

premium is derived by multiplying the market risk premium with asset beta. The market risk premium is assumed at █% per the National PPP guidelines. In terms of the asset beta, research was undertaken on observable betas for listed waste management corporations on the Australian Stock Exchange with comparable expertise and services. Unlevered beta values for the identified comparable companies are shown in Table 48 and the average beta of █ was used in forming the total systematic risk premium. Therefore, the systematic risk premium as applied was █%.

Table 49: Comparable betas

As shown in Table 49, to determine the systematic risk premium transferred to the private sector, the allocation of risk is multiplied to the estimated portion of systematic risk premium. Ultimately, the discount rate for DCOM is the sum of the systematic risk premium transferred to private sector (█%) and the 10yr ACT Government bond rate (█%), resulting in a discount rate to be applied to Government cash flows under the DCOM model of █%.

The following table outlines general model assumptions such as timeline, inflation, discount rate and revenue assumptions. Detailed assumptions for preliminary costs and contingencies are outlined in Section 4.

Table 50: General model assumptions

Item	Parameter	Source
Timeline	Development period: 01 Sep 2021 to 30 Nov 2022	Assumption
	Construction period: 01 Dec 2022 to 30 Nov 2023	
	Operational period: 01 Dec 2023 to 30 Nov 2044 (20-year operational period)	
CPI	█ p.a.	Average of June 2021, 2022 and 2023 CPI forecast: Reserve

7.3 Pre risk adjusted financial outcomes

This section outlines the financial outcomes of the project, where forecast cash flows (excluding risk adjustment, depending on delivery model) is estimated for each project option. The project cash flow consists of the estimated capital and recurrent costs.

Assuming a discount rate of [REDACTED] % (10-year ACT government bond rate), the net present value (NPV) of project cash flow is shown in Table 51. The cash flow in present value terms for the first full year of operations (FY2025) is summarised in Table 52.

Table 51: NPV Project cash flows

NPV Project cash flows	Value (\$, Discounted)
Capital Costs	
Development and construction CAPEX	([REDACTED])
Major maintenance CAPEX	([REDACTED])
Recurrent Costs	([REDACTED])
NPV	[REDACTED]

Table 52: NPV cash flow for first full year of operations

NPV Cash flows for first full year of operations	Value (\$, Discounted)
NPV	[REDACTED]

The following graph shows the net cashflow in nominal terms during the development and construction phase, and the operational period of 20 years. The development and construction phase occurs from FY2022 to FY2024. The increase in cash outflows in FY2033 results from major maintenance costs being incurred in that year.

Sensitivity	NPV Project cash flows
Operating costs -20%	
Revenue +20%	
Revenue -20%	

7.3.1. Compost revenue

Compost products encompass a wide variety of applications, with different material blends, quality and price-points being acceptable in different applications. Compost itself can be produced to a variety of particle sizes, biological maturities and chemical and physical contamination levels. It can also be blended with inert materials such as sands and soils to vary the texture, and natural or synthetic fertilisers to change the nutrient content and chemical properties. Compost producers vary the quality and blending of their products to suit market demand. Product selection, finishing and marketing will remain at the discretion of the contractor, and will not be prescribed or controlled through the DCOM contracting arrangements. Market dynamics for compost-based products are characterised by:

- Non-linear elasticity between price and demand: Producers cannot necessarily generate significant additional demand by lowering prices.
- Trust-based supply chains: Given potential for variability between compost products, establishing reputation and trust within the supply chains is important for individual producers, particularly those targeting premium quality outlets. This has been done very successfully by some composters, including incumbent operators in the ACT.
- Immature potential markets in potential agricultural applications: It can be challenging to develop a new customer base in market segments where there is limited understanding of the expected compost benefits and the product characteristics needed to deliver them, or which have past experience with compost products which were not fit for purpose.

This combination of market dynamics and operator discretion means that there is uncertainty in the likely price-point and target markets for the recovered organic products based on household FOGO material. The approach within the business case is to adopt a highly conservative, but non-zero, value of [REDACTED] e for compost revenue.

Table 55 summarises three distinct market segments for compost-based products, and the primary uses for compost products within each one. The volume, price, quality and physical specifications differ between specific uses, and composters typically produce multiple product grades targeting different outlets. Product which are sold in low volumes, such as bagged landscaping products for domestic gardens, command a higher price point per-tonne than bulk sales outlets, but provide a potentially more constrained volume outlet.

Canberra green waste composters and CRJO FOGO composting.	Self-haul retail price \$/m ³	\$/tonne based on an approximate compost density of 0.4 tonnes/m ³
Corkhill Bros organic compost/super compost	\$ 44	\$110
Canberra sand and gravel compost soil	\$ 46	\$115
Canberra sand and gravel Compost No. 5	\$ 48	\$120
Weilwun veggie mix	\$ 45	\$113
Weilwun organic fine compost	\$ 35	\$88
Weilwun organic coarse compost	\$ 25	\$ 63

As can be seen from Table 56, the [REDACTED]/tonne value adopted for compost revenue is highly conservative when compared to the incumbent operators in the urban amenity market in ACT and CRJO region. The market price achieved has the potential to be considerably more than [REDACTED]/tonne based on sales figures from other projects, but the ACT FOGO product would need to compete with established suppliers in the existing ACT urban amenity market, and it cannot be guaranteed that the full volume of FOGO compost product will be sold within that market and price range. The potential need to diversify into less urban amenity applications or agricultural markets, when specific local information is unavailable creates some uncertainty, and the revenue estimate has been reduced accordingly.

Tender proposals including an incumbent operator may be able to base their offer on a higher expected revenue due to existing supply chains and relationships which help to mitigate risk in this space. However, this has been discounted at the business case stage to provide a conservative overall assessment of project funding requirements.

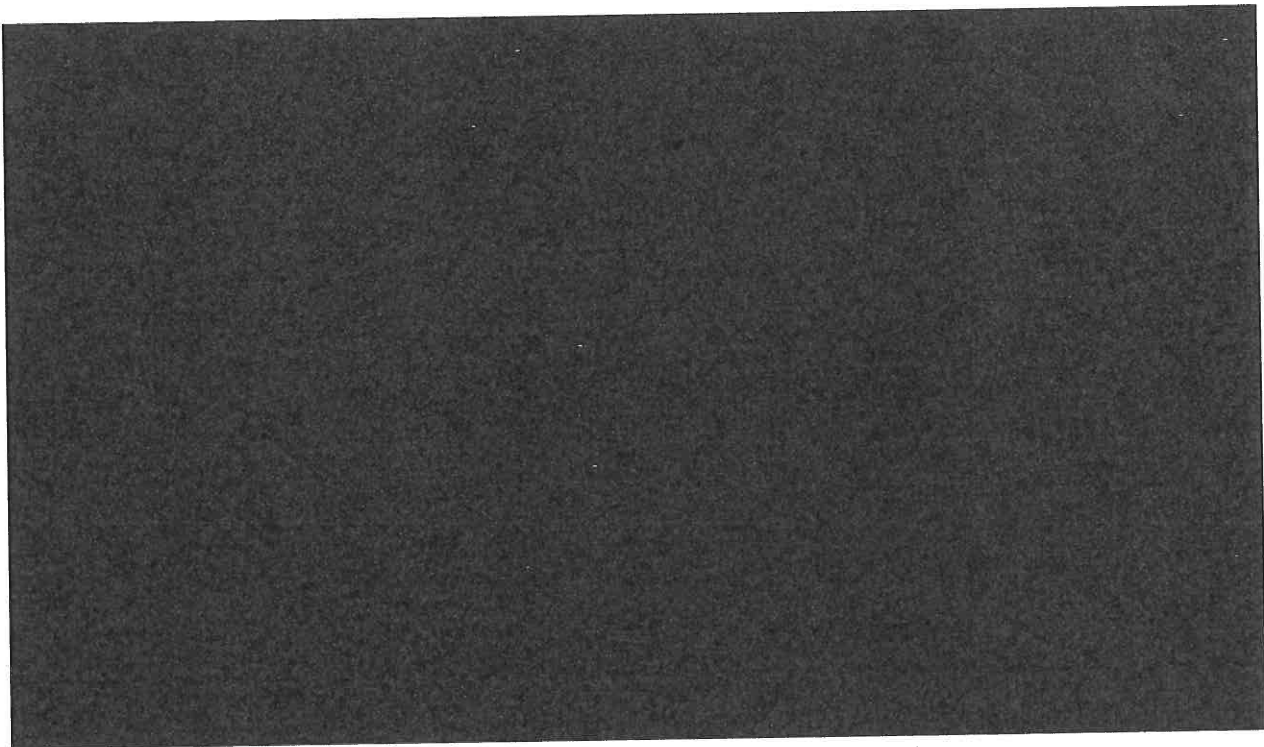


Figure 17: DCOM Nominal risk-adjusted cash flows

The first full year of operations in the financial model is in FY2025. The following table shows the nominal cash inflows and outflows for that year. The nominal cost to government in the first full year of operations is \$ [REDACTED].

