City Development



To:	Southern Regional Planning F	Panel	
Copy:			
From:	Andre Vernez Senior Development Planner Shoalhaven City Council		
Subject:	PPSSTH-136 - Council Refer DP 808415 - Construction of Waste or Resource Managem	ence RA21/100 Materials Recy nent Facility	02 - Flatrock Rd, MUNDAMIA - Lot 436 cling Facility as Addition to an Existing
Date:	8 December 2022		
File:	RA21/1002/4	CONTACT:	Andre Vernez - 02 4429 5210

Council provides the following addendum to the submitted assessment report, addressing the matters raised in the record of deferral issued by the Southern Regional Planning Panel on 17 November 2022.

1. Clear description of the development

Confirmation of the scope of the Application before the Panel for determination noting that clearing, bulk earthworks, platform, and retaining wall construction have been/are already being undertaken.

The applicant has confirmed that the activities covered by this application include construction of the shed, installation/fit-out of process machinery, installation of fire suppression system, sealing of the associated parking and manoeuvring/access areas, line marking and signage (within the development footprint only), internal drainage (connected to leachate dam), rainwater tanks and stormwater overflow (connected to stormwater dam).

Updated engineering plans (Council's reference: D22/489199) have been provided for the proposed DA works showing Stage 2 masterplan works completed. This is intended to make it easier to interpret what works are proposed as part of this application and what should be considered 'complete' as part of masterplan work. Stage 2 masterplan work is shown on the plans greyed out. Work that forms part of this application is shown in black.

Please refer to the applicant response dated 18 November 2022 (Council's reference: D22/489193) for further comment in relation to Stage 2 masterplan work.

For convenience, the documents referred to above are attached to this report.

2. Justification for the proposed Materials Recycling Facility (MRF)

Justification for constructing the MRF in terms of the expected waste diversion rates and resource recovery markets. Where possible, the justification should reference relevant policy documents and relevant targets for MRFs (e.g. targets established under the NSW EPA Waste Avoidance and Resource Recovery Strategy).

Please refer to the applicant response dated 18 November 2022 for justification for the proposed facility.

It is noted:

- The MRF is the primary landfill for the Shoalhaven LGA.
- In 2019, Council resolved to discontinue tendering out management of the kerbside comingled collection.
- The contingency plan involved a temporary recycling drop off point at the West Nowra Facility with sorted material then bulk hauling to Sydney. The long-term solution is the MRF.
- Council's business plan outlines the strategy and costs associated with the facility inclusive
 of the benefits as opposed to transporting elsewhere.
- The proposed MRF will provide greater flexibility to adapt to changing recycling and reuse industries and improve Council's landfill diversion rates.
- In Council's Waste Reduction Management Strategy 2017/18-2021/22, Council envisages to become a leader in recovery and recyclables by minimising the 'quantities of waste disposal to landfill by re-using a processing waste types that would normally end up in landfill'.
- The Shoalhaven is achieving lower recycling rates than the surrounding local council areas. The overall recycling rate for Shoalhaven, Shellharbour, Wollongong and Wingecarribee have been dropping slowly since 2011/12. In 2018/19 Shoalhaven's landfill diversion rate was 33% (as shown in the figure below).

bside Bin Only ecycling Rate	90% - 80% - 70% - 60% - 50% - 40% -					×
Ker	30% 20%	2011- 12	2012- 13	2013- 14	2014- 15	2015 16
Wingec	arribee	64%	77%	70%	80%	60%
Kiama		56%	54%	58%	57%	63%
Wollong	jong	50%	48%	49%	50%	48%
Shellha	rbour	52%	48%	50%	50%	50%
Shoalha	aven	33%	33%	32%	31%	29%

Figure 6: Historic kerbside only recycling and diversion performance 2011/12 to 2015/16. Source: ISJO Regional Waste Strategy 2017-2021 pg 20.

 Substantial improvement and upgrades are required to achieve the recycling and landfill diversion targets set by the NSW EPA in their Waste Avoidance and Resource Recovery Strategy 2014-2021. An audit of Council's kerbside comingled recycling conducted in September 2021 determined that 89.8% of the material in the kerbside stream is recyclable (as shown in the figure below).



Figure 7: Breakdown of material presented on Council's kerbside recyclable collections. Source: Kerbside Recycling Bin Audit Report 2021 pg 12.

 With the current contamination rates and existing technology available at the Spring Farm processing facility approximately 25% of incoming recycling tonnes are being disposed of to landfill. Council's proposed MRF specifications achieve high purity (>99%) and high capture rates (>90%), significantly increasing diversion from landfill.

3. Clarification regarding site investigation requirements for contamination

An explanation of the proposed recommended conditions of consent relating to potential contamination on the site, which appear to be at odds with the recommendations of the Preliminary Site Investigation (PSI), which concluded that there is a low risk of site contamination, and that no further investigation is required. As such, the PSI recommended an unexpected finds protocol in the conditions only.

Clarification of whether there is other technical information which suggests an increased risk and requirement for a Detailed Site Investigation, noting this is required by the recommended condition of consent (No. 16).

Council's Environmental Health Officer has reviewed the original referral for this application and advised that <u>Condition 16 should not be imposed.</u> There is no additional information or outcomes from the PSI that would require a Detailed Site Investigation. There are no contaminants of concern.

