



Canterbury Hazardous Waste Management Strategy

Part 2: Implementation Programme
2008/09 - 2011/12

June 2009

For more information...

For more information about the Canterbury Hazardous Waste Management Strategy please contact Environment Canterbury or your local city or district Council.



Ashburton District Council
ph (03) 308 5139



Christchurch City Council
ph (03) 941 8999



Environment Canterbury
ph (03) 365 3828



Hurunui District Council
ph (03) 314 8816



Kaikoura District Council
ph (03) 319 5026



Mackenzie District Council
ph (03) 685 8514



Selwyn District Council
ph (03) 347 2800



Timaru District Council
ph (03) 687 7200



Waimakariri District Council
ph (03) 313 6136



Waimate District Council
ph (03) 689 8079

Canterbury Hazardous Waste Management Strategy

Part II
Implementation Programme
2008/09 – 2011/12

Report No. R09/107 CHWWP
ISBN 978-1-877542-68-8

June 2009



Executive summary

Currently within New Zealand there is no comprehensive or integrated statutory framework covering the management of hazardous waste. The Canterbury Hazardous Waste Management Strategy was produced in 2001 as part of the commitment by local authorities in Canterbury to improve the management of hazardous wastes.

The Strategy was last reviewed in 2006. This document is an update of the 2006 review, it outlines the councils' current commitment to the improvement of the management of hazardous waste.

Overseeing the implementation of the Strategy falls to the Canterbury Hazardous Waste Subcommittee co-ordinated by Environment Canterbury. The Strategy is primarily designed to provide direction for local authorities, but it will also provide guidance for generators and those individuals or organisations involved in the waste management industry.

Part I of the Strategy outlines the hazardous waste management issues and the strategies that will be needed to address these issues. Part 2 of the Strategy outlines the implementation programmes for the next three years.

The vision for hazardous waste management in Canterbury is:

Zero hazardous waste by 2020

Hazardous wastes are wastes that exhibit properties such as corrosiveness, explosiveness, flammability, toxicity, ecotoxicity or capacity to oxidise, and have the potential to adversely affect human, animal or other species and natural resources.

This vision of zero hazardous waste means that by the year 2020, materials that are currently viewed as wastes would be utilised as resources for other processes. If this cannot be achieved, then the hazardous properties of the material would be managed so that there are no significant actual or potential environmental effects, and therefore would not be a hazardous waste.

The long-term objective of this Hazardous Waste Management Strategy is:

To eliminate the adverse effects of hazardous waste on the environment

While there are benefits in reducing the volumes of hazardous wastes produced, the Strategy is based on progressively reducing and ultimately eliminating the adverse effects of hazardous waste on the environment as the reduction of waste volumes will not necessarily lead to a reduction in environmental effects. This objective will be met by improving waste management practices within the region and by applying the following waste management hierarchy;

- reduce,
- reuse,
- recycle,
- recover,
- residual management.

Although, the key element in hazardous waste management is the minimisation of hazardous waste being generated, there is an immediate and continuing requirement to manage the disposal of hazardous waste. As the amount of hazardous waste generated is reduced, there will be less waste to manage using other methods in the waste management hierarchy.

The implementation programmes cover the spectrum of the waste management hierarchy with some targeted to specific waste types and others generic to all hazardous wastes. Each programme is identified along with its proposed timeframe and external goods and services costs. As many programmes are dependent on the successful completion of another, not all programmes can be implemented at once. Therefore, commencement of the programmes is staggered across a number of years. Emphasis will be given to programmes that are easily implemented and capable of making a significant improvement in hazardous waste management practices.

Monitoring will be undertaken to ensure that objectives are being met and outcomes produced. Future changes to legislation and regulations may also require the review of the hazardous waste management techniques employed in the implementation of this Strategy.

