Our Reference: 334-21

Stormwater Management Report

132 -144 Warren Road, Smithfield

Response to Planning Secretary's Environmental Assessment Requirements

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DOCUMENT CONTROL				
Revision	Date	Details	Author	Reviewed
A	02/11/21	Draft Report	JK	TF
B	07/02/22	Draft Report – TUFLOW documentation	JK	TF
C	12/04/22	Final Report	JK	TF
D	21/04/22	Amendments as per recent Cumberland Council policy	JK	TF
E	23/06/22	Internal Review	JK	TF

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1 Introduction

Storm Consulting (Craig & Rhodes Pty Ltd) has been engaged by MRA Consulting on behalf of Polytrade Pty Ltd to prepare this Stormwater Management Report to address the Planning Secretary's environmental assessment requirements (SEARs) for the preparation of an environmental impact statement (EIS) for the proposed Smithfield Materials Recovery Facility at Lot 2 in DP 1230452, 132-144 Warren Road, Smithfield in the Cumberland local government area (LGA).

1.1 Purpose and Scope

The purpose of this report is to address stormwater quantity and stormwater quality requirements outlined in the SEARs responses by the various stakeholders. This report will form part of the EIS for the proposed site.

SEARs responses from the following stakeholders have been received:

- Cumberland City Council
- NSW EPA
- NSW Department of Planning, Industry and Environment
- Sydney Water
- Transport for NSW

The SEARS Responses are provided in Appendix A.

2 Site Description

2.1 Site Location

The proposed Smithfield Materials Recovery Facility, located at 132-144 Warren Road, Smithfield, is identified as Lot 2 in DP 1230452 in the Holroyd Local Environment Plan (HELP) 2013 and is IN1 – General Industrial within the Cumberland City Council local government area (LGA).

The site and surrounding land are contained within the Smithfield Industrial Zone. The Smithfield Industrial Zone contains large manufacturing and service industries and covers more than 33 hectares with lot sizes between 1000m2 and 5 hectares. The Smithfield Industrial Zone is zoned IN1 General Industrial. Land directly to the east of the IN1 land is zoned IN2 Light Industrial. Other land zones in proximity to the site include SP2 – Infrastructure (State Road), RE1 – Public Recreation, and R2 – Low Density Residential.

The nearest residences are located approximately 390m North of the site within the suburb of Woodpark. The nearest waterway is located is prospect Creek and is located 680m South.

The industrial precinct generally grades south towards Prospect Creek.

Figure 1 presents the site location with the surrounding land zoning.

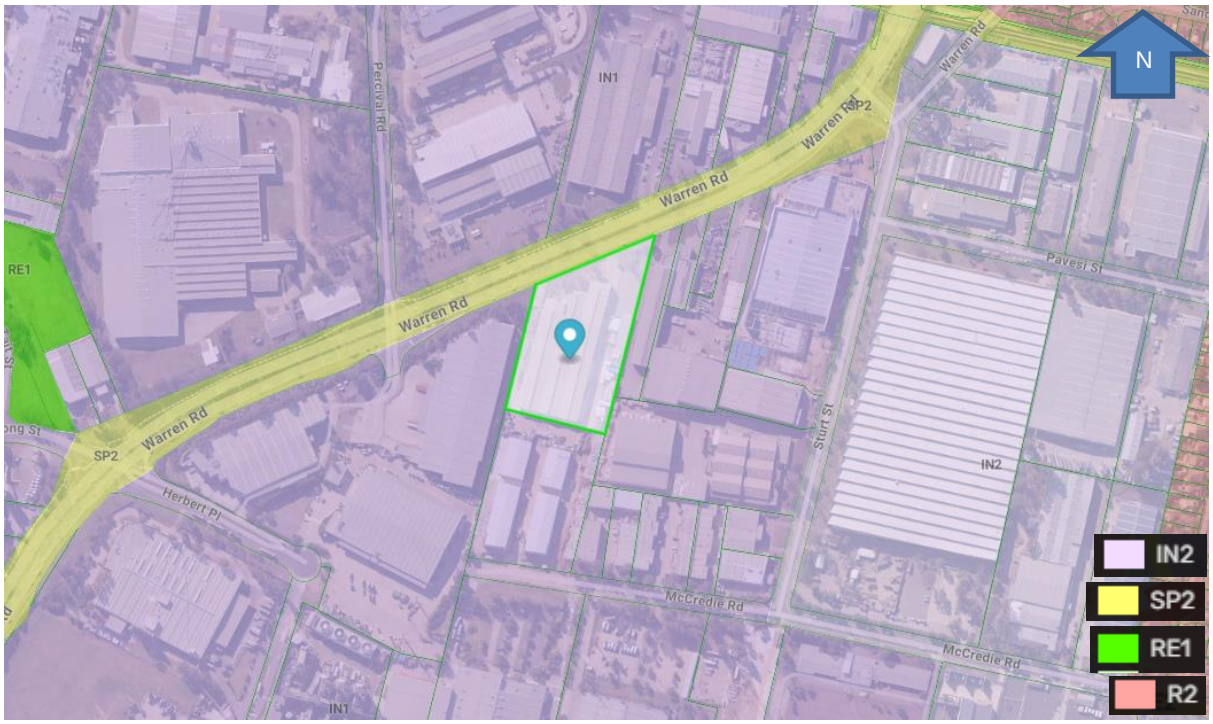


Figure 1 Site Location with Land Zoning (Source: Mecone Mosaic)

2.2 Proposed Works and Operations

The proposed Materials Recovery Facility (MRF) will process 150,000tpa of domestic kerbside recycling products, operating 24 hours a day, 7 days a week.

To achieve this, sorting plant and equipment will be sourced and installed inside the existing shed at the site, as well as bunker walls and a suitable fire suppression system. Two weighbridges will be installed to the eastern and western side of the shed. One new roller door will be installed to the eastern side of the shed. Driveway upgrades are proposed at the northern site entrance.

Flood mitigation works within the driveway areas are proposed to manage the existing flooding as described in Section 5.

Minor regrading works to the existing driveway surface may be required dependent on the chosen flood mitigation options as discussed in Section 5. Minor regrading works are proposed to realign the existing overland flowpath away from warehouse walls and entries.

The site will receive co-mingled recyclables from nearby residential and commercial premises.

Recycling products received and processed onsite will largely be sorted into the following categories:

- Paper and cardboard
- Glass
- Plastic
- Ferrous metal
- Non-ferrous metal
- Residual.

Preliminary site layout and equipment configuration is presented in Figure 2.

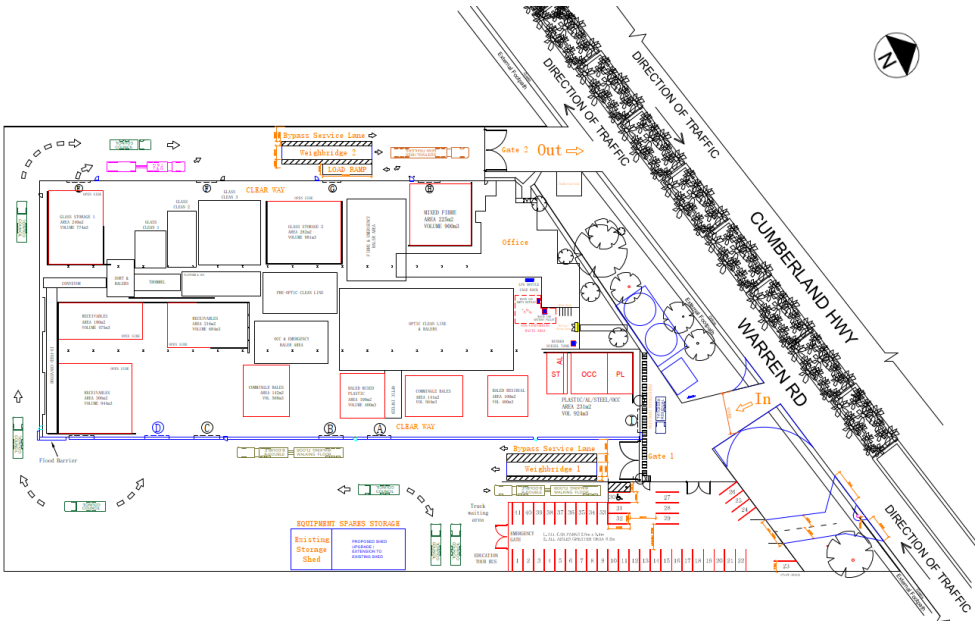


Figure 2 Preliminary Site Layout and Equipment Configuration

2.3 Receiving Waters

The site is located within the Prospect Creek catchment and is approximately 650m from Prospect Creek as presented in Figure 3. Prospect Creek forms part of the wider Georges River Catchment.

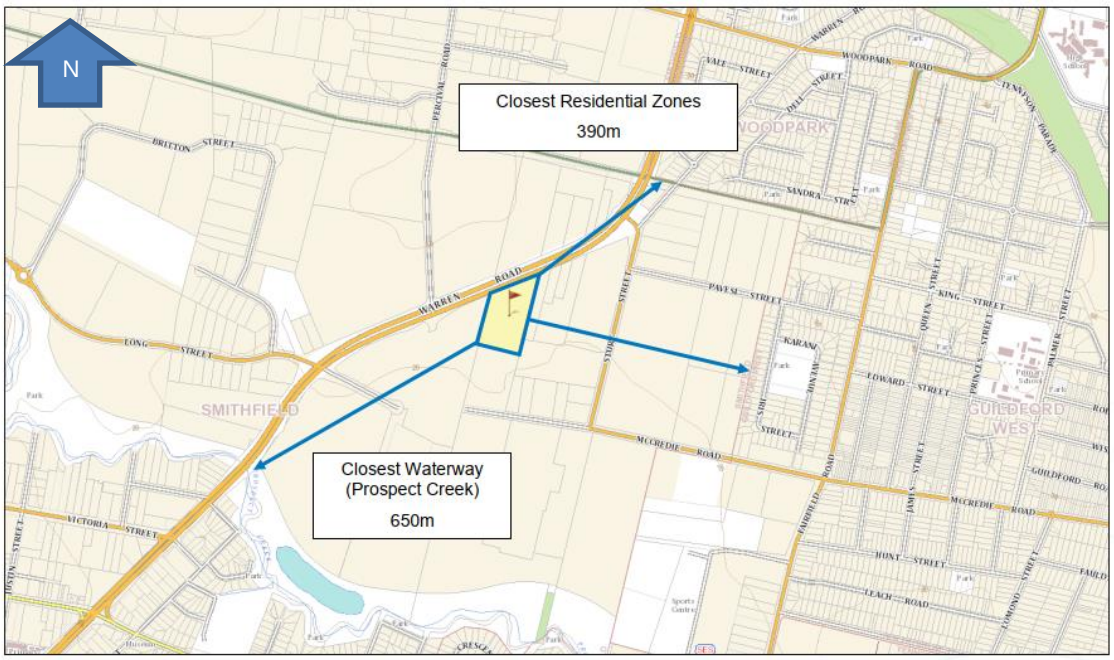


Figure 3 Receiving Waters

NSW Government provides Water Quality and River Flow Objectives (WQRFO) for the proposed site falling within the Georges River Catchment.

The proposed site is categorised as 'waterways affected by urban development' under the WQRFO as presented in Figure 4.

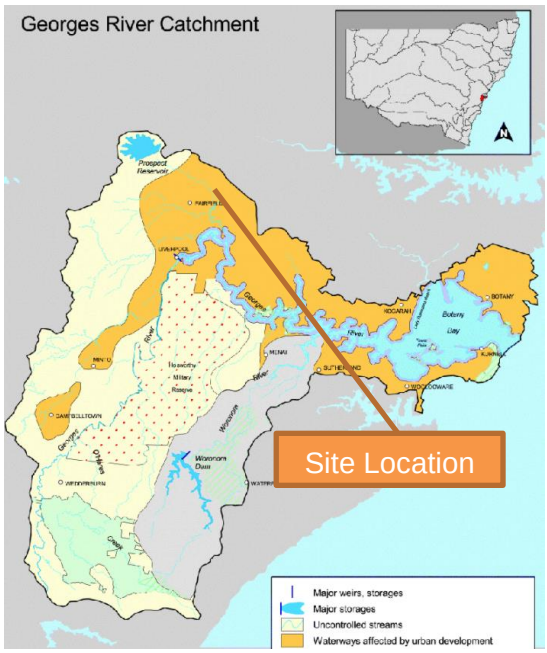


Figure 4 Water Quality and River Flow Objectives (WQRFO) Georges River Catchment Map

The relevant key indicators specific to subject site and default trigger values as listed on the Water Quality and River Flow Objectives for 'waterways affected by urban development' within Georges River Catchment are:

Water Quality Objectives:

- Aquatic Ecosystems

Indicator	Numerical Criteria (Trigger Value)
Total phosphorus	Upland rivers: 20 µg/L
Total nitrogen	Upland rivers: 250 µg/L
Turbidity	Upland rivers: 2–25 NTU

- Visual Amenity

Indicator	Numerical Criteria (Trigger Value)
Visual clarity and colour	Natural visual clarity should not be reduced by more than 20%. Natural hue of the water should not be changed by more than 10 points on the Munsell Scale. The natural reflectance of the water should not be changed by more than 50%.
Surface films and debris	Oils and petrochemicals should not be noticeable as a visible film on the water, nor should they be detectable by odour. Waters should be free from floating debris and litter.

- Secondary Contact Recreation

As per 'Visual Amenity'

- Primary Contact Recreation

As per 'Visual Amenity'

River Flow Objectives:

- Maintain Wetland Floodplain inundation
- Maintain natural flow variability
- Maintain natural rates of change in levels
- Minimise effects of weirs and other structures

3 Existing Flood Study

3.1 Existing 'Precinct' Flood Study

Council's Flood Advice Letter provided flood information for the site which has been sourced from the *'Holroyd City LGA Overland Flood Study'* undertaken by Lyall&Associates.

Existing Council flood study has been undertaken by Lyall&Associates in *'Holroyd City LGA Overland Flood Study'* (Lyall&Associates, 2017). The precinct wide flood study covers the Prospect Creek catchment which includes the subject site.

Council website also publicly available flood maps which are generally consistent with the results presented in *'Holroyd City LGA Overland Flood Study'* (Lyall&Associates, 2017).

Figure 5 to Figure 8 presents the following flood maps at the site location sourced from the *'Holroyd City LGA Overland Flood Study'* (Lyall&Associates, 2017) and publicly available flood maps on Council website:

- Flood Prone Land Map
- Flooding Planning Area Map
- Hydraulic Categorisation Map
- Flood Hazard Map

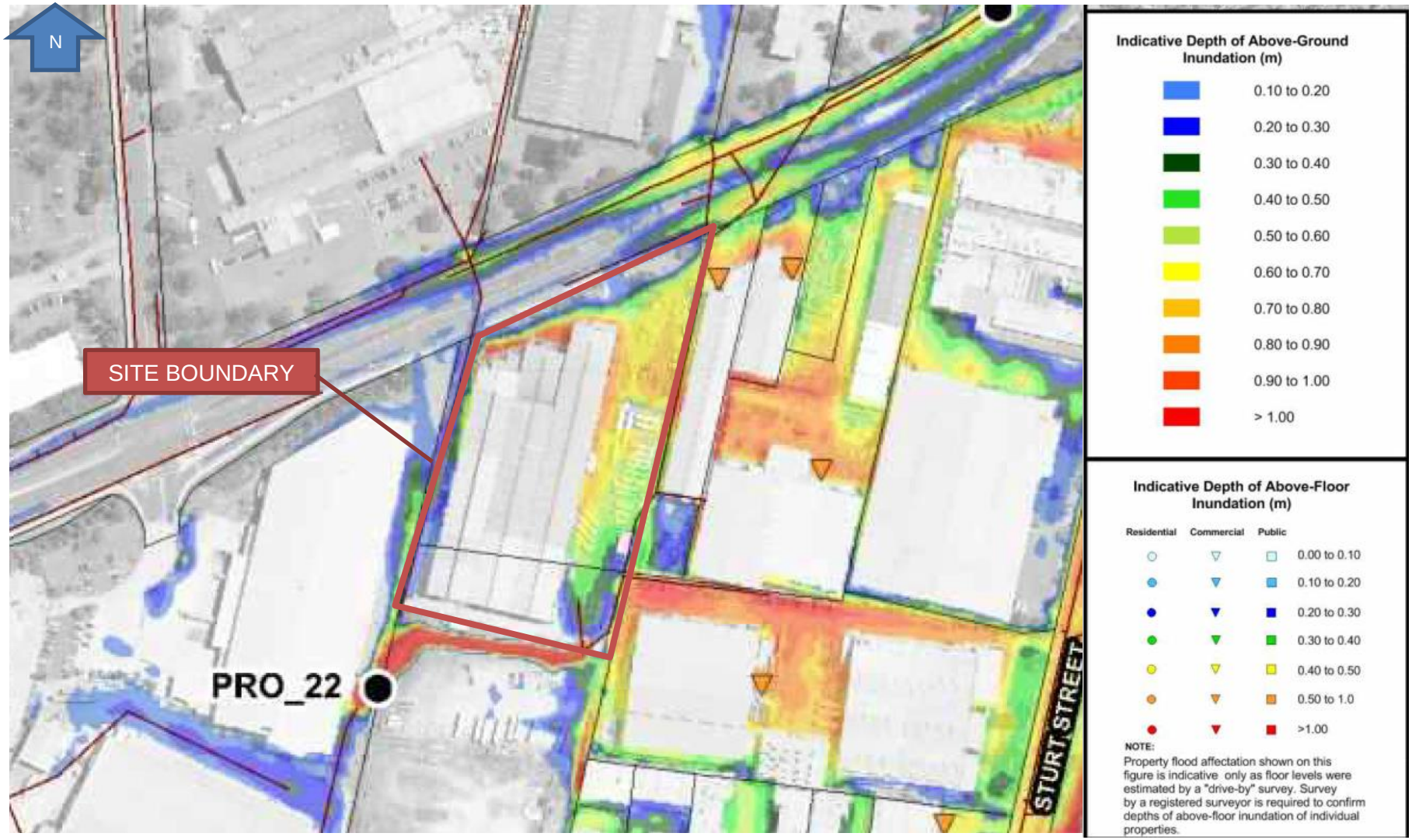


Figure 5 Flood Prone Lands (Source: 'Holroyd City LGA Overland Flood Study – Volume 2 Figures' (Lyall&Associates, 2017)
Note: 'Flood Prone Land' is defined as land susceptible to flooding by the PMF event as described in the 'Floodplain Development Manal' (NSW Govt, 2005)

Figure 6 *Flood Planning Area Map (Source: 'Holroyd City LGA Overland Flood Study – Volume 2 Figures' (Lyall&Associates, 2017)*

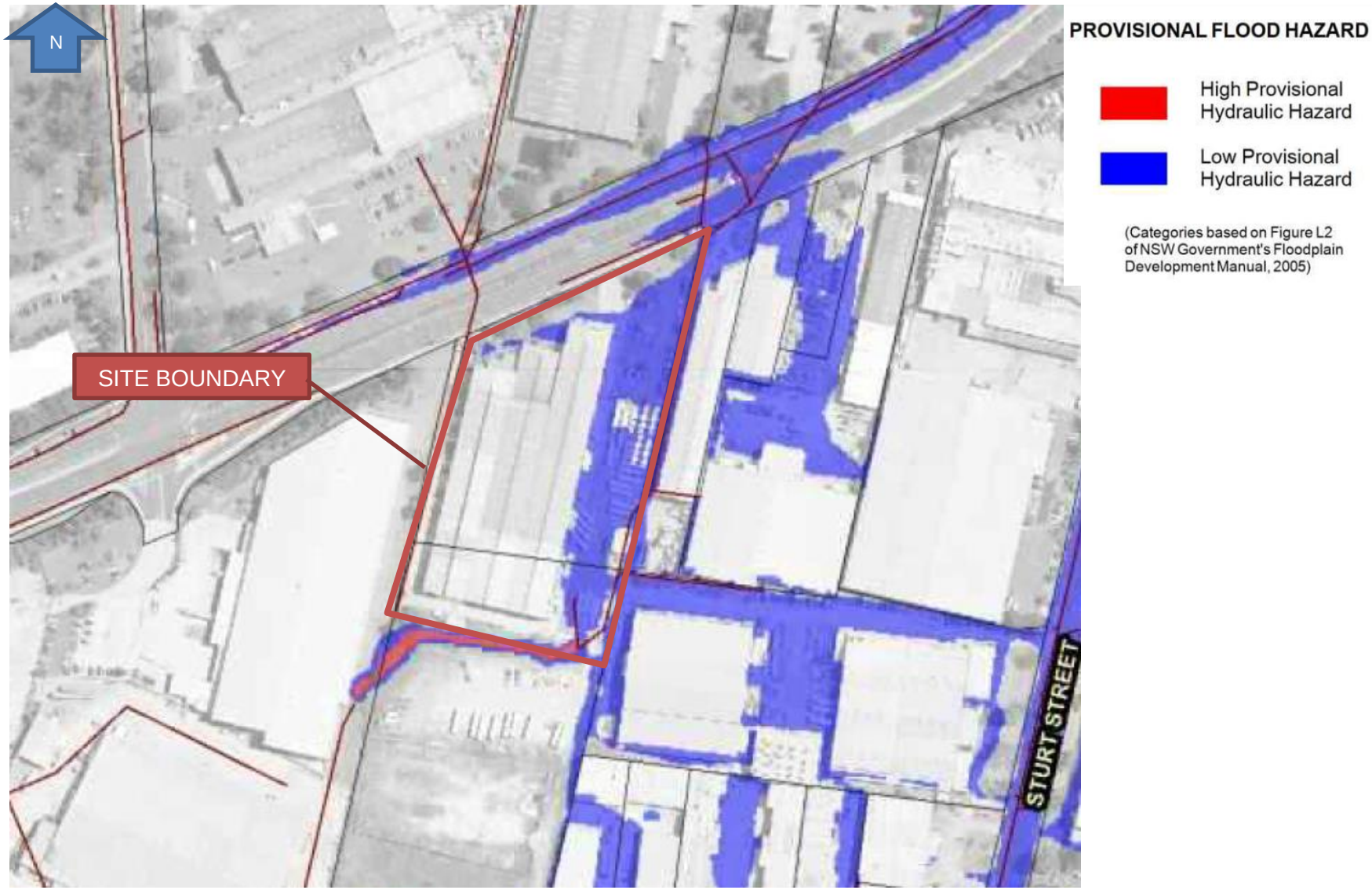


Figure 7 *Flood Hazard Map (Source: 'Holroyd City LGA Overland Flood Study – Volume 2 Figures' (Lyall&Associates, 2017)*

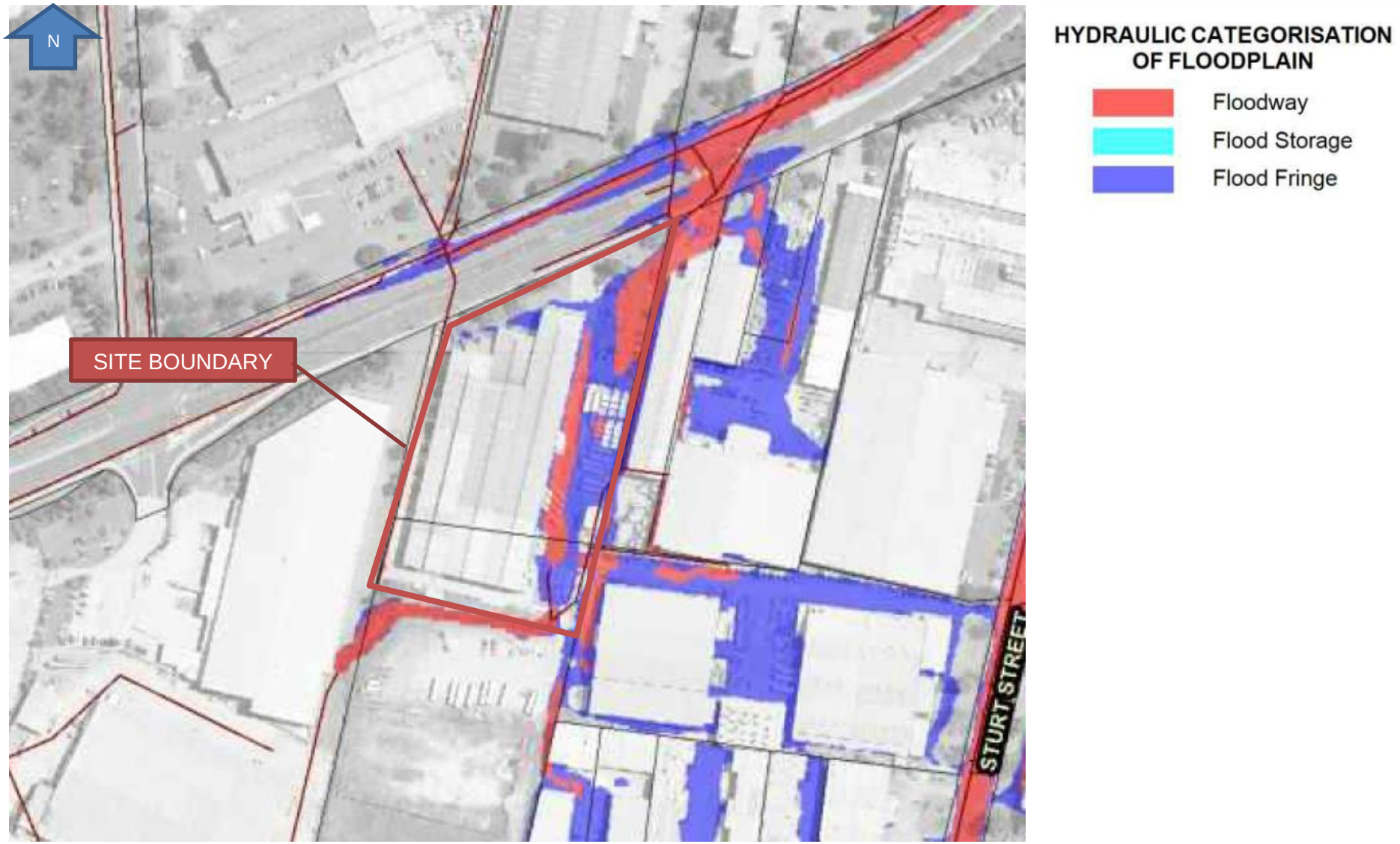


Figure 8 *Hydraulic Categorisation Map (Source: 'Holroyd City LGA Overland Flood Study – Volume 2 Figures' (Lyall&Associates, 2017)*

The flood maps in Figure 5 to Figure 8 indicate that the subject site is within flood-prone lands and is within the flood planning area. The maps indicate the flooding occurring along the eastern site boundary.