Condition 16 stated:

16. Contamination – Detailed Site Investigation

Prior to the commencement of any work that involves the disturbance of unsealed surfaces, a Detailed Site Investigation (DSI) must be undertaken by an appropriately qualified consultant. This assessment and subsequent report must be prepared in accordance with relevant guidelines made or approved by the NSW Environment Protection Authority under section 105 of the Contaminated Land Management Act 1997 (NSW).

A copy of the Detailed Site Investigation Report must be submitted to Shoalhaven City Council for review and written approval prior to works commencing.

Note: An appropriately qualified environmental consultant will have qualifications equivalent to CEnvP "Site Contamination" (SC) Specialist - by Certified Environmental Practitioner or 'Certified Professional Soil Scientist' (CPSS CSAM) by Soil Science Australia (SSA).

It is recommended that the condition of consent relating to unexpected finds should be retained as a precautionary measure.

4. Clarification regarding the location of asset protection zones (APZ) for the site.

Clarification of whether the APZs recommended for this site are to be contained within the site boundary, and if relevant, the recommended widths for these APZs.

Please refer to the applicant response dated 18 November 2022 for clarification regarding the location of APZs for the subject site.

The required APZs are outlined in Table 2, page 10 of the revised bushfire risk assessment report dated 20 May 2022 (reproduced below).

		A	1.12.5.		
Direction	Dominate Vegetation Type	Effective Bushfire Slope	APZ Provided (m)	BAL	Comments
		Proposed Mater	rial Recovery Faci	lity	
North	Forest	0 to 5° Downslope	23.9m	BAL 40	APZs already established.
West	Forest	0 to 5° Downslope	7.9m	BAL-FZ	APZs already established.
All Other Directions	Managed Land	-	>100m	BAL Low	Managed land

Table 2: Breakdown of the vegetation type, slope class and the required APZ in accordance with Appendix 1 with Table

The APZs are to be contained within the boundaries of the site.

5. Stormwater management and proposed condition No. 26

Clarification regarding the proposed stormwater (surface water) management for the operational MRF facility as separate from any sediment, erosion, and surface water management activities associated with prior earthworks on the site.

The applicant has confirmed in their response dated 18 November 2022 that stormwater controls proposed as part of this application are roof water from the building and internal floor drainage within the building.

The roof water will be collected in guttering and downpipes and piped around the building to the rainwater tanks proposed at the southern end of the fill pad. The overflow from the rainwater tanks will be connected to the northern stormwater basin (as modified by Stage 2 masterplan work).

The internal floor pit and pipe drainage system (marked as TW on the engineering plans) are to collect runoff from within the building and is piped to a single pit outside the southwest corner of the building. The internal building collection system is potentially affected by leachate contamination and as such will be connected to the existing leachate dam.

Surface water from the bitumen sealed areas is to be directed to an existing pit and pipe system installed as part of the masterplan earthworks. The pit and pipe system is connected to the northern sedimentation basin and was installed during earthworks undertaken previously. As this system has already been installed it is shown 'greyed out', or not part of the proposed DA works on the revised engineering plans. Similarly, the swale drains, subsurface road drainage, diversion banks and reconfigured northern stormwater dam are all masterplan works and do not form part of the proposed DA works (greyed out on the plans).

Council's Development Engineer has reviewed and advised that no amendment is required to Condition 26 or any other engineering related conditions of consent.

6. Water supply and usage conditions from Shoalhaven Water

A summary of Shoalhaven Water's response to the Council's second referral, including what (if any) condition(s) of consent were required by Shoalhaven Water in its response.

In their referral response dated 7 March 2022, Council's Shoalhaven Water made no comment but provided the following recommended conditions of consent:

Shoalhaven Water – Certificate of Compliance

A Certificate of Compliance must be obtained to verify that all necessary requirements for matters relating to water supply and sewerage (where applicable) for the development have been made with Shoalhaven Water. A Certificate of Compliance must be obtained from Shoalhaven Water after satisfactory compliance with all conditions as listed on the Notice of Requirements and prior to the issue of an Occupation Certificate, Subdivision Certificate or Caravan Park Approval, as the case may be.

An application for a Certificate of Compliance is to be made once the Development Consent has been granted.

Shoalhaven Water – Prior to the Issue of a Construction Certificate

Prior to the issue of a Construction Certificate, all conditions listed on the Shoalhaven Water Notice of Requirements under the heading "Prior to the Issue of a Construction Certificate" must be complied with and accepted by Shoalhaven Water. Written notification must be issued by Shoalhaven Water and provided to the Certifier.

Shoalhaven Water – Certificate of Compliance

Prior to the issue of any Occupation Certificate, a Certificate of Compliance under section 307 of the Water Management Act 2000 must be obtained from Shoalhaven Water to verify satisfactory compliance with all conditions for the supply of water and sewerage, as listed on the Notice of Requirements.

If the development is to be completed in approved stages, or application is subsequently made for staging of the development, separate Compliance Certificates must be obtained for each stage of the development.

Shoalhaven Water has confirmed the above conditions are adequate for this development and there are no additional requirements.

7. EPA GTAs

Clarification as to whether the increase in traffic noise associated with the MRF is below the established criteria (<2 dB(A)), and consideration of whether the potential impact on nearby residents is acceptable and whether any additional conditions are required to mitigate residual traffic noise.

Please refer to the applicant response dated 18 November 2022 for clarification in relation to traffic noise.

