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Flinders Island Waste Management Feasibility Report



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1. Background

The Flinders Council owns and operates a landfill site for waste management located near Whitemark on Flinders Island. This facility is one of two landfills in the municipality and is a level 2 facility licenced through the Environment Protection Authority of Tasmania (EPA). The Flinders Council is also responsible for a level 1 landfill site on Cape Barren Island which is operated by the Cape Barren Island Aboriginal Association (CBIAA).

A compliance review of the Environmental Protection Notice (EPN 7191/2) undertaken by the EPA in 2013 highlighted a number of concerns which are being addressed by Flinders Council through the Furneaux Group Waste Management Strategy 2014-2019.

This strategy defines the Flinders Council's key objectives as:

1. Waste management systems which provide the best outcomes both environmentally, socially and economically,
2. Compliance with all state legislation,
3. The management of waste including resource recovery, transfer stations, disposal processing technologies, historical landfills, collection litter and street litter bin pickups,
4. That defined goals and actions are both accepted and affordable to the community, and
5. That all areas within the Municipality, including the Outer Islands are included.

In achieving legislative compliance with the Environmental Management and Pollution Control Act 1994 (EMPCA) and the Environmental Management and Pollution Control (Waste Management) Regulations 2010, Flinders Council, through the Furneaux Group Waste Management Strategy 2014-2019, intends to actively comply with the recognised waste management hierarchy, which is the set of priorities for the efficient use of resources; this hierarchy underpins the objectives of the EMPCA and Regulations.

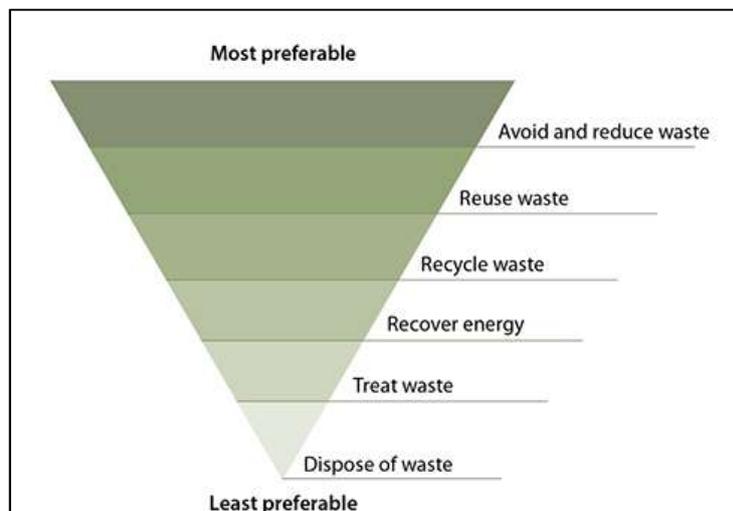


Figure 1 Waste Management Hierarchy

In delivering its waste management strategy objectives and ensuring compliance with all legislative requirements Flinders Council has:

- Developed an approved Waste Management Strategy. (Furneaux Group Waste Management Strategy 2014-2019).
- Completed a review of the Environment Management Plan (June 2016).
- Completed an engineering study of the insitu putrescible cell and developed a remediation plan (June 2016).
- Collaborated with EPA Tasmania in review of the existing Environmental Protection Notice (EPN 7191/2) with the aim to receive a revised notice subject to compliance with the precepts of the Waste Management Strategy ensuring legislative compliance.

Flinders Council now intends to engage an experienced, customer focussed supplier who can provide technical expertise through innovative solutions for cost effective and community acceptable waste management to assist the Council in achieving its objectives.

2. Scope

The purpose and scope of this feasibility report is to investigate how Flinders Council can successfully achieve its aspirational waste management objectives.

In delivering waste management to comply with its legislative requirements and to achieve its waste management strategy objectives Flinders Council recognise that operational and technical support may be required.

Successful and compliant waste management is a complex process that requires significant expertise to ensure that cost effective solutions can be applied that meet legislative requirements, achieve stated objectives and satisfy all affected stakeholders.

This feasibility report identifies and details the options and will recommend a preferred option.

