Notice of Intent
Copping Organics Recycling Facility

FOR SOUTHERN WASTE SOLUTIONS

Project No: 5421.010
3 August 2021

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GLOSSARY OF ABBREVIATIONS

AS 4454	Australian Standard for Composts, Soil Conditioners & Mulches
BBRF	Building Better Regions Fund
CEMP	Construction Environmental Management Plan
CEO	Chief Executive Officer
CFEV	Conservation of Freshwater Ecosystem Values Project (Karst assessment *inter alia*)
CRT	Carlton River Tributary
DWM	Dulverton Waste Management (strategic partner)
CORF	Copping Organics Recycling Facility
EMPCA	Environmental Management and Pollution Control Act 1994
EPA	Environmental Protection Authority
EPN	Environment Protection Notice
FOGO	Food Organics and Garden Organics
Joint Authority	Clarence City, Kingborough, Sorell and Tasman Councils
LUPAA	Land Use Planning and Approvals Act 1993
MAF	Mobile Aerated Floor
OU	Odour Units
RMPS	The Resource Management and Planning System
SWS	Southern Waste Solutions

PREFACE

The following Notice of Intent (NOI) has been prepared for the Southern Waste Solutions Copping Organics Recycling Facility project to be assessed by the Board of the Environmental Protection Authority (EPA) under the Environmental Management and Pollution Control Act 1994 (EMPCA), Section 27B.

This NOI is structured in accordance with the requirements of Section 27B and the EPA 'Guide for Preparing a Notice of Intent'. It provides succinct information in order for the EPA to determine the Class of Assessment under EMPCA Section 27C, and the provision of guidance should the project require assessment by the Board of the EPA

1. INTRODUCTION

1.1 PROPONENT DETAILS

The Proponent is the Copping Refuse Disposal Site Joint Authority trading as Southern Waste Solutions (SWS), ABN 87 928 486 460. SWS is a waste management authority established in 2001 under Section 30 of the *Local Government Act 1993* and is jointly owned by Clarence City, Sorell, Tasman and Kingborough Councils ('Joint Authority').

SWS Head Office (physical address)

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DERWENT PARK 7009

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This NOI has been prepared by COVA Thinking Pty Ltd. Contact details as follows:

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It is stated herein that the body of persons that manage SWS:

- have not contravened obligations under the *Environmental Management and Pollution Control Act (EMPCA) 1994* and *Land Use and Planning Approvals Act (LUPAA) 1993* (e.g. failing to comply with environmental conditions or restrictions imposed under the Act or subordinate regulations and permits issued under these acts); and
- have not been convicted of an offence against the EMPCA, or other Tasmanian Act that relates to protection of the environment.

1.2 OVERVIEW OF PROPOSED DEVELOPMENT

The proposed development is known as the SWS Copping Organics Recycling Facility (CORF). SWS operate a regional landfill at Copping in southern Tasmania, within the Sorell Municipality. The proposed development is for the construction and operation of a contained composting facility at the Copping landfill site for the conversion of residential and industrial organics into compost meeting the requirements of *Australian Standard 4454: 2012 Composts, soil conditioners and mulches*.

The collection of domestic organics is progressively growing in southern Tasmania through Council waste management initiatives. Generation of household generated food organics and garden organics (FOGO) is projected to increase to 31,789 tonnes/year by 2023[1] and continue to increase in line with Bureau of Statistics projected population growth in the contributing municipalities. In addition, organics from industrial operations is projected to increase and assurance of sustainable outlets is critical to environmental and econonomic success. However, composting of many of these organic wastes currently relies upon traditional windrow composting or

[1] Commercial In Confidence: Organics Business Case, MRA Consulting, 16/04/2021.

direct application to land. The proposed CORF is current global best practice that achieves a conforming and high quality composting product in a shorter period with containment of leachate and odour.

Project benefits and strategic links are:

- Converts waste to a high-quality resource that can be utilised for residential, Government and private agribusinesses.
- Provides the opportunity to avoid the disposal of organic waste at the Copping Landfill thereby potentially delaying the need for future additional cell development.
- Avoids landfill greenhouse gas emissions from the breakdown of organics under acidic landfill conditions.
- Utilises best practise environmental management principles through a contained in vessel state of the art composting facility. This provides for more efficient composting with a smaller operational footprint than traditional windrow composting.
- Contributes to local socioeconomics through:
    - the generation of employment during construction, and ongoing employment throughout the operational life of the facility
    - use of local engineering and consulting services
    - local fabrication of components
    - indirect support of agribusinesses through the provision of a safe, sustainable and reliable organic waste outlet.
- Aligns with Government strategic intent in key areas:
    - Supports the strategic objectives of the Tasmanian Government's Waste Action Plan 2019 to reduce the volume of organic waste sent to landfill by 25% by 2025 and 50% by 2030 by diverting waste to resource.
    - Supports the objectives of the Tasmanian Governments Climate Change Action Plan 2017 – 2021 of growing a climate-ready economy and supporting community action to reduce emissions.
    - Strengthens Tasmania's biosecurity capabilities (e.g. fruit fly response and salmon mortalities).
    - Strengthens quarantine capabilities and delivers TasWater Trade Waste Policy solutions for biosolids and grease-trap waste.
    - Tasmanian Government policies of building Tasmania's infrastructure for the 21st century, essential service delivery and more jobs for regional Tasmania.

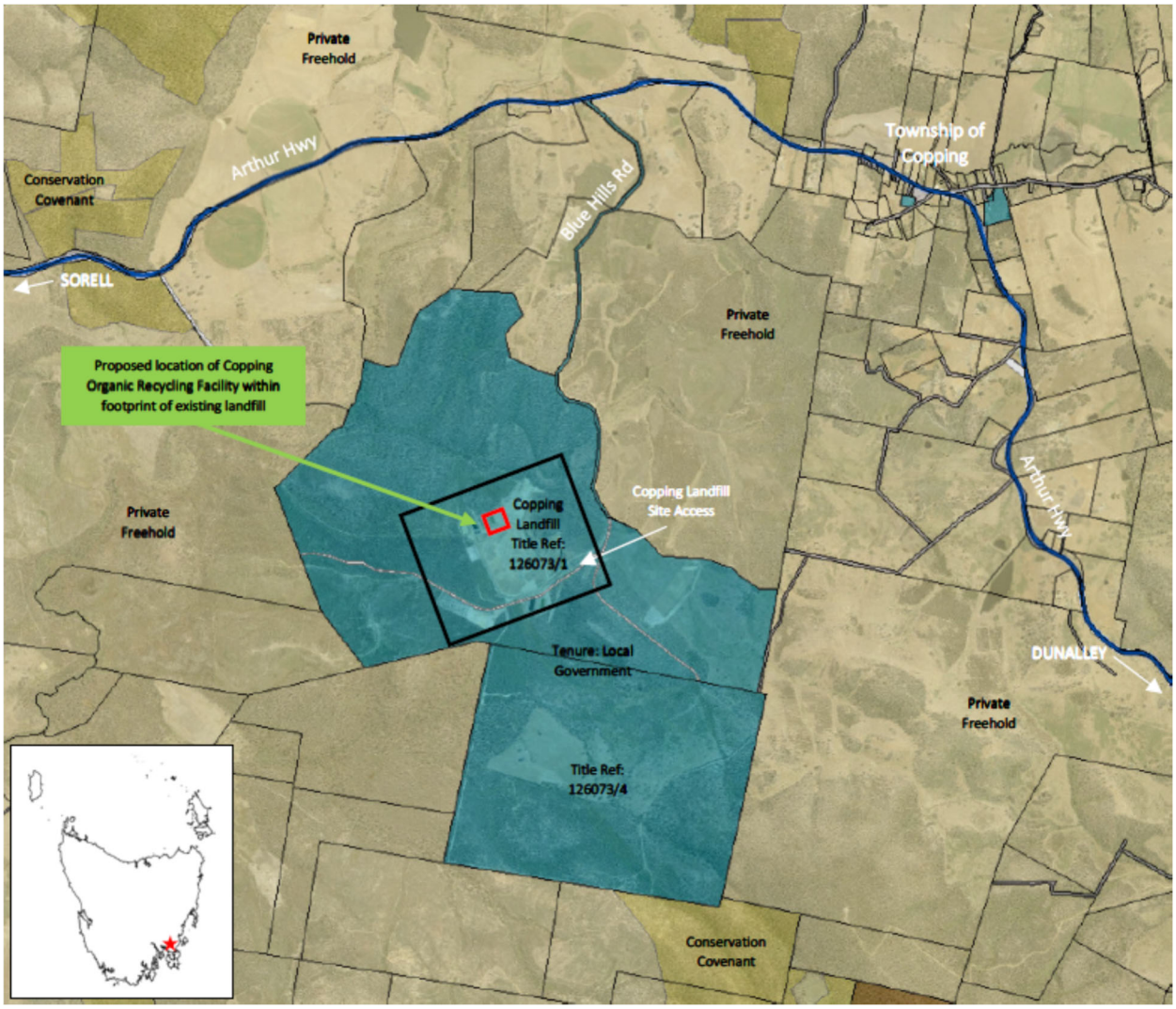
1.3 LOCATION OF PROPOSED DEVELOPMENT

The SWS Copping landfill is located on title reference 126073/1 within the Sorell Municipality. Blue Hills Rd provides access to the site which is approximately 3.6 km to the south of the intersection with Arthur Highway. Public entry to the landfill site is not permitted, and the site is fully fenced (mix of chainlink and farm fencing). Approved customers can only enter through the weighbridge located at the site entry. It is proposed to site the CORF within the footprint of the existing Copping landfill in a location not currently used for waste entombment.

