



STAFF REPORT

TO: Environment & Planning Committee

FROM: Lindsay Vaughan, Biosecurity Co-Ordinator

REFERENCE: B103

SUBJECT: **REGIONAL PEST MANAGEMENT STRATEGY – ANNUAL REPORT - EP08/11/21 - Report Prepared for Meeting of 20 November 2008**

1. PURPOSE OF REPORT

The purpose of this report is to table the review of the 2007 / 2008 Pest Management Operational Plan and summarise its achievements.

2. BACKGROUND

The Biosecurity Act 1993 requires councils to undertake a review of the Operational Plan for the previous financial year.

3. REVIEW OF 2007-2008

- This was the first year of the implementation of the 2007 / 2012 Tasman-Nelson Regional Pest Management Strategy (RPMS).
- The performance indicators set in the 2007 / 2008 Operational Plan were met.
- **Trend Monitoring.** A new method of Trend Monitoring is proposed, based on the number of sites and whether they are New (first found in that year), Active (live material present), Monitoring (live material recorded within the last three years) or Historic (live material not seen for more than three years). This is expected to provide a better indication of long-term trends than a record of the total number of plants destroyed.
- **Total Control Pests.** There are thirteen high-risk pest plants where the long-term goal of eradication is considered to be feasible. All known Active and Monitoring sites of the Total Control Pests were inspected and live material was destroyed. Historic sites are inspected annually or biennially, depending on the time since live material was last seen and the seed viability of each species.
- **Progressive Control Pests.** There are seventeen pests in this category, eleven plants, five fish and one bird. Eradication is not considered feasible. Good progress has been made in reducing the density and distribution of many of these pests, but there are major challenges in Golden Bay with Old Man's Beard and Banana Passion Vine; work is being undertaken by some community groups and by a Weedbuster's group. The Department of Conservation is responsible for controlling pest fish.

- **Containment Pests.** There are eleven plant and animal pests in this category and the aim is to prevent their spread. A significant effort has gone into preventing their spread but many of the existing tools are inadequate for the task. Invasive ants are continuing to spread, as are Purple Pampas and Gorse and broom in the Howard-St Arnaud area. It is unclear how effective the present methods of control are for other animal pests such as magpies, feral cats, feral rabbits and mustelids.
- **Boundary Control Pests.** There are ten pest plants and plant diseases in this category and the aim is to stop their spread onto adjoining clean sites. The most common pests are gorse, blackberry and broom and the Council becomes involved only if neighbours are unable to resolve issues. Numerous enquiries were received on the detailed specifications but there were only four requests for intervention.
- **Regional Surveillance Pests.** There are four plant pests in this category and the aim is to monitor their distribution and impact during the term of the Strategy. New sites have been mapped for two of the four pests.
- **Pest control in high-value sites.** There are six high value public sites within Tasman District where the Council is involved in controlling pest plants and animals. Much of the effort has gone into Torrent Bay, in a programme with co-funding from the Department of Conservation and some local landowners. A similar number of sites are involved within the Nelson City Council boundaries.
- **Biological control.** Biological control is an increasingly important tool for long term control and the Council contributes to funding of the Landcare Research programme through the Research Collective of regional councils and the Department of Conservation. Biosecurity officers are involved in releasing and monitoring biocontrol agents on a variety of pest plants with varying degrees of success. The most successful results have been achieved with a number of agents on ragwort and some progress is being made with agents for gorse and broom.
- **National Plant Pest Accord.** This is an Accord that has been developed to prevent the sale, propagation and distribution through wholesale and retail outlets of introduced plants that have been identified as posing a high risk of establishing and spreading. A substantial number of new plants have been added recently and identification of cultivars continues to pose challenges.
- **Education and advice.** Much of the work of the staff involves education and advice to landowners. However, this category primarily covers the development of displays for events such as Ecofest, the production of brochures such as the one for Argentine and Darwin's ants, and the Pest of the Month articles in Newline.
- **Other pests.** Council biosecurity officers have worked with Biosecurity NZ and other stakeholders in programmes involving Termites, Didymo, Sea squirts, brown mussels and Varroa.

4. RECOMMENDATION

It is recommended that the Committee:

Accept the attached Review of the Operational Plan for 2007 / 2008.