The flood hazard map, presented in Figure 7, is derived from the 100 year ARI results (Refer Figure 12), The flood hazard map indicates that the 100 year ARI overland flooding is restricted within the eastern site boundary driveway and is of low flood hazard. This indicates that the flooding is of relatively low depth/velocity and poses 'low' safety hazard for pedestrians and vehicles during 100 year ARI events.

The hydraulic categorisation map, presented in Figure 8, indicates the eastern site boundary and driveway areas are hydraulically characterised as floodway and flood fringe areas. No flood storage areas are shown on the map. This indicate that the eastern site boundary and driveway provides conveyance of floodwater.

Existing flood study undertaken by Lyall&Associates also provides flood maps covering the subject site for:

- 5, 20, 50 and 100 year ARI event
- PMF event
- Climate Change - 10% Increase from 100yr ARI (as proxy for 0.5%AEP event)
- Climate Change – 30% increase from 100yr ARI (as proxy for 0.2% AEP event)

Depending on the chosen proposed option (refer Section 2.2), minor regrading of the existing driveway may be required to realign the existing flowpath away from the warehouse. The modelled surface level changes in surface levels are anticipated to be minor. As such, the flood results documented in *'Holroyd City LGA Overland Flood Study'* (Lyall&Associates, 2017) are considered valid and applicable to the proposed development.

Flood study scope and modelling methodology are discussed in depth in *'Holroyd City LGA Overland Flood Study'* (Lyall&Associates, 2017).

Figure 9 to Figure 15 presents the following flood maps at the site location sourced from the *'Holroyd City LGA Overland Flood Study'* (Lyall&Associates, 2017):

- 5 year ARI event (equivalent to 20% AEP event)
- 20 year ARI event (equivalent to 5% AEP event)
- 50 year ARI event (equivalent to 2% AEP event)
- 100 year ARI event (equivalent to 1% AEP event)
- PMF event
- Climate Change - 10% Increase from 100yr ARI (as proxy for 0.5%AEP event)
- Climate Change – 30% increase from 100yr ARI (as proxy for 0.2% AEP event)

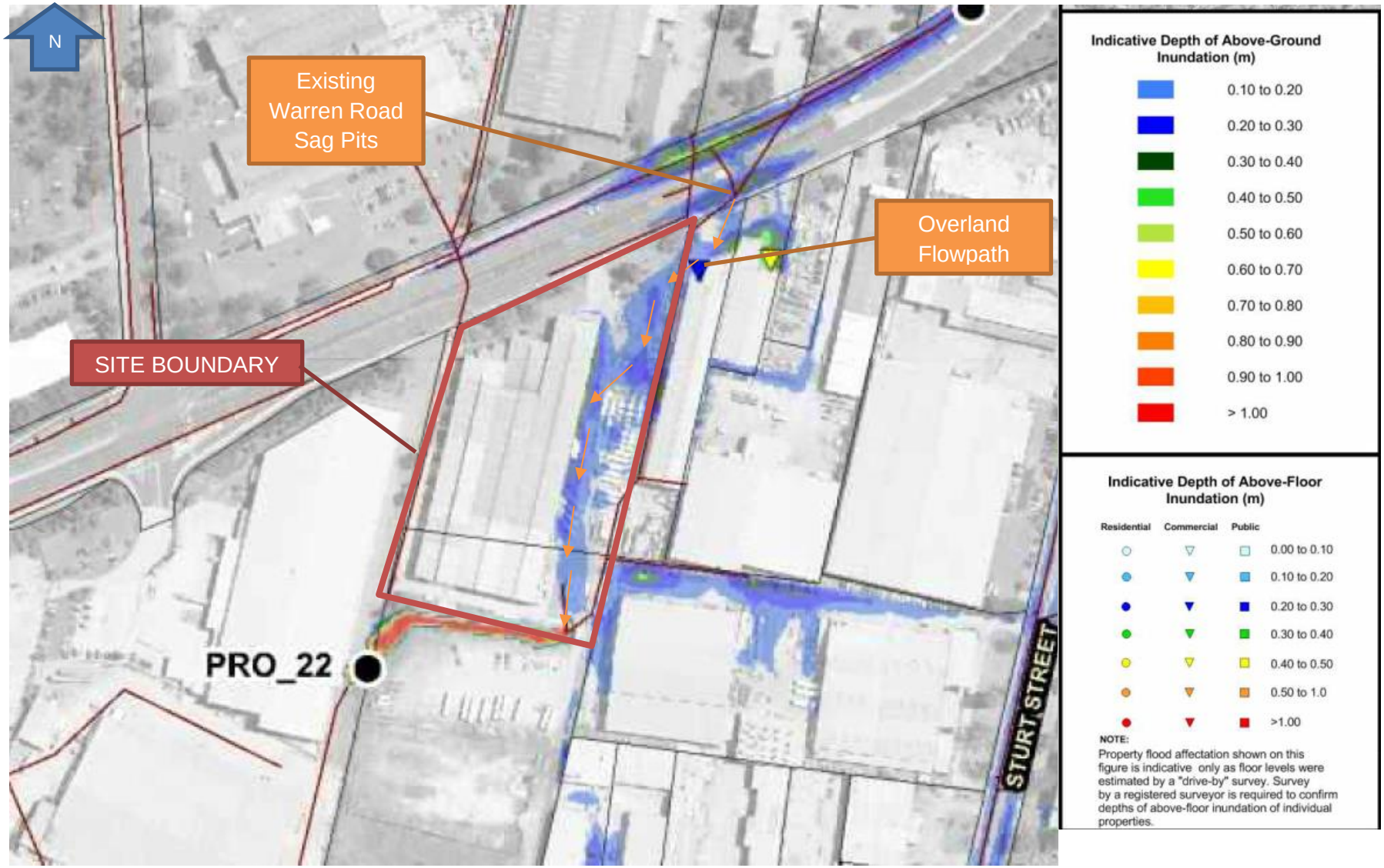


Figure 9 *5 year ARI Map (Source: 'Holroyd City LGA Overland Flood Study – Volume 2 Figures' (Lyall&Associates, 2017)*

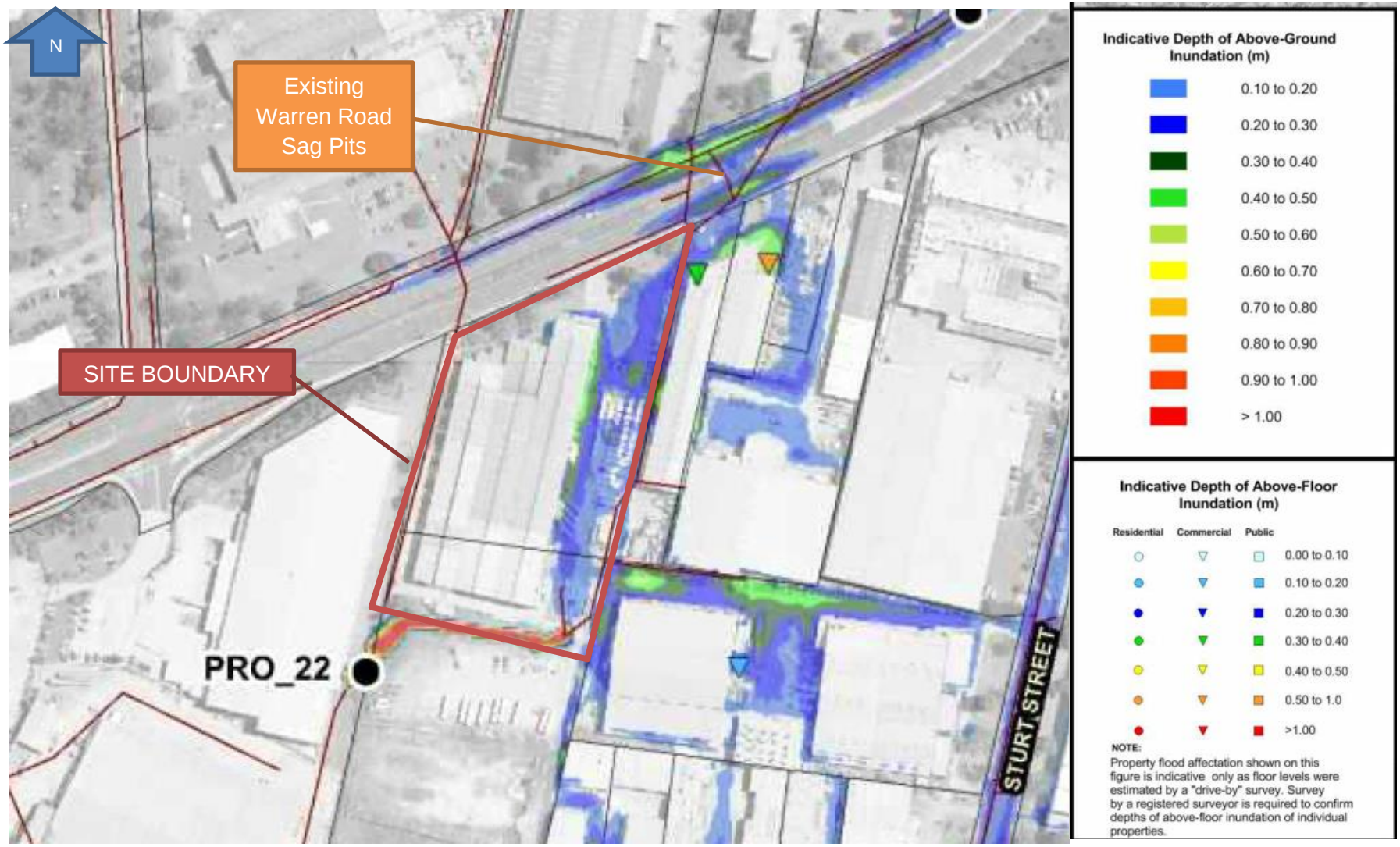


Figure 10 *20year ARI Map (Source: 'Holroyd City LGA Overland Flood Study – Volume 2 Figures' (Lyall&Associates, 2017)*

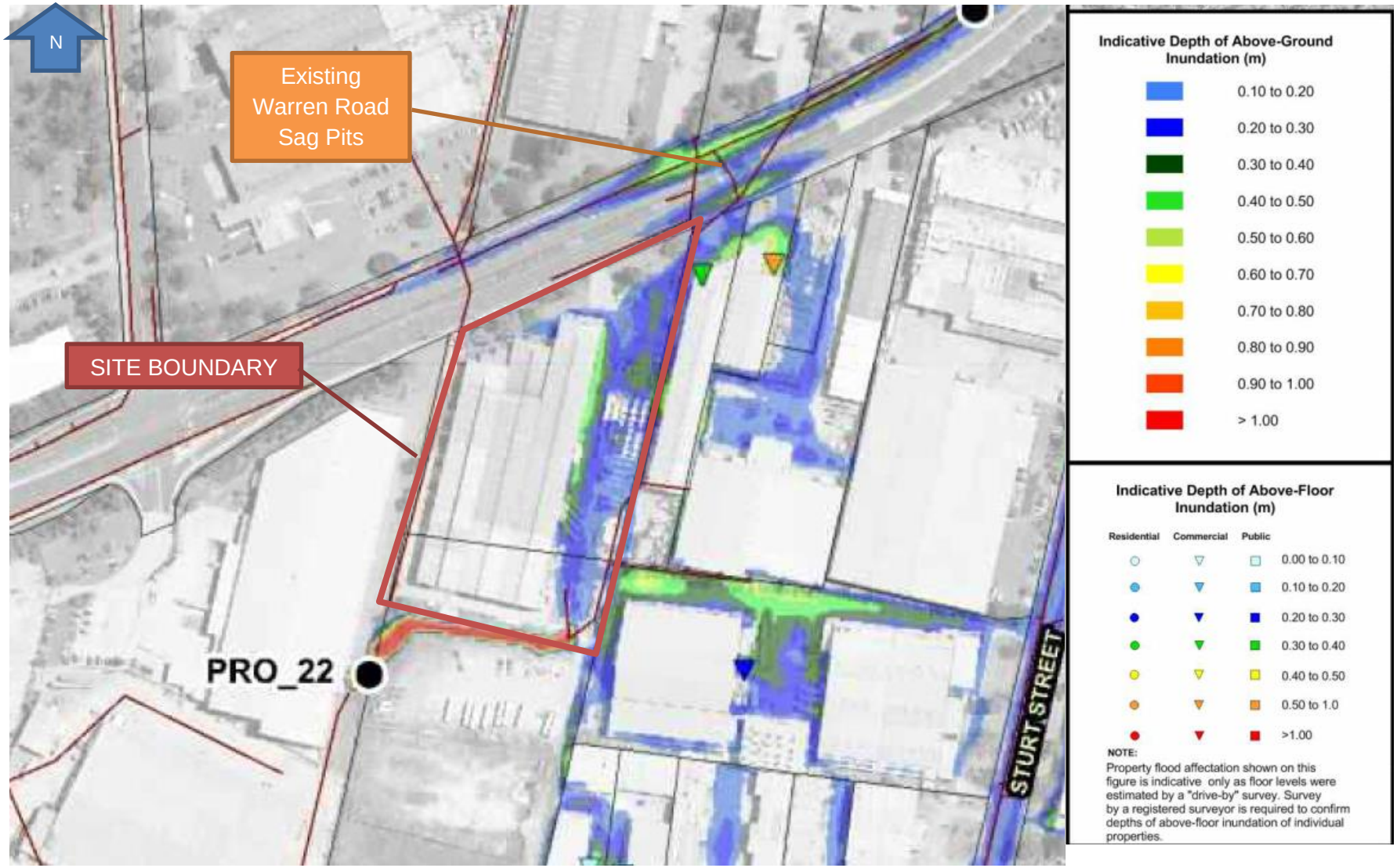


Figure 11 *50year ARI Map (Source: 'Holroyd City LGA Overland Flood Study – Volume 2 Figures' (Lyall&Associates, 2017)*

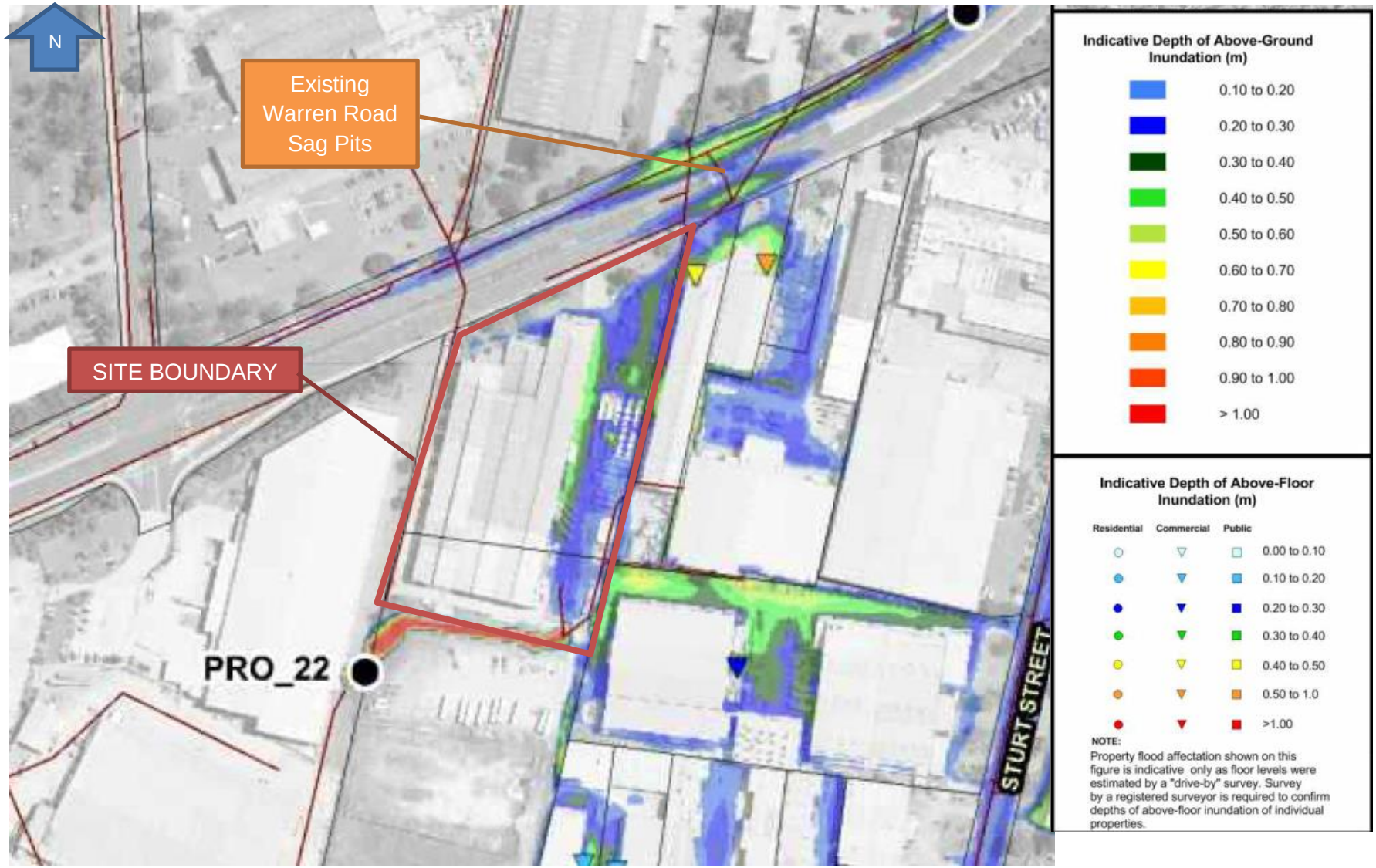


Figure 12 100year ARI Map (Source: 'Holroyd City LGA Overland Flood Study – Volume 2 Figures' (Lyall&Associates, 2017)

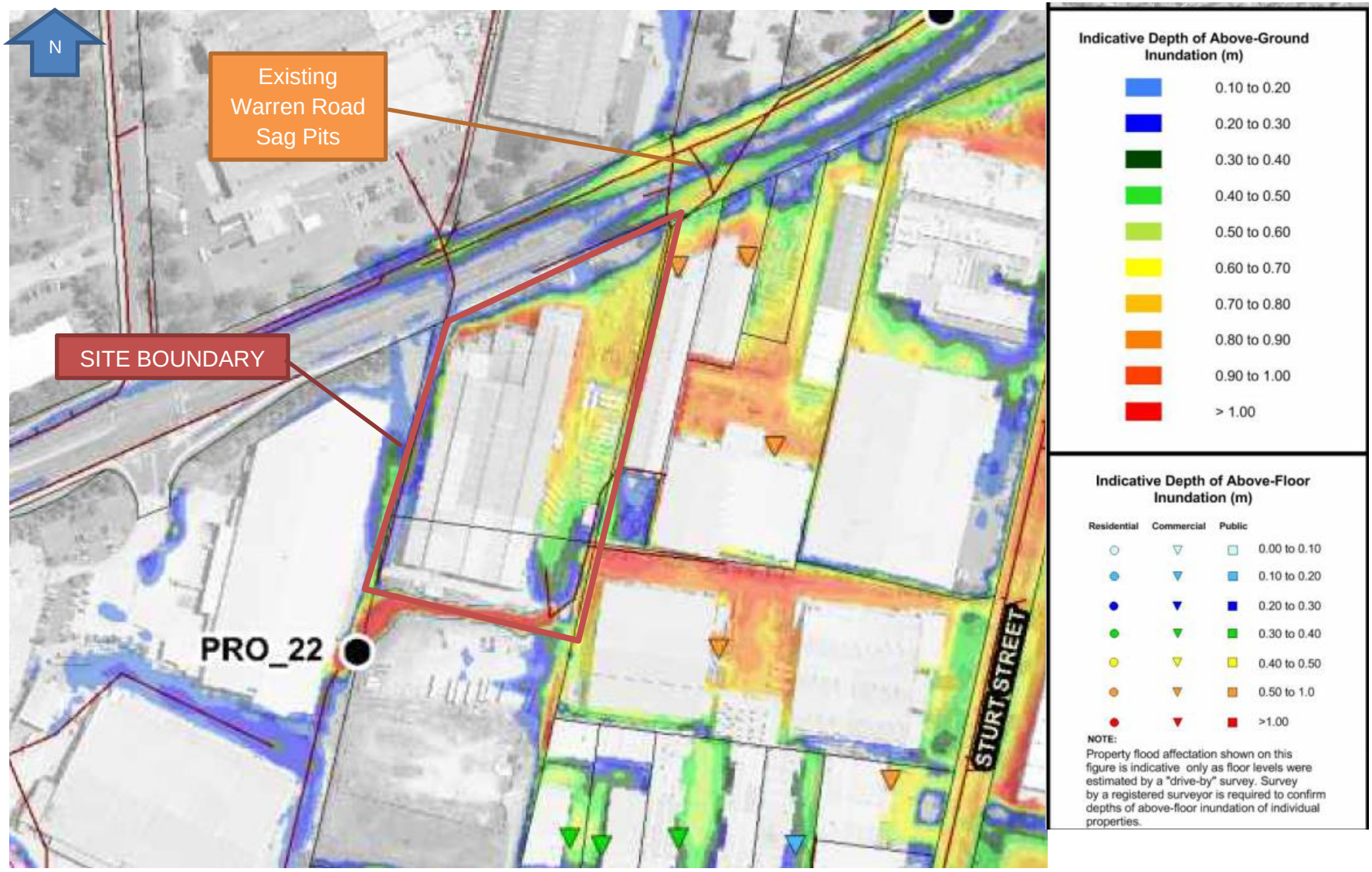


Figure 13 *PMF Map (Source: 'Holroyd City LGA Overland Flood Study – Volume 2 Figures' (Lyall&Associates, 2017)*

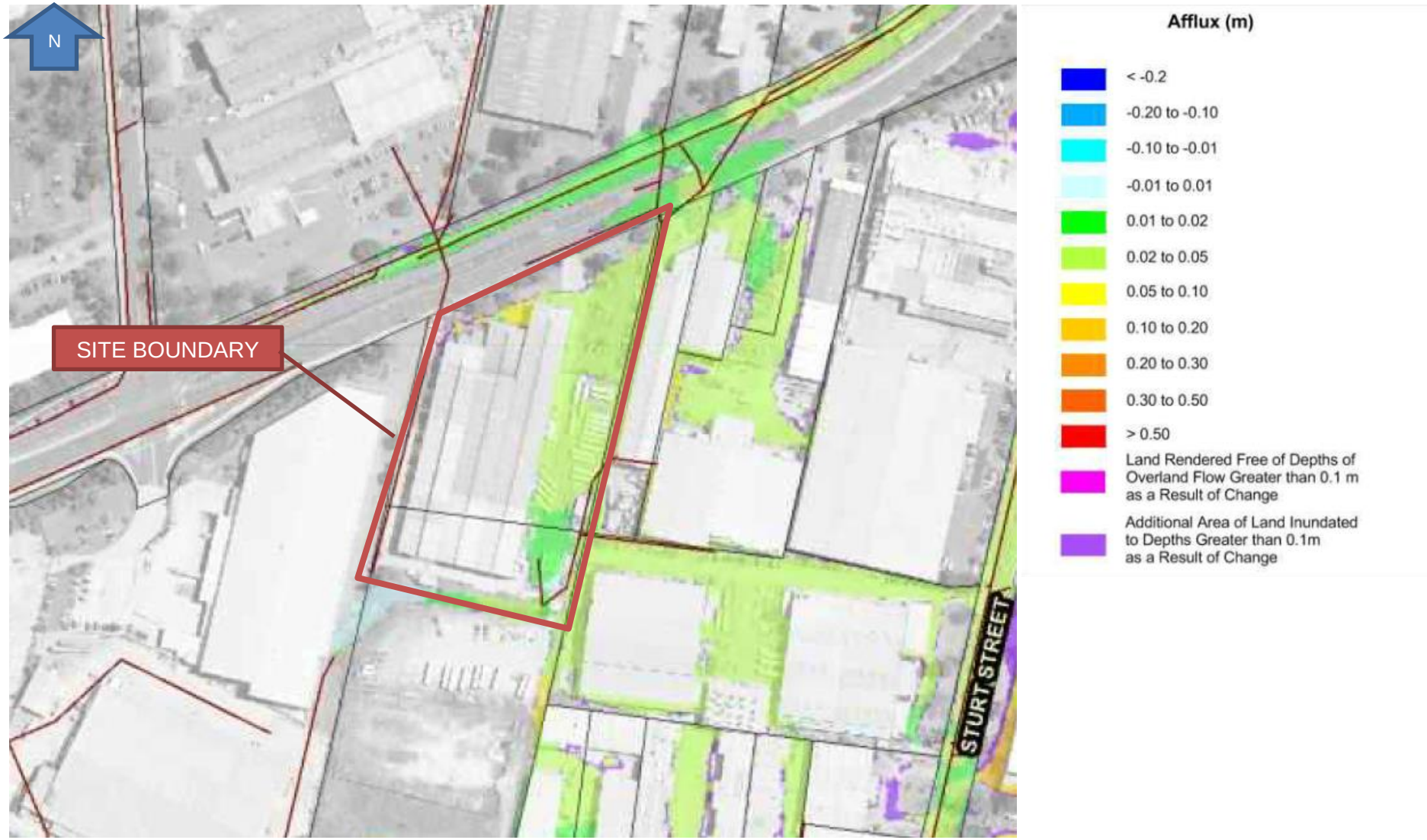


Figure 14 Climate Change - 10% Increase from 100yr ARI (as proxy for 0.5%AEP event)
(Source: 'Holroyd City LGA Overland Flood Study – Volume 2 Figures' (Lyall&Associates, 2017)

