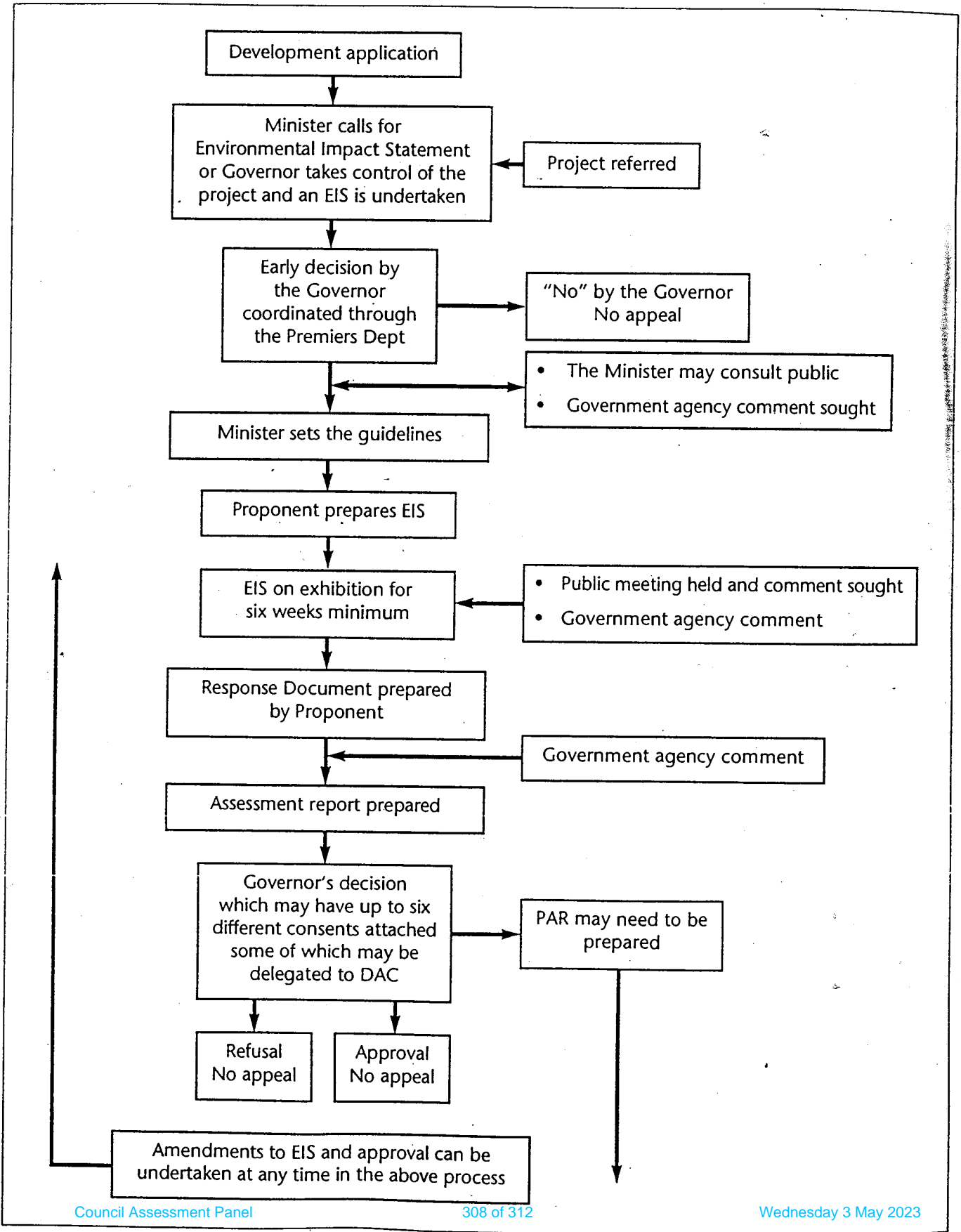
## APPENDICES

Additional information relevant to the EIS that is not included in the text should be included in the appendices (maps, graphs, tables, photographs, reports, etc.). A glossary may be appropriate.

