

# Resource Recovery Annual Report

July 2021 – June 2022



**Cover: The Stotts Creek Resource Recovery Centre final landfill cell under construction, December 2021.**

# Contents

Foreword	<b>4</b>
Major achievements	<b>5</b>
New 10-year waste contract	5
Flood waste clean up	5
Tweed Organics Processing Facility – one year on	6
Waste collection services	<b>7</b>
Council’s household collection services	7
Organics	7
Recycling	7
Landfill waste	8
Hard waste kerbside collections	8
Public parks and street litter	8
Beyond the bins	<b>9</b>
Resource Recovery snapshot	9
Community Recycling Centre – Stotts Creek	10
Tweed JUNKtion Tip Shop	11
The cost of waste	11
Looking after the environment	12
Removing waste from landfill	12
Diversion of waste and materials:	13
Asbestos	13
Education	<b>14</b>
Future plans	<b>17</b>
Masterplan program – Stotts Creek	17
Works at Eviron Road site	18



# Foreword

## **The 2021/2022 financial year.**

The 2021-2022 financial year presented challenges including the persisting COVID-19 pandemic and managing the waste clean-up from the February/March 2022 flood events. Despite this, the resource recovery team continued to provide a quality waste management service and succeeded in achieving important milestones for both Council and the community.

The Tweed Organics Processing Facility opened in August 2021 and up until 30 June 2022 accepted 14,659 tonnes of household organics from the Tweed community.

Yearly audits of the Tweed's household bins indicates there is still considerable organics and recyclables in the red lid landfill bin – highlighting there is further opportunity to work with residents to address the problem.

The February/March 2022 flood events impacted every part of the community including the resource recovery operations and led to the generation of more than 20,000 tonnes of additional waste including more than 2,750 tonnes of asbestos containing material. All this material was transported to the Stotts Creek Resource Recovery Centre with most of it subsequently bulk-hauled to be disposed of in Queensland.

On top of this we collected more than 80,000 tonnes of fill from landslips and river silt.

Tweed's resource recovery facility put its hand up to help the Northern Rivers' region by accepting flood-affected waste due to other regional waste facilities being severely impacted by floods. Many of those facilities were inundated and infrastructure destroyed. Council's facility was the only site north of Grafton able to accept asbestos. In the period since the floods, Council's resource recovery team set up a cell for asbestos with the approval of the NSW Environment Protection Authority (EPA) and will continue to operate this until full.

The flood meant the closure of the Tweed JUNKtion Tip Shop for several months due to potentially contaminated waste being disposed of at the facility. The Tip Shop reopened after a short hiatus and customers flooded back in. This facility is extremely popular welcoming more than 400 customers per week between Wednesday and Saturday.

New measures have been added to the new waste collection contract to ensure that recoverable items in the kerbside bulk waste collection can get a second chance through the Tip Shop and any profits generated from the Tip Shop and our salvage operations will be used over the next 2 years to fund Council's new sustainability officer role, who's responsibilities will include delivering the outcomes of the Towards Zero Waste Strategy, as well as the objectives of the Cool Towns project and the Sustainability Strategy.

The resource recovery team continued to deliver the Resource Recovery Masterplan projects. The final cell at the Stotts Creek site will be finished in January 2023, with significant time lost to this year's wet weather. A contract was tendered to upgrade the entry to the site including a new weighbridge, site office and road network. These works will commence in 2022/23 and expected to be completed in 2023.

Council also received a grant to purchase a new excavator, install a cardboard compactor and to double the size of the undercover area at the Tip Shop.

The excavator is being used on site on rehabilitation projects and for general operations, and the cardboard compactor will be installed in December 2022. The upgrade to the Tip Shop is due to start once the development application is approved. The next 5 years will see the delivery of several of the key projects under the Masterplan, a great move for Council which will assist us to meet the challenges presented by the management of waste.



## Major achievements

### New 10-year waste contract

In the 2021/2022 financial year, significant planning for the new 10-year waste contract started which will be in place until 2032. On July 1 2022 Council commenced the next phase of its collection services with a new contract commencing with Solo Resource Recovery. The new contract includes collection of the 3-bin system (organics, recycling and waste) for urban single and duplex properties, and the 2-bin service (recycling and waste) for multi-unit and rural properties. Council also provides bulk bin collections for larger multi-unit properties.