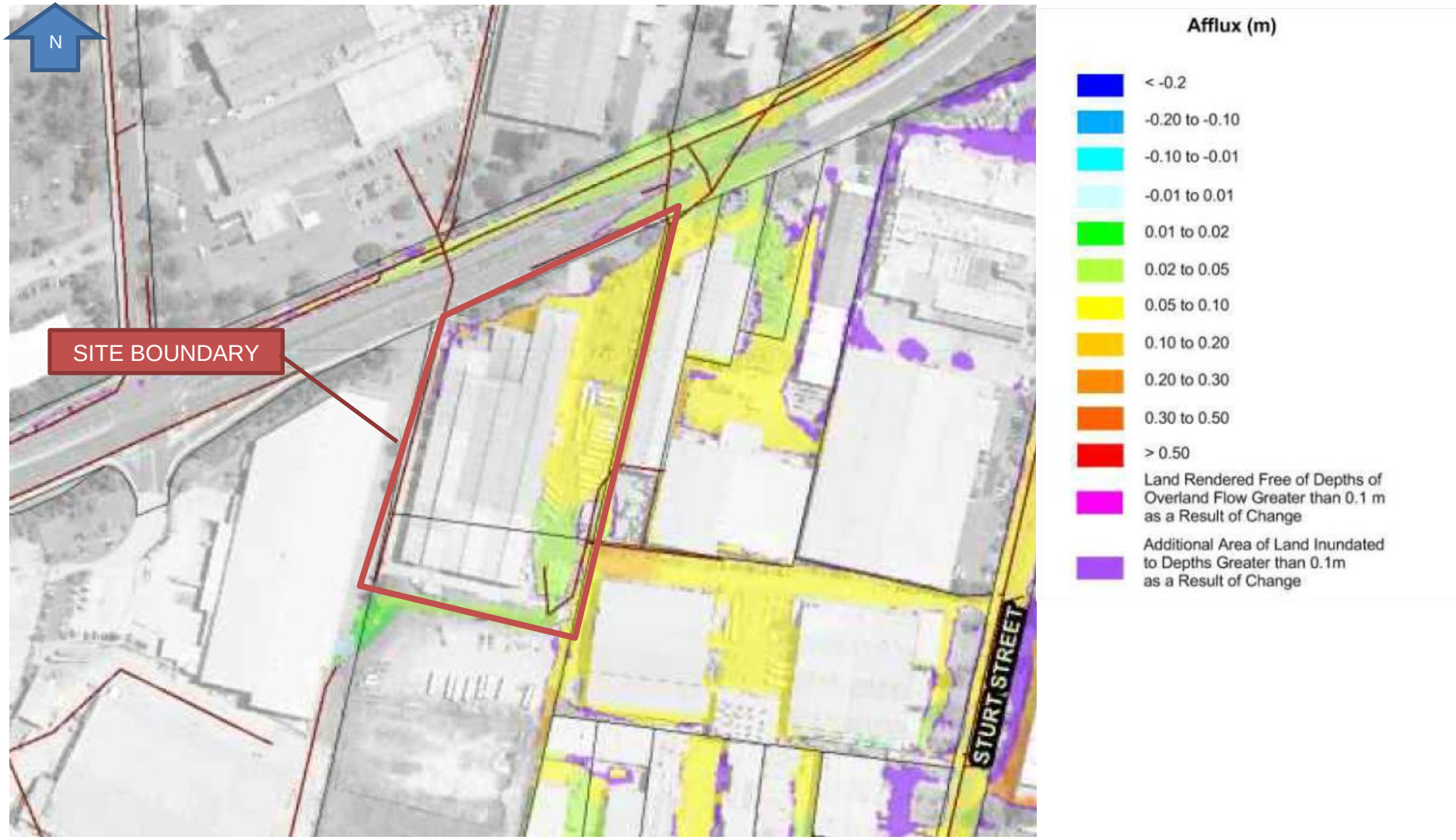


Figure 15 Climate Change - 30% Increase from 100yr ARI (as proxy for 0.2%AEP event)
(Source: 'Holroyd City LGA Overland Flood Study – Volume 2 Figures' (Lyall&Associates, 2017)

Figure 9 to Figure 15 indicate site experiences flooding in the 5 year ARI event and above. The maps indicate the overland flooding stemming from the existing Warren Road sag pit locations as labelled in Figure 9 to Figure 15.

3.2 Existing Site-Specific Flood Study

The precinct flood study by Lyall & Associates investigated the flood behaviour across the wider Cumberland City Council LGA.

A site-specific flood study for the existing case was undertaken, as shown in Figure 16, to include:

- Detailed Site Survey including recently constructed warehouse upgrade south of subject site
- Surveyed internal stormwater drainage
- Recent culvert and warehouse upgrade at 191-195 McCredie Road, Smithfield
- No other surface or pipe changes has been made

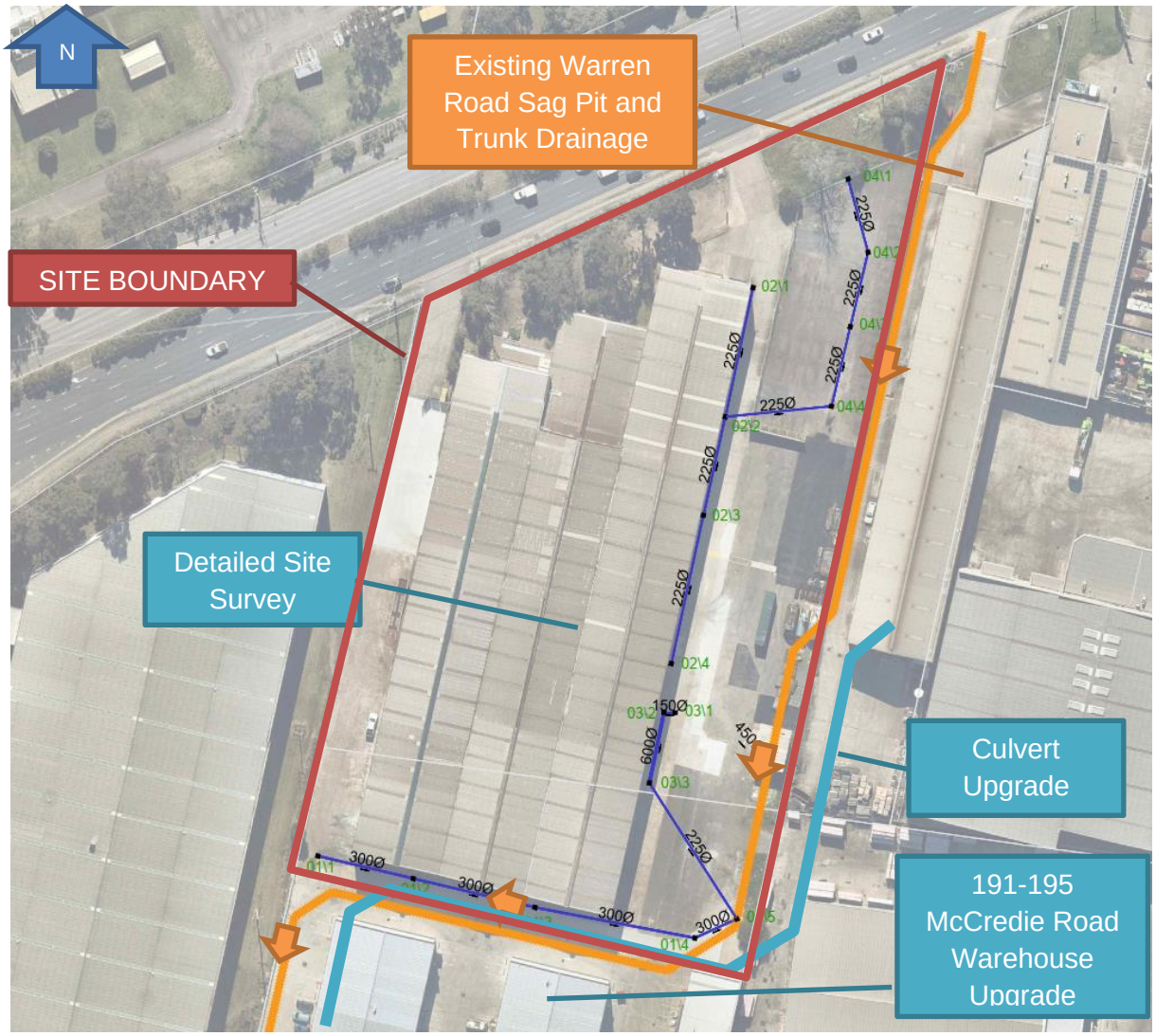


Figure 16 Site Specific Flood Study amendments

To differentiate between the existing Council flood study in Section 3.1 and the existing site-specific flood study, the Council flood study will be referred to as '**precinct'** scenario. As the site-specific flood study utilises more reliable data (including detailed survey, approved development drawings) compared to the 'precinct' study, the existing site-specific flood study will be referred to as '**existing'** scenario henceforth.

The 'existing' hydraulic model was setup based on Council's model to represent the site flood behaviour under existing and proposed development conditions and was used to assess the flood conditions for the 1% AEP flood events.

3.2.1 Methodology

The precinct TUFLOW model corresponding to the *'Holroyd City LGA Overland Flood Study'* (Lyall&Associates, 2017) was supplied by Council.

Storm Consulting have used the supplied Council model as the 'base' model for undertaking the site specific TUFLOW modelling. There were no updates made to the existing hydrology from the *'Holroyd City LGA Overland Flood Study'* (Lyall & Associates, 2017). The '*Holroyd City LGA Overland Flood Study'* (Lyall&Associates, 2017) report details the methodology, assumptions and exclusions adopted in the 'precinct' model.

Storm Consulting used the supplied Council 'precinct' model to undertake the following TUFLOW modelling:

- Calibration Check
- Existing Scenario

Calibration TUFLOW runs for the 20% AEP and 1% AEP flood events were undertaken using the model supplied by Council to confirm the model results are consistent with the documented flood results in '*Holroyd City LGA Overland Flood Study'* (Lyall & Associates, 2017). The calibration runs were also used to determine the critical storm duration for the subject site adopted for the existing scenario TUFLOW runs.

The critical duration of 60 and 90-minute was run for the 20% AEP and critical duration of 90 and120 minute was adopted for the 1% AEP in the existing scenario model. Flood depth and afflux flood maps were created by amalgamating the maximum peak depths between the chosen durations.

The model boundary of the received Council precinct TUFLOW model was trimmed to remove catchments not relevant to the subject site. 2m grid cell size was adopted consistent with Council's TUFLOW precinct model. Cells within the building footprint have been modelled with a Manning's 'n' value of 10, consistent with Council's TUFLOW precinct model. Any wet cells within the building has been trimmed out as shown in the flood maps consistent with Council's flood maps.

The existing scenario TUFLOW model involved modifications to the ‘precinct' model incorporate available detailed survey, surveyed internal stormwater drainage, as well as the culvert and warehouse upgrade at 191-195 McCredie Road, Smithfield.

The modelling in this scenario utilised the current TUFLOW version (Version 2020-10-AB) and the TUFLOW HPC engine. All other modelling elements remained unchanged from Council’s ‘precinct’ model.

3.2.2 Results

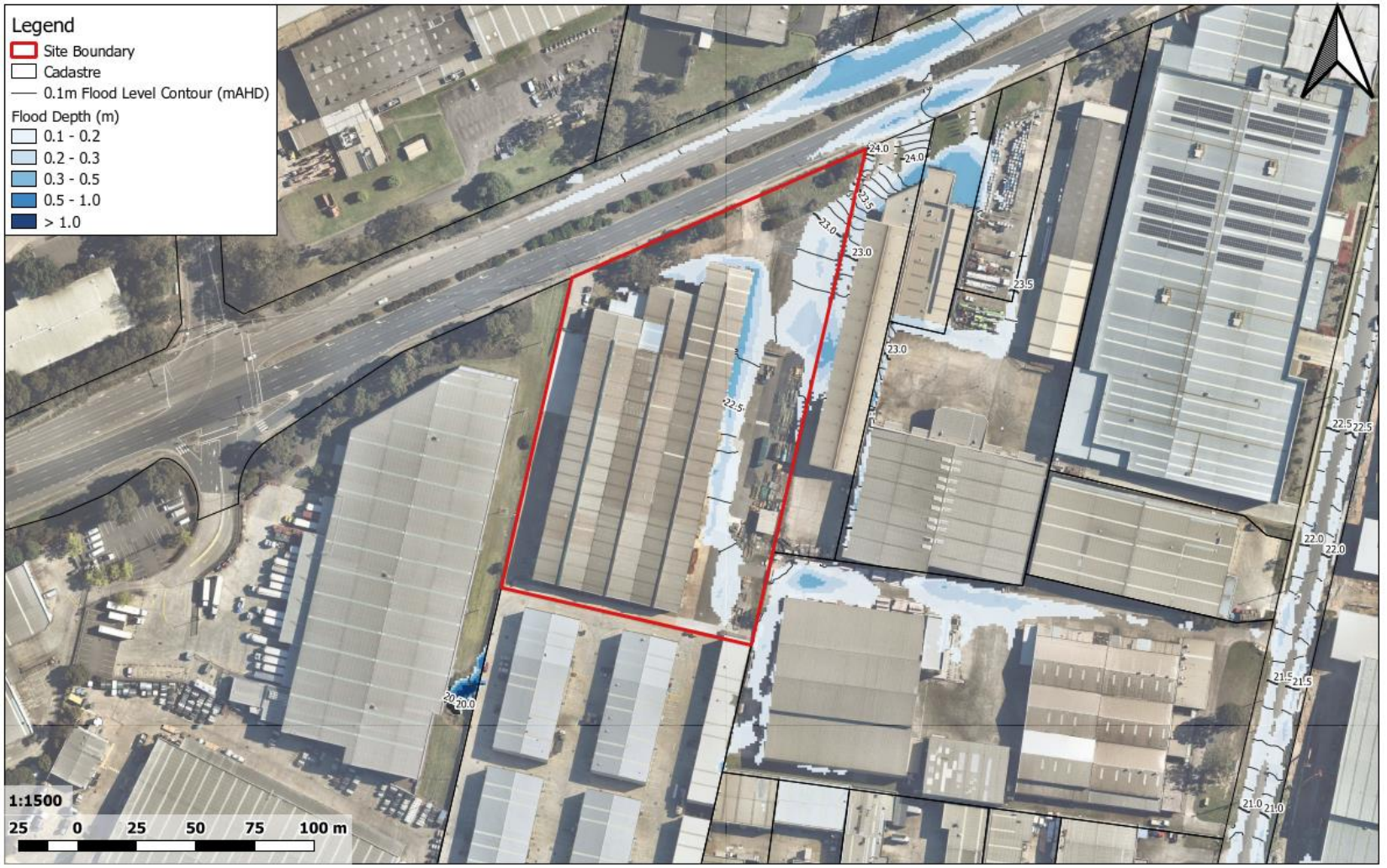
The calibration model results were found to be generally consistent to the Council Precinct Flood Maps. The calibration model results indicated that the critical duration storm event for the site to range between 60 and 90 minutes for the 20% AEP flood event, and between 90 and 120 minutes for the 1% AEP flood event.

The peak 20% AEP depths for the existing model are presented in Figure 17.

The 20% AEP depth afflux map comparing ‘precinct’ and ‘existing’ scenario flood depths are presented in Figure 18.

The peak 1% AEP depths for the existing model are presented in Figure 19.

The 1% AEP depth afflux map comparing ‘precinct’ and ‘existing’ scenario flood depths are presented in Figure 20.



Storm endeavours to ensure that the information provided in this map is correct at the time of publication. Storm does not warrant, guarantee or make representations regarding the currency and accuracy of information contained within this map.

Map 01 - Flood Depth and Level (Existing Scenario)
20% AEP Storm
132 Warren Road, Smithfield (Cumberland City Council)
Project Number: 334-21

Figure 17 Existing Scenario - 20% AEP Flood Depth Map

Storm endeavours to ensure that the information provided in this map is correct at the time of publication. Storm does not warrant, guarantee or make representations regarding the currency and accuracy of information contained within this map.

Map 03 - Water Depth Afflux (Existing Scenario - Precinct Scenario)
20% AEP Storm
132 Warren Road, Smithfield (Cumberland City Council)
Project Number: 334-21

Figure 18 Precinct & Existing Scenario - 20% AEP Flood Depth Afflux Map

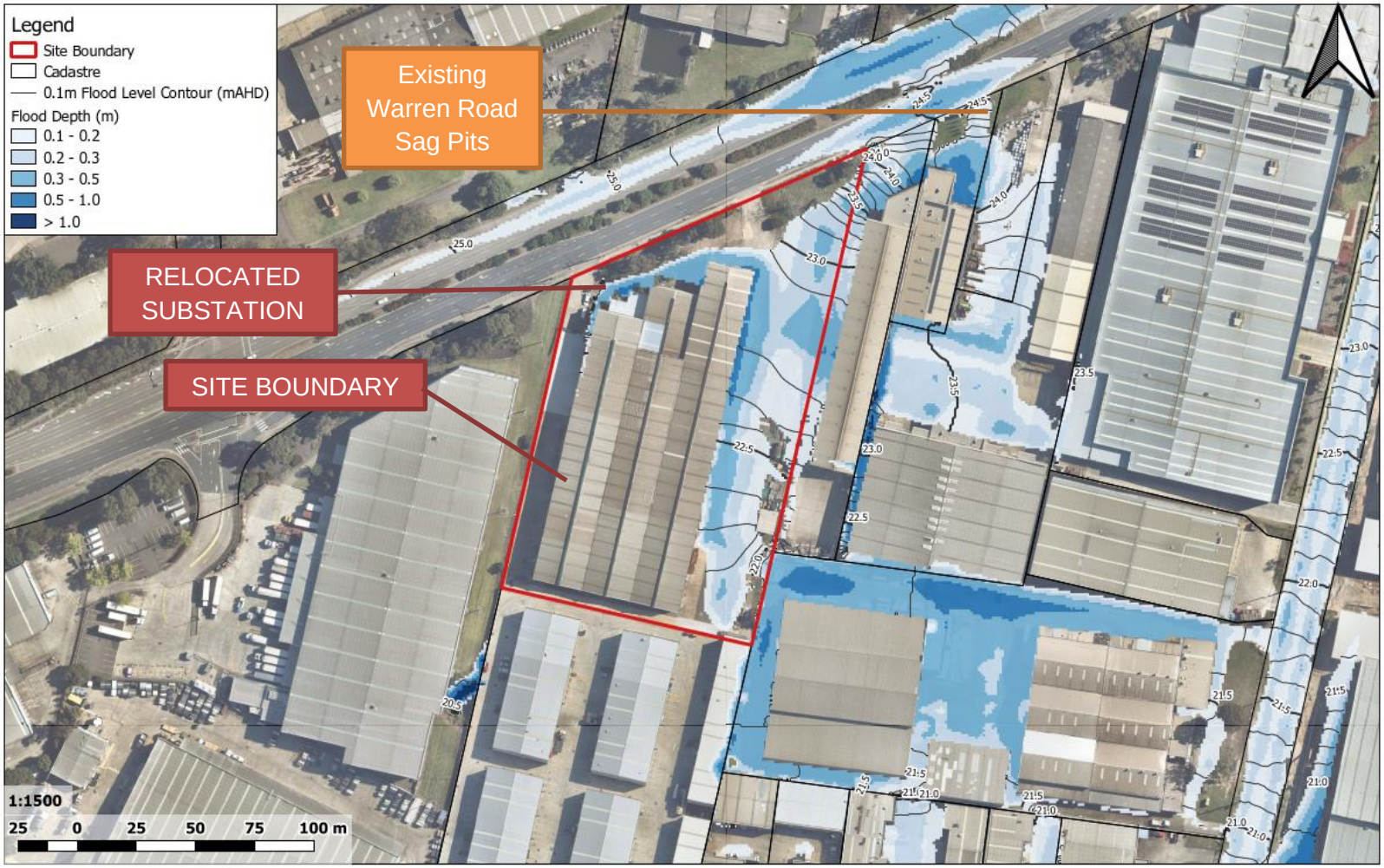
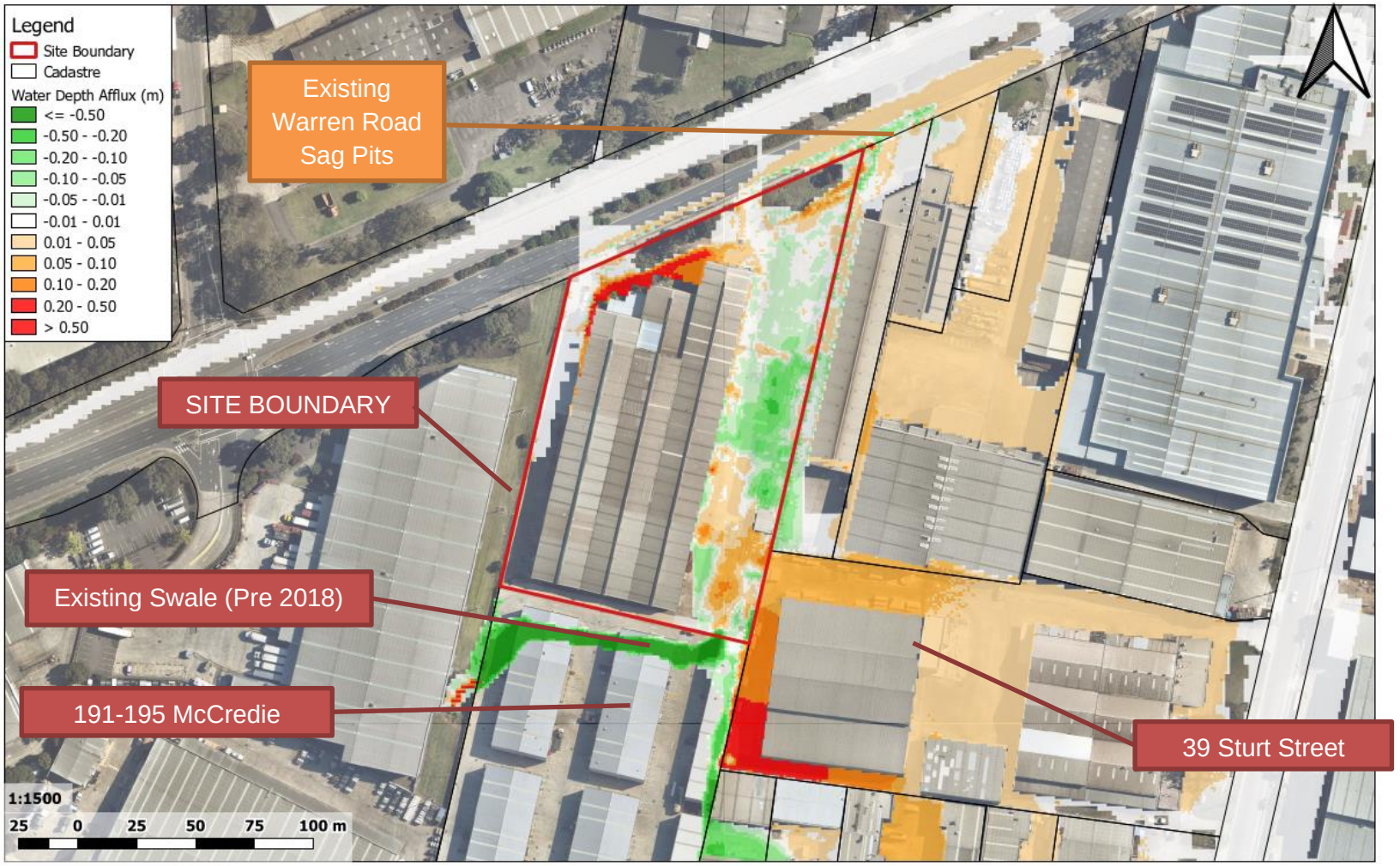


Figure 19 Existing Scenario - 1% AEP Flood Depth Map



Storm endeavours to ensure that the information provided in this map is correct at the time of publication. Storm does not warrant, guarantee or make representations regarding the currency and accuracy of information contained within this map.

Map 04 - Water Depth Afflux (Existing Scenario - Precinct Scenario)
1% AEP Storm
132 Warren Road, Smithfield (Cumberland City Council)
Project Number: 334-21

Figure 20 Precinct & Existing Scenario - 1% AEP Flood Depth Afflux Map

3.2.3 Discussion

The 20% AEP existing scenario results, as shown in Figure 17, indicate that the subject site experiences overland flooding with inundation depths generally consistent to that documented in Council's precinct Flood Study. The 20% AEP results indicate that the flooding occurs along the lowpoints along the eastern site boundary and at the existing surface inlet pits adjacent to the eastern warehouse wall. The depth of inundation ranges between 100mm to 300mm above the existing surface levels. The inundation at the existing surface inlet pits occurs when the existing trunk drainage reaches maximum capacity.

The 1% AEP existing scenario results, as shown in Figure 19, indicate that the subject site experiences overland flooding with inundation depths generally consistent to that documented in Council's precinct Flood Study. The 1% AEP results indicate that the depth of inundation ranges approximately between 100mm to 500mm above the existing eastern site driveway surface levels. The inundation depths are greatest along the building walls and entries where the existing drainage and flowpath are located.

The existing scenario results show the overland flooding originating from the existing Warren Road kerb inlet pits consistent with Council's precinct scenario results.