Table of contents

- Executive summaryi**
- 1 Programme summary1**
- 2 Implementation programmes3**
 - 2.1 Targeted Special Wastes Investigation & Reduction Programme.....3**
 - 2.1.1 Priority hazardous waste identification project.....3
 - 2.1.2 Hazardous waste reduction project with industry groups4
 - 2.2 Information Dissemination4**
 - 2.2.1 Technical advisory service provided by CCC4
 - 2.2.2 Alternatives to Treated Timber research project.....5
 - 2.2.3 Canterbury Hazardous Waste Management Strategy (CHWMS) Part 1 Update.....5
 - 2.2.4 Canterbury Hazardous Waste Management Strategy Part 2 Update.....6
 - 2.2.5 Hazardous waste reference guide update6
 - 2.2.6 Reference material for generators and handlers7
 - 2.3 Domestic hazardous waste drop off points7**
 - 2.3.1 Regional consistency7
 - 2.3.2 Training8
 - 2.3.3 Public awareness9
 - 2.3.4 Site expansion and infrastructure upgrade9
 - 2.3.5 Regional disposal contracts investigation9
 - 2.4 Regional co-ordination.....10**
 - 2.4.1 Advocate to central government and other parties10
 - 2.4.2 Agricultural chemical collection.....10
- 3 References.....11**

PART II - IMPLEMENTATION

1 Programme summary

This document identifies programmes that will be implemented as part of the Canterbury Hazardous Waste Management Strategy.

It is proposed that specific programmes be developed on a three-year cycle in order to support each council's three-year development of their Long Term Council Community Plans (LTCCP). At the end of each year, the staff group will report the progress of the programmes to the Hazardous Waste Subcommittee (HWSC), and any recommended changes for subsequent years.

The Canterbury Hazardous Waste Management Strategy (CHWMS) was produced in 2001 as part of the commitment by local authorities in Canterbury to improve the management of hazardous wastes. The Strategy was reviewed in 2006 after five years of operation. This document is an update of the previous review.

Implementation of the Strategy for the first five years was carried out by the Staff Group, with most programmes being contracted to external parties due to a lack of internal resources. It was then decided to employ a full time member of staff as Regional Hazardous Waste Officer (RHWO) to carry out the implementation programmes. This position is equally funded by the Canterbury territorial authorities and Environment Canterbury. This means that the knowledge required to improve the management of hazardous waste and the contacts developed will remain with the councils rather than with external consultants.

The implementation programmes aim to cover the spectrum of the waste management hierarchy with some targeted to specific waste types and others generic to all hazardous wastes. The programmes are designed to:

- meet the vision and objectives of the strategy,
- examine the need for, and where necessary stimulate investigations and/or, the establishment of services or facilities
- provide services or facilities,
- provide information, including guidelines,
- co-ordinate and integrate the management of hazardous wastes in Canterbury, and
- ensure, as far as practicable, consistency throughout the region.

Programmes will be assessed to determine:

- how successfully they have been implemented, and
- what they have done to reduce environmental risks posed by hazardous wastes within Canterbury.

Each programme is identified along with its proposed timeframe and external goods and services costs in the following tables. Costs indicated are those to be met by contributors to the strategy. Where no cost is indicated these are either dependent on investigation findings and therefore not quantified at this time or are to be met by individual TAs. A more detailed indication of each programme's actions, requirements, outcomes, and its justification, is provided within Appendix B.

Implementation Programme Summary

IMPLEMENTATION PROGRAMME		Year 0	Year 1	Year 2	Year 3	Staff
		08/09	09/10	10/11	11/12	
Targeted Special Wastes Investigation & Reduction Programme						
Priority hazardous waste identification project.	2.1.1	45,000				RHWO
Hazardous waste reduction project with industry groups	2.1.2		25,000	35,000	35,000	RHWO
Information Dissemination						
Technical Advisory Service provided by CCC	2.2.1					
Alternatives to treated timber research project	2.4					RHWO
Canterbury Hazardous Waste Management Strategy Update Pt 1	2.5					RHWO
Canterbury Hazardous Waste Management Strategy Update Pt 2	2.6					HWSC/RHWO
Hazardous Waste Reference Guide update	2.7					RHWO
Reference materials for generators and handlers	2.8	5,000	12,000	5,000	5,000	RHWO
Domestic Hazardous Waste Drop Off Points						
Regional consistency	2.9		20,000			RHWO/TA
Training	2.10	3,000	3,000	5,000	5,000	External
Public awareness	2.11		8,000	8,000	8,000	RHWO/TA
Site expansion & infrastructure upgrade	2.12	10,000	15,000	10,000	10,000	RHWO
Regional disposal contracts	2.13					RHWO/TLA
Regional Co-ordination						
i. Advocate to central government and other parties	2.14					HWSC/Staff
ii. AgChem collection	2.15					
Total Cost		63,000	83,000	63,000	63,000	

Programme Implementation and Development	
Continuation of Programme	
Indicates where the programme may be found within the appendices	

2 Implementation programmes

Information gathering and assessment of that information is critical to establish current hazardous waste management practices, to explore other options and to monitor the effectiveness of those options. Programmes should also identify targets for their respective objectives. The attainment of these targets will be addressed as part of the ongoing monitoring of the Strategy.

