



ANNUAL REPORT

UNALIENATED CROWN LAND WEED CONTROL

OTAGO REGION

Financial Year 2008-2009

Prepared for Land Information New Zealand

by



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LIST OF LAND DEFINITIONS

Crown Riverbed and Lakebed

Crown riverbed in this document refers to land belonging to the Crown that is administered by Land Information New Zealand (LINZ); referred to as Unalienated Crown Land (UCL).

Areas of UCL requiring weed management were identified using the following criteria:

- **Areas of braided riverbed bounded on both sides by marginal strip or road reserve.**
- **Areas of braided riverbed bounded on one or both sides by land not subject to *ad medium filum* (AMF) rights.¹**
- **Areas between exposed lakebed (above the normal flood range) and the adjacent marginal strip or road reserve.**

Marginal Strip

Marginal Strip in this document refers to lands of the Crown administered by the Department of Conservation (DoC).

Road Reserve

Road Reserve in this document refers to land administered by territorial authorities (District Councils or Unitary Authorities).

Application of these criteria is considered appropriate because it is expected that these particular areas will require the greatest attention for pest management. Other areas may be identified in the future, but they are less likely to have a high priority for pest management.

¹ Where a river abuts a property and connection is not interrupted by a legal road, the adjoining landowner may own the riverbed to the middle of the river. These are called *ad medium filum* rights. This situation is more prevalent in South Island braided rivers.

INTRODUCTION

Land Information New Zealand has responsibilities for managing the control of pest plants (weeds) on UCL, on behalf of the Crown. In most cases, Crown riverbed comprises areas of braided river or stream beds bounded on both sides by marginal strips or road reserves.

Many weed species occur on UCL. The weeds in these waterways can pose serious threats to adjoining farmland and conservation areas, and act as sources of weed reinfestation. The council's Regional Pest Management Strategy (RPMS) has been developed under the Biosecurity Act 1993 to deal with these weeds. Some weeds have been categorised according to their threat to economic values, while others have been listed as threats to conservation values. Control of weeds on UCL is therefore an important aspect of the Crown's land management programme. The aim of weed control is to reduce infestations of pest plants to low levels, after which only ongoing inspection and maintenance control is required.

Landward Management Ltd. (Landward) is the contractor responsible for managing and coordinating biosecurity operations (plant and animal control) on UCL for LINZ. This role includes the following tasks:

- Preparation of annual weed/pest control programmes
- Preparation of tenders and contracts for engagement of weed/pest control contractors
- Monitoring and inspection of operations
- Monitoring resource consent compliance
- Annual reports on operations
- Reporting on other issues which may be of relevance to biosecurity operations.

This report outlines noxious weed control operations carried out on UCL in the Otago Region for the period 1 July 2008 to 30 June 2009 financial year. Operations included:

- Helicopter spot-spraying of gorse, broom and Old Man's Beard (OMB)
- Helicopter boom spraying of gorse, broom and OMB
- Hand gun spraying of gorse, broom and OMB

1.1 Priority Rankings

Sites to be treated are selected on the basis of input resulting from the consultation process and priority rankings have been assigned to each operation. These priorities are dependent on three factors:

- The ability to define area as UCL;
- Downstream control priorities; and
- Compliance with the RPMS.

Gorse, broom and OMB control/containment was the highest priority. Non-RPMS plants such as wilding trees were also a high priority in areas where they posed a significant threat to the landscape, agricultural and/or ecological integrity of the land.

High priority was also accorded areas where adjacent landowners have grouped together to form a wider weed control programme, which may include UCL. In these circumstances, LINZ is obliged to act as a “good neighbour” and contribute to the wider weed control programme. The lowest priority was given to areas where boundary control was programmed, but landowners had no defined programme to clear adjacent areas.

In general, priorities were based on the ability to maintain weed-free areas and previous weed control efforts, the ability to reduce the impact of external infestations, and continuing downstream weed clearance.

The priorities were as follows;

1. Maintenance and inspection of existing weed – free areas (Highest Priority)
2. Eradication of OMB infestations.
3. Contributions as part of a wider weed control programme
4. Downstream control of weed infested areas
5. Boundary weed control. (Lowest Priority)

2. RESOURCE CONSENT COMPLIANCE

In the Otago region, the spraying of pest plants in circumstances where the contaminant may enter water is a permitted activity in the Regional Water Plan, so no resource consent was required.

3. LIAISON WITH LANDOWNERS

Landward had an ongoing programme of liaison with various parties through its contractual responsibilities with LINZ.