The tendering and letting of this contract is a major milestone in the delivery of Council's services to households and this took place throughout 2021/22.

Council have retained the bulky goods collection for domestic rated properties provided with a red lid waste bin, with the inclusion of a separate truck to collect recoverable items for sale in the Tip Shop. The contract will use new trucks with the highest emission standards currently available and will be supported by an electric vehicle for the use by the contamination management officer, a new position established to support the waste contract.



One of the new recycling trucks.

### Flood waste clean up

In late February and early March 2022 the Tweed Shire experienced the worst floods on record. The flood cleanup meant that an additional 18,000 tonnes of waste and 2,500 tonnes of asbestos were generated which had to be processed. The general waste was brought to the Stotts Creek Resource Recovery Centre and along with the non-hazardous bulky material. It was then taken to Queensland for disposal. Over a period of 2 months Council received 9,391 loads of flood waste and exported more than 1,000 loads.

Council have also had more than 50,000 metres of fill stored at the Environ future landfill from roadslips and flood mud. This material will be processed for use on the rehabilitation and operational purposes in years to come.

The flood cleanup involved a collaboration between state and government agencies including NSW Public Works, the EPA and both the Qld and NSW governments. Many of Council's staff in engineering and resource recovery went above and beyond in organising and undertaking the cleanup.



Cars bringing loads of flood waste for disposal after the floods.

## Tweed Organics Processing Facility – one year on

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The Tweed Organics Processing Facility opened in August 2021 and received 14,659 tonnes of household organics for processing in 10 months to 30 June 2022. In the 2 months prior to the startup, the household organics were exported to another facility with a total of 16,375 tonnes of household organics collected and processed in 2021/22.

The organic waste processing facility has proven to be very effective for processing green organics, in a year filled with floods and problems. The facility has now also taken on the kerbside organics processing for a neighbouring Council and this will help to reduce the overall cost of the household service for Tweed residents.



The Stotts Creek Resource Recovery Centre final landfill cell.



## Waste collection services

### Council's household collection services

Council continued to provide a household 3-bin service to residential single and duplex properties in urban areas, and a 2-bin service to multi-unit and rural properties. A bulk-bin service was also available for multi-unit residential and mixed residential properties. An on-call bulky goods collection service is also available to residential properties with a red lid waste collection service.

The following details outline Council's resource recovery services for the 2021/22 year.



### Organics

Council provided 27,160 weekly food and garden organics bin services per week compared to 26,924 weekly services in the previous 12-month period (up by .87 percent). The bin inspection program was put on hold due to COVID-19 and restrictions however, the contamination rate for the organics collection service remained below 1%. This is exceptional and a credit to the efforts of residents.

A total of 16,375 tonnes of food and garden organics was collected (up by 22.5% from last year). Contamination in the green bins was under 1% at the November audit which remained the same as the previous year.

14,659 tonnes of this year's organic material was collected and processed at the Tweed Organics Processing Facility. This material was processed by Soilco, converting the organic material into high quality compost.

**14,659 tonnes** of organic material collected  
**1% contamination rate** recorded in bin audits held in November 2021

↑ .87%



### Recycling

19,645 weekly yellow recycling bins were serviced this financial year which fell marginally from last year's numbers (.03% down). The tonnages reduced from 8,388 tonne to 8,251 tonne, a fall of 1.6%

With the bin inspection program on hold, the annual audits identified an increase in the contamination rate in the year 2021/22 from 9% to 13%. Council pays for the disposal of contamination and will be focusing on reducing contamination.

**8,251 tonnes** of recycling collected and processed  
**13% contamination rate** recorded in bin audits held in November 2021

↓ 1.6%







## Landfill waste

In 2021/22 council provided 27,485 weekly services for the red landfill bins, up 1.5% from the previous year. In 2021/22, 17,241 tonnes (15,839 tonnes in mobile garbage bins and 1,402 tonnes in bulk bins) of waste material was collected and placed into landfill (up by 4.9% from 2020/21).

The November 2021 audit of red bins at 3-bin service properties showed that urban household waste bins still contained 64% organic and recyclable materials. More than 45% of contents could be recoverable.