Table 58: Nominal costs in the first full year of operations

Nominal costs in first full year of operations (FY2025)	Value (\$, Nominal)
Risk-adjusted recurrent costs to government	(\$ [REDACTED])

7.5 Incremental Procurement/Transaction Costs

The illustrative private sector delivery model for this project, DCOM, requires significant government effort during the procurement period. Given that the terms of the awarded contract will be relatively fixed for the entire operational period under DCOM, it is important that the Government fully understands the risks and potential costs, and associated contract structure. To do so, it is likely that legal, technical, and commercial advisors will be required during procurement. The procurement and transaction costs included in the project costs are detailed in Section 4.2.1.

7.6 Public Sector Comparator vs. DCOM

The main objective of the analysis is to assess and quantify whether the transfer of delivery, operations and maintenance responsibilities to a contractor can create higher value to the

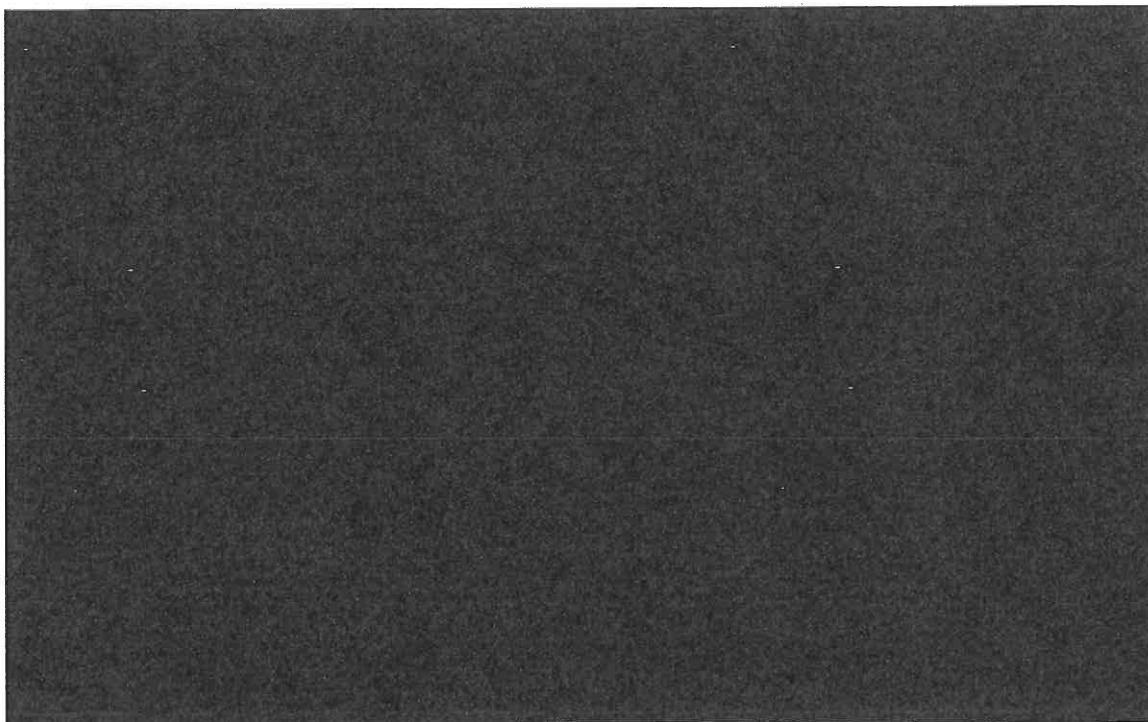


Figure 18: Financial Analysis

7.7 Review 4 (Treasury): Financial (PPP/DCOM only)

☐ Not applicable

Treasury to sign off that the financial analysis has been prepared by an appropriately skilled advisor (IFCW Panel) and that there are no unacceptable assumptions in the analysis (only applicable for PPP/DCOM delivery models).

Review 4 (Treasury) Officer Name: _____

Signature: _____

Date: _____

- *This is the second review point for Treasury and is an assessment of the financial estimate calculations for PPP and DCOM models.*

Disclaimer: *This review does not represent an endorsement or agreement by the signing officer as to the contents of the section or a certification that the work was correctly performed.*

Stakeholder	Interest and Role
	Provides input to the Steering Committee where required.
Advisors	Engaged on an as required basis. Provide specialised/technical input to the Steering Committee where required. Relevant advisors – ACT NoWaste External consultancy – Arup Australia Pty Ltd Current Green Waste processor for Trial Data WorkSafe, ACT ESA and ACT EPA and EPSDD MPC / TCCS ID Any other External SMEs identified and required to deliver the project.
Project Control Group	
Project team	Made up of officers from both the Requesting Directorate and PCW. Team members will ideally have subject matter, project management and contracts management experience. Ann Denholm, Program Director – ACT NoWaste Responsible for: • Develop positions on a range of policy, commercial and administrative matters to be considered by the steering committee. • Manage the advisors to ensure satisfactory performance, deliverables are achieved. • Manage the competitive bid process. • Manage stakeholder relations and community consultation. • Provide advice and assistance to the evaluation committee on its assessment of expressions of interest and binding bids. • Manage contract administration • Monitor project programme • Progress invoices & maintain budgets To be confirmed, TCCS Infrastructure Delivery (TCCSID) To be confirmed, MPC – CMTEDD Matt Watson, ACT NoWaste – Asset Management