Council's precinct scenario results indicates that the existing trunk drainage (as shown in as shown in Figure 16) has insufficient capacity to convey the peak 1% AEP flow for the critical storm duration.

The existing scenario results, which includes the culvert upgrade as part of the redevelopment of 191-195 McCredie Road, indicate an increase in trunk drainage capacity but is still inadequately sized to cater for the peak 1% AEP flow for the critical storm duration.

Figure 20 indicates areas of increased depth afflux within the driveway areas, building footprint and in downstream neighbouring lands in 39 Sturt Street and 191-195 McCredie Road.

Some afflux differences within the driveway areas are expected due to the differences between lidar and detailed survey surface and the resultant flood behaviour.

Significant depth afflux have also been identified at neighbouring southern properties, in particular at 39 Sturt Street and 191-195 McCredie Road. With the redevelopment of 191-195 McCredie Road, the existing swale, as shown in Figure 20, has been filled and replaced with box culverts and a retaining wall has been constructed along the southern subject site boundary, effectively blocking the overland flow from subject site. As a result, the overland flow from the subject site is redirected to 39 Sturt Street as indicated by the increase in depth afflux.

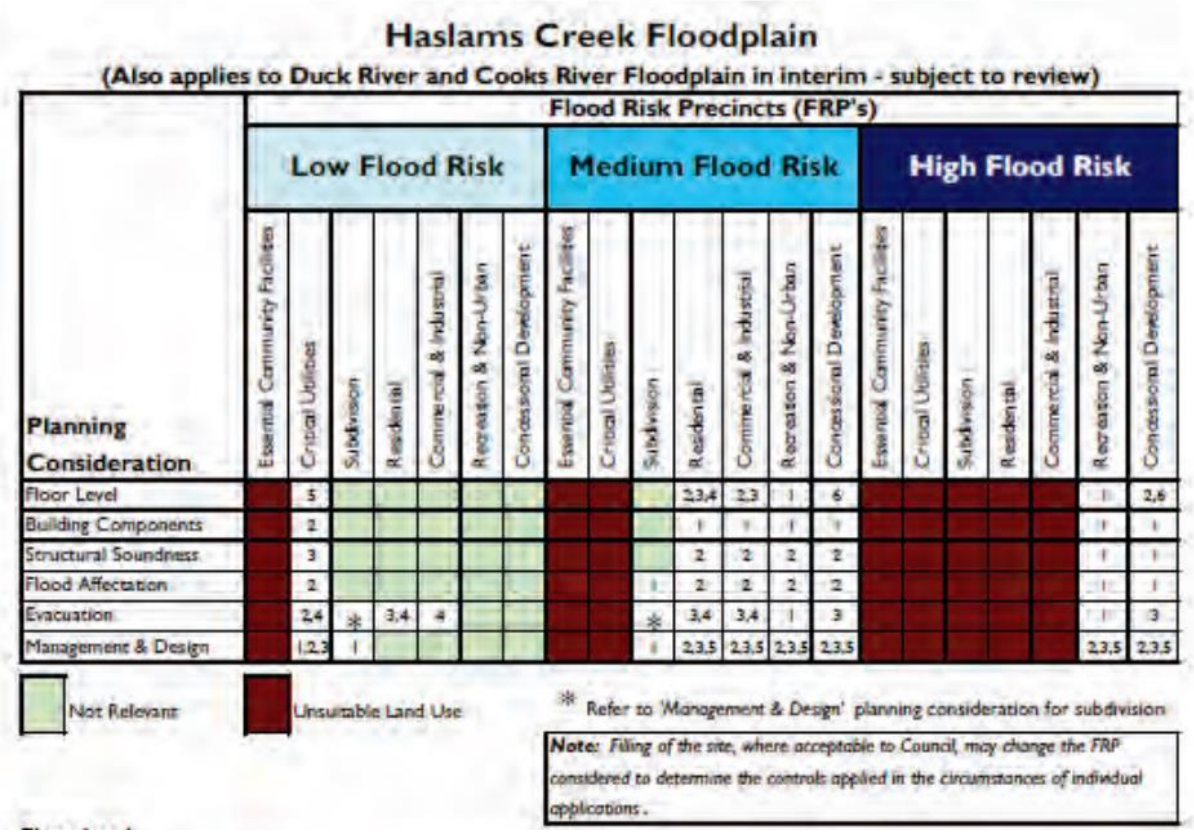
The areas with the greatest depth afflux are generally within the building footprint. These significant afflux within these areas can be attributed to the originally model adopting a high Manning's n roughness value ('n'=10) to represent building impermeability. It is best practice to adopt Manning's 'n' roughness value of 0.3 for buildings as recommended in the '*Australian Rainfall and Runoff Revision Project 15: Two Dimensional Simulations in Urban*

Areas – Representation of Buildings in 2D Numerical Flood Models' (Engineers Australia, 2012). The use of an unrealistically high manning's roughness to represent buildings has been known to cause noticeable differences in water levels between different versions of the TUFLOW engine.

4 Flood Management Framework

Stormwater management controls for areas within flood risk precincts are outlined in Cumberland Council's '*Flood Risk Management Policy 2021*'.

The flood risk precinct controls are presented in Figure 21.



Haslams Creek Floodplain

(Also applies to Duck River and Cooks River Floodplain in interim - subject to review)

Planning Consideration	Low Flood Risk							Medium Flood Risk							High Flood Risk						
	Essential Community Facilities	Critical Utilities	Subdivision	Residential	Commercial & Industrial	Recreation & Non-Urban	Concessional Development	Essential Community Facilities	Critical Utilities	Subdivision	Residential	Commercial & Industrial	Recreation & Non-Urban	Concessional Development	Essential Community Facilities	Critical Utilities	Subdivision	Residential	Commercial & Industrial	Recreation & Non-Urban	Concessional Development
Floor Level		5									2,3,4	2,3	1	6						1	2,6
Building Components		2									1	1	1	1						1	1
Structural Soundness		3									2	2	2	2						1	1
Flood Affectation		2								1	2	2	2	2						1	1
Evacuation		2,4	*	3,4	4					*	3,4	3,4	1	3						1	3
Management & Design		1,2,3	1							1	2,3,5	2,3,5	2,3,5	2,3,5						2,3,5	2,3,5

Not Relevant

Unsuitable Land Use

* Refer to 'Management & Design' planning consideration for subdivision

Note: *Filling of the site, where acceptable to Council, may change the FRP considered to determine the controls applied in the circumstances of individual applications.*

Figure 21 Flood Risk Precinct Controls Prescribed in Council DCP

The proposed development is within 'Medium Flood Risk' and the land use category is 'Concessional Development - an addition to existing premises of not more than 10% of the floor area which existed at the date of commencement of this plan'.

Applicable controls are:

- Design Floor Level
    - Floor levels to be as close to the design floor level (the level nominated that would apply if not concessional development) as practical and no lower than the existing floor level when undertaking alterations or additions
- Building Component & Method
    - All structures to have flood compatible building components below or at the 100year ARI Flood Level
- Structural Soundness
    - Engineers report to demonstrate and certify that any structure can withstand the forces of floodwater, debris & buoyancy up to & including a 100 year flood

- Flood Affectation
    - The impact of the development on flooding elsewhere to be considered
- Evacuation
    - Reliable egress for pedestrians or vehicles is required from the dwelling, commencing at a minimum flood level equal to the lowest habitable floor area to an area of refuge above the PMF level, either on-site or off-site
- Management and Design
    - Site Emergency Response Flood plan are required (except for single-dwelling houses) where floor levels are below the design floor level
    - Applicant to demonstrate that area is available to store goods above the 100-year flood plus 0.5m (freeboard)
    - No external storage of materials below design flood level which may cause pollution or be potentially hazardous during any flood

5 Proposed Flood Management Strategy

The existing flooding of the subject site is described in Section 3.

Two options are proposed to manage the existing flooding in accordance with the flood management controls discussed in Section 4.

5.1 Proposed Option 1 Strategy

Option 1 proposes to manage the existing site flooding by providing:

- Permanent proprietary flood barrier at roller door entrances to provide flood protection up to the flood planning level (1% AEP flood level plus 0.5m freeboard)
- Impermeable concrete wall at flood affected building walls to provide flood protection up to the flood planning level
- Relocate padmount kiosk substation to the northern vegetated area above the 1% AEP flood level.

Figure 22 presents the proposed layout of Option 1.

Figure 22 Proposed Option 1 Layout

Figure 23 provides an example of a permanent proprietary flood barrier supplied by Flooding Solutions.

Figure 23 Example of Permanent Flood Barrier by Flooding Solutions

The flood barriers will be deployed automatically via floating valve switch and will remain until the flooding subsides.

5.1.1 Option 1 Model Methodology

As Option 1 proposes floodproofing of the building only, the proposed Option 1 site flooding and hydraulics will remain identical to the existing scenario results presented in Section 3.2.

As such, the Option 1 TUFLOW methodology will remain identical to the methodology presented in the existing scenario in Section 3.2.

5.1.2 Option 1 Model Results

As Option 1 proposes floodproofing of the building only, the proposed Option 1 site flooding and hydraulics will remain identical to the existing scenario results presented in Section 3.2.

The peak 1% AEP depths for the proposed Option 1 scenario are represented in Figure 19.

5.1.3 Option 1 Discussion

With the proposed measures in Option 1, the site will be in accordance with the Council's flood management framework discussed in Section 4.

5.2 Option 2

Option 2 proposes to manage the existing site flooding by providing:

- Proposed drainage within site to collect and convey floodwaters to mitigate overland flooding
- Proposed trench grate provided at northern driveway entrance to collect relatively small overland flood entering the site via the northern driveway
- Regrading of existing eastern driveway to direct surface water away from building and towards proposed trunk drainage
- Temporary proprietary flood barrier along eastern side of shed to provide flood protection up to the flood planning level (1% AEP flood level plus 0.5m freeboard)
- Relocate padmount kiosk substation to the northern vegetated area above the 1% AEP flood level

Figure 24 presents the proposed layout of Option 2.

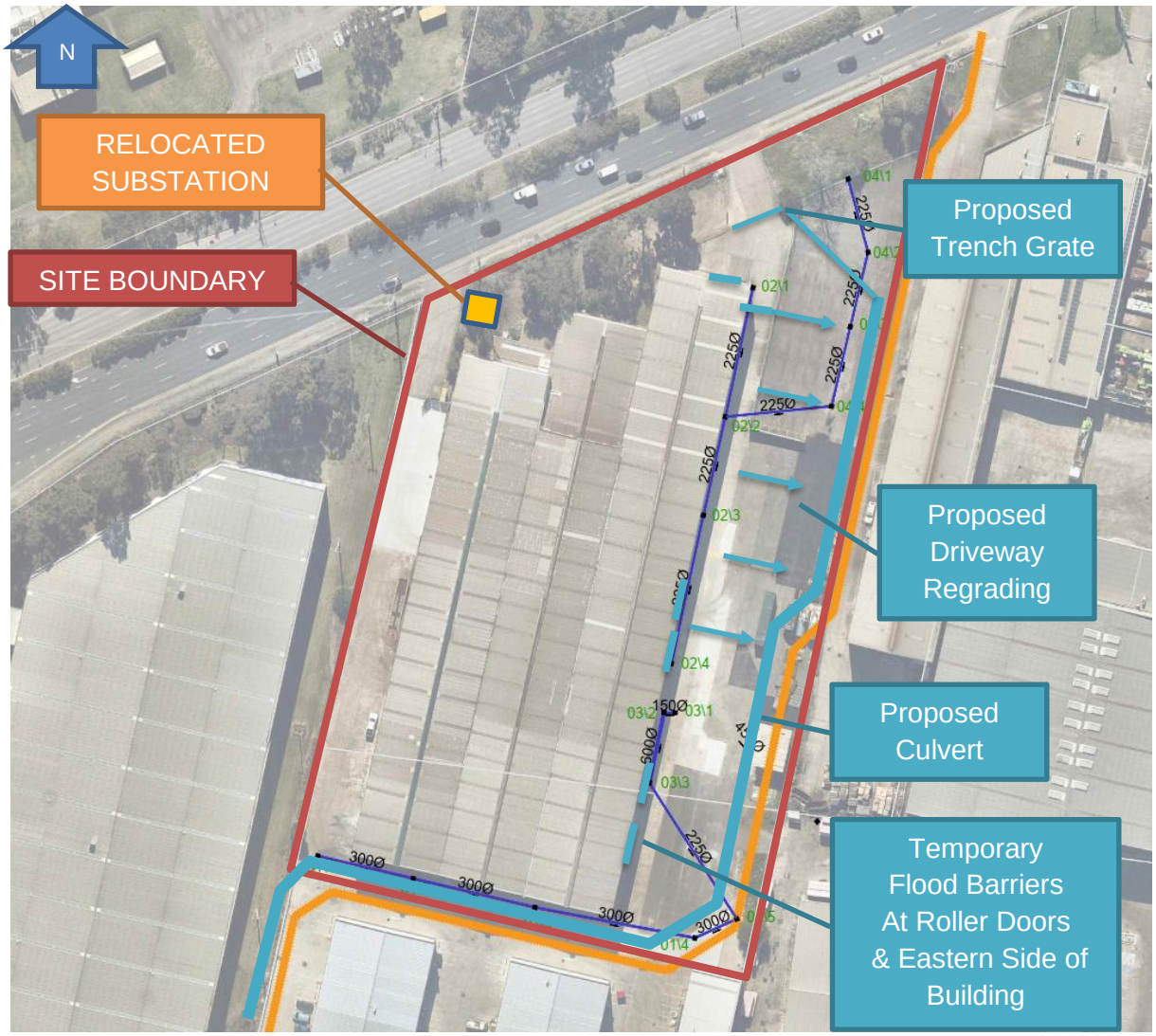


Figure 24 Proposed Option 2 Layout

Figure 25 provides an example of a temporary proprietary flood barrier (Noaq Boxwall Flood Barrier) supplied by BlueMont.

Figure 25 Example of Temporary Flood Barrier by BlueMont

The temporary flood barriers will be deployed to provide the 0.5m freeboard above the finished floor level and will remain until the flooding subsides. Note, that the 1% AEP flood level does not reach the roller doors.

With the proposed trunk drainage in place, the proposed Option 2 1% AEP flood level depth results are shown to be below the warehouse finished flood level to allow placement of the flood barriers during the peak 1% AEP storm.

5.2.1 Option 2 Model Methodology

The ‘existing’ scenario model discussed in Section 3.2 was used as the ‘base’ model for undertaking the Option2 TUFLOW modelling.

The model boundary of the received Council precinct TUFLOW model was trimmed to remove catchments not relevant to the subject site.

The modelling in this scenario utilised the current TUFLOW version (Version 2020-10-AB) and the TUFLOW HPC solver. All other modelling elements remained unchanged from Council’s ‘precinct’ model.

The critical duration of 120-minute was adopted for the 1% AEP storm in the proposed Option 2 model, as determined in the calibration check run.

The Option 2 model includes the detailed survey, surveyed internal stormwater drainage, as well as the culvert and warehouse upgrade at 191-195 McCredie Road, Smithfield adopted in the 'existing' scenario model.

The Option 2 model also includes the proposed Option 2 works including:

- Proposed drainage and surface pit inlets along eastern site boundary to collect and convey floodwaters to mitigate overland flooding
- Proposed trench grate provided at northern driveway entrance
- Removal of existing eastern and southern site drainage
- Regrading of existing eastern driveway to direct surface water away from building and towards proposed trunk drainage
- Temporary proprietary flood barrier along eastern side of the shed to the flood planning level (1% AEP flood level plus 0.5m freeboard)

5.2.2 Option 2 Model Results

The peak 20% AEP depths for the existing model are presented in Figure 26.

The 20% AEP depth afflux map comparing 'precinct' and 'existing' scenario flood depths are presented in Figure 27.

The peak 1% AEP depths for the Option 2 model are presented in Figure 28.

The 1% AEP depth afflux map comparing 'proposed Option 2' and 'existing' scenario flood depths are presented in Figure 29.

Figure 26 Proposed Option 2 Scenario - 20% AEP Flood Depth Map

Storm endeavours to ensure that the information provided in this map is correct at the time of publication. Storm does not warrant, guarantee or make representations regarding the currency and accuracy of information contained within this map.

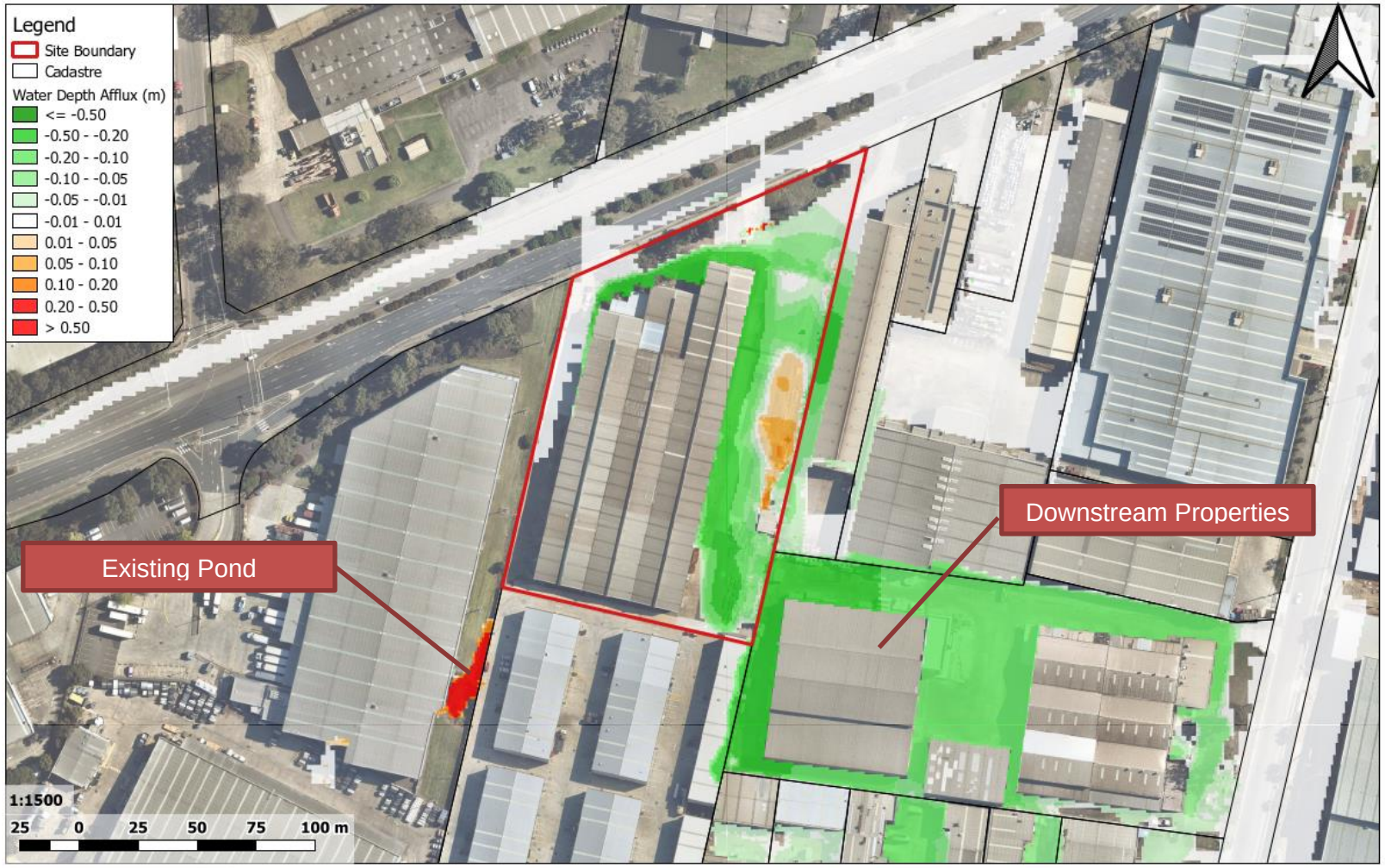
Map 07 - Water Depth Afflux (Proposed Scenario - Existing Scenario)
20% AEP Storm
132 Warren Road, Smithfield (Cumberland City Council)
Project Number: 334-21

Figure 27 Proposed Option 2 & Existing Scenario - 20% AEP Flood Depth Afflux Map

Storm endeavours to ensure that the information provided in this map is correct at the time of publication. Storm does not warrant, guarantee or make representations regarding the currency and accuracy of information contained within this map.

Map 06 - Flood Depth and Level (Proposed Scenario)
1% AEP Storm
132 Warren Road, Smithfield (Cumberland City Council)
Project Number: 334-21

Figure 28 Proposed Option 2 Scenario - 1% AEP Flood Depth Map



Storm endeavours to ensure that the information provided in this map is correct at the time of publication. Storm does not warrant, guarantee or make representations regarding the currency and accuracy of information contained within this map.

Map 08 - Water Depth Afflux (Proposed Scenario - Existing Scenario)
1% AEP Storm
132 Warren Road, Smithfield (Cumberland City Council)
Project Number: 334-21

Figure 29 Proposed Option 2 & Existing Scenario - 1% AEP Flood Depth Afflux Map

5.2.3 Option 2 Discussion

The 20% AEP proposed Option 2 scenario results, as shown in Figure 26, indicate that with the proposed measures, the overland flooding entering the site are entirely contained within the eastern driveway and away from the proposed weighbridge.

The 1% AEP proposed Option 2 scenario results, as shown in Figure 28, indicate that with the proposed measures, the overland flooding entering the site are entirely contained within the eastern driveway and away from the proposed weighbridge. While there is an approximate 300mm increase in the existing pond, the existing pond does not overtop and previous overland flooding into the downstream southern properties are mitigated as shown in Figure 29.

The 1% AEP results indicate that the depth of inundation up to 300mm above the regraded eastern site driveway surface levels are observed. Some inundation depths are expected to allow water to pond over and into the proposed grated surface inlet pits provided along the eastern boundary. The inundation occurs along the proposed drainage located along the eastern site boundary, further protecting the warehouse from flooding.

The relocated pad mount kiosk is unaffected in the 1% AEP flood event.

The proposed Option 2 TUFLOW results indicate that the proposed concept trunk drainage (modelled as a 2.7m x 1.2m culvert) and the modelled inlet pits have sufficient capacity to convey the peak 1% AEP overland flooding. The culvert sizes and pit inlet arrangements will be confirmed during detailed design.

The proposed northern trench grate conveys the relatively small overland flooding that enters from the northern driveway entrance and to protect the northern building face.

The location of the proposed weighbridge will be confirmed at the detailed design stage such that it is not affected by 1% AEP flooding.

With the proposed measures in Option 2, the site will be in accordance with the Council's flood management framework discussed in Section 4.

5.3 Recent Rainfall Observations

Heavy rainfall was experienced across Sydney during March 2022. The Prospect Reservoir rainfall station, located near the subject site, recorded heavy rainfall between 1st and 9th of March as shown in Figure 30.

Station: Prospect Reservoir | Number: 67019 | Opened: 1887 | Now: Open
Lat: 33.82° S | Lon: 150.91° E | Elevation: 61 m | Details

Show in table...

Key: Units = mm 12.3 = Not quality controlled. ↓ = Part of accumulated total
28.0 Move mouse over rainfall total to view the period of accumulation.

2022	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
Graph												
1st	0	0	15.0	5.0								
2nd	0	0	31.0	0								
3rd	0	0	94.0	0								
4th	0	0	19.0	0								
5th	8.0	0	3.0	0								
6th	45.0	0	81.0	2.0								
7th	3.0	0	45.0	29.0								
8th	28.0	0	40.0	41.0								
9th	0	0	48.0									
10th	2.0	0	0									
11th	0	0	0									
12th	0	0	0									
13th	19.0	0	0									
14th	0	0	1.0									
15th	0	0	2.0									
16th	0	3.0	5.0									
17th	0	0	7.0									
18th	0	10.0	0									
19th	0	0	15.0									
20th	0	0	0									
21st	0	0	0									
22nd	0	8.0	0									
23rd	0	93.0	0									
24th	0	36.0	2.0									
25th	0	24.0	12.0									
26th	0	34.0	15.0									
27th	0	10.0	22.0									
28th	0	2.0	18.0									
29th	0		8.0									
30th	0		24.0									
31st	0		6.0									
Highest Daily	45.0	93.0	94.0	41.0								
Monthly Total	105.0	220.0	513.0									

Annual total to Mar this year = 838.0 mm | View all monthly data | Plot year of daily data

Figure 30 Daily Rainfall Measurements from Prospect Reservoir Rainfall Station

No site flooding was observed as shown in photos taken during 2nd and the 8th of March 2022. The photos are provided in Appendix B.

5.4 Flood Evacuation Strategy

Flood Evacuation Plan will be provided to increase flood preparedness of warehouse occupants. A copy of the Flood Evacuation Plan will be made accessible to warehouse occupants.

The Flood Evacuation Plan will include details showing:

- Areas of flood hazard – primarily along the eastern driveway functioning as a floodway and existing Warren Road sag pits
- Areas of refuge within warehouse – occupants within the warehouse to seek refuge in the raised office inside the warehouse until the storm subsides
- Areas of refuge outside warehouse – occupants outside the warehouse to make their way around to the less hazardous western building entries, avoiding the eastern driveways, and to the raised office, if safe to do so. The raised verge areas not flood affected during the PMF event will be designated as ‘safe spaces’ if it is deemed unsafe to make way to the warehouse office.
- Indicative direction of travel

Indicative Flood Evacuation Plan is presented in Figure 31.