**17,241 tonnes**

of waste material collected and placed in landfill

↑ **4.9%**

**64% organic and recyclable**

material (bin audits held in November 2021)



## Hard waste kerbside collections

The hard waste collection service is a booked service. In the 2021/22 period Council collected 1,282 tonnes of on-call domestic bulky waste, up 47 tonnes or 3.8% from the previous year. During the year Council provided more than 16,800 on-call booked services.

445 refrigerators were also collected separately – these are not able to be collected using the rear load compactor truck, to avoid refrigerant gases being released into the atmosphere. The fridges were taken to Stotts Creek Resource Recovery Centre, degassed and salvaged.

## Public parks and street litter

The waste bins provided for the management of public spaces are service on a schedule with this varied to increase the level of serviced during holiday periods. Council provided more than 70,000 bin clearances in 2021/22 with a total of 781.5 tonnes of waste collected. This was an increase of 7.8% in the amount of waste collected compared to the previous year.



One of the new collection trucks as part of the new Solo Resource Recovery 10-year contract.



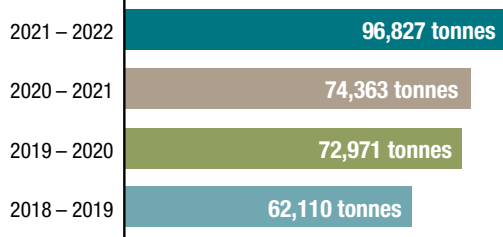


# Beyond the bins

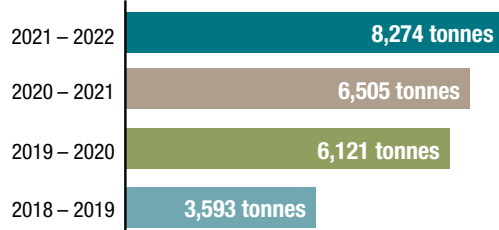
## Resource Recovery snapshot

In 2021/22 Council recovered 43.6% of the total waste received at Stotts Creek Resource Recovery Centre and landfill. Recovery was significantly impacted by the receipt of contaminated material and flood waste because of the February and March 2022 floods.

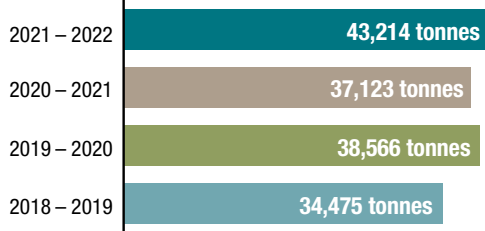
### Waste received/collected



### Clean fill processed/reused on site or for operation



### Waste diverted (reused or recycled)



An additional 50,000 tonnes of fill including landslip materials and flood sediment were collected during the 2022 floods and will be reused in rehabilitation on-site. This material has not been weighed as it is stored on a separate site.

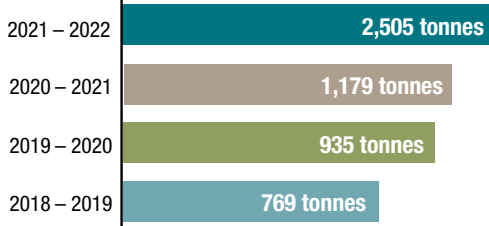
### Metal recycled



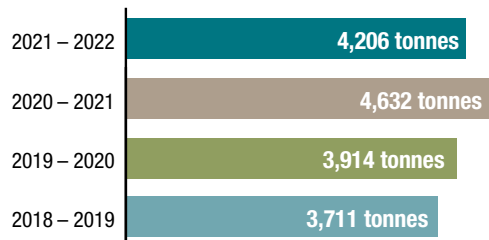
### Concrete bricks and tiles reprocessed/reused as road material



### Asbestos

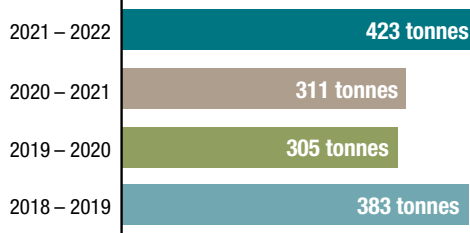


### Garden waste recovered/reused for landfill rehab



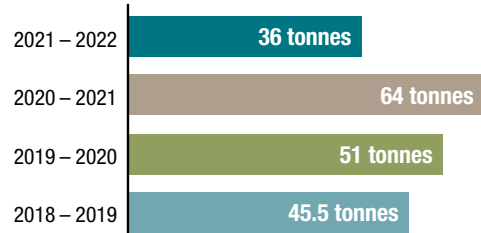
## Community Recycling Centre – Stotts Creek