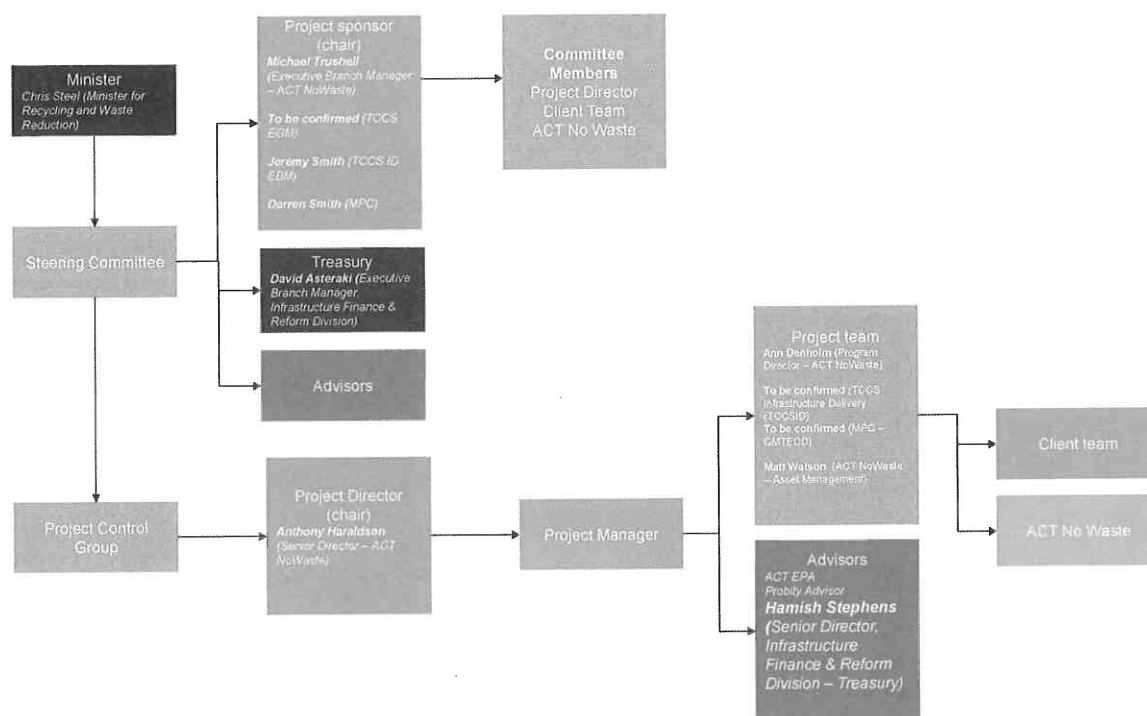


Figure 19: FOGO Governance Structure

Table 61: Stakeholder identification and consultation

Stakeholder	Impact and interest on the project	Consultation to date	Planned consultation
ACT NoWaste	Project Sponsor	-	-
ACT Treasury	Manages the process through which of capital works funding proposals in the ACT are assessed.	Engagement in each of the Directions Paper, Feasibility Study and Business Case stages of the project, particularly in respect of delivery model selection. Treasury has had a key role in the development of the funding and delivery model selection, attending the risk and delivery model workshop.	Ongoing engagement and consultation throughout the business case process, and final approval of the budget for project delivery. Treasury will also review and approve the business case for the consolidated waste collection services contract, including FOGO collection. This is a separate contract and business case, but both the collection and processing of FOGO material are interdependent and essential to the overall resource recovery objective.
Major Projects Canberra (MPC)	Leads the procurement and delivery of the Territory's infrastructure program in partnership with	Participation in various workshops during the Directions Paper, Feasibility Study and Business Case stages of the project.	MPC will lead the procurement and delivery of the FOGO infrastructure project, including development of tender and contract document, tender evaluation and project oversight during the design and construction phases.

CABINET-IN-CONFIDENCE (after first entry)

Stakeholder	Impact and interest on the project	Consultation to date	Planned consultation
Potential bidders	Potential delivery partners to the Territory	Informal / soft market sounding to ascertain market appetite; available technology; risks; preferred delivery models. Findings were anonymised and incorporated into the FOGO Feasibility Study.	Invitation to bid in accordance with the procurement guidelines.
Local community	Key stakeholders in the success of the FOGO facility. Community education and engagement is essential to ensure volumes and quality of feedstock.	Market surveys and engagement to understand broader level of food waste and interest in composting.	Education and engagement prior to rolling out the FOGO facility. Education and engagement are included in the waste collection business case and will be delivered using a combination of in-house ACT resource and contractor resources under the waste collection contract. Education engagement will take place at the end of 2021 prior the FOGO trial and will be refined and expanded prior to full rollout of the service across the ACT, including incorporation of specific advice or requirements from the selected FOGO processing provider.
Special interest groups	These are the community groups that will be included in the community reference group. They are likely to be	None.	Community consultation workshops to understand community views towards the delivery of the facility.

CABINET-IN-CONFIDENCE (after first entry)

Planned consultation

Consultation to date

Impact and Interest

on the project

Stakeholder

relationship.

However, these services will be provided under separate contracts with the ACT Government. ACT Government remains responsible for managing the interface between waste collections and waste processing.

Recognition that the currently proposed site may have cultural significance.

None. The EIS scoping process did not identify any aboriginal cultural heritage values associated with the preferred site.

Not engaged. ACT NoWaste has engaged with Major Projects Canberra (MPC), as MPC will be the agency supporting delivery of the FOGO infrastructure project.

General community consultation and education materials and distribution will be developed to ensure they are inclusive and accessible across demographics and cultural groups in the ACT, including indigenous communities.

None. MPC will be the agency supporting delivery of the FOGO infrastructure project.

Indigenous communities

Procurement ACT supports the delivery of many capital works projects in the ACT.

Single Assessment Framework – Business Case Template (All Tiers)

Single Assessment Framework (after first entry)

10. Advisor Engagement Plan

10.1 Proposed Advisors Roles

10.1.1. Legal

Given the complexity of a DCOM, it will be critical that the ACT receives robust legal representation.

Subject to the final selected delivery and procurement model, the ACT will require a legal adviser to review, draft and advise the Territory in relation to the following documentation and process:

1. commercial DCOM term sheet to accompany Request for Proposal (“RFP”) documents;
2. Project-specific DCOM Contract, including the functional specification requirements for the Project to accompany Request for Tender (“RFT”) documents. Note the functional specification will be created by the technical advisors;
3. Any related side deeds relating to the Project and/or DCOM Contract;
4. summary sheets for all contracts.
5. invitation letter and instructions to Bidders, to be prepared in conjunction with the ACT and its advisors.
6. discussion with the ACT and its financial/commercial and technical advisers to incorporate comments on the documents prior to release to the Bidders.

It is beneficial if advisors with experience in both complex infrastructure delivery and the waste market are utilised.

The legal adviser will need to ensure it is familiar with, complies with and incorporates into its advice all Territory probity requirements, as well as Treasury and budgetary cycle requirements and processes.

10.1.2. Commercial Procurement

As the recommended Delivery Model is a DCOM, a Commercial Procurement Advisor will be required. Arup will be the Commercial Procurement Advisor alongside Sphere Infrastructure Partners. Additionally, Major Projects Canberra will be a key advisor to ACT NoWaste.

10.1.3. Commercial Financial

As the recommended Delivery Model is a DCOM, a Commercial Financial Advisor will be required. Arup will be the Commercial Procurement Advisor alongside Sphere Infrastructure Partners.

10.1.4. Technical Design & Engineering

A Technical Design and Engineering Advisor will be required for the detailed design stage of this project. Arup are the confirmed and appointed specialist technical advisors.

11. Timeline

11.1 Project Timetable

11.1.1. Outline

The project timeline is broken down into seven key steps, summarised in the table below for the delivery of the FOGO facility through a DCOM Delivery Model. A detailed Project Programme is included in Appendix F, which includes a summary of the additional time required to deliver the project through a User Charge PPP.

The proposed timeline is tight and requires the timely completion of key activities and careful and efficient management of various interfacing work streams, such as internal ACT Government approvals of the business case and budget. The timeline proposes the shortest possible timeline for delivery of the facility, with little to no float for resolving any issues around design and construction.

Table 62: Project Timeline (DCOM)

Stage	Key Activities	Timeframe	Notes
Business Case Finalisation	Business Case Finalisation Internal Review of Business Case (ACT NoWaste and Treasury) Cabinet Review Process Approvals - Budget estimates, including allocation for FOGO procurement Further assessment and approvals on delivery model decision based on market sounding outcomes	Q2 2021 – Q3 2021 (5 months)	
Procurement Process	Engage Legal Advisors Preparing RFP request and evaluation criteria RFP application preparation time for bidders(s) RFP Response Period	Q4 2021 – Q3 2022 (7 months)	

	EIS Preparation and submission to EPSDD Public Consultation Response to submission & Update EIS Approval from EPSDD		
Development Application	Approved EIS to be submitted with DA	Q3 2022 - Q4 2022 (2 months)	As above.
Design (by selected bidder)	Detailed Design Approvals (Planning, Environmental etc.)	Q3 2022 – Q4 2022 (5 months)	5 months has been allocated to detailed design, which must be reviewed at tender assessment stage.
Community Education	Community Education prior to operations	Q1 2023 – Q4 2023 (11 months)	
Construction and Commissioning (by selected bidder)	Construction Testing, commissioning, and handover	Q1 2023 – Q4 2023 (11 months)	11 months is allowed for construction, which may require early procurement of key plant and equipment to realise. No allowance has been made for delays to delivery or international supply constraints.