In addition, Landward liaised with the following parties in the course of preparing its annual reports and developing programmes for the coming financial year:

- Otago Regional Council
- Department of Conservation Area Offices – Queenstown, Wanaka, Alexandra
- Department of Conservation Otago Conservancy office
- Clutha Management Committee and Central Otago District Council
- Queenstown Lakes District Council (QLDC)
- Ngai Tahu and papatipu runanga
- Forest and Bird
- Federated Farmers
- Dunedin City Council
- Fish and Game Otago
- Public Health South

4. WEED CONTROL WORKS WANAKA DISTRICT

4.1 Makarora River

The Makarora River is a site which has seen great benefits from an ongoing weed control programme. In fact, the ORC has now declared the Makarora River to be within a gorse and broom free area in its RPMS which is a result of the combined LINZ and DoC control programme. In the 2008/09 season, both aerial and ground spraying methods were again used to control widespread scattered gorse and broom seedlings in the Makarora River.

The aerial control was undertaken on 6 December 2008. Approximately 2,000ha were searched and 5ha treated by spot spraying, especially targeting riverbed islands and the true right side of the river where aerial control is more appropriate due to the difficulties with accessing these areas from the ground.

Ground spraying was carried out between 18 and 21 March 2009, with approximately 500ha of riverbed mainly on the true left bank of the river from the Wilkin River confluence downstream being searched for isolated areas of seedling broom and gorse. Any weeds found sprayed with a vehicle mounted gun and hose.

By carrying out the ground control in March this season when the river was running lower, some riverbed islands that have been unable to be accessed in the past were able to be searched and treated.

The programme in this river continued to be very effective. There are no established plants in the riverbed, but large amounts of seedlings do re-grow in certain areas. A similar ground and aerial maintenance programme will be required in 2009/10, with aerial work to continue to be focussed more on the true right side of the river, and inaccessible riverbed islands.

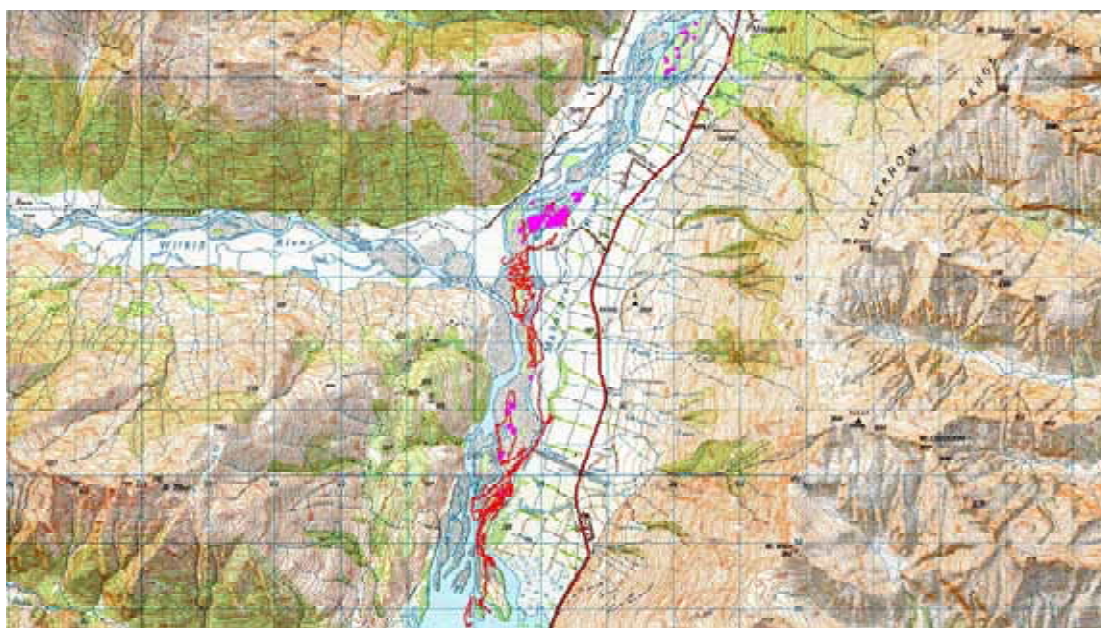


Figure 1. Treatment areas on the Makarora River. Pink areas were aerial control, red areas were ground control

4.2 Hunter River

The Hunter Valley is largely clear of gorse and broom but due to the popularity of the area for recreational use, requires annual inspections and spot spraying to maintain this status.

An area of approximately 2,400ha was searched by helicopter and 0.3ha was treated by spot spraying isolated patches of gorse. This occurred on 26 November 2008.

Both DoC and the neighbouring farmers are committed to assisting in the weed control programme and this is showing in the results that have been achieved.

From the 2009/10 season, DoC has taken over the administration of the Hunter River. Therefore, no further control work by LINZ contractors is scheduled. It is hoped that DoC will follow a similar maintenance inspection and spot spray programme which should be sufficient to control any new growth in the treated area.

