INTRODUCTION

1 New Zealanders send around 2.5 million tonnes of solid waste each year to registered disposal facilities. With population growth set to rise in all major cities, and in Auckland alone, by as much as 1 million in the next 30 years, demand for an effective waste disposal network will increase – even with efforts to reduce our waste to landfill.¹

2 Waste disposal infrastructure is critical to the functioning of our cities, towns and regions. Without it, where would the waste generated by our homes, businesses and industries go?

3 Landfills and other waste infrastructure barely get a mention in the Thirty Year New Zealand Infrastructure Plan 2015. We consider landfills, and supporting waste disposal infrastructure, needs to be accounted for in future planning documents to align with future growth.

4 Reverse sensitivity issues are becoming more prevalent, with increased pressure on land resources and an ensuing need for intensification. Existing disposal facilities are particularly prone to the adverse impacts of reverse sensitivity and Resource Management Act 1991 (RMA) planning documents will need to include appropriate planning tools to manage such effects.

5 Effective resource management planning for landfills, recycling facilities and transfer stations is vital. This paper will outline some thoughts on how effective planning can be achieved, drawing on our recent experiences through the Proposed Auckland Unitary Plan process.

LONG TERM STRATEGIC PLANNING FOR WASTE INFRASTRUCTURE

6 Disposal of solid waste is critical for the functioning of towns, cities and regions. Yet, it is often overlooked in long term central and local government strategic planning documents.

7 Over the last few years, New Zealand has adopted a longer term approach to public infrastructure planning. Some examples of this longer term planning horizon include:

7.1 The Local Government Act 2002 (LGA) now requires all local authorities to prepare a 30 year infrastructure strategy as part of their long-term plan;²

7.2 In 2015, the Government released its first 30 year Infrastructure Plan³ (having started with a 20 Year National Infrastructure Plans back in 2010 and 2011); and

---

¹ Note: Auckland Household Waste Prevention Study – goal of Auckland Waste Management and Minimisation Plan: zero waste by 2040 (http://wasteplan.aucklandcouncil.govt.nz/)

² As a result of the 2014 amendments to the Local Government Act 2002, s101B.
7.3 The Auckland Plan 2013 – a 30 year spatial plan for the Auckland region.

8 While taking a longer term strategic approach to infrastructure is sensible, particularly given the significant amount of investment needed, it is surprising that waste disposal infrastructure does not really feature in this planning, especially when waste disposal infrastructure is critical to the functioning and growth of our towns and cities.

9 The purpose of the Government’s 2015 Infrastructure Plan is to ensure that New Zealand’s infrastructure is resilient and coordinated and contributes to a strong economy and high living standards.\(^4\)

   The Plan supports this vision in three ways – providing a better understanding of the services that will be needed in the future; improved information about, and management of, our existing assets; and ensuring we have the right settings to make better investment decisions in the future.

10 The only mention of waste disposal facilities in the Infrastructure Plan is a notation that there are 52 municipal landfills, and a reference to development of Porirua landfill as a “to 2025 project”. As a result, there is no strategic planning for waste services identified in this national document. Interestingly, waste disposal (as critical as it is) is not even identified by Government as an “Infrastructure sector” – these are limited to transport, telecommunications, energy, three waters, productive water, and social infrastructure.

11 Similarly, we have looked at a number of councils’ Infrastructure Strategies, and have been unable to find any mention of waste infrastructure.\(^5\) The Auckland Plan is rightly focused on waste minimisation policies, but is silent on planning for the infrastructure to support those aspirations and the reality in the meantime.\(^6\)

THINKING OF WASTE INFRASTRUCTURE AS A STRATEGIC NETWORK

12 The first step towards effective planning for our waste infrastructure is to think of disposal facilities as a strategic network. That network comprises landfills, refuse transfer stations (transfer stations) and material recovery facilities (such as recycling centres).

Landfills

13 Existing municipal landfills will need re-consenting at some stage in their lifetimes, and may need to expand to accommodate future growth, and new landfills may also be needed. When seeking to renew or obtain those resource consents, it is important that the relevant planning policy framework is set up to enable the operation of this essential infrastructure, while ensuring that the adverse environmental effects of landfills are avoided, remedied or mitigated.

