

Refuse and Recycling – Summary for 2020/2021 draft Annual Plan

The Problem:

Continuing operation of the existing form of refuse and recycling services in Kaikōura District Council (KDC) poses both practical and financial challenges.

The range of materials that can be accepted for recycling has been reduced in response to loss of international markets for these products, and those materials that can be marketed now generally have little value. Some of the materials that have previously been accepted by KDC services as being ‘recycling’, such a glass and some types of plastics have not been beneficially recycled into new products and have instead been put in the landfill.

The refuse and recycling services that have been provided by Council through Innovative Waste Kaikoura (IWK) have in recent years been supported financially by other revenue streams within IWK – some associated with the earthquake recovery - but these revenues have diminished, with a need for more funding to come from the community if current levels of service are to be maintained.

Increases of rates in the order of 3% were initially indicated as being needed for this purpose alone, which Council believed was probably unaffordable for the community. The impact of COVID-19 has further reinforced the belief that other – potentially radically different – ways of managing solid waste within the District should be explored.

The Consultation

Management of solid waste is one of the most complex activities undertaken by Council, because of the different ways in which it can impact the community and the lack of strict rules regarding how it is to be undertaken. Unlike services such as the supply of water or the control of building construction where central government has imposed very detailed requirements, the expectations placed on solid waste services are much less specific. there are many options in respect of the form of these services and how they can be delivered.

Council wishes to commence its consultation with the community by seeking feedback on four potential service options, but it is recognised that there is a much wider range of options available, and there may be others that are better, and that further consultation may be required to identify the best solution.

Management of the community’s solid waste has potential to have a broad range of economic, social, environmental and cultural impacts, which are sometimes in conflict, and often difficult to quantify and balance. This makes it extremely difficult to determine which option is best in a scientific way. Making a decision on how solid waste should be managed must therefore to a significant degree be subjective, influenced by the feelings or opinions of the community.

It is however considered important that such feelings or opinions are informed, and some background material is therefore provided for that purpose.

The consultation through this draft Annual Plan is just the start of a process to decide what solid waste services should be provided to the community. Council also needs to prepare and seek public feedback on a detailed ‘Waste Management and Minimisation Plan’ (WMMP) and this will happen later this year. Only when this is completed can final decisions on services be made.

What are the four options being presented?

Option 1. Continuing Current Services: This option is to continue delivering those services largely as they exist at June 2020. This date is stated because markets for recyclables are dynamic, and in recent times there have been changes to the ranges of recyclables received by KDC services and further changes may occur in the future.

The services being provided at June 2020 comprise rates funded urban kerbside, Resource Recovery Centre ('RRC') and rural centre based recycling services, refuse disposal, green waste acceptance and processing (including composting), re-use and hazardous waste disposal services and operation of street litter bins and recycling receptacles.

The challenge with this option is that maintaining these services would require a significant increase in costs, that would have to be met by either increasing rates or the level of user pays charges for refuse disposal.

Option 2. Limited Recycling: This is as for option 1, but with recycling services only provided at the Resource Recovery Centre in Kaikoura, not at kerbside or at any rural centres.

Option 3. Likely Lowest Cost Refuse Disposal: Under this option there would be few if any recycling services. Recycling, reuse or waste recovery (for example green waste composting) services would only be offered at the RRC if they could be operated on a profitable basis for particular materials, and it is suspected that only metals and some greenwaste composting might fall into this category. There would be no recycling services provided at the kerbside or at rural centres. Opening hours for the RRC would be reduced.

Charges at the RRC for refuse disposal and green waste acceptance at the RRC would be set at a level that only covers costs. It is expected that this level would be substantially lower than what is currently charged.

Council would provide limited financial support for a user-pays wheelie-bin kerbside refuse collection in the Kaikoura urban areas. Most of the cost of this service would be met directly by users; they would be charged every time the wheelie bin was put out for emptying.

Option 4. Limited Support of Waste Diversion Services: This would be as for option 3, but with some rates funded subsidy of composting (perhaps also including food scraps) and operation of re-use services – probably for larger items. The intention would be to get best 'bang for buck' in terms of diverting materials away from the landfill.

As stated previously, there are many other potential options, but there is almost certainly no solution that does not have some negative consequences. There are rarely simple and easy remedies to what are difficult and complex problems.

