CONTAMINATED SITES

Under the RMA the Council has the task of managing land use to make sure that land, water and air do not become contaminated from the use of hazardous substances. The use of these substances can endanger health, limit the use of land, reduce land value and cause corrosion that can threaten building structures. The Council's resource management plans aim to manage the risks posed by the use of hazardous substances rather than the substances themselves. This management includes requiring resource consents for some discharges.

While there is now a greater awareness of the problems that can arise with the use of these substances, historical land use practices have meant that some areas of land have become contaminated. In Marlborough contaminated sites have been associated with timber treatment plants, service stations, some rural activities such as sheep dipping or intensive horticulture, and various other industrial activities. These sites can pose a risk to human and animal health and/or to the environment in a number of ways including by:

- direct contact with contaminated soil;
- swallowing food or water from contaminated areas; and
- breathing vapours or contaminated dust.

Truck crash at Weld Pass

The Council has continued to take part in a national working group, with the Ministry for the Environment and other councils, to develop a national approach to help manage contaminated sites in New Zealand. This is an ongoing working relationship and will help to make sure there is consistency in assessing and managing sites around the country. A number of guideline documents have been produced, both for managing specific types of sites, for instance, gasworks and timber treatment sites, and for procedures to investigate, report on and record contaminated sites. Further guidelines are being developed for sheep dip sites and horticultural land.

Brochures with information on contaminated sites for those involved in the buying, selling, valuing and conveyancing of land are available from the Council.

The Council has a role in identifying and monitoring contaminated sites and helping landowners to deal with issues relating to sites on private land. A database records sites that are known to be contaminated in some way, or are known to have a higher risk of being contaminated because of the types of land uses or activities that have taken place in the past. The Council also requires, through its resource management plans, information on potential land contamination to be included in resource consent applications where appropriate (mainly the subdivision of rural land to residential allotments). It also identifies in Land Information Memorandum (LIM) reports, issued to prospective purchasers of existing properties, where a site has had known past land uses that may have the potential to have resulted in land contamination.

The Council also has a role in managing the contamination caused by accidental spills or incidents involving hazardous substances. One such incident was a truck crash near Weld Pass, south of Blenheim. A truck and tanker transporting aviation fuel for BP went off the road near the

summit of Weld Pass in the evening of 30 March 2004. About half of the tanker's load of highly flammable fuel was spilt into a paddock during the crash. After the Council had assessed the situation, along with BP and its consultants, the remaining fuel was carefully pumped out of the tank.

The spilt fuel was contained in a small gully using absorbent material to block the gully and collect any excess fuel. Samples of soil and water were taken to assess the level of contamination and monitoring has continued over the following months. Luckily, aviation fuel evaporates freely when exposed to air so to some extent the site is remediating itself over time. It may be necessary to open up the soil to reduce deeper contamination by exposing it to air.

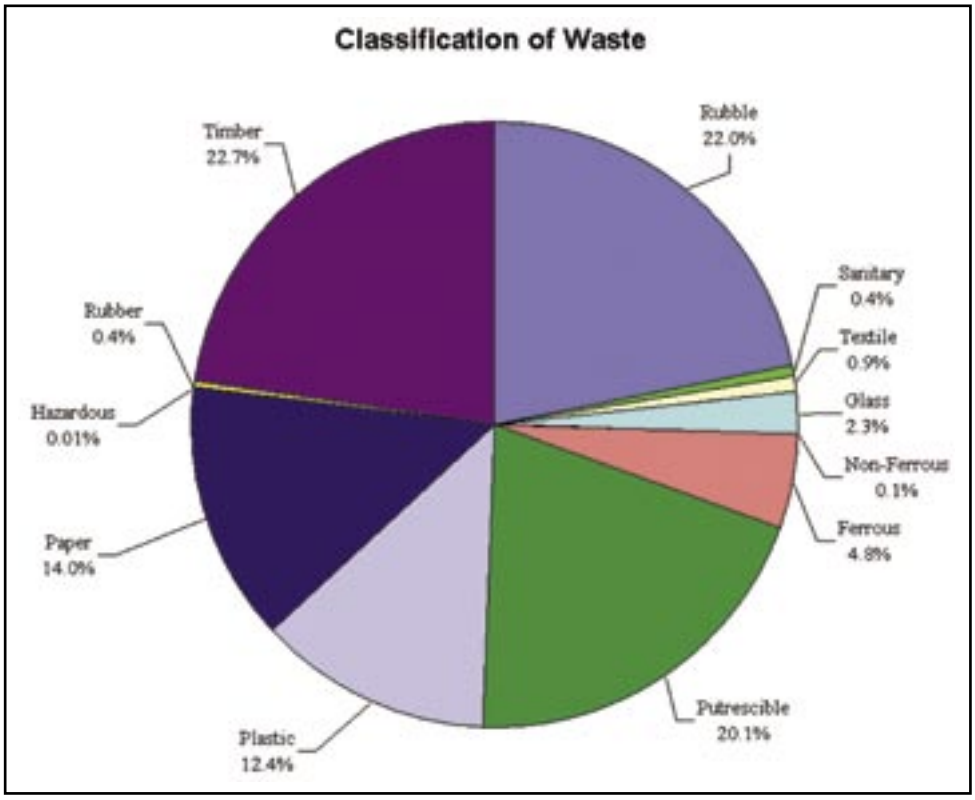
In the case of this spill/incident, the combination of time and careful monitoring has been the best course of action; in others, more active and immediate intervention would be necessary. Every situation is different and the environmental costs of carrying out any clean up need to be balanced against the actual effects of the contamination where it occurs.