3. Options

3.1 Option One – Do Nothing

The 'do nothing' option is not tenable for Flinders Council as it will breach the requirements of the Environmental Protection Notice EPN 7191/2.

In developing and approving the Furneaux Group Waste Management Strategy 2014-2019 Flinders Council has established an action plan to address not only the legislative requirements but also a road map to achieve its waste management objectives.

3.2 Option Two – Do Something (Minimal Requirement)

Flinders Council to undertake remedial works and implement waste management strategies utilising 'in house' resourcing and capability.

The remedial works would essentially mean addressing the issues raised by the EPA with regards the putrescible cell to achieve operational compliance using 'in house' equipment and resources.

Flinders Council could continue to implement its waste management strategies as detailed in the action plan where practicable.

3.3 Option Three – Open Tender the Works

Flinders Council has the opportunity to develop a scope of works based on the current information available generated through:

- 'In house' knowledge and experience.
- Furneaux Group Waste Management Strategy 2014-2019 Action Plan.
- Inspection of Unused Refuse Cell Report, March 2016.
- Review of Environment Management Plan and Remedial Site Works Report, June 2016.

Tendering the works would allow Flinders Council to contract a supplier to deliver waste management and allow the Flinders Council to hold the supplier accountable for managing the risks associated with the delivery of waste management in its municipality.

The scope of works developed by Flinders Council would address the works required to meet the legislative requirements and strategy objectives and would include any remedial works and ongoing operational requirements.

The scope of works would likely be developed by a Consultant and reviewed by Flinders Council.

An open tender process would allow any number of organisations to tender the works and for the successful tenderer to deliver waste management.

3.4 Option Four – ECI Scope and Cost Development

In recent times a number of innovative contract arrangements have been used to successfully procure and deliver works and services.

Fundamental to all the procurement models is the requirement to achieve value for money and to ensure probity and accountability for the outcomes.

One form of contract type that has been used is referred to as Early Contractor Involvement (ECI).

The perceived benefits of the ECI model are that early involvement with a preferred supplier provides for a more comprehensive understanding of the project objectives and for the joint development of detailed project scope and project costs.

Underlying the ECI model is the intention to develop and maintain strong open and accountable relationships between the Principal and the supplier, effectively forming a partnership with shared goals and objectives for delivery of the works.

The fundamental aim is to achieve value for money with appropriate risk management in a transparent and accountable (auditable) framework.

The ECI or Relationship-based model of contract consists of a two part process.

- ◆ The first part involves the selection of a Supplier, through an evaluation process of potential Suppliers that the Principal will work with to jointly develop the detailed scope of works.
- ◆ The second part involves the Principal engaging a Supplier to deliver the fully scoped and priced deliverables. (This may be direct engagement of the Supplier providing the scope of works support).

The primary objective of this process will be for Flinders Council to engage a supplier to fully participate in the establishment, management, implementation and completion of the Flinders Island Waste Management project.

The ECI component of this process will allow for collaborative scope development and project costing and may lead to the establishment and implementation of the supplier for the delivery of the project.

The preferred supplier selection process is essentially based on two elements;

- ◆ Capability including but not limited to management, administration, and resourcing; and
- ◆ Cost.

The capability component is required to allow Flinders Council to objectively assess, based on submitted information, the ability of the respective suppliers to enter into a collaborative arrangement to develop the scope and contract.

The cost component is required to provide Flinders Council with an ability to objectively assess and compare anticipated or expected costs between suppliers. It is intended to be used for evaluation purposes only. It is not intended to yield final project costs.

4. Options Analysis

4.1 Option One – Do Nothing

As stated the 'do nothing' option has been superseded by legislative compliance requirements and the Furneaux Group Waste Management Strategy 2014-2019.

4.2 Option Two - Do Something (Minimal Requirement)

This option is potentially viable but consideration should be given to the following:

- Reliant on availability of Flinders Council staff to manage and undertake the works.

- No current designs available for remedial works and notably leachate management. These designs could be developed and implemented but may not fit into the overall waste management strategy.
- The status quo would likely remain with existing waste separation with no consideration to downstream management i.e. the segregated piles will continue to grow.
- Waste separation/segregation very reliant on the general public's desire to comply.
- Heavy reliance on existing tipping sites including inert area and putrescible areas.
- Limited options for innovation.

