



# Council Strategy

## Strategic Waste Management Plan

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## 1.0 Executive Summary

The City of Albany adopted a Waste Management Strategy in July 2002. The adoption of this Strategy, and the implementation of its recommendations, has guided waste management activities towards significant improvements in waste minimization and recycling improvements.

After a significant review of its waste operations, the City of Albany implemented a Waste Strategy in May 2004 which saw the operations of waste management in the municipality undergo significant change.

The 2004 plan produced a significant reduction of waste to landfill and has had the following objectives achieved:

- Closure of uncontrolled landfill sites,
- Introduction of a three bin domestic kerbside system,
- Processing of green waste and building rubble, and;
- An education program for schools and the construction of a waste education centre.

In 2009 the Strategic Waste Management Plan was developed in alignment with the Waste Management Board of Western Australia's Zero Waste Plan Development Scheme. The purpose of the plan was to provide strategies and actions to guide the City's waste management practices in a consistent way that aligns with the State Government's vision of Towards Zero Waste in order to protect human health and the environment.

The 2013 plan analyzes the current operations and develops action plans to improve the service and reduce waste to landfill over the next 5 years. The plans scope continues its alignment with the Waste Management Board of Western Australia's Zero Waste Plan Development Scheme but also recognizes the end of tenure of the City's waste minimisation contract and the imminent requirement for new waste treatment facilities.

The actions identified by this plan can be summarized as follows.

- Review operations at Hanrahan and Bakers Junction landfill considering traffic flows, waste deposit systems, staffing, technology and plant;
- Review operations of the current green waste collection and processing contracts to assess ability to incorporate additional types of waste;
- Coordinate a regional approach with adjacent Local Governments;
- Complete Stage Three of the Hanrahan Leachate Drainage System;
- Increase commercial recycling;
- Review landfill data collection systems;
- Prepare and implement a new waste minimisation contract; and
- Plan for new waste technology's and landfill facility for implementation circa 2023.

## **2.0 Strategic Context**

This Strategy directly relates to the following elements from the Strategic Community Plan – Albany 2023

### **Key Focus Area**

*Clean, Green and Sustainable*

### **Community Priority**

*To maintain and renew city assets in a sustainable manner*

### **Proposed Strategies**

*By planning for and preparing city assets for the effects of climate change*

*By ensuring that the city's capital works programs are environmentally and financially sustainable*

*By scheduling maintenance, servicing, and renewal in a timely manner that maximises the life and performance of infrastructure*

## **2.1 Strategic Focus Areas**

### **2.1.1 Vision**

The City of Albany will be a leading regional agency for efficient waste management practices, building on past performance and establishing new benchmarks for waste minimization and management.

### **2.1.2 Purpose and Objectives**

- Be a regional leader in recycling activities;
- Minimize waste stream to landfill;
- Facilitate further education programmes across community groups;
- Manage our waste management facilities to best environmental practice;
- Map out our strategy for managing waste at a local and regional level;
- Maintain continual improvement of the City's waste services; and
- Be at the forefront in considering new waste technology.

## **2.2 Major Challenges**

### **2.2.1 Landfill Life Expectancy**

Survey work and 3D imaging commissioned by the City of Albany on its two landfill sites estimates 725,000m<sup>3</sup> and 709,000m<sup>3</sup> of available airspace for Hanrahan Road and Bakers Junction sites respectively. Based on average waste figures over the past two years the life expectancy from 1 January 2013 for Hanrahan Road is approximately 10 years and Bakers Junction 50 years.

Bakers Junction landfill sites life expectancy would be approximately 10 years if Hanrahan was to close and Albany's waste diverted to this site. The use of Bakers Junction as the main disposal point for the City's waste is likely to incur a small increase in collection costs.

Potentially between the two sites there is a landfill capability of twenty years.

Waste industry benchmarks suggest seven years is a common timeframe when planning and constructing a new landfill site. This allows for site analysis studies, environmental reports, public consultation, engineering design, DER approvals and licencing process, site works, clay lining, leachate drainage construction and commissioning of the facility. Further time needs to be added to this timeframe if, as is the case of the City of Albany, land has not already been identified and purchased.

### **2.2.2 Leachate Management**

The City of Albany has had ongoing issues with the DER concerning leachate discharge from the Hanrahan landfill site since 2002. In 2008 the City constructed a leachate drainage system to capture the discharge but the system failed soon after installation. In 2010 the DER placed an additional condition on the City's landfill licence that by 31 January 2011 all leachate discharge must be contained on site. Through consultation with the DER the City was given a final extension to have Stage 1 of the leachate drainage project completed by 31 January 2013.

Stages 1 & 2 of the leachate drainage project have commenced with a forecast completion date of mid April 2013. The final Stage 3 of the project and a new leachate monitoring system are scheduled to be constructed in 2013/14.

It is a DER requirement that leachate discharge is closely managed during the remaining life of the landfill and then 30 years after the closure of the site. Non-compliance could incur heavy fines or premature closure of the site.

## **3.0 Existing Waste Services and Infrastructure**

### **3.1 Regional Profile**

The City of Albany is located 400 km by road south of Perth; its population currently stands at 34,000 which represent 65% of the population of the Great Southern Region. Albany is an established regional city with potential growth industries. Tourism ventures in accommodation, recreation, food and hospitality continue to grow in and around the City.

The staple agricultural industries of the region - wool, grain and livestock - continue to feed into the City. Aquaculture, wine, plantation timber, fishing, olive oil, organic produce, dairy, meat processing, essential oils and cosmetics are examples of existing industries serving local, tourist and export markets.

Waste management in the municipality is split into urban and rural areas, the urban area centred on the Albany Township have 13,656 households; the rural area has 1,559 households. A kerbside service is provided to the urban residents only; these residents get a three bin service and two verge collections per annum. Rural residents have limited free access to transfer stations and landfills.