Lindsay Vaughan
Biosecurity Co-Ordinator



**Review of the
2007/2008
Operational Plan
for the
Tasman-Nelson
Regional Pest
MANAGEMENT STRATEGY**

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INTRODUCTION

Section 85(1)(b) of the Biosecurity Act 1993 requires the Management Agency for every pest management strategy to review the Operational Plan annually, and if the Management Agency thinks fit, to amend it and to report on the Operational Plan and its implementation no later than five months after the end of the financial year.

The Operational Plan details the main activities required by the Tasman-Nelson Regional Pest Management Strategy, (the Strategy). The following report by Tasman District Council in its capacity as the Management Agency assesses each of these activities, and comments on relevant issues.

LINKAGES

The Review of the Operational Plan is integrated, as much as possible, with the Tasman District Council's Annual Plan Report. The Annual Plan Report provides an overview of all Tasman District Council functions, including pest management activities, for 2007/2008.

This Review of the Operational Plan should be read in conjunction with the Tasman-Nelson Regional Pest Management Strategy.

Bovine tuberculosis feral vector control is another significant pest management activity in the District. This is subject to a National Pest Management Strategy, where the Animal Health Board is responsible for preparing an operational plan and reporting on the Strategy's implementation. Tasman District Council is a significant funder of this programme and issues resource consents for this work.

1 TOTAL CONTROL PESTS

Estimated Project Cost

\$25,000

Actual Project Cost

\$21,716

STRATEGY OBJECTIVE

- 1 Eradicate Total Control Pests from the areas under the jurisdiction of Tasman District Council and Nelson City Council.

2007/2008 PERFORMANCE INDICATORS

- 1 Destroy pests at all known sites.
- 2 Carry out surveillance of land most at risk for new infestations.
- 3 Prevent new infestations establishing.
- 4 Develop and maintain a trend monitoring database for these pests.

Achievements

General

- 1 All Active and Monitoring sites of Total Control Plant Pests (African Feather Grass, Bathurst Bur, Boxthorn, Cathedral Bells, Climbing Spindleberry, Egeria, Entire Marshwort, Hornwort, Phragmites, Saffron Thistle, Senegal Tea and Spartina) were inspected during the year. Any plants found were destroyed, and/or control programmes initiated. On all sites, plant numbers were reduced. Historical sites where live plants have been absent for several years are inspected bi-ennially.
- 2 Data is recorded on hand-held IPAQs running GIS software for each site and transferred to a pest database for storage and analysis.

Trend Monitoring

A database for recording pest distribution and abundance has been developed to hold the data captured by the hand-held IPAQs. Table 1 summarises the information on the total number of plants that have been destroyed annually over the last five years. However, the number of plants destroyed can fluctuate from year to year and the discovery of a single site with many plants can overwhelm results from other sites where the number of live plants may be reducing. Similarly, with pest plants that produce seed with a long period of viability in the ground, climatic factors will influence the number of plants that develop and a couple of dry years can produce marked changes in the number of plants to be destroyed. A method of trend monitoring that classifies individual sites by the level of activity has been developed by Peter Halloran from the University of California (Halloran, P

(2006). *Measuring performance of invasive plant eradication efforts in New Zealand*. New Zealand Plant Protection 59: 1-7) and this is expected to provide a better picture of the long-term trends (Table 2). This approach was used to illustrate the maps in the back of the current Strategy but the criteria for classifying the sites have been revised to bring them into line with other national agencies. Accordingly, this data is not compatible with the 2007/08 data and has been excluded from Table 2.

Table 1: Trend Monitoring of Total Control Pests – Plants destroyed

Pest	No. of Plants Destroyed				
	2007/2008	2006/2007	2005/2006	2004/2005	2003/2004
African Feather Grass	20	1	9	0	15
Bathurst Bur	0	3	3	0	0
Boxthorn (new to Total Control)	5	0	0	0	0
Cathedral Bells	67	95	132	263	235
Climbing Spindleberry	0	0	0	0	0
Madeira vine (new to Total Control)	50	N/R	N/R	N/R	N/R
Phragmites	0	0	0	0	0
Saffron Thistle	90	165	141	127	105
Spartina (new to Total Control)	52	N/R	N/A	N/A	N/A

Notes:

N/R Not recorded

N/A Not applicable

A number of aquatic plant species (Egeria, Entire Marshwort, Hornwort, Senegal tea) are excluded from this list as it is not possible to record the no. of plants destroyed.