2.1 Targeted Special Wastes Investigation & Reduction Programme

2.1.1 Priority hazardous waste identification project

Justification

In November 1997, a report ⁽¹⁾ identified seven hazardous waste streams that were recommended as high priority for management. They were:

1. cyanide wastes
2. chlorinated solvent sludge wastes
3. metal processing wastes
4. boron, copper, chromium and arsenic treated timber sludges wastes
5. agrichemical wastes
6. domestic hazardous wastes
7. waste oil

When the Canterbury Hazardous Waste Management Strategy was first written in 2001, these waste streams were recommended for high priority management.

Some of the above wastes have had management plans put into place to minimise their environmental impacts. For example, both domestic hazardous wastes and waste oil can be disposed of at transfer stations throughout Canterbury. Oil is recovered whilst the domestic hazardous wastes are collected for disposal by a waste treatment company.

The priority hazardous waste list has not been updated since 2001. As part of the strategy review, new priority wastes to target and work with will need to be identified.

Description of programme

Using a similar methodology as was used previously, the hazardous waste management options for Canterbury need to be amended so they are current. A brief will be sent to selected consultancies to provide a quote for this work. Part of the brief will include identifying priority hazardous waste streams in Canterbury. This information will be used to plan work with industry and appropriate groups in managing hazardous wastes so that their environmental impact is minimised.

Provision has been made in the budget to contract a consultant with industry knowledge to help define hazardous wastes in Canterbury.

If the information provided by the consultant does not result in an updated priority hazardous waste list, other methods of obtaining this information will be investigated. This might include letters to the minister or lobbying for regional/ local bylaws.

Programme results

- * New priority hazardous wastes will be identified.

2.1.2 Hazardous waste reduction project with industry groups

Justification

Reducing the production of hazardous wastes at source is seen as the key to the vision of zero hazardous waste. There is no legislation that either requires or provides an incentive for generators to reduce their wastes, so all gains within this area will be the result of voluntary actions. Generators need to be made aware of the importance of reducing hazardous waste at source as this has both economic and environmental benefits.

Description of programme

Industry sectors that produce hazardous wastes will be selected and the RHWO will work with sectors (e.g. an individual business or group of businesses) to help them improve their hazardous waste management practices. The RHWO will do this by applying the following waste management hierarchy:

- reduce
- reuse
- recycle
- recover
- residual management

Provision has been made in the budget to contract a consultant with specific industry knowledge where required. The consultant would use their experience and knowledge in suggesting steps that result in sectors improving their hazardous waste management practices.

Programme results

- Where possible, hazardous waste production will be reduced.
- Where possible, management of hazardous waste will be improved.
- Information on appropriate disposal options for hazardous wastes (that are produced) are distributed.
- Reduction of unauthorised and inappropriate disposal within the region.

2.2 Information dissemination

2.2.1 Technical advisory service provided by CCC

Justification

Information on potential options for hazardous waste management is a prerequisite to its appropriate management. By providing information on appropriate options through this service, generators are able to make informed decisions on how to manage their hazardous waste. Responsible management choices will ensure that the potential impacts on the environment of hazardous waste are eliminated or significantly reduced.

TA staff require ongoing access to this service so that they can provide consistent and accurate advice for their districts and ensures consistency across the region.

Description of programme

The CCC Environmental Services Unit (CCC ESU) currently provides a technical advisory service to generators, handlers and disposers of hazardous waste within Christchurch City, and to other district councils in the region via requests from TA officers. Information is provided on options available for reduction, reuse, recycling, recovery, treatment, or disposal, of the material as well as acceptance criteria for disposal through any of the CCC's disposal facilities, i.e., treatment works, or Kate Valley landfill.