The City also receives urban municipal waste from the Shire of Denmark. The current budget indicates revenue of \$ 100.00 per tonne for providing the service. Providing this service will have an impact on the City's landfill capacity at Hanrahan Road site. There is no agreement with the Shire of Denmark to formalize this arrangement. The costs charged are listed within the fee schedule of the 2012/2013 budget.

The City has a high aged demographic reflecting a retirement lifestyle that has been developed. The population growth is expected to be steady at 1.5% per annum with the population expected to reach 45,100 by 2026 (Planning WA, WA Tomorrow Population Report 2012).

### 3.2 Cost to Residents

The provision of kerbside waste services and associated services to residents in the urban area incurs an annual charge to each assessment of \$284.00.

The provision of transfer stations and associated services to rural residents has been free since 2011/12 while a user pay system was being considered. The user pay system was regarded as an unviable system and it is recommended that an annual charge be reinstated to rural residents from 2013/14. The fee applied to rural residents in 2010/11 was \$70/annum.

### 3.3 SWOT Analysis

Strengths	Weaknesses	Opportunities	Threats
Three bin collection service	Low landfill life expectancy	Food scrap recycling	Changes to carbon tax threshold
Good recycling culture	Landfill leachate management	Introduce bin colour standardisation	Changes to DER licencing conditions
Education officer		Introduce recycled waste into construction materials	Changes to State and Federal government waste policy
E-waste collection service		Investigate new waste technologies	
Household hazardous waste service			

The City of Albany has made some significant steps in the area of waste treatment in the past ten years which has placed it as one of the leading local authorities in WA for the waste practices that it provides. The City has a three bin collection service (waste, recycling, greenwaste), has developed a good recycling culture helped by the employment of an education officer, has implemented a community based e-waste recycling initiative and provides for the disposal of household hazardous waste. These and other initiatives have made a substantial contribution to the diversion of waste from the City's landfill.

Into the future the City's vulnerabilities lie in the relatively low life expectancy of its existing landfills and the successful management of leachate at its Hanrahan site. These are challenges that have been recognized and are being acted upon but will require consistent management into the future to ensure these risks are fully mitigated.

Potential risks to future operations include possible federal government changes to the carbon tax threshold that may make the City liable for carbon tax payments, DER restrictions to its landfill licence conditions which could impact on the City's landfill operations as well as the effect of changes to state and federal government waste policy.

The City has a number of opportunities it can investigate and implement to maintain its status as leading local government waste service provider. The recycling of food scraps is a logical next step to the greenwaste recycling it already provides; the phasing in of bin colours that conform to the National Standard and reduce the confusion surrounding the existing bin system; promote the use of recycled materials into civil construction products and into the thinking of the wider community; and commence investigation and planning into methodologies and technologies that will set the foundation for waste disposal beyond the City's current landfill life expectancy.

**3.4 Municipal Waste Generation**

The following graph represents the waste collected in the City's kerbside collection during 2012 and the amount of that waste sent to landfill.

**Fig 1: Waste Collected and Waste to Landfill**



Total waste received in 2012 at City landfill's was 44,871 tonnes of which 25,630 (57%) was deposited to landfill.

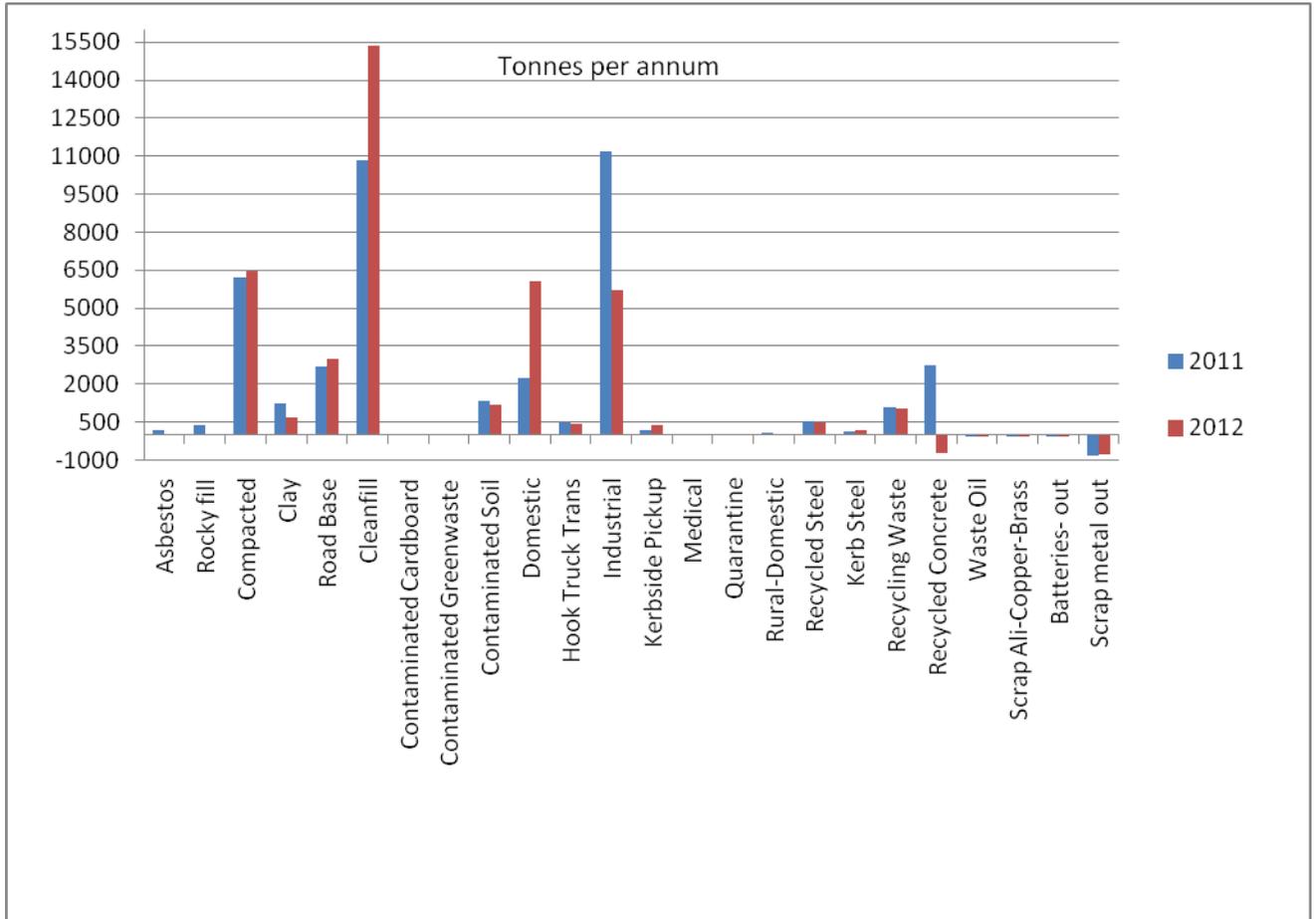
All kerbside waste is deposited to landfill as it has already been subject to at source separation into recyclable and green waste.