WASTE ANALYSIS SURVEY

A waste analysis survey was carried out by the Council at the Marlborough regional landfill in November 2003. The Council has undertaken a number of these surveys and their value is that over time, a reliable record on the quantity and type of material being disposed to landfill, can be established. The results may be used to see what waste is being disposed of and for gauging the effects of strategies to deal with different types of waste. The survey results can also be used to help with the planning and management of waste generated in Marlborough.

All waste was sorted into twelve main classifications, with additional investigations being carried out on treated and untreated timber and identifying the number of tyres received. Figure 22 shows the main groupings of waste surveyed with results being presented in terms of percentage of total weight.

Figure 22: Total Waste Stream Shown by Primary Classifications



An increase in the overall weight of waste of 52% over an earlier survey carried out in July 2003 was very noticeable. This was recorded as a 186% increase in the rubble classification, 42% increase in timber wastes, 77% increase in putrescible (rotting) materials and a 34% increase in paper. The report prepared on the survey considered that there were two major factors influencing this increase: a busy building and construction season; and a very buoyant economy.

Weight increases were also found in kerbside bags with the average being recorded as 6.06kg, up from the 5.13kg average recorded in the July survey. Putrescible waste, as expected, was greater than the July 2003 (winter) values showing a marked seasonal increase in values. It is possible that some of this waste happened as a result of increased building and construction activities. 243 tyres were recorded which is close to the predicted 280 per week, as estimated by a previous investigation into tyre disposal practice.

Hazardous waste was again detected only in small quantities making up only 0.1% of the waste stream. This shows the ongoing effect of the Council's hazardous waste recovery programme.

The survey report considers that there is scope for a reduction in the amount and type of wastes being disposed of at the landfill, in particular, single source wastes such as plastics from vineyard irrigation systems, putrescible wastes and certain timber wastes. In addition, the report highlights that some wastes, such as soil and rubble, don't need disposal in the regional landfill but could be disposed of in a cleanfill site instead.

The Council already supports a number of waste reduction initiatives including composting, cardboard recycling and hazardous waste removal. Quantities for the major recycling operations are:

Compost operation	11,000 m^3 per year
Cardboard	1200 tonne per year
Blue Door Recycling	1040 m^3 per year
Hazardous Waste	40 tonne per year
Waste Oil	25,000 litres per year
Steel	560 tonne per year

The Council further promotes ideas such as home composting and worm farming.

SUSTAINABLE HOUSEHOLDS

Sustainable development involves caring for the environment, whilst thinking about the economy and society's needs too, and looking forward to our children and grandchildren's future. Sustainable Households is a practical education programme promoted and supported by the Ministry for the Environment.

The idea was developed at an environmental education conference almost five years ago, as a response to many enquiries from householders. Their request was for a good quality New Zealand-based supply of material and advice, to help them to become more sustainable around their own homes. The programme therefore needed to 'respond to growing public concern for the environment, for better health and for affordable action by households that makes a difference'. This has remained the aim of the programme.

This Council was a leader in developing the pilot programme and has been trialling it here in Marlborough over the last few years. The first six topics looked at included waste, water, energy, shopping, gardening and travel. Two new topics were also added during the final year of the pilot project, and these were organic food growing and more sustainable building materials. The programme has continued to grow around the country with over 12 councils now involved. It is now becoming self-funding and runs through a subscription service to councils, which then operate various programmes in their region.

Worm farm

As a consequence of going through the programme, a range of behaviour changes has been reported by those taking part. These changes have included:

- electricity savings and investment in thermal insulation;
- starting or improving kitchen waste/ prunings composting (or using worm-bins);
- avoiding plastic carrier bags when shopping;
- avoiding 'over-packaged' products;
- reading product labels more critically;
- achieving water efficiencies in the house and garden; and
- renewed interest in home-grown and in New Zealand-produced food (especially organics).

If you are interested in becoming more sustainable around your own home check out the new (and still developing) website. The website contains 'action' sheets to help homeowners be more sustainable around their homes. The site also contains very useful links to many other sustainability sites. www.sustainablehouseholds.org.nz

MANAGING THE WAIRAU PLAIN (RURAL 3 ZONE)

The Wairau Plain has a long history of intense rural production. It continues to come under increasing pressure as a source of economic revenue, from mostly primary producing activities, but also from rural residential lifestyle living. In recent years there has been a rapid change in land use with the expansion of viticulture altering the landscape, and increasing the demand for, and value of, rural land. Because of the change and intensification of activities, pressure has been placed on resources such as healthy soil, the quantity and quality of water and on the arterial road network.

Wairau Plain looking north east towards Tuamarina

Because of the pressures that have occurred, the Council has been investigating a number of management issues. Several years of investigatory work have now been completed, including more recently, investigations in response to the unprecedented and unforeseen conversion in land use on the Wairau Plain. That conversion from remaining pastoral and orchard uses to predominantly viticulture has brought with it its own pressures. This has presented further issues for the Council to address e.g. landscape changes and the demand for irrigation water. As a consequence of these two particular matters, landscaping guidelines for planting on the Wairau Plain have been prepared, and are being implemented, and a review of the water allocation framework is underway.

The Council has now reached the point where the policy framework for the Proposed Wairau/Awatere Resource Management Plan (Plan) needs to be changed to reflect the outcomes of the investigations. While the Plan already contains a vision for the Wairau Plain (also known as the Rural 3 Zone see Figure 23), it has become clear through the investigative work, that the Plan is not providing the guidance that it should to meet this vision.