The existing Copping landfill operates under Environmental Protection Notice (EPN) 690/1 issued in 2004. Several amendments have been made to EPN 690/1 including inclusion of waste reporting requirements in 2006, clinical waste acceptance in 2008, and revised timing for the installation of a landfill gas management system in 2011. Separate environmental permits have been issued for the construction and operation of a Category C Waste Depot Cell (No. 8700) in June 2012 and the operation of wetlands leachate treatment system (No. 9931) in February 2019.

Figure 1 illustrates the location of the proposed development in context of surrounding land parcels, tenure, utility easements and roads.

Figure 1 - Proposed Development Location and Property Information



Reference: The LISTmap, July 2021

1.4 PLANNING ASPECTS AND SURROUNDING LAND USE

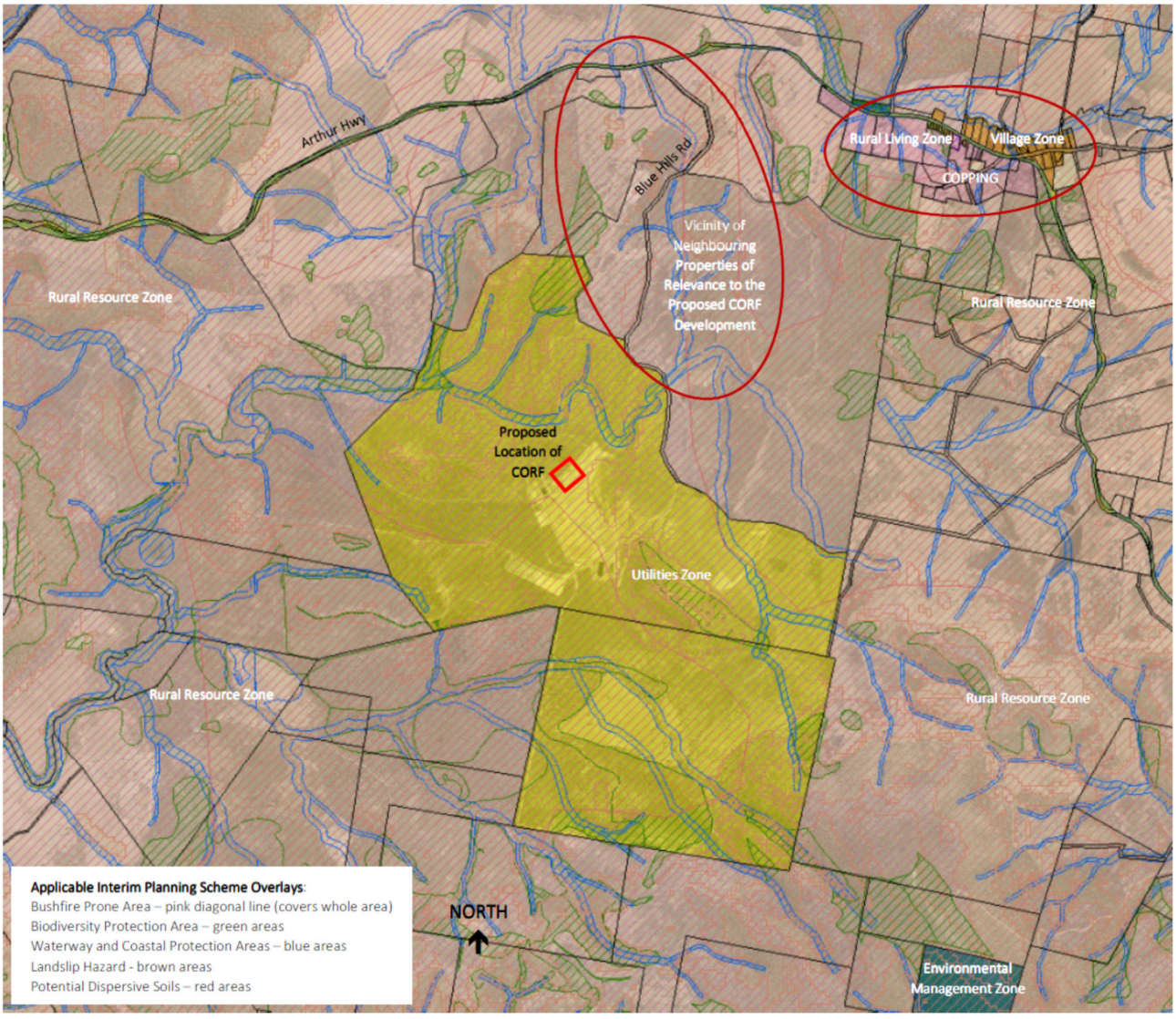
The proposed development is located within the Sorell Municipality on land owned by Clarence City, Sorell and Tasman Councils and managed by the Joint Authority. It is situated within an area zoned Utilities under the *Sorell Interim Planning Scheme 2015*. The land surrounding the Copping landfill is zoned Rural Resource whilst the small township of Copping located to the north-east is a mixture of Village and Rural Living zoning.

Surrounding land use is predominantly bushland with agricultural activities dispersed throughout the area. Blue Hills Rd is utilised to access several properties along the route towards the landfill with some of these being residential. It is noted the Blue Hills Sporting Shooters Club, which sub-leases its property from the Authority, is located near the landfill site access.

A number of planning scheme overlays exist across the region and given the proximity of identified areas of interest to the existing landfill site, these should be acknowledged. *Bushfire Prone Areas* cover a large proportion of this region while as shown in **Figure 2**, there are *Biodiversity Protection Areas* and *Waterway and Coastal Protection Areas* all around the site with some being in particularly close proximity to the north and north-west of the landfill footprint.

A number of neighbouring properties considered to be of potential relevance to the proposed CORF development are located to the north and north-east as shown in Figure 2. The closest property is approximately 1.1 km to the north-east of the existing landfill site, with the next closest property approximately 2.2 km to the north (distance is measured from the centre of the B-cell to buildings located on these properties). There are also three residential properties accessed off Arthur Hwy located approximately 2.9 km to the north of the existing landfill site. The township of Copping is located approximately 3.5 km to the north-east of the site.

Figure 2 - Land Zoning and Surrounding Land Use



Reference: The LISTmap, July 2021

2. PROPONENT BACKGROUND

SWS is a waste management authority established in 2001 under Section 30 of the *Local Government Act 1993* and is jointly owned by Clarence City, Sorell, Tasman and Kingborough Councils ('Joint Authority'). SWS provides waste management solutions to businesses state-wide and to Tasmanians in the Break O'Day, Brighton, Clarence City, Glamorgan Spring Bay, Glenorchy City, Hobart City, Huon Valley, Kingborough, Sorell, Southern Midlands and Tasman Council areas. These services are provided through the operation of the Lutana Waste Transfer Station, the Copping B class Landfill and the Copping C class cell for acceptance of approved controlled wastes. The life of landfill is projected to 2175.

The Joint Authority is comprised of four individuals representing each of the member councils, assisted by a skills based Board of four independent non-executive directors. The Authority is responsible for approving the overall strategies and business direction. The board oversees achievement of the strategies and is responsible for governance, compliance and financial performance.

The location of the Copping landfill was identified as suitable based on its geology and location, being central to member councils, and its capacity for long term landfilling. The facility was developed and commenced acceptance of wastes in August 2001. Waste management operations have continued successfully on the site since. There have been no incidents of offsite leachate discharge or impacts beyond the boundary of the land, and SWS have worked constructively and openly with local landowners, residents and other stakeholders.

SWS have been working collaboratively with Dulverton Waste Management (DWM) to implement world-class facilities in both the north and south of Tasmania to ensure full state coverage for organics recycling and servicing of agribusiness whilst minimising transport. In 2019 a business case was commissioned, and engineering initiated to provide for best practice conversion of organic waste to a saleable resource.

The business case is encouraging on the basis of the community and environmental benefits of waste to resource projects. Marketing will be undertaken with the assistance of consultants to expand upon initial customer and market discussions and progress these to Memorandums of Understanding. The Joint Authority is supportive of the project. The proposed CORF project has generated positive discussions with a number of parties, including potential customers, Ministers, Regional Development Australia (Tasmania branch), and the public at a widely publicised community information session.

3. PROJECT DESCRIPTION

Following a comprehensive expression of interest (EOI) process, DWM finalised a Request for Tender decision with COVA-Haywards (COVA) in February 2021 for design of an in-vessel composting facility. SWS joined the process before negotiations were finalised. The operating facilities will be identical at both locations and are based on high-tech design and equipment to provide best-practice solutions for the safe and sustainable treatment of industry organic waste as well as Food Organic and Green Organics (FOGO) from municipal kerbside collection activities.