11.1.2. Proposed float

As mentioned in the section above there has been no float allowed for in the development of the timeline to achieve operations by end of 2023. As such, the following issues will need to be addressed:

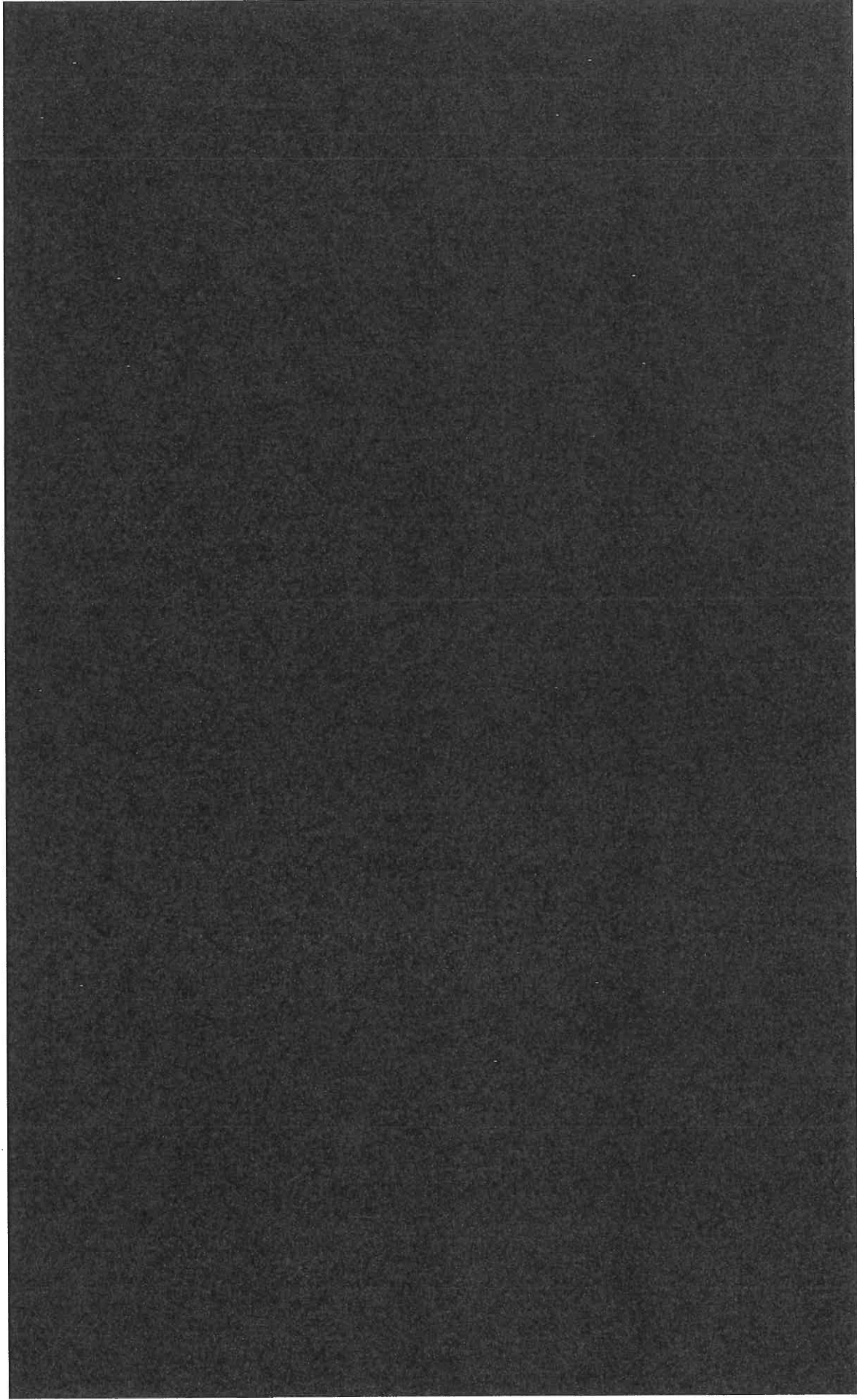
- Timely review of contracts for preferred bidder. No allowance has been made for extended legal negotiations that may occur.
- The EIS process relies upon the overlap of permitting and of development of detailed design. This itself may precipitate late design changes and late stage permit modification. It is assumed that these changes will be minor and can be processed by EPSDD in a timely manner.