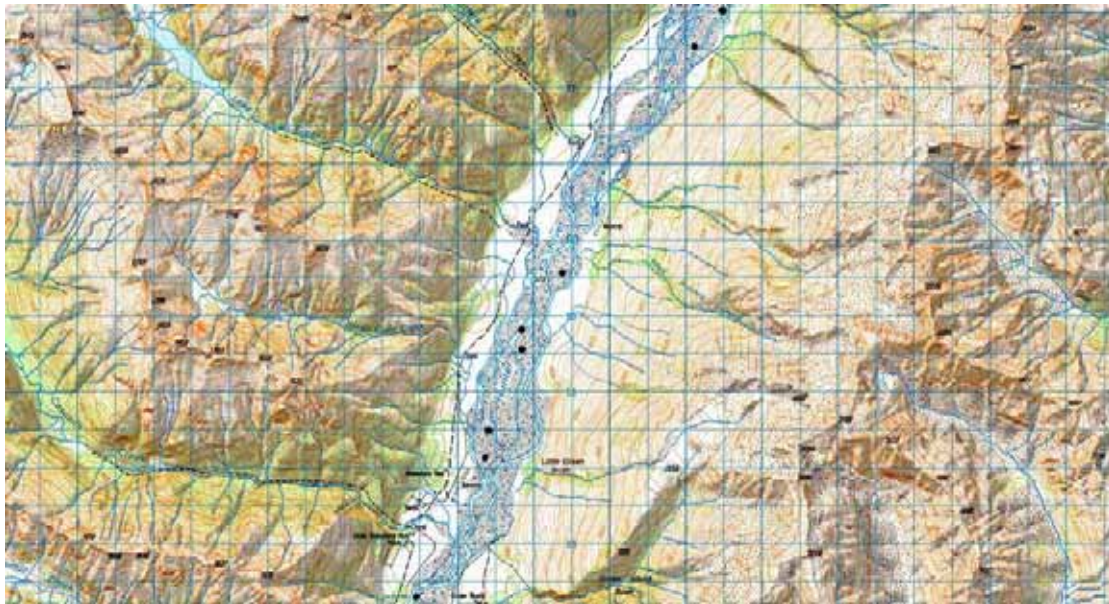


Figure 2. Location of sprayed plants in the Hunter River

4.3 Lake Hawea Southern Shoreline

The southern shoreline of Lake Hawea has three main areas where weed control is required; they are the camping ground west of the Hawea Dam, the foreshore in front of Lake Hawea Township, and an area around Gladstone. These sites are lightly infested with predominantly broom but also have areas of lupin, buddleia and wilding tree infestation.

Between 19 February and 20 March 2009 ground control operators using backpacks, gun and hose and mist blowers treated broom, gorse, poplar, willow, pine and buddleia over a 9ha area. A combination of broom and lupin were sprayed at the camping ground area. At the foreshore site in front of Lake Hawea, broom was the main weed controlled, but some work was also carried out on lupin and wilding tree seedlings. Gladstone, which was jointly funded by the QLDC, involved spraying of a variety of weeds but mainly lupin, juvenile birch and buddleia.

The administration of this site is due to be handed over to the QLDC from 1 July 2009. Therefore, prior to the hand over occurring, an inspection with the QLDC was carried out to identify any final control requirements. This inspection, which occurred on 28 April 2009 found minor regrowth of broom seedlings and the occasional lupin and wilding tree seedling. A bank near the camping ground jetty which was covered in lupin also needed some attention. It was agreed that the contractor would be called back to control these areas, which occurred between 5 and 8 May 2009.

This site is now administered by the QLDC, so LINZ will not be conducting any further weed control in future.



Figure 3. Treatment areas at Lake Hawea Southern Shoreline



Figure 4. Main treatment areas along the Lake Hawea Southern Shoreline

4.4 Lake Hawea Western Shoreline

The western shoreline of Lake Hawea is of similar status to the southern shoreline, with a low level of predominantly broom infestation. Adjacent to Hunter Valley Station near The Neck there is also a large patch of gorse.

Aerial spraying of gorse and broom on the Western Shoreline of Lake Hawea was undertaken on 26 November 2008. This targeted areas which are difficult for the ground contractor to access. An area of 850ha was searched and 1ha treated, and this resulted in most of the broom being controlled. However more attention needs to be paid to the area around The Neck.

Ground control works using backpacks and gun and hose from a boat were completed between 19 February and 20 March 2009. This work treated infestations of broom and gorse that could be accessed by boat or from the road or farmland.

Current control work at this level seems to be working well on this site. However, wilding pines are becoming a problem, and the large patch of gorse on Hunter Valley Station shoreline requires ongoing attention to gradually reduce the size of the infestation. Hunter Valley Station had plans to carry this work out in the near future.