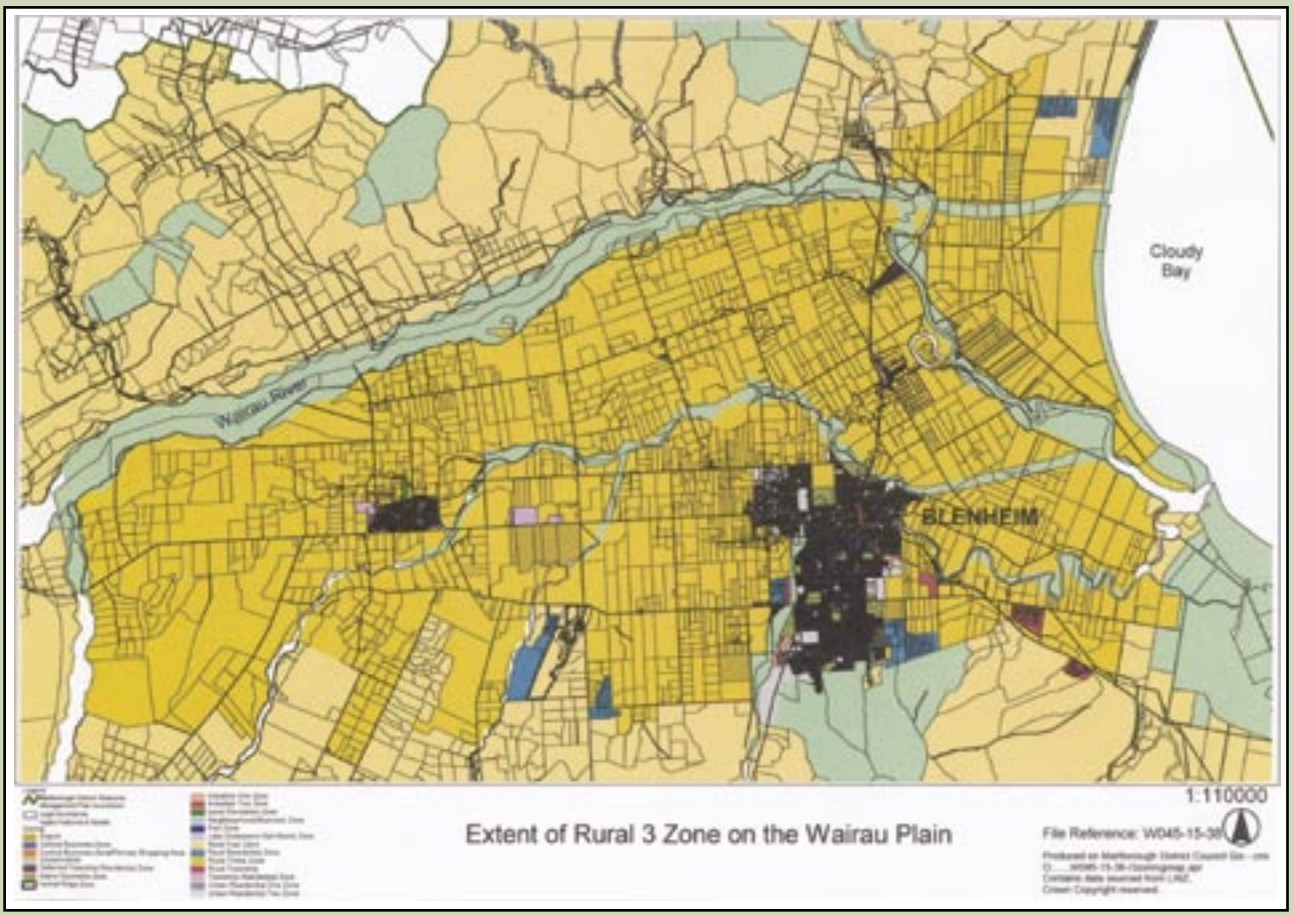
The Council has produced a discussion document, to assist with public consultation about Wairau Plain management issues and possible ways forward. The discussion document highlights the areas in the Plan that need reviewing, with a particular focus on land use activity, landscape and biodiversity, subdivision, roads and how Blenheim's urban limits relate to rural land. Options to address these key issues have been reflected upon by the Council's Environment Committee and are included in the discussion document for the community's consideration. In addition, a schedule of draft changes to the Plan is set out in the second part of the discussion document.

DRAFT CHANGES TO THE PLAN

A number of draft changes have been proposed to Volumes One, Two and Three of the Plan. Policy signals about how the Wairau Plain ought to be managed into the future are being made more explicit. These signals include:

- Recognising the historic long-term use (over 20 years) of 8 hectares as a minimum allotment size.
- Promoting a stable and sustainable relationship between the Rural 3 Zone and the urban limits of Blenheim, Renwick, and the small townships within the Rural 3 Zone.
- Discouraging the creation of allotments and residential development that will lessen the productive potential of the land resource.
- Where the expansion of Blenheim is proposed, this should be dealt with as a plan change.

Figure 23: Map of the Rural 3 Zone



- Avoiding conflict between expected rural activities and residential activities by preventing or limiting the establishment of residential activity within the Zone.
- Making sure that the community expectation of one dwelling per title is maintained.
- Retaining what biodiversity remains and enhancing this at every opportunity.
- Making sure subdivision and land development activities don't affect the safety and efficiency of the arterial road network. In terms of commercial and industrial activities, these are to be located on properties with accesses off local roads to protect the integrity of the road network.
- Using the limited access road provisions of the Local Government Act.
- Signalling that worker accommodation will generally continue to be provided for within urban/township zones.
- Rural Residential Zones are to be located outside of the Rural 3 Zone but can be contiguous to the Rural 3 Zone.

