

Refuse Disposal Facility (RDF)

Strategic Plan and Vision 2040

Vision 2040: “The RDF will become the centre of a precinct focussed on resource recovery, with residual waste to landfill. Complementary businesses are co-located and the area is a centre for economic growth and green jobs. The centre plays a key role in environmental education and is acknowledged by the community.”

Developed November 2015

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1. Introduction to this strategy

In 2013 Wyndham City commissioned Sweett group to develop a scoping paper for the City of Wyndham Refuse Disposal Facility (RDF). The paper prioritised the development of a risk register, which was completed in November 2013, and the development of a governance structure for the RDF, which the Wyndham City Executive established in February 2014. The report also identified 2 key issues to be addressed by Council in the development of a Strategic Plan for the RDF.

This Strategic Plan builds on that work and articulates both a vision for the site by 2040 and a clear picture of what needs to be achieved in the next 1-2 years to begin enabling that future vision.

This Strategic Plan was developed in November 2015 via a workshop with Wyndham City staff from RDF operations, Finance, Strategic Planning and Environment, who joined with the 3 Directors who comprise the RDF Management Committee and both the former and current RDF Manager.

The group developed a SWOT analysis for the RDF, articulated a 2040 vision and defined the actions required for year 1-2. A number of data needs were identified and staff were tasked with actions via the Action Plan that accompanies this strategy.

2. RDF Overview

State policy context

The Victorian Government released its new waste policy 'Getting Full Value – the Victorian Waste and Resource Recovery Policy' in 2013. Although there has been a change in government since the release of the policy there has not been any indication the current government will change the policy direction set in Getting Full Value.

Of relevance to WCC and the management of the RDF are commitments to:

- Continue to use the landfill levy as a market signal that provides incentives to resource recovery industries and provides certainty to Victorian industries and businesses
- Undertake planning that promotes a cost effective, statewide network of infrastructure capable of moving waste materials to where the highest economic value can be achieved
- Foster investment in a diversified portfolio of infrastructure that can manage the projected mix and volumes of waste materials
- Facilitate the long term purpose of landfills to be for receiving and treating residual waste, and ensure a range of support mechanisms for closed landfills.

The State policy context is further defined in two documents; the Statewide Waste and Resource Recovery Infrastructure Plan (Victoria 2015-44) released in 2015 and the Draft Metropolitan Waste and Resource Recovery Implementation Plan, on consultation until December 2015.

There are four goals articulated in the Statewide Waste and Resource Recovery Infrastructure Plan:

1. Landfills will only be for receiving and treating waste streams from which all materials that can be viably recovered have been extracted.
2. Materials are made available to the resource recovery market through aggregation and consolidation of volumes to create viability in recovering valuable resources from waste.
3. Waste and resource recovery facilities including landfills are established and managed over their lifetime to provide the best economic, community, environment and public health

outcomes for local communities and the state and ensure their impacts are not disproportionately felt across communities.

4. Targeted information provides the evidence base to inform integrated statewide waste and resource recovery infrastructure planning and investment at the state, regional and local levels by industry, local government, waste and resource recovery groups, government agencies and the broader community.

The Plan also identified the RDF as a hub of state importance and noted that:

- It is a significant landfill currently taking around 10% of Victorian waste.
- There is a high potential to expand resource recovery activities.
- Land around the RDF is included in the Urban Growth Boundary. There is a possibility of future use of land around the RDF for industrial purposes and this is not currently reflected in the Wyndham Planning Scheme.
- Planning needs to preserve the buffer to ensure long term security of the RDF.
- Community engagement is also required to secure the long term future of the site.

The Draft Metropolitan Waste and Resource Recovery Implementation Plan articulates that the Metropolitan Waste and Resource Recovery Group (MWRRG) will:

- Assist local government to go out to tender for joint contracts to process waste currently being landfilled. This would replace the existing contracts for approximately 1 million tonnes of household waste sent to landfill each year. MWRRG has indicated that it will develop an expression of interest/tender during 2016 with a view to going to market early in 2017. This would enable enough potential lead time for an alternative to landfill to be developed prior to the end date of the current landfill contracts in 2021.
- Work with local government to expand the collection of food waste.
- Support planning authorities to use land use planning measures which recognise the importance of waste and resource recovery.
- Not including any new landfills in the landfill schedule for the 10 year life of the plan.
- Encouraging the maximisation of resource recovery through Melbourne's transfer station network.