The service is offered on an “as-required” basis and is at no cost to other councils at present. Because of this service that they provide to the region the CCC receive a reduced rate towards the implementation of the strategy in relation to other territorial authorities if based on population.

This service is available to all generators, handlers and disposers of hazardous waste regardless of the community sector but is generally limited to those within Christchurch other than calls conducted via TA officers.

Programme results

- Public access to information and advice relating to hazardous waste is maintained.
- District council staff have access to information and advice relating to options for hazardous waste.

2.2.2 Alternatives to Treated Timber research project

Justification

Waste treated timber is a particularly problematic waste stream as current reuse and recycling options are limited. Reusing some treated timber as a fuel source through burning releases toxic arsenic to the air and concentrates arsenic and other heavy metals in the ash. Arsenic exposure can lead to cancer or death. In light of this, waste treated timber should only be disposed of to a lined landfill.

Description of programme

An investigation will be carried out to identify materials that could potentially be used as alternatives to treated timber. These alternative materials should have a greater potential to be reused or recycled, and be disposed of in a way that is less harmful to the environment. By replacing treated timber with a more recyclable material, the future waste stream of treated timber could potentially be phased out.

Programme results

A report summarising details of potential treated timber alternatives.

2.2.3 Canterbury Hazardous Waste Management Strategy (CHWMS) Part 1 Update

Justification

The CHWMS Part I must be reviewed and updated every 5 years. It outlines the hazardous waste management issues and the strategies that will be needed to address these issues.

Description of programme

The document will be reviewed and updated so that the policy framework reflects the current goals of the strategy.

The policy framework currently consists of:

- Vision, objective and guiding principles
- Common issues
- Common strategies
- Reduce
- Reuse
- Recycle
- Recover
- Disposal
- Storage

Each of these subsections is further divided into Objective, Issues and Strategies. These will be updated so they reflect the current situation. For example, Priority wastes requiring management are listed under Vision, objective and guiding principles. This will need to be updated according to the new priority hazardous waste list created in 2009 in consultation with URS.

Once the document has been amended it will be discussed with all members of the Canterbury Hazardous Waste Joint Committee and any issues found will be addressed, then the final report published.

Programme results

- An updated policy framework will be produced.

2.2.4 Canterbury Hazardous Waste Management Strategy Part 2 Update

Justification

The timetable for implementing the Strategy has been developed using financial years, 1 July through 30 June each year, based around a 3-year cycle in order to coincide with the development of each council's Long Term Council Community Plan (LTCCP). Therefore an implementation plan for the next 3 years of the strategy will need to be developed in the 10/11 financial year.

This will enable new issues and new priority wastes to be identified and projects planned. It will also allow planning for the most efficient allocation of resources (staff, money, time) for the next three years of the strategy.

Description of programme

In 2008/09, the identification of priorities and planning for the years 2009/10 to 2011/12 and a detailed programme of work will be carried out. A draft of this programme will be discussed with members of the CHWSC and any changes considered.

In 2010/11, identification of priorities and planning for the years 2011/12 to 2013/14 will be developed. Stakeholders will be contacted in order to identify what wastes are an issue for them.

Programme results

- New hazardous wastes are identified.
- New priority wastes are determined.
- A three year implementation plan is produced.

2.2.5 Hazardous waste reference guide update

Justification

The Regional Hazardous Waste Reference Guide for Canterbury Local Authorities was first published in 2002. This guide provides Canterbury local authorities with information and contacts for reduction, reuse, recycling and disposal of hazardous wastes as well as contacts for further advice. It is updated every two years to ensure that it is current.

Description of programme

Contact will be made with disposal companies and recycling/reuse companies listed in the 2006 Hazardous Waste Reference Guide to ensure that they are still in business and operational. Companies that are not in business will be removed from the guide and new businesses set up will be contacted and then placed into the guide.

A review of categories listing specific disposal information will also occur. If the information is not current it will be updated.

An investigation researching if new businesses can offer hazardous waste management services will also be carried out. Any new businesses identified will be added to the Regional Hazardous Waste Reference Guide.

Programme results

- Information is available to all councils in Canterbury.
- The information is in date and correct.
- Generators are referred to the most appropriate option for their waste.