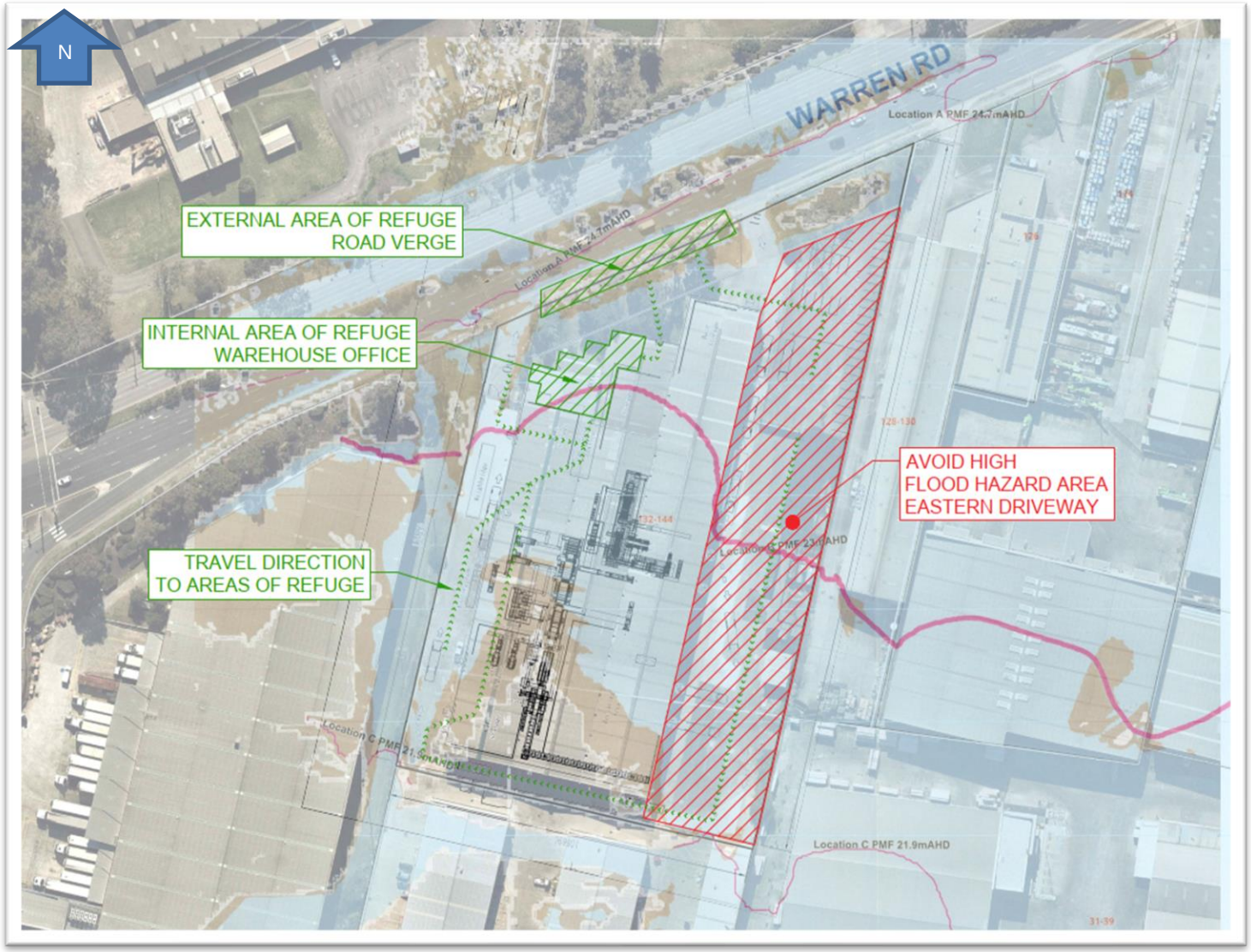


Figure 31 Indicative Flood Evacuation Plan

6 Pollutant & Stormwater Quality Management

6.1 Pollutant Loading

The recycling products processed by the proposed Materials Recovery Facility (MRF) are generally categorised as:

- Paper and cardboard
- Glass
- Plastic
- Ferrous metal
- Non-ferrous metal
- Residual

The recycling products are generally non-putrescible gross pollutants and will not generate organic or nutrient-laden pollutants damaging to the waterway health.

A small proportion of incoming recycling products will be residual, or recycling products that are too damaged or soiled for reprocessing. Residual products may contain trace amounts of organic or nutrient-laden pollutants.

Examples of residual products include:

- Residue food waste within packaging
- Aerosol canisters with chemical residue
- Non-recyclable products placed in recycling bins

Other potential sources of pollutants are hydrocarbons (Fuel & Gas) which will be appropriately stored on site and motor oil & grease generated from the heavy vehicles entering and leaving the site.

6.2 Pollutant & Stormwater Quality Management Strategy

As discussed in Section 6.1, the pollutants generated from the proposed operations are:

- Recycling Products
- Residual Products
- Oil, grease and hydrocarbons

The storage and processing of the recycling products will occur entirely within the confines of the shed. Small proportion of the recycling products may spill onto the concrete driveways during the unloading of recycling products into the facility. Clean-up of the driveway areas undertaken as required and at end-of-day are proposed to manage any potential spill of recycling products outside of the shed.

Proprietary Gross Pollutant Traps (GPTs), such as Cascade® (OceanProtect) or equivalent, located at the end of site drainage and proprietary Pit Baskets, provided at surface inlets, are proposed to manage gross pollutants and finer materials such as sediment. No 'glass sand' are expected to be produced from the operations. The proprietary pit baskets have sufficient filter capabilities to remove glass sand if any are present.

The small proportion of the residual materials, processed within the facility, may contain organic/nutrient-laden pollutants. The residual materials will be processed, confined and stored in concrete bunkers within the facility prior to offtake to a suitably licensed facility for disposal.

Any residual material spilling onto driveways will be immediately cleaned up to minimise discharge into the existing site drainage network.

All recycling products are dry and operation processes will occur in a dry environment during normal operations. The recycling products and machinery are not subject to water in normal operations. Any spills will be adequately cleaned up with a wet vacuum.

As the general facility operations are 'dry,' potable water use are minimal. As such water balance study is not applicable.

Any 'firewater' that is produced from the fire suppression system coming into contact with recycling products within the warehouse will be collected and temporarily stored within the site drainage network with a manual control valve provided at end of line to prevent release of firewater. Firewater will be disposed appropriately and will not be discharged into the downstream waters.

Manual control valve will be provided at end of line to prevent release of any hydrocarbons during any major fuel spill event and be disposed appropriately in addition to hydrocarbon protection provided by the GPT oil-baffle.

Oil & grease from generated from the frequent heavy vehicle movements within the driveway areas as well as any trace hydrocarbon discharge from the fuel & gas canisters will be

managed by proprietary Gross Pollutant Traps (GPTs) capable of removing oil, grease and hydrocarbons.

Section 2.5 Technical Details of Stormwater and Drainage Systems of Cumberland City Council's *Part G – Miscellaneous Development Controls* provides the Water Quality objectives as presented in Table 1.

Table 1 Stormwater Quality Targets (Section 7 - Holroyd Council DCP 2013)

Pollutant	Reduction in Load
Litter	90%
Fine Particles	85%
Coarse Sediment	85%
Hydrocarbons	90%
Cooking oil and grease	90%
Nutrients (Total Phosphorus Nitrogen)	60%

With the water quality and pollutant management strategy in place, runoff from the roof and the driveway areas will undergo treatment to the Stormwater Quality Targets as presented in Table 1 to remove any residual pollutants present in the driveway areas. The impact of facility operations on the existing groundwater and receiving waters are expected to be low.

Figure 32 presents the proposed water quality and pollutant management strategy corresponding to Proposed Option 1 discussed in Section 5.1.

The proposed water quality and pollutant measures proposed in Option 1 will also equally be proposed in Option 2 discussed in Section 5.2.

Figure 32 Proposed Water Quality and Pollutant Management Plan

As described in Section 2.3, the site is classified as 'waterways affected by urban development' under the NSW Government 'Water Quality and River Flow Objectives' document.

The recycling products, which represents the primary pollutant source by volume, are proposed to be confined and managed within the warehouse. Furthermore, additional Stormwater Quality Improvement Devices (SQID) (such as the Cascade® (OceanProtect)) products are proposed to remove residual amounts of gross pollutants and hydrocarbons which may be released outside of the warehouse during daily operations.

With the water quality and quantity measures in place, the stormwater runoff from the existing site is expected to pose a low risk to the downstream Prospect Creek and to the WQRFO objectives described in Section 2.3.

6.2.1 MUSIC Model Methodology

Preliminary water quality modelling has been undertaken using *MUSIC (Ver 6.3.0)* to confirm treatment train effectiveness of the proposed SQID.

The SQIDs proposed are:

- OceanGuards (or equivalent 'pit basket' product)
- Cascade Separator GPT (or equivalent GPT with satisfactory hydrocarbon removal)

MUSIC model layout is presented in Figure 33.

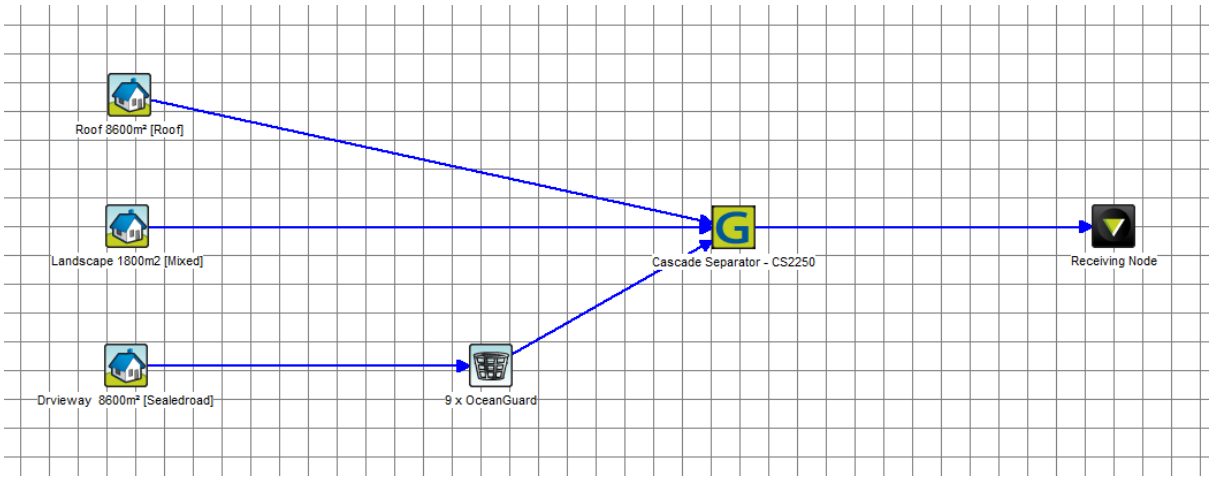


Figure 33 MUSIC Model Layout

6.2.2 MUSIC Model Results

MUSIC model results are presented in Table 2.

Table 2 MUSIC Model Results

Pollutant	Source (kg/yr)	Residual (kg/yr)	%Reduction	Target % (Refer Table 1)
Litter (Gross Pollutants)	356	10.7	97	90
Fine Particles (Total Suspended Solids)	2430	143	94.1	85 (Refer Section 6.2.3)
Hydrocarbons	-	-	-	90
Total Phosphorus	4.81	2.63	45.4	60

Total Nitrogen	30.9	19.7	36.4	60

6.2.3 MUSIC Model Discussion

MUSIC model results indicate that with the proposed SQIDs in place, Litter (Gross Pollutants) and Fine Particles (Total Suspended Solids) are reduced in accordance with Cumberland City Council DCP and Holroyd Council DCP 2013.

MUSIC does not distinguish between fine and coarse particles. Based on previous conversations with Council, achieving 80% reduction in total suspended solids would satisfy the intent of the old Holroyd Water Quality policy.

MUSIC also does not simulate transfer and removal of hydrocarbons and there are limited information and guidance for modelling hydrocarbons/oils in MUSIC.

The general industry practice regarding hydrocarbon removal is the inclusion of internal vertical baffles within GPTs such as in the proposed Cascade Separator GPT supplied by OceanProtect. These vertical baffles within the GPT assist with capture of surface oil film. Further hydrocarbon capture occurs via OceanGuards (pit baskets) with the removal of hydrocarbons adsorbed in the Total Suspended Solids.

Hydrocarbons generated from the normal operations of the Materials Recovery Facility are expected to be low. With the proposed SQID measure, the risk of hydrocarbon release into the stormwater drainage are expected to be low.

7 Erosion & Sediment Control

No major excavation or bulk earthworks are anticipated for the proposed development.

Minor excavation works are proposed dependent on chosen proposed option, including drainage upgrade, driveway improvements and driveway regrading. Upgrade of the existing driveway at the site entrances are also proposed.

Soil and erosion control plan utilising on-site sediment control measures, such as geotextile filters and sediment traps, will be prepared in accordance with 'Managing Urban Stormwater: Soils & Construction' (Landcom, 2004) to manage erosion and prevent release of sediment laden water to receiving waters.

8 Summary of SEARs Response and Associated Report Sections

Summary of stormwater related SEARs response and relevant report sections are summarised in Table 3. Refer to Appendix A for full SEARs requirement description and context.

Table 3 SEARs Response and Associated Report Sections

Planning Secretary's Environmental Assessment Requirements	
Key Issues – Soil & Water	**Relevant Report Section**
- An assessment of potential surface and groundwater impacts associated with development	Section 2, Section 6
- Detailed site water balance	Section 6
- Details of stormwater/wastewater management system	Section 5
- Description of proposed erosion and sediment control	Section 7
- Characterisation of water quality at the point of discharge to surface and/or groundwater	Section 2, Section 6
- Characterisation of the nature and extent of any contamination on the site and surrounding area	Section 2, Section 6

Cumberland City Council	
Engineering	**Relevant Report Section**
- Supporting documents shall be submitted in order to ensure that the development complies with the controls nominated in Table 8 of the DCP.	Section 4, Section 5

- It appears proposed weighbridge located in the southern side of the building if affected by 1%AEP flooding. The matter shall be addressed as part of the proposal.	Section 5
- Stormwater runoff from the manoeuvring area including access ways will have to undergo some form of industrial standard primary treatment/separation prior to disposal into existing stormwater systems. In this regard, stormwater treatment device capable of removing litter, oil, grease, and sediment shall be provided prior to discharge to the stormwater system	Section 6
- Glass 'sand' entering the stormwater system.	Section 6

NSW EPA	
Water and Sediment	**Relevant Report Section**
- In the EIS, the Applicant must identify all pollutants that pose a risk of non-trivial harm and the potential impact of those pollutants on the environment; and propose the practical measures that can be taken to prevent, control, abate or mitigate the pollution and protect the environment from harm.	Section 2, Section 6, Section 7

NSW Planning Industry & Environment	
Water and soils	**Relevant Report Section**
- The EIS must describe background conditions for any water resource likely to be affected by the development,	Section 2, Section 6, Section 7
- The EIS must assess the impact of the development on hydrology	Section 3, Section 5
Flooding and Coastal Hazards	Section 3, Section 5

Sydney Water
N/A

Transport for NSW
N/A

9 Conclusion

Storm Consulting (Craig & Rhodes Pty Ltd) has been engaged by MRA Consulting on behalf of Polytrade Pty Ltd to prepare this Stormwater Management Report to address the Planning Secretary's environmental assessment requirements (SEARs) for the preparation of an environmental impact statement (EIS) for the proposed Smithfield Materials Recovery Facility at Lot 2 in DP 1230452, 132-144 Warren Road, Smithfield in the Cumberland local government area (LGA).

The report addresses the stormwater quantity, quality and pollutant requirements in the SEARs responses by the various stakeholders including:

- Cumberland City Council
- NSW EPA
- NSW Department of Planning, Industry and Environment
- Sydney Water
- Transport for NSW

Stormwater Quantity

Existing Council Flood Maps provide details on site hydraulic behaviour including for the minor (5 year ARI) and major (100 year ARI), PMF and Climate Change storm events.

Site specific TUFLOW modelling has been undertaken for the 20%AEP and 1% AEP event to include available detailed survey and neighbouring development data. The results show site flooding consistent with Council's flood study.

With the proposed flood measures in place, it is anticipated that both proposed options will manage existing site flooding in accordance with Council flood controls. TUFLOW modelling has been undertaken to support the proposed options.

Stormwater Quality/Pollutant Management

Stormwater Quality and Pollutant Management Strategy outlines potential pollutant sources and measures to manage pollutants and stormwater quality in accordance with Cumberland City Council DCP, Part A Section 7.0 of Holroyd DCP 2013 and the provided SEARs response.

With the proposed water quality measures in place, it is anticipated that both proposed options will manage existing water quality in accordance with Cumberland City Council DCP, Part A Section 7.0 of Holroyd DCP 2013 and the provided SEARs response.

Appendix A : SEARs Response Documentation

Mr Tony Lyons
Chief Executive Officer

POLYTRADE PTY LTD
32 SOUTH STREET
RYDALMERE 2116

10/06/2021

Dear Mr Lyons

Planning Secretary's Environmental Assessment Requirements
Smithfield Recycling Centre (SSD-19425495)

Please find attached a copy of the Planning Secretary's environmental assessment requirements (SEARs) for the preparation of an environmental impact statement (EIS) for the Smithfield Recycling Centre at Lot 2 in DP 1230452, 132-144 Warren Road, Smithfield in the Cumberland local government area (LGA).

The SEARs have been prepared in consultation with relevant public authorities which can be viewed on the Department's Planning Portal and are based on the information you have provided to date. Please note that the Planning Secretary may modify these requirements at any time. The Department is currently still awaiting advice from Fire and Rescue NSW which will be forwarded to you once received.

Please contact the Department at least two weeks before you propose to submit your DA and EIS. This will enable the Department to confirm the:

- applicable fee (see Division 1AA, Part 15 of the Environmental Planning and Assessment Regulation 2000 (the Regulation)); and
- consultation and public exhibition arrangements, including copies and format requirements of the DA and EIS.

Prior to exhibiting the EIS, the Department of Planning, Industry and Environment (the Department) will review the document in consultation with the relevant public authorities to determine if it addresses the requirements in Schedule 2 of the Regulation. You will be required to submit an amended EIS if it does not adequately address these requirements. If you do not submit a development application (DA) and EIS for the development within two years, you must consult further with the Planning Secretary in relation to the preparation of the EIS.

Community Consultation

The Department wishes to emphasise the importance of effective and genuine community consultation. A comprehensive open and transparent community consultation engagement process must be undertaken during the preparation of the EIS. This process must ensure that the community is provided with a good understanding of what is proposed (including a description of any potential impacts) and they are actively engaged in issues of concern to them. **Please note, the Department will require clear evidence that this consultation has been undertaken and justification for the proposed consultation method(s) used.**

Commonwealth Requirements

If your development is likely to have a significant impact on matters of National Environmental Significance, it will require an approval under the Commonwealth *Environment Protection and Biodiversity Conservation Act 1999* (EPBC Act). This approval would be in addition to any approvals required under NSW legislation and it is your responsibility to contact the Commonwealth Department of Agriculture, Water and the Environment to determine if an approval under the EPBC Act is required (http://www.environment.gov.au or 6274 1111).

If you have any questions, please contact Shaun Williams on (02) 8275 1345 or via email at shaun.williams@planning.nsw.gov.au.

Yours sincerely

Chris Ritchie
Director
Industry Assessments

as delegate for the Planning Secretary

Attached: Issued SEARs

Planning Secretary's Environmental Assessment Requirements

Section 4.12(8) of the *Environmental Planning and Assessment Act 1979*
Schedule 2 of the Environmental Planning and Assessment Regulation 2000

Application Number	SSD-19425495
Project Name	Smithfield Recycling Centre
Development	24/7 operation of a Materials Recovery Facility (MRF) with the capacity to process up to 150,000 tonnes per annum of commingled waste
Location	132-144 Warren Road, Smithfield, Lot 2 in DP 1230452 within Cumberland
Applicant	POLYTRADE PTY LTD
Date of Issue	10/06/2021
General Requirements	The Environmental Impact Statement (EIS) for the development must meet the form and content requirements in clauses 6 and 7 of Schedule 2 of the Environmental Planning and Assessment Regulation 2000 (the Regulation). In addition, the EIS must include: · a detailed description of the development, including: - an accurate history of the site, including development consents - the need for the proposed development - justification for the proposed development - likely staging of the development - likely interactions between the development and existing, approved and proposed operations in the vicinity of the site - plans of any proposed building works - contributions required to offset the proposal and - infrastructure upgrades or items required to facilitate the development, including measures to ensure these upgrades are appropriately maintained. · consideration of all relevant environmental planning instruments, including identification and justification of any inconsistencies with these instruments · consideration of issues discussed in public authority responses to key issues (available on the Department's Planning Portal). · a risk assessment of the potential environmental impacts of the development, identifying the key issues for further assessment · a detailed assessment of the key issues specified below, and any other significant issues identified in this risk assessment, which includes: - a description of the existing environment, using sufficient baseline data - an assessment of the potential impacts of all stages of the development, including any cumulative impacts, taking into consideration relevant guidelines, policies, plans and statutes and - a description of the measures that would be implemented to avoid, minimise, mitigate and if necessary, offset the potential impacts of the development, including proposals for adaptive management and/or contingency plans to manage significant risks to the environment. · a consolidated summary of all the proposed environmental management and monitoring measures, highlighting commitments included in the EIS. The EIS must also be accompanied by: · high quality files of maps and figures of the subject site and proposal

	· a report from a qualified quantity surveyor providing: - a detailed calculation of the capital investment value (CIV) of the proposal (as defined in clause 3 of the Environmental Planning and Assessment Regulation 2000) of the proposal, including details of all assumptions and components from which the CIV calculation is derived. The report shall be prepared on company letterhead and indicate the applicable GST component of the CIV - an estimate of the jobs that will be created by the development during the construction and operational phases of the proposed development and - certification that the information provided is accurate at the date of preparation.
Key issues	The EIS must include an assessment of the potential impacts of the proposal (including cumulative impacts) and develop appropriate measures to avoid, mitigate, manage and/or offset these impacts. The EIS must address the following specific matters: · **Statutory and strategic context** – including: - detailed justification for the proposal and the suitability of the site - detailed justification that the proposed land use is permissible with consent - a detailed description of the history of the site, including the relationship between the proposed development and all development consents and approved plans previously and/or currently applicable to the site - demonstration that the proposal is consistent with all relevant planning strategies, environmental planning instruments, adopted precinct plans, draft district plan(s) and adopted management plans and justification for any inconsistencies. This includes, but is not limited to: o State Environmental Planning Policy (Infrastructure) 2007 o State Environmental Planning Policy (State and Regional Development) 2011 o State Environmental Planning Policy No 33 – Hazardous and Offensive Development o State Environmental Planning Policy No 55 – Remediation of Land o Holroyd Local Environmental Plan 2013 o Greater Sydney Region Plan: A Metropolis of Three Cities o Our Greater Sydney 2056: Central City District Plan o Future Transport Strategy 2056. · **Suitability of the site** – including: - a detailed justification that the site can accommodate the proposed resource recovery facility. · **Community and stakeholder engagement** – including: - a community and stakeholder participation strategy identifying key community members and other stakeholders - details and justification for the proposed consultation approach(s) - clear evidence of how each stakeholder identified in the community and stakeholder participation strategy has been consulted - issues raised by the community and surrounding landowners and occupiers - clear details of how issues raised during consultation have been addressed and whether they have resulted in changes to the development, and - details of the proposed approach to future community and stakeholder engagement based on the results of consultation. · **Waste management** – including: - a description of each of the waste streams that would be accepted at the site including maximum daily, weekly and annual throughputs and the maximum size and heights of individual stockpiles - details of the source of the waste streams to justify the need for the

proposed processing capacity
- a description of waste processing operations (including flow diagrams for each waste stream), including a description of the technology to be installed, resource outputs and the quality control measures that would be implemented
- details of how waste would be stored (including the maximum daily storage capacity of the site) and handled on site, and transported to and from the site including details of how the receipt of non-conforming waste would be dealt with
- detail the developments waste tracking system for incoming and outgoing waste
- detail the quality of waste produced and final dispatch locations
- details of the waste management strategy for construction and ongoing operational waste generated
- the measures that would be implemented to ensure that the development is consistent with the aims, objectives and guidance in the *NSW Waste Avoidance and Resource Recovery Strategy 2014-2021,* and
- details of consistency with the EPA's Standards for Managing Construction Waste in NSW (November 2018).

· **Traffic and transport** – including:
- details of all traffic types and volumes likely to be generated during construction and operation, including a description of key access / haul routes
- an assessment of the predicted impacts of this traffic on road safety and the capacity of the road network, including consideration of cumulative traffic impacts at key intersections using SIDRA or similar traffic model
- plans demonstrating how all vehicles likely to be generated during construction and operation and awaiting loading, unloading or servicing can be accommodated on the site to avoid queuing in the street network
- details and plans of any proposed internal road network, loading dock servicing and provisions, on-site parking provisions, and sufficient pedestrian and cyclist facilities, in accordance with the relevant Australian Standards
- details of the largest vehicle anticipated to access and move within the site, including swept path analysis
- swept path diagrams depicting vehicles entering, exiting and manoeuvring throughout the site, and
- details of road upgrades, infrastructure works or new roads or access points required for the development if necessary.

· **Noise and vibration** – including:
- a quantitative noise and vibration impact assessment undertaken by a suitably qualified acoustic consultant in accordance with the relevant Environment Protection Authority guidelines and Australian Standards which includes:
  - o the identification of impacts associated with construction, site emission and traffic generation at noise affected sensitive receivers, including the provision of operational noise contours and a detailed sleep disturbance assessment
  - o details of noise monitoring survey, background noise levels, noise source inventory and 'worst case' noise emission scenarios
  - o consideration of annoying characteristics of noise and prevailing meteorological conditions in the study area
  - o a cumulative impact assessment inclusive of impacts from other developments
  - o details and analysis of the effectiveness of proposed management and mitigation measures to adequately manage identified impacts, including a clear identification of residual noise and vibration following application

of mitigation these measures and details of any proposed compliance monitoring programs.