4.3 Option Three – Open Tender the Works

The opportunity to open tender the works is a viable option but consideration should be given to the following:

- A comprehensive scope of works will need to be developed.
- The scope will be developed by a Consultant and reviewed by Flinders Council.
- There may be a requirement for an additional peer review.
- Consultant developed scopes can provide theoretical model options that may be difficult to deliver practically.
- Limited opportunity for innovation in scope development.
- The potential outcome will be difficult to budget as the only known costs are current operating costs.
- No single potential supplier may be able to deliver all the scoped requirements.
- May be a brevity of suppliers tendering.
- Cost and time to develop tender documentation and to manage the tender process.
- Price certainty post tender for scoped works noting however that the tendered prices may exceed budget.
- Intellectual Property (IP) retained by suppliers until post tender.
- Tendering the works will comply with Tasmanian local government procurement guidelines.

4.4 Option Four - ECI Scope and Cost Development

The opportunity to collaboratively develop the scope will ensure that the objectives can be achieved taking into account the Flinders Council preferences tempered with the expertise and experience provided by the supply partner. This option will promote innovation however consideration should be given to the following:

- Collaborative scope development will come at a cost. Scope development costs can be managed by establishing a realistic scope development budget, undertaking the preferred supplier selection process and robust management of the scope development process.
- Development costs will be higher than other options.

- In ensuring compliance with the Tasmanian local government procurement guidelines it will be necessary to tender the works in some form.
- This option allows for the development and implementation of a preferred supplier selection process that will meet procurement guidelines.
- On completion of the scope development phase Flinders Council will have all the information available to tender the works but will also have the option to engage the scope development supplier directly.
- Final expectations can be developed within existing budget parameters.

5. Preferred Option

The preferred option is option four - ECI Scope and Cost Development. This option is recommended on the basis of:

- Collaborative scope development to ensure strategy objectives are achieved.
- 'Buy in' from Flinders Council and preferred supplier with shared objectives to deliver positive outcomes.
- Shared risks and shared accountabilities to ensure the right outcomes.
- Preferred supplier selection process will meet required procurement guidelines.
- Development of scope and cost certainty.
- Ability to work within existing budget parameters. (Note – The budget amount for the project is retained by Flinders Council throughout the ECI process)

6. Costs

The costings presented for the various options are *estimates only* and are presented at this stage to provide some clarity around option “in the order of” differentials rather than actual costings.

The key cost assumption is that the waste management project will be delivered within the existing Flinders Council Waste management budget parameters.

6.1 Option One

There are no costs directly related to developing the 'do nothing' option as this option is not tenable.

6.2 Option Two

In retaining status quo but providing improvement options and aspiring to deliver the waste management strategy action plan objectives it is assumed that the current Flinders Council operational budget (OPEX) will remain intact. To continue the current waste management operations.

Development costs will be \$0k as operational budget status quo will remain.

Consideration will need to be given to the following additional costs to achieve minimum compliance requirements:

- Rehabilitation of the insitu putrescible cell (Estimate provided by *Inspection of unused refuse cell – D Jolly March 2016*)
 - I. Option One – Batter Remediation - \$24k
 - II. Option Two – Retain existing Batters - \$18k
- Leachate Management – Unknown without design but not less than circa \$25k

To undertake the minimum compliance obligations there may be a requirement to seek additional funding outside the existing waste management budget parameters.

6.3 Option Three

The cost estimates for an open tender process will include as a minimum:

- Flinders Council (Consultant) to develop design consultant scope of works \$2k.
- Consultant costs to develop design and scoping requirements including site visits (Based on \$170/h) - \$20k.
- Consultant costs to develop and manage tender process including contract development. (Based on \$125/h) - \$5k.
- Flinders Council management support costs.
- Project delivery costs will be developed and presented by tenderers based on the presented scoping requirements and will be unknown until receipt of tenders.
- Cost allowances for the rehabilitation of the putrescible cell as detailed in Option two will remain as a minimum.