Copping Landfill is licensed to receive a wide range of waste types including many organic waste materials currently accepted for landfill disposal. However, it currently has no facility or infrastructure to divert this material from landfill. The proposed CORF will enable the site to accept a wide range of organic wastes in larger quantities to make a saleable product as well as provide greater opportunity to help divert other organic waste streams from going to landfill.

An independently developed business case[2] for the SWS CORF proposal was recently completed as there is no existing composting operation at the Copping landfill. This included consideration of feedstock availability and outlets for the compost product. The preliminary review undertaken to identify local feedstock sources and gauge level of interest by various public and private sector organisations to utilise the facility found strong support for the proposed development. SWS is proactively working through the details required to commence the proposed development and considers securing the necessary environmental approvals a significant step toward helping to realise the project.

The review of local organic waste sources currently available indicates the feedstock for the CORF is likely to be made up of the following materials:

- domestic kerbside FOGO
- drop-off green waste at WTS
- timber residues
- aquaculture wastes
- food processing wastes
- agriculture waste and by-products
- biosolids
- wastewater treatment sludges
- liquid wastes

A 3D representation of the proposed CORF is shown in **Figure 3**, with a general site plan is shown in **Figure 4**.

The proposed facility consists of the following key design components, shown in **Figure 5**:

- Receival Area
- In Vessel Composting Tunnels
- Final Compost Screening and Storage
- Odour Treatment (Biofilter and associated acid scrubber)
- Liquid waste collection
- Stormwater collection tanks
- Fire tanks and associated hydrant ring main
- HV transformer
- Office and Amenities building

[2] Commercial In Confidence: Organics Business Case, MRA Consulting, 16/04/2021.

Figure 3 – 3D Representation of the Proposed Development Site Layout

A process flow diagram is shown in **Figure 6**, however key elements are briefly described below:

- Receiving and processing equipment will be specific to the different types and formats of organics inputs, enabling the safe and efficient handling of biosolids, garden organics, residential and business food organics, food processing by-products, agricultural waste, and packaged food among others.
- Fully enclosed facility with aeration and water management systems to safely remove excess moisture and control the effect of rain.
- Compost will be produced in enclosed tunnels, with aeration, air filtration, and liquid capture and treatment systems embedded in the design.
- Design attends to key sources of potential environmental harm and nuisance and includes full containment and recycling of leachate, and containment and removal of odour prior to discharge.
- Management of out-of-specification feedstock materials will be factored into both the design and day-to-day operational elements of the project.
- Sustainable practices will be incorporated into the facility through aspects including integration of solar panels for energy savings and collection of rainwater from new roofed areas.