### Waste from charities\*

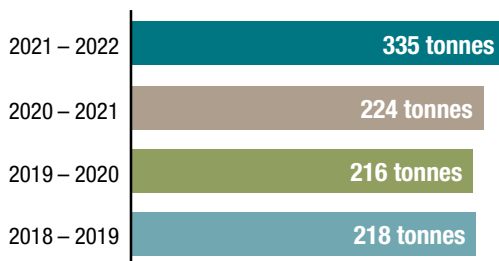


\*Council exempts disposal costs as a community service

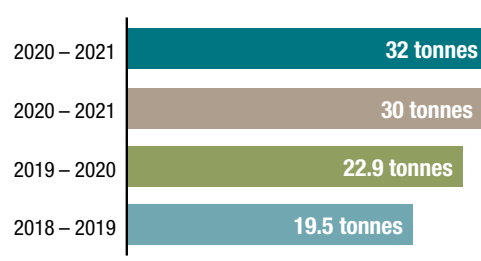
### E-waste recycling (Tech collect)



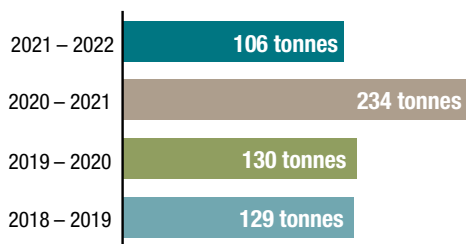
### Mixed recyclables and cardboard recycled



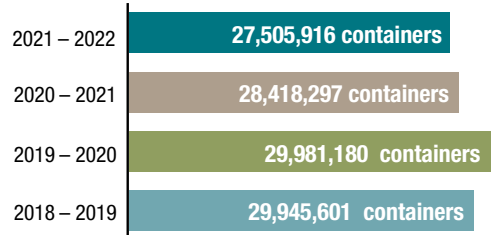
### Tyre recycling



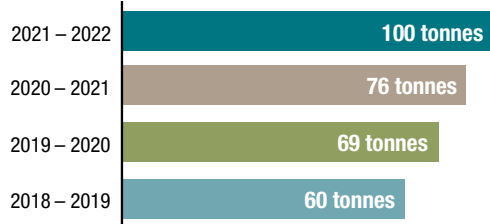
### Tip Shop upcycled/reused/recycled



### Return and Earn containers



### Chemicals and paint for processing

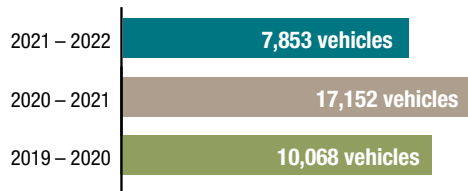


Item recovered from going to landfill and sold at the Tip Shop.

## Tweed JUNKtion Tip Shop

Council has made more changes to the Tweed JUNKtion Tip Shop and more still to come! There were many closures due to COVID-19 and floods but the focus has still been about recovering items bound for landfill and rethinking, recreating and reusing everything! Whether you are renovating, crafting, building, moving, browsing – there is something for everyone at the Tip Shop.

### Vehicles visiting Tweed JUNKtion (Tip Shop)



The Tip Shop was closed for half of the year due to Covid-19 and floods.



Tweed JUNKtion Tip Shop entry sign.

## The cost of waste

Total cost of resource recovery operations in 2021/22 was up on previous years due to general increases across the industry and in the economy. The expenditure incurred in 2021/22 included:

\$6,583,915 million	The collection of waste including contract costs. (2021/22 - collection contract)
\$3,361,646 million	Landfill operations
\$5,212,792 million	Transport and disposal of waste including levies in NSW and QLD

## Looking after the environment

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As part of Council's operational licence with the EPA, the resource recovery team monitor operations to ensure they are not impacting on the Tweed's internationally significant environment. This is done by testing the potential receiving points for emissions from the landfill including air, groundwater and surface water.

Council works with the EPA to ensure monitoring, testing and reporting is appropriate and published online so that the public and community can see what is being tested and what results are being achieved.