A small amount of green waste still goes to landfill as it is contaminated from other sources.

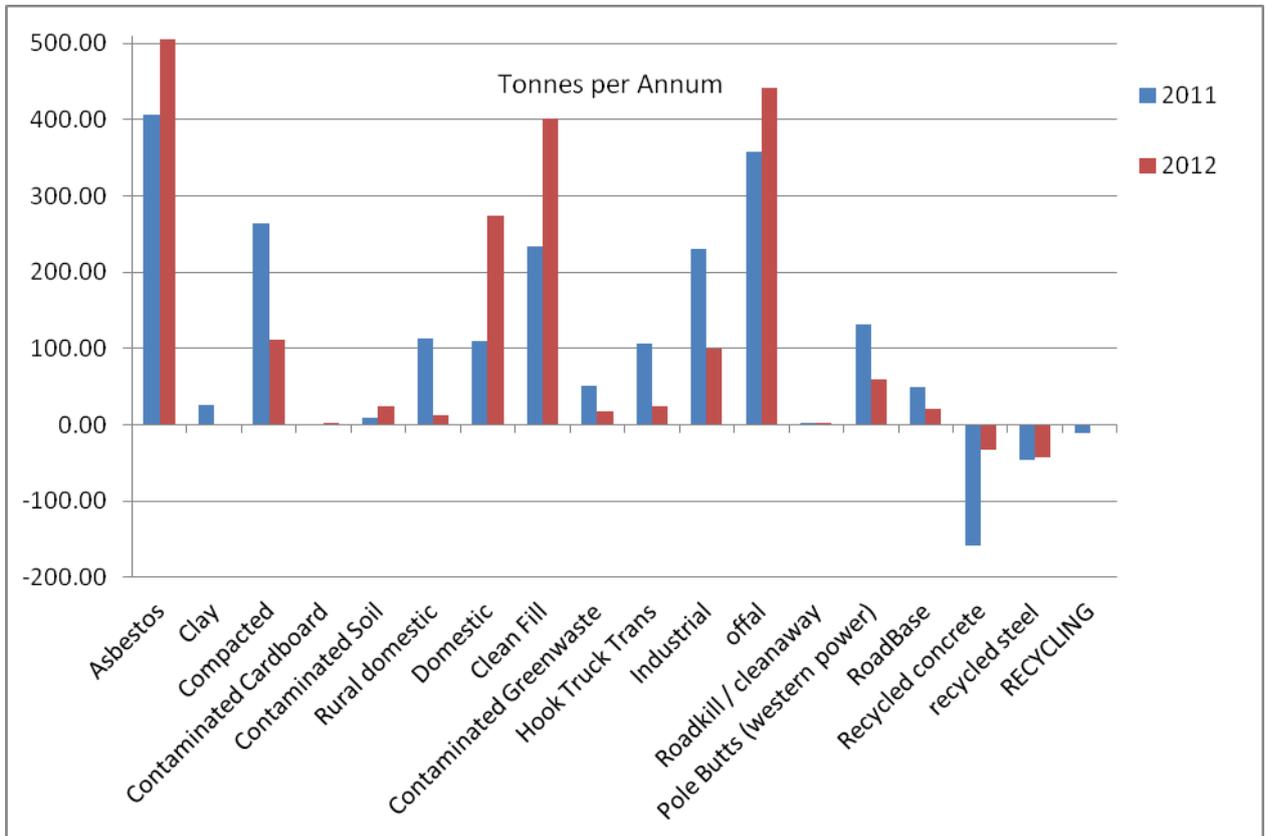
The Materials Recovery Facility (MRF) residuals to landfill represent the contamination present in the recyclable collection and that material not suitable for recycling, e.g. small pieces of glass. The 710 tonnes is 20% of all MRF material.