Most of the changes that have been proposed to the rules have resulted from administering the Plan over the past 6 years. However, only relatively limited changes are otherwise proposed. This is because the investigative work has not shown a need to substantially change the rules.

Similarly, there have only been a few changes suggested to the existing zonings in the Plan. These have been confined to a number of locations around the urban periphery of Blenheim e.g. David Street/ Severne Street, from Rural 3 to Rural Residential, and Rose Street from Rural 3 to Urban Residential.

The Council proposes to seek feedback from the community, iwi and other groups, such as the wine industry, on whether the suggested changes are appropriate. This feedback will be important in helping to refine the final form of a variation (change) to the Plan. Once the variation is publicly notified, the community will have another opportunity to make comments on the proposed change through the formal submission processes of the RMA.

Seresin Winery wetland area

BLENHEIM RESIDENTIAL GROWTH

Over the last two decades, the various district plans/resource management plans for Blenheim have zoned a large area of public land adjacent to the Wither Hills, for residential purposes. There has been some recent debate about how close residential development should be to the Farm Park, irrespective of what the plans have previously said. As a result of this debate, the Council decided to have a look at Blenheim's urban residential growth, and see how important the land close to the Farm Park might be in providing for Blenheim's potential residential expansion.

The research carried out included an assessment of Blenheim's residential 'land bank'. The report that was prepared included the following:

- The rate of growth in dwellings and residential sections during the period 1998 to 2003, as a basis for estimating future residential growth;
- The likely capacity of the remaining undeveloped residentially zoned land, both as 'greenfields' development and infill/renewal housing;
- What would hinder the development of existing residentially zoned land;
- How adequate is the current land bank to provide for projected growth through to 2013 and to 2018 (a 10 to 15 year projection); and
- Identifying possible areas for future residential growth, but noting the disincentive of the town expanding onto the valuable rural land of the Wairau Plain.

Urban growth at the foot of the Wither Hills

The area considered in the first part of the report was Blenheim. The final part of the report, which considered options for growth, also looked at the outer periphery of the town and Renwick township.

The results of review showed that the existing residential zones in Blenheim and Renwick can meet the estimated future demand for residential development in the Blenheim area, and that there will be no shortage of land in the short and medium term (at least thirty years). This was under either the current or high growth scenario for greenfield development. Even with the lag time between subdivision and building taken into account new areas may not be required for 15 years.

This conclusion was based on land becoming progressively available for development. That of course, may not be the case. Some areas such as the hospital blocks might not be available in the short or even the medium term, either because the owners are unwilling or unable to dispose of the land for residential development. Given the uncertainties of when land may become available, the report suggests that it would be sensible to begin looking at the feasibility of various blocks of land being rezoned for residential use.

This report has highlighted the need for the Council to regularly monitor urban growth, so that trends can be taken into account for medium to long term planning. As the study was being developed, Blenheim underwent record activity in property sales and residential development, as well as a general increase in land values. It is proposed to revisit the report's conclusions, with the hindsight of this recent trend and also to weigh up information that has come forward to challenge the report's findings.

An uniquely-Marlborough traffic island

ROADS

The Council, and other roading authorities, are developing a greater understanding of the relationship between roads and the wider environment. Roads are no longer seen as just being vehicle thoroughfares, specifically engineered to meet traffic demands and topographic constraints. Roads make a much wider contribution to (and can detract from) the social, cultural, economic, and environmental well-being of a community.

The Council has a project underway for making sure that the road network is operated so that account is taken of these different contributions whilst also protecting the road's purpose. This project, which intends to provide analytical tools to help in considering proposals for subdivision and development, is nearing the completion of its early stages. Changes will be required to Marlborough's Regional Land Transport Strategy and resource management plans once this work has been completed.

One of the options being considered, as a result of this study, is the creation of "limited access roads". Limited access roads protect state highways from uncontrolled property access, which affects the safety and efficiency of the road. The sections of state highway declared as limited access roads are in areas with the greatest potential for further residential or commercial development. Most of the state highway network in the Nelson/Marlborough area is already declared as limited access road. Across New Zealand as a whole, 37% of the entire state highway network is classified as limited access roads.

What are the implications of a limited access road status? Usually just one access per property to the state highway is authorised on limited access roads, unless reasonably practicable access to another road exists (in which case access to the alternative road is preferred). All vehicle and stock access to a limited access road must be from an authorised crossing place. Any proposals for new access points, including through subdivision, would be assessed in terms of the effects on the safe and efficient operation of the road.

This approach to road management has been taken into account as part of the project that is reviewing the policies for managing the Rural 3 Zone. Limited access roads have been considered because of the need for certainty in managing the roading network in response to recent development pressures.

Broadly speaking there are three main classes of roads in Marlborough:

- State Highways, which are managed by Transit New Zealand;
- Arterial roads, which are managed by the Council, the main purpose of which are to provide the safe and efficient movement of goods and people; and
- Local roads, which are managed by the Council, the main purpose of which are to provide access to and from properties.

Within the Wairau Plain, Rapaura Road is a "primary" arterial road and Old Renwick Road, Jacksons Road and Battys Road are "secondary" arterial roads. There is some conflict between existing commercial activity and the safe and efficient operation of these roads, particularly along western Rapaura Road. This conflict has the potential to increase in future as demand for commercial premises, and associated vehicle access points, grows.

On a typical rural road there are 5 to 10 vehicle access points per kilometre. The current access density of Rapaura Road is 12 per kilometre, whilst Old Renwick Road is 19 per kilometre. On 1 July 2004, Rapaura Road became part of the state highway network - being State Highway 62. Transit New Zealand will now seek to declare Rapaura Road a limited access road. Like the Council, it is Transit New Zealand's intention, in applying this status, to protect the operation of state highways from uncontrolled property access.