Table 2: Trend Monitoring of Total Control Pests (Proposed)

Pest	No. of Sites (2007/2008)			
	New	Active	Monitoring	Historic
African Feather Grass	7	8	2	3
Bathurst Bur		1	7	
Boxthorn (new to Total Control)		13	21	11
Cathedral Bells		11	4	
Climbing Spindleberry		40	5	
Egeria	1		4	
Entire Marshwort		2	4	2
Hornwort (new to Total Control)			8	
Madeira vine		31		
Phragmites			1	
Saffron Thistle		3	10	
Senegal Tea		2	1	
Spartina (new to Total Control)		35	150	100+

Definition of Criteria:

New sites are sites that have first been reported in the financial year shown, identification has been confirmed, and live material is present.

Active sites are sites that are being treated (or retreated) in the current financial year with live material present.

Monitoring sites are sites which have previously been treated and no live material is present, but it has been present within the last three years.

Historic sites are those for which no live material has been present for more than three years.

2 PROGRESSIVE CONTROL PESTS

Estimated Project Cost

\$145,000

Actual Project Cost

\$142,806

STRATEGY OBJECTIVE

- 1 To reduce the distribution and density of Progressive Control Pests in the Tasman-Nelson region.

2007/2008 OBJECTIVES

- 1 Destroy isolated infestations and reduce the density and/or distribution of Progressive Control Pests on severely infested sites.
- 2 Minimise seeding at infested sites.

Performance Indicators

- 1 Destroy all Progressive Control Pests at known sites.
- 2 Carry out surveillance of land that is most at risk from new infestations.
- 3 Prevent the establishment of new infestations.
- 4 Monitor changes in the known distribution of these pests.
- 5 Ensure the occupiers of land with plant infestations are aware of their responsibility to control Progressive Control Pests. When necessary, Biosecurity Officers will advise occupiers by letter of the need to check their land and destroy Progressive Control Pests, and will carry out inspections to ensure compliance.

Achievements

General

- 1 The distribution and density of Progressive Control Pest have been reduced at most sites.
- 2 Data has been recorded on hand-held IPAQs running GIS software for each site and transferred to a pest database for storage and analysis.
- 3 Surveillance has concentrated on recording the location of the sites of the "new" Progressive Control Pests that were introduced into the Strategy (implemented in July 2007).

Section 4: Boundary Control Pests July 2008

- 4 A small infestation of boneseed (< 10 plants) was identified in Tapu Bay, a new location, and destroyed.
- 5 New infestations of Wild Ginger were recorded in Golden Bay and Kaiterteri and destroyed.