Council's Environmental Health Officer has reviewed the applicant's response with consideration given to whether the potential impact on nearby residents is acceptable.

The Officer advised that the volume of material entering the site will be as it is today, and additional conditions of consent are not required.

8. Environmental Monitoring

A review of the recommended conditions that require monitoring (e.g. meteorological monitoring and acoustic monitoring) and complaints protocols against equivalent conditions required by the existing EPA licence and existing conditions of consent, and consideration whether the new monitoring and complaints handling conditions are required for the MRF.

Council's Environmental Health Officer has reviewed the original referral for this application with consideration given as to whether new monitoring or complaints handling conditions are required. The conditions that form the EPA General Terms of Approval Notice No. 1621579 are considered adequate to the regulation of the proposed development, given the EPA licence imposes stringent conditions on the proposed development for monitoring and Council does not need to add to these.

9. Revised Conditions of Consent

The Panel requested that the Council review all the consent conditions to:

- ensure that all conditions are relevant to the site and to remove those that are superfluous.
- include a requirement for an operational management plan which includes references to monitoring requirements under the existing EPA licence for the site.
- confirm all relevant reports are included in proposed condition 1 or that relevant recommendations in the technical reports are included by way of other proposed conditions.

The conditions of consent have been reviewed in consultation with the applicant.

The applicant proposed a number of amendments which have been considered.

The following amendments have been made:

• <u>Condition 1</u> has been modified.

General

The consent relates to Integrated development to construct and operate a Materials Recycling Facility (MRF) with a processing capacity of up to 24,000 tonnes per annum of waste materials and as documented on the stamped plans/documentation, or as modified by the conditions of this consent. The development must be carried out in accordance with this consent. If there is inconsistency between the stamped plans/documentation and the conditions of consent, the conditions prevail to the extent of that inconsistency.

Stamped plans/documents	Ref/sheet no.	Prepared by	Dated
Site Plan	Project No. DN200244 Drawing No. A001	MI Engineers	03/11/2022 (Revision C)
Stormwater Plan	Project No. DN200244 Drawing No. C200	MI Engineers	04/06/2021 (Revision C)
Ground Floor Plan	Project No. DN200244 Drawing No. A002	MI Engineers	03/11/2022 (Revision C)
Roof Plan	Project No. DN200244 Drawing No. A003	MI Engineers	03/11/2022 (Revision C)

Elevations	Project No. DN200244 Drawing No. A004 & A005	MI Engineers	03/11/2022 (Revision C)
Typical Cross Sections	Project No. DN200244 Drawing No. A020	MI Engineers	03/11/2022 (Revision C)
Linemarking & Signage Plan	Project No. DN200244 Drawing No. C260	MI Engineers	15/03/2022 (Revision A)
Statement of Environmental Effects	Reference No. P20-143	PDC Lawyers & Town Planners	05/11/2021
Integrated Water Cycle Management Strategy	Report No. DN200244.R01	MI Engineers	10/03/2021
Bushfire Risk Assessment Report	Reference No. S021424	SET Consultants Pty Ltd	20/05/2022

Note: Any alteration to the plans and/or documentation must be submitted for the approval of Council. Such alterations may require the lodgement of an application to amend the consent under section 4.55 of the Environmental Planning and Assessment Act, or a new development application.

• <u>Condition 5</u> in relation to the stormwater outlet has been deleted.

Council's Environmental Assessment Officer has advised that the revised engineering plans have removed the stormwater outlet in the north-eastern corner of the subject site, therefore this condition is no longer required and can be deleted. If future stormwater works are planned in this area, the appropriate environmental assessment must be completed prior to approval, due to the potential impacts to Threatened species occurring in this area.

• <u>Condition 6 (formerly Condition 7)</u> in relation to air quality discharges has been modified.

Air Quality Discharges

The Applicant must ensure the development does not cause or permit the emission of any offensive odour (as defined in the *Protection of the Environment Operations Act 1997* (POEO Act).

The Applicant must install and operate equipment in line with best practice as specified in the environment protection licence applicable to the site.

 <u>Condition 8 (formerly Condition 9)</u> in relation to the EPA General Terms of Approval has been modified.

NSW Environment Protection Authority

The conditions of the General Terms of Approval issued by the NSW Environment Protection Authority, Notice No: 1621579, dated 14 September 2022, as defining the

Environmental Protection Licence 5877 (and its revisions), are included as conditions of this consent (as attached) and must be complied with.

- <u>Condition 16</u> in relation to contamination and the Detailed Site Investigation has been deleted.
- <u>Condition 17</u> in relation to an Operational Management Plan has been inserted.

Operational Management Plan

Prior to the commencement of works, an Operational Management Plan (OMP) prepared in accordance with the Statement of Environmental Effects by PDC Lawyers & Town Planners (Reference No. P20-143, dated 05/11/2021) must be submitted to Council for approval and include reference to the monitoring requirements under the existing Environmental Protection Licence for the subject site.

A report must be provided to Council annually to demonstrate compliance with the approved OMP to ensure adequate management and monitoring.

<u>Condition 18</u> in relation to an amended Waste Management Plan (to reflect the updated proposal) has been inserted.

Amended Waste Management Plan

An amended Waste Management Plan (WMP) must be prepared in accordance with Chapter G7 of Shoalhaven Development Control Plan 2014. The WMP must be approved by Council or the Certifier prior to the commencement of works.