- **Air quality and odour** – including:
  - a quantitative assessment of the potential air quality, dust and odour impacts of the development in accordance with relevant Environment Protection Authority guidelines
  - the details of buildings and air handling systems and strong justification for any material handling, processing or stockpiling external to buildings, and
  - details of proposed mitigation, management and monitoring measures.
- **Fire and incident management** – including:
  - identification of the aggregate quantities of combustible waste products to be stockpiled at any one time
  - technical information on the environmental protection equipment to be installed on the premises such as air, water and noise controls, spill clean-up equipment and fire (including location of fire hydrants and water flow rates at the hydrant) management and containment measures
  - details regarding the fire hydrant system and its minimum water supply capabilities appropriate to the site's largest stockpile fire load
  - details of size and volume of stockpiles and their management and separation to minimise fire spread and facilitate emergency vehicle access
  - consideration of consistency with NSW Fire & Rescue Fire Safety Guideline – Fire Safety in Waste Facilities (February 2020), and
  - detailed information relating to the proposed structures addressing relevant levels of compliance with Volume One of the National Construction Code (NCC).
- **Soils and water** – including:
  - an assessment of potential surface and groundwater impacts associated with the development, including potential impacts on watercourses, riparian areas, groundwater, and groundwater-dependent communities nearby
  - a detailed site water balance including a description of the water demands and breakdown of water supplies, and any water licensing requirements
  - details of stormwater/wastewater management system including the capacity of onsite detention system(s), onsite sewage management and measures to treat, reuse or dispose of water
  - description of the proposed erosion and sediment controls during construction
  - characterisation of water quality at the point of discharge to surface and/or groundwater against the relevant water quality criteria (including details of the contaminants of concern that may leach from the waste into the wastewater and proposed mitigation measures to manage any impacts to receiving waters and monitoring activities and methodologies), and
  - characterisation of the nature and extent of any contamination on the site and surrounding area.
- **Infrastructure requirements** – including:
  - identification of any infrastructure upgrades required off-site to facilitate the development, and describe any arrangements to ensure that the upgrades will be implemented in a timely manner and maintained, and
  - an infrastructure delivery and staging plan, including a description of how infrastructure on and off-site will be co-ordinated and funded to ensure it is in place prior to the commencement of construction.
- **Hazards and risk** – including a preliminary risk screening completed in accordance with *State Environmental Planning Policy No. 33 – Hazardous and Offensive Development* and Applying SEPP 33 (DoP, 2011), with a clear indication of class, quantity and location of all dangerous goods and hazardous materials associated with the development. Should preliminary screening indicate that the project is "potentially hazardous" a Preliminary Hazard Analysis

	(PHA) must be prepared in accordance with *Hazardous Industry Planning Advisory Paper No. 6 – Guidelines for Hazard Analysis* (DoP, 2011) and *Multi-Level Risk Assessment* (DoP, 2011). · **Ecologically sustainable development** – including: - a description of how the proposal will incorporate the principles of ecologically sustainable development in the design, construction and ongoing operation of the development - a description of the measures to be implemented to minimise consumption of resources, especially energy and water. · **Biodiversity** – including an assessment of the proposal's biodiversity impacts in accordance with the *Biodiversity Conservation Act 2016*, including the preparation of a Biodiversity Development Assessment Report (BDAR) where required under the Act, except where a waiver for preparation of a BDAR has been granted. · **Socio-economic** – including: - a social impact assessment in accordance with the Department's Draft Social Impact Assessment Guideline – State significant projects (October 2020) - an analysis of any potential economic impacts of the development, including a discussion of any potential economic benefits to the local and broader community. · **Planning agreement/development contributions** – demonstration that satisfactory arrangements have been or would be made to provide, or contribute to the provision of, necessary local and regional infrastructure required to support the development.
Consultation	During the preparation of the EIS, you must consult with the relevant local, State or Commonwealth Government authorities, service providers, community groups and affected landowners. In particular you must consult with: · Cumberland Council · Environment Protection Authority · Environment, Energy and Science Group · Transport for NSW · NSW Fire and Rescue · Sydney Water · WaterNSW · surrounding local landowners and stakeholders · any other public transport, utilities or community service providers. The EIS must describe the consultation process and the issues raised and identify where the design of the development has been amended in response to these issues. Where amendments have not been made to address an issue, a short explanation should be provided.
Further consultation after 2 years	If you do not lodge a Development Application and EIS for the development within 2 years of the issue date of these SEARs, you must consult further with the Planning Secretary in relation to the preparation of the EIS.
References	The assessment of the key issues listed above must take into account relevant guidelines, policies, and plans as identified. While not exhaustive, the following attachment contains a list of some of the guidelines, policies, and plans that may be relevant to the environmental assessment of this proposal.

ATTACHMENT 1

Technical and Policy Guidelines

The following guidelines may assist in the preparation of the environmental impact statement. This list is not exhaustive and not all of these guidelines may be relevant to your proposal.

Many of these documents can be found on the following websites:

http://www.planning.nsw.gov.au

http://www.shop.nsw.gov.au/index.jsp

http://www.australia.gov.au/publications

http://www.epa.nsw.gov.au/

http://www.environment.nsw.gov.au/

http://www.dpi.nsw.gov.au/

Plans and Documents

The EIS must include all relevant plans, architectural drawings, diagrams and relevant documentation required under Schedule 1 of the Environmental Planning and Assessment Regulation 2000. Provide these as part of the EIS rather than as separate documents.

In addition, the EIS must include the following:

1. An existing site survey plan drawn at an appropriate scale illustrating:
   - the location of the land, boundary measurements, area (sqm) and north point
   - the existing levels of the land in relation to buildings and roads
   - location and height of existing structures on the site
   - location and height of adjacent buildings and private open space
   - all levels to be to Australian Height Datum (AHD).

2. Locality/context plan drawn at an appropriate scale should be submitted indicating:
   - significant local features such as heritage items
   - the location and uses of existing buildings, shopping and employment areas
   - traffic and road patterns, pedestrian routes and public transport nodes.

3. Drawings at an appropriate scale illustrating:
   - detailed plans, sections and elevations of the existing building, which clearly show all proposed buildings
   - detailed plans of proposed access driveways, internal roads, carparking and external alterations services infrastructure.

4. Schedule of materials, colours and additions. finishes.

Documents to be Submitted

Documents to submit include:

- one (1) electronic copy of all the documents and plans for review prior to exhibition
- other copies as determined by the Department once the development

application is lodged.

Policies, Guidelines & Plans

Aspect	Policy / Methodology
Engagement	
	Undertaking Engagement Guide – Guidance for State Significant Projects – Exhibition Draft (DPIE, 2020)
Traffic, Transport and Access	
	Roads Act 1993
	State Environmental Planning Policy (Infrastructure) 2007
	Guide to Traffic Generating Development (RTA, 2002 as updated)
	Road Design Guide (RMS, 2015-2017)
	Guide to Traffic Management – Pt 12: Traffic Impacts of Development (Austroads, 2016)
	Guidelines for Planning and Assessment of Road Freight Access in Industrial Areas (Austroads, 2014)
	Bicycle Parking Facilities: Guidelines for Design and Installation (AS 2890.3:2015)
	Integrated Public Transport Service Planning Guidelines: Sydney Metropolitan Area (TfNSW, 2013)
	Future Transport Strategy 2056 (TfNSW, 2018)
	Greater Sydney Services and Infrastructure Plan (TfNSW, 2018)
	NSW Freight & Ports Plan 2018-2023 (TfNSW, 2018)
Soils and Water	
Erosion and Sediment	Managing Urban Stormwater: Soils & Construction (Landcom, 2004)
	Soil and Landscape Issues in Environmental Impact Assessment (DLWC, 2000)
	Wind Erosion – 2nd Edition (DIPNR, 2003)
Groundwater	National Water Quality Management Strategy Guidelines for Groundwater Protection in Australia (ARMCANZ/ANZECC, 2000)
	NSW State Groundwater Policy Framework Document (DLWC, 1997)
	NSW Aquifer Interference Policy (NOW, 2012)
	Water Sharing Plan for the Greater Metropolitan Region Groundwater Sources (NOW, 2011)
	Storing and Handling Liquids: Environmental Protection (DECC, 2007)
Stormwater	Managing Urban Stormwater: Strategic Framework. Draft (EPA, 1996)
	Managing Urban Stormwater: Council Handbook. Draft (EPA, 1997)
	Managing Urban Stormwater: Treatment Techniques (DEC, 2006)
	Managing Urban Stormwater: Source Control. Draft (EPA, 1998)

	Managing Urban Stormwater: Harvesting and Reuse (DEC, 2006)
Wastewater	National Water Quality Management Strategy: Guidelines for Sewerage Systems - Effluent Management (ARMCANZ/ANZECC, 1997)
	National Water Quality Management Strategy: Guidelines for Sewerage Systems - Use of Reclaimed Water (ARMCANZ/ANZECC, 2000)
	National Water Quality Management Strategy – Guidelines for Water Recycling: Managing Health and Environmental Risks (Phase 1) (EPHC, NRMMC & AHMC, 2006)
	National Water Quality Management Strategy – Guidelines for Water Recycling: Managing Health and Environmental Risks (Phase 2) (EPHC, NRMMC & AHMC, 2009)
Contamination	State Environmental Planning Policy No. 55 – Remediation of Land
Hazards and Risk	
	State Environmental Planning Policy No. 33 – Hazardous and Offensive Development
	Applying SEPP 33 – Hazardous and Offensive Development Application Guidelines (DoP, 2011)
Biodiversity	
	Biodiversity Conservation Act 2016
	Biodiversity Assessment Method (OEH, 2017)
Heritage	
	Heritage Act 1977
	NSW Heritage Manual (HO and DUAP, 1996)
	The Burra Charter (ICOMOS Australia, 2013)
	Statements of Heritage Impact (HO and DUAP, 2002)
	Code of Practice for the Archaeological Investigation of Aboriginal Objects in New South Wales (DECCW, 2010)
	Guide to Investigating, Assessing and Reporting on Aboriginal Cultural Heritage in NSW (DECCW, 2011)
	Aboriginal Cultural Heritage Consultation Requirements for Proponents 2010 (DECCW, 2010)
Noise and Vibration	
	Acoustics - Description and measurement of environmental noise (AS1055:2018)
	Noise Policy for Industry (EPA, 2017)
	NSW Road Noise Policy (DECCW, 2011)
	Noise Criteria Guideline (RMS, 2015)
	Noise Mitigation Guideline (RMS, 2015)
	Interim Construction Noise Guideline (DECC, 2009)
	Assessing Vibration: A Technical Guide (DEC, 2006)
	Noise Guide for Local Government (EPA, 2013)

Air Quality	
Air Quality	Protection of the Environment Operations (Clean Air) Regulation 2010
	Approved Methods for the Sampling and Analysis of Air Pollutants in New South Wales (DEC, 2007)
	Approved Methods for the Modelling and Assessment of Air Pollutants in New South Wales (EPA, 2016)
Odour	Assessment and Management of Odour from Stationary Sources in NSW (DEC 2006)
Greenhouse Gas	AGO Factors and Methods Workbook (AGO, 2018)
	Guidelines for Energy Savings Action Plans (DEUS, 2005)
Waste	
	Waste Avoidance and Resource Recovery Strategy 2014-2021 (EPA)
	The National Waste Policy: Less Waste More Resources 2009
	Waste Classification Guidelines (EPA, 2014)
	Environmental guidelines: Composting and Related Organics Processing Facilities (DEC, 2004)
	Environmental guidelines: Use and Disposal of Biosolid Products (EPA, 1997)
	Composts, soil conditioners and mulches (Standards Australia, AS 4454)
	NSW Energy from Waste Policy Statement (EPA, 2015)
	Standards for Managing Construction Waste in NSW (EPA, 2018)
Urban Design and Visual	
	Control of Obtrusive Effects of Outdoor Lighting (AS 2482)
	Better Placed (Government Architect NSW, 2017)
	Greener Places (Government Architect NSW, 2020)
Social	
	Social Impact Assessment Guideline (DPE, 2017)
	Draft Social Impact Assessment Guideline (DPIE, 2020)

ATTACHMENT 2

Government Authority Responses to Request for Key Issues

CUMBERLAND
CITY COUNCIL

Ref: OA2021/0010
DPIE Ref: SSD-19425495

9 June 2021

NSW Department of Planning, Industry and Environment
Locked Bag 5022
PARRAMATTA NSW 2124

Attention: Shaun Williams

Dear Sir,

Subject:	**Request for Comments - State Significant Development (SSD)**
Application No:	**SSD-19425495**
Property:	**132-144 Warren Road SMITHFIELD NSW 2164,**
Proposal:	**Proposed construction and 24/7 operation of Materials Recovery Facility (MRF) processing up to 150,000 tonnes/annum non-putrescible co-mingled recycling**

Reference is made to the Department of Planning, Industry & Environment referral received on 26 May 2021 by Cumberland City Council **(Council)** in relation to Application No. SSD-19425495 for the proposed Smithfield Recycling Centre/MRF. The following comments are provided for the SEARS Scoping Report submitted with the application.

PLANNING

Permissibility

1. It is acknowledged that the proposal is permissible pursuant to Infrastructure SEPP 2007. Council would like to draw attention to the Greater Metropolitan Regional Environmental Plan No. 2 – Georges River Catchment (1992) **(GMREP)** provisions that apply to the site. The site is identified as flood liable and to ensure that that the aims and objectives of the GMREP will be maintained, the application shall address the provisions under clause 11 Planning control table.

Exclusion of Application of Development Control Plans

2. In accordance with Clause 11 of State Environmental Planning Policy (State and Regional Development) 2011, *development control plans (whether made before or after the commencement of this Policy) do not apply to (a) state significant development.* Notwithstanding, the following items as per Part D – Industrial Controls of the Holroyd Development Control Plan 2013 **(Holroyd DCP 2013)**, are raised for your attention.

   a) **Industrial Use** – The proposed use of the existing premises as a resource recovery facility shall maintain the existing setbacks and landscaping area and that no storage of goods will occur outside the confine of the building.

b) **Office Premises** – The proposed use as office premises shall be ancillary to the industrial use and cover no more than 20% of the gross floor area of the industrial building.

ENGINEERING.

Flooding

3. Subject site is located within the Flood Risk precinct. In this regard, Flood advice letter shall be obtained from Council. The subject development shall comply with Flood advice letter and Part A Section 8.0 Stormwater Management of Holroyd DCP 2013. Supporting documents shall be submitted in order to ensure that the development complies with the controls nominated in Table 8 of the DCP.

   It appears proposed weighbridge located in the southern side of the building if affected by 1%AEP flooding. The matter shall be addressed as part of the proposal. Flood evacuation plan shall be incorporated as part of the development.

Stormwater

4. Stormwater plan has not been submitted. Stormwater runoff from the entire site shall be discharged by gravity system.

   Stormwater runoff from the manoeuvring area including access ways will have to undergo some form of industrial standard primary treatment/separation prior to disposal into existing stormwater systems. In this regard, stormwater treatment device capable of removing litter, oil, grease, and sediment shall be provided prior to discharge to the stormwater system.

Traffic/Parking

5. Traffic impact assessment report shall be prepared. The traffic impact assessment report shall address the impacts of the proposed developments. These should include, but not limited to, queuing, parking, traffic generation, entry and exit and be addressed in the report. All the vehicles shall enter and leave the site in a forward direction.

ENVIRONMENTAL HEALTH

Various matters

6. Main areas of concern from the development would be as follows.
   - The accumulative effects of noise.
   - Odour related issues coming from the waste and impacting other developments in the surrounding area.
   - Run off from the site entering the stormwater system.
   - Waste being blown off site.
   - Glass ‘sand’ entering the stormwater system.

   Plan of management for the site would need to include mitigation measures to control odour, dust, and noise from the site.

   The proposed development for the waste and recycling facility is a scheduled activity under Schedule 1 of the Protection of the Environment Operations Act, which requires an Environment Protection Licence and the Environment Protection Authority (EPA) is the

Appropriate Regulatory Authority for the development, the applicant will need to comply with consent conditions, licence requirements and regulations that will be issued by the EPA.

TREE MANAGEMENT

Tree protection measure during development

7. It is recommended that all trees that are to remain as part of the proposed upgrade of this site are appropriately protected as per AS4970 – 2009 Protection of trees on development.

Pruning works

8. During construction or any time during the development, any pruning works should be carried out to AS4373 – 2007 Pruning of amenity trees.

Landscape plan and associated works

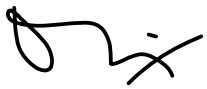
9. Any landscape plan for the site should be prepared by a minimum AQF5 landscape architect and all hard and soft landscape works carried out by minimum AQF3 qualified landscapers.

WASTE MANAGEMENT

10. The waste management plan and on-going waste management arrangement to be generated from the office/staff area have not been addressed at this stage of the application. Should this information be available, relevant comments would be provided accordingly.

Should you have any further enquiries please do not hesitate to contact Olivia Yana on 8757 9544 in relation to this matter.

Yours faithfully,



Olivia Yana
Executive Planner

Department of Planning, Industry and Environment
Industry Assessments
Locked Bag 5022
PARRAMATTA NSW 2124

Attention: Shaun Williams
(02) 8275 1345 | shaun.williams@planning.nsw.gov.au

Notice Number	1609506
File Number	EF16/11141
Date	04-Jun-2021

RE: Request for Secretary's Environmental Assessment Requirements (SEARS) for SSD-19425495 - Warren Road Recycling Facility - 132-144 Warren Road, Smithfield, NSW

I refer to your request for the Environment Protection Authority's (EPA) requirements for the environmental assessment (EA) in regard to the above proposal received by EPA on 24 May 2021.

The EPA understands that Polytrade Pty Ltd (the Proponent) is seeking approval for a new recycling facility at 132-144 Warren Road, Smithfield, NSW. The proposal outlines the construction and 24/7 operation of a materials recovery facility (MRF) with a capacity to receive and process 150,000 tonnes of non-putrescible co-mingled recycling per annum.

The EPA has considered the limited details of the proposal as provided by the Department of Planning Industry and Environment (DPIE) and has identified the information it requires to issue its general terms of approval in Attachments A and B. In summary, the EPA's key information requirements for the proposal include an adequate assessment of:

1. Air quality and odour
2. Noise and vibration
3. Stormwater and leachate management
4. Waste management
5. Fire Risk

In carrying out the assessment, the Proponent should refer to the relevant guidelines as listed in Attachment C and any relevant industry codes of practice and best practice management guidelines.

Please note that the EPA has not considered Aboriginal cultural heritage, biodiversity or built form/urban design requirements as these are the purview of the Environment, Energy and Science Group (EES) within the Department of Planning, Industry and Environment.

The Proponent should be made aware that any commitments made in the EA may be formalised as approval conditions and may also be placed as formal licence conditions.

The Proponent should be made aware that, consistent with provisions under Part 9.4 of the *Protection of the Environment Operations Act 1997* ("the Act") the EPA may require the provision of a financial assurance and/or assurances. The amount and form of the assurance(s) would be determined by the EPA and required as a condition of an Environment Protection Licence ("EPL").

In addition, as a requirement of an EPL, the EPA will require the Proponent to prepare, test and implement a Pollution Incident Response Management Plan and/or Plans in accordance with Section 153A of the Act.

If you have any queries regarding this matter, please contact Byran Larkings on 02 8275 1277.

Yours sincerely

Celeste Forestal

Unit Head

Environment Protection Authority

(by Delegation)

ATTACHMENT A: SITE SPECIFIC EIS REQUIREMENTS

1. **The Facility must be enclosed -** The EPA requires that all waste and materials are stored and processed inside an enclosed building. All waste handling activities, including receival, sorting, processing, sampling, quarantine, storage and loading must be conducted within an enclosed building.

   No waste, including finished products, may be stored outside. Any external haulage areas or roads must be sealed hardstand. Any unused external surfaces must be sealed hardstand or vegetated. The EPA will not consider the storage of waste (including finished product) outside.

   The *Protection of the Environment Operations Act 1997* (**POEO Act**) makes clear that environmental performance is to be continuously improving. The EPA therefore seeks best practice in all new facilities or activities. The need for best practice can be linked to the following elements of the POEO Act:

   a) Objects

   Section 3d of the POEO Act sets out the objects of the act and includes:

   (ii) the reduction to harmless levels of the discharge of substances likely to cause harm to the environment, and

   (iv) the making of progressive environmental improvements, including the reduction of pollution at source.

   b) Matters to be considered

   Section 45 of the POEO Act sets out the matters to be taken into consideration in licensing functions and includes:

   - *the practical measures that could be taken:*
     (i) to prevent, control, abate or mitigate that pollution, and
     (ii) to protect the environment from harm as a result of that pollution

2. **Waste Management** - the environmental impact statement (EIS) must include a detailed assessment of the waste management processes to be undertaken at the Premises. This includes but is not limited to:

   a. details of the sources of waste to be received at the Premises;

   b. details of the types and quantities of each type of waste to be received at the Premises;

   c. details of the maximum volume of waste to be stored on the Premises at any one time;

   d. details of the maximum annual throughput of waste for be processed at the Premises;

   e. a description of waste processing procedures for each waste type;

   f. a description of how the proponent will meet the EPA's record keeping and reporting requirements, including weighing material in and out of the Premises (refer to the EPA's Waste Levy Guidelines for more information – available at http://www.epa.nsw.gov.au/your-environment/waste/waste-levy);

g. a detailed site plan(s) identifying areas for:

- haulage
- waste receival, processing, storage and loading (for each waste type)
- quarantine
- infrastructure for environmental controls including dust, noise, water and wheel wash
- weighbridge
- site boundaries
- stormwater drainage areas
- unused stabilised areas

h. details of the type and quantities of materials to be produced and their intended fate;

i. details of any materials produced under a Resource Recovery Order, and the controls in place for meeting the conditions of that order;

j. a description of procedures for dealing with non-conforming waste (i.e. waste not permitted to be received at the Premises).

3. **Waste types** - the EPA requires detailed information on the waste types proposed to be received at the Premises. For each waste type the applicant must detail the physical and chemical content of the waste, the types of pollution which may result from the storage and processing of that waste and mitigation measures for managing any such impacts.

4. **Air quality -** The EIS must:

a. Assess the potential impacts on local and regional air quality. Assessment of risk relates to environmental harm, risk to human health and amenity.

b. include an air quality assessment that identifies all potential air emission from the Premises, including but not limited to coarse particulates, PM10, PM2.5 and odour. The proponent must assess the impact of these discharges and demonstrate effective control of all identified air emissions from the Premises.

c. Proposed mitigation measures to minimise the generation and emission of dust during the construction phase.

d. Proposed mitigation measures to prevent the generation and emission of dust during the operational phase.

Further requirements for air quality impact assessments can be found in **Attachment B** below.

Please note, that in relation to air impacts, a place where someone works may be considered a sensitive receiver. Therefore, industrial neighbours to the Premises must be included as sensitive receivers when conducting and air quality or odour impact assessments.

6. **Noise and Vibration -** In relation to noise, the following matters should be addressed (where relevant) as part of the Environmental Assessment.

   a. Construction noise associated with the proposed development should be assessed using the *Interim Construction Noise Guideline (*DECC, 2009). http://www.epa.nsw.gov.au/noise/constructnoise.htm

   b. Vibration from all activities (including construction and operation) should be assessed using the guidelines contained in the *Assessing Vibration: a technical guideline* (DEC, 2006). http://www.epa.nsw.gov.au/noise/vibrationguide.htm

   c. Operational noise impacts should be assessed using the guidelines contained in the *Noise Policy for Industry* (EPA 2017).
   https://www.epa.nsw.gov.au/publications/noise/17p0524-noise-policy-for-industry

   d. Noise on public roads from increased road traffic generated by land use developments should be assessed using the guidelines contained in the *Environmental Criteria for Road Traffic Noise* (EPA, 1999). http://www.epa.nsw.gov.au/noise/traffic.htm

Further requirements for noise impact assessments can be found in **Attachment B** below.

6. Water and Sediment - It is considered best practice to ensure that no polluted water is discharged from the Premises.

Discharge of polluted water should generally only be considered after other options have been shown to not be viable or to deliver less satisfactory environmental outcomes overall. The Applicant **must demonstrate** that it has considered all reasonable options for the prevention of pollution before the EPA will consider placing a discharge point on a licence. The EPA only specifies pollutants on a licence where their discharge in all practical terms is unavoidable and measures to control the pollutants and their impacts can be feasibly implemented.

The EPA considers that polluted water means any water that has come into contact with waste. Water which has come into contact with waste may become polluted with:

gross pollutants;

- nutrients
- organic matter
- sediment
- oil and grease
- dissolved contaminants / toxicants

Polluted water may also refer to water that has come into contact with fuel or other chemicals.

In the EIS, the Applicant must:

- identify all pollutants that pose a risk of non-trivial harm and the potential impact of those pollutants on the environment; and

- propose the practical measures that can be taken to prevent, control, abate or mitigate the pollution and protect the environment from harm.

Additional requirements for water quality impact assessments are set out in **Attachment B** below.

7. Fire Risk - In relation to the processing and storage of combustible waste materials, the following matters should be addressed (where relevant) as part of the Environmental Assessment.

In the EIS, the Applicant must:

- identify all combustible waste materials that pose a risk of non-trivial harm and the potential impact of those combustible waste materials on the environment; and
- propose the practical measures that can be taken to prevent, control, abate or mitigate pollution and protect the environment from harm.

This assessment should take into account the Fire and Rescue NSW fire safety in waste facilities guideline https://www.fire.nsw.gov.au/gallery/files/pdf/guidelines/guidelines_fire_safety_in_waste_facilities.pdf

8. Wheel Wash - Best practice waste management facilities contain a wheelwash to reduce risk of contaminants being tracked out onto public roads. The EPA notes that the proposal does not contain reference to a wheelwash for the site. The Proponent should set out in the EIS whether a wheelwash will be installed and if not, justification as to why a wheelwash will not be installed.