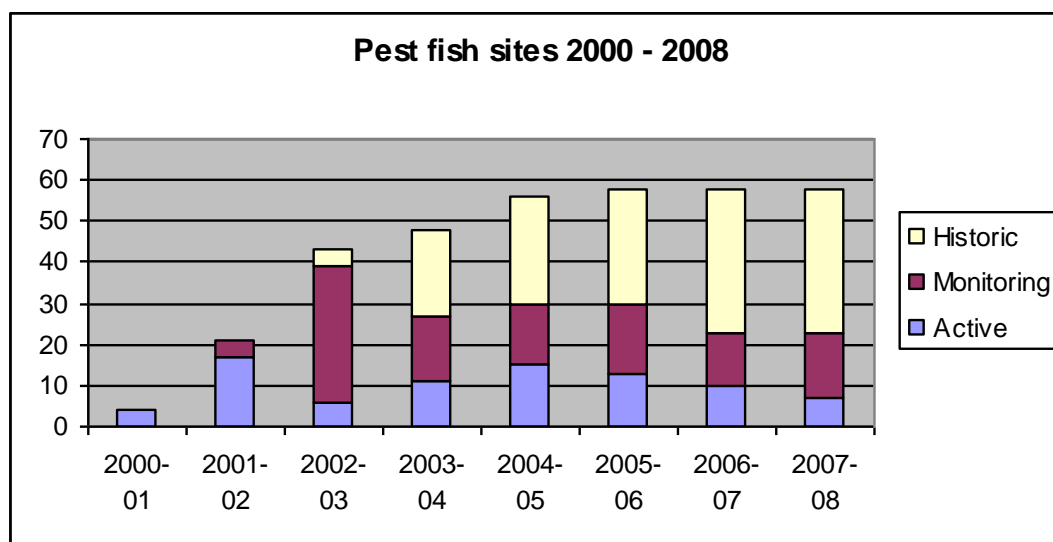
Trend Monitoring

To provide one measure of the change over time in the distribution of Progressive Control Pests, a Halloran classification is being trialled. This is described in the previous section (Trend Monitoring of Total Control Pests). This requires reliable long-term data and this is available for pest fish. Control of pest fish has been undertaken by the Department of Conservation for the last eight years, which has provided this data. The species involved are *Gambusia*, Koi carp, Perch, Rudd and Tench.

Table 3: Pest Fish Data 2000 – 2008

Year	Active	Monitoring	Historic	Unreported	Total
2000/01	4	0	0	0	4
2001/02	17	4	0	0	21
2002/03	6	33	4	0	43
2003/04	11	16	21	0	48
2004/05	15	15	26	0	56
2005/06	13	17	28	0	58
2006/07	10	13	35	0	58
2007/08	7	16	35	0	58

Figure 1: Trends in Pest Fish Sites 2000 – 2008



This illustrates:

- the rapid increase in the number of sites containing pest fish over an initial five year period, following identification of the first sites in 2000;

- the reduction in the number of Active and Monitoring sites over the last five years, following intensive surveillance and treatment.

3 CONTAINMENT PESTS

Estimated Project Cost

\$32,000

Actual Project Cost

\$38,950

STRATEGY OBJECTIVE

- 1 To prevent the spread of Containment Pests to adjoining properties or other parts of Tasman and Nelson that are not currently infested.

2007/2008 OBJECTIVES

- 1 To require treatment of pest plants and ants.
- 2 To promote and encourage control of animal pests.

PERFORMANCE INDICATORS

- 1 Monitor changes in the known distribution of the pests.
- 2 Undertake surveillance of uninfested land.
- 3 Where possible, prevent the establishment of new infestations.
- 4 Ensure the occupiers of land with pest infestations are aware of their responsibility to control the pests. Where necessary, Biosecurity staff will advise occupiers by letter of the need to check their land and control Containment Pests, and will carry out inspections to ensure compliance.

ACHIEVEMENTS

General

- 1 A significant biosecurity effort has gone into preventing the spread of Containment Pests but the existing tools are inadequate for the task. There is no objective data to indicate what is being achieved with the management of animal pests such as Magpies, Feral Cats, Feral Rabbits and Mustelids.
- 2 There is good data to indicate that invasive ants are continuing to spread and there is limited data to indicate that plants such as Purple Pampas and Gorse and Broom in the Howard-St Arnaud area are continuing to spread. A more appropriate role for future management of these widespread pests will be for Council to provide an

education and support role for landowners rather than having a specific requirement on landowners.

Comments on Individual Pests

1 ***Argentine and Darwin's Ants***

- There are more than 600 urban and 12 rural properties known to be infested with Argentine Ants in Nelson and Tasman. There are about 100 urban and 10 rural properties known to be infested with Darwin's Ants.
- Intensive surveillance of known infestations in the last two years indicates that the natural rate of spread for Argentine Ants is around 100-150 metres per year along footpaths and road edges. On rougher terrain (across gardens and lawns), the rate of spread is probably 30-60 metres per year, enough for ants on unbaited sites to rapidly re-infest adjoining sections that had been baited. They have crossed roads, either on the surface, or through culverts and drains. For Darwin's Ants, the natural rate of spread is around 50 metres per year along hard surfaces, about one-third the rate of spread of Argentine Ants. On rougher terrain (across gardens and lawns), the rate of spread is probably 20-30 metres per year, enough for ants on unbaited sites to re-infest adjoining sections that had been baited.
- Effective baiting of Argentine Ants usually provides sufficient control for two years, but rapid reinvasion from unbaited sections may require annual baiting. For Darwin's Ants, effective baiting usually provides sufficient control for three to four years. Again, reinvasion from unbaited sections may require more frequent baiting.
- A third national invasive ant management workshop was organised in Wellington in association with Biosecurity New Zealand.
- The Council was fortunate in being able to contract a well-qualified science graduate to undertake surveillance of Argentine and Darwin's ants.
- Advising residents of the presence of invasive ants and the need to bait and providing them with information on baiting has become a major logistical task.