2.2.6 Reference material for generators and handlers

Justification

A prerequisite for appropriate hazardous waste management is having information on potential options. By providing reference material on appropriate options, generators and handlers are able to make informed decisions on how to manage their hazardous waste. Responsible management choices will ensure that the potential impacts on the environment of hazardous wastes are eliminated or significantly reduced.

Description of programme

Demand for such information will vary between the waste generators and with time. Where a need for reference material is identified, it will be produced. Information gathered from staff and industry groups will determine the type of information required.

Areas requiring reference material could include treated timber wastes. Issues in Canterbury linked to treated timber disposal will be investigated and addressed accordingly.

Provision has been made in the budget for contracting services to produce literature for generators and handlers of hazardous waste. The aim of this literature is to encourage both generators and handlers of hazardous waste to improve their management of hazardous waste and where possible apply best practice.

Programme results

- Improved hazardous waste management by industry and community.
- Improved access to information about hazardous waste management options.

2.3 Domestic hazardous waste drop off points

2.3.1 Regional consistency

Justification

This ensures that all Domestic Hazardous Waste Drop Off (DHWDO) sites in Canterbury are operated to a consistent standard. To do this, guidelines will be written for the stakeholders (e.g. site operators, local council etc) to implement in specific areas. These areas could be in any area from site practice to site promotion using the local media as a resource. It is updated every two years to ensure that it is current.

Description of programme

This programme will initially focus on writing the guidelines. Once they have been written the guidelines will be implemented at all DHWDO sites in Canterbury. This means that transfer stations across Canterbury will operate to integrated guidelines that are in operation throughout Canterbury.

These guidelines could cover a wide variety of areas including:

- Environmental performance
- Health & safety performance
- Housekeeping
- Waste management
- Emergency management

As part of the regional consistency program, the Regional Hazardous Waste Officer will assess sites for environmental performance. A report of the site visit will be conducted, good environmental practice will be highlighted as well as areas where improvements can be made.

Provision has been made in the budget for contracting a consultant to prepare site guidelines. Their experience could be used to produce or update specific documentation (e.g. environmental management plans, emergency procedures etc) as well as providing training to site staff on the guidelines once they have been implemented.

Programme results

- Guidelines for the DHWDO sites will be written and implemented.
- There is regional consistency in the operation of all DHWDO sites in Canterbury.
- All sites will have location test certificates.
- All sites will have fully trained staff.
- All sites will have equipment in place for dealing with accidental spillages.
- TA authorities in Canterbury have provided the public with a facility where domestic hazardous waste off can be disposed of safely.

2.3.2 Training

Justification

Staff must be trained to manage hazardous wastes at transfer stations. If they are not trained, they could endanger themselves, their co-workers and the environment. By putting them through the appropriate training courses, they will be made aware of the impact hazardous wastes can have to both the environment and human health. The information gained from appropriate training courses will mean that the member of staff will have gained knowledge on how to manage hazardous waste whilst minimising the risk to themselves, their co-workers and the environment.

Funding has been set aside for training for every financial year. The funding will be used to train staff at DHWDO areas. Ideally training will be run by the RHWO and certificates issued by a Location Test Certifier. A training session will need to be developed for this. The funding allocated should cover the costs of an external contractor to both run the training and issue certification. If the training is run in-house, the money spent should be significantly under budget and then can be spent in other areas.

Description of programme

Specific courses will be taken by an approved trainer or run by the RHWO to train staff on how to handle and sort hazardous wastes expected to be received at transfer stations.

Provision has been made in the budget to pay for a qualified approved trainer who can then run appropriate training courses.

Programme results

- Staff will be trained and have 'approved handlers' certificates.
- When handling hazardous waste, staff will know what actions to take to minimise the risk that the waste could do to themselves, co workers and the environment.

2.3.3 Public awareness

Justification

The vision of no hazardous waste by 2020 has to have the support of people in Canterbury. Awareness needs to be increased regarding locations of DHWDO sites, and what materials can be disposed at those sites. A well organised and funded public awareness campaign for the DHWDO can gain visibility for the programme and increase activity at those sites.

Description of programme

A promotional campaign will be designed with the communications department for the DHWDO sites around the region, and delivered to the target audience.

The campaign may include but is not limited to newspaper advertisements, pamphlets and radio advertisements.