 <u>Condition 33</u> in relation to compliance with the Shoalhaven Water Notice of Requirements (to reflect the recommended conditions in the Shoalhaven Water referral) has been inserted.

Shoalhaven Water – Prior to the Issue of a Construction Certificate

Prior to the issue of a Construction Certificate, all conditions listed on the Shoalhaven Water Notice of Requirements under the heading "Prior to the Issue of a Construction Certificate" must be complied with and accepted by Shoalhaven Water. Written notification must be issued by Shoalhaven Water and provided to the Certifier.

 <u>Condition 35</u> in relation to compliance with the Waste Management Plan during works has been inserted.

Waste Management Plan

All waste must be contained within the site during construction and then be recycled in accordance with the approved Waste Management Plan (WMP) or removed to an authorised waste disposal facility. Waste must not be placed in any location or in any manner that would allow it to fall, descend, blow, wash, percolate or otherwise escape from the site. Compliance with the WMP must be demonstrated by the submission of tip receipts to the Certifier.

Note: "Waste" is defined in the Dictionary to the Protection of the Environment Operations Act 1997 (POEO Act).

 <u>Condition 56</u> in relation to compliance with the approved Operational Management Plan has been inserted.

Operational Management Plan

Activities on the subject property must be in accordance with the approved Operational Management Plan (OMP). The owner and occupier must comply with the actions and requirements of the approved OMP. The annual report required by Condition 17, will be referred to in order to ascertain compliance with the OMP.

Andre Vernez Senior Development Planner Date: 13 December 2022



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WOLLONGONG OFFICE Suite 3, 128/134 Crown Street, Wollongong NSW 2500 Tel (02) 4423 0566

www.miengineers.com

APPROXIMATE AREA OF WORKS

WEST NOWRA MATERIAL RECYCLING FACILITY - BUILDING

DO NOT SCALE

120 FLATROCK ROAD, MUNDAMIA NSW 2540



REVISION	AMENDMENTS	DATE	CKD	APP
С	ISSUED FOR DA APPROVAL	03.11.22	AS	AJ
В	ISSUED FOR DA APPROVAL	08.04.22	AS	AJ
А	ISSUED FOR DA APPROVAL	04.04.22	AS	AJ



LOCALITY PLAN N.T.S.



ARCHITECT

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DRAWING NAME:

COVER SHEET

DRAWING INDEX

DN200244 A000 COVER SHEET DN200244 A001 SITE PLAN DN200244 A002 GROUND FLOOR PLAN DN200244 A003 ROOF PLAN DN200244 A004 ELEVATIONS SHEET 1 DN200244 A005 ELEVATIONS SHEET 2 DN200244 A006 FINISHES & DETAILS SHEET DN200244 A020 TYPICAL CROSS SECTIONS



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ROOF PLAN SCALE 1:250



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WEST NOWRA MATER

120 FLATROCK ROAD, DRAWING NAME:

ROOF PLAN

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FINISHES LEGEND

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FINISHES LEGEND

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FINISHES LEGEND

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WC1
RS1
CF1

ROOF CLADDING TYPE 1 ROOF CLADDING TYPE 2 WALL CLADDING ROLLER SHUTTER FINISH CONCRETE FLOOR FINISH

(1)RS1



NOT FOR CONSTRUCTION

WEST NOWRA MATERIAL RECYCLING FACILITY - BUILDING DRAWING STATUS DRAWING No. A005 PRELIMINARY PROJECT No. **REVISION:** С DN200244

EXTER	IOR FINISHES SCHEDULE			
TAG	ITEM	MATERIAL FINISH	COLOUR	SAMPLE
RC1	ROOF CLADDING INCLUDING FLASHINGS / GUTTERS / ROOF ACCESSORIES / DOWNPIPES	LYSAGHTS 'KLIP-LOK' PROFILE FOR ROOF	PALE EUCALYPT	
RC2	TRANSLUCENT ROOF SHEET	TRANSLUCENT ROOF SHEET	TRANSLUCENT SHEET	
WC1	WALL CLADDING	COLORBOND STEEL 'CUSTOM ORB' PROFILE	PALE EUCALYPT	
RS1	ROLLER SHUTTER FINISH	MOTORISED REMOTE FUNCTION INDUSTRIAL ROLLER SHUTTER	PALE EUCALYPT	
CF1	CONCRETE FLOOR FINISH	CLASS 2 STEEL TOWEL	-	