3 ***Australian Magpie***

- There is a continuing seasonal demand for traps and call birds, but at a lower level than in previous years. The introduction of a new multi-catch trap into Golden Bay has captured several birds that have previously proved elusive.

4 ***Broom and Gorse (Howard-St Arnaud)***

- Most known sites remain active due to long period of seed viability and the start up of logging is expected to reactivate a number of sites and increase the risk of spread on logging machinery and transport vehicles.

5 ***Brushtail Possum/Mustelids/Cats/Rabbits/Hares***

Section 4: Boundary Control Pests July 2008

- There is a continuing demand for traps and requests for advice on control. The Biosecurity Officers provide a very good service to occupiers.
- Control operations were mounted on small populations of rabbits in coastal properties in Motueka and Kaiteriteri.

6 *Lagarosiphon*

- Occupiers are advised of the Strategy requirements and reasons. Where practical, they are encouraged to destroy infestations. The only approved herbicide (diquat) provides short-term control. A shading trial at Te Kaukau Stream indicated that dense shading would be effective, but this is difficult to achieve on wider streams.

7 *Purple Pampas*

- Plants continue to be found (and destroyed) around areas of scrubland and pine forest known to be infested. New sites are usually associated with soil disturbance associated with roading and harvesting operations.

4 BOUNDARY CONTROL PESTS

<p>Estimated Project Cost \$16,000</p> <p>Actual Project Cost \$14,255</p>
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STRATEGY OBJECTIVE

- 1 To control the spread of Boundary Control Pests from adjacent properties or road reserve to land that is clear, or being cleared of these plants.

2007/2008 OBJECTIVES

- 1 To intervene in response to any complaint of non-compliance by an adjoining land occupier.

PERFORMANCE INDICATORS

- 1 Follow up complaints that satisfy the policy for enforcement in the Strategy within a five day working period.

Table 4: Summary of Boundary Clearance Activity

Pest	Requests for Boundary Clearance
Australian Sedge	Nil
Blackberry	Nil*
Broom (outside Howard - St Arnaud)	2*
Buddleia	Nil
Codling Moth, Black Spot and Powdery Mildew	Nil
Fireblight	Nil
Giant Buttercup	Nil
Gorse (outside Howard - St Arnaud)	2*
Nodding Thistle	Nil
Ragwort	Nil

* There have been numerous requests from occupiers for detailed specifications in regard to Gorse, Broom and Blackberry and these mostly allowed landowners to resolve boundary issues. There were four requests for Council intervention.

ACHIEVEMENTS

- 1 Biosecurity Officers have dealt effectively and efficiently with issues raised by requests.

ENFORCEMENT

- 1 One landowner was served with a Notice of Direction.

5 REGIONAL SURVEILLANCE PESTS

Estimated Project Cost

\$42,000

Actual Project Cost

\$39,680

STRATEGY OBJECTIVE

- 1 To assess the distribution and monitor the spread and impact of Regional Surveillance Pests.

2007/2008 OBJECTIVES

- 1 To continue assessment of the distribution and monitor the spread and impact of Regional Surveillance Pests.

PERFORMANCE INDICATORS

- 1 To map the distribution of Regional Surveillance Pests to allow an assessment of the level of risk posed by these pests.

ACHIEVEMENTS

- 1 Surveillance has identified new sites of Yellow Flag and Parrot's Feather but there has been no surveillance of *Pinus contorta* or *Undaria*.
- 2 Nelson City Council contractors have removed *Pinus contorta* trees from the Champion Creek (Roding Waterworks Reserve) area.

6 PEST CONTROL IN SITES OF HIGH PUBLIC VALUE

Estimated Project Cost

\$47,000

Actual Project Cost

\$46,618

STRATEGY OBJECTIVE

- 1 To control nominated pests around sites that have been designated as being of high public value.