Figure 4 - General site plan

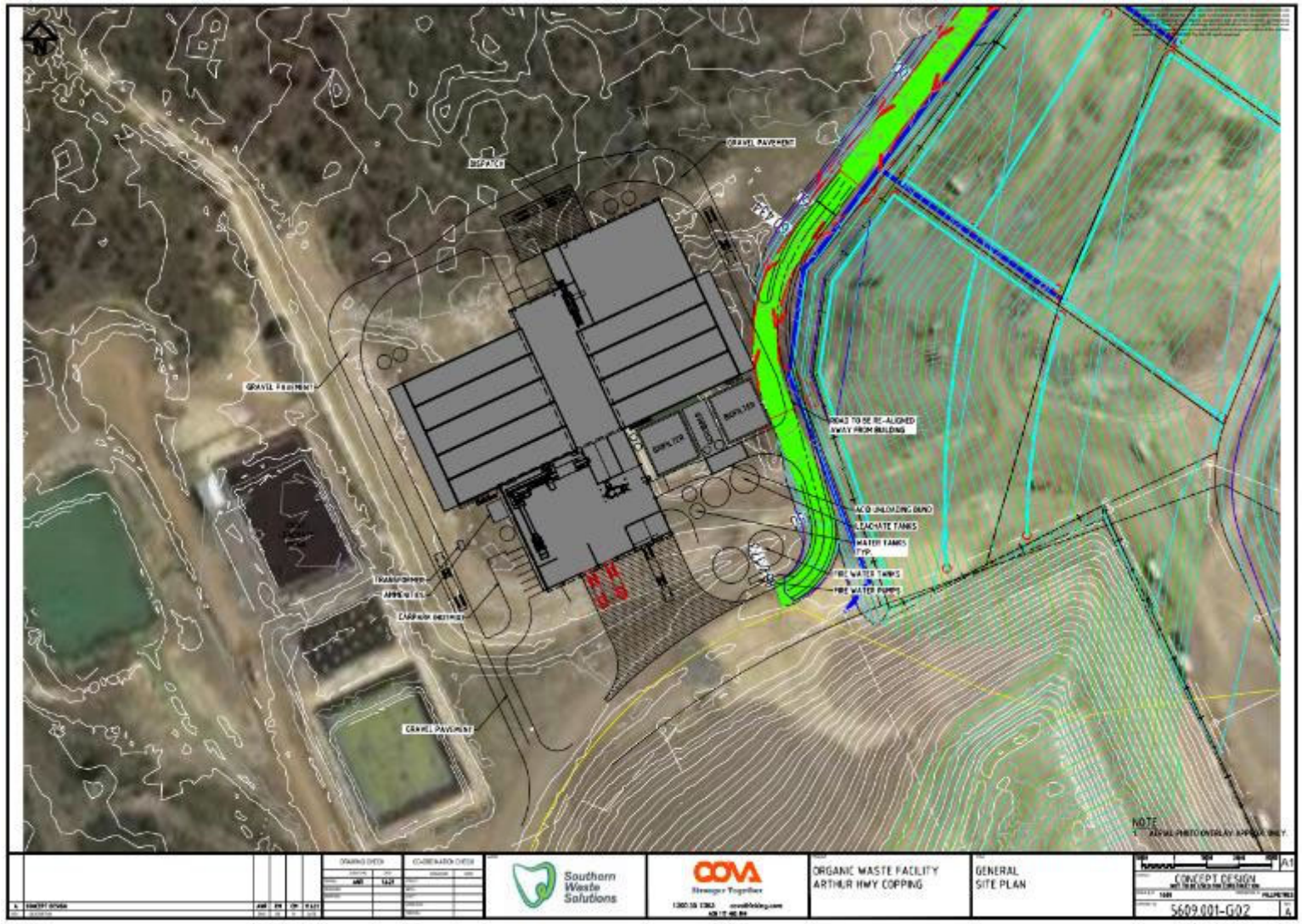


Figure 5 – Key design components

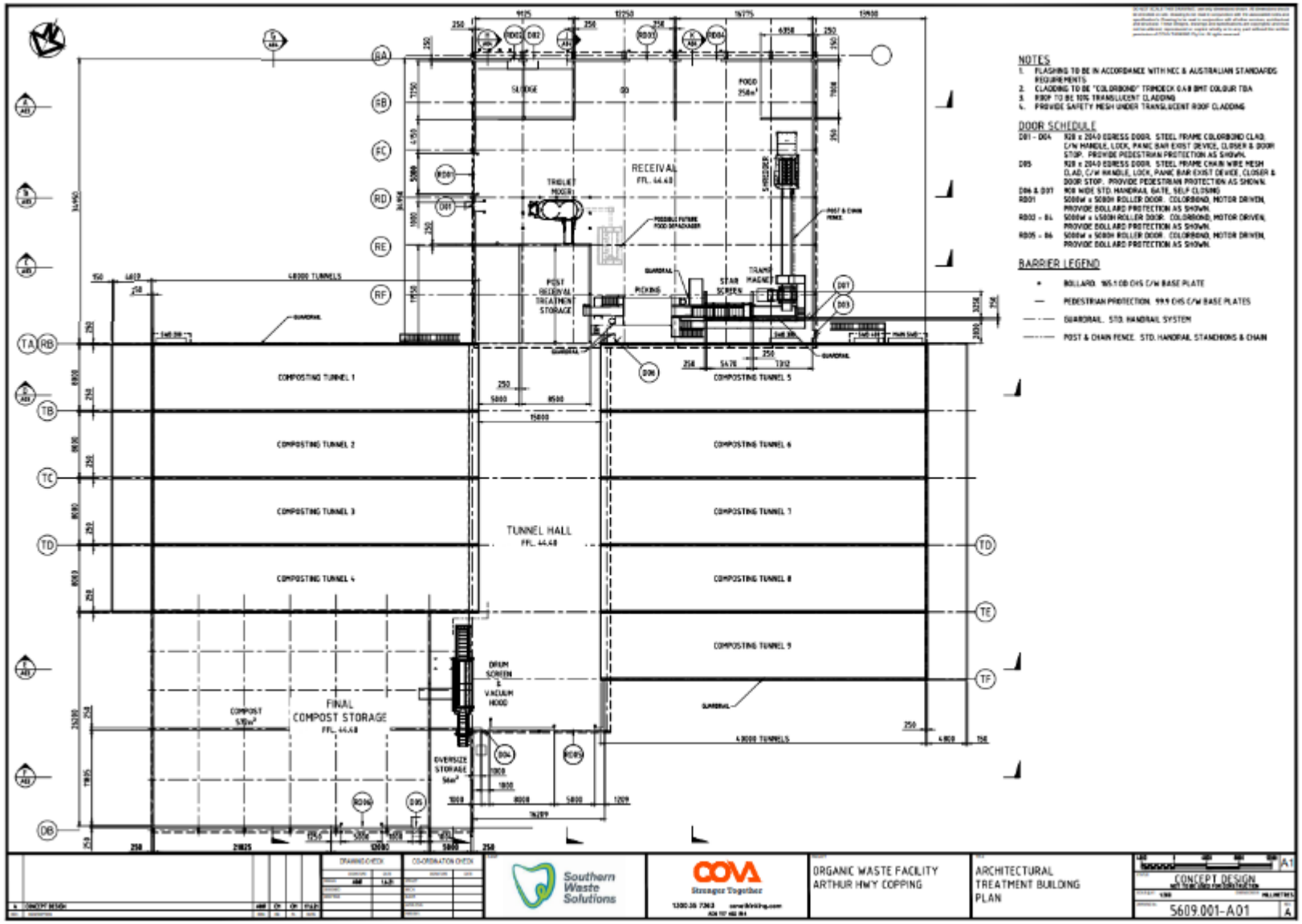
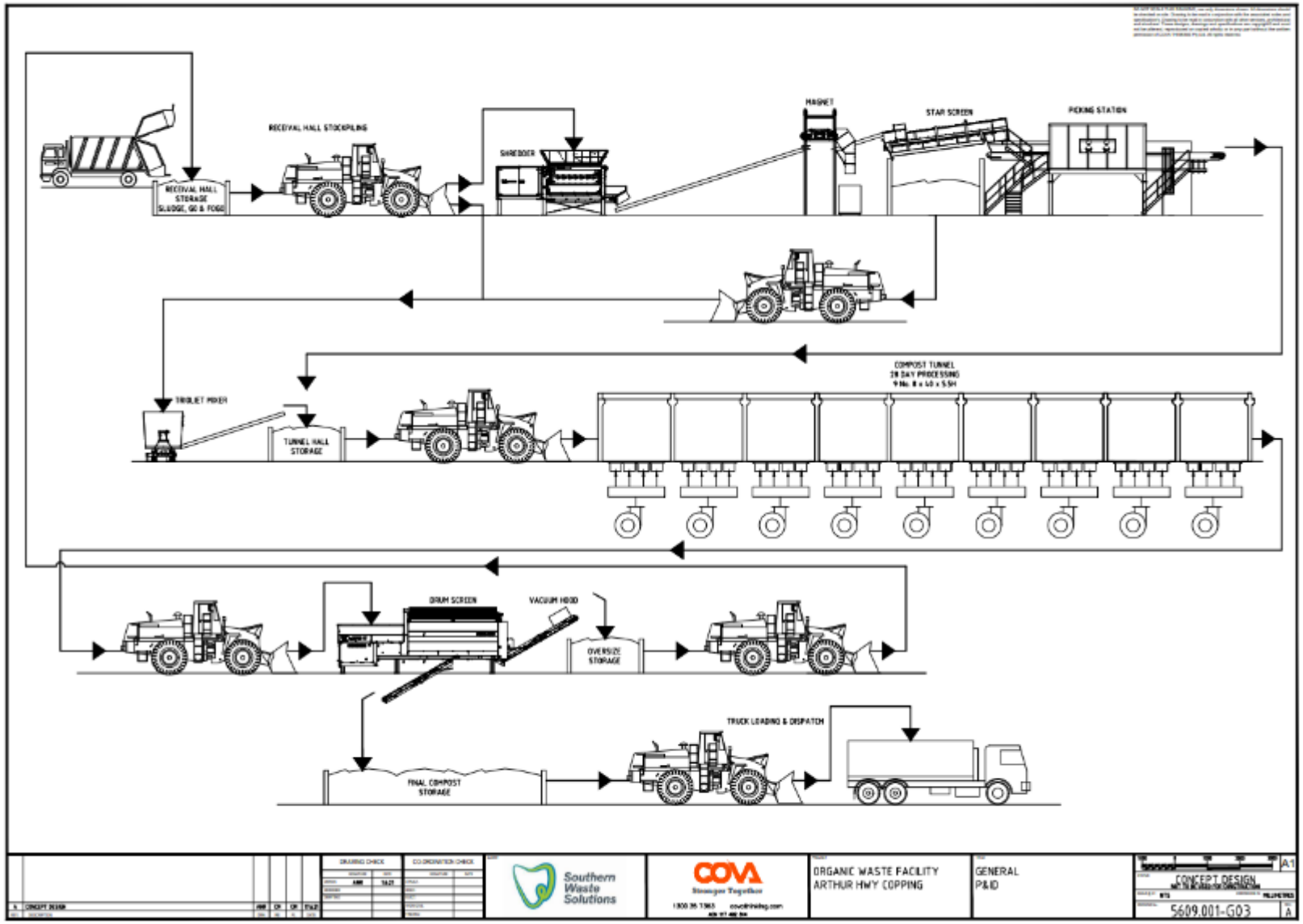


Figure 6 – Process Flow Diagram



3.1 DESIGN LEACHATE MANAGEMENT

Design includes full containment of all leachate generated from the composting process, and internal recycling through the tunnels. The process is closed loop, with leachate and condensates arising from the composing process within the tunnels being collected and recirculated. All leachate management infrastructure described below is to be contained within the enclosed composting facility.

As per the design, leachate will report to leachate collecting pits with a water-lock upstream of the collection pit to prevent pressurised air from escaping from the tunnels. Leachate is pumped across a screen where it is filtered to remove coarse particulates. The screened liquid is to be stored in a leachate tank from where an irrigation pump is used to internally irrigate the material within the processes. Circuits are to be provided with in-line filters (refer **Figure 7**). Each tunnel is to be provided with an actuated valve that opens the flow to the sprinklers distributed on the tunnels ceiling. Design includes automation and process control monitoring for each tunnel with data reporting in real time to a central water flow measuring system.

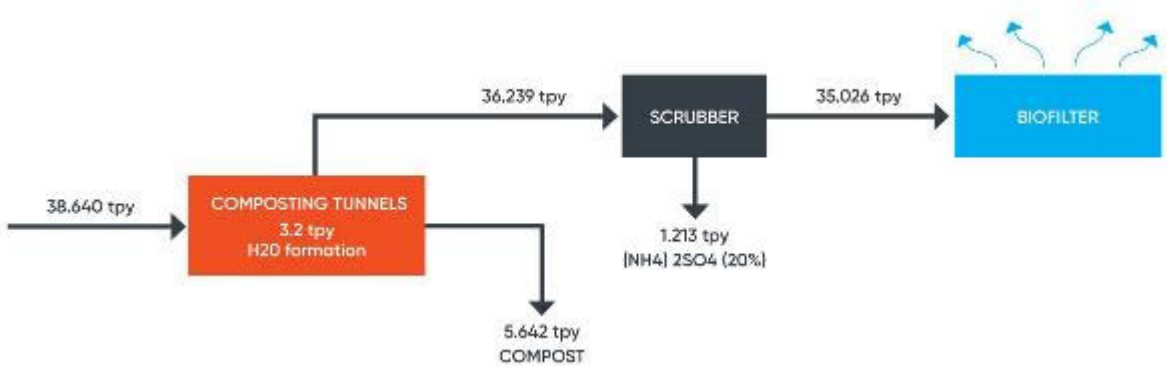
Figure 7 – Section through a Typical Filter

3.2 DESIGN ODOUR MANAGEMENT

Odour management is a primary driver of the proposed design. Odour generated by the composting process is to be fully contained, scrubbed, and filtered prior to discharge to atmosphere (refer **Figure 8**).

Contained composting with odour treatment is best practice environmental management and the proposed design for odour-treatment technology is already successfully used globally for industrial scale composting.

Figure 8 – Summary Process Flow for Odour Management



Key odour management design aspects includes:

- **Contained discharge and storage for liquid waste feeds**

  Delivery vehicles directly discharge into storage tanks throughout the receival building before being pumped to the feedstock mixing system and composting tunnels
- **Negative pressure treatment system**

  The receival hall (connected to tunnels) is under negative pressure to prevent escape of odour (refer Figure 9 for example). Ductwork, fans, air discharges and process monitoring are included in design. Some of the evacuated air is proposed to be used for fresh air supply to the tunnels. A by-pass connection to the biofilter fan is also proposed because the required quantity of air varies and by-pass may be necessary based on pressure measurement feedback.
- **Process exhaust air collection system**

  Hot odorous air from the breakdown of organic material during the exothermic composting process is collected as process exhaust. All exhaust air from the tunnels is proposed to be collected in a central duct and discharged towards a Central Air Treatment system.
- **Acid scrubber**

  The acid scrubber humidifies exhaust air before it is passed to the biofilters. This is done to saturate the exhaust air and prepare it for biofiltration that requires a high air humidity level for correct operation (refer Figure 9 for example). Water is absorbed by the air because of the close contact and temperature differential between process water and the air. The acid scrubber has a H2SO4 dosing system to maintain suitable ammonia levels.
- **Biofilter**

  The biofilter is the final stage of odour management to remove residual odour prior to discharge to atmosphere. The proposed biofilter consists of a concrete floor and timber walls encapsulating a plastic membrane liner with a plenum floor. The polluted air is blown into the plenum floor to distribute the air across the bottom of the biofilter and then through the biofilter material which consists of a mixture of wood chips (refer Figure 10). Pollutants are absorbed by the filter media and consumed by micro-organisms to produce carbon dioxide, water and heat. Water is added to the biofilter media to maintain humid conditions and remove ammonia as is required for maximum biological activity. The biofilter material is selected in order to optimize purification capacities, life, limited pressure losses and a good moisture holding capacity. Two biofilters will be provided for contingency purposes such as planned or unscheduled maintenance.