Wyndham Policy context

City Plan

The Wyndham City plan 2013-2017 includes:

4.2.2 Substantially reduce levels of waste going to landfill and increase resource recovery:

4.2.2.1 Implement the Council Refuse Disposable Facility master plan to position the facility as a regional sustainable waste management precinct.

Performance indicator: Council Refuse Disposable Facility positioned as a regional sustainable waste management precinct.

Outcome: Masterplan to be reviewed for alignment with this Strategic Plan.

4.2.2.2 Develop the long term plan for the RDF in the context of nearby land uses.

Performance indicators:

1. Continue the Wests Rd RDF and Waste Management Community Reference Group meetings as planned
Outcome: On track - meetings held every 2 months.
2. Complete long term plan for RDF by June 2015.

Outcome: long term plan will follow the vision in this Strategic Plan and the strategic land acquisitions being considered in the Action Plan.

4.2.2.5 Develop a strategy for Universal Organics including - Assessment of truck/bin audits - A communications plan incorporated strategy - Infrastructure provision review (bins, transfer station at RDF, MRFS).

Performance indicator: Strategy developed by December 2014 and actions completed by June 2015.

Outcome: Complete. Council is implementing the 'scrap that' campaign, which encourages community to put fruit and vegetable waste into their green waste bin, which is then turned into compost.

Waste and Litter Strategy

The Wyndham City Waste and Litter Strategy is currently on consultation (late 2016) and outlines potential targets which will guide some RDF outcomes:

2040 stretch targets:

- Resource recovery target for 2040 (propose 90% recovery target, currently approx. 36%)
- Pre-sort or alternative waste technology facility established at the RDF by 2040
- Green Waste uptake target for 2040 (propose 95% uptake, currently approx. 30%)
- Household yield garbage reduction target for 2040 of 25%
- Newly developed Transfer Station, Resale Shed & Education Centre by 2040
- Illegal dumping target (propose target of no illegal dumping by 2040)
- Waterways & beaches being litter free
- Resource Recovery of the Civic Centre at 95%.

2020 targets:

- 75% of landfill gas generated at the RDF is captured for renewable energy generation and flaring by 2020
- Contamination target for 2020 (propose 15% contamination recycling, currently 26% and 3% in green bin)
- Establishment of a centralised and accurate database of all Council facilities
- 30% of Civic Centre organic waste (by weight) diverted from landfill
- Contamination of comingled recycling at Civic Centre to be 5% or lower.

General impacts:

- Establishment of a Resource Recovery Precinct around the RDF (as per the Statewide Waste and Resource Recovery Infrastructure Plan) and previous Council resolutions.
- Potential for an environment dividend from the RDF (eg. using portion of profits from RDF for potential land purchases, funding for waste projects, transfer station upgrades)
- Proposed Statewide e-waste ban to landfill
- Bin infrastructure (potential changeover of bin lids, reduction in waste bins from 140lt to 120lt/increase in recycling 240lt to 360lt)
- Organics (garden/food) waste directions.

EPA compliance

The RDF operates under a licence issued by the Environment Protection Authority (EPA). In addition to the licence WCC must comply with EPA Publication 788.3 (Siting, design, operation and rehabilitation of landfills) and 1323.2 (Landfill Licensing Guidelines). An Annual Performance Statement of compliance with the licence conditions is submitted to EPA each year.

As part of the license compliance program WCC undertakes a comprehensive environmental monitoring program and has regular audits of the landfill undertaken by an EPA appointed environmental auditor. Compliance with EPA regulations is essential to the operation of the RDF.

Alternative technologies

The State Government Waste Policy, the Statewide Infrastructure Plan and the Draft Metropolitan Infrastructure Plan all promote a philosophy or goal of reducing reliance on landfill for end of life waste management. To realise this goal investment is required in alternate technologies for the treatment or processing of residual waste.

There are a number of alternate waste technologies (AWTs) being used in Victoria, however they are all processing source separated organic waste streams. There are, however, no AWTs currently processing mixed kerbside wastes in Victoria.