14 It is important to view landfills as permanent infrastructure, despite the fact that a landfill has an operating “life”, and will close at some point. Resource consent durations are usually longer term, and once closed, the sites will still have an aftercare

\(^3\) The Thirty Year Infrastructure Plan 2015, available at http://www.infrastructure.govt.nz/plan

\(^4\) Infrastructure Plan 2015, Welcome from the Minister, page 4.

\(^5\) Including Infrastructure Strategies of Christchurch City Council, Invercargill City Council, Hamilton City Council, Rotorua Lakes District Council, Tauranga City Council.

\(^6\) The Auckland Plan 2013, Direction 7.11, paragraphs 454 and 455.
period which will impact on the future use of the site and adjoining sites. The waste in the landfill will physically remain, in a similar way to quarries and cemeteries.

Refuse transfer stations and material recovery facilities

15 We consider that a strategic network of refuse transfer stations and material recovery facilities are needed to link to landfills to ensure the efficient treatment and disposal of waste. Transfer stations and material recovery facilities are just as critical to the management of the waste stream, as they provide the opportunity to recover valuable resources from the waste stream and reduce the volume of residual waste sent to landfill. Large loads of the residual waste can then be transported to the landfill more economically and efficiently.

16 Transfer stations are best located as close as possible to the source of waste and for the larger cities, the efficiencies associated with transferring bulk residual waste to landfills are best realised by spreading transfer stations across the city. Being in close proximity to motorways and/or arterial roads also helps to achieve the social, commercial and environmental benefits of bulk haulage to landfills.

17 As we will discuss later, we consider that district councils and waste operators should be mindful of this strategic network approach when they consider potential sites for future facilities and what zoning should apply. In many districts and cities existing transfer stations are in areas zoned for industrial uses but coming under constant pressure of non-industrial uses.

REVERSE SENSITIVITY – WHAT IS IT?

18 Reverse sensitivity can have a major impact on the ongoing operation and re-consenting of existing landfills and transfer stations, and is becoming a more prominent issue, as intensification of residential development and other sensitive activities move closer to established industrial or rural areas.

19 Reverse sensitivity is the legal vulnerability of an established activity to complaint from a new sensitive land use. While not a term used in the RMA, it is recognised by the Courts as an effect of the new (sensitive) activity on the environment; and that environment includes the established (waste) activity. While under the RMA there is still a duty on all persons, including waste facility operators, to internalise their adverse effects as much as reasonably possible, the Courts have recognised that there may be some residual off-site effects that give rise to complaint.

20 It arises where the established activity, such as a transfer station, creates off-site effects, such as odour, dust and truck noise, which give rise to complaints about those effects from a new sensitive activity, for example a café with outdoor seating. Those complaints can give rise to restrictions on the established activity through RMA enforcement action, claims in nuisance, and more onerous conditions at the time of re-consenting.

21 Solid waste disposal facilities are particularly prone to reverse sensitivity due to their long life span, size and potential amenity effects eg noise, odour, dust.

22 Protecting existing waste disposal facilities from reverse sensitivity effects of new sensitive activities forms a key tenet of effective planning for waste infrastructure.
ESTABLISHING AN EFFECTIVE PLANNING POLICY FRAMEWORK FOR WASTE INFRASTRUCTURE

23  In our view, implementing an effective planning policy framework will provide better outcomes for the ongoing use and efficiency of essential waste infrastructure, while also helping to secure good planning/environmental outcomes. Nobody really wins when incompatible land uses create reverse sensitivity issues.

24  While legal tools such as "no complaints" covenants exist to help manage reverse sensitivity effects, they do not, however, reduce the actual off-site amenity effects of a landfill on the neighbouring land. In other words, the covenants are designed to restrict a person from complaining about an off-site effect or submitting on a future consent application. We think the better approach is to try and guard against the conflict in incompatible land uses in the first place through the planning policy framework.

At the policy level

Definition of Infrastructure

25  To start with, regional and district planning documents should first recognise the importance of waste disposal facilities. In our view, municipal landfills and the wider waste disposal network should be classified as "infrastructure" in our RMA planning documents.