Figure 9 – Example of Typical Infrastructure for Hall Suction (left) and Acid Scrubbing (right)

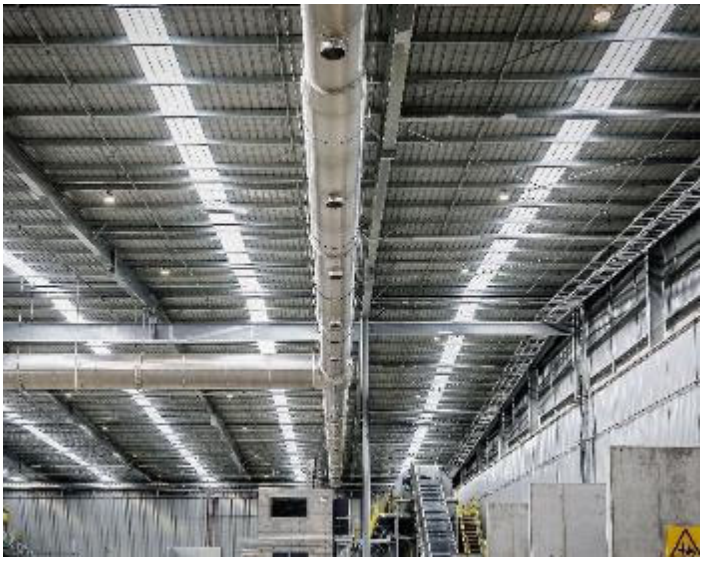
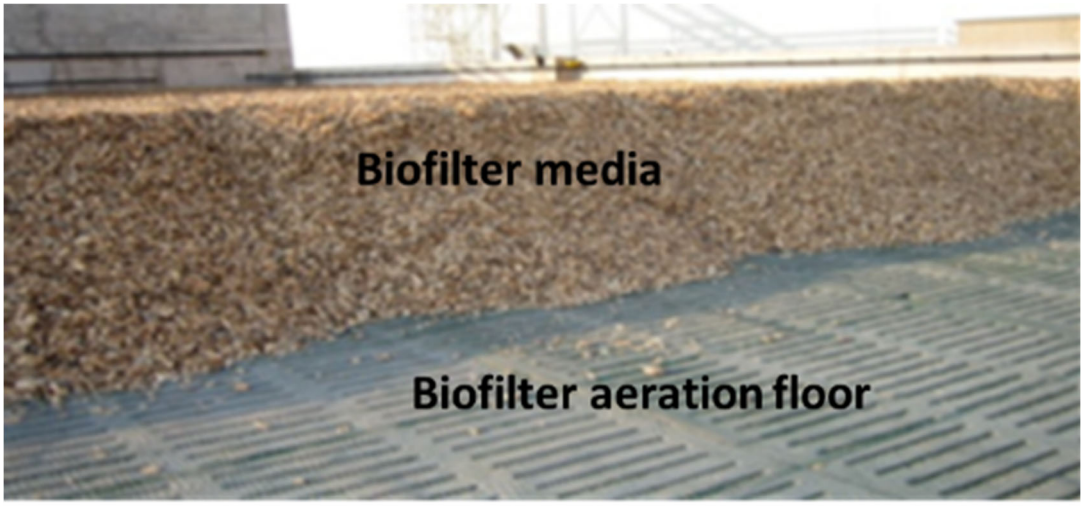


Figure 10 – Section through a Typical Biofilter



Compost is screened and cured under cover for 4 weeks, during which time it is unlikely to generate odour in appreciable amounts. Operations procedures may be required to turn the curing piles if ammonia is generated.

3.3 HOURS OF OPERATION

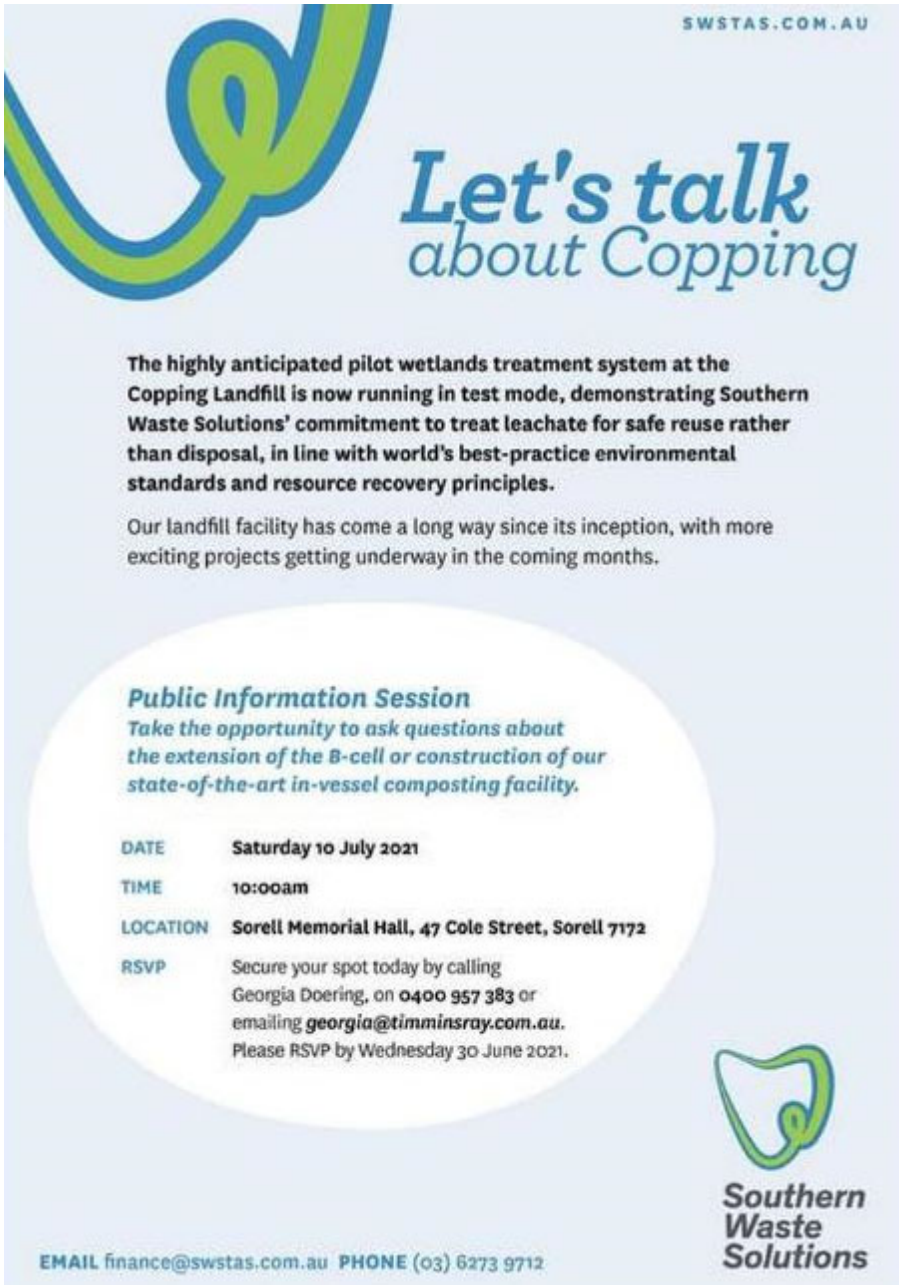
The proposal does not include any change to hours of operation as specified in EPN 690/1 (general tipping must be between 8.00 am and 6.00 pm on weekdays and 9.00 am and 6.00 pm on weekends, and no operation on Christmas Day or Good Friday).

4. STAKEHOLDER CONSULTATION

SWS acknowledge the value of community stakeholder engagement and consider the neighbouring communities and businesses, non-government organisations and all levels of government, to be key partners. Full transparency of environmental performance is provided publicly, with the EPN and all environmental monitoring reports published on the SWS website. With regards to the CORF project the following consultation has been undertaken to date:

- Updates have been provided on the SWS website
- A Public Information Session was conducted 10 July 2021 to provide the opportunity to discuss both the CORF and other environmental initiatives (refer Figure 11). Invitations were issued: directly to 1,608 households in surrounding suburbs, and to local politicians; posters placed in the Sorell and Clarence Council Chambers and Sorell and Rosny Libraries, Dodges Ferry Café and IGA, and the Copping Roadhouse; media release printed in The Mercury 9 July 2021; and placed on the SWS website. Despite these efforts only two persons participated, one being a Sorell Councillor. Both were supportive.
- SWS Community Reference Group (CRG) has not operated for some time due to lack of interest. However, site visits are provided to all individuals and/ or organisations that express an interest.
- Stakeholder consultation will be ongoing throughout the project, with the next planned event being a workshop with the Sorell Council on 20 July 2021 and with Clarence City Council on 26 July 2021.