Options 3 and 4 are significantly reduced levels of service but are being presented because they are believed to have the potential to provide the essential services to the community at the lowest financial 'in the pocket' cost. It is believed that in the current environment, with many people being adversely impacted financially by the effects of COVID-19, such cost saving is important. This does not however necessarily mean that these are the best options for the community.

How much would the alternative options save me?

Council is confident that there are options that would be less expensive than maintaining the current services, but it is not yet possible to be sure exactly how large those savings would be.

At present charges of \$4.50 for a standard black bag, or \$350 per tonne are levied for disposal of refuse at the Kaikoura Landfill.



Such charges – and in particular the per tonne rate – are high relative to most other landfills, where fees of between \$100 and \$200 per tonne for waste delivered to site are typical. The Kaikoura charges are at a higher level mainly because revenue from them is used to support other waste diversion activities such as recycling, and it is believed that if such subsidy did not occur Kaikoura’s landfill charges could potentially be halved.

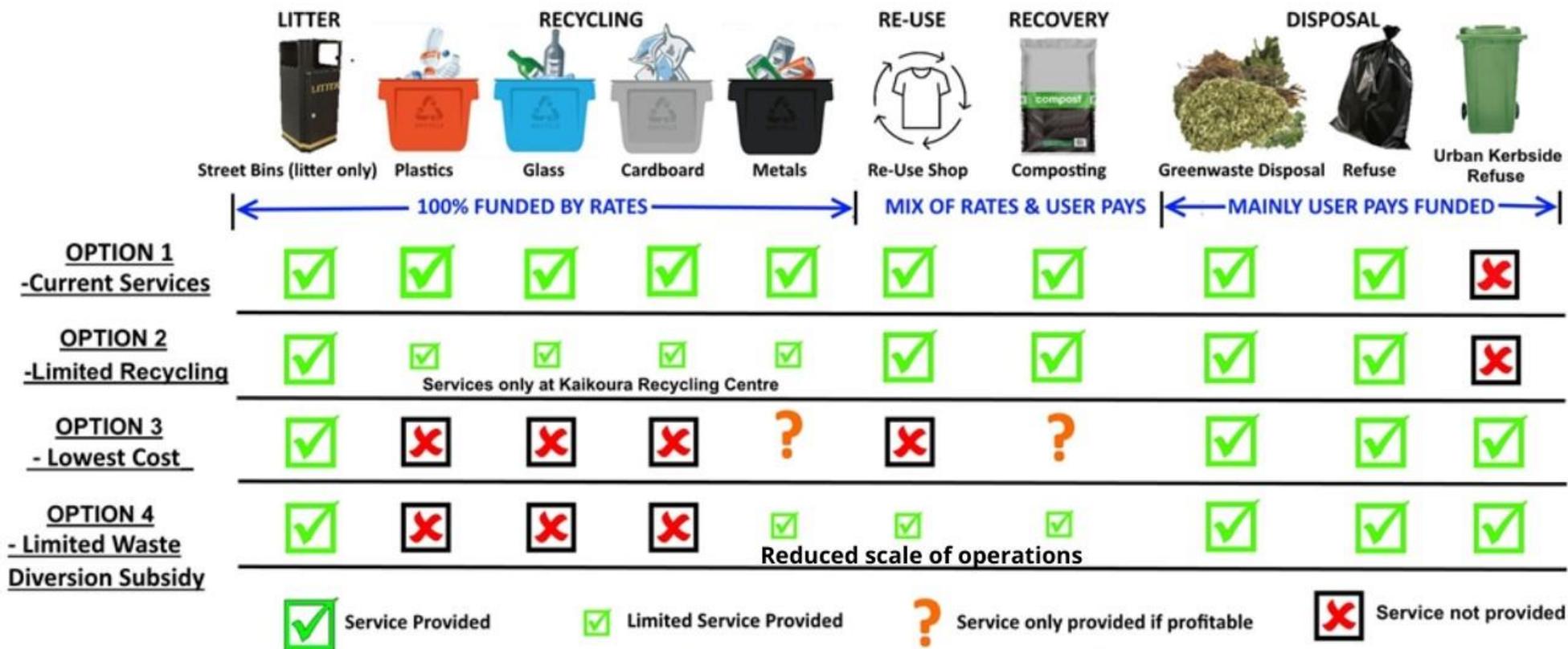
Recycling of materials such as paper, cardboard, glass and plastics incurs significant costs to collect, sort, package and transport those products to market, but the value of these products in those markets is now often very low, and in some cases negative (meaning the ‘buyer’ has to be paid to take them). The overall effect of this is that the cost of recycling a given quantity of those materials is now very high.