Alongside Rapaura Road, Old Renwick Road is another candidate for being declared a limited access road, as a means of looking after the arterial function of the road and improving traffic safety. Just as Transit New Zealand can declare parts of the state highway network as limited access roads, the Council has this ability for roads that it manages under the Local Government Act.

An intersection in Marlborough

Possum are a serious pest in our forests

PEST MANAGEMENT

The spread of undesirable plants and animals (pests) have the potential to seriously reduce the intrinsic, conservation, cultural, and economic values placed on the natural and physical resources of Marlborough. Pests can threaten the characteristics, which give value to ecosystems, or directly affect the survival or health of important species and/or communities. For example, wilding pines can establish in open communities such as tussock land, possums browse indigenous trees, pigs forage for native snails and spartina can block estuarine areas. Some species, such as goats and deer and plant pests, also run the risk of escape or accidental transfer by vehicles to conservation lands.

These examples all relate to the sustainable management of indigenous ecosystems. Pests also affect primary production ecosystems. For example, possums spread diseases in cattle and deer herds, gorse and broom invade forest lands, and plant pests may be unpalatable for stock, devalue fibre or even injure stock.

In the past there has been an emphasis on controlling pests largely for economic values, with a focus on pests that are a threat to farming practices. However, the Biosecurity Act 1993 sets out five reasons as to why pests should be controlled: for economic wellbeing; ecological values; soil and water quality; human health or enjoyment of recreational values; and Maori values.

While it is impractical to eradicate all pests, their adverse effects can be mitigated through control measures and land management practices. The Marlborough Sounds and Wairau/Awatere resource management plans have policies that seek to protect ecosystems from plants and animal pests. However, other than rules for controlling the application of agrichemicals, the main method signalled within the plans to achieve management of pests is through the Regional Pest Management Strategy for Marlborough.

While the Biosecurity Act gives power to the Council to carry out pest management activities, it does not have to do so. However, the Council has chosen to be up-front and deal with these issues through having a pest management strategy in place. Marlborough's Strategy classifies 32 plant and animal species as pests in Marlborough because of their actual or potential impact on economic and/or ecological values. The Strategy separates the 32 pest species into different classifications, which require various levels of control or management. However, all species classified as pests in the strategy are banned from sale, propagation, breeding and distribution. The classifications are defined as follows:

- **"Total Control Pests"** are pests that are of limited distribution and density in Marlborough and for which the long-term aim is eradication.
- **"Containment Control Pests"** are pests that are well established in Marlborough, where the long-term aim is to prevent the spread of the pest to new areas and reduce the density of the pest where possible.
- **"Surveillance Pests"** are pests that Council will monitor over the term of the Strategy.

A number of other pests are included in the Strategy because of the threat they pose to ecological values (and in some cases production values) but do not have a specific control regime. This is because they do not pass the cost/benefit analysis requirements of the Biosecurity Act. The Council has nonetheless highlighted these pests, which include wilding pines, feral cats, mustelids, feral pigs and goats, etc, as needing control, where sites have significant ecological value and the where the reduction of the pests would be effective in protecting those values.

(Note that a description of some pests and their management regimes are also included in the Freshwater and Coastal chapters of this report.)

TOTAL CONTROL PESTS

There are two separate management regimes to deal with total control pests. These are a Council and Department of Conservation initiative, where control is funded on a 50/50 share basis, and a Council initiative where the landowner contributes 25% of control costs and the Council funds the other 75%. The joint initiative with the Department of Conservation has a focus on pests with potential to invade large areas of Marlborough's indigenous forests, coastal shrublands and waterways. The species in this control regime are boneseed, climbing spindleberry, eel grass, Madeira vine and moth plant.

For the Council initiative, the species are African feather grass, bathurst bur, bur daisy, saffron thistle, and giant needlegrass. These particular plant pests have the potential to severely affect pastoral farming and cereal harvesting while African feather grass also poses a threat to Marlborough's conservation values.

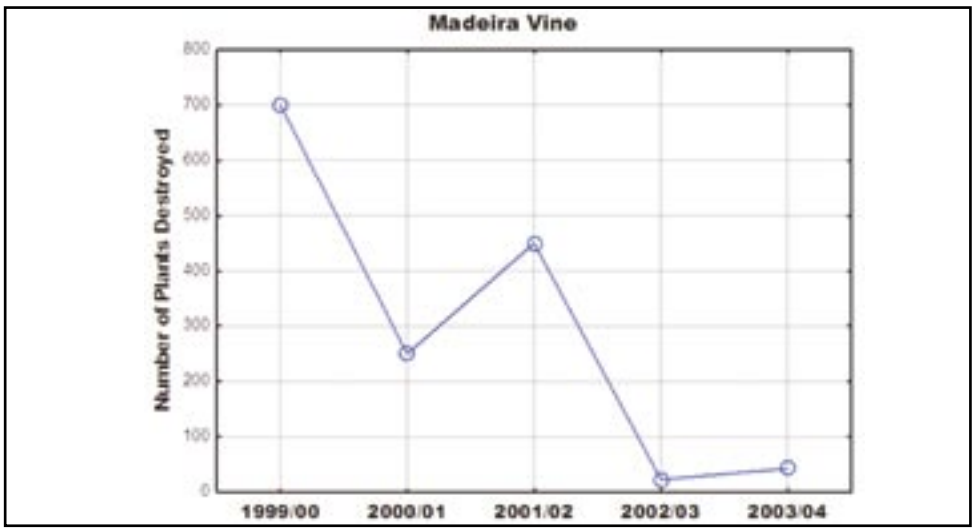
Following is a description of several of the total control plants and how effective the programmes have been in identifying and controlling sites of these infestations.