The team also prepare annual reports on processing and landfill operations licences by the EPA and provide a report on development of the Eviron future landfill site and quarry. These reports look at monitoring results to determine if there is any change or impact from Council's operations.

All reporting and monitoring undertaken at Stotts Creek Resource Recovery Centre is published at [tweed.nsw.gov.au/environmental-monitoring](https://tweed.nsw.gov.au/environmental-monitoring)

Council has 2 Environment Protection Licences; EPL 6108 which regulates Council's processing operations, and EPL 12181 which regulates Council's landfill operations. Both have an extensive requirement to monitor Council's operations to ensure there is no impact to the environment, and to respond when and if there is any sign that there may be concerns.

Operationally, it has been a particularly difficult year with the floods in February and March leading to considerable inundation of the wetland and stormwater system. Construction of the third and final landfill cell at the Stotts Creek Resource Recovery Centre continued throughout the year. This required excavation of 80,000 cubic metres of fill from the final cell. Large equipment operating on-site required constant sediment control to manage the runoff during a very wet year.

2,871 mm of rain was recorded in 2021/22 - where the average yearly rainfall for the Tweed is 1,510 mm. This had a significant impact on operations with the flood in February leading to handling an additional 20,000 tonnes of waste at the site. The flood-affected material had to be received, processed and removed to Queensland for disposal.

Despite the difficulties, the annual returns were completed and submitted on time with only a few non-conformances that were all attributable to stormwater runoff. Council also received and processed more than 20,000 tonnes of flood waste which was either processed and transported elsewhere for disposal or disposed of at the Stotts Creek Resource Recovery Centre.

## Removing waste from landfill

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The diversion of waste included in the table overleaf is from the Stotts Creek Resource Recovery Centre but for the purposes of evaluation, diverted recyclables and organics collected from kerbside have also been included.

It does not include soil recovered from the flood material received and processed at the old Eviron Quarry site.



## Diversion of waste and materials:

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Material	Cubic metres	Tonnes
Soil (VENM)	24,180	38,688
Wet Soil VENM	10,360	16,576
Soil EPRM	4,070	6,512
Silt	8,690	13,904
Sand	240	384
Rock	890	1,424
<b>Total</b>	<b>48,430 cubic metres</b>	<b>77,488 tonnes</b>

**The figures above have not been used in diversion estimates however, these materials will be beneficially reused.**

## Asbestos

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The increase in the amount of asbestos Council is receiving is significant with Council, having received 3 times as much as in previous years. With the floods in February and March 2022, all landfill facilities in the Northern Rivers, other than Tweed's site, were either damaged or constrained and no longer able to receive asbestos containing materials (ACM). During this time, the EPA asked Tweed Shire Council to manage much larger quantities of regionally generated asbestos material.

An application was submitted to the EPA to allow Council to open an asbestos designated cell for containment of this material and now more than 2,500 tonnes of asbestos has been disposed of at the Stotts Creek Resource Recovery Centre, with most of it received since mid-February 2022.

The additional volume of asbestos at the facility placed significant stress on operations, given the constraints applied to the management of ACM, with strict procedures needing to be put in place. The risks associated with asbestos management has also meant both the EPA and SafeWork NSW have taken a much greater interest in Council's operations.

The asbestos cell has sufficient capacity to accommodate these types of quantities until the end of 2022 and Council is currently determining how to deal with ACM in the future. The demand for disposal of asbestos is not declining with all the reparations taking place in the Northern Rivers, and most landfills still able to accept ACM.









## Education

Council's resource recovery education program was disadvantaged by weather (severe rain and floods during 2021/2022) and the ongoing impacts of the COVID-19 pandemic.

The loss of Council's bin inspection officer and the failure of the recycling plant during the February and March floods also contributed to the lack of resources to deliver educational aspect of Council's resource recovery program. Despite these setbacks, the resource recovery team still delivered several great outcomes including:

- Implementation of the Waste Wizard - The waste wizard is an inquiry-based system available on Council's website which allows residents and customers to search for an item of waste and determine how to manage the material.