26  We note that the definition of "infrastructure" in the RMA does not even include municipal landfills. A number of regional policy statements and district plans include definitions of "infrastructure" and "regionally significant infrastructure". Municipal landfills play such an important role in the functioning of communities, businesses and industry, that if the planning document includes such a definition, we consider that landfills should be included.

27  The notified version of the Proposed Auckland Unitary Plan (PAUP) included a definition of "significant infrastructure" but landfills were not included. After considering submissions and hearing evidence on this point, the Independent Hearings Panel recommended that:

27.1  A definition of "infrastructure" (rather than "significant infrastructure") should be included in the PAUP; and

27.2  The definition of "infrastructure" should align with the RMA definition, except that municipal landfills should be added.

28  Auckland Council has in its decision version agreed with the Panel’s approach. This was a great outcome but is only half the answer, because a landfill without supporting infrastructure is unlikely to provide for efficient waste disposal and urban growth.

Objectives and policies

29  Clear objectives and policies are then needed to recognise the important role of infrastructure, to ensure that it can be constructed, operated and maintained as needed. If resource consents for landfills involve non-complying activities, it will be helpful to be able to draw on such objectives and policies in order for the s104D RMA "gateway test" to be met. In other words, new landfills are not usually specifically provided for in district plans, so being able to draw on a policy framework that recognises the importance of providing for infrastructure more generally is vital.
An example of such objectives and policies is contained in the RPS Infrastructure, transport and energy section of the PAUP (Section B3.2, part of the RPS). Those objectives and policies broadly:

30.1 Recognise the benefits of infrastructure and its contribution to enabling economic growth and public health, well-being of people and communities;

30.2 Enable the efficient development, operation, upgrading of infrastructure, while managing its adverse effects on the environment;

30.3 Recognise the functional and operational needs of infrastructure; and

30.4 Identify the need to integrate infrastructure planning with land use planning to service growth efficiently.

Reverse sensitivity objectives and policies

31 In addition to specific policies to recognise the importance of infrastructure, we consider it vital that RMA planning documents also include reverse sensitivity objectives and policies to help protect existing waste disposal infrastructure from the impacts of incompatible land uses and development. Such provisions will help to restrict/control new sensitive activities establishing in industrial zones, and provide the policy framework for reverse sensitivity issues to be considered by councils where relevant to consent applications for new activities in close proximity to waste infrastructure.

32 Section B3.2 of the PAUP contains the following reverse sensitivity objective and policies:

B3.2 (6) Infrastructure is protected from reverse sensitivity effects caused by incompatible subdivision, use and development.

B3.2.2 (4) Avoid where practicable, or otherwise remedy or mitigate, adverse effects of subdivision, use and development on infrastructure.

B3.2.2 (5) Ensure subdivision, use and development do not occur in a location or form that constrains the development, operation, maintenance and upgrading of existing and planned infrastructure.

Zoning

33 Next, it is important to consider the appropriate zoning for land required for waste disposal activities. Because of potential reverse sensitivity issues, the appropriate zoning of land in close proximity to waste disposal activities should also be carefully considered.

34 Zoning and the associated activity status identified in the activity table rules impact on future re-consenting of landfills, transfer stations and material recovery facilities. The zoning can also impact on air quality matters, if as is the case in the PAUP, where the air quality provisions (Regional Plan) and air quality amenity expectations are directly connected to the district plan zoning.

35 District Plan zoning must give effect to RPS objectives and policies, which would include any reverse sensitivity policies.
**Zoning for landfills**

36 Landfills are usually established in rural areas. We consider that district councils and waste disposal operators could consider delineating a spot zone or special purpose zone for municipal landfills, especially once established and appropriate buffer provisions could be considered.

37 Creating a special zone allows appropriate plan provisions to be tailored for the landfill (rather than relying on the rural provisions, which will of course have a different focus) to help give effect to the higher level planning documents and to signal the importance of the landfill. Taking this approach does not mean that a landfill activity would necessarily be classified as a permitted activity in that zone. However, it would mean that a landfill resource consent application would be considered against more suitable and relevant objectives and policies.