TRADE WASTE PIT SCHEDULE						
LABEL	PIT TYPE	TOP OF GRATE R.L.	INVERT R.L.	COMMENT		
PIT INT1	900x900 PRECAST CONCRETE PIT CLASS 'D' GATIC LID	36.96	34.20	PUMP OUT PIT (INTERNAL ALARM SYSTEM BY OTHERS)		
PIT INT2	900x900 PRECAST CONCRETE PIT CLASS 'D' GRATED LID	36.95	34.38	LOCALLY GRADE FLOOR TO PIT GRATES, TYPICAL		
PIT INT3	900x900 PRECAST CONCRETE PIT CLASS 'D' GRATED LID	36.95	34.63			
PIT INT4	900x900 PRECAST CONCRETE PIT CLASS 'D' GRATED LID	36.95	34.88			
PIT INT5	900x900 PRECAST CONCRETE PIT CLASS 'D' GRATED LID	36.95	35.13			
PIT INT6	900x900 PRECAST CONCRETE PIT CLASS 'D' GRATED LID	36.57	35.25			
PIT INT7	900x900 PRECAST CONCRETE PIT CLASS 'D' GRATED LID	36.57	35.39			
PIT INT8	900x900 PRECAST CONCRETE PIT CLASS 'D' GRATED LID	36.57	35.53			
PIT INT9	900x900 PRECAST CONCRETE PIT CLASS 'D' GRATED LID	36.57	35.67			
PIT INT10	900x900 PRECAST CONCRETE PIT CLASS 'D' GRATED LID	36.95	35.82			
PIT INT11	900x900 PRECAST CONCRETE PIT CLASS 'D' GRATED LID	36.95	36.05			
PIT INT12	900x900 PRECAST CONCRETE PIT CLASS 'D' GRATED LID	36.95	35.82			
PIT INT13	900x900 PRECAST CONCRETE PIT CLASS 'D' GRATED LID	36.95	36.05			
PIT INT14	900x900 PRECAST CONCRETE PIT CLASS 'D' GRATED LID	36.95	35.82			
PIT INT15	900x900 PRECAST CONCRETE PIT CLASS 'D' GRATED LID	36.95	36.05			
	TRADE V	VASTE NC	DTES			

TRADE WASTE PIT & PIPES SHALL BE GENERALLY IN ACCORDANCE WITH AS3500.3

PIPES OF 300mm DIA. AND UNDER SHALL BE uPVC TO AS1254 U.N.O. BACKFILL TRENCHES WITH APPROVED FILL, SUCH AS SANDY LOAM, COMPACTED IN 200mm LAYERS TO 98% OF

STANDARD DENSITY TO AS1289.5.1.1.

ALL PITS DEEPER THAN 1200mm TO HAVE CLIMB IRONS TO AS1657.

PROVIDE MIN. 30mm FALL ACROSS PITS. ALL PITS TO HAVE MASS CONCRETE BENCHING TO ENSURE FLUID DOES NOT POND WITHIN THE PIT.

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SCALE 1:10



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THIS DRAWING AND THE CONCEPTS CONTAINED PROJECT : DRAWING NAME:

FINISHES & DETAILS SHEET









shoalhaven.nsw.gov.au 🖪 🛛 🖬 🛥 🛩

Council Reference: 65646E (D22/486502) Your Reference:

18/11/2022

By email only: Andre.Vernez@shoalhaven.nsw.gov.au

Attention: Andre Vernez

Dear

RA21/1002 Response to Council's Request for Additional Information Lot 436 DP 808415 – Flatrock Road, Mundamia NSW

I am writing in response to the additional information requested by Council 17th November, following the South East Regional Planning Panel held 25 October 2022.

1. Clear description of the development.

The activities covered by this development application are construction of the shed, installation/fit-out of process machinery, installation of fire suppression system, sealing of the associated parking and maneuvering/access areas, line marking and signage (within the development footprint only), internal drainage (connected to leachate dam), rainwater tanks and stormwater overflow (connected to stormwater dam).

Updated engineering plans for the proposed DA works have been provided with this submission showing Stage 2 masterplan works completed. This makes it easier to interpret what works are included in the current development application and what should be considered 'complete' as part of masterplan work. Stage 2 masterplan work is shown on the plans greyed out. Work that forms part of the Development Application is shown in black.

Stage 2 Masterplan works are not included in the application. As noted in the correspondence from Council, clearing, earthworks, surface reshaping involving site filling and retaining wall construction have already been undertaken. These works do not form part of the current Development Application.

The Stage 2 works were completed as part of stage 2 of the overarching masterplan covering the whole of the West Nowra facility. The masterplan details future redevelopment of critical infrastructure and process improvements to achieve, and exceed, the ever-increasing waste diversion and environmental management requirements for solid waste landfills. Figure 1 shows an extract of the masterplan with Stage 2 hatched red.



Figure 1: Extract of masterplan drawings showing Stage 2 hatched in red

Figure 2 shows a post clearing aerial photograph and site survey overlain with the proposed stage 2 masterplan works. The existing northern sedimentation dam is outlined in red and is diamond shaped. The masterplan works amend the alignment and volume of this dam to a more rectangular shape.



OVERALL SITE PLAN

Figure 2: Overlay of site survey, aerial photograph and stage 2 masterplan works

Stage 2 of the masterplan includes improvements to the northern stormwater dam, rerouting of stormwater drainage, redefining the landfill batter, improvement of the old leachate capture drain and earthworks, inclusive of retaining walls to create a level pad. The extent of works proposed in Stage 2 is shown in Figure 4.

The level pad, now completed, improves surface water control and provides a physical barrier between the historic unlined landfill cells in the northern part of the site and the adjacent sensitive environment between the landfilled areas and Sandy Creek. There are several reasons this location is the preferred site for the MRF, however the area is available for a variety of future operational uses.

Stage 2 masterplan works commenced in 2018 with redevelopment of sediment controls, improved fencing and improvements to the internal road network. In 2019 fire trail maintenance and vegetation management was undertaken. At this time an updated landscape management plan was produced which included a photograph of the area. This photograph is included as Figure 3 below.



Figure 3: Site photograph from the 2019 landscape management plan showing the northwest corner of the site. The mulched area in the foreground is the top of the stage 1 landfill batter east of the public drop-off transfer shed.