Figure 11 – Public Information Session invitation



5. DESCRIPTION OF DEVELOPMENT FOOTPRINT (PHYSICAL ENVIRONMENT)

The Copping landfill site as a whole encompasses an area of 704 ha of which approximately 44 ha is currently utilised for the existing activity. The proposed CORF will be constructed within the footprint of the existing activity on a highly modified area of the site. The area identified to construct the proposed CORF is shown in **Figure 12**.

Figure 12 – Photo of proposed CORF site

The CORF will be designed to minimise the area required to undertake the activity through a purpose-built facility including the use of space-saving in-vessel composting tunnels. Existing features such as the site's current weighbridge, road network and stormwater management system will be utilised and integrated into the design of the new facility as shown in **Figure 13** and **Figure 14**.

Figure 13 – Existing Weighbridge at Copping Landfill Site Entrance

Figure 14 – Existing Internal Roads will be Utilised to Access the Proposed CORF

Key natural features of the surrounding area that may be of relevance to the proposed CORF include:

- Carlton River is located approximately 1 km from to the north-western boundary of the landfill site (at its closest) which meanders in a south-westerly direction to the west of the site eventually discharging into Fredrick Henry Bay.
- There are a number of unnamed minor tributaries located to the north of the landfill footprint reporting to the Carlton River with the closest point being approximately 400 m from the proposed CORF site.
- Given the vegetation evident around the site and protected areas as defined in planning scheme overlays, biodiversity and natural values are likely to be existing in surrounding areas.

Environmental monitoring has been undertaken since the landfill commenced operation in 2001 as required by EPN 690/1. As such, this provides long-term baseline data for evaluating environmental impacts associated with the activity and demonstrating compliance with specified emission limits. There has not been any indication that any contaminants have left the site.

6. KEY ISSUES

6.1 ASSESSMENT OF ENVIRONMENTAL, HEALTH, ECONOMIC AND SOCIAL ASPECTS

High level assessment of environmental aspects is shown in **Table 1**. Aspects determined to be key issues for the project are those pertinent to potential impacts from commercial scale composting, or have the potential for offsite impact or nuisance.

All aspects would be expanded upon in any requested EER or EIS, however for the purposes of this NOI only key issues are further discussed.

Table 1 – Assessment of environmental, health, economic, and social issues

ASPECT	RELEVANCE AND POTENTIAL IMPACT	ASSESSMENT
Air Quality	Relevant due to the movement of materials that could generate fugitive dust emissions from roadways and unsealed area. Note that traditional windrow composting produces visible emissions, however this is not relevant to the CORF proposal due to the contained design.	Not considered a key issue due to use of existing landfill roads and mitigation measures in place.
Air quality – odour	Relevant due to the acceptance of odorous feed materials and generation of odour through compost production (noting contained design). Consideration will need to be made for odour management through all aspects of feed delivery and handling, and design redundancy in the odour management system.	Key issue.
Water Quality (Surface and Discharge)	Relevant due to the acceptance of feed materials with characteristics that could impact water quality. Whilst design is wholly contained consideration is required for planned and unplanned maintenance that may result in the need to manage water to prevent discharge.	Key issue.
Groundwater	Relevant due to the acceptance of feed materials and storage of final compost with characteristics that could impact groundwater quality.	Not considered a key issue due to the contained design and sealed storage areas.
Noise emissions	Relevant due to the operation of additional heavy plant and equipment and the operation of fans.	Not considered a key issue due to the proposed location and distance from sensitive receptors.
Waste Management	Relevant due to the potential for feed materials to present to site out of specification and constitute a waste rather than a resource. Relevant due to the need for contingency waste management for planned or unplanned maintenance on the proposed CORF.	Not considered a key issue because potential impacts from out of specification materials are covered in odour and water quality sections.
Dangerous goods and environmentally hazardous materials	Relevant due to the requirement for 3000 L storage tank of sulphuric acid (Class 8 Dangerous Good) to humidify exhaust air for odour treatment. A register of hazardous chemicals stored and handled is maintained for the existing Copping Landfill.	Not considered a key issue due to the small inventory required.

ASPECT	RELEVANCE AND POTENTIAL IMPACT	ASSESSMENT
Biodiversity and Natural Values	Considered relevant due to potential to import weeds from new feed materials. Whilst the existing facility is heavily modified it is prudent to consider the impact on adjacent land uses. No additional land clearing will occur.	Key issue.
Marine and Coastal	Relevant due to the proximity to Marsh Creek and an unnamed tributary both of which report to the Carlton River that discharges into Frederick Henry Bay.	Not considered a key issue due to the contained process and the existing landfill performance that has recorded no offsite discharges.
Greenhouse gases and ozone depleting substances	Relevant due to direct emission from fuel for plant and equipment to operate the CORF, and indirect transport emissions.	Not considered a key issue due to the reduction in transport to existing composting facilities. Any direct or indirect emissions are also offset through diversion from landfill where greenhouse gas generation would be greater than during contained compost.
Fire risk	Relevant due to the proximity to vegetated areas.	Not considered a key issue due to implementation of a comprehensive and approved fire management plan with evidence of risk management strategies clearly documented to reduce all fire related risks to a rating of Low (noting that the plan will need to be updated as a project commitment).
Traffic	Relevant due to the increase in traffic for delivery of feed materials and collection of compost product.	Key issue.
Cultural heritage	An archaeological survey of the existing landfill study area was completed as part of the original DPEMP. Aboriginal heritage sites were identified during the survey which were subsequently managed in accordance with an approved action plan. No Aboriginal heritage issues have been identified on the proposed site of the CORF in the past however it is acknowledged that obligations exist under the *Aboriginal Heritage Act 1975* to manage unanticipated discoveries.	Not considered a key issue due to the existing permitted use and location of the proposed CORF on an existing disturbed area of the landfill site.

ASPECT	RELEVANCE AND POTENTIAL IMPACT	ASSESSMENT
Health	Health impacts are not considered relevant to the proposed CORF. Design and management of the composting process will account for workers exposures to biologically active feed materials or the development of bacteria or pathogens of health concern.	Not considered a key issue due to the absence of emissions through contained design.
Social	The CORF contributes by providing for the sustainable expansion of FOGO collection programs. These allow communities to individually contribute to environmental best practice and the associate benefits	Not considered a key issue.
Economic aspects	Both the construction and operational phases of the CORF are considered to offer significant regional economic contribution. Whilst no formal economic modelling has been conducted, the following estimations are relevant (noting that these are included in the NOI for context but are not intended for publication without verification): • The capital value of design and construction is estimated at $23.5 M. • Direct employment in the order of 4 FTEs. • The ongoing contribution in terms of direct and indirect employee wages is in the order of $300,000. • The economic contribution to the Region through ancillary services and support of other businesses is estimated at $10 M. SWS in partnership with DWM have commenced with local design and intend to continue to apply a 'source local' approach where the skills and capabilities are available to deliver. The proposal is aligned with Tasmanian Government policies of building Tasmania's infrastructure for the 21st century, essential service delivery and more jobs for regional Tasmania.	Not considered a key issue.

6.2 DISCUSSION OF KEY ISSUES

6.2.1 AIR QUALITY - ODOUR

No odour complaints have been received in relation to landfilling operations at Copping. Nonetheless, commercial scale composting has the potential to give rise to odours from the receipt and handling of odorous or rancid feed materials, and through the composting process itself.

The factors affecting the level and characteristics of the odour reaching a sensitive receptor include:

- Compost feedstocks
- The stage of the composting process
- Maintenance of aerobic conditions
- Meteorological conditions such as windspeed and direction, and local topography

Current odour management

There are no current odour conditions prescribed in EPN 690/1 and no current odour management practices utilised onsite.

Proposed odour management

Fully contained compost processing with odour management system as described in 3.2. Based on the absence of existing odour issues, and the contained design SWS do not anticipate any issues meeting 2 odour units at the boundary in accordance with *Environmental Protection Policy (Air Quality) 2004*.

6.2.2 SURFACE WATER

There has been no reported discharge of contaminated stormwater or leachate from the existing operation of the Copping landfill. However, consideration must be made to the importation and management of new feed materials and the operation of a new facility.