3. RDF Strategic Landscape (SWOT)

The modified SWOT analysis identified positives, challenges and what we know about the future in 5 key areas and articulated a number of key emerging issues:

1. Policy and regulatory environment

Key emerging issues:

- EPA compliance
- Planning – strategic and statutory
- Federal and State direction
- Internal alignment between RDF and WCC

2. Business environment

Key emerging issues:

- Financial contribution and planning
- Market – reducing supply, increasing demand
- Competition
- Diversification
- Governance and risk

3. The Site and Environs

Key emerging issues

- Operational
- Land use planning
- Place
- Site capability
- Environment

4. Community

Key emerging issues

- Positive story
- Community engagement tools
- Political / external views
- Residential development
- Community expectations
- Community perception

5. Wider world / bigger picture

Key emerging issues

- Regional waste hub
- Economic viability
- Technology opportunities
- Growth
- Environmental risks

SWOT (modified) detail:

The modified SWOT analysis was run via a workshop, and the results are presented below. The exercise identified positives, challenges and what we know about the future. The detailed analysis is presented here, with positives in green text, challenges in red and what we know about the future in purple:

Positives

Challenges

What we know about the future

Policy and regulatory environment	Wider world / Bigger picture
<p>EPA compliance:</p> <ul style="list-style-type: none"> Compliance issues being addressed Compliance needed Landfill is inherently dangerous – safety and environment Tight regulatory environment Ever increasing environmental standards Reluctance for multi-stage works approval EPA rules changing and standards increasing Rehab standards Tighter scrutiny Increasing regulations and requirements, increasing \$ and decreasing competition Regulation will continue and likely to get more stringent <p>Planning – strategic and statutory:</p> <ul style="list-style-type: none"> Buffer study advanced Planning controls revised and in place Modelling to support buffer protection required MWMRRG developing bespoke planning instruments Poor planning protection for RDF Competition and regulatory barriers to expansion State Govt yet to update growth corridor plans to provide zoning protection required No current state policy guidelines to inform design of buildings inside the landfill gas 500m buffer Planning policy changes Planning controls / PSP to be developed Further bans on types of waste that can be landfilled, eg organics <p>Federal and State direction:</p> <ul style="list-style-type: none"> Have identified the planning tools available to protect the RDF from encroachment Key state infrastructure Plan Melbourne acknowledges the importance of 	<p>Regional waste hub:</p> <ul style="list-style-type: none"> Potential to be hub, as per State strategies Regional significance Rationalisation of waste resource recovery facilities / options in Melbourne Transport connections – location Can leverage the site to create a waste precinct – jobs, growth State logistics strategy and location at RDF – OMR Metropolitan State significance of the RDF as a resource recovery facility Lack of strategic direction <p>Economic viability:</p> <ul style="list-style-type: none"> Rate capping – WCC wants RDF \$ Quantum of the EPA levy – prime influence on the viability of alternative treatment options Ever increasing cost of creating cells Increasing cost of EPA compliance Future of ‘tipping’ as a business, environmentally? <p>Technology opportunities:</p> <ul style="list-style-type: none"> Waste to energy Recycling + reuse + energy generation Job creation potential for resource recovery jobs Big advances in waste / resource recovery Viability of alternative markets CO2 emissions / other emissions <p>Growth:</p> <ul style="list-style-type: none"> technology – opportunity to do it differently Population growth Capacity Waste is a growth business Opportunity to brand? Potential to make RDF a site of environmental excellence