**Fig 2: Drop off Waste Collected at Landfills by Type**

**Hanrahan**



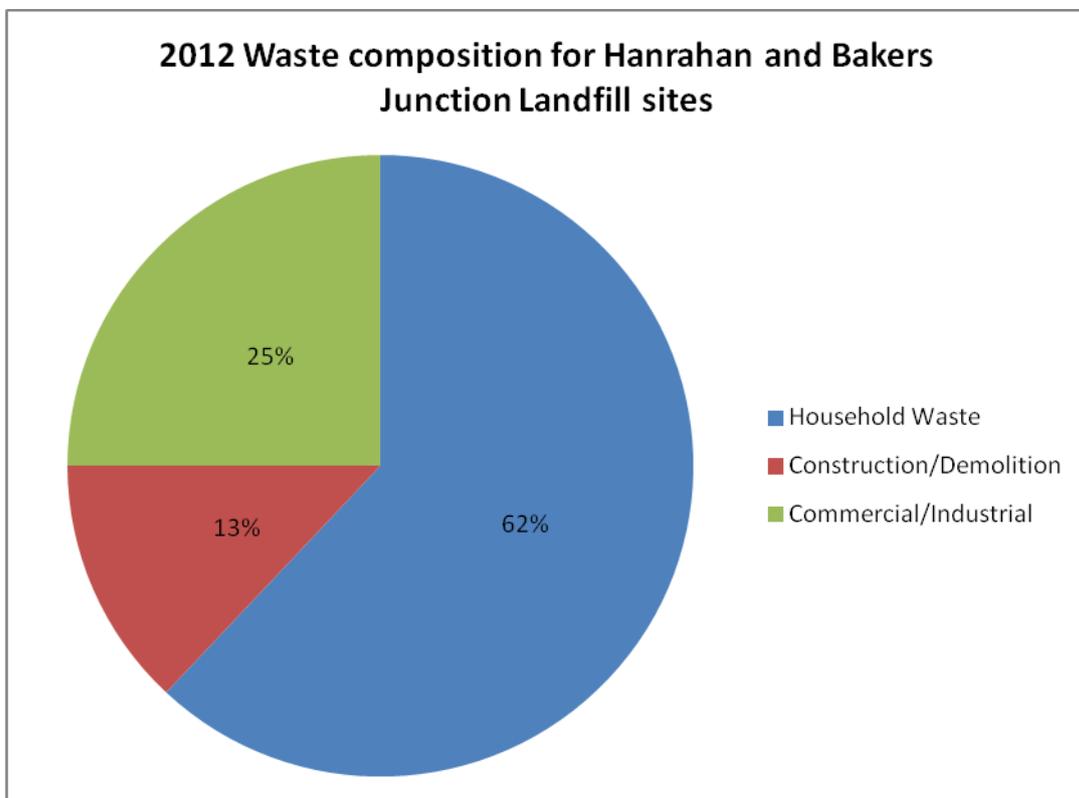
**Bakers Junction**



### 3.5 Significant Waste Streams

- Collected kerbside waste and domestic waste dropped off at Hanrahan and Bakers Junction landfill represents the largest of the City's waste streams at 13,900 tonne.
- Commercial/Industrial waste contributes 5,686 tonne to landfill.
- Construction/Demolition represents 3003 tonne accepted with 700 tonne of this total used for earthworks at the landfill sites.
- The largest quantity of product received at landfill is clean fill with 15,376 tonne recorded for 2012. Clean fill is used as a cover material over waste cells and is also stockpiled to be used for capping material when the landfill has reached its final level.

### 3.6 Estimated Percentage Composition of Waste (Household/ C&D/C&I).



### 3.7 Recycling Composition Analysis

Kerbside and drop off recycling is processed at the Harahan Landfill Site at the Contractor operated Materials Recovery Facility (MRF). The composition of the recycled material is outlined in the following table.

**TABLE 1: Recycling Composition Break Down for 2012**

PRODUCTS	ALBANY MRF	TRANSFER STATIONS	MUNICIPAL GREEN WASTE	TRANSFER STATION CARDBOARD	TOTAL PRODUCT TONNAGE
Newspaper	1096.92	31.37			1128.29
Cardboard	661.84	19.26		9.78	690.88
Liquid Board	0	0			0
Glass	683.75	14.67			698.42
Steel Cans	59.35	1.68			61.03
Ali Cans	22.6	0.63			23.23
HDPE	76.76	2.51			79.27
PET	36.76	1.04			37.8
Mixed Plastic	30.5	0.85			31.35
Bulk Steel	0	0			0
Glass Fines	0	0			0
Waste	710.51	21.13			731.64
Total					3481.91
Greenwaste			1526		1526

### 3.8 Government Policy and Regulatory Implications

- Environmental Protection Act 1986;
- Environmental Protection (Controlled Waste) Regulations 2001;
- Health Act 1911;
- Health (Asbestos) Regulations 1992;
- City of Albany – Asbestos Disposal Guidelines;
- Waste 2020 Vision to guide policy development;
- Western Australian Waste Avoidance and Resource Recovery Bill (WARR Act).
- Department of Environment Regulation Licence
- Annual Environmental Report and Licensing;
- Sighting, Design, Operation and Rehabilitation of Landfill (best practice);
- Landfill Waste Classification and Waste Definitions (as amended 1996), and;
- Transfer Station Best Practices Guidelines (DEC 2006).

### **3.9 Current Contractor Provided Waste Services**

The following services are provided as part of the Waste Minimisation Contract between the City of Albany and its contractor.

#### **3.9.1 Kerbside Waste Collection**

Urban residents have a weekly kerbside household waste service through a 140 litre Mobile Garbage Bin (MGB) to approximately 13,656 households which results in 6,310.98 tonnes per annum of municipal waste which is sent to land fill at Hanrahan Road.

#### **3.9.2 Kerbside Recycling**

The City provides kerbside recycling via a 240 litre mobile garbage bin (MGB) service to approximately 13,656 households in urban areas of the municipality which results in 3,491.69 tonnes) per annum of recycled material being collected and sorted at Hanrahan Road Waste Management Facility.

The recovered materials are transported to recycling centres in Perth by the appointed contractor or processed locally.

#### **3.9.3 Green Waste Processing**

The City provides a monthly kerbside green waste via a 240 litre mobile garbage bin (MGB) service to approximately 13,656 households. Greenwaste is dropped off at Vancouver Waste on John Street Albany before being transferred to its Mindijup Rd site where it is chipped and composted. Approximately 1,961.24 tonnes is collected and processed annually.

#### **3.9.4 Verge Side Bulk Collections**

The City provides an annual green waste verge collection in April/May and an annual hard waste verge (furniture, white goods, bedding, timber and steel) collection in October to all urban residents.

All landfills and transfer stations accept dry recyclables; green waste is accepted at the green waste contractor's site and is not accepted at any landfills or transfer stations.