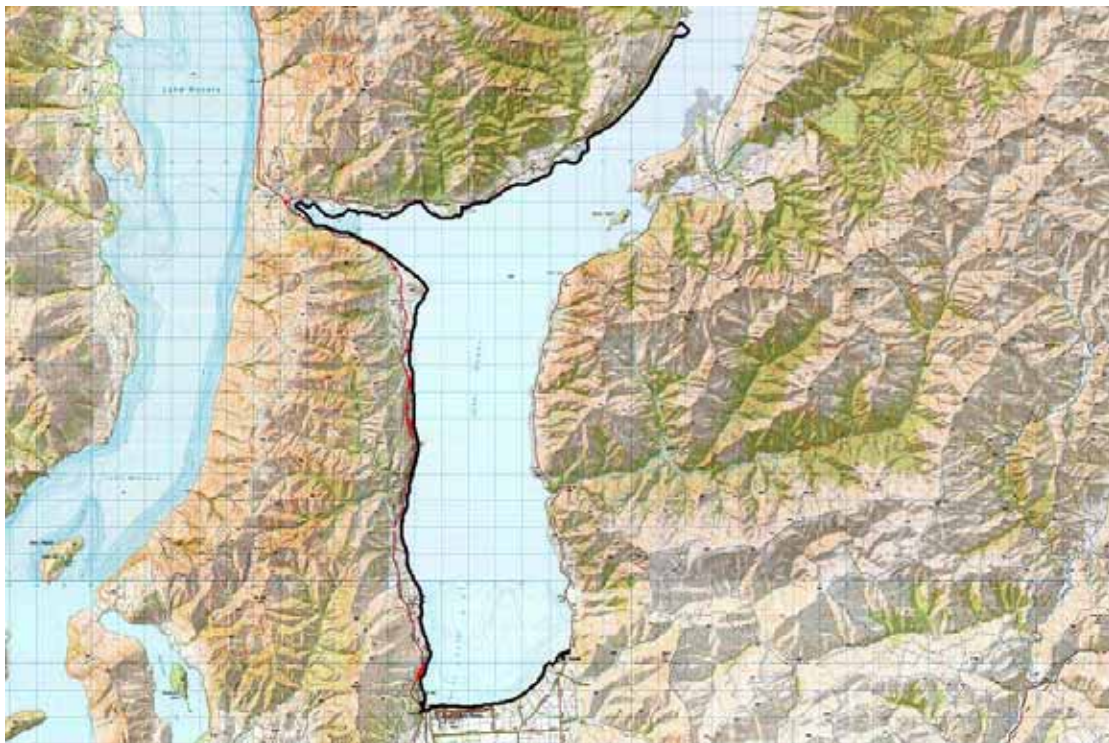


Figure 5. Location of gorse and broom control along the Western and Southern Shoreline of Lake Hawea. Red areas represent aerial control, black line represents ground control.

5. WEED CONTROL WORKS QUEENSTOWN DISTRICT

5.1 Von River

The Von River has seen a steady reduction in weed infestation over the last few years, and this has continued. The 2008/09 control programme involved ground follow-up on the areas previously treated.

Overall a total of about 80ha was searched and areas of new seedling growth on islands and banks were treated using a combination of vehicle mounted gun and hose. This work was undertaken between 19 and 27 January 2009.

The contractor noted that the river is mainly clear of weeds above the Station Burn confluence, but the Station Burn remains heavily infested and is the major source for weed infestations on the rest of the Von River. Mt Nicholas Station will need to be encouraged to carry out some control work in Station Burn.

With the cooperation of DoC, progress was also made on a large patch of mature gorse on the true left bank which will also reduce the seed source.

The 2009/10 programme should be at a similar level to 2008/09. Continued maintenance of this river will see weed levels continue to decrease drastically.