MADEIRA VINE (ALSO KNOWN AS MIGNONETTE VINE)

Madeira vine is a vigorous climber. It grows from an underground tuber and has aerial tubers, which grow attached to the stem, and break off easily to form new plants when they land on the ground. It will also grow from rhizomes. As well as blocking light to supporting plants by smothering them, it can become so heavy that it breaks branches. It is tolerant to drought and salt spray.

Madeira vine is a very difficult species to control. While the foliage is easily killed by Roundup, the herbicide will not kill the tubers. Because multiple stems grow from the tuber, cutting and painting the stem is of no use. The whole tuber must be dug up and removed. Aerial tubers must be removed by hand also. This plant has the potential to invade large areas of the Marlborough Sounds but at this stage is only known to be present at three sites. Figure 24 shows the number of Madeira vine plants that have been destroyed by the Council over the past 5 years.

Figure 24: Number of Madeira vine plants destroyed

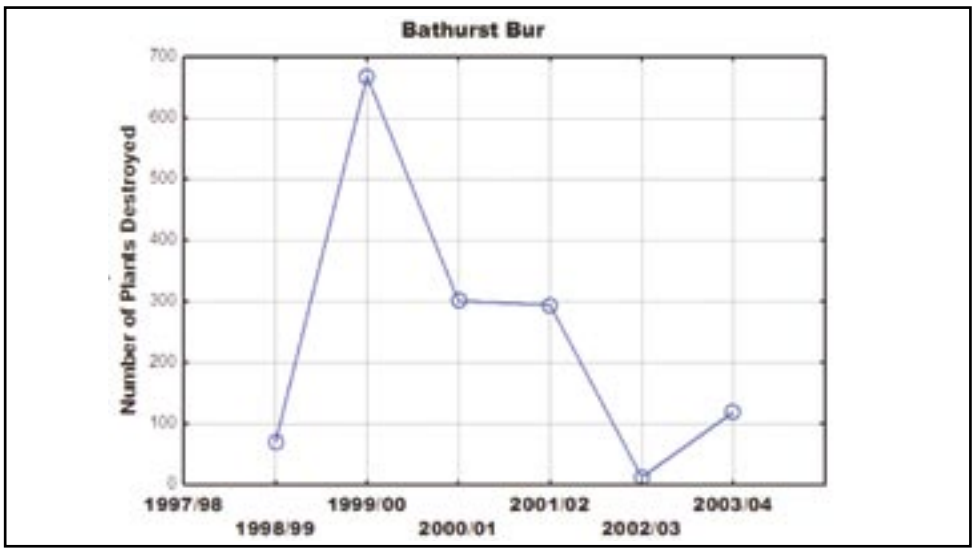


BATHURST BUR

Bathurst bur is a shrubby annual that originates from South America. It spreads using hooked seeds. These hooked seeds, along with their long sharp spines, injure stock and contaminate wool. Bathurst bur will also displace preferred pasture species and will interfere with cereal harvesting if left uncontrolled.

Localised infestations exist throughout the North Island and infestations can be found in scattered locations in Marlborough, Nelson, Canterbury and Southland. There are eleven known sites of bathurst bur in Marlborough. Figure 25 shows the number of bathurst bur plants that have been destroyed by the Council over the past 6 years.

Figure 25: Number of Bathurst bur plants destroyed

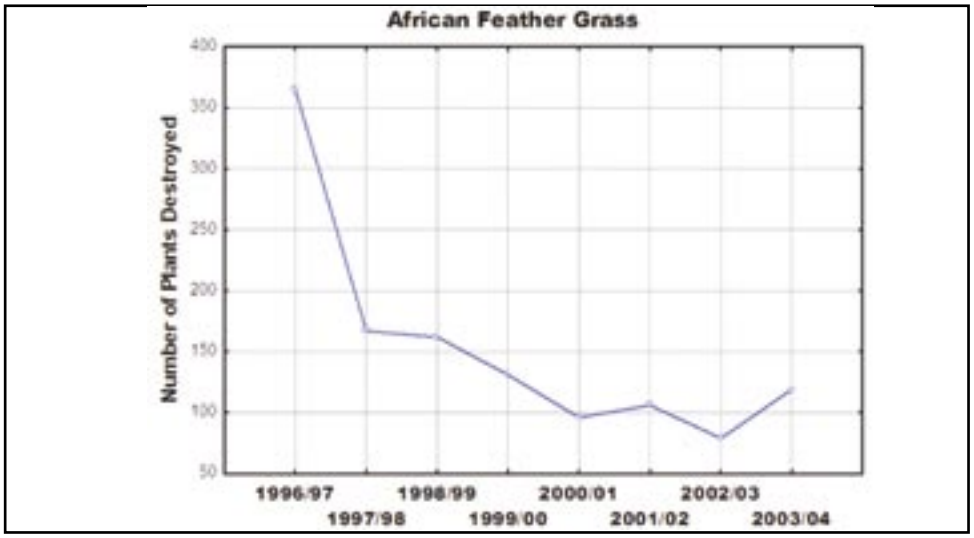


AFRICAN FEATHER GRASS

African feather grass is a robust, perennial grass with spreading rhizomes that form dense tussocks and produce long, narrow flowers heads, which resemble a bottlebrush. It is a garden plant that has escaped into surrounding habitat. It spreads using seeds and rhizomes. African feather grass is generally unpalatable to stock and is a threat to pasture production if left uncontrolled. This plant's vigorous growth habit will displace native species from grasslands. It has the potential to invade wetlands, roadsides, urban areas and forest margins throughout Marlborough.