2007/2008 OBJECTIVES

- 1 Tasman District Council will control designated pests as part of follow-up programmes at the following sites:

Table 5: Principal Pests to be Controlled in High Public Value Sites

Site	Principal Pest(s)
Dart/Wangapeka confluence	Old Man's Beard
Marahau	Old Man's Beard
Torrent Bay	Animal and Plant Pests
Upper Baton	Old Man's Beard
Emmaus Farm (QEII covenant)	Old Man's Beard
Lee Valley Reserve	Old Man's Beard, Other Pest Plants
Nelson City Council reserves (Reservoir Creek)	Old Man's Beard, Other Pest Plants

PERFORMANCE INDICATORS

- 1 To prepare management programmes for each site and implement them to protect the values of each site.
- 2 To assist individuals and community groups to carry out pest control work on and adjacent to the sites.

ACHIEVEMENTS

- 1 **Emmaus Farm**
 - A contractor has applied foliar spray and stump-treated Old Man's Beard around the newly-planted zones; all plantings were released and foliage back-sprayed.

2 Reservoir Creek

- Nelmac on behalf of Nelson City Council carried out weed control along the true left bank of Reservoir Creek prior to planting this area adjoining the estuary frontage.

3 Lee Valley

- Old Man's Beard, Barberry seedlings and Wandering Jew continue to be controlled by spraying and new plantings released.

4 Torrent Bay

- This programme is a joint venture between the Council, local landowners and the Department of Conservation.
- Possums, Mustelids, Rats and Mice continue to be trapped. There has been a significant drop in the number of animals trapped and occupiers have commented on increased number of native birds, especially the nectar feeders.
- There is ongoing removal of pine trees from Tasman District Council land and adjoining private land as part of a Wilding Pine control programme.
- The Birdsong Trust was set up in December 2007 and they are investigating opportunities for co-funding pest control operations in adjoining areas.

5 Upper Baton

- Old Man's Beard vines were cut and stumps were treated in the public use and fishing access areas along the Upper Baton River edge between the gorge and the swing bridge.
- Subdivision, a change in land use and restriction of public access will require a review of this programme.

6 Dart and Wangapeka Confluence

- Vines of Old Man's Beard were cut and stumps treated on the only known site in the Upper Wangapeka and rambling growth was sprayed.
- A helicopter survey identified Old Man's Beard in a canopy gap on the western face of Mt Jones; Department of Conservation staff are managing the infestation.
- Surveillance identified further infestations of Old Man's Beard across the Wangapeka River, which were re-treated. Further control will be undertaken as necessary.

7 Marahau

- Regrowth and new plants of Old Man's Beard were found and treated by cutting and treating, and new infestations were found in Otuwhero Valley. Gunnera (Chilean rhubarb) has been found on the banks along the lower reaches of the Marahau River and will require treatment to control it.

7 BIOLOGICAL CONTROL

Estimated Project Cost	
Total costs	\$49,000
Actual Project Cost	
Landcare Research Contract	\$20,000
Biocontrol agents	\$5,000
Weed identification	\$600
Council costs	\$27,757
Total	\$53,357

2007/2008 OBJECTIVES

- 1 Contract the services of Landcare Research New Zealand Ltd to undertake research into biological control, to provide new populations of biological control agents, to monitor release sites, report on progress, and provide technical information.

- 2 Increase the distribution of the established biological agents throughout the Tasman-Nelson region.

PERFORMANCE INDICATORS

- 1 Monitor the biological agents already present in the Tasman-Nelson region and collect the successful agents and release to new sites.

- 2 Support research into, and the implementation of, selected biological control techniques.

NEW RELEASES

- 1 Two releases of the Gorse Soft Shoot Moth were made.

- 2 Four releases of Ragwort Plume Moth were made.

COLLECTION AND RELEASE

- 1 Biosecurity staff monitored earlier releases of:
 - Broom Psyllid.
 - Broom Seed Beetle.
 - Colonial Hard Shoot Moth.
 - Gorse Pod Moth.
 - Nodding Thistle Crown Weevil and Gall Fly at Wakefield.
 - Old Man’s Beard Fungus. Population numbers are at very low levels and there is little or no visible impact.