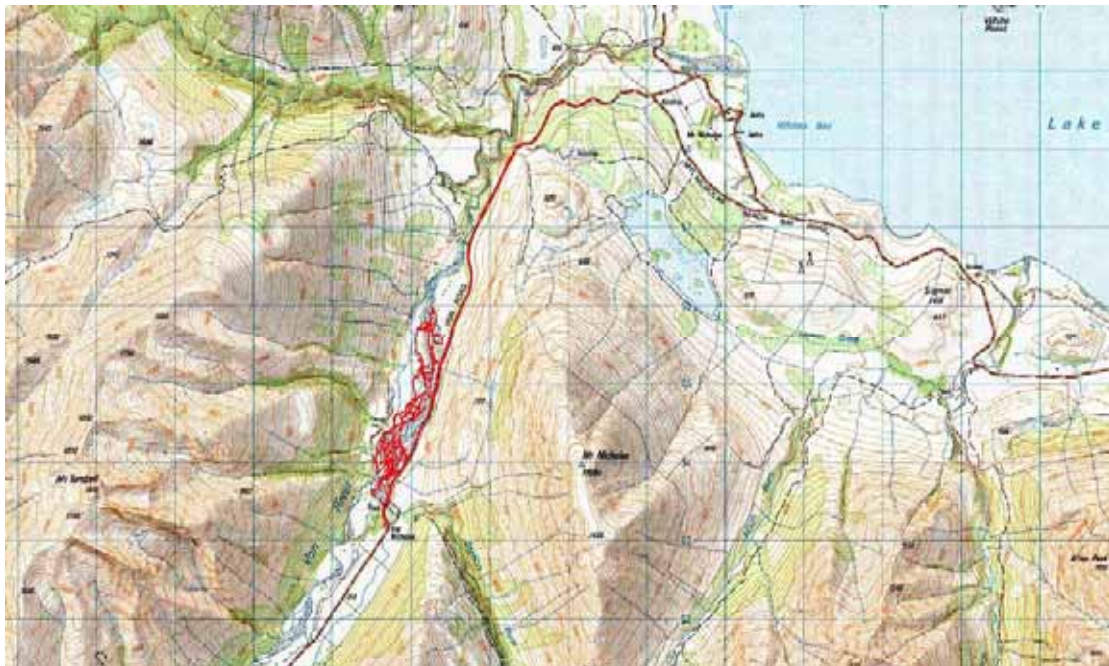


Figure 6. Areas treated in the Von River

5.2 Lochy River

The Lochy River is showing the beneficial effects of control work over the last few years, and is now at a maintenance level.

The control work for this season was using hose and gun spray trucks as ground control methods over the entire river area of 840ha. Areas of seedling growth were treated through the entire riverbed during the period 19 to 25 January 2009

The large island in the river near the delta has been cleared of gorse, and all known weed infestations have been controlled.

DoC Wakatipu have contributed substantially towards this project, and Cecil Peak station has controlled gorse on their land. The contractor noted at the Billy Creek confluence there was still some weed infestation on Halfway Bay Station, and this must be controlled as a seed source.

A maintenance budget for ground spraying of regrowth will be required in future years.



Figure 7. Areas treated in the Lochy River

5.3 Rees River

Ground control methods were again used in the Rees River over a 600ha area from the confluence of the Ox Burn down to Glenorchy. New seedling growth on riverbanks and islands was sprayed on 14 and 15 January 2009 using hose and gun spray trucks.

This work is mainly at a maintenance level, although there were a few new areas of infestation noted on the true right of the river parallel to the Dart River near the confluence of the Rees and Dart. The control programme in the Rees River is complementary to control in the Dart River. There is the risk of gorse spreading from the Dart River to the Rees River, with vehicles, fishermen and possibly even jet boats helping to spread the weed.

Maintenance work at a similar level will be required in future programmes

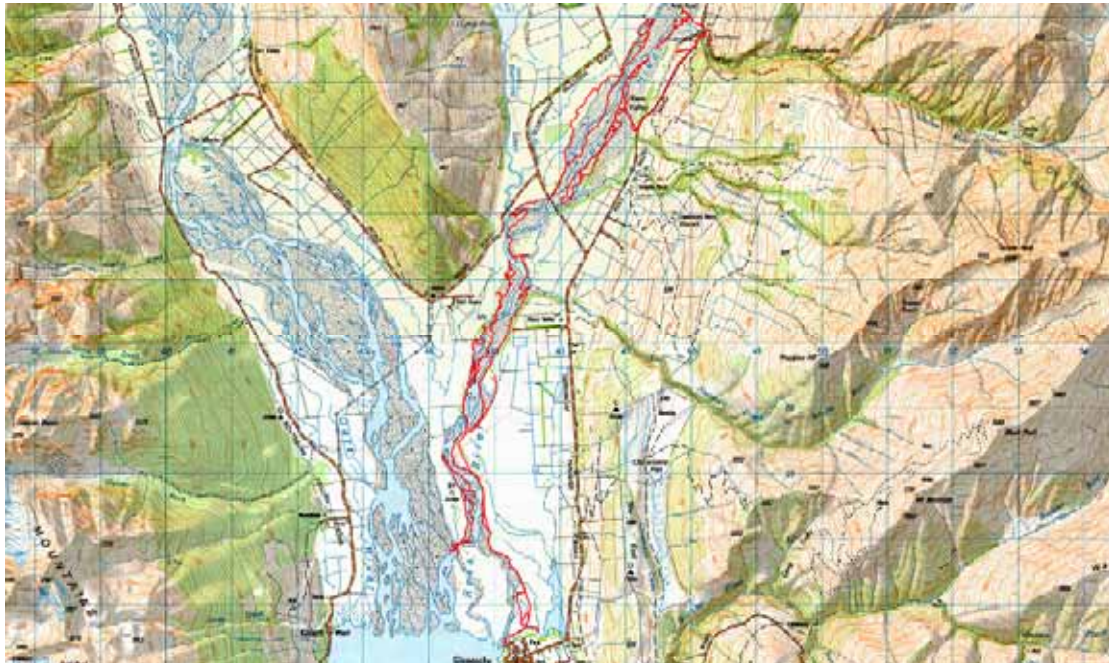


Figure 8. Ground treatment area on the Rees River

5.4 Dart River

The Dart River has a scattered infestation of both gorse and broom through the main stem of the river, however there are some large patches of dense gorse and broom on the true left side of the river.