Infestations of African feather grass are scattered throughout the North Island and east of the main divide in the South Island, from Marlborough to Central Otago. There are 15 known sites of African feather grass in Marlborough, two of which are new since the 2002/2003 Update report. Figure 26 shows the number of African feather grass plants that have been destroyed by the Council since 1997/97.

Figure 26: Number of African feather grass plants destroyed



CONTAINMENT CONTROL PESTS

Containment control pests are well established in Marlborough, with some of the plant pests having been around for some considerable time. Therefore the long-term aim is to prevent their spread to new areas and reduce the density of the pest where possible.

While the direct management of containment control pests is the responsibility of the landowner, the Council also has a role in the co-ordination of control programmes, advising landowners on control measures, ensuring landowners comply with their responsibilities under the Strategy and monitoring to determine new pest sites. Management of these pests varies depending on the objectives set out in the Strategy. Following is a description of two containment control pests.

Pest management staff aging boneseed

CHILEAN NEEDLEGRASS

Chilean needlegrass

Chilean needlegrass is an erect, tufted perennial grass, which can grow up to one metre high in the absence of grazing. Plants form dense clumps, which exclude preferred pasture species and are unpalatable to stock during the flowering period. Chilean needlegrass flowers produce sharp tipped seeds, which can bore into the eyes and pelts of grazing animals. The seeds can be moved by stock, waterways, feral animals, machinery, hay and to some extent, by wind.

Infestations exist on 56 properties in Marlborough and vary from isolated patches to widespread infestations. The most heavily infested properties are in the Blind River area, south of Seddon, but isolated sites exist from the Wairau Plains to Cape Campbell. The Strategy requires that on some properties, occupiers must destroy all Chilean needlegrass plants, while on properties classified as 'Core' plants within 10 metres of adjacent property boundaries, must be destroyed before they seed. (Core properties are located in the Blind River/Lake Grassmere area.)

Severe infestation of Chilean needlegrass

POSSUMS

Possum with rata

The possum originates from Australia and was released in New Zealand in the late 1800s to establish a fur trade similar to that flourishing in Australia at the time. Possums selectively browse preferred plant species and cause extensive canopy defoliation in native forest. They also cause economic damage in exotic forest plantations. Research indicates that possums will prey on ground and tree-nesting birds and their eggs. The possum is a recognised carrier in the spread of the disease bovine tuberculosis to domestic livestock.

Populations vary from low to extremely high depending on habitat. In Marlborough, the possum population is moderate to high in areas where no control work has been carried out. However on the offshore islands in the Marlborough Sounds there are currently no possums. Collectively these islands cover 26,400 hectares of land that is free from possums.

The Strategy aims to prevent the establishment of possums on the offshore islands in the Sounds. While Strategy rules prohibit the release or spread of possums onto the islands, the main means of achieving the overall aim is through education. Signs have been erected on the major offshore islands advising the public that they are areas free of possums, while public access jetties on the mainland are similarly signed. A leaflet jointly prepared by the Council and the Department of Conservation also provides tips on how the community can help to ensure these islands remain possum free – see Figure 27.

Figure 27: Extract from brochure

"Pest Alert! Keep Our Islands Safe for the plants and animals that live there"

- Always check your boat for animal pests before leaving port if you are going to be landing on an offshore island.
- Always check the gear that is to go ashore for any animals that may be hiding amongst it.
- Set rat and mousetraps, or lay poison baits, on board boats.
- Do not leave food lying on board when in port, as animals attracted to your boat may stay on board and become stowaways.
- Please ensure no plants or seeds are introduced onto these islands, as some are free of many weeds which are common on the mainland. Check cuffs and socks for harboured seeds and burrs, and remove mud from soles of shoes.
- Be aware when visiting islands and look out for any possums or other pests. Inform the relevant authorities if you suspect there may be any unwanted animal present.

SURVEILLANCE PESTS

Surveillance pests are pests such as spartina, old mans beard, banana passionfruit, egeria and pampas grass, that Council intends to monitor over the term of the Strategy. Data are collected on the distribution, density and impacts of these pests. The Council also provides information to the public on the most appropriate method of controlling these pests. A case study on one surveillance pest, spartina, is included in the Coastal Marine chapter of this report. Old mans beard has also been the subject of some investigations in the context of the significant natural areas project described earlier in this chapter.

Banana passionfruit

IMPLEMENTING THE STRATEGY

In trying to achieve the aims set out in the Strategy for the various pests, the Council issues control programmes, undertakes inspections, carries out monitoring work and provides information and advice to the community on how to deal with certain pests.

During the 12 month period from July 2003 to June 2004, the Council issued 311 control programmes to land occupiers with infestations of containment control plant and animal pests. Approximately 75% of these properties were monitored, with three 'Notices of Direction' being issued as a result of non-compliance with the strategy. (A Notice of Direction is served on a land occupier to ensure that the required level of work is undertaken to achieve the Strategy's outcomes.)

Monitoring the distribution of plant pests is an ongoing process. Early detection of any new pest site helps to ensure the pest is managed before it becomes a significant problem. Thirty-six properties were inspected for general surveillance purposes during the 12-month period from July 2003 to June 2004 to determine if any total control or containment control plant pest existed on them. In addition, known sites are monitored to ensure that control measures are adequate and to find any new infestations before they spread.

HOW THE COMMUNITY CAN ASSIST IN PEST MANAGEMENT

The Council's staff can help with the identification of unwanted plants. If an unusual or invasive plant is found on someone's property, then the Biosecurity section of the Council should be contacted for information and advice. Early intervention is important when controlling new pests and can often determine the success or failure of future control programmes.