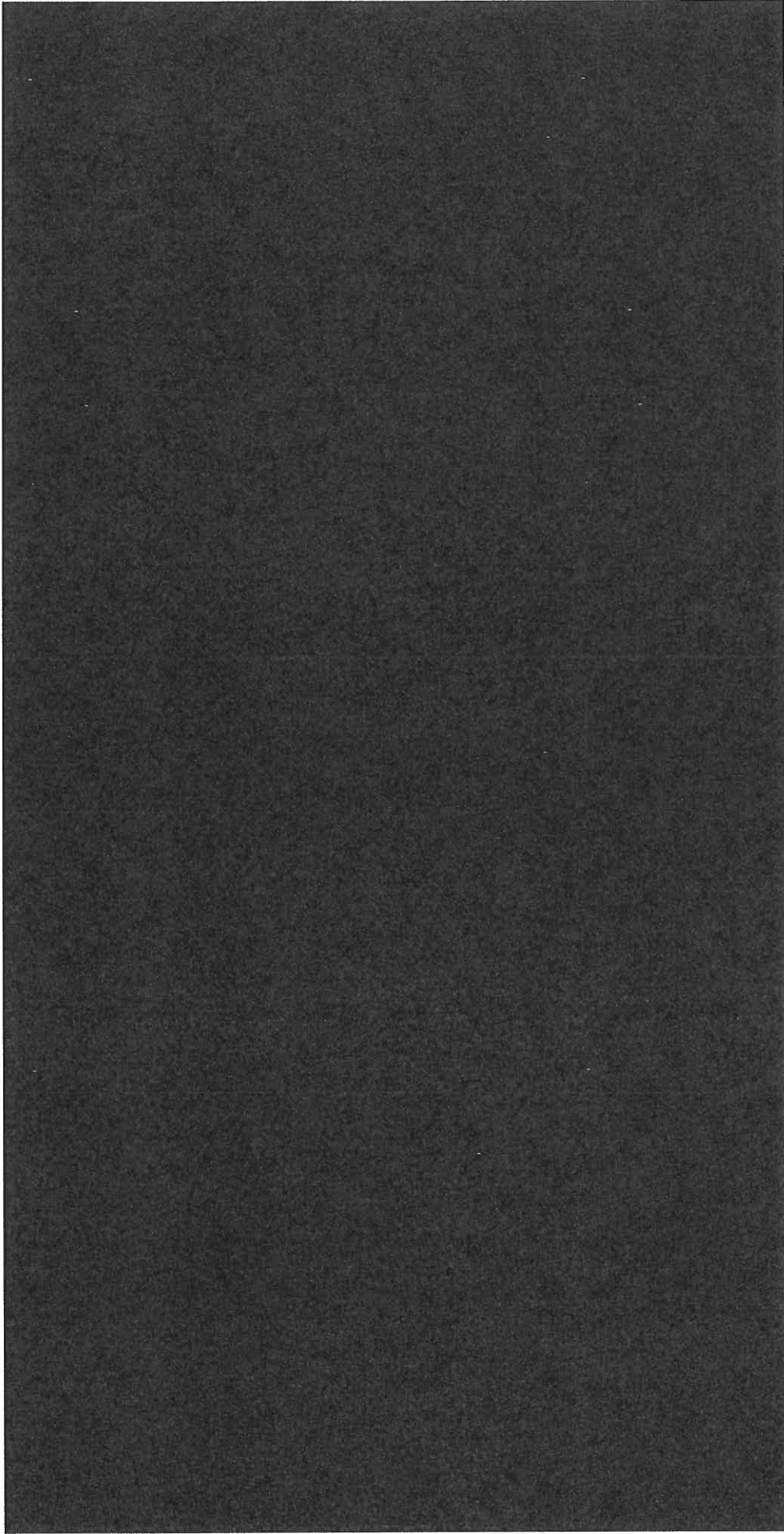
12. Appendices

Appendix A – Functional Brief / Output Specification

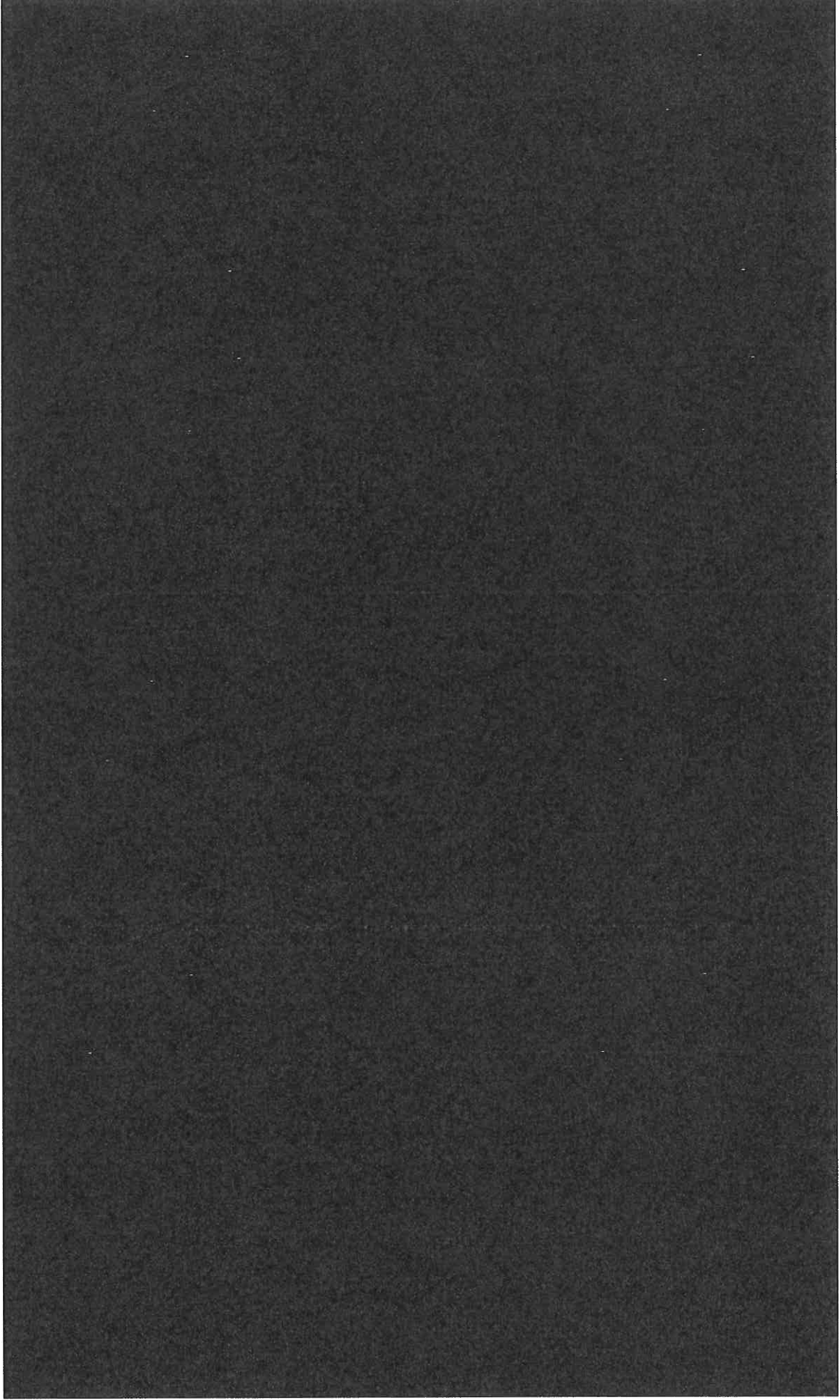
The Functional Brief/Output Specification is to be provided by Major Projects Canberra as part of the Procurement Strategy. This will summarise the needs and outcomes that ACT NoWaste is seeking to achieve from the project to assist in the achieving successful outcomes.

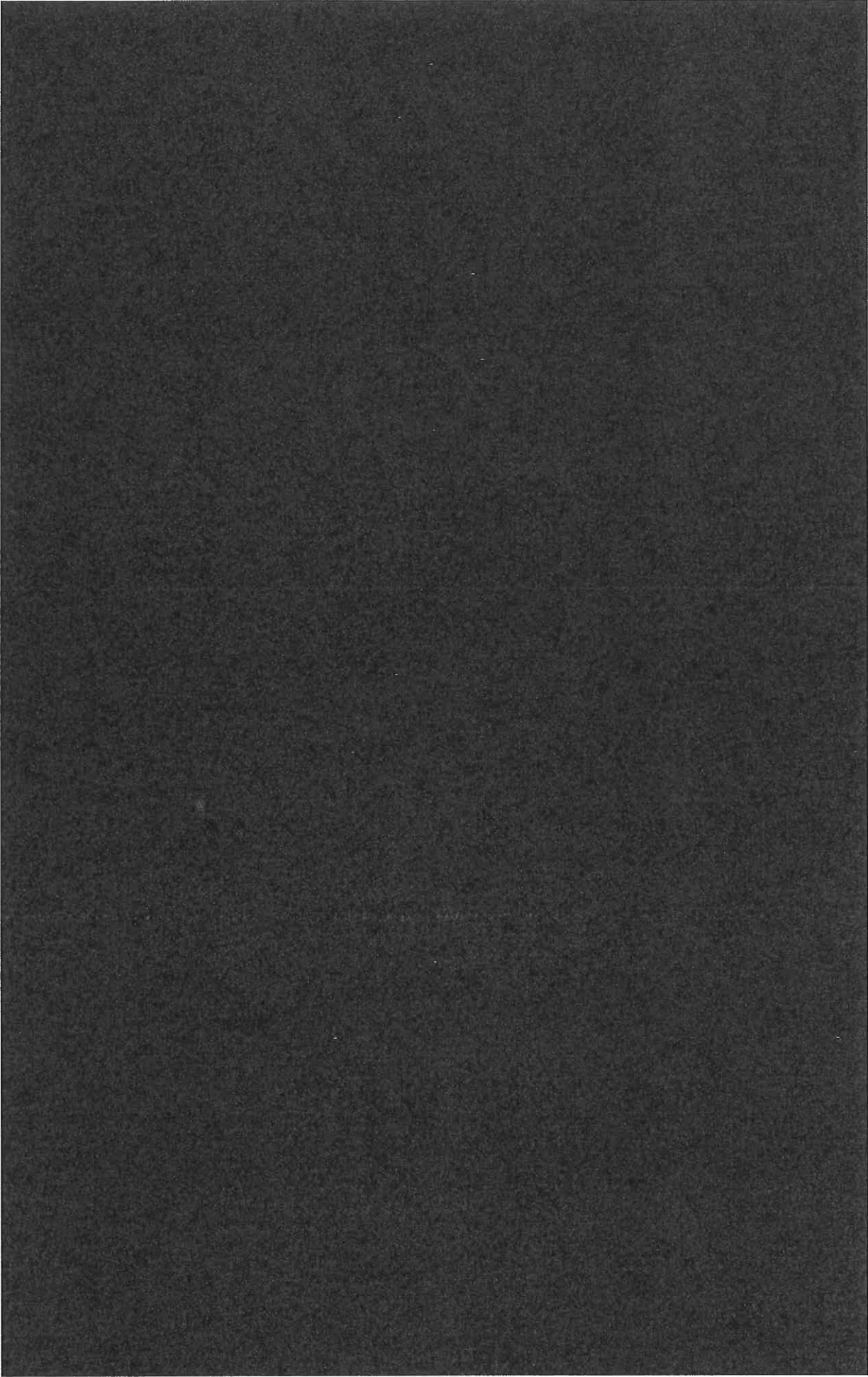
Appendix C – Risk Register





Appendix E – Risk Management Plan





Appendix F – Stakeholder Engagement Plan

Stakeholder	Impact and interest on the project	Consultation to date	Method of Consultation	Planned consultation	Method of Consultation
ACT NoWaste	Project Sponsor	-		-	
ACT Treasury	Manages the process through which of capital works funding proposals in the ACT are assessed.	Engagement in each of the Directions Paper, Feasibility Study and Business Case stages of the project, particularly in respect of delivery model selection. Treasury has had a key role in the development of the funding and delivery model selection, attending the risk and delivery model workshop.	Consultation and Workshops	Ongoing engagement and consultation throughout the business case process, and final approval of the budget for project delivery. Treasury will also review and approve the business case for the consolidated waste collection services contract, including FOGO collection. This is a separate contract and business case, but both the collection and processing of FOGO material are interdependent and essential to the overall resource recovery objective.	Consultation and Workshops

Stakeholder	Impact and interest on the project	Consultation to date	Method of Consultation	Planned consultation	Method of Consultation
Environmental Planning and Sustainable Development Directorate (EPSDD) –	Department of Planning and Approvals. They are responsible for the statutory planning framework for planning in the ACT, which aims to deliver independent, long-term planning to benefit Canberra's residents. They are responsible for overseeing the development of the EIS statement and compliance with EPA Standards.	Informal consultation to determine the correct approvals pathway (Impact track, EIS required) and information requirements for EPSDD to assess the FOGO processing proposal. EIS Scoping process, with the EIS Scoping Report formally submitted in early March 2021.	Consultation and Workshops	Development and submission of the detailed EIS through a Tender process to engage a consultancy to manage the EIS process in conjunction with the successful Tenderer for the Design of the facility. This Design and all criteria will inform EPSDD on the requirements are required to progress the EIS.	Consultation and Workshops and procurement processes.
Potential bidders/ technology providers	Potential delivery partners to the Territory	Informal / soft market sounding to ascertain market appetite; available technology; risks; preferred delivery models. Findings were anonymised and incorporated into the FOGO Feasibility Study.		Invitation to bid in accordance with the procurement guidelines.	Consultation and Requests for Submissions