Initial control work this year was focused on maintaining the scattered areas of gorse and broom over the 900ha downstream of the Glenorchy Routeburn Road Bridge to the head of Lake Wakitipu. Approximately 9ha was treated by aerial methods using a spot gun and boom spray on 24 November 2008, before plants starting setting seed. There were areas of significant regrowth, particularly near the mouths of Kowhai Creek and Turner Creek.

Additional aerial work was done in conjunction with DoC on dense infestations on the true left bank on 16 March 2009. This control means that all known gorse and broom infestations in the Dart River were sprayed in the 2008/09 season.

Due to the increased area treated in the 2008/09 season, a maintenance budget will need to be increased slightly to keep control in this riverbed at its current level.

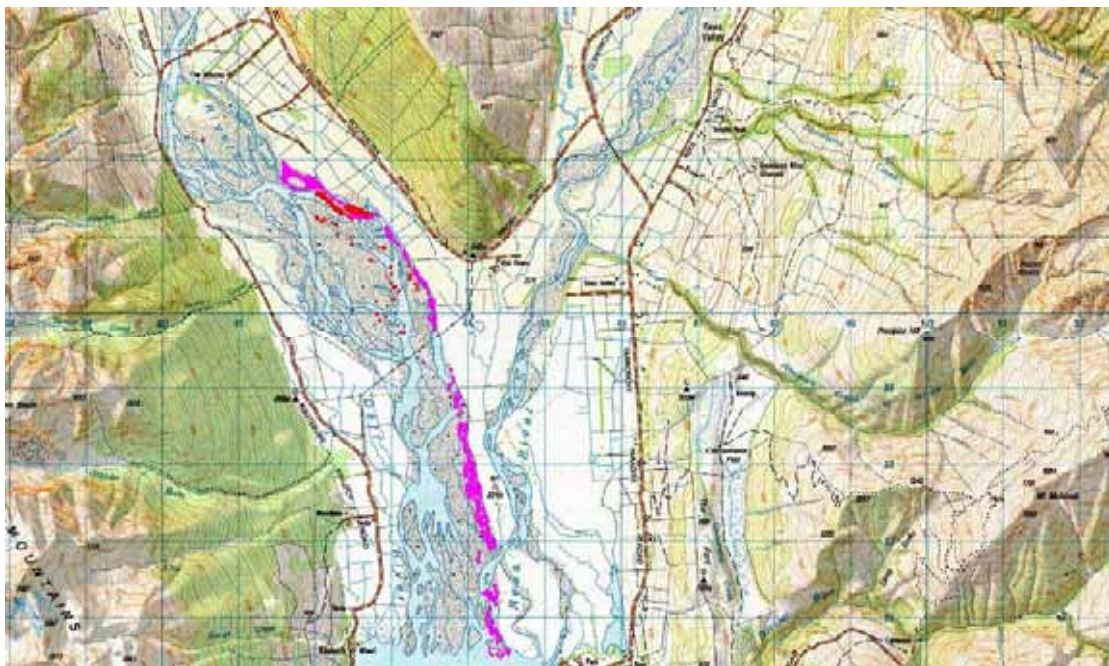


Figure 9. Treatment area on the Dart River. November 2008 control is shown in red and March 2009 control in pink.

5.5 Lower Greenstone River

The lower Greenstone River delta last had gorse and broom spot sprayed on 10 January 2007. This season, gorse and broom was sprayed in the lower Greenstone River delta on 14 January 2009, and scattered areas of new seedling growth on islands and riverbanks were treated.

The river is now largely clear of weeds, but there is gorse and broom infestation on adjacent Greenstone Station and Elfin Bay land and this will continue to re-infest the LINZ land until it is controlled.

This site is on a 2-year maintenance programme and was not treated in the 2007/08 season. This site will be reprogrammed for the 2008/09 season.