### Waste and recycling

 <p><b>Tip and resource recovery</b> Opening hours for the tip and tip shop.</p>	 <p><b>Bin services and collection</b> Find out about bin services in your area.</p>	 <p><b>On-call kerbside collection</b> Households with a domestic red bin collection service qualify for 2 collections of larger items (per financial year).</p>
 <p><b>Waste Wizard - what goes where?</b> Search to find out where your rubbish items go.</p>	 <p><b>Recycling and reducing waste</b> Recycling reduces the amount of waste going to landfill.</p>	 <p><b>Business waste and recycling</b> Reducing waste to landfill is simply good business.</p>

The Resource Recovery Team worked closely with Council's web design team to simplify waste messaging. The result was improved Resource Recovery web pages to align content to reflect Council's towards zero waste focus.

- Way to Grow compost – the provision of bags of compost made from the Tweed Organics Processing Facility has provided an education opportunity to promote the green bin. The compost has been distributed at events to promote the organics collection service and the benefits.



Way to Grow compost.

- Links have been established with local organic farmers to take on their advice on the processing and use of the compost from the facility.
- Bin inspection program – this was conducted throughout the first 4 months of the financial year with good results in the reduction of contamination. The program suffered a setback with the loss of the officer running the program and the floods when the service could no longer be provided. The program will be re-instigated in 2022/23.
- Second Hand Saturday – the team continue to support and promote Second Hand Saturday each year.



Council suggests Second Hand Saturday each year.



- Teaming up with Solo Resource Recovery drivers - Council's team has regularly worked with the collection service contractor to address contamination issues.
- National Recycling Week – promotion of the state-based program in November to promote the need to recycle. The team promoted a regional campaign using multiple media outlets.



- Asbestos Awareness Week – National Asbestos Awareness Week was between 21 and 28 November 2021. Council promoted the risks of working with and around asbestos throughout the region with a North East Waste campaign, challenging complacency and ignorance of the long term risk.
- Clean up Australia Day – the Clean Up Australia Day program was varied this year to allow participation on alternative dates due to the impact of weather events. It appeared to be a successful program change with parties able to adopt a site or date and work with Council to get support as needed.

- Let's Get Our Scrap Together was launched in June 2022 - a new community education campaign to help residents make the most of food and organics recycling, run across the Northern Rivers until October 2022 featuring television, radio and social media ads, pop up community events and school waste education programs thanks to a \$52,000 grant.
- Redesign of the signage and on the new collection service vehicles to promote our services, and
- The Circular Cafés program targeting commercial organics at restaurants and cafés continued with the service now offered beyond the trial.

## Don't waste the chance to join Circular Cafés

Local food businesses – are you ready to do better with your bins?  
With a little help from Circular Cafés, food waste can be kept out of landfill.

Sign up to receive:

- free assessment of business waste
- free green bin service for one year
- free action plan, resources and ongoing support
- free bin stickers.

You will also be supported with the Circular Cafés toolkit, covering all the tough topics, such as single-use plastic.

Join the 65 other businesses that have joined this Northern Rivers movement. It's just good business.

For more information, go to [circularcafes.com.au](http://circularcafes.com.au)







## Future plans

### Masterplan program – Stotts Creek

The delivery of the masterplan has progressed with the granting of the development approval and construction certificate for the front of house construction. The tender for this stage of the masterplan has been awarded to Greg Clarke Building and construction works will commence in September 2022 with works expected to take approximately 12 months to complete. This stage of the masterplan includes a new weighbridge office, site office, including education facility, upgrades to the roundabout and entrance road, new gates, new carpark and entrance for the Tip Shop.

The delivery of the final cell at the Stotts Creek Resource Recovery Centre will be completed by the end of 2022 and has been underway throughout 2022 with this project held up due to ongoing wet weather. This will provide an opportunity to optimise the space at the site by increasing the current capacity of the landfill by 140,000 cubic metres which will extend the life of the site by approximately 3 years. During 2021/22 more than 80,000 metres of fill was excavated from the new cell to create the void.



Work starting on the masterplan at the Stots Creek Resource Recovery Centre.

## Works at Eviron Road site

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The Eviron Road site is the adjacent property owned by Council.

Future plans for the Eviron Road site continue with pre-loading of stage 1 of the haul road. The preloading of the road is being completed with the reuse of excavated material from throughout the Shire. Planning is now moving forward to have this project initiated to get the road tendered as a design and construct project, and to commence the detailed design for the Eviron landfill in the old Quirks Quarry.

The conservation areas in this future landfill and quarry site are being managed, including 14,000 plants that were planted in 2016.



New landfill cell at Stotts Resource Recovery Centre.



Future landfill development site at Eviron.





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