Evidence suggests that the current cost of recycling materials such as plastics in Kaikoura is between \$700 and \$1000 per tonne. If this is compared with a potential landfill disposal cost of perhaps \$200 per tonne, the additional cost of diverting such material from landfill is at least \$500 per tonne. Based on such numbers Council believes that potential for significant cost savings must be present if there is a willingness to explore the full range of alternative service options.

It is however often difficult to know exactly how costs will vary when very substantial changes to services are made. Costs are influenced by both the nature of the service, and how that service is delivered. For example if the service is to be delivered by a contractor, the cost may only be known after contractors have submitted their prices, and contractors may be reluctant to do so until they are sure that the opportunity for them is real.

How much an individual or business pays for a Council service also depends on the way in which they pay for that service. Charges for some Council services are rates based on the value of property, some are uniform annual rate amounts, and some have a ‘user pays’ component where the person receiving the service pays in proportion to how much of that service they receive.

Currently KDC’s solid waste services are funded through a combination of uniform annual rates and ‘user pays’ charges to IWK for refuse disposal and other services. Very roughly indicative average annual rates and ‘user pays’ fees for theoretically ‘average’ urban, rural and commercial properties in the current 2019/20 financial year are shown in the following table, together with corresponding ‘best guess’ estimates for the three options being consulted upon.



ESTIMATED OPTION COSTS (gst inclusive) – INDICATIVE ONLY

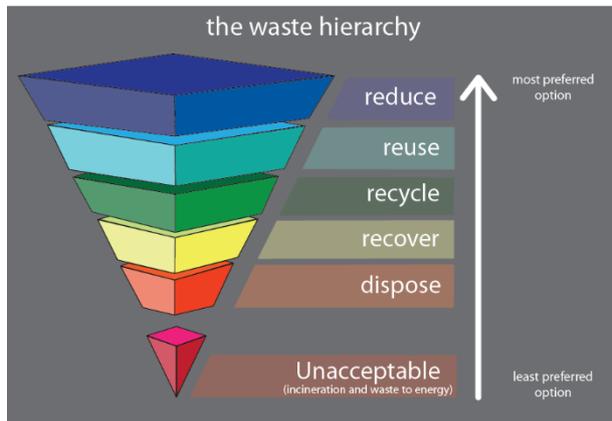
	Estimated Annual Rates Charge per Property			Estimated Average Total Annual 'User Pays' Charges per Property*			Estimated Average Total Annual Service Cost per Property*		
	Urban	Rural	Commercial	Urban	Rural	Commercial	Urban	Rural	Commercial
Current Service (current non-sustainable charges)	\$208	\$160	\$242	\$250	\$130	\$600	\$458	\$290	\$842
Option 1 – Current Services (increased sustainable charges)	\$270	\$210	\$320	\$250	\$130	\$600	\$520	\$340	\$920
Option 2 – Limited Recycling	\$240	\$180	\$310	\$250	\$130	\$580	\$490	\$310	\$890
Option 3 – Lowest Cost	\$80	\$60	\$220	\$220	\$110	\$410	\$300	\$170	\$630
Option 4 – Limited Waste Diversion Subsidy	\$100	\$80	\$240	\$240	\$120	\$410	\$340	\$200	\$650

*These estimates are based on broad assumptions and there will be wide variations between individual properties, depending on how much waste each property produces.

But there is more to this than just Cost.....

Management of solid waste is complex, and there are issues beyond simple ‘in your pocket’ cost that need to be considered. The following section discusses some of these broader issues.

Since the 1990’s Kaikoura has pursued policies to reduce the amount of waste disposed to landfill by adopting strategies of waste reduction, reuse, recycling and recovery as outlined in the diagram below, pursuing a path towards ‘Zero Waste’.



The primary driver for this approach was a belief that doing so had benefits for the environment, and this fitted well with the transition of the Kaikoura economy to one that was heavily based on tourism associated with the outstanding natural attributes of region.