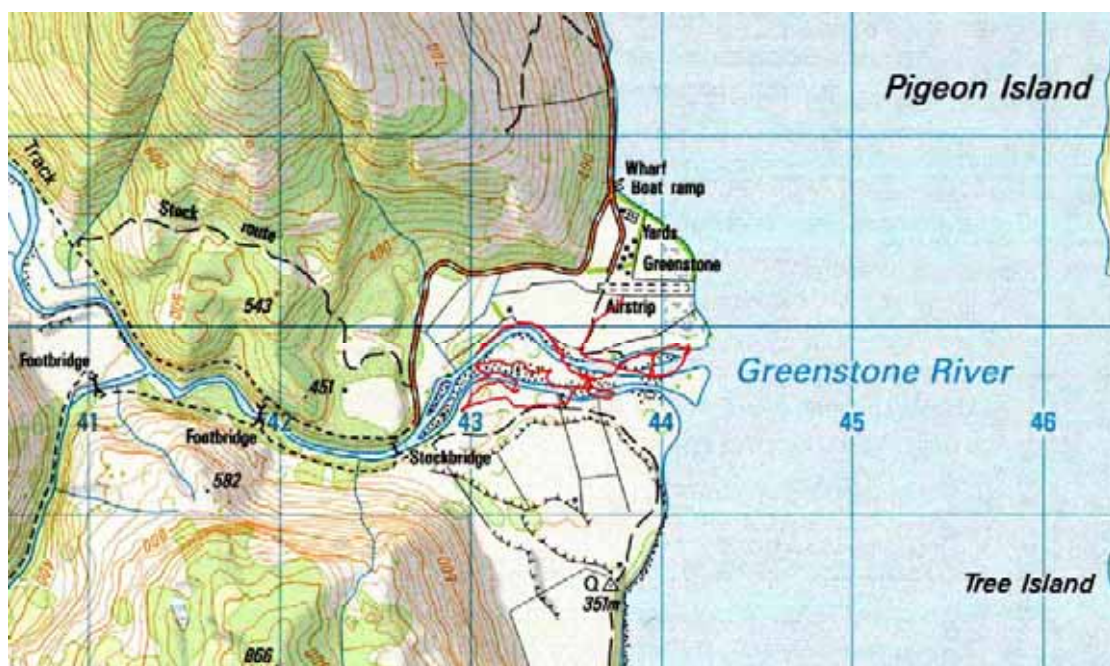


Figure 10. Treatment area on the Lower Greenstone River

6. WEED CONTROL WORKS ALEXANDRA DISTRICT

6.1 Kyeburn River

As with previous seasons, the 2007/08 programme in the Kyeburn River concentrated on areas from the bridge at the Danseys Pass Hotel upstream to the Danseys Pass summit.

On 11to13 January 2009 an area of 5ha was searched and 3ha of gorse and broom seedling regrowth was sprayed using gun and hose on the river flats and mist blowers in the gorge. There was extensive regrowth on the river flats which required blanket spraying, but in the gorge area the growth was scattered broom in small isolated pockets on both sides of the river. There is similar broom infestation on adjacent DoC land.

The Kyeburn River is now under control from the top of Danseys Pass to the bridge just upstream of the hotel. Unfortunately, from here the river has dense infestation levels both on the UCL and adjacent land so no control is scheduled for these lower areas.

The Department of Conservation also contributed with control on the marginal strip, as well as one landowner who has been actively controlling gorse and broom.



Figure 11. Treatment area on the Kyeburn River

6.2 Nevis River

The Nevis River is showing the benefit from many years of treatment for broom and gorse infestation.

This season, a 200ha area upstream from Nevis Crossing was inspected by a helicopter with a spot gun, and 3ha of scattered weeds were sprayed on 13 October 2008. Ground control was later carried out on 14 May 2009 to follow up on the aerial work. This started just upstream from Commissioner's Creek and continued downstream to the Nevis Crossing Bridge.

Inspections have noted that there are still areas of broom on the hillside upstream of Commissioners Creek, and around the hotel and cemetery sites, and these areas are the responsibility of DoC and Pioneer Energy.

Generally, ongoing attention of a maintenance nature is proving very effective in most areas of this river. This should continue into 2009/10.

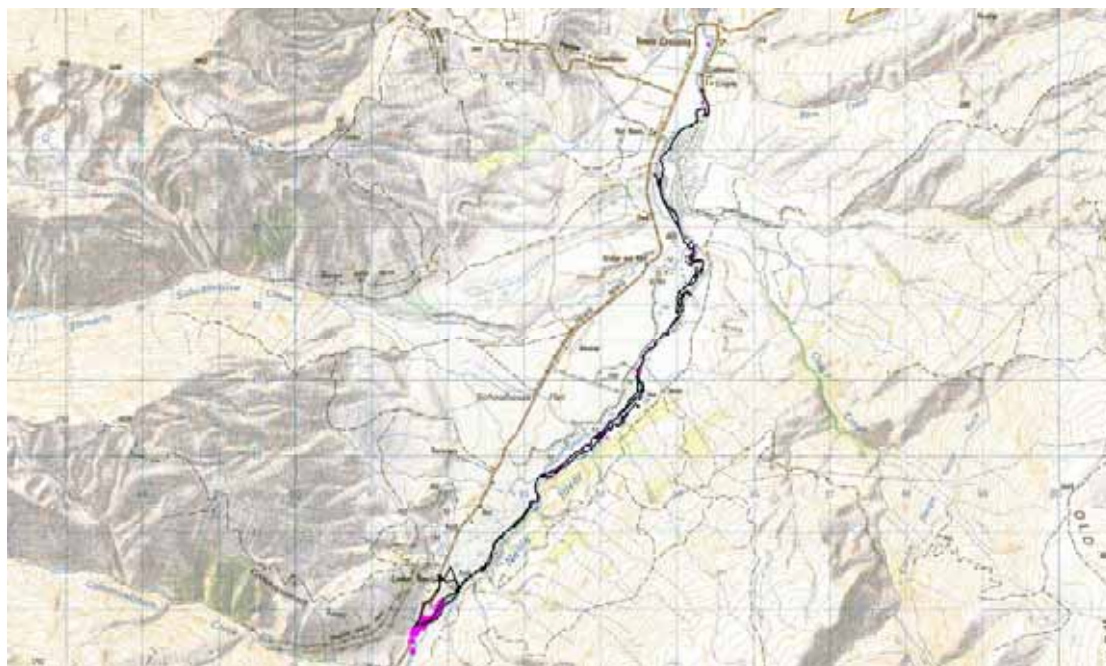


Figure 12. Control areas on the Nevis River. Black shows ground control tracking, and pink shows where aerial spraying occurred.