In 2020 further clearing was undertaken in addition to masterplan work to access roads, surface water drainage and landfill batter maintenance. Bulk earthworks, construction of the retaining wall and subsurface stormwater infrastructure were commenced in 2021. The development application was not lodged until December 2021.



Figure 4: Extent of planned Stage 2 masterplan works

Stage two masterplan works are still in progress. Approximately 80% of Stage 2 works have been completed, including rerouting of stormwater drainage, redefining the landfill batter, improvement of the old leachate capture drain and bulk earthworks, inclusive of retaining walls to create a level pad.

Updated engineering plans for the proposed DA works have been provided with this submission showing Stage 2 masterplan works completed. This makes it easier to interpret what works are included in the current development application and what should be considered 'complete' as part of masterplan work. Stage 2 masterplan work is shown on the plans greyed out. Work that forms part of the Development Application is shown in black.

The activities covered by this development application are construction of the shed, installation/fit-out of process machinery, installation of fire suppression system, sealing of the associated parking and maneuvering/access areas, line marking and signage (within the development footprint only), internal drainage (connected to leachate dam), rainwater tanks and stormwater overflow (connected to stormwater dam).

2. Justification for the proposed Materials Recycling Facility.

The West Nowra (Mundamia) Recycling and Waste Facility is the primary solid waste landfill for the Shoalhaven Local Government Area. It is licensed by the EPA for composting, waste disposal (application to land), waste processing (non-thermal treatment) and waste storage. The facility receives waste from nine transfer stations, kerbside collections from the whole of the LGA and waste from public and commercial drop-offs. Shoalhaven City Council is committed to diverting as much waste from landfill as possible and have undertaken several management initiatives to achieve this goal.

Introduction of kerbside recycling collections resulted in a significant reduction of the volume of material entering landfill. When the collection service was introduced, Council contracted out management and processing of the collected recycling. Following the China Sword Policy in 2018 the market for recyclables worldwide collapsed and Council's contracted recycler struggled to remain in business. This resulted in increased processing

costs, reduction of income from recycled materials, increased disposal to landfill and breaches of contract. As a result, Council resolved in July 2019 to discontinue tendering out management of the comingled recycling kerbside collection from 2020 (MIN19.528C).

The contingency plan involved construction of a temporary recycling drop off point within the West Nowra facility with sorted material then bulk hauled to offsite processing/sorting facilities in Western Sydney. The longer-term solution involved gaining approval for construction of a Council owned and operated Materials Recycling Facility, based onsite at West Nowra. Council's Waste Services Business Plan 2020 outlines Councils future plan to commission its own Materials Recovery Facility to save on the financial and environmental costs of transporting recycling to Spring Farm for processing (pg 20). The business case for the MRF outlines the economic benefits of the proposal including the increased revenue associated with low contamination products being onsold for reuse.

In July 2020 the temporary comingled recycling processing point was installed and all kerbside recycling collected throughout the Shoalhaven is delivered to West Nowra before being bulk hauled offsite for further processing and recycling (currently to Western Sydney).

There are several recycling operations undertaken onsite separate from the management of kerbside collected recycling and the proposed MRF, including:

- Crushed glass recycling for use in the construction industry
- Community Recycling Centre drop-off for cardboard, glass, polystyrene, paints, motor oil, empty gas bottles, fluorescent globes, smoke detectors, e-wastes and batteries
- Textile recycling
- Mattress shredding for further processing into bio-fuel
- Tyre shredding for further processing into rubber crumb
- Buy-back centre ('tip shop')
- Processing of electrical cable to produce PVC granules and pure copper
- Metal recycling (ferrous and non-ferrous)
- Green waste processing into a pasteurized garden organic product and returned to residents as mulch
- Separation of brick and concrete for offsite recycling

This development application is seeking approval for the construction of the Council owned and operated Materials Recycling Facility. The MRF is located within the existing footprint of the West Nowra Recycling and Waste Facility and will process the material stream collected in the kerbside comingled recycling. Figure 5 shows the location of the existing comingled recycling sorting point, the proposed MRF location as well as the site access and weighbridge entry.

A Council owned and operated facility will provide greater flexibility to adapt to an everchanging recycling/reuse industry while insulating against market fluctuations. It will provide valuable employment opportunities, reduce the dependency on third party services, limit changes to recycling costs, and more importantly, improve Council's landfill diversion rate by complementing an extensive integrated recycling operation.



Figure 5: Aerial photograph of the West Nowra Recycling and Waste facility showing location of proposed MRF in relation to the wider site context.

Councils vision for waste management is stated in its Waste Reduction Management Strategy 2017/18 – 2021/22:

"to become a leader in the recovery of recyclable materials from the waste stream and minimize the quantities of waste disposed to landfill by re-using and processing waste types that would normally end up in landfill"

The Illawarra Shoalhaven Joint Organisation (ISJO) Regional Waste Strategy 2017-2021 modelled the recycling rates for member Councils. The Shoalhaven are achieving lower recycling rates that the surrounding local council areas. The overall recycling rate for Shoalhaven, Shellharbour, Wollongong and Wingecarribee have been dropping slowly since 2011/12. In 2018/19 Shoalhaven's landfill diversion rate was 33%.



Figure 6: Historic kerbside only recycling and diversion performance 2011/12 to 2015/16. Source: ISJO Regional Waste Strategy 2017-2021 pg 20.

Figure 5 shows that substantial improvement and upgrades are required to achieve the recycling and landfill diversion targets set by the NSW EPA in their Waste Avoidance and Resource Recovery Strategy 2014-2021.