#### **3.9.5 Community Education**

A component of the waste minimisation contract is for the contractor to provide for a Community Education Officer. The education officer works with school and community groups to promote recycling and responsible waste management.

#### **3.9.6 Rural Transfer stations**

Rural waste transfer stations are located at five sites within the municipality to provide for domestic waste disposal for rural ratepayers. Approximately 102.92 tonnes per annum of rural domestic is collected and disposed of at Hanrahan Rd Waste Management Facility.

### **3.10 City of Albany Provided Waste Services**

The following are services that are provided by the City of Albany outside of the Waste Minimisation Contract.

#### **3.10.1 Landfill Based Services**

The City has two landfill sites – Hanrahan Road Waste Facility and Bakers Junction Landfill. Both landfills are licensed as Class II sites and offer disposal services of materials as stipulated in their licenses. Both landfills also collect salvageable materials such as oil, scrap steel, timber and batteries for recycling.

### 3.10.2 Household Hazardous Waste

With WALGA support the City also has a Household Hazardous Waste service that collects hazardous items used in households that are not normally accepted at landfill sites. These items include out of date gas bottles, small quantities of pesticides, smoke alarms etc. WALGA organizes their disposal at a metropolitan site.

### 3.10.3 E Waste Collection

The City collects e-waste at its Hanrahan Road waste facility and supplies it to a local contractor for recycling. The service is partly funded by the Product Stewardship Scheme and collects approximately 130 tonnes of e-waste per annum.

### 3.10.4 Drum Muster Collection

The City provides a collection point for chemical drums at all its rural transfer sites as well as its landfill facilities. Collection occurs on an irregular basis approximately every 18 months.

### 3.11 Current Waste Infrastructure

A location map of waste sites in the municipality is attached as Appendix 2.

Site	License No.	Address
Hanrahan Road Waste Management Facility (31ha)	6925 L129/97	Lot 1135 Cuming Road Albany
Bakers Junction (11 ha)	7048 L239/97	Reserve 31472 Chesterpass Road Albany
Transfer Stations		Address
Redmond		Redmond Hay River Road
Kronkup (former Landfill) (9.5ha)		Reserve No. 38504 Lower Denmark Rd Kronkup
Wellstead (former landfill) (2ha)		Part of Wellstead town site
Cheyne Beach (116ha) recently closed		Reserve No. 878 Cheyne Road Cheynes
Manypeaks (former landfill) (7ha)		Reserve No. 38923 Lot 51 South Coast Highway
South Stirling		Reserve 51085 South Stirling Rd
Recycling Drop Off Facilities		Description
Hanrahan Road Waste Management Facility		Tip Shop
Bakers Junction		Hook lift bins on site
At all other transfer stations		Hook lift bins on site and MGB's
Material Recovery Centre		Description
Hanrahan Road Waste Management Facility		Materials Recovery Facility
Vancouver Waste		Green waste Processing Plant

### **3.11.1 Hanrahan Road Landfill**

Hanrahan Road landfill site is centrally located, approximately 2km west of the Albany Central Business District and is 1km from the shore line of Princess Royal Harbour. The physical address for the site is Lot 1135 Cuming Road, Albany and facility is positioned on the western foot of Mount Melville. The site is leased from the Albany Agricultural Society Inc. and has been operated by the City as a waste disposal facility for over 45 years.

The primary activity of the site is land filling of putrescible waste and therefore it is licensed under the Environmental Protection Act 1986 (License Number 6925 – File number L129/97). It is classified under the Environmental Protection Regulations 1987 as a Schedule 1: Prescribed Premises Category 64 – Class II Putrescible landfill site with a production/design capacity of 20,000 tonnes or more per annum. The facility is licensed to accept waste materials for burial stipulated for Class II landfill in the Landfill Waste Classification and Waste Definitions 1996 (As amended) including:

- Clean fill (i.e. Sand, Rocks Soil)
- Type 1 Inert waste (i.e. Concrete, Building Rubble)
- Type 2 Inert waste (i.e. Tyres, Plastics)
- Putrescible wastes (i.e. Domestic, street sweeping, Litter)
- Contaminated solid waste meeting waste acceptance criteria specified for Class II landfills (some specific site clean ups)
- Type 1 and Type 2 Specialist waste (Asbestos, Medical, Quarantine)

Sustainable waste management activities are also carried out at the site including the operation of a salvage/reuse shop, the acceptance and short-term storage of recyclable materials including ferrous and non ferrous metals, plastics, glass, paper and cardboard. In addition, the site also accepts and operates as a short-term storage facility for specific hazardous waste materials including waste oil.

### **3.11.2 Bakers Junction**

Baker's Junction Waste Management Facility is located on Reserve No. 31472, Chester Pass Road, Albany approximately 16km northwest of the City of Albany and has a total area of 11 hectares.

The site is licensed under the Environmental Protection Act 1986 (License Number 7048/ File Number L239/97). It is classified under the Environmental Protection Regulations 1987 as a Schedule 1: Prescribed Premises Category 64 – Class II Putrescible landfill site and is restricted to accepting a maximum of 50,000 tonnes of waste per annum. The facility is licensed to accept waste materials for burial stipulated for Class II Landfill in the Landfill Waste Classification and Waste Definitions 1996 (As amended) including:

- Clean fill (i.e. Sand, Rocks Soil)
- Type 1 Inert waste (i.e. Concrete, Building Rubble)
- Type 2 Inert waste (i.e. Tyres, Plastics)
- Putrescible wastes (i.e. Domestic, street sweeping, Litter)
- Contaminated solid waste meeting waste acceptance criteria specified for Class II landfills ( some specific site clean ups)
- Type 1 and Type 2 Specialist waste (Asbestos, Medical, Quarantine)

Offal and Asbestos comprises the majority of waste received at the site as well as a small amount of domestic waste. The facility also operates a waste transfer station for the acceptance and short-term storage of recyclable materials (including metallic, plastic, cardboard and paper products).