ATTACHMENT B: EIS REQUIREMENTS FOR

Polytrade Pty Ltd - SSD-19425495 - Warren Road Recycling Facility - 132-144 Warren Road, Smithfield, NSW

How to use these requirements

The EPA requirements have been structured in accordance with the DIPNR EIS Guidelines, as follows. It is suggested that the EIS follow the same structure:

A. Executive summary

B. The proposal

C. The location

D. Identification and prioritisation of issues

E. The environmental issues

F. List of approvals and licences

G. Compilation of mitigation measures

H. Justification for the proposal

A Executive summary

The executive summary should include a brief discussion of the extent to which the proposal achieves identified environmental outcomes.

B The proposal

1. Objectives of the proposal

- The objectives of the proposal should be clearly stated and refer to:
  a) the size and type of the operation, the nature of the processes and the products, by-products and wastes produced
  b) a life cycle approach to the production, use or disposal of products
  c) the anticipated level of performance in meeting required environmental standards and cleaner production principles
  d) the staging and timing of the proposal and any plans for future expansion
  e) the proposal's relationship to any other industry or facility.

2. Description of the proposal

General

- Outline the production process including:
  a) the environmental "mass balance" for the process – quantify in-flow and out-flow of materials, any points of discharge to the environment and their respective destinations (sewer, stormwater, atmosphere, recycling, landfill etc)
  b) any life-cycle strategies for the products.
- Outline cleaner production actions, including:
  a) measures to minimise waste (typically through addressing source reduction)
  b) proposals for use or recycling of by-products
  c) proposed disposal methods for solid and liquid waste
  d) air management systems including all potential sources of air emissions, proposals to re-use or treat emissions, emission levels relative to relevant standards in regulations, discharge points
  e) water management system including all potential sources of water pollution, proposals for re-use, treatment etc, emission levels of any wastewater discharged, discharge points, summary of options explored to avoid a discharge, reduce its frequency or reduce its impacts, and rationale for selection of option to discharge.
  f) soil contamination treatment and prevention systems.
- Outline construction works including:
  a) actions to address any existing soil contamination
  b) any earthworks or site clearing; re-use and disposal of cleared material (including use of spoil on-site)
  c) construction timetable and staging; hours of construction; proposed construction methods

d) environment protection measures, including noise mitigation measures, dust control measures and erosion and sediment control measures.

- Include a site diagram showing the site layout and location of environmental controls.

Air

- Identify all sources or potential sources of air emissions from the development.

  Note: emissions can be classed as either:

  - *point (e.g. emissions from stack or vent) or*
  - *fugitive (from wind erosion, leakages or spillages, associated with loading or unloading, conveyors, storage facilities, plant and yard operation, vehicle movements (dust from road, exhausts, loss from load), land clearing and construction works).*
- Provide details of the project that are essential for predicting and assessing air impacts including:

  a) the quantities and physio-chemical parameters (e.g. concentration, moisture content, bulk density, particle sizes etc) of materials to be used, transported, produced or stored

  b) an outline of procedures for handling, transport, production and storage

  c) the management of solid, liquid and gaseous waste streams with potential to generate emissions to air.

Noise and vibration

- Identify all noise sources or potential sources from the development (including both construction and operation phases). Detail all potentially noisy activities including ancillary activities such as transport of goods and raw materials.
- Specify the times of operation for all phases of the development and for all noise producing activities.
- For projects with a significant potential traffic noise impact provide details of road alignment (include gradients, road surface, topography, bridges, culverts etc), and land use along the proposed road and measurement locations – diagrams should be to a scale sufficient to delineate individual residential blocks.

Water

- Provide details of the project that are essential for predicting and assessing impacts to waters including:

  a) the quantity and physio-chemical properties of all potential water pollutants and the risks they pose to the environment and human health, including the risks they pose to Water Quality Objectives in the ambient waters (as defined on http://www.environment.nsw.gov.au/ieo/index.htm, using technical criteria derived from *the Australian and New Zealand Guidelines for Fresh and Marine Water Quality*, ANZECC 2000)

  b) the management of discharges with potential for water impacts

  c) drainage works and associated infrastructure; land-forming and excavations; working capacity of structures; and water resource requirements of the proposal.

- Outline site layout, demonstrating efforts to avoid proximity to water resources (especially for activities with significant potential impacts e.g. effluent ponds) and showing potential areas of modification of contours, drainage etc.
- Outline how total water cycle considerations are to be addressed showing total water balances for the development (with the objective of minimising demands and impacts on water resources). Include water requirements (quantity, quality and source(s)) and proposed storm and wastewater disposal, including type, volumes, proposed treatment and management methods and re-use options.

Waste and chemicals

Provide details of the quantity and type of both liquid waste and non-liquid waste generated, handled, processed or disposed of at the premises. Waste must be classified according to the EPA's *Waste Classification Guidelines 2014 (as amended from time to time)*

- Provide details of liquid waste and non-liquid waste management at the facility, including:
  a) the transportation, assessment and handling of waste arriving at or generated at the site
  b) any stockpiling of wastes or recovered materials at the site
  c) any waste processing related to the facility, including reuse, recycling, reprocessing (including composting) or treatment both on- and off-site
  d) the method for disposing of all wastes or recovered materials at the facility
  e) the emissions arising from the handling, storage, processing and reprocessing of waste at the facility
  f) the proposed controls for managing the environmental impacts of these activities.
- Provide details of spoil disposal with particular attention to:
  a) the quantity of spoil material likely to be generated
  b) proposed strategies for the handling, stockpiling, reuse/recycling and disposal of spoil
  c) the need to maximise reuse of spoil material in the construction industry
  d) identification of the history of spoil material and whether there is any likelihood of contaminated material, and if so, measures for the management of any contaminated material
  e) designation of transportation routes for transport of spoil.
- Provide details of procedures for the assessment, handling, storage, transport and disposal of all hazardous and dangerous materials used, stored, processed or disposed of at the site, in addition to the requirements for liquid and non-liquid wastes.
- Provide details of the type and quantity of any chemical substances to be used or stored and describe arrangements for their safe use and storage.

- Reference should be made to the guidelines: EPA's *Waste Classification Guidelines 2014 (as amended from time to time)*

ESD

- Demonstrate that the planning process and any subsequent development incorporates objectives and mechanisms for achieving ESD, including:

a) an assessment of a range of options available for use of the resource, including the benefits of each option to future generations

proper valuation and pricing of environmental resources

b) identification of who will bear the environmental costs of the proposal.

3. Rehabilitation

- Outline considerations of site maintenance, and proposed plans for the final condition of the site (ensuring its suitability for future uses).

4. Consideration of alternatives and justification for the proposal

- Consider the environmental consequences of adopting alternatives, including alternative:
  a) sites and site layouts
  b) access modes and routes
  c) materials handling and production processes
  d) waste and water management
  e) impact mitigation measures
  f) energy sources
- Selection of the preferred option should be justified in terms of:
  a) ability to satisfy the objectives of the proposal
  b) relative environmental and other costs of each alternative
  c) acceptability of environmental impacts and contribution to identified environmental objectives
  d) acceptability of any environmental risks or uncertainties
  e) reliability of proposed environmental impact mitigation measures
  f) efficient use (including maximising re-use) of land, raw materials, energy and other resources.

C The location

1. General

- Provide an overview of the affected environment to place the proposal in its local and regional environmental context including:

meteorological data (e.g. rainfall, temperature and evaporation, wind speed and direction)

g) topography (landform element, slope type, gradient and length)

h) surrounding land uses (potential synergies and conflicts)

geomorphology (rates of landform change and current erosion and deposition processes)

i) soil types and properties (including erodibility; engineering and structural properties; dispersibility; permeability; presence of acid sulfate soils and potential acid sulfate soils)

j) ecological information (water system habitat, vegetation, fauna)

k) availability of services and the accessibility of the site for passenger and freight transport.

2. Air

- Describe the topography and surrounding land uses. Provide details of the exact locations of dwellings, schools and hospitals. Where appropriate provide a perspective view of the study area such as the terrain file used in dispersion models.
- Describe surrounding buildings that may effect plume dispersion.
- Provide and analyse site representative data on following meteorological parameters:

a) temperature and humidity

b) rainfall, evaporation and cloud cover

c) wind speed and direction

d) atmospheric stability class

e) mixing height (the height that emissions will be ultimately mixed in the atmosphere)

f) katabatic air drainage

g) air re-circulation.

3. Noise and vibration

- Identify any noise sensitive locations likely to be affected by activities at the site, such as residential properties, schools, churches, and hospitals. Typically the location of any noise sensitive locations in relation to the site should be included on a map of the locality.
- Identify the land use zoning of the site and the immediate vicinity and the potentially affected areas.

4. Water

- Describe the catchment including proximity of the development to any waterways and provide an assessment of their sensitivity/significance from a public health, ecological and/or economic perspective. The Water Quality and River Flow Objectives on the website: http://www.environment.nsw.gov.au/ieo/index.htm should be used to identify the agreed environmental values and human uses for any affected waterways. This will help with the description of the local and regional area.

5. Soil Contamination Issues

- Provide details of site history – if earthworks are proposed, this needs to be considered with regard to possible soil contamination, for example if the site was previously a landfill site, contaminated in any form or if irrigation of effluent has occurred.

D Identification and prioritisation of issues / scoping of impact assessment

- Provide an overview of the methodology used to identify and prioritise issues. The methodology should take into account:
  a) relevant NSW government guidelines
  b) industry guidelines
  c) EISs for similar projects
  d) relevant research and reference material
  e) relevant preliminary studies or reports for the proposal
  f) consultation with stakeholders.
- Provide a summary of the outcomes of the process including:
  a) all issues identified including local, regional and global impacts (e.g. increased/ decreased greenhouse emissions)
  b) key issues which will require a full analysis (including comprehensive baseline assessment)
  c) issues not needing full analysis though they may be addressed in the mitigation strategy
  d) justification for the level of analysis proposed (the capacity of the proposal to give rise to high concentrations of pollution compared with the ambient environment or environmental outcomes is an important factor in setting the level of assessment).

E The environmental issues

1. General

- The potential impacts identified in the scoping study need to be assessed to determine their significance, particularly in terms of achieving environmental outcomes, and minimising environmental pollution.
- Identify gaps in information and data relevant to significant impacts of the proposal and any actions proposed to fill those information gaps so as to enable development of appropriate management and mitigation measures. This is in accordance with ESD requirements.

Note: The level of detail should match the level of importance of the issue in decision making which is dependent on the environmental risk.

Describe baseline conditions

- Provide a description of existing environmental conditions for any potential impacts.

Assess impacts

- For any potential impacts relevant for the assessment of the proposal provide a detailed analysis of the impacts of the proposal on the environment including the cumulative impact of the proposal on the receiving environment especially where there are sensitive receivers.
- Describe the methodology used and assumptions made in undertaking this analysis (including any modelling or monitoring undertaken) and indicate the level of confidence in the predicted outcomes and the resilience of the environment to cope with the predicted impacts.
- The analysis should also make linkages between different areas of assessment where necessary to enable a full assessment of environmental impacts e.g. assessment of impacts on air quality will often need to draw on the analysis of traffic, health, social, soil and/or ecological systems impacts; etc.
- The assessment needs to consider impacts at all phases of the project cycle including: exploration (if relevant or significant), construction, routine operation, start-up operations, upset operations and decommissioning if relevant.
- The level of assessment should be commensurate with the risk to the environment.

Describe management and mitigation measures

- Describe any mitigation measures and management options proposed to prevent, control, abate or mitigate identified environmental impacts associated with the proposal and to reduce risks to human health and prevent the degradation of the environment. This should include an assessment of the effectiveness and reliability of the measures and any residual impacts after these measures are implemented.
- Proponents are expected to implement a 'reasonable level of performance' to minimise environmental impacts. The proponent must indicate how the proposal meets reasonable levels of performance. For example, reference technology based criteria if available, or identify good practice for this type of activity or development. A 'reasonable level of performance' involves adopting and implementing technology and

management practices to achieve certain pollutant emissions levels in economically viable operations. Technology-based criteria evolve gradually over time as technologies and practices change.

- Use environmental impacts as key criteria in selecting between alternative sites, designs and technologies, and to avoid options having the highest environmental impacts.
- Outline any proposed approach (such as an Environmental Management Plan) that will demonstrate how commitments made in the EIS will be implemented. Areas that should be described include:

  a) operational procedures to manage environmental impacts

  b) monitoring procedures

  c) training programs

  d) community consultation

  e) complaint mechanisms including site contacts

  f) strategies to use monitoring information to improve performance

  g) strategies to achieve acceptable environmental impacts and to respond in event of exceedences.

2. Air

Describe baseline conditions

- Provide a description of existing air quality and meteorology, using existing information and site representative ambient monitoring data.

Assess impacts

- Identify all pollutants of concern and estimate emissions by quantity (and size for particles), source and discharge point.
- Estimate the resulting ground level concentrations of all pollutants. Where necessary (e.g. potentially significant impacts and complex terrain effects), use an appropriate dispersion model to estimate ambient pollutant concentrations. Discuss choice of model and parameters with the EPA.
- Describe the effects and significance of pollutant concentration on the environment, human health, amenity and regional ambient air quality standards or goals.
- Describe the contribution that the development will make to regional and global pollution, particularly in sensitive locations.
- For potentially odorous emissions provide the emission rates in terms of odour units (determined by techniques compatible with EPA procedures). Use sampling and analysis techniques for individual or complex odours and for point or diffuse sources, as appropriate.

  Note: With dust and odour, it may be possible to use data from existing similar activities to generate emission rates.
- Reference should be made including *Approved Methods for the Modelling and Assessment of Air Pollutants in NSW* (DEC, 2016)*; Approved Methods for the Sampling and Analysis of Air Pollutants in NSW* (DEC, 2007)*; Assessment and Management of Odour from Stationary Sources in NSW* (DEC, 2006)*; Technical Notes: Assessment and Management of Odour from Stationary Sources in NSW*

(DEC, 2006); Load Calculation Protocol for use by holders of NSW Environment Protection Licences when calculating Assessable Pollutant Loads (DECC, 2009).

Describe management and mitigation measures

- Outline specifications of pollution control equipment (including manufacturer's performance guarantees where available) and management protocols for both point and fugitive emissions. Where possible, this should include cleaner production processes.

3. Noise and vibration

Describe baseline conditions

- Determine the existing background (LA90) and ambient (LAeq) noise levels, as relevant, in accordance with the *NSW Noise Policy for Industry*.
- Determine the existing road traffic noise levels in accordance with the *NSW Road Noise Policy*, where road traffic noise impacts may occur.
- The noise impact assessment report should provide details of all monitoring of existing ambient noise levels including:
  a) details of equipment used for the measurements
  b) a brief description of where the equipment was positioned
  c) a statement justifying the choice of monitoring site(s), including the procedure used to choose the site(s), having regards to Fact Sheets A and B of the *NSW Noise Policy for Industry.*
  d) details of the exact location of the monitoring site and a description of land uses in surrounding areas
  e) a description of the dominant and background noise sources at the site
  f) day, evening and night assessment background levels for each day of the monitoring period
  g) the final Rating Background Level (RBL) value
  h) graphs of the measured noise levels for each day should be provided
  i) a record of periods of affected data (due to adverse weather and extraneous noise), methods used to exclude invalid data and a statement indicating the need for any re-monitoring.

Assess impacts

- Determine the project noise trigger levels for the site. For each identified potentially affected receiver, this should include:
  a) determination of the project intrusive noise level for each identified potentially affected receiver
  b) selection and justification of the appropriate amenity category for each identified potentially affected receiver
  c) determination of the project amenity noise level for each receiver

d) determination of the appropriate maximum noise level event assessment (sleep disturbance) trigger level.

- Maximum noise levels during night-time period (10pm-7am) should be assessed to analyse possible affects on sleep. Determine expected noise level and noise character likely to be generated from noise sources during:

  a) site establishment

  b) construction

  c) operational phases

  d) transport including traffic noise generated by the proposal

  e) other services.

  Note: The noise impact assessment report should include noise source data for each source in 1/1 or 1/3 octave band frequencies including methods for references used to determine noise source levels. Noise source levels and characteristics can be sourced from direct measurement of similar activities or from literature (if full references are provided).

- Determine the noise levels likely to be received at the reasonably most affected location(s) (these may vary for different activities at each phase of the development).
- The noise impact assessment report should include:

  a) a plan showing the assumed location of each noise source for each prediction scenario

  b) a list of the number and type of noise sources used in each prediction scenario to simulate all potential significant operating conditions on the site

  c) any assumptions made in the predictions in terms of source heights, directivity effects, shielding from topography, buildings or barriers, etc

  d) methods used to predict noise impacts including identification of any noise models used.

  e) the weather conditions considered for the noise predictions

  f) the predicted noise impacts from each noise source as well as the combined noise level for each prediction scenario

  g) for developments where a significant level of noise impact is likely to occur, noise contours for the key prediction scenarios should be derived

  h) an assessment of the need to include modification factors as detailed in Fact Sheet C of the *NSW Noise Policy for Industry*.

- Discuss the findings from the predictive modelling and, where relevant noise criteria have not been met, recommend additional feasible and reasonable mitigation measures.
- The noise impact assessment report should include details of any mitigation proposed including the attenuation that will be achieved and the revised noise impact predictions following mitigation.

  a) Where relevant noise/vibration levels cannot be met after application of all feasible and reasonable mitigation measures the residual level of noise impact needs to be quantified

- For the assessment of existing and future traffic noise, details of data for the road should be included such as assumed traffic volume; percentage heavy vehicles by time of day; and details of the calculation process. These details should be consistent with any traffic study carried out in the EIS.

- Where blasting is intended an assessment in accordance with the *Technical Basis for Guidelines to Minimise Annoyance due to Blasting Overpressure and Ground Vibration* (ANZECC, 1990) should be undertaken. The following details of the blast design should be included in the noise assessment:
  a) bench height, burden spacing, spacing burden ratio
  b) blast hole diameter, inclination and spacing
  c) type of explosive, maximum instantaneous charge, initiation, blast block size, blast frequency.

Describe management and mitigation measures

- Determine the most appropriate noise mitigation measures and expected noise reduction including both noise controls and management of impacts for both construction and operational noise. This will include selecting quiet equipment and construction methods, noise barriers or acoustic screens, location of stockpiles, temporary offices, compounds and vehicle routes, scheduling of activities, etc.
- For traffic noise impacts, provide a description of the ameliorative measures considered (if required), reasons for inclusion or exclusion, and procedures for calculation of noise levels including ameliorative measures. Also include, where necessary, a discussion of any potential problems associated with the proposed ameliorative measures, such as overshadowing effects from barriers. Appropriate ameliorative measures may include:
  a) use of alternative transportation modes, alternative routes, or other methods of avoiding the new road usage
  b) control of traffic (eg: limiting times of access or speed limitations)
  c) resurfacing of the road using a quiet surface
  d) use of (additional) noise barriers or bunds
  e) treatment of the façade to reduce internal noise levels buildings where the night-time criteria is a major concern
  f) more stringent limits for noise emission from vehicles (i.e. using specially designed ‘quite’ trucks and/or trucks to use air bag suspension
  g) driver education
  h) appropriate truck routes
  i) limit usage of exhaust brakes
  j) use of premium muffles on trucks
  k) reducing speed limits for trucks
  l) ongoing community liaison and monitoring of complaints
  m) phasing in the increased road use.

4. Water

Describe baseline conditions

- Describe existing surface and groundwater quality – an assessment needs to be undertaken for any water resource likely to be affected by the proposal and for all conditions (e.g. a wet weather sampling program is needed if runoff events may cause impacts).

  Note: Methods of sampling and analysis need to conform with an accepted standard (e.g. Approved Methods for the Sampling and Analysis of Water Pollutants in NSW (DEC 2004) *or be approved and analyses undertaken by accredited laboratories).*

- Provide site drainage details and surface runoff yield.
- State the ambient Water Quality and River Flow Objectives for the receiving waters. These refer to the community's agreed environmental values and human uses endorsed by the Government as goals for the ambient waters. These environmental values are published on the website: http://www.environment.nsw.gov.au/ieo/index.htm. The EIS should state the environmental values listed for the catchment and waterway type relevant to your proposal. NB: A consolidated and approved list of environmental values are not available for groundwater resources. Where groundwater may be affected the EIS should identify appropriate groundwater environmental values and justify the choice.
- State the indicators and associated trigger values or criteria for the identified environmental values. This information should be sourced from the ANZECC 2000 *Guidelines for Fresh and Marine Water Quality* (http://www.environment.gov.au/water/publications/quality/nwqms-guidelines-4-vol1.html) (Note that, as at 2004, the NSW Water Quality Objectives booklets and website contain technical criteria derived from the 1992 version of the ANZECC Guidelines. The Water Quality Objectives remain as Government Policy, reflecting the community's environmental values and long-term goals, but the technical criteria are replaced by the more recent ANZECC 2000 Guidelines). NB: While specific guidelines for groundwater are not available, the ANCECC 2000 Guidelines endorse the application of the trigger values and decision trees as a tool to assess risk to environmental values in groundwater.
- State any locally specific objectives, criteria or targets, which have been endorsed by the government e.g. the Healthy Rivers Commission Inquiries or the NSW Salinity Strategy (DLWC, 2000) (http://www.environment.nsw.gov.au/salinity/government/nswstrategy.htm).
- Where site specific studies are proposed to revise the trigger values supporting the ambient Water Quality and River Flow Objectives, and the results are to be used for regulatory purposes (e.g. to assess whether a licensed discharge impacts on water quality objectives), then prior agreement from the EPA on the approach and study design must be obtained.
- Describe the state of the receiving waters and relate this to the relevant Water Quality and River Flow Objectives (i.e. are Water Quality and River Flow Objectives being achieved?). Proponents are generally only expected to source available data and information. However, proponents of large or high risk developments may be required to collect some ambient water quality / river flow / groundwater data to enable a suitable level of impact assessment. Issues to include in the description of the receiving waters could include:

  a) lake or estuary flushing characteristics

  b) specific human uses (e.g. exact location of drinking water offtake)

  c) sensitive ecosystems or species conservation values

d) a description of the condition of the local catchment e.g. erosion levels, soils, vegetation cover, etc

e) an outline of baseline groundwater information, including, but not restricted to, depth to watertable, flow direction and gradient, groundwater quality, reliance on groundwater by surrounding users and by the environment

f) historic river flow data where available for the catchment.

Assess impacts

- No proposal should breach clause 120 of the *Protection of the Environment Operations Act* 1997 (i.e. pollution of waters is prohibited unless undertaken in accordance with relevant regulations).
- Identify and estimate the quantity of all pollutants that may be introduced into the water cycle by source and discharge point including residual discharges after mitigation measures are implemented.
- Include a rationale, along with relevant calculations, supporting the prediction of the discharges.
- Describe the effects and significance of any pollutant loads on the receiving environment. This should include impacts of residual discharges through modelling, monitoring or both, depending on the scale of the proposal. Determine changes to hydrology (including drainage patterns, surface runoff yield, flow regimes, wetland hydrologic regimes and groundwater).
- Describe water quality impacts resulting from changes to hydrologic flow regimes (such as nutrient enrichment or turbidity resulting from changes in frequency and magnitude of stream flow).
- Identify any potential impacts on quality or quantity of groundwater describing their source.
- Identify potential impacts associated with geomorphological activities with potential to increase surface water and sediment runoff or to reduce surface runoff and sediment transport. Also consider possible impacts such as bed lowering, bank lowering, instream siltation, floodplain erosion and floodplain siltation.
- Identify impacts associated with the disturbance of acid sulfate soils and potential acid sulfate soils.
- Containment of spills and leaks shall be in accordance with EPA's guidelines section 'Bunding and Spill Management' at http://www.epa.nsw.gov.au/mao/bundingspill.htm and the most recent versions of the Australian Standards referred to in the Guidelines. Containment should be designed for no-discharge.
- The significance of the impacts listed above should be predicted. When doing this it is important to predict the ambient water quality and river flow outcomes associated with the proposal and to demonstrate whether these are acceptable in terms of achieving protection of the Water Quality and River Flow Objectives. In particular the following questions should be answered:

  a) will the proposal protect Water Quality and River Flow Objectives where they are currently achieved in the ambient waters; and

  b) will the proposal contribute towards the achievement of Water Quality and River Flow Objectives over time, where they are not currently achieved in the ambient waters.

- Consult with the EPA as soon as possible if a mixing zone is proposed (a mixing zone could exist where effluent is discharged into a receiving water body, where the quality of the water being discharged does not immediately meet water quality objectives. The mixing zone could result in dilution, assimilation and decay of the effluent to allow water quality objectives to be met further downstream, at the edge of the mixing zone). The EPA will advise the proponent under what conditions a mixing zone will and will not be acceptable, as well as the information and modelling requirements for assessment.

Note: The assessment of water quality impacts needs to be undertaken in a total catchment management context to provide a wide perspective on development impacts, in particular cumulative impacts.

- Where a licensed discharge is proposed, provide the rationale as to why it cannot be avoided through application of a reasonable level of performance, using available technology, management practice and industry guidelines.
- Where a licensed discharge is proposed, provide the rationale as to why it represents the best environmental outcome and what measures can be taken to reduce its environmental impact.
- Reference should be made to *Managing Urban Stormwater: Soils and Construction* (Landcom, 2004), *Guidelines for Fresh and Marine Water Quality* ANZECC 2000), *Environmental Guidelines: Use of effluent by Irrigation* (DEC, 2004).

Describe management and mitigation measures

- Outline stormwater management to control pollutants at the source and contain them within the site. Also describe measures for maintaining and monitoring any stormwater controls.
- Outline erosion and sediment control measures directed at minimising disturbance of land, minimising water flow through the site and filtering, trapping or detaining sediment. Also include measures to maintain and monitor controls as well as rehabilitation strategies.
- Describe waste water treatment measures that are appropriate to the type and volume of waste water and are based on a hierarchy of avoiding generation of waste water; capturing all contaminated water (including stormwater) on the site; reusing/recycling waste water; and treating any unavoidable discharge from the site to meet specified water quality requirements.
- Outline pollution control measures relating to storage of materials, possibility of accidental spills (e.g. preparation of contingency plans), appropriate disposal methods, and generation of leachate.
- Describe hydrological impact mitigation measures including:
  a) site selection (avoiding sites prone to flooding and waterlogging, actively eroding or affected by deposition)
  b) minimising runoff
  c) minimising reductions or modifications to flow regimes
  d) avoiding modifications to groundwater.
- Describe groundwater impact mitigation measures including:
  a) site selection
  b) retention of native vegetation and revegetation
  c) artificial recharge
  d) providing surface storages with impervious linings
  e) monitoring program.
- Describe geomorphological impact mitigation measures including:
  a) site selection

b) erosion and sediment controls

c) minimising instream works

d) treating existing accelerated erosion and deposition

e) monitoring program.