- Old Man's Beard Leaf Miner. Population numbers are at very low levels.
- Old Man's Beard Sawfly. Landcare Research have checked sites and found no sign of establishment.
- Ragwort Flea Beetle. This is now widespread, with seasonal population pulses.
- Portuguese Gorse Thrips. These are continuing to spread on Rough Island and along the Waimea River berms and are having a significant impact on gorse.

2 Under its contract with the regional councils, Landcare Research continues to investigate methods to maximise the effectiveness of biological control techniques, and to develop biological controls for a range of pest plants, selected by regional councils who are involved in a research collective.

8 NATIONAL PEST PLANT ACCORD

Estimated Project Cost

Total costs \$20,000

Actual Project Cost

Total costs \$24,515

STRATEGY OBJECTIVE

- 1 To prevent the sale, propagation or distribution within New Zealand of any pest plant determined as an unwanted organism under the Biosecurity Act 1993.

PERFORMANCE INDICATORS

- 1 To inspect nurseries, roadside stalls and other plant outlets for any plants identified on the National Pest Plant Accord and enforce the destruction of these plants if required.

ACHIEVEMENTS

- 1 Local nurseries and plant retailers were inspected to ensure that no plants listed on the National Pest Plant Accord were being sold.
- 2 Cultivars of some species continue to cause difficulty in identification.
- 3 One officer attended a course in Wellington to assist with identification of a substantial number of plant pests that have been added to the Accord.
- 4 MAF Biosecurity New Zealand (MAFBNZ) has set up a database in Wellington to assist with the recording of information but the Council's Biosecurity Officers have experienced some difficulties in downloading information. MAFBNZ staff are working to overcome the teething problems.

9 PROVISION OF EDUCATION AND ADVICE

Estimated Project Cost

\$34,000

Actual Project Cost

\$27,570

2007/2008 OBJECTIVES

- 1 Raise the public awareness of pests and emphasise the environmental and production benefits from effective control programmes.
- 2 Respond to all requests for advice and information so as to assist the community to effectively control pests. In particular, assist groups and individuals wanting to control designated pests, including animal pests.
- 3 Provide land occupiers with a plant identification service and advice on appropriate methods of control.

PERFORMANCE INDICATORS

- 1 Distribute pamphlets identifying the pests in the Strategy and explaining its requirements.
- 2 Organise public awareness campaigns involving media releases and handouts on pests that feature identification, controls and occupier responsibilities.
- 3 Prepare and set up biosecurity displays for conferences and appropriate community events (eg, Ecofest).
- 4 Stage field days with staff from other organisations and with people who have some biosecurity involvement to broaden their knowledge and understanding, eg, local authorities, Landcare Research and Department of Conservation.
- 5 Organise field days for landowners to broaden their knowledge and understanding of pest control operations, in association with other biosecurity providers.
- 6 Provide advice and assistance to individuals and groups carrying out pest control.
- 7 Forward plant samples to Landcare Research (terrestrial plants) and NIWA (aquatic plants) for identification and notify occupier of pest status and the appropriate control measures.

ACHIEVEMENTS

Public Enquiries

- 1 A pamphlet identifying the pests in the Strategy was reprinted and distributed to interested parties.

- 2 The pamphlet on Argentine and Darwin's ants was updated.
- 3 Biosecurity Officers responded to a wide range of public enquiries on identification and control of animal and insect pests that included Mustelids, Rabbits, Feral Cats, Rats, Possums, Wasps, Ants and other Insects.
- 4 Biosecurity Officers responded to a wide range of public enquiries on identification and control of plant pests.

Public Awareness Campaigns

- 1 A monthly series of biosecurity articles ("Pest of the month") have been prepared and published in the newsletters of the two councils.
- 2 Additional articles have been published in Nelson Mail and in community newspapers.
- 3 Newsletters were distributed to Torrent Bay landowners and occupiers about the biosecurity programme being funded by Tasman District Council, Department of Conservation and landowners.
- 4 Officers provided advice and lent traps to residents to control Possums, Mustelids and Magpies.
- 5 Information packs on the National Pest Accord were distributed to selected wholesale and retail nurseries.
- 6 The Biosecurity display at Ecofest covered a number of Total Control climbing plants and a mixture of aquatic weeds. A general weed identification competition was challenging but proved to be popular.
- 7 A joint display at the Takaka A&P Show with the Department of Conservation featured a live plant display of Strategy pest plants and included a pest identification competition.