#### **4.0 Revision of Services**

The City's current level of service aligns itself with the Waste Authorities Zero Waste Policy and its goal of diverting the maximum amount of waste from landfill. To achieve ongoing compliance with policy means that decreasing its level of service is not a viable option. However the City can look at how it delivers its services and the possible efficiencies that could be made.

#### **4.1 Waste Minimisation Contract**

The Waste Minimisation Contract implemented in 2004 has shaped the delivery of the City's waste service for nearly ten years and received very little variation since its introduction. The contract is due to expire in May 2015 and a review is now required regarding the services it provides and how they are delivered. The review will need to investigate the merits of outsourcing versus in house delivery of all or some of the services currently undertaken.

#### **4.2 Bulk Hardwaste and Greenwaste Verge Collections**

The annual bulk waste verge collections are extremely popular with the community. However the service is relatively expensive to deliver and, for two months of the year, creates litter problems and detracts from the visual amenity of the City. The service will be reviewed to investigate alternative options and efficiencies.

#### **4.3 Medical Waste**

The City provides the regions only cost effective option for medical waste disposal. Total medical waste received in 2012 at the city's waste facility was 39 tonne. This constitutes less than 0.2% of the 25,600 tonne of waste buried in landfill .The type of medical waste received consists of medical instruments, sharps and wound dressings. A report commissioned by the City of Albany in 2012 describes the City as complying with its licence conditions in receiving and disposing of this waste to landfill and questions the viability of other forms of disposal given the relatively small amounts of medical waste received. Several contractors have shown interest in providing an alternative service at an increased cost. These services are more in line with best or preferred practice. The City will partner with WA Health to determine a position as to whether the current acceptable practice should continue and is in the wider community interest.

#### **4.4 Traffic Management and Waste Reveal at Hanrahan Landfill**

The traffic management and positioning of the weighbridge at Hanrahan landfill doesn't allow for the separation of loads and discourages customers from sorting their waste to increase the capability of recycling materials. The traffic management system will be reviewed and redesigned.

#### **4.5 Domestic Waste Disposal at Bakers Junction Landfill**

The reveal of domestic waste at Bakers Junction will be reviewed to coincide with the small quantities of domestic waste that is received. This may involve the use of skip bins and the waste transferred to Hanrahan for burial.

#### **4.6 Commercial and Industrial Recycling**

Landfill fees have been restructured to encourage commercial recycling but this facet of waste disposal will receive ongoing review.

#### **4.7 Construction and Demolition**

Landfill fees have been structured to encourage the sorting of loads and recycling. Private contractors have entered the market and the quantity of material being received has decreased. This service will receive ongoing review in response to private contractor influences and continued encouragement to promote sorting of loads and recycling.

#### **4.8 Education Officer**

The role of the education officer has been invaluable in establishing the communities recycling culture. The existing role is outsourced as a component of the waste minimisation contract. The position of education officer will be reviewed to determine if the role should continue to be outsourced or better service could be provided if the role was directly employed by the City.

#### **4.9 AWARE Centre**

The AWARE (Albany Waste and Recycling Education) Centre is managed by the City's current waste collection contractor. The Centre's main objective is to raise awareness of recycling and waste minimization in the community. The target audience is school groups but is also used by community groups such as retirement villages and scouts. Further work is required to extend the classroom outdoors to demonstrate working examples of recycling techniques.

#### **4.10 Bin Collection**

The colour coding of the City's bins does not comply with the National Standard. This causes confusion with new residents and tourists who inadvertently contaminate recycling bins with municipal waste. A plan will be formulated to phase in new bins that conform with national Standards.

### **5.0 Additional Services**

#### **5.1 Kitchen Organic (Food Scrap Collection)**

The City already has a greenwaste processing service that composts organic garden waste. Investigation and trial will be conducted to expand the practice to include food scraps. If successful this initiative has the potential to reduce waste to landfill by up to 35% and increase landfill life expectancy by 3 years.

#### **5.2 Energy Recovery**

It is considered that Hanrahan Road Waste Management Facility is considered the best option for energy recovery. The City is proposing to undertake a feasibility study into the viability of methane gas extraction for power generation.

### **6.0 Comments from Department of Environment Regulation**

- 3.9.3 Green Waste Processing** - The reported 1,961.24 tonnes of green waste and other wastes being received, stored and/or processed at the John Street property (greater than 500 tonnes per year) would make the John Street premises prescribed under the *Environmental Protection Regulations 1987* and the need for the occupier to apply for and hold a license to continue this activity. It is the City's responsibility to ensure that all regulatory obligations are met with regards to its waste services or contractors.
- 3.9.3 Should clarify** here who operates "Vancouver Waste on John St" and the "Mindijup Rd site". The way it reads suggests that it is operated by the City. Also may need to clarify what activities (define processing) will occur at the John street site and Mindijup Rd site and that the necessary approvals for these sites and activities are in place.
- 3.9.6 Rural Transfer stations** - Any waste transfer station that has a design capacity to receive 500 or more tonnes per year of waste is prescribed and must hold a licence under category 61 of the *Environmental Protection Regulations 1987*. In addition any upgrades or works that would increase an existing waste transfer stations design capacity to 500 tonnes or more per year must be done through a works approval. Noting that it is the design capacity of the facility that makes it prescribed and not its current throughput. To ensure that the City of Albany is meeting its regulatory obligations it is suggested that a regulatory review of all existing waste transfer stations or waste depots is undertaken as part of the Plan.