6.4 Option Four

The cost estimates for the ECI scope and cost development stage will include as a minimum:

- Consultant costs to design ECI Process (Based on \$125/h) - \$3k

- Consultant costs to develop and manage preferred supplier selection process (Based on \$125/h) - \$3k
- Preferred Supplier costs to develop design and scoping requirements (\$15k-\$20k) including as a minimum:
 - I. Flinders Island Site Visit and workshop
 - II. Collaborative scope development and costing
- Flinders Council management support costs.
- Project delivery costs will be collaboratively developed and remain within existing budget parameters.
- Cost allowances for the rehabilitation of the putrescible cell as detailed in Option two may remain although the scope development process may offer alternative solutions.

7. Preferred Option Benefits

7.1 Financial benefits

The preferred option development costs will be higher than those presented by the other options however collaborative scope development will present:

- The ability to work within the defined budget.
- The development of known costs to deliver the legislative and strategy requirements.
- The understanding and knowledge of the true costs to provide compliant waste management which will assist in accurate annual forecasting and budgeting.
- Innovative solutions may avail additional funding grant opportunities.

7.2 Non-financial benefits

The non-financial or intangible benefits presented by the preferred option include:

- Collaborative scope development leading to collaboratively developed outcomes more likely to succeed.
- Opportunities for innovation.
- Ability to engage with all stakeholders to achieve 'buy in' through the collaborative approach.
- Ensuring the right outcomes to not only meet legislative requirements and strategy objectives but to also enhance the Flinders Island brand.
- In focussing on the defined waste management strategies, achieve community acceptance.

- Benefits for the Supplier in brand enhancement to showcase an innovative approach for contracting and achieving shared customer/supplier outcomes.

8. Resources required – Preferred Option

To deliver the preferred option it is anticipated that the following resources will be required:

Overall Management – Flinders Council Development Services representative.

Local knowledge and technical Support – Flinders Council Works Manager.

ECl process development, management and delivery – Consultant.

Scope Development Management – Consultant.

Scope Development – Preferred Supplier. (Resources as required and presented through the ECl process)

Contract development and management – Consultant.

9. Risks – Preferred Option

The following table highlights potential risks and management strategies.

RISK	Consequence Level	Likelihood Level	Residual Risk Level	Risk Management Strategy	Consequence Level	Likelihood Level	Final Risk Level
High costs of scope development	Major	Possible	High	Define parameters in preferred supplier selection process	Minor	Unlikely	Low
High costs of scope development	Major	Possible	High	Set realistic budget with robust expectations management	Minor	Unlikely	Low
Supplier with unrealistic expectations	Major	Unlikely	Moderate	Ensure ECl procurement process captures the right information to enable Flinders Council to make informed decisions	Minor	Unlikely	Low
Selecting the wrong supplier	Major	Possible	High	1.Ensure ECl procurement process captures the right information to enable Flinders Council to make informed decisions 2. Develop Cost Model to capture costs through the preferred supplier selection process	Minor	Unlikely	Low
High costs to develop waste management project	Major	Unlikely	Moderate	Collaborative process will ensure appropriate strategies are scoped that remain within Flinders Council Budget parameters	Minor	Unlikely	Low
Supplier provides options way in excess of budget parameters	Major	Unlikely	Moderate	Collaborative scope development will ensure budget parameters are maintained.	Minor	Unlikely	Low
Process determines that project cannot be delivered within budget parameters	Major	Possible	High	Collaborative approach will enable innovative solutions to ensure as a minimum that compliance objectives are achieved	Minor	Unlikely	Low

10. Conclusions

This feasibility report has reviewed the available options and recommends that the preferred option will be to undertake an early contractor involvement (ECI) process. While there are development costs in establishing this process early contractor involvement allows for collaborative scope development with an industry expert which will ensure that the Flinders Council remains fully involved in the process and final outcomes with the primary objectives being legislative compliance and achieving its waste management strategy objectives.

11. Appendices

Review of Environmental Management Plan and Remedial Site Works – June 2016 (Just Waste Consulting)

Furneaux Group Waste Management Strategy 2014-2019

Landfill Sustainability Guide-2004

Flinders Island Waste Management Model Scope and cost schedules RevA 20-09-2016

Flinders Island Waste Management Preferred Supplier Selection Process RevA 16-09-2016