Programme results

- Heightened public awareness of DHWDO sites.
- Increased use of the DHWDO facilities by the public.

2.3.4 Site expansion and infrastructure upgrade

Justification

There is always a possibility that sites will require new equipment for managing hazardous waste dropped off by the public or for accepting new hazardous waste streams. Infrastructure expansion would result in an increase in the quantity of hazardous waste that can be collected at sites.

Description of programme

The RHWO will discuss issues with site management and the local councils. If issues identified can be resolved by using new infrastructure, then items may be purchased if necessary.

As part of the infrastructure upgrade the environmental performance of all sites will be assessed by the Regional Hazardous Waste Officer. Observations will be made and any potential improvements that could be made will be discussed with site staff. A deadline for implementing the improvements will then be set. Once improvements have been made, the sites will be tested for Location Test Certificate Compliance by a Hazardous Substance Test Certifier.

Programme results

- Additional infrastructure will be provided where appropriate.
- Upgrades in site infrastructure will have occurred.
- All sites have good infrastructure in place and are operating to best practice.

2.3.5 Regional disposal contracts investigation

Justification

Currently hazardous waste management contracts are contracted out individually per territorial authority. It could be a more feasible option to have one collection contract for the whole of Canterbury rather than each TA having their own disposal contract.

Description of programme

Requests will be made to each TA asking them how much they pay waste contractors for collecting and disposing of hazardous wastes from transfer stations in their area. Contact will then be made with waste contractors to ask them how much they would charge for a region wide disposal contract. A comparison of this price will be made against the cost that each TA pay. It will then be decided

whether it would be more feasible to implement a regional wide disposal contract or keep things as they are.

Programme results

- Determine whether a regional disposal contract is a more feasible option than the current option that each TA pay individually for their waste to be disposed of.

2.4 Regional co-ordination

2.4.1 Advocate to central government and other parties

Justification

The management of hazardous wastes both within Canterbury and nationally currently relies on voluntary initiatives. This requires liaison between parties and exchange of information and advice. There are situations where voluntary approaches are not successful and change is needed to legislative and/or economic controls to improve hazardous waste management practices or improve process.

Description of management approach

Advocating for appropriate hazardous waste management practices and an integrated management regime to central government and other parties, including industry and community groups, will occur through a number of methods:

- Submissions to the Ministry for the Environment on specific programmes,
- Participation on technical working groups,
- Presentation of information about the development of the Strategy and ways it is being implemented to affected parties and interest groups,
- Advising central government and other parties about legal and technical changes required to address inappropriate hazardous waste management practices and disjointed management.
- Advocate for the continuation of the funding for the national agricultural collection programme

Programme results

- An increased awareness of the need for appropriate hazardous waste management practices and integrated management throughout the regional community and nationally;
- Increased information flow between affected parties; and
- Deficiencies in the national approach to hazardous waste management are addressed.

2.4.2 Agricultural chemical collection

Justification

Over the years agricultural chemicals have changed. Some have been withdrawn, others banned and some cannot be used because their use is no longer acceptable to overseas markets. All of this leads to tonnes of unwanted chemicals being stored within the rural community.

The Canterbury councils are aware of the significant risks posed by these unwanted chemicals to the environment and public health if they are stored inappropriately. Due to this agrichemicals were identified as one of the 7 priority wastes within the Canterbury Hazardous Waste Management Strategy. As a priority waste a number of specific programmes were developed and implemented to find solutions to the problems these wastes posed. It was decided that the most suitable way was to collect agrichemicals directly from farmers. This work is currently done in partnership with the Ministry for the Environment.

Description of programme

This programme is funded directly by participating councils in addition to the money provided for the implementation of the Strategy. TA staff contact farms in targeted areas within their district by letter and phone and compile a list of farms that want to take part in the collection. A contractor contacts the farms to arrange for a time for the collection of the unwanted chemicals. Once collected, the contractor is responsible for the safe transport, storage and handling of the collected chemicals until they have been treated or disposed of.

This programme will continue until all targeted rural areas within each district have been completed.

Programme results

- Removal of unwanted obsolete or banned agrichemicals from Canterbury farms.

3 References

1. OPUS International Consultants, *Canterbury Regional Council Technical Report: Hazardous Waste Management Options for Canterbury Region, Report Number U97/62/1*, November 1997.