An audit of Council's kerbside comingled recycling conducted in September 2021 determined that 89.8% of the material in the kerbside stream is recyclable.



Figure 7: Breakdown of material presented on Council's kerbside recyclable collections. Source: Kerbside Recycling Bin Audit Report 2021 pg 12.

With the current contamination rates and existing technology available at the Spring Farm processing facility approximately 25% of incoming recycling tonnes are being disposed of to landfill. Council's proposed MRF specifications achieve high purity (>99%) and high capture rates (>90%), significantly increasing diversion from landfill.

The recycling waste stream product composition of the 2019 waste audit was used for calculating the economic business case for the proposed MRF. Product sales price were sourced from the Commodity Market Price Summary 2020, and are outlined below:

Product	Composition	Base Product Price (2020)
Cardboard	17.6%	\$45.00/tonne
Old newspaper (ONP6)	9.12%	\$85.00/tonne
Mixed paper	15.5%	\$11.50/tonne
PET clear	1.18%	\$315.00/tonne

PET colour	0.13%	\$315.00/tonne
HDPE natural	1.28%	\$562.00/tonne
HDPE colour	0.32%	\$391.00/tonne
Mixed plastic	3.93%	-\$40.00/tonne
PP	1.61%	\$250.00/tonne
PVC	0.28%	\$50.00/tonne
Tetra and liquid paper	0.84%	-\$50.00/tonne
Ferrous containers	2.50%	\$147.50/tonne
Non-Fe not containers	0.42%	\$119.00/tonne
Non-Fe containers	0.51%	\$1,275.00/tonne
Glass	33.96%	-
Film	0.82%	\$140.00/tonne
Bulky plastics	0.2%	-\$50.00/tonne
Bulky metals	0.61%	\$147.00/tonne
Containerized liquids	1.15%	-
E-waste	0.9%	-
Hazardous	0.31%	-
Residuals	6.83%	-

While Shoalhaven City Council have a strong commitment to waste diversion, it should be recognized that diverting waste from landfill is also a requirement under several EPA policies in addition to being a social expectation.

The Environmental Guidelines: Solid Waste Landfills 2016 published by the NSW EPA provides guidance for the environmental management of landfills in NSW by specifying a series of minimum standards – one of which is:

'Wherever feasible, resources should be extracted from the waste and beneficially reused'

This minimum standard asks for waste to be diverted from landfill <u>and</u> beneficially reused. The proposed MRF includes processes to pelletize and flake plastics for sale into reuse markets. Separated glass will be further processed onsite in the existing glass crushing plant to create glass sand for use in construction projects. The proposed MRF achieves both parts of the minimum standard by improving waste diversion from landfill *and* creating a product ready for reuse by the manufacturing and construction industries.

The abovementioned minimum standard is reflected in the EPAs NSW Waste and Sustainable Materials Strategy 2021-2027 which includes the following recycling targets:

- An average 80% recovery rate from all waste streams by 2030
- Significantly increase the use of recycled content by governments and industry
- Triple the plastics recycling rate by 2030

The NSW Waste Avoidance and Resource Recovery (WARR) 2014-2021 Strategy outlines a landfill diversion target of 75% and increased recycling rates of 70%-80%.

The NSW Waste and Sustainable Materials Strategy: A guide to future infrastructure needs 2021 specifically mentions a proposed MRF in the Shoalhaven (page 24) as essential for meeting capacity and processing requirements. Assuming all pipeline facilities

(inclusive of the Shoalhaven facility) are brought online additional facilities are still required by 2030 and 2040, as set out on page 25 (extract reproduced below).

2030 Needs (assumes all existing pipeline facilities	If the three pipeline facilities proceed, the following additional infrastructure is required:				
are brought online)	 NLA: 1 x medium MRF (50,000 tpa), in area such as Namoi/New England 				
	 RLA: Minor capacity enhancement required 				
	Priorities will be upgrades for enhanced beneficiation (see <i>Opportunities and priorities</i>).				
2040 Needs	If the three pipeline facilities proceed and 2030 needs				
(assumes all infrastructure needs to meet capacity gap 2030 are brought	are met, the following additional infrastructure is required:				
online)	• MLA: 1 x medium MRF (50,000 tpa)				
	• RLA: 1 x small MRF (25,000 tpa)				
	NLA: 1 x small MRF (25,000 tpa) or transfer station				

Figure 8: Extract from NSW Waste and Sustainable Materials Strategy outlining the additional MRF capacity required across NSW

The NSW Waste and Sustainable Materials Strategy 2041: stage 1 2021-2027, sets a recovery rate target of 80% average from all waste streams by 2030. On page 20 this plan outlines the need for secondary processing facilities to pelletise and flake plastics. The proposed MRF includes these processes.

The proposed MRF will also process the C&I and C&D waste streams, The diversion rate for C&I and C&D waste is estimated to be 12% and 6% respectively, which equates to approximately 3,700 tonnes per annum. Currently very little of the C&I and C&D streams are diverted from landfill.

The improvements to landfill diversion are 12% of C&I wastes, 6% of C&D wastes and approximately 20% of kerbside recycling, or an increase of 38% on the existing system. The proposed MRF represents an improvement to existing activities undertaken onsite and directly contributes to achieving EPA standards and goals for waste management at solid waste landfills.