4. **3.11.1 & 3.11.2 states** that Type 1 Inert waste is concrete and building rubble. This is not necessarily correct and should be corrected in the document with reference to the Landfill Waste Classification and Waste Definitions (as amended) as being non-hazardous wastes containing contaminant concentrations less than Class 1 landfill acceptance criteria. There are instances where concrete and building rubble may be contaminated above these levels or contain asbestos.
5. **4.7 Construction and Demolition** - The Plan should outline measures adopted to manage the risk of asbestos contamination of feedstocks and recycled products to reduce risks to site workers and the wider community. DER's Guideline for Managing Asbestos at Construction and Demolition Waste at Recycling Facilities should be noted and is available on the DER website.
6. **5.1 states** that the City has a green waste processing and composting service. This section should clarify where and who operates these services and that they hold the appropriate DER licenses or approvals.
7. **6.0 Issues Identified by DER** - is noted to be blank. What is the purpose of this heading and what information will be placed here?
8. **11.0 Key Action Plan** - The City should include a review of the effectiveness of the leachate management system at Hanrahan landfill and provide a contingency action plan should it not be found to be operating as designed.

## **7.0 Collaboration with other Local Governments**

Discussions have been held with the Shires of Denmark and Plantagenet to establish a regional group of municipalities with the following terms of reference:

- Joint use of regional facilities
- Coordinated approach to the establishment of new facilities and initiatives
- Joint funding applications
- Regional Tendering
- Network development

A 5 year Strategic Waste Minimisation Plan was implemented in 2008 by the three councils and is now due for review.

In 2011 a Regional Waste Site Investigation was commissioned by the City of Albany and the Shire of Denmark that considered prospective sites in both municipalities, as well as a site in Plantagenet, for their suitability to be used as a regional landfill facility. The study provided preliminary findings that require further investigation.

Discussions regarding a regional perspective to waste management will be ongoing between the three councils during the term of this strategic plan.

## **8.0 Raising Community Awareness of Waste Management Activities**

The City of Albany has a recycling contamination rate of 20% which by industry standards is an average grade but still falls well short of the 10% industry benchmark.

The importance of the education officer's role cannot be underestimated. The Shire of Denmark has the same recycling practice and contractor as the City of Albany and has a contamination rate of 40%. The difference between the two services is - Albany has an education officer and Denmark does not.

Research by eastern states Councils has shown that community awareness has a limit to the positive influence it can exert on the community and have extended their efforts to publicly engage their community with a more interactive approach.

For the City of Albany to improve its recycling contamination rate, continue its drive to improve community knowledge of waste stream separation and implement new services such as food scrap collection it is important that the City review the role of the education officer so that a higher level of community engagement is achieved.

**9.0 Improved Practices at the City of Albany**

Significant improvements to the City of Albany waste service include:

- Introduction of a bin collection service at Cheyne Beach and the closure of the transfer station
- Construction of Stages 1 & 2 of leachate drainage system at Hanrahan Landfill
- Reviewed landfill fee structure
- 3D model and accurate forecast of landfill life expectancy
- Partial subsidy of E-waste collection under Product Stewardship Scheme
- Implementation of improved landfill operational practices

**10.0 Albany’s Waste - Where too into the Future**

The City of Albany is at the crossroads in determining the future of its waste management. The decisions made within the term of this strategic plan will set the direction for the next 50 years. Previous strategies in 2004 and 2008 were made without the urgency of landfills reaching their life expectancy. Even with advances in waste treatment technology there will always be some residue that will require burying. In the short to mid-term it is important that the City reduces its waste stream to landfill to preserve its asset for as long as possible while planning a new landfill that will cater for the City’s needs for up to the next 50 years. As the regional centre the City will need to consider the waste requirements of neighbouring Councils but also be aware that its own specific requirements may not suit a shared facility.

Alternative technology used in the eastern states of Australia includes various methods of composting. Internationally bio digesters and plasma arc (energy from waste) technology are now being considered and incorporated into mainstream waste management practices. In planning for the next 50 years of management it is important that all options are considered and options chosen are a reflection of planning for the future and not for the present.

**11.0 Key Action Plan**

This section identifies outcomes, actions and responsibilities that will indicate our performance for the Waste Management.

<b>1. Review services provided by the current waste contract.</b>	
Timeframe	May 2014
Outcome	Services analysed and determined prior to preparation of new Waste Minimisation contract
Resources	Manager Waste Strategy and Operations, Waste Coordinator
Officer	Manager Waste Strategy and Operations

<b>2. Trial and if sustainable implement a food scrap kerbside collection</b>	
Timeframe	November 2015
Outcome	Food scrap kerbside collection added as a variation to greenwaste collection and processing contracts
Resources	Waste Coordinator, Education Officer, Manager Waste Strategy and Operations
Officer	Manager Waste Strategy and Operations

<b>3. Continually Reduce Domestic Waste to Landfill.</b>	
Timeframe	May 2018 - ongoing
Outcome	An accurately recorded data set showing reduced landfill percentages on an annual basis.
Resources	Waste Coordinator, Education Officer, Landfill staff
Officer	Manager Waste Strategy and Operations

<b>4. Review Bakers Junction landfill operations with the aim of setting up a transfer station to receive the domestic waste component of the waste stream.</b>	
Timeframe	March 2014
Outcome	Implementation of transfer station facilities for the domestic waste component of waste stream
Resources	Waste Coordinator, Manager Waste Strategy and Operations
Officer	Manager Waste Strategy and Operations

<b>5. Collaborate with Other Councils to Maintain a Coordinated Regional Approach.</b>	
Timeframe	May 2018 - ongoing
Outcome	The City acting as the regional leader for waste initiatives with neighbouring Councils
Resources	Manager Waste Strategy and Operations
Officer	Manager Waste Strategy and Operations

<b>6. Investigate and implement if sustainable alternative options for the bulk hard waste verge collection.</b>	
Timeframe	August 2014
Outcome	Continuation of existing service with the possibility of using an alternative operational procedure
Resources	Waste Coordinator, Manager Waste Strategy and Operations
Officer	Manager Waste Strategy and Operations

<b>7. Investigate and implement if sustainable alternative options for the bulk green waste verge collection.</b>	
Timeframe	December 2014
Outcome	Continuation of existing service with the possibility of using an alternative operational procedure
Resources	Waste Coordinator, Manager Waste Strategy and Operations
Officer	Manager Waste Strategy and Operations