The Council also has a range of pamphlets available with information on pest identification and the most appropriate methods of control. While it is important that landowners destroy any of the plant pests growing on their land, they should not be dumped in potential problem sites such as roadsides or riverbanks, as invasive plants can grow in the wild after being dumped.

Copies of the pamphlets are available from the Council's offices, as is the Regional Pest Management Strategy for Marlborough. The Strategy contains more detail on the individual requirements for occupiers who have plant and animal pests on their land.

BIOLOGICAL CONTROL AGENTS

In addition to its management role, through the Regional Pest Management Strategy, the Council also undertakes the release of biological control agents for a range of plant pest species. Biological control is the term used to describe the restoration of the natural balance between a pest and its environment by introducing and establishing natural enemies, which prey on or adversely affect the pest. The overall objective of biological control is to achieve environmentally acceptable control methods, which are both cost effective and sustainable. A total of 75 new releases of existing biological agents were made in the 12-month period from July 2003 to June 2004. These were 19 releases of Scotch thistle gall fly, 36 releases of nodding thistle crown weevil and 20 releases of nodding thistle gall fly.

Adult Nodding Thistle Crown Weevil

Wilding pines in Wye River catchment

Wilding pines in the Molesworth

WILDING CONIFERS IN SOUTH MARLBOROUGH

Much of southern Marlborough is covered in grasslands, particularly within the hill and high country. These areas are susceptible to the spread of wilding conifers, although with a few exceptions, wildings are currently scattered and comparatively infrequent. However, because there is little grazing pressure, from either domestic or wild animals, and there is an increasing conifer seed source from historical conifer plantation forestry and wildings, the risk of conifer spread is high.

People are concerned about the spread of wilding conifers for a range of reasons. Some of these are more tangible than others but generally include the following:

- **Landscape values** - particularly disruption of existing, open and often treeless landscapes;
- **Indigenous biodiversity values** - wilding spread can dominate or degrade the habitats of indigenous flora and fauna;
- **Existing pastoral uses** - grazing species can be shaded out by taller growing trees;
- **Future land use options** - wilding dominated land is more expensive (than open grassland) to convert to other uses such as improved pasture or managed forest; and
- **Existing hydrology** - dense wilding stands covering a large percentage of a catchment will reduce water yields downstream in the catchment.

Because of these risks, the Council has had an assessment carried out of the spread, and the risk of spread, of wildings in south Marlborough and possible management options. The survey work has identified a number of places with major spread problems such as the Upper Wye, Upper Waihopai, Branch/Leatham and Raglan Range and the Upper Clarence. These places have often been the site of historical erosion control plantings that used spread prone species such as pinus contorta. Eradication of wildings in these areas is not considered practical because of their number and spread. Instead, a suggested management regime of containing wildings within these areas has been proposed, with any wildings found outside the area to be removed before they reach coning age. Management of wildings, by the Department of Conservation, is already occurring in some of these areas.

Other parts of south Marlborough currently have much less of a problem with wildings, although the assessment carried out does note that these areas do have a high risk of being infested with conifers if a seed source becomes available.

A report sets out detailed management options and recommendations for areas with major wilding spread issues, as well as for areas with lesser wilding spread risk. These options and recommendations are now going to be discussed with people interested in the future management of wilding spread, particularly the Department of Conservation and landowners in the areas at risk.

Boneseed control - Arapawa Island

Aging pinus radiata using a stem borer

REFERENCES

Davie Lovell-Smith. March 2004. Blenheim Residential Growth - **Assessment of the Adequacy of the Urban Blenheim Residential Land Bank.** Report prepared for the Marlborough District Council

Department of Conservation. June 2004. **Wairau Ecological Region – Survey Report for the Protected Natural Areas Programme.**

Larcombe, J. August 2004. **Composition of Waste Marlborough Regional Landfill SWAP Study 10 – 16 November 2003.** Report prepared for Marlborough District Council.

Ledgard, NJ. June 2004. **A Strategy for Control of Wilding Conifers in South Marlborough.** Report prepared for Marlborough District Council.

Marlborough District Council. September 2001. **Regional Pest Management Strategy for Marlborough.**

Marlborough District Council. **Newsletters - Marlborough's Natural Environment**

Ecology on Private Land – South Marlborough Survey Complete. December 2003

Fishtail and Para Ecological District. October 2003

Waihopai Ecological District. January 2003

Kekerengu and Medway Ecological Districts. March 2002

Marlborough District Council. July 2004. **Discussion Document Draft Variation: Review of Policies for Managing the Wairau Plain (Rural 3 Zone).** Report prepared by Ian Shapcott and Linda Craighead.

Marlborough District Council. May 2004. **Report on the Marlborough Dairyshed Effluent Survey 2003/2004.** Report prepared by Joanne Smart.

Marlborough District Council. July 2004. **Report on the 2004 Survey of Winery Wastewater and Grape Marc Disposal Systems.** Report prepared by Joanne Smart.

McDonald, A. and Taylor, R. - editors. July 2004. **Sustainable Households Pilot Programme 2001-4 Final Evaluation Report.**

McEntee, D., Saxton, V., Spellerberg, I. 2004. **What are the Bird Populations of Native Tree Remnant? Research Into One Aspect of Bird Management in Fruit Crops.** Report prepared for the Marlborough District Council by the Soil, Plant and Ecological Sciences Division of Lincoln University.

Stein, Tom. June 2003. **Clematis Vitalba (Old Mans Beard) in South Marlborough. History, Ecology and Distribution and Control Options.** Report prepared for Marlborough District Council.