CABINET-IN-CONFIDENCE (after first entry)

Stakeholder	Impact and interest on the project	Consultation to date	Method of Consultation	Planned consultation	Method of Consultation
Special interest groups	These are the community groups that will be included in the community reference group. They are likely to be advocates such as current composting groups or environmental lobbyists who will be impacted by the facility.	None.		Community consultation workshops to understand community views towards the delivery of the facility.	Focus Groups / Workshops

CABINET-IN-CONFIDENCE (after first entry)

Stakeholder	Impact and interest on the project	Consultation to date	Method of Consultation	Planned consultation	Method of Consultation
Indigenous communities	Recognition that the currently proposed site may have cultural significance.	None. The EIS scoping process did not identify any aboriginal cultural heritage values associated with the preferred site.		General community consultation and education materials and distribution will be developed to ensure they are inclusive and accessible across demographics and cultural groups in the ACT, including indigenous communities.	
Procurement ACT	Procurement ACT supports the delivery of many capital works projects in the ACT. Major Project Canberra supports the delivery of larger or higher risk projects. MPC has been confirmed as the agency for the FOGO procurement process.	Not engaged. ACT NoWaste has engaged with Major Projects Canberra (MPC), as MPC will be the agency supporting delivery of the FOGO infrastructure project.		None. MPC will be the agency supporting delivery of the FOGO infrastructure project.	

use in the next round of communications with their communities, as a way of showing the impact of contamination.

Compost outlets and experience

The current windrow process for FOGO material has worked well at the current site but is beginning to experience operational challenges including odour complaints at the throughout approaches the site's licenced limit. The move to a new in-vessel facility at the Stanley Road site will solve these issues while providing more capacity and secure land tenure.

FOGO material is mixed with shredded green waste and placed in windrows over the aeration system for pasteurisation. The piles are turned five times during the composting process. This was done monthly. However, as the site throughout has increased, turning has being increased to fortnightly, and the site has experienced some odour complaints as a result. BHRC has made some operational changes, including using odour suppression and not turning the windrows when the prevailing wind is towards sensitive receptors. These are seen as short-term adjustments until the new IVC facility is ready.

Compost is matured for 6 months and screened. Oversize material from the 50mm screening captures most of the contamination, including items like plastic bags and containers. This fraction is sent to the landfill as daily cover.

The <10mm fraction is the sold as organic compost.

The 10mm-50mm fraction undergoes further processing and screening to reduce as much material as possible to <100mm compost. Any remaining oversize material is used for landfill rehabilitation.

BHRC has recently launched the "360 Organics" brand to market their compost with a separate identify to the wider Regional Council operations. Their certified organic compost is sold into a range of markets, including:

- Horticulture, market gardens and orchards. Avocados farmers and orchards in the South-West region are important customers.
- Viticulture, particularly vineyards pursuing organic certification
- Sale to the public through transfer stations and landscaping suppliers
- Department of Main Roads verge rehabilitation

In addition to meeting AS4454 standards for mature compost, all compost is also certified organic under NASAA certification standards, regardless of the end customer. This involved an upfront cost for site certification and has ongoing implications for testing time before each batch is sold. Use of FOGO is not a barrier to organic certification. However, they have refused some commercial food waste supplies which contain a high proportion of genetically modified material in order to maintain the organic certification.

Organic farming in the area currently only makes up around 10-15% of their market outlet and this market is currently too small to generate a price-premium on organic compost. However, BHRC see

contamination campaign was carried out in the suburb of Casuarina, where high contamination rates were identified.

Compost outlets and experience

Currently, the council has no visibility or influence over the fate of its FOGO material, as this is blended with other feedstocks to create a range of different products at the Phoenix Power Recyclers facility in Queensland.

Completion of the IVC facility at Stotts Creek will see FOGO material returned to existing agricultural and domestic supply chains for compost. The facility will be located in a cane-growing area and product markets include broadacre application on cane farms. Broadacre farmers can accept compost with lower maturity levels, as this is often delivered in bulky loads and stored on farm for a period of several weeks or months before application to the fields. Maturation occurs during this on-farm storage period. Consequently, there is no dedicated space for maturation in the approved plans for the Tweed IVC facility.³¹ The design philosophy for this facility uses a longer time in the composting tunnels and no dedicated separate maturation phase, and this is expected to produce a material which is acceptable in the local market context.

Case study: Bega Valley Shire Council, NSW

Population

FOGO service provided to approximately 20,000 people. Total population approximately 35,000 people.³²

FOGO program introduced

2018

Tonnes of FOGO

4,000 tonnes in 2018/19

FOGO processing technology

Council-operated open windrow composting at their Merimbula Waste and Recycling site. FOGO composting uses a mobile aerated floor system. The council was already operating green waste shredding and mulching and has changed their operations to incorporate FOGO processing on the same site.

The council initially purchased a pull-behind windrow turner, tractor and waste cart, but this system wasn't able to process the volumes of FOGO material within the available site. The mobile aerated floor composting system speeds up the composting process and helps the council to process the FOGO material within the space constraints of their site.³³

Contamination rates and decontamination

³¹ <https://datracker.tweed.nsw.gov.au/Common/Output/Document.aspx?id=6493161&ext=pdf>

³² <https://www.epa.nsw.gov.au/-/media/epa/corporate-site/resources/wastestrategy/20p2373-appendix-waste-resource-recovery-report-2108->

³³ <https://wastemanagementreview.com.au/growing-a-fogo-community-bega-valley-shire-council-c-wise/>

visiting population focused on physical materials such as multi-language brochures, fridge magnets, signage and other resources.³⁹

As a result of the strong led-in, residents were able to use the FOGO service as soon as it arrives. The FOGO collection recorded just 1% contamination in the first week of the service, dropping 0.8% in the week 2 and 0.6% in week 3.⁴⁰ During its first year, the program achieved an average contamination rate of 0.4%, which is well below typical performance of Australian FOGO services.⁴¹

The FOGO collection vehicles are fitted with cameras, which drivers use to inspect and photograph material as it is emptied in the truck. This system does not prevent all contamination being collected, but it provides the council with information to follow up with contaminating households.

Following the positive response and behaviour change among the community, the Bega Valley Shire Council expanded the FOGO service to schools. Schools can opt in to receive FOGO and recycling bins, and the council provides free collection and processing of the food waste.⁴²

Bega Valley Council have [published a lesson learned document online](#) to share their experience with other councils, and have also made their education and engagement materials available online.

Case study: Snowy-Monaro Regional Council, NSW

Population

FOGO service provided to approximately 3,600 people in the region. Total population approximately 20,000 people.⁴³

FOGO program introduced

First introduced for the Cooma township in 2015.

Tonnes of FOGO

Approximately 500 tonnes in 2018/19⁴⁴

FOGO processing technology

Open windrow composting operated by the Snowy-Monaro Council at their Cooma landfill site. The windrows are turned with a windrow turner and composted for 10-12 weeks.⁴⁵

Compost outlets and experience

³⁹

https://www.wmrr.asn.au/Web/WARR_Industry/Industry_Spotlight/Bega_Valley_Shire.aspx?WebsiteKey=00969b94-a8ff-49f3-8d36-264248d5094d

⁴⁰ <https://www.epa.nsw.gov.au/-/media/epa/corporate-site/resources/wastegrants/19p1770-fogo-collection-in-bega-valley-shire-case->

⁴¹ https://begavalley.nsw.gov.au/cp_themes/default/page.asp?p=DOC-DQM-50-44-25

⁴² https://begavalley.nsw.gov.au/cp_themes/default/page.asp?p=DOC-RVC-05-78-51

⁴³ <https://www.epa.nsw.gov.au/-/media/epa/corporate-site/resources/wastestrategy/20p2373-appendix-waste-resource-recovery-report-2108->

⁴⁴ <https://www.epa.nsw.gov.au/-/media/epa/corporate-site/resources/wastestrategy/20p2373-appendix-waste-resource-recovery-report-2108-19.xlsx?la=en&hash=FDCE65DFA69AA7BD854471429BB39E09F9FCFA72>

⁴⁵ <https://www.snowymonaro.nsw.gov.au/824/Compost-Farm-Coompost>

A strong relationship with waste collection teams, who manually inspect bins at the point of collection. Contamination is sometimes introduced by passers-by while the bins are presented at the kerbside, and this is manually removed from the surface of the food waste.