Kaikoura, like a number of other small NZ communities, strongly embraced the concept of ‘zero waste’ and invested considerable energy and passion in its pursuit, with Innovative Waste Kaikoura (IWK) becoming the focus for

associated activities.

Kaikoura’s commitment to the ‘zero waste’ ethic is reflected in the broad range of waste diversion services provided at the Resource Recovery Centre, and the fact that Council does not currently support a kerbside refuse collection, which was based on a belief that this would encourage diversion of waste from landfill.

Proponents of recycling have indicated that it has a wide range of benefits. For example ‘Friends of the Earth’ have stated that these benefits include:

1. Conserving Natural Resources – based on a belief that resources are finite and some are in short supply
2. Protecting Ecosystems and wildlife – on the basis that recycling reduces the need to grow, harvest or extract materials from the earth, and that in doing so it lessens disruption and damage to the natural world.
3. Reduces demand for raw materials - which can have adverse effects on less developed countries
4. Saving energy – making products from recycled materials uses less energy than making them from new materials
5. Reducing Carbon Emissions – through reducing energy use and methane emissions from landfills
6. Creating jobs – recycling is labour intensive and requires significant numbers of people to sort, transport and process materials
7. Lower cost – Recycling is cheaper than waste collection and disposal

At face value such suggested benefits make a strong case for recycling, but it is now clear that many of these benefits can be challenged, in particular;

Conserving Natural Resources; In practice what constitutes a resource depends on how much people are willing to pay for it, and as such the extent of resources change (and often increase) over time.

Many factors, including advances in technology, can turn material into a resource when previously it was not, and as such the idea that resources are very finite is generally incorrect.

Protecting Ecosystems and Wildlife: Perceptions that landfill disposal of waste is damaging for the environment have their roots in past times, when many communities simply dumped their waste into the nearest available depression, which was often alongside a lake or river, or above a significant aquifer. Such dumping, often conducted without any significant engineering design or control, frequently resulted in water pollution.

The situation today is different, with landfills subject to strict regulatory control of their environmental effects, and there does not appear to be any strong basis on which to conclude that disposal of waste in a modern landfill is some thing that is profoundly bad.

Reducing Demand for Raw Materials: Primary production activities, if inappropriately conducted, can indeed harm the environment. But it is now also widely recognised that many types of recycling activities have also damaged the environment. This has been most clearly reflected in the decision of China to ban importation of materials for recycling from other nations because of the associated damage being done to the environment of that country, and the practice of advanced countries passing their waste to less developed nations is increasingly seen as unacceptable.

Saving Energy: This is often true, but the extent of such savings can be significantly reduced if those recycled materials have to be transported for large distances.

Reducing Carbon Emissions: This again is often true, but achieving this often comes at significant financial cost, which might be more efficiently invested in other means of reducing CO₂, such as planting more trees.

Creating Jobs: Recycling is often labour intensive and does create significant employment. With this does however come additional costs to pay those people.

Lower Cost: It is wrong to suggest that recycling is generally cheaper than disposing of the same material to landfill. Comparative costs vary for different types of materials at different locations. In some cases – for example for relatively high value items such as aluminium cans in a city location near to a re-processing plant but far from a landfill – recycling may be much more cost-effective than landfill disposal.

But more commonly, for low-value materials such as plastics, glass, paper and cardboard, the simple financial cost of recycling is substantially more than landfilling. This disadvantage of recycling grows with the distance away from the market for the recycled product, and when the recycling activity is conducted at a small scale. Kaikoura is unfortunately disadvantaged in both of these respects, which results in most of the recycling activities conducted here having high cost.

Is Recycling Worth this Additional Cost?

There are many factors to consider, and once again the answer is often not clear. A detailed report (<https://www.mfe.govt.nz/publications/waste/recycling-cost-benefit-analysis/4-benefits-recycling>) prepared for the Ministry of the Environment that attempted to value a broad range of benefits and disadvantages of recycling and landfilling illustrates the complexity involved in trying to make such judgements, and very high levels of associated subjectivity and uncertainty.

Whilst the report suggested that for some materials there were reasonable prospects of recycling having greater overall value than landfill disposal, this was dependent on many factors including location, market conditions and scale of operations.