<b>8. Rehabilitation of South Stirlings Landfill Site.</b>	
Timeframe	October 2014
Outcome	Rehabilitation as per post closure management plan.
Resources	Waste Coordinator, Manager Waste Strategy and Operations
Officer	Manager Waste Strategy and Operations

<b>9. Provide Higher Profile Education Programmes for Waste Minimization</b>	
Timeframe	May 2018 - ongoing
Outcome	Using the AWARE Centre as a base, ensure the community is better educated about waste
Resources	Education Officer, Waste Coordinator, Manager Waste Strategy and Operations
Officer	Manager Waste Strategy and Operations

<b>10. Review and Implement Improved Traffic Flows at Waste Management Facility to Encourage Greater Recycling Participation.</b>	
Timeframe	June 2014
Outcome	An improved traffic flow methodology that ensures maximum recycling opportunities
Resources	Waste Coordinator, Manager Waste Strategy and Operations
Officer	Manager Waste Strategy and Operations

<b>11. Reduce Waste to Landfill by Improving Infrastructure for the Sorting and Storage of Recyclables at the Hanrahan Waste Facility.</b>	
Timeframe	July 2015
Outcome	Construct hardstands for the sorting and storage of recyclable waste streams
Resources	Waste Coordinator, Manager Waste Strategy and Operations
Officer	Manager Waste Strategy and Operations

<b>12. Increase Public Place Recycling</b>	
Timeframe	May 2016
Outcome	The placement of increased numbers of recycling bins in the CBD area
Resources	Waste Coordinator
Officer	Manager Waste Strategy and Operations

<b>13. Review Medical Waste Disposal in Partnership with Health WA</b>	
Timeframe	June 2014
Outcome	Decision on the Citys continuation of its medical waste disposal service if an alternative service was provided in Albany by a private contractor
Resources	Manager Waste Strategy and Operations
Officer	Manager Waste Strategy and Operations

<b>14. Phase in National Standard Bin Colours</b>	
Timeframe	May 2016 (ongoing)
Outcome	Retailers commence supplying bins complying with National Standards when issuing new or replacement bins.
Resources	Waste Coordinator
Officer	Manager Waste Strategy and Operations

<b>15. Investigate and implement Improved Weighbridge Data Management System</b>	
Timeframe	March 2014
Outcome	Installation of new weighbridge software and improved reporting ability
Finances	Waste Coordinator
Officer	Manager Waste Strategy and Operations

<b>16. Hanrahan Transfer Shed to be Designed to Operate with Hook Lift Bins</b>	
Timeframe	April 2014
Outcome	Designs to consider for future implementation
Resources	Waste Consultant, Waste Coordinator
Officer	Manager Waste Strategy and Operations
<b>17. Develop Post Closure Plan for Hanrahan Landfill</b>	
Timeframe	June 2015
Outcome	Plan to submit to DER
Resources	Waste Consultant
Officer	Manager Waste Strategy and Operations
<b>18. Investigate and Plan for Waste Disposal Alternatives beyond 2023</b>	
Timeframe	May 2016
Outcome	Report investigation findings
Resources	Manager Waste Strategy and Operations
Officer	Manager Waste Strategy and Operations
<b>19. Implement Design Changes to Hanrahan Transfer Shed</b>	
Timeframe	November 2015
Outcome	Upgrade to transfer shed
Resources	Waste Coordinator
Officer	Manager Waste Strategy and Operations
<b>20. Demonstrate to the Public the Successful Use of Recyclable Waste</b>	
Timeframe	July 2015
Outcome	Construct concrete kerbing, public car park and pathway at the Hanrahan Waste Facility using recyclable material that can then be showcased to the public
Resources	Waste Coordinator
Officer	Manager Waste Strategy and Operations
<b>21. Prepare and Implement New Waste Minimisation Contract</b>	
Timeframe	May 2015
Outcome	Implementation of new waste contract services
Resources	Manager Waste Strategy and Operations, Waste Coordinator
Officer	Manager Waste Strategy and Operations
<b>22. Reinstate Rural Domestic Waste Fee</b>	
Timeframe	July 2013
Outcome	Reinstate revenue to cover the cost of providing a waste service to rural householders
Resources	Manager Waste Strategy and Operations
Officer	Manager Waste Strategy and Operations

<b>23. Review Waste Collection Boundaries</b>	
Timeframe	December 2013
Outcome	Potential expansion of waste collection area
Resources	Manager Waste Strategy and Operations
Officer	Manager Waste Strategy and Operations

<b>24. Investigate the Use of Hanrahan Waste Facility as a Transfer Station for Greenwaste</b>	
Timeframe	December 2014
Outcome	The use of Hanrahan Waste Facility as a collection point with greenwaste processed off site.
Resources	Manager Waste Strategy and Operations
Officer	Manager Waste Strategy and Operations

<b>25. Review the Effectiveness of the Hanrahan Leachate Drainage System and Plan for Improvements if Required</b>	
Timeframe	December 2016
Outcome	Compliance with DEC requirements.
Resources	Manager Waste Strategy and Operations
Officer	Manager Waste Strategy and Operations

<b>26. Review the Effectiveness of Commercial Recycling Fee Incentives</b>	
Timeframe	August 2015
Outcome	Weighbridge data demonstrating trends in the ratio of sorted/mixed commercial waste tonnage.
Resources	Waste Coordinator
Officer	Manager Waste Strategy and Operations

## **12.0 Review**

Executive Director Works and Services by September 2018.

## **13.0 Associated Documents**

This map has been produced by the City of Albany from a range of agencies. The City bears no responsibility for the accuracy of this information and accepts no responsibility for its use by other parties.



# City of Albany Waste Collection Sites

## Legend

- Highways
- Local Roads
- Boundaries
- Waste Sites