Case study: Corkhill Bros ACT

Corkhill Bros is one of the green waste processors in the ACT. They have a mature and established business located on ACT Government land at the Mugga Lane site. Corkhill Bros accept free drop-off of clean garden waste from households and businesses and produce a range of products for landscaping and horticulture. They also bring a range of other recovered and virgin materials onto their site for blending into final products, including pine bark (forestry residue), cow manure and washed sand. The Corkhill's business model targets markets where high-quality products can command a premium price, such as growing media for horticulture and flower shows. Not all of their products contain composted garden organics from the drop-off service. This business model allows them to accept clean green waste feedstock for free, without relying on gate fee revenue. Around 40% of their product is sold in the local area, while 60% is transported to interstate markets.

Case study: Sacyr compost facility, Victoria

This is a recent example of a private sector financing delivery model for a FOGO treatment facility.

In 2019, an indoor composting facility for municipal organic FOGO waste was opened in Melbourne, Victoria. Sacyr, a Spanish company, has a contract with the Victorian Metropolitan Waste and Resource Recovery Group (on behalf of a number of Victorian councils) for the provision of organic waste on the back of which it financed, designed, constructed, commissioned and operates the facility, for 15 years with a possible extension of five years.

The plant has a maximum capacity of 120,000 tonnes of waste per year and produces up to 50,000 tonnes of quality compost per annum. Public information suggests an overall project value of \$65 million of which the Clean Energy Finance Corporation provided \$38 million in debt financing.

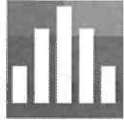
Case study: UK experience with organics processing

Context and drivers

The UK focus over the last two decades on waste diversion from landfill and in particular on organic waste has been driven by EU policy and binding directives. The EU Landfill Directive set a target to reduce biodegradable waste to landfill to 35% of 1995 levels by 2020. In response, the UK developed a Landfill Allowances Scheme. It sets progressively lower limits on the tonnage of biodegradable waste which each council can send to landfill, charting a path to compliance with the broader EU targets. Councils failing to comply can face a financial penalty, and the UK potentially faced a national penalty under the Landfill Directive.