38 We acknowledge that spot zoning is often not desirable and can create complexity in planning documents. The Independent Hearings Panel did not favour this approach for the PAUP.

39 We do however note that if a landfill is zoned Rural and there is no notation on the planning maps to indicate its presence, there is greater potential for incompatible land uses to establish nearby, thereby creating the potential for reverse sensitivity, which we consider would be a poor planning outcome.

**Transfer stations and material recovery facilities**

40 For transfer stations, ideally, a suitable industrial zoning is needed that recognises the air quality amenity issues that can arise from these facilities.

41 For Auckland, the Council rationalised the region’s industrial zones down to two zones – Light Industry and Heavy Industry. The Light Industry zone is intended to provide for industrial activities that do not generate objectionable odour, dust or noise. The Heavy Industry Zone provides for activities that do produce objectionable odour, dust or noise, with recognition that a low level of air quality applies.

42 The Independent Hearings Panel recognised that overall, Auckland will likely have a sufficient supply of industrial land for the next seven years, but beyond that, there will be shortages in some areas. A shortage of industrial land suitable for transfer stations may well be a future issue for the waste sector and councils to be mindful of.

43 A key issue in Auckland, and in other centres, has been the consistent downzoning of industrial land for large scale commercial uses, mixed uses and even residential uses. Many areas of industrial land in Auckland have been downzoned by the Hearings Panel to General Business in recognition of the office and retail types of the activities that have established there.

44 Once again, the potential for reverse sensitivity to rear its head arises in the zoning context when councils “open up” their light industry zones to more non-industrial uses that may be sensitive to the off-site effects of transfer stations.

45 One answer to the industrial land shortage in Auckland has been to point to greenfield ‘future urban’ areas as providing opportunities for new business and industrial land in the future on the city fringe. But this misses the point about strategically placed infrastructure. Waste infrastructure, especially transfer stations need to close to domestic and commercial waste producers and the arterial transport networks. It is
the network of stations and the eventual disposal to landfill that is important not availability of industrial land on the city fringe.

**Rules**

Finally, we consider the role of district plan rules in effective planning for waste infrastructure. There are a range of rules that can be considered to give effect to reverse sensitivity objectives and policies, such as the activity status of more sensitive activities in industrial zones, buffers (eg PAUP rule – in Light Industry zone within 100m of Heavy Industry zone), and overlays, and assessment criteria to require consideration of reverse sensitivity effects.

Under the RMA, industrial activities will of course need to internalise adverse effects of their air discharges as much as reasonably possible. However, the RMA does not require total internalisation of effects within the site boundary, and if total internalisation is not feasible, there may be a need to place restrictions on surrounding land in order to manage reverse sensitivity effects.⁷

**POTENTIAL SOLUTIONS AND CONCLUSIONS**

The biggest issue that we see is that outside of the industry itself there is very little understanding in central or local government policy of the importance of planning for waste disposal infrastructure. The industry needs to change that thinking and ensure longer term planning for waste infrastructure is elevated to the same level as the other ‘infrastructure sectors’. Importantly, the waste infrastructure needs to be seen as a network or system, interconnected and reliant on appropriate planning.

**Lobbying together**

The strength of some of the other sectors is their ability to actively lobby together, putting aside any competitive interests. We saw the success of this approach during the PAUP hearings, with the telecommunications sector and the retail group. In our experience the waste sector has not had this presence in the planning arena.

**RMA amendments**

Many network utility operators under the RMA have the ability to designate land for their operations (for example roading, power lines, and airports). Councils can also designate land, including for landfills. However private landfill operators cannot use these provisions. One way to more effectively provide for waste infrastructure would be to amend the RMA to allow waste infrastructure operators to become “network utility operators” so they could designate for waste infrastructure.

The waste disposal network is critical to the functioning of our cities and regions, and yet it struggles to find recognition in long term central and local government planning documents.

Councils need to recognise waste disposal network as infrastructure as a starting point, and then develop planning documents in a way that recognises the need to provide waste infrastructure to keep up with future population growth.

---