The design of the proposal should be flexible enough to incorporate changes to minimise any impacts highlighted by this evaluation or by post - operational monitoring programmes.

# ASSESSMENT PROCESS FOR PROJECTS OF MAJOR SIGNIFICANCE

## Key steps



# WASTE DEPOT MANAGEMENT PLAN

## INDEX

### LOCATION

#### 1. Site Details

- 1.1 Land Owner
- 1.2 Depot Operator
- 1.3 Site manager
- 1.4 Locality Description
- 1.5 Section & Hundred
- 1.6 Certificate of Title
- 1.7 Australian Map Grid Coordinates
- 1.8 Council Area
- 1.9 Zoning & Land Use Policies
- 2.0 Distance to adjoining Zones

#### 2. Site Description

- 2.1 Operation Visibility
- 2.2 Traffic Routes to the Site
- 2.3 Exposure to Prevailing Winds
- 2.4 Buffer Zones within the depot
- 2.5 Proximity to Houses
- 2.6 Distance to Surface Water/Watercourses
- 2.7 Groundwater
- 2.8 Siting of Active Operations/Topography
- 2.9 Geology / Hydrogeology
- 2.10 Adjoining Fire Hazards
- 2.11 Distances to other Sensitive Land Uses

## OPERATIONS

1. **Establishment / Improvement Details**
  - 1.1 Screening/Windbreaks/Buffer Zones
  - 1.2 Amenities
  - 1.3 Plant/Equipement
  - 1.4 Fencing/Signage
  - 1.5 Access Roads
  - 1.6 Drainage
  - 1.7 Safety measures
  
2. **Waste Quantities/Types**
  - 2.1 Types of Waste Received
  - 2.2 Capacity of Site / Annual Volumes
  - 2.3 Area of Depot
  
3. **Site Control**
  - 3.1 Depot Access
  - 3.2 Hours of Operation
  
4. **Waste Disposal**
  - 4.1 Waste Disposal Areas
  - 4.2 Method of filling / Compaction
  - 4.3 Areas of Exposed Waste (m.2 )
  - 4.4 Burning
  - 4.5 Type of Cover Material
  - 4.6 Cover Requirements

**5. Waste Treatment**

- 5.1 Recycling
- 5.2 Composting
- 5.3 Other activities

**6. Maintenance**

- 6.1 Signage
- 6.2 Internal Roads
- 6.3 Stockpiles
- 6.4 Amenities
- 6.5 Landscaping / Windbreaks / Buffer Zones
- 6.6 Drainage
- 6.7 Fire Control
- 6.8 Progressive Rehabilitation

**7. Site Monitoring / Controls**

- 7.1 Landfill Gas
- 7.2 Leachate
- 7.3 Groundwater
- 7.4 Stormwater
- 7.5 Smoke
- 7.6 Odours
- 7.7 Noise
- 7.8 Vermin
- 7.9 Dust & Mud

## SITE END USE

- 1 Final Landform
- 2 End Use
- 3 Post Closure Monitoring Period
- 4 End Use Maintenance Period

## APPENDICES

### 1. Plans

- 1.1 Locality Plan
- 1.2 Site Operating Plans / Staging
- 1.3 End Use Plans

### 2.. Attachments

- 2.1 Rehabilitation Trust Fund
- 2.2 End Use Maintenance and Monitoring Fund
- 2.3 Land Use Consent
- 2.4 Licences & Conditions
- 2.5 Proof of Site Tenure
- 2.6 Public Liability Cover
- 2.7 CFS / MFS Requirements
- 2.8 Depot Improvement Programme
- 2.9 Community Consultation Programme,  
Community Agreements.
- 2.10 Annual Landfill Volumes
- 2.11 Specifications
- 2.12 Agreed Sanctions.