<ul style="list-style-type: none"> protecting waste recovery facilities E-waste ban Need for higher levy to drive alternatives to landfill Policy direction to require processing before landfill Changes in State and Federal policy re waste National ERF scheme No regulatory decision to close all landfills, like nuclear power station <p>Internal alignment between RDF and WCC:</p> <ul style="list-style-type: none"> Closer ties between RDF and Environment and sustainability Exec awareness and oversight Resource recovery targets Waste strategy targets Council waste and litter carbon targets 	<ul style="list-style-type: none"> More waste being generated 100% re-use of resources – eventually Moves toward capping emissions Increasing efficiencies in technology are reducing costs Government funding for resource recovery Alternative waste technology will happen Positive new technology will improve resource recovery Stronger link between waste and carbon <p>Environmental risks:</p> <ul style="list-style-type: none"> Increasing amount and severity of storms etc Look for a 2nd site, locally or not Waste will only increase - need to look at viable alternatives for end product
<p>Business environment</p> <p>Financial contribution and planning:</p> <ul style="list-style-type: none"> Availability of \$ via the carbon tax reserve Recovery of gas providing a \$ stream Profitable business with further opportunities Possible job creation Catalyst for economic development True cost of airspace may not be modelled correctly Financial costs of rehabilitation not clearly understood How will dividend back to WCC work? Long term contract with WRMG – 35% of incoming waste. We are locked in with prices that are not optimal Have to bid for capital projects rather than having ‘pre-approved’ capital budget Capital cost of alternative technologies Understanding best value and setting the right pricing Financial consideration – impact of alternate waste treatment options Market data – evidence collection Are we reinvesting in RDF for future \$ making? <p>Market – reducing supply, increasing demand:</p> <ul style="list-style-type: none"> Significant surplus Financial benefit from the business Competition reducing with landfill closures in the East Lack of landfill supply Relatively small number of landfills and limited opportunity for others to open Accessibility to catchment 	<p>Community</p> <p>Positive story:</p> <ul style="list-style-type: none"> In a rate capping environment, RDF is a positive story, brings community benefit through \$ Costs to recycle <p>Community engagement tools:</p> <ul style="list-style-type: none"> RDF community reference group, CRG, CRG Engagement and telling the story Negative media had decreased <p>Political / external views:</p> <ul style="list-style-type: none"> Banana (build absolutely nothing anywhere near anyone) Council elections Relationship with EPA Change in attitudes and behaviours – Greens Vested interests Council elections Opposition may have strong interest in the introduction of proposed land use zones <p>Residential development:</p> <ul style="list-style-type: none"> Residential area developing closer to the site Residential growth <p>Community expectations:</p> <ul style="list-style-type: none"> Increased focus on site improvements and amenity Access for public, OH&S Increasing expectation on engagement and amenity <p>Community perception:</p>

<ul style="list-style-type: none"> Chase more 'commercial' business Sound business – growth business Bad debtors Costs increasing Pressure for improvement to bottom line Humans will always generate waste – growing demand <p>Competition:</p> <ul style="list-style-type: none"> Cleanaway MRL (Melbourne Regional Landfill) is major competition No real understanding of our competitors <p>Diversification:</p> <ul style="list-style-type: none"> Growth opportunities Opportunity for alternative s – environment and \$ Alternative technologies <p>Governance and risk:</p> <ul style="list-style-type: none"> Councillor risk appetite High/different risks to WCC Communication between RDF and Council 	<ul style="list-style-type: none"> Little broad community buy in to above ground level landfilling Community generally unconcerned, programs to maintain "What tip?" Community concerns about height – Community support Perception council is the bad guy Need to manage community view of the site Community group actively against Changes in community views about landfill Increasing public expectation on environmental performance Mobilised and engaged community
<p>The Site and Environs</p> <p>Operational:</p> <ul style="list-style-type: none"> Detox, TV etc – free drop offs at RDF Resale shed – could be improved Sound operating practice Low resource recovery from transfer station Workforce challenges Transfer station Gas and leachate management Cost of recycle drop off <p>Land use planning:</p> <ul style="list-style-type: none"> Competing land use interests around the RDF Buffers, need protecting Long term planning approval Close to residential – buffer required Land use conflicts Growth front Impact on location from future development Strong residential growth nearby Increasing urban encroachment Residential development encroaching 	<p>Site capability:</p> <ul style="list-style-type: none"> Size Expansion potential Long term air space – 20+ years Partnership with the quarry, creates the holes and provides cover material Massive site so huge potential Clustering of activities Investment in infrastructure Location, layout and potential of the facilities Securing future capacity Site improvement needed \$\$ Industrial precinct, potential synergies Reduced landfill capacity <p>Environment:</p> <ul style="list-style-type: none"> Water table Environment is secondary consideration <p>Place:</p> <ul style="list-style-type: none"> Location – freeway access, distance to Melbourne and Geelong, Location isolated, Location logistic, Transport links, Proximity to WTP, Nearby railway line, Location logistics High visibility from the freeway Need to deal with visual aspect and help community

4. RDF Vision 2020 and 2040

Vision for 2040

“The RDF will become the centre of a precinct focussed on resource recovery, with residual waste to landfill. Complementary businesses are co-located and the area is a centre for economic growth and green jobs. The centre plays a key role in environmental education and is acknowledged by the community.”

