17.1 Introduction

A contaminated site is an area where the quality of the soil, groundwater or surface water resources has been compromised as a result of land use practices (predominantly from the manufacture, storage, use and disposal of chemicals and hazardous substances).

Section 15 of the RM Act restricts the discharge of contaminants, in the following terms:

"*1. No person may discharge any –*

(a) Contaminant or water into water; or

(b) Contaminant onto or into land in circumstances which may result in that contaminant (or any other contaminant emanating as a result of natural processes from that contaminant) entering water; or

(c) Contaminant from any industrial or trade premises into air; or

(d) Contaminant from any industrial or trade premises onto or into land –

unless the discharge is expressly allowed by a rule in a regional plan and in any relevant proposed regional plan, a resource consent, or regulations.

2. No person may discharge any contaminant into the air, or into or onto land, from –

(a) any place; or

(b) any other source, whether moveable or not-

in a manner that contravenes a rule in a regional plan or proposed regional plan unless the discharge is expressly allowed by a resource consent or allowed by section 20 (certain existing lawful activities allowed)."

The ARC has the function of controlling the discharge of contaminants into or onto land, or into air or water, by virtue of sections 30(1)(d)(iv) and 30(1)(f) of the RM Act. TAs have a more general function of controlling the actual or potential effects of the use, development or protection of land. In addition, the ARC and TAs have functions under the RM Act to prevent or mitigate the adverse effects of the storage, use, disposal or transportation of hazardous substances.

Enforcement procedures are available to regional councils and TAs to require compliance with regulations, rules or resource consents. They are also available to require a person to avoid, remedy, or mitigate any actual or likely adverse effect on the environment caused by or on behalf of that person, or relating to any land of which the person is owner or occupier.

17.2 Issues

17.2.1 There are a significant number of contaminated sites in the Region which may have an adverse effect on human health and the natural environment

The use of chemicals and hazardous substances in a range of industries and activities has resulted in the contamination of sites within the Region. A significant number of these sites are old landfills which have received industrial waste and domestic refuse. These contaminated sites may have adverse effects on public health and the environment.

Initial assessments conducted on behalf of the MfE suggest that there are potentially more than 1700 contaminated sites in the Auckland Region. However, this assessment has targeted sites that are, or have been, occupied by industries that have historically been associated with site contamination problems, rather than actually identified contaminated sites.

The issue of contaminated sites is gaining greater public awareness, especially since the introduction of the RM Act. The importance of site assessments and environmental audits, particularly in regard to the rezoning, redevelopment, or purchase of industrial land, is now recognised. The potential risk to public health and the natural environment from these sites is also recognised.

17.2.2 There is a potential for sites to become contaminated in the future

Historical site contamination has resulted from contaminating land use practices and land management. The avoidance of future contamination of sites, therefore, is dependent on the management of potentially contaminating industries and practices. This management involves a wide range of features which include cleaner production, waste minimisation, the suitable disposal of contaminants and contaminated material, and pollution prevention procedures in general.

17.3 Objectives

1. *To remedy or mitigate any adverse effects of existing contaminated sites.*
2. *To ensure that appropriate remediation standards are achieved for contaminated sites.*
3. *To avoid sites becoming contaminated in the future.*

17.4 Policies, Methods and Reasons

17.4.1 Policies

The following policies and methods give effect to Objectives 17.3-1, 2 and 3.

1. ***All confirmed contaminated sites in the Auckland Region shall be identified and classified on a register.***
2. ***Remediation of a contaminated site shall be required where the level of contamination renders the site unsuitable for its existing or likely future use, or the site has an actual or likely adverse effect on the wider environment.***
3. ***Remediation standards for a contaminated site shall be consistent with the existing and likely future use of the site and shall consider the risk to the environment posed by the site.***
4. ***Awareness of the issues relating to existing contaminated sites and the avoidance of future contaminated sites shall be promoted.***
   Note: Policies relating to the avoidance of future contaminated sites are stated in Chapter 8 – Water Quality, Chapter 10 – Air Quality, Chapter 12 – Soil Conservation, Chapter 15 – Waste and Chapter 16 – Hazardous Substances.