3. Clarification regarding the location of asset protection zones (APZ) for the site.

The required APZs are outlined in Table 2, page 10 of the revised bushfire risk assessment dated 20 May 2022 (reproduced below).

able 2: Breakdown of the vegetation type, slope class and the required APZ in accordance with Appendix 1 with Tat A1.12.5.							
Direction	Dominate Vegetation Type	Effective Bushfire Slope	APZ Provided (m)	BAL	Comments		
Proposed Material Recovery Facility							
North	Forest	0 to 5° Downslope	23.9m	BAL 40	APZs already established.		
West	Forest	0 to 5° Downslope	7.9m	BAL-FZ	APZs already established.		
All Other Directions	Managed Land	-	>100m	BAL Low	Managed land		

The APZs are contained within the boundaries of the site, as shown in the image below.



Figure 9: Extract of engineering plans showing setback of proposed MRF to site boundaries. Note setbacks to north and western boundaries are consistent with the APZ requirements.

4. Stormwater management.

Stormwater controls included in this development application are roof water from the building and internal floor drainage within the building. The roof water will be collected in guttering and downpipes and piped around the building to the rainwater tanks proposed at the southern end of the fill pad. The overflow from the rainwater tanks will be connected to the northern stormwater basin (as modified by Stage 2 masterplan work). The internal floor pit and pipe drainage system (marked as TW on the engineering plans) collects runoff from within the building and is piped to a single pit outside the southwest corner of the building. The internal building collection system is potentially affected by leachate contamination and as such will be connected to the existing leachate dam.

Surface water from the bitumen sealed areas will be directed to an existing pit and pipe system installed as part of the masterplan earthworks. The pit and pipe system is connected to the northern sedimentation basin and was installed during earthworks undertaken previously. As this system has already been installed it is shown greyed out, or *not* part of the proposed DA works on the revised engineering plans. Similarly, the swale

drains, subsurface road drainage, diversion banks and reconfigured northern stormwater dam are all masterplan works and do not form part of the proposed DA works (are greyed out on the plans).

5. NSW Environment Protection Authority GTAs.

The EPA correspondence dated 14 September 2022 specified that while they do not agree with the conclusions of the acoustic report prepared by Koikas Acoustics Pty Ltd they have issued General Terms of Approval in an effort to avoid further delays in assessment. It is reasonable to conclude that the EPA are satisfied that noise impacts from the proposed development can be appropriately managed through conditions of consent.

It is worth noting here that in Attachment B of the EPA letter they state that the EPA do not regulate the off-site traffic noise and that it is up to Council to consider conditions of consent commensurate with the risk of the impact of road traffic noise. Please note however that, as outlined earlier, the comingled kerbside recycling is already delivered to West Nowra Recycling and Waste facility. As the volume of recycling delivered to and sent offsite will not change, the number of vehicle movements will remain the same.

The proposed MRF will have no real impact on traffic volumes or paths of travel within the local public road network. The primary change will be from bulk haul vehicles carting unsorted recycling to Sydney for further processing to vehicles moving sorted, high-purity single materials offsite for reuse.

Attachment B of the EPA's letter comments on the assessment of annoying characteristics and offsite road traffic noise. In relation to the annoying characteristics the EPA queries if modifying factor corrections would be required due to annoying noise characteristics. The Koikas Acoustics report outlines the corrections that are applied to noise sources in section 4.0 of the report. Tables 3 and 4, pages 14 and 18, outline corrections that are applied to noise generated by the Liebherr Handles, Glass/cardboard facilities, compactor, loader and break-out noise at roller doors 1 and 2. These annoying noise corrections were used in he modelling completed for the site and reflected in the noise contours used to determine project trigger values.

The reason the annoying noise characteristic corrections were applied to the noise source rather than to the attenuated noise at the receiver is that during the acoustic assessment noise from the facility was **not** audible at neighbouring premises above the background noise levels (cicadas), as noted on page 27 of the amended document. Noise corrections are not able to be applied to undetectable noise levels and Cadna/A noise modelling does not allow for calculation in 1/3 octave bands to predict these levels at the receiver. As such, corrections were made to the noise sources to ensure appropriate assessment could be made.

Figure 6 shows extracts from the noise modelling, showing noise impacts from the existing facility on the left and projected noise impacts on the right. It is worth noting that noise impacts are largely consistent between existing and projected conditions to the east and south, while noise impacts increase to the north and west. This is due to the physical location of the MRF being the northwest corner of the site at lower elevation than the surrounding landfill batters. The existing landfill batters provide shielding of noise impacts to the east and south. As noted above, the noise modelling included annoying noise

corrections at the noise source to ensure annoying noise characteristics were appropriately assessed.



Figure 10: Extracts of noise modelling by Koikas Acoustics showing noise impacts from the existing operations at West Nowra on the left and noise impacts including the proposed MRF on the right.

Figure 11 demonstrates that compliance with the adopted noise criteria of the EPAs Noise Policy for Industry (NPfI) is achieved, in both existing and projected modelled situations. The NPfI requires additional investigation when projected noise modelling indicates project noise exceeds certain noise trigger levels. The noise modelling demonstrates that the noise trigger levels are <u>not</u> exceeded at any neighbouring premises.

If you need further information about this matter, please contact Kristin Holt, on (02) 4429 3554.

Yours faithfully

Kristin Holt

Environmental Projects Manager Shoalhaven City Council