Achieving the Vision

To achieve this vision, 9 strategic themes must be addressed in the next 1-2 years:

1. Developing the future vision
2. Integrated strategic direction
3. Better understanding of financials
4. Operational security
5. Visual amenity
6. Toward serious resource recovery
7. Governance
8. Communication and engagement
9. Secure external funding.

Data needs

Two data needs were identified.

1. Market analysis (Task 3.4 in the Action Plan); will offer an understanding of the RDF landfill competitors, alternative waste treatment providers and options and market demands.
2. Opportunity analysis (Task 2.3 in the Action Plan): will analyse opportunities for additional recoverable streams, economic development opportunities and market gaps to define the possibilities available at the RDF.

Analysis of the data from these 2 projects will affect future strategic decisions for the RDF and it is intended that the Action Plan be reviewed once these two data projects are complete.

The Action Plan will be updated every 4 years, in line with Council’s Environment and Sustainability Strategy, to ensure the RDF is keeping up with technological change and market opportunities.

5. Strategic Themes in Context

Wyndham City Plan 2013 – 2017

Waste and Litter Strategy 2020 and 2040

RDF Strategic Plan – Vision 2040

1. Developing the future vision

2. Integrated strategic direction

3. Better understanding of financials

4. Operational security

5. Visual amenity

6. Toward serious resource recovery

7. Governance

8. Communications and engagement

9. Secure external funding

6. Nine Strategic Themes

1. Developing the future vision

This theme is focussed on protecting the RDF as the future resource recovery centre through planning controls, a clear plan for land acquisition and an economic development strategy that will help the RDF become a hub for economic growth and green jobs.

2. Integrated strategic direction

This Strategic Plan begins the process of setting and achieving a 2040 vision, with performance metrics to be developed to measure its success. This will be supported by opportunity analysis, the completion of Council's Waste and Litter Strategy and an update of the dividend policy to confirm how funds are moved from the RDF to Council.

3. Better understanding of financials

The long term financial plan will be updated, along with models for pricing and finances and data input for future decision making via a market analysis that offers an understanding of the RDF landfill competitors, alternative waste treatment providers and options and market demands.

4. Operational security

The RDF business requires protection through the finalisation of EPA approvals and the completion of cell 4C stage 1, as well as works approval for the whole site. Gas infrastructure will be considered, software systems improved and optimal cover levels defined. The RDF Management Committee will consider ISO certification.

5. Visual amenity

To achieve community acceptance and move toward the community embracing the site, the landscape plan must be implemented and the site appearance improved.

6. Toward serious resource recovery

For the RDF to become the centre of a resource recovery precinct there must be a shift toward less landfilling and increased resource recovery. This will be progressed through a review of the transfer station masterplan, capital funding bids and improved operations on site. Officers will explore the impact of allowing no-charge recycling and greenwaste for residents as a way of incentivising this.

7. Governance

The RDF Management Committee will confirm their updated governance arrangements and implement an action plan that enables them to provide strategic oversight of the site and business.

8. Communications and engagement

To achieve community understanding, acceptance and a future as an education precinct, the site will require stakeholder mapping, a community engagement plan and a communications plan.

9. Secure external funding

Wyndham City will advocate to the State Government sustainability fund for funding for feasibility studies, capital and land acquisition that will support the development of alternatives to landfill.

7. Governance of the Strategic Plan and Action Plan

Wyndham City's RDF is under the Director of Infrastructure, supported by the Manager RDF.

The RDF is overseen by a group of 3 Wyndham City Directors including the Director Infrastructure, Director Corporate Services and the Director Sustainable Development. This Management Committee, while employees of Council, operate in a way similar to a Board and have accountability for the strategic development of the RDF, its financial health and risk management.

This Strategy is owned by the RDF Management Committee.

8. Action Plan

An Action Plan of key tasks for 2016-2017 has been developed, based on the 9 strategic themes. Staff from RDF operations, environment and sustainability, finance, economic development, communications and strategic planning have been tasked with current actions.

Analysis of the data from Opportunity Analysis (Action 2.3) and Market Analysis (Action 3.4) will affect future strategic decisions for the RDF and it is intended that the Action Plan be reviewed once these two data projects are complete.

The Action Plan will be updated every 4 years, in line with Council's Environment and Sustainability Strategy, to ensure the RDF is keeping up with technological change and market opportunities.

Appendix 1: Action Plan 2016-2017

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