17.4.2 Methods

1. ***The ARC will co-ordinate the development and maintenance of the register of confirmed contaminated sites in the Region in conjunction with the TAs, industry groups, public health agencies, and other affected parties. This process will include:***
   - ***(i) The investigation of sites for contamination where appropriate.***
   - ***(ii) The development of an information exchange and regular update procedure in conjunction with TAs and other agencies as appropriate.***
   - ***(iii) The development of procedures for recording and tracking the locations and ownership of contaminated sites.***
   - ***(iv) The development of procedures for public access to the contaminated site register.***
2. ***The register will include the following:***
   - ***(i) Sites that have been assessed and confirmed as contaminated, including levels of contamination.***
   - ***(ii) Levels of priority for sites identified in (i) with respect to the risk to human health and the environment associated with each site.***
   - ***(iii) Remediation standards where site remediation has been carried out.***
3. ***The ARC will advocate the establishment of national policies for the management of contaminated sites, and support the development of national guidelines for contaminated site investigation, remediation and management.***
4. ***The ARC will develop procedures and guidelines for the remediation of contaminated sites in consultation with government agencies, public health agencies, TAs, industry groups and other affected parties. The development of procedures and guidelines has commenced and will be ongoing.***
5. ***The ARC will liaise with the TAs and public health agencies to ensure a co-ordinated approach to contaminated site management.***
6. ***The ARC and TAs will require offending parties or landowner/occupier to conduct investigation and remediation of a contaminated site. Transport and disposal of contaminated material should be conducted in accordance with policies in Chapter16 – Hazardous Substances and Chapter 15 – Waste.***
7. ***The ARC will co-ordinate the compilation of historical information on industrial sites for inclusion on TA site files.***
8. ***The ARC and TAs will encourage or require the adoption of codes of practice that have been developed in conjunction with industry groups.***

9. ***Pollution abatement measures will be undertaken by the ARC and TAs.***

10. ***The ARC and TAs will undertake an ongoing education programme to promote:***

    (i) awareness of contaminated sites and contaminated site issues;

    (ii) cleaner production, waste minimisation, appropriate handling of hazardous material, and appropriate waste disposal methods.

17.4.3 Reasons

The need to identify and track contaminated sites is fundamental to the avoidance or mitigation of the effects of such sites on public health and the environment. A central register is the most appropriate mechanism for recording information about contaminated sites, and the register would include a prioritising system so that higher risk sites can be assessed and addressed first.

TAs require access to the information that will be held in the Contaminated Site Register, and on historical industrial land use, for their individual districts to enable them to adequately fulfil land information requests. As the TAs hold land ownership details, it is appropriate that they develop procedures for cross-referencing the Contaminated Site Register with their ownership databases so that ownership of contaminated sites can be tracked. It is clear that efficient methods of information exchange must be developed between the ARC and TAs so that the information pertaining to contaminated sites is easily available to the public. Other methods of providing the public with information about contaminated sites will be considered. These include contaminated site updates as part of a State of the Environment report.

A number of procedures and guidelines are available throughout the world for the evaluation and remediation of contaminated sites. Some of these are based on achieving specified standards of remediation, such as those for the protection of drinking water. Others are based on a risk assessment approach which looks at the likely future uses of a site and assigns criteria for remediation to a standard consistent with the likely future use. These procedures and guidelines will be evaluated to develop an approach that is appropriate for the Auckland Region. A risk-based procedure is likely to be adopted. It should not only consider the public health risk and future uses of the site, but also environmental aspects and the protection of surface and groundwater resources where appropriate. For example, sites that have the potential to have an adverse impact on potable water supplies are high risk and consequently have a high priority for remediation.

It is important that there is a nationally consistent approach to contaminated site management and this will be advocated by the ARC. Issues that will be advocated by the ARC for consideration by central government include contaminated site liability, funding for 'orphan' site remediation and the development of alternative treatment technologies.

The remediation of contaminated sites will in general be conducted by the landowners, and enforced by the ARC and TAs using powers under the RM Act, including those outlined in sections 30, 314, 322, and 338 of the RM Act. However, joint remediation projects between the ARC, TAs and site owners may be appropriate in some instances.

The ARC will liaise with both the TAs and the public health agencies to ensure that a coordinated approach to contaminated site management occurs throughout the Region.

Policies and methods relating to the avoidance of future contaminated sites are located in Chapter 10 – Air Quality, Chapter 8 – Water Quality, Chapter 16 – Hazardous Substances, Chapter 15 – Waste, and Chapter 12 – Soil Conservation, and are related in general to the protection of public health and the natural environment.

Guidelines and codes of practice which require industries to follow appropriate methodology and handling standards (such as the Code of Practice for the Design, Installation and Operation of Underground Petroleum Storage Systems) may be used to develop rules in regional plans. This will enable a consistent approach to dealing with industry groups and provide a set of criteria for the design and operation of future installations.

17.5 Environmental Results Anticipated

(a) Avoidance and mitigation of the adverse effects of contaminated sites through improved knowledge of the location and extent of contamination at sites, and with appropriate levels of remediation achieved for sites.

(b) Minimisation of the number of future contaminated sites due to compliance with Regional and District Plans, codes of practice/guidelines, clean production, waste minimisation, pollution abatement programmes and public education.

(c) Reduced pollution events through compliance with Regional and District plans, codes of practice, and public education.

17.6 Monitoring

17.6.1 The effectiveness of these policies will be monitored by:

(i) The Contaminated Sites Register, especially with regard to the number of sites that have been identified and remediated.

(ii) Compliance monitoring of consents and regional plans.

(iii) Monitoring of pollution complaints.