That report was however prepared in 2007 when markets for recyclables were much more favourable than at present, and it also appears that many of the factors that favour the viability of recycling are not present in Kaikoura.

Because the costs of recycling are so high it can also be argued that there are other ways in which the money currently spent on recycling could be used to provide greater environmental benefits, such as planting more trees to offset climate change.



An argument that can also be made as to why an additional cost to recycle material cannot be justified is because the material in question is not a resource. One of the principles on which recycling is based is that some of the materials that consumers discard are resources that can be beneficially used.

For a thing to be a resource it must however have real value, and for that to happen somebody must be willing to pay something for it.

As such it can be argued that if the ‘recyclable’ materials that households create were truly resources, they would have value and it would not be necessary to pay anybody to take them away. Instead a party would be willing to either take those materials away from the household for nothing, or be willing to pay the household for them.

This is clearly not the case for many of the materials that are currently recycled, and it can therefore be argued that those materials are not ‘resources’ but are instead rubbish, and should be managed accordingly, with landfill disposal being appropriate.

It is also arguable that recycling, as it has been widely undertaken, is not a very effective contributor to a ‘zero waste’ goal, since it provides a means for consumers to believe – potentially wrongly - that they are protecting the environment, which in turn supports their generation of waste. In this way recycling reduces incentives for consumers to adopt the very best approach to waste minimisation, which is to reduce the amount of waste that they generate at source through their purchasing decisions.

Because of the subjectivity involved judging whether a substantial cost premium is justified is however believed to be a matter that the community should determine.

What Option is currently in the draft Annual Plan?

The draft Annual Plan and the proposed overall changes to rates within it are based on an assumption that a service similar to option 4 is put in place towards the end of Council’s 2020/21 financial year, resulting in a modest saving in that year relative to what is currently being spent. This is however only an initial assumption, and can be changed if the community wants something else.

A final decision on the form of waste services provided to Kaikoura will not be made based on this draft Annual Plan consultation alone. Council also needs to prepare and seek public feedback on a detailed ‘Waste Management and Minimisation Plan’ (WMMP) and this will happen later this year.

It is however hoped that the initial consultation being undertaken through the draft Annual Plan will help shape the WMMP.

Some Questions and Answers

Q. During the COVID19 Level 4 lockdown KDC provided free refuse disposal services at kerbside and at the rural centres, which many people appreciated. Why can't Council continue to provide these services in addition to the current recycling services?

A. The kerbside refuse service had a very large additional cost which would require very substantial extra funding from the community through a rates increase if they were to be continued.

Q. Options 2 and 3 incorporate a kerbside refuse collection, but it is on a user pays basis rather than a fixed charge per year. Why is that?

A. It is not considered fair (or likely to encourage good management of waste) to have people paying the same for these services, regardless of how much they use them. People living alone, holiday home owners and others who don't create much waste should not pay the same as others who create much more.

Q. Options 2 and 3 would be a big step away from the 'zero waste' approach that the Kaikoura community has previously adopted. Can such a change be justified?

A. There have been fundamental changes to many of the factors that influence the effectiveness of the 'zero waste' approach as it has been previously applied in Kaikoura. On an economic level a change does appear warranted, but there are other more subjective issues that need to be considered. It is appreciated that for many people such a change would be a conflict between their head and their heart.

Q. Under options 2 and 3 many of the materials that currently get taken for free as recycling would have to go into my wheelie bin as rubbish and I would get charged for disposing of it. Is that fair?

A. Recycling is not a 'free' service. There are charges for it in your rates, and also part of the charges currently paid to dispose of rubbish at the landfill is used to support recycling services. The total cost of recycling a given quantity of most materials is much higher than the cost of disposing of it in the landfill, and for this reason options such as 3 and 4 can provide cost savings.

Q. Are there not more efficient ways to deliver the same (or better) services than those we now have without any increase in cost?

A. The idea of 'getting more for less' is always attractive, but it is often unrealistic. This is particularly so in Kaikoura where the small size of the community and its isolation from other centres makes it difficult to achieve the 'economies of scale' that may be found elsewhere. Council is actively seeking improved efficiencies in all areas of its business, but at this time it is believed that the only practical means of containing or reducing solid waste costs is through restricting services.