Stormwater has the potential to become enriched by organics or contaminated by site operational practices and may have characteristics that may pose environmental harm, including:

- Entrainment of suspended solids
- Entrainment of contaminants from landfill materials, such as nutrients, phenolic compounds, and heavy metals
- May transport oil and grease from site vehicles or other sources

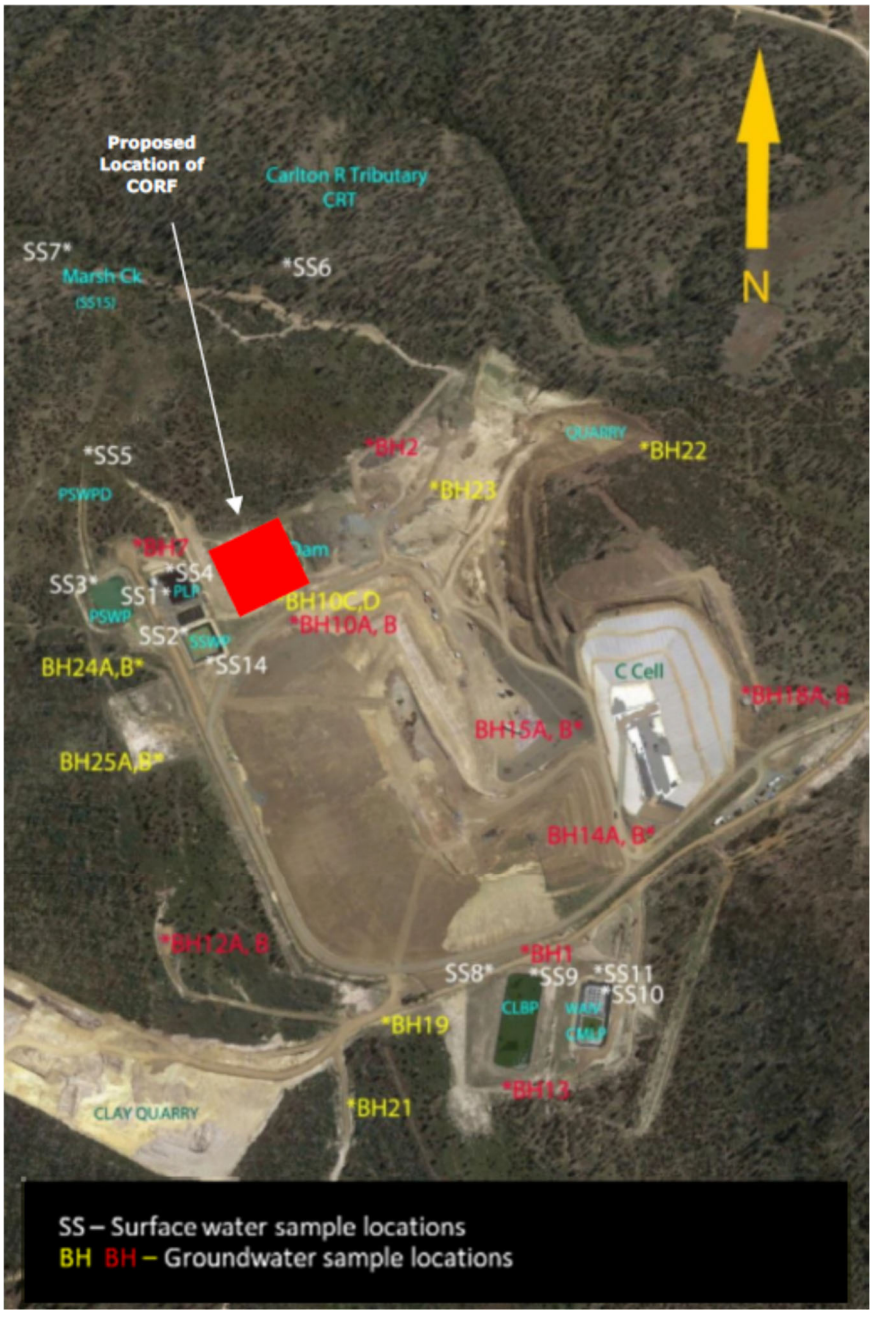
Similarly, groundwater flowing below the CORF site may be recharged with uncontained stormwater or leachate carrying the above-named contaminants. Unless contained, this may discharge into surface water systems and result in offsite impacts.

SWS undertake an intensive and publicly reported surface water and groundwater monitoring program in accordance with EPN 690/1 Condition M2. This program commenced in October 2001 and includes monitoring of:

- Stormwater at 4 locations
- Groundwater at 24 bores
- Leachate at 8 locations
- Offsite monitoring of an unnamed tributary of the Carlton River and Marsh Creek

Sampling is conducted quarterly, with an additional suite of analyses completed at 6-monthly and annual intervals. Monitoring is conducted by 3rd party specialist consultants. All monitoring locations, program details, monitoring data and evaluation of results are available at Monitoring (swstas.com.au).

Figure 15 – Surface water and groundwater monitoring locations



Reference: AquaSci (2021d). Copping Refuse Disposal Site Surface and Groundwater Monitoring Program, Six-monthly Sampling Event Report, June 2021. Report produced for Southern Waste Solutions by AquaSci, 1 – 69, Appendices A - H.

Current stormwater management

Stormwater with the potential for suspended solids or discolouration is contained onsite in sedimentation ponds in accordance with EPN 690/1 Condition E3. Stormwater sedimentation ponds are shown on Figure 15. Stormwater is directed to ponds by clay lined drains with engineered compaction to prevent contaminated recharge of groundwater. Drains contain additional sediment fences that are monitored and managed to prevent loss of detention capacity in the sedimentation pond.

Onsite stormwaters are turbid (generally due to clay) but contained to allow sedimentation of entrained solids. Monitoring of offsite surface water quality has shown impacts from agricultural land use upstream of the Copping landfill at the reference site, SS6. Monitoring downstream of the Copping landfill at SS7 does not indicate adverse effects on the Carlton River Tributary ecosystem[3].

Current groundwater management

Groundwater management consists of engineered barriers to provide physical separation of landfill leachate from groundwater in accordance with EPN 690/1 Condition E1. Leachate is contained in the Main Leachate Pond prior to irrigation back over lined areas of the landfill.

A Leachate Treatment Wetlands system has been developed in addition to EPN requirements to biologically treat recirculating leachate. Whilst the quality does not currently warrant additional treatment it was considered prudent to introduce passive treatment infrastructure in the event of future need. Leachate was introduced to the system in November 2020. Additional piezometers were installed and have been monitored since July 2019, with that data acting as a baseline.

Monitoring has not indicated the presence of leachate in the groundwater at any bore, nor do any of the ratios appear to have increased over time in any bore. Ratios are used rather than absolute values to indicate the potential presence of leachate ingress into the groundwater system[4].

With no impacted areas of groundwater requiring active management measures, the data supports the strategy of monitoring only.

Proposed stormwater and groundwater management

Proposed management is the engineered containment of all leachate and process water flows, and contained materials handling to prevent contaminated recharge to surface or groundwaters. Based on this design the CORF does not prejudice meeting existing Planning Permit conditions:

- Contained design and internal recycling of leachate meets the intent of current EPN 690/1 Condition E1 and E2 that effectively requires groundwater to be separated from potentially impacting leachate, and for that leachate to be contained onsite through engineered landfill linings, collection infrastructure and ponds.
- All processes are conducted within the CORF structure thereby preventing entrainment of contaminants in stormwater. This meets the intent of current EPN 690/1 Condition E3 that requires containment of stormwater that is discoloured or carrying sediment to prevent offsite impacts. In the event of a significant stormwater event the existing site stormwater facilities have the capacity to detain and recycle flows through the landfill cells.

[3] COPPING RDS SURFACE & GROUNDWATER MONITORING PROGRAM Six-monthly Sampling Event Report June 2021, AquaSci, Pg. 22.
[4] COPPING RDS SURFACE & GROUNDWATER MONITORING PROGRAM Six-monthly Sampling Event Report June 2021, AquaSci, Pg. 15.

At this stage of design, no additional monitoring locations are proposed. The existing surface water monitoring locations and piezometer networks is extensive and sufficient. If final design necessitates additional monitoring this will be discussed in future environmental documentation.

6.2.3 BIODIVERSITY AND NATURAL VALUES

According to the original Copping Landfill DPEMP prepared in 1998, the areas adjacent to the landfill footprint were described as suffering varying degrees of disturbance based on assessments conducted in 1996:

All of these surrounding areas have been selectively logged and suffer significant disturbances to understorey and ground layer vegetation, with associated loss of species. There is evidence that the land has been utilised for rough stock grazing.

It was concluded that the use of the site as a landfill would have 'no deleterious effects on botanical values' and there were 'no zoological reasons why this project should not proceed.' (Woodward-Clyde, p 3-14)

Much of the immediate area surrounding the current Copping landfill footprint could still be described in this way. Nevertheless, the landfill is surrounded by vegetation providing an environment for flora and fauna to exist within a reasonable proximity to the Carlton River located to the north-west of the site. Planning scheme overlays indicate a number of areas around the landfill have been identified for protection which is necessary for the recovery of the environment and possibly even the subsequent return of native habitat over time.

Given the original DPEMP assessment was completed sometime ago, a review of the Tasmanian Natural Values Atlas has been conducted to provide a high-level update on this aspect. The results indicate the presence of threatened flora species to the south (*Scleranthus fasciculatus* and *Scutellaria humilis*) and native vegetation communities in the surrounding area as shown in **Figure 16**. Whilst the proposed development is unlikely to impact on these downstream areas, it is important to demonstrate how the composting process will be contained and prevented from causing environmental nuisance or harm to any identified areas with natural values within and beyond the boundaries of the landfill site.