10 OTHER PESTS**UNWANTED ORGANISMS****1 Didymo**

The first identification of Didymo (*Didymosphenia geminata*) in the Tasman-Nelson region was in the Upper Buller River in September 2005. Local staff have worked with MAFBNZ, the Department of Conservation, and Fish & Game New Zealand to erect and maintain notices, undertake sampling, to liaise with local residents, and to support a summer advocacy programme. The costs of this have been included in Progressive Control.

2 Termites

Subterranean Termites (*Coptotermes acinaciformis*) were identified on two properties in Richmond in February 2006. Biosecurity New Zealand has undertaken a sophisticated baiting campaign and is confident that it will achieve eradication.

3 Sea Squirt

Didemnum vexillum, a sea squirt that has colonised mussel farms and salmon farms in the Marlborough Sounds, has been found at Port Nelson and Port Tarohe. Biosecurity Officers were involved with some surveillance and control.

A single *Styela clava*, a colonial sea squirt, was found on a vessel at Port Nelson.

4 South African Brown Mussel

The Ocean Patriot is a large oil rig that had been working around the New Zealand coastline for the last four years. It was required to remove all biofouling prior to a planned move to Australia and moved to the sheltered waters of Tasman Bay, ending up just inside Nelson City Council's territorial boundary. Belated identification of some mussels in the biofouling on the ocean floor as South African Brown Mussels, *Perna perna*, resulted in extensive dredging of the ocean floor to eliminate the risk of spread.

5 Varroa bee mite

Varroa has continued to spread slowly southwards from the Tasman and Nelson infestations into Marlborough and most recently into North Canterbury. Biosecurity NZ has subsequently decided it is not feasible to continue with the controls to limit its spread within the South Island.

NOTIFIABLE ORGANISMS (PLANTS)

These were originally classified under the Noxious Plants Act 1978 as Class "A" Pest Plants. They include Cape Tulip, Johnson Grass, *Salvinia*, Water Hyacinth and Water Lettuce. Water Hyacinth was found in Stoke and eradication was managed by Ministry of Agriculture & Forestry.

Notifiable Organisms are classified under the Biosecurity Act and are required to be reported if they have not previously been recorded in the region.

NATIONAL INTEREST PESTS

MAFBNZ has selected 11 very high-risk pest plants that Central Government will be responsible for managing. These are listed in the following table.

Table 6: National Interest Pests Managed by Biosecurity New Zealand

Common Name	Species	Goal
Salvinia*	<i>Salvinia molesta</i>	Eradication
Water Hyacinth*	<i>Eichhornia crassipes</i>	Eradication
Johnson Grass	<i>Sorghum halepense</i>	Eradication
One-leaf Cape Tulip	<i>Moraea flaccida</i>	Eradication
Pyp Grass	<i>Ehrharta villosa</i>	Eradication
Phragmites	<i>Phragmites australis</i>	Eradication
Hydrilla*	<i>Hydrilla verticillata</i>	Eradication
Hornwort*	<i>Ceratophyllum demersum</i>	Eradication in the South Island
White Bryony	<i>Bryonia cretica subsp dioica</i>	Eradication
Rainbow Lorikeet	<i>Trichoglossus haematodus</i>	Control to zero density
Manchurian Wild Rice	<i>Zizania latifolia</i>	Eradication of outlier populations

* Aquatic plants

Five of these pests have been present in Tasman District in recent times. Johnson Grass, Water Hyacinth, Salvinia and Hornwort have been eradicated from known sites and Phragmites is very close to eradication. The Council is contracted by MAFBNZ to maintain surveillance of the Hornwort and Phragmites sites and is required to report annually.

OTHER PESTS

1 Clover Root Weevil

The Clover Root Weevil was identified on a Richmond dairy farm. A biocontrol, the Clover Root Weevil parasite, was released and has continued to spread from the initial release sites.