- Any proposed monitoring should be undertaken in accordance with the *Approved Methods for the Sampling and Analysis of Water Pollutants in NSW* (DEC 2004).

5. Soils and contamination

Describe baseline conditions

- Provide any details (in addition to those provided in the location description - Section C) that are needed to describe the existing situation in terms of soil types and properties and soil contamination.

Assess impacts

- Identify any likely impacts resulting from the construction or operation of the proposal, including the likelihood of:

  a) disturbing any existing contaminated soil

  b) contamination of soil by operation of the activity

  c) subsidence or instability

  d) soil erosion

  e) disturbing acid sulfate or potential acid sulfate soils.
- Reference should be made to relevant guidelines including but not limited to *Contaminated Sites –*
- *Guidelines for Consultants Reporting on Contaminated Sites* (OEH, 2011)*; Guidelines on the Duty to Report Contamination under the Contaminated Land Management Act 1997* (EPA, 2015).

Describe management and mitigation measures

- Describe and assess the effectiveness or adequacy of any soil management and mitigation measures during construction and operation of the proposal including:

  a) erosion and sediment control measures

  b) proposals for site remediation – see *Managing Land Contamination, Planning Guidelines SEPP 55 – Remediation of Land* (Department of Urban Affairs and Planning and Environment Protection Authority, 1998)

  c) proposals for the management of these soils – see *Acid Sulfate Soil Manual* (Acid Sulfate Soil Advisory Committee 1998) and *Acid Sulfate Soils Assessment Guidelines* (Acid Sulfate Soil Advisory Committee 1998).

6. Waste and chemicals

Describe baseline conditions

- Describe any existing waste or chemicals operations related to the proposal.

Assess impacts

- Assess the adequacy of proposed measures to minimise natural resource consumption and minimise impacts from the handling, transporting, storage, processing and reprocessing of waste and/or chemicals.
- Reference should be made to: the EPA's *Waste Classification Guidelines 2014 (as in force from time to time)*
- If the proposal is an energy from waste facility it must:
    - demonstrate that the proposed operation will comply with the NSW EPA's Energy from Waste Policy Statement;
    - describe of the classes and quantities of waste that would be thermally treated at the facility;
    - demonstrate that waste used as a feedstock in the waste to energy plant would be the residual from a resource recovery process that maximises the recovery of material;
    - detail procedures that would be implemented to control the inputs to the waste to energy plant, including contingency measures that would be implemented if inappropriate materials are identified;
    - detail the location and size of stockpiles of unprocessed and processed recycled waste at the site;
    - demonstrate any waste material (e.g. biochar, ash) produced from the waste to energy facility for land application is fit-for-purpose and poses minimal risk of harm to the environment in order to meet the requirements for consideration of a resource recovery order and /or exemption by the EPA;
    - detail procedures for the management of other solid, liquid and gaseous waste streams;
    - describe how waste would be treated, stored, used, disposed and handled on site, and transported to and from the site, and the potential impacts associated with these issues, including current and future offsite waste disposal methods; and
    - identify the measures that would be implemented to ensure that the development is consistent with the aims, objectives and guidance in the *NSW Waste Avoidance and Resource Recovery Strategy 2014-21*.

Describe management and mitigation measures

- Outline measures to minimise the consumption of natural resources.
- Outline measures to avoid the generation of waste and promote the re-use and recycling and reprocessing of any waste.
- Outline measures to support any approved regional or industry waste plans.

7. Cumulative impacts

- Identify the extent that the receiving environment is already stressed by existing development and background levels of emissions to which this proposal will contribute.
- Assess the impact of the proposal against the long term air, noise and water quality objectives for the area or region.
- Identify infrastructure requirements flowing from the proposal (e.g. water and sewerage services, transport infrastructure upgrades).
- Assess likely impacts from such additional infrastructure and measures reasonably available to the proponent to contain such requirements or mitigate their impacts (e.g. travel demand management strategies).

F. List of approvals and licences

- Identify all approvals and licences required under environment protection legislation including details of all scheduled activities, types of ancillary activities and types of discharges (to air, land, water).

G. Compilation of mitigation measures

- Outline how the proposal and its environmental protection measures would be implemented and managed in an integrated manner so as to demonstrate that the proposal is capable of complying with statutory obligations under EPA licences or approvals (e.g. outline of an environmental management plan).
- The mitigation strategy should include the environmental management and cleaner production principles which would be followed when planning, designing, establishing and operating the proposal. It should include two sections, one setting out the program for managing the proposal and the other outlining the monitoring program with a feedback loop to the management program.

H. Justification for the Proposal

- Reasons should be included which justify undertaking the proposal in the manner proposed, having regard to the potential environmental impacts.

ATTACHMENT B: GUIDANCE MATERIAL

Title	Web address
Relevant Legislation	
Contaminated Land Management Act 1997	http://www.legislation.nsw.gov.au/#/view/act/1997/140
Environmentally Hazardous Chemicals Act 1985	http://www.legislation.nsw.gov.au/#/view/act/1985/14
Environmental Planning and Assessment Act 1979	http://www.legislation.nsw.gov.au/#/view/act/1979/203
Protection of the Environment Operations Act 1997	http://www.legislation.nsw.gov.au/#/view/act/1997/156
Water Management Act 2000	http://www.legislation.nsw.gov.au/#/view/act/2000/92
Licensing	
Guide to Licensing	www.epa.nsw.gov.au/licensing/licenceguide.htm
Air Issues	
Air Quality	
Approved methods for modelling and assessment of air pollutants in NSW (2016)	http://www.epa.nsw.gov.au/air/appmethods.htm
POEO (Clean Air) Regulation 2010	http://www.legislation.nsw.gov.au/#/view/regulation/2010/428
Noise and Vibration	
NSW Noise Policy for Industry	http://www.epa.nsw.gov.au/your-environment/noise/industrial-noise/noise-policy-for-industry-(2017)
Interim Construction Noise Guideline (DECC, 2009)	http://www.epa.nsw.gov.au/noise/constructnoise.htm
Assessing Vibration: a technical guideline (DEC, 2006)	http://www.epa.nsw.gov.au/noise/vibrationguide.htm
NSW Road Noise Policy (DECCW, 2011)	http://www.epa.nsw.gov.au/your-environment/noise/transport-noise
NSW Rail Infrastructure Noise Guideline (EPA, 2013)	http://www.epa.nsw.gov.au/your-environment/noise/transport-noise
Human Health Risk Assessment	

Environmental Health Risk Assessment: Guidelines for assessing human health risks from environmental hazards (enHealth, 2012)	http://www.eh.org.au/documents/item/916
Waste, Chemicals and Hazardous Materials and Radiation	
Waste	
Environmental Guidelines: Solid Waste Landfills (EPA, 2016)	http://www.epa.nsw.gov.au/waste/landfill-sites.htm
Draft Environmental Guidelines - Industrial Waste Landfilling (April 1998)	http://www.epa.nsw.gov.au/resources/waste/envguidlns/industrialfill.pdf
EPA's Waste Classification Guidelines 2014	http://www.epa.nsw.gov.au/wasteregulation/classify-guidelines.htm
Resource recovery orders and exemptions	http://www.epa.nsw.gov.au/wasteregulation/orders-exemptions.htm
European Unions Waste Incineration Directive 2000	http://ec.europa.eu/environment/archives/air/stationary/wid/legislation.htm
EPA's Energy from Waste Policy Statement	http://www.epa.nsw.gov.au/wastestrategy/energy-from-waste.htm
NSW Waste Avoidance and Resource Recovery Strategy 2014-2021	http://www.epa.nsw.gov.au/wastestrategy/warr.htm
Chemicals subject to Chemical Control Orders	
Chemical Control Orders (regulated through the EHC Act)	http://www.epa.nsw.gov.au/pesticides/CCOs.htm
National Protocol - Approval/Licensing of Trials of Technologies for the Treatment/Disposal of Schedule X Wastes - July 1994	Available in libraries
National Protocol for Approval/Licensing of Commercial Scale Facilities for the Treatment/Disposal of Schedule X Wastes - July 1994	Available in libraries
Water and Soils	
Acid sulphate soils	
Coastal acid sulfate soils guidance material	http://www.environment.nsw.gov.au/acidsulfatesoil/ and http://www.epa.nsw.gov.au/mao/acidsulfatesoils.htm
Acid Sulfate Soils Planning Maps	http://www.environment.nsw.gov.au/acidsulfatesoil/riskmaps.htm
Contaminated Sites Assessment and Remediation	
Managing land contamination: Planning Guidelines – SEPP 55 Remediation of Land	http://www.epa.nsw.gov.au/clm/planning.htm

Guidelines for Consultants Reporting on Contaminated Sites (EPA, 2000)	http://www.epa.nsw.gov.au/resources/clm/20110650consultantsglines.pdf
Guidelines for the NSW Site Auditor Scheme - 2nd edition (DEC, 2006)	http://www.epa.nsw.gov.au/resources/clm/auditorglines06121.pdf
Sampling Design Guidelines (EPA, 1995)	http://www.epa.nsw.gov.au/resources/clm/95059sampgdlne.pdf
National Environment Protection (Assessment of Site Contamination) Measure 1999 (or update)	http://www.scew.gov.au/nepms/assessment-site-contamination
Soils – general	
Managing land and soil	http://www.environment.nsw.gov.au/soils/landandsoil.htm
Managing urban stormwater for the protection of soils	http://www.environment.nsw.gov.au/stormwater/publications.htm
Landslide risk management guidelines	http://australiangeomechanics.org/admin/wp-content/uploads/2010/11/LRM2000-Concepts.pdf
Site Investigations for Urban Salinity (DLWC, 2002)	http://www.environment.nsw.gov.au/resources/salinity/booklet3siteinvestigationsforurbansalinity.pdf
Local Government Salinity Initiative Booklets	http://www.environment.nsw.gov.au/salinity/solutions/urban.htm
Water	
Water Quality Objectives	http://www.environment.nsw.gov.au/ieo/index.htm
ANZECC (2000) Guidelines for Fresh and Marine Water Quality	http://www.environment.gov.au/water/publications/quality/nwqms-guidelines-4-vol1.html
Applying Goals for Ambient Water Quality Guidance for Operations Officers - Mixing Zones	Contact the EPA on 131555
Approved Methods for the Sampling and Analysis of Water Pollutant in NSW (2004)	http://www.environment.nsw.gov.au/resources/legislation/approvedmethods-water.pdf

Our ref: DOC21/436356
Senders ref: SSD19425495 (Cumberland)

Shaun Williams
Energy Resource Assessments
Planning and Assessment Group
Department of Planning, Industry and Environment
4 Parramatta Square, 12 Darcy Street
Parramatta NSW 2150

Dear Mr Williams,

Subject: Request for SEARs for Smithfield Recycling Centre, 132-144 Warren Road, Smithfield (SSD 19425495)

Thank you for your e-mail received on 26 May 2021, requesting input from Environment, Energy and Science Group (EES) in the Department of Planning, Industry and Environment (DPIE) on the Request for SEARs for Smithfield Recycling Centre, located at 132-144 Warren Road, Smithfield.

EES has reviewed the scoping report prepared by MRA Consulting (Version 3) dated 14 May 2021 and provides the following comments and recommendations at **Attachment A.**

Biodiversity

EES recommends the proponent addresses the attached standard EES biodiversity requirements. Please note in relation to point (4) of the standard EES biodiversity environmental assessment requirements in Attachment A the minimum information and spatial data requirements are in Tables 24 and 25 of the Biodiversity Assessment Method (BAM), and as required more broadly by the revised BAM 2020. Other requirements, such as those relating to the BAM Calculator and Biodiversity Offsets and Agreements Management System (BOAMS), are detailed in various guidelines, practice notes, updates and other advices issued by EES to BAM accredited assessors – see https://www.environment.nsw.gov.au/topics/animals-and-plants/biodiversity/accredited-assessors/assessor-resources.

Flooding

EES recommends the proponent addresses the attached standard EES flooding requirements.

Water and Soils

EES recommends the proponent addresses the attached standard EES flooding requirements.

Should you have any queries regarding this matter, please contact Bronwyn Smith, Senior Conservation Planning Officer on 9873 8604 or bronwyn.smith@environment.nsw.gov.au

Yours sincerely

S. Harrison

28/05/21

Susan Harrison
Senior Team Leader Planning
Greater Sydney Branch
Biodiversity and Conservation Division

Attachment A – EES Environmental Assessment Requirements – Smithfield Recycling Centre, located at 132-144 Warren Road, Smithfield (SSD 19425495)

Biodiversity
1. Biodiversity impacts related to the proposed development are to be assessed in accordance with Section 7.9 of the Biodiversity Conservation Act 2017 the Biodiversity Assessment Method and documented in a Biodiversity Development Assessment Report (BDAR). The BDAR must include information in the form detailed in the Biodiversity Conservation Act 2016 (s6.12), Biodiversity Conservation Regulation 2017 (s6.8) and Biodiversity Assessment Method, including an assessment of the impacts of the proposal (including an assessment of impacts prescribed by the regulations). 2. The BDAR must document the application of the avoid, minimise and offset framework including assessing all direct, indirect and prescribed impacts in accordance with the Biodiversity Assessment Method. 3. The BDAR must include details of the measures proposed to address the offset obligation as follows: • The total number and classes of biodiversity credits required to be retired for the development/project; • The number and classes of like-for-like biodiversity credits proposed to be retired; • The number and classes of biodiversity credits proposed to be retired in accordance with the variation rules; • Any proposal to fund a biodiversity conservation action; • Any proposal to conduct ecological rehabilitation (if a mining project); • Any proposal to make a payment to the Biodiversity Conservation Fund. If seeking approval to use the variation rules, the BDAR must contain details of the reasonable steps that have been taken to obtain requisite like-for-like biodiversity credits. 4. The BDAR must be submitted with all spatial data associated with the survey and assessment as per Appendix 11 of the BAM. 5. The BDAR must be prepared by a person accredited in accordance with the Accreditation Scheme for the Application of the Biodiversity Assessment Method Order 2017 under s6.10 of the Biodiversity Conservation Act 2016.

Water and soils
6. The EIS must map the following features relevant to water and soils including: a. Acid sulfate soils (Class 1, 2, 3 or 4 on the Acid Sulfate Soil Planning Map). b. Rivers, streams, wetlands, estuaries (as described in s4.2 of the Biodiversity Assessment Method) c. Wetlands as described in s4.2 of the Biodiversity Assessment Method d. Groundwater e. Groundwater dependent ecosystems f. Proposed intake and discharge locations.
7. The EIS must describe background conditions for any water resource likely to be affected by the development, including: a. Existing surface and groundwater b. Hydrology, including volume, frequency and quality of discharges at proposed intake and discharge locations c. Water Quality Objectives (as endorsed by the NSW Government http://www.environment.nsw.gov.au/ieo/index.htm) including groundwater as appropriate that represent the community's uses and values for the receiving waters d. Indicators and trigger values/criteria for the environmental values identified at (c) in accordance with the ANZECC (2000) Guidelines for Fresh and Marine Water Quality and/or local objectives, criteria or targets endorsed by the NSW Government e. Risk-based Framework for Considering Waterway Health Outcomes in Strategic Land-use Planning Decisions http://www.environment.nsw.gov.au/research-and-publications/publications-search/risk-based-framework-for-considering-waterway-health-outcomes-in-strategic-land-use-planning.

8. The EIS must assess the impact of the development on hydrology, including:
    a. Water balance including quantity, quality and source.
    b. Effects to downstream rivers, wetlands, estuaries, marine waters and floodplain areas.
    c. Effects to downstream water-dependent fauna and flora including groundwater dependent ecosystems.
    d. Impacts to natural processes and functions within rivers, wetlands, estuaries and floodplains that affect river system and landscape health such as nutrient flow, aquatic connectivity and access to habitat for spawning and refuge (e.g. river benches).
    e. Changes to environmental water availability, both regulated/licensed and unregulated/rules-based sources of such water.
    f. Mitigating effects of proposed stormwater and wastewater management during and after construction on hydrological attributes such as volumes, flow rates, management methods and re-use options.
    g. Identification of proposed monitoring of hydrological attributes.

Flooding and coastal hazards

9. The EIS must map the following features relevant to flooding as described in the Floodplain Development Manual 2005 (NSW Government 2005) including:
    a. Flood prone land.
    b. Flood planning area, the area below the flood planning level.
    c. Hydraulic categorisation (floodways and flood storage areas)
    d. Flood Hazard.
10. The EIS must describe flood assessment and modelling undertaken in determining the design flood levels for events, including a minimum of the 5% Annual Exceedance Probability (AEP), 1% AEP, flood levels and the probable maximum flood, or an equivalent extreme event.
11. The EIS must model the effect of the proposed development (including fill) on the flood behaviour under the following scenarios:
        a. Current flood behaviour for a range of design events as identified in 14 above. This includes the 0.5% and 0.2% AEP year flood events as proxies for assessing sensitivity to an increase in rainfall intensity of flood producing rainfall events due to climate change.

12. Modelling in the EIS must consider and document:
    a. Existing council flood studies in the area and examine consistency to the flood behaviour documented in these studies.
    b. The impact on existing flood behaviour for a full range of flood events including up to the probable maximum flood, or an equivalent extreme flood.
    c. Impacts of the development on flood behaviour resulting in detrimental changes in potential flood affection of other developments or land. This may include redirection of flow, flow velocities, flood levels, hazard categories and hydraulic categories
    d. Relevant provisions of the NSW Floodplain Development Manual 2005.
13. The EIS must assess the impacts on the proposed development on flood behaviour, including:
    a. Whether there will be detrimental increases in the potential flood affectation of other properties, assets and infrastructure.
    b. Consistency with Council floodplain risk management plans.
    c. Consistency with any Rural Floodplain Management Plans.
    d. Compatibility with the flood hazard of the land.
    e. Compatibility with the hydraulic functions of flow conveyance in floodways and storage in flood storage areas of the land.
    f. Whether there will be adverse effect to beneficial inundation of the floodplain environment, on, adjacent to or downstream of the site.
    g. Whether there will be direct or indirect increase in erosion, siltation, destruction of riparian vegetation or a reduction in the stability of riverbanks or watercourses.
    h. Any impacts the development may have upon existing community emergency management arrangements for flooding. These matters are to be discussed with the NSW SES and Council.
    i. Whether the proposal incorporates specific measures to manage risk to life from flood. These matters are to be discussed with the NSW SES and Council.
    j. Emergency management, evacuation and access, and contingency measures for the development considering the full range or flood risk (based upon the probable maximum flood or an equivalent extreme flood event). These matters are to be discussed with and have the support of Council and the NSW SES.
    k. Any impacts the development may have on the social and economic costs to the community as consequence of flooding.

(END OF SUBMISSION)

23 July 2021

Esther Hughes
Principal Environmental Planner
MRA Consulting
esther@mraconsulting.com.au

RE: SSD-19425495 Smithfield Recycling Centre at 132-144 Warren Road, Smithfield

Thank you for notifying Sydney Water of SSD-19425495 at 132-144 Warren Road, Smithfield, which proposes to change the use of the site to a materials recycling facility capable of processing 150,000 tonnes per annum of commingled recyclables and amend the site infrastructure needed to support the proposal. Incoming materials will be dry and non-putrescible, consisting of paper and cardboard, plastic, metal and glass.

Sydney Water has reviewed the application based on the information supplied and provides the following comments to assist in planning the servicing needs of the proposed development.

- Sydney Water requests that detailed domestic and industrial water and wastewater demands are specified within the EIS. Upon receipt of this, Sydney Water may advise if a Feasibility may be required.
- Indicative stormwater, trade wastewater and water re-use quantities should also be included within the EIS report.

Please see below the Secretary's Environmental Assessment Requirements relating to the provision of water-related services for the subject site.

Water-related Infrastructure Requirements

1. The proponent of development should determine service demands following servicing investigations and demonstrate that satisfactory arrangements for drinking water, wastewater, and recycled water (if required) services have been made.
2. The proponent must obtain endorsement and/or approval from Sydney Water to ensure that the proposed development does not adversely impact on any existing water, wastewater or stormwater main, or other Sydney Water asset, including any easement or property. When determining landscaping options, the proponent should take into account that certain tree species can cause cracking or blockage of Sydney Water pipes and therefore should be avoided.
3. Strict requirements for Sydney Water's stormwater assets (for certain types of development) may apply to this site. The proponent should ensure that satisfactory steps/measures been taken to protect existing stormwater assets, such as avoiding building over and/or adjacent to stormwater assets and building bridges over stormwater assets. The proponent should consider taking measures to minimise or eliminate potential flooding, degradation of water quality, and avoid adverse impacts on any heritage items, and create pipeline easements where required.
4. **Whilst this is noted as a dry waste facility, a trade waste agreement may be required as a result of managing the protection of our assets, especially from washdown and treatment and storage of contaminated loads, for example.** As

this development may create trade wastewater, Sydney Water has trade wastewater requirements which need to be met. By law, the property owner must submit an application requesting permission to discharge trade wastewater to Sydney Water's sewerage system. The proponent must obtain Sydney Water approval for this permit before any business activities can commence. Given this development comprises waste operations, wastewater may discharge into a sewerage area that is subject to wastewater reuse. Please contact Sydney Water's Business Customer Services to assess what is required, send your permit application or to find out more information. They can be contacted at the following email address: businesscustomers@sydneywater.com.au.

Integrated Water Cycle Management

5. The proponent should outline any sustainability initiatives that will minimise/reduce the demand for drinking water, including any alternative water supply and end uses of drinking and non-drinking water that may be proposed, and demonstrate water sensitive urban design (principles are used), and any water conservation measures that are likely to be proposed. This will allow Sydney Water to determine the impact of the proposed development on our existing services and required system capacity to service the development.

If you require any further information, please do not hesitate to contact the Growth Planning Team at urbangrowth@sydneywater.com.au.

Yours sincerely,

Kristine Leitch
Commercial Growth Manager
City Growth and Development, Business Development Group
Sydney Water, 1 Smith Street, Parramatta NSW 2150

Our Reference: SYD21/00639
DPIE Reference: SSD-19425495

9 June 2021

Mr. Jim Betts
Secretary
Department of Planning, Industry and Environment
Locked Bag 5022,
Parramatta NSW 2124

Attention: Shaun Williams

Dear Mr. Betts,

REQUEST FOR SECRETARY'S ENVIRONMENTAL ASSESSMENT REQUIREMENTS
WARREN ROAD RECYCLING FACILITY
132-144 WARREN ROAD, SMITHFIELD

Thank you for referring the Secretary's Environmental Assessment Requirements (SEARs) regarding SSD-SSD-19425495 'Warren Road Recycling Facility' to Transport for NSW (TfNSW) for comment.

TfNSW has reviewed the submitted information and request the following additional issues in **TAB A** to be addressed as part of the traffic and transport impact assessment for the proposed development.

If you have any further inquiries in relation to this development application please contact Narelle Gonzales, Development Assessment Officer, on 0409 541 879 or by email at: development.sydney@transport.nsw.gov.au.

Yours sincerely,

Brendan Pegg
Senior Land Use Planner
Planning and Programs, Greater Sydney Division

TAB A

Key Issue - Transport and Accessibility:

Provide a transport and accessibility impact assessment, which includes, but is not limited to the following:

- Details of all traffic types and volumes likely to be generated during construction and operation, including a description of haul routes and vehicle types. Traffic flows are to be shown diagrammatically to a level of detail sufficient for easy interpretation;
- An assessment of the predicted impacts of this traffic on road safety and the capacity of the road network, including consideration of cumulative traffic impacts at key intersections using SIDRA or similar traffic model. This is to include the identification and consideration of approved and proposed developments/planning proposals/road upgrades in the vicinity;
- Plans demonstrating how all vehicles likely to be generated during construction and operation and awaiting loading, unloading or servicing can be accommodated on the site to avoid queuing in the street network;
- Detailed plans of the site access and proposed layout of the internal road and pedestrian network and parking on site in accordance with the relevant Australian Standards and Council's DCP;
- Swept path diagrams depicting vehicles entering, exiting and manoeuvring throughout the site;
- Details of road upgrades, infrastructure works, or new roads or access points required for the development;
- Details of travel demand management measures to minimise the impact on general traffic and bus operations, including details of a location-specific sustainable travel plan (Green Travel Plan and specific Workplace Travel Plan) and the provision of facilities to increase the non-car mode share for travel to and from the site;
- Details of the adequacy of existing public transport or any future public transport infrastructure within the vicinity of the site, pedestrian and bicycle networks and associated infrastructure to meet the likely future demand for the proposed development; and
- Measures to integrate the development with the existing/future public transport network.

Relevant Policies and Guidelines:

- Guide to Traffic Generating Developments (Roads and Maritime Services, 2002).
- NSW Freight and Ports Plans 2018-2023.
- Guidelines for Planning and Assessment of Road Freight Access in Industrial Areas.
- Cycling Aspects of Austroads Guides.
- NSW Planning Guidelines for Walking and Cycling (Department of Infrastructure, Planning and Natural Resources (DIPNR), 2004).
- Guide to Traffic Management Part 12: Integrated Transport Assessments for Developments (Austroads, 2020).
- Australian Standard 2890.3 Parking facilities, Part 3: Bicycle parking (AS 890.3).

Appendix B: Recent Rainfall Events Photos

Date:02/03/22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Date: 08/03/22