Figure 16 - Threatened Species and Native Vegetation Communities

Reference: Tasmanian Natural Values Atlas, July 2021

SWS currently mitigate potential impacts on biodiversity and natural values in the surrounding area through the following processes and proactive management:

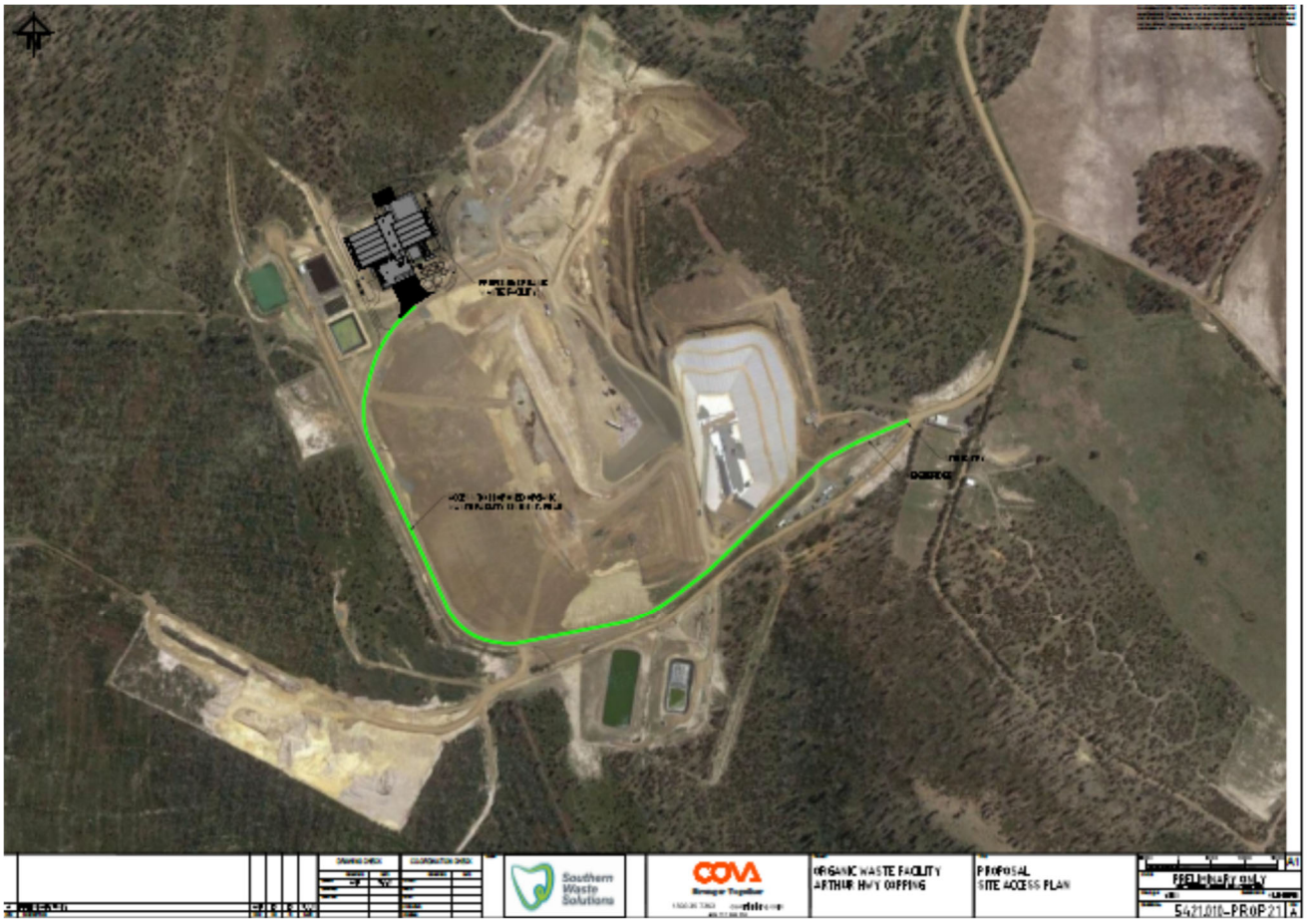
- Strict adherence to the landfill operational management plan at both the B Cell and C Cell.
- Environmental monitoring is conducted in accordance with the site's EPN 690/1 and evaluated to ensure potential adverse impacts are promptly identified and actioned accordingly.
- Implementation of a regular weed control and monitoring programme – annual field inspections are completed and identified weeds are actively controlled (annual reports are available on SWS website).
- Leachate storage dam is surrounded by security fencing, designed to control access by people and animals.
- Construction of a wetlands leachate treatment system which treats leachate through non-mechanical systems, combining adsorption and phytoremediation to extract impurities, for safe reuse rather than disposal.

No further studies are recommended given the CORF will be sited on an existing cleared area within the highly disturbed site of the landfill footprint and will be subject to the same proactive environmental management practices currently in place for the landfill operation. However, attention will be given to assessing and managing the potential for weeds to be transferred to the site in CORF feedstock and demonstrating how the proposed process will ensure there is no impact on downstream areas (both land and waterways) identified for protection under the planning scheme.

6.2.4 TRAFFIC MANAGEMENT

Access to the existing Copping Landfill for disposal of waste is by prior arrangement with SWS as the site is not open to the public. This approach will be the same for the CORF once operational, hence effectively managing the number of vehicles accessing the site at any one time and promoting safe use of and entry/exit from the area. Vehicles may only access the CORF site via the weighbridge located at the entrance to the Copping Landfill site as shown in **Figure 17**.

Figure 17 – Proposed Site Access Plan



The number of heavy vehicles movements associated with the Copping Landfill site will increase on Arthur Hwy and Blue Hills Rd due to the delivery of CORF feedstock and collection of compost product for distribution. In most cases, CORF feedstock will be delivered to the site from a range of sources in greater quantities than currently accepted (for the reasons discussed in Section 3). However, it is proposed for member Council kerbside FOGO to be consolidated at the Lutana Waste Transfer Station (WTS) prior to bulk transfer to the CORF. This activity would occur on a daily basis (weekdays) and involve smaller loads of FOGO collected from surrounding member Council areas being placed into an open-top 25 tonne trailer bin and then transported by a semi-truck to the CORF in a maximum of 2 loads per day. No FOGO will be processed or stored at the Lutana WTS. The purpose of this process is to reduce the number of smaller heavy vehicle movements from the Greater Hobart area through the Sorell Municipality to access the site with CORF feedstock.

Whilst significant traffic impacts are not anticipated, the transport logistics and environmental aspects associated with the construction and operational phases of the CORF project will be considered in a traffic impact assessment to ensure potential issues are identified and managed accordingly.

7. PROPOSED STUDIES AND SURVEYS

Potential studies required:

- Traffic impact assessment

No studies are proposed in the areas of surface water, groundwater or odour because design is fully contained with leachate collection and recycling, and odour management infrastructure.

8. PROPOSED PROJECT TIMELINE

The indicative development timeline for the proposed development is provided in Table 2.

Table 2 – Indicative Development Timeline

IMPORTANT DATES	DESCRIPTION OF PROJECT WORK
18 June 2021	Concept Design
4 August 2021	NOI submitted to EPA
28 August 2021	Detailed Design
To be advised	Construction started
To be advised	Construction completed

9. ADDITIONAL REGULATORY APPROVALS

9.1 EPBC REFERRAL

SWS consider it unlikely that the proposed development would require Environment Protection and Biodiversity Conservation (EPBC) approval and do not intend to refer it for such for the following reasons:

- A search of the *EPBC Protected Matters Database* maintained by the Federal Department of Agriculture, Water and Environment (DAWE) did not identify any matters of national environmental significance or other matters protected by the *Environment Protection and Biodiversity Conservation Act 1999* in the immediate area surrounding the Copping landfill
- The development is wholly contained within an existing permitted footprint
- The proposal is best practice environmental management, reducing the likelihood of environmental impacts through the contained process and complementing the existing landfill activity.

The proposed CORF provides an opportunity for resource recovery at a regional level and aligns with current waste management strategies to reduce waste to landfill.

9.2 LUPAA

No Development Application has been made at this stage. Initial discussions have been held through Joint Authority meetings and based on the support received and the existing permitted use SWS anticipate that a Planning Permit would be issued. SWS understand that any Planning Permit would be accompanied by any conditions required by the EPA through issuance of a new EPN and have the proven capacity to comply with all environmental conditions.

In seeking Planning Approval SWS confirm that they:

- Have not breached any conditions of their current EPN nor any obligations under EMPCA; and
- Have followed all planning processes specified in LUPAA in relation to the initial landfill development and subsequent cell approvals; and
- The proposed CORF development does not prejudice the ability of SWS to meet existing Planning Permit conditions and the conditions of existing EPN 690/1 and is wholly compatible with the existing operation.

10. CONSTRUCTION MANAGEMENT

A Construction Environmental Management Plan (CEMP) would be developed to ensure all environmental aspects and impacts are controlled to prevent environmental harm of nuisance. Key points of note at this NOI stage are:

- Construction will occur in an area currently access via existing service roads but not utilised for landfill activities.
- SWS intends to assign Principal Contractor status to the successful tenderer and enter into contract that includes obligations for best practice environmental management. We will maintain oversight and due diligence to ensure contractual obligations to mitigate and manage environmental risks are implemented.
- SWS have an Environmental Management System that can be applied to the construction phase of the project.
- SWS would propose to manage all shared roads and facilities under existing EPN 690/1. The CEMP will be implemented to ensure that the site is not prejudiced from meeting obligations in EPN 690/1.