Appendix H – Monte Carlo simulation Output Reports

Capex

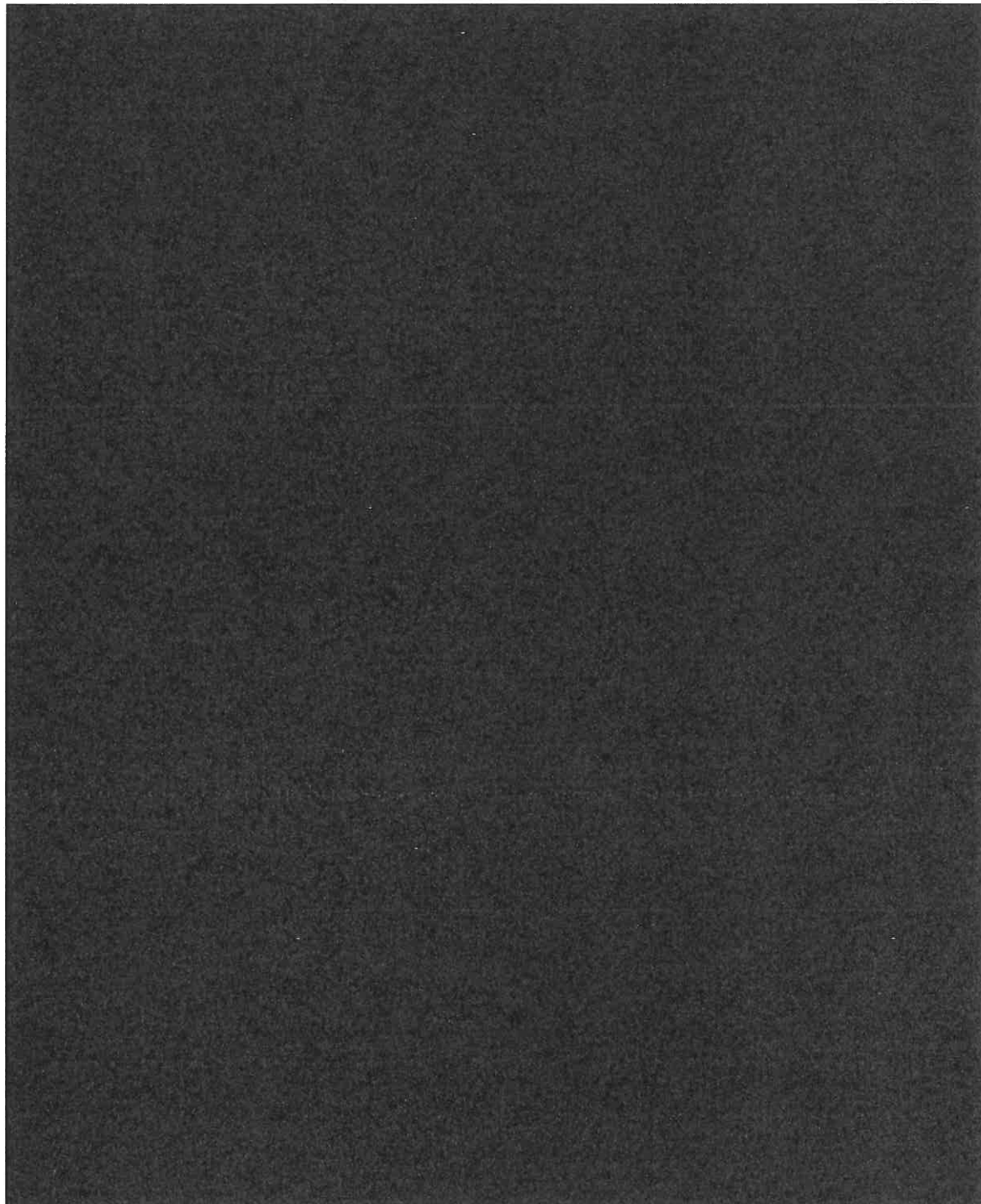


Total capex risk - 'Modelling capex'!AP17

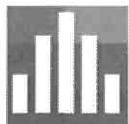
Report: Compact Output Report

Performed By: Miles.Miranda

Date: Tuesday, 18 May 2021

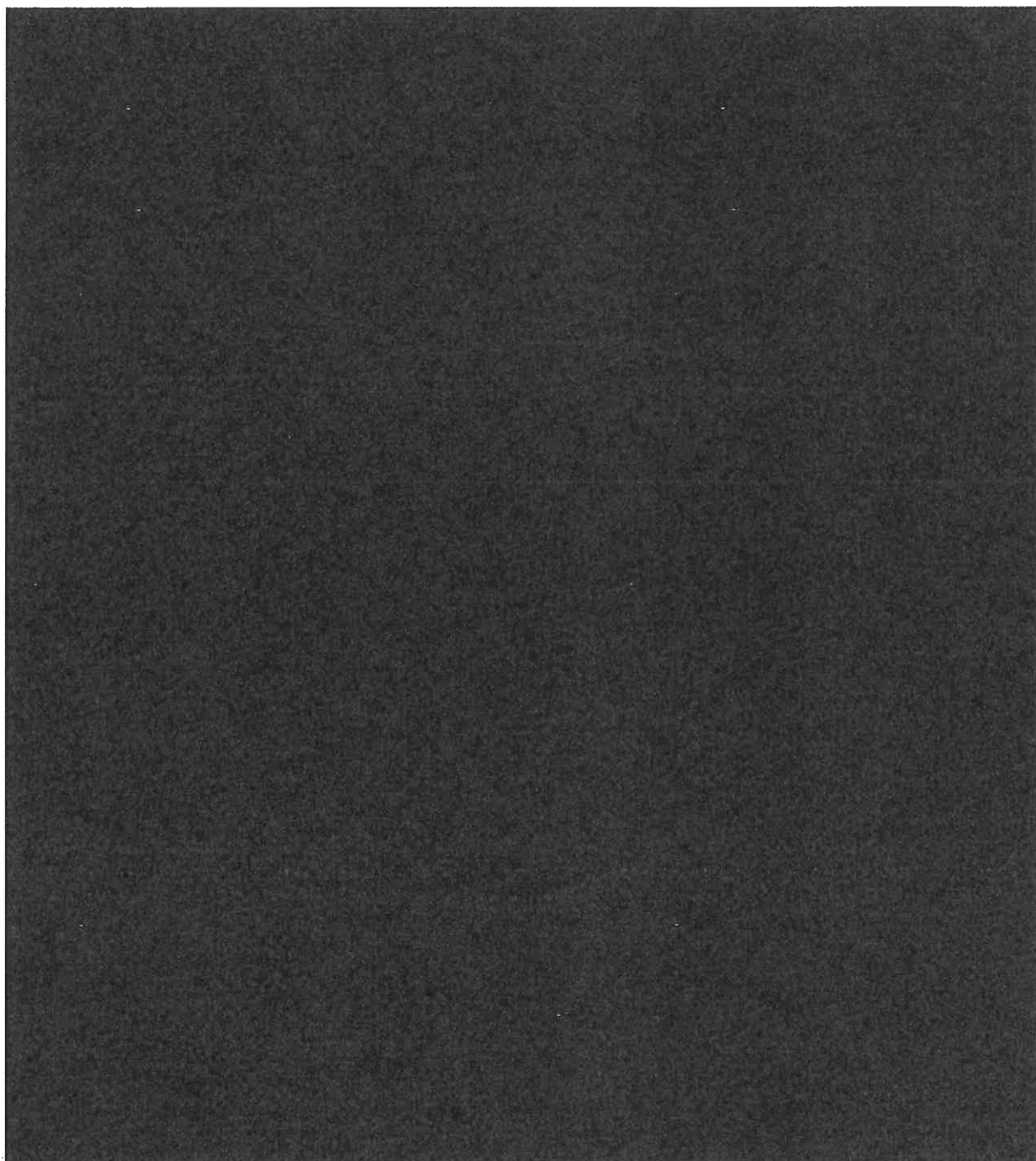


Revenue



Sufficiency of end markets (revenue) risk - 'Modelling revenue'!AP7

Report: Compact Output Report
Performed By: Miles.Miranda
Date: Wednesday, 12 May 2021



WELLBEING IMPACT ASSESSMENT

The 10th Legislative Assembly Parliamentary and Governing Agreement outlines the Government's commitment to ensuring government budgets, decision-making and reporting, including consistent, meaningful and measurable strategic and accountability indicators are based on wellbeing.

Wellbeing is about the quality of life of all Canberrans. So, over and above the general impacts of proposals, you should fully consider the impacts on the lives of priority target groups including: Aboriginal and Torres Strait Islander Peoples; Carers; Children and Young people; Culturally and Linguistically diverse people; LGBTIQ+; Older Canberrans; People with a disability and Women.

How to use this assessment tool

In general, a proposal is expected to identify no more than two key impacts. Please describe the most significant impact as Impact 1, and less significant impact(s) as Impact 2 etc. For complex proposals where more than two key impacts are identified, please extend the template by copying the table onto an additional sheet. Wellbeing impacts may be aligned with the 56 wellbeing indicators in the wellbeing dashboard, but close alignment with the dashboard is not required. This reflects that the dashboard is not intended to cover every aspect of our policies, programs, and services - and so domains should be considered holistically.

Keep your responses in the table succinct. The table should summarise, as necessary, information that has already been described in greater detail in the business case documents accompanying this proposal.

1. Impact(s) description

Requirement: Identify the wellbeing impact(s) of this proposal.

A wellbeing impact identifies how this proposal would contribute to the wellbeing of Canberrans affected by it (noting there could be positive or negative wellbeing impacts). A proposal can have different wellbeing impacts at different stages of its delivery. It may be helpful to think about the wellbeing impact on Canberrans during transition/construction phases, as well as when a proposal is fully operational.

It is important to recognise that a proposal can carry multiple wellbeing impacts (including beyond your work area or agency, which are important to capture).

2. Who is affected?

Requirement: Describe the Canberrans whose wellbeing will be impacted by this proposal.

You may describe more than one key group of Canberrans in a single table, if multiple groups are affected by the same wellbeing impact.

Be specific according to the proposal: Does the proposal target an age group? Residents of a neighbourhood? A group within the community? Individuals in need of a particular service?

Who will use the capital asset? Who lives or works near the capital asset?

Estimate the number of Canberrans in each group who would be impacted by the proposal. The same group may be affected by multiple wellbeing impacts.

6. Accountability/evaluation

Requirement: Describe the evaluation plan for this proposal.

A high-level evaluation plan identifying the key points and scope is required to measure or capture this proposal's effect upon the wellbeing of Canberrans, who will be affected by it and whether the value proposition has been achieved.

This should include:

- type of monitoring or evaluation that would be most useful given the evidence base for this initiative (for example, post-implementation review of the delivery, ongoing evaluation throughout the initiative, formal evaluations etc)
- advice on the information necessary for measuring progress – including in relation to proposed outcomes - and whether it is currently collected or new.
- a preliminary assessment of how the initiative could be evaluated and advice on whether it is a priority for measuring wellbeing

Where the proposal relates to an existing policy or program, has that policy or program been evaluated in framing this proposal?

7. Key relationships

Requirement: Describe this proposal's plan for collaboration and consultation across government and with community stakeholders.

There may be changes needed beyond your work area or agency for your proposal to be effective. What are they and who has been/should be involved?

Cross-agency collaboration within and across government, if applicable, should be leveraged to draw upon existing expertise and to maximise resources.

Key stakeholders, within government and/or external stakeholders in the community, should be consulted during policy development for this proposal. Outline the process whereby stakeholders have or will be enabled to provide their input, identifying any possible barriers to engagement.

If such consultation and collaboration has already been undertaken, please identify which diversity offices (such as the Office for Aboriginal and Torres Strait Islander Affairs and the Office for Women) or agencies were involved and what the outcome was.

8. Wellbeing domain

Requirement: Identify the wellbeing domain that pertains to the impact(s).

Each impact should map to only one domain, noting a proposal may have multiple impacts and therefore map to multiple domains.

Proposal Name	TCCS	Wellbeing Impact 1
Impact description - The 2020 Food Organics and Garden Organics (FOGO) Directions Paper and Feasibility study, proposed to expand the existing opt-in garden organics collection to a mandatory food and garden organics service (FOGO) for households. This will achieve goals set out in the ACT Climate Change and ACT Waste Management Strategy. The most appropriate technology has been identified as an in-vessel composting (IVC) facility, that focusses on ACT household feedstock. - The proposed service is expected to recover an estimated 42,000 tpa of FOGO feedstock by 2023, made up of approximately 70% garden organics and 30% food organics. The facility will be sized for at least 50,000 tpa of processing capacity, and no major expansion works is expected within the first 15 years of operations. - This budget initiative provides for the design, construct, build, operate and maintenance of the FOGO facility. It will create local jobs and employment supporting the Wellness Domain of the economy, as well as the Environment.		
Who is affected? This solution is expected to address the problems included in the statement of need, identified in the Investment Logic Workshop through delivering the following benefits: - Community satisfaction for all residents with services provided - Improving the impact and longevity of the natural environment - Creating value from waste streams available to the community - Reducing the impact of waste disposal on the community		
Direction and type of impact Positive - major		
Timeframe Between one and five years		
Evidence base and data The ACT government is committed to delivering real and lasting improvement in waste management and resource recovery for the ACT. This is in support of the Territory's wider commitments to pursuing prosperity, quality of life and emissions reduction by embracing circular and sustainable waste management. This Business Case, led by the ACT No Waste Department, aims to implement a best practice household waste management processes for the ACT. The purpose of this project is to reduce the negative impacts of organic waste to the community and create value from the output. The objectives of the project are to: - Meet the commitment under the ACT Climate Strategy 2019-2025 "to introduce food and garden waste collection for all households (including multi-unit dwellings) from 2023, and support with an education program from 2020" - Move the ACT towards the 90% resource recovery target (by 2025) set in the Waste Strategy – it is estimated that FOGO will contribute to an approximately 4% contribution to this target - Deliver new organics processing infrastructure within the ACT, converting FOGO material into useful compost products - Support carbon neutrality of the waste sector - Help redirect from landfill the c.50% of organic material in the domestic and commercial waste stream, and - Engage with the local community to drive behavioural change. The introduction of the ACT Waste Management Strategy in 2011 has created a goal of improving resource recovery and a carbon neutral waste sector. It sets out a strategy of 'reduce and reuse' to achieve resource		