6.3 Lake Dunstan Shoreline @ Northburn

LINZ received a complaint from Mr Bill Tomkins, a resident at Northburn, regarding the level of rabbits present adjacent to his property at this site. The rabbits were using the dense infestation of lupin, along with scattered gorse present at this site for shelter.

As a result of this complaint, a mower was used to remove and mulch all of the lupin and gorse at this site. Work occurred on 18 and 19 March 2009.

This proved to be very effective and Mr Tomkins reported that rabbit numbers were greatly reduced and the site was looking much tidier. An inspection of the site with Mr Tomkins on 28 April 2009 confirmed this and Mr Tomkins was appreciative of the work that had been carried out.

Future control will involve maintenance spraying of the lupin, a cost which will be relatively minor.

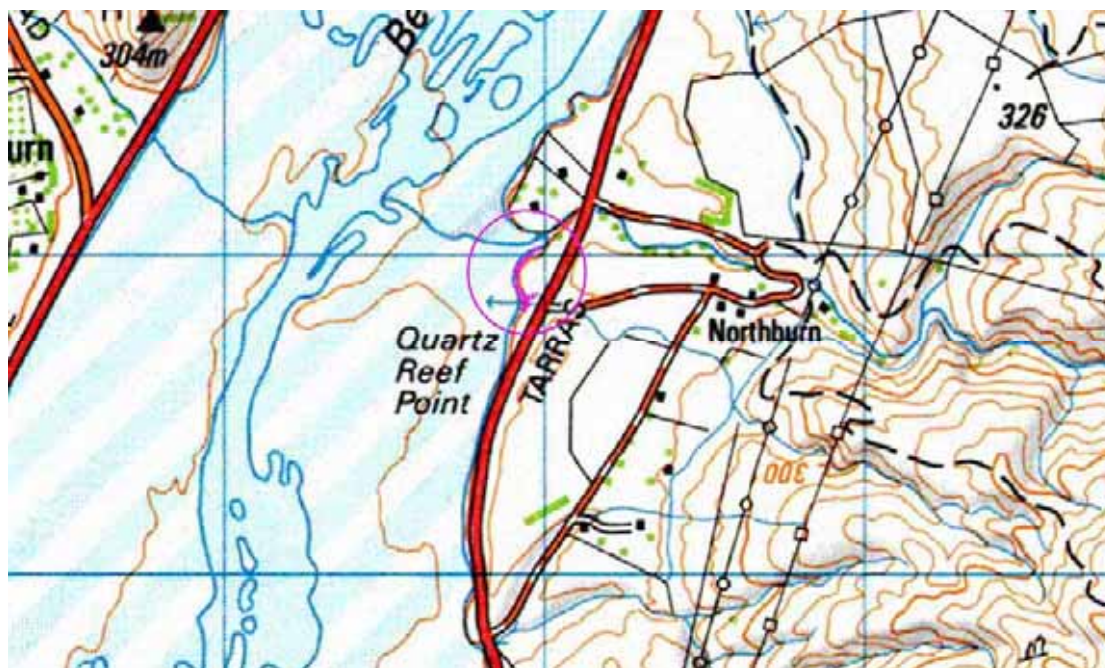


Figure 13. Treatment area at Northburn

6.4 Lower Clutha Old Man's Beard

This season's control programme for Old Man's Beard covered the area of the Clutha River between the Roxburgh Dam and the Millers Flat Bridge. This has been an ongoing programme and DoC and the Otago Regional Council (ORC) have been working along the same section of River. However this season the ORC have advised their efforts will be more focussed on enforcement of landowners to make them control OMB on their properties than on carrying out control themselves.

Ground spraying using two-man spray trucks equipped with gun and hose took place between 10 and 29 March 2009.

The Lower Clutha River Old Man's Beard programme is maintaining the infestation at the current levels. Every year new areas of weed are found and destroyed, but there are significant areas of private land alongside the Clutha River which are infested with Old Man's Beard, and these areas are contributing to the continuing infestation of the LINZ and DoC land. More control work is required by these private landowners to effectively reduce the infestation. Hopefully the ORC enforcement focus will result in these private areas receiving some attention.

The level of funding is only maintaining the infestation at current levels, but is not reducing the level of OMB. Unless more support is received from neighbouring land occupiers, LINZ may need to consider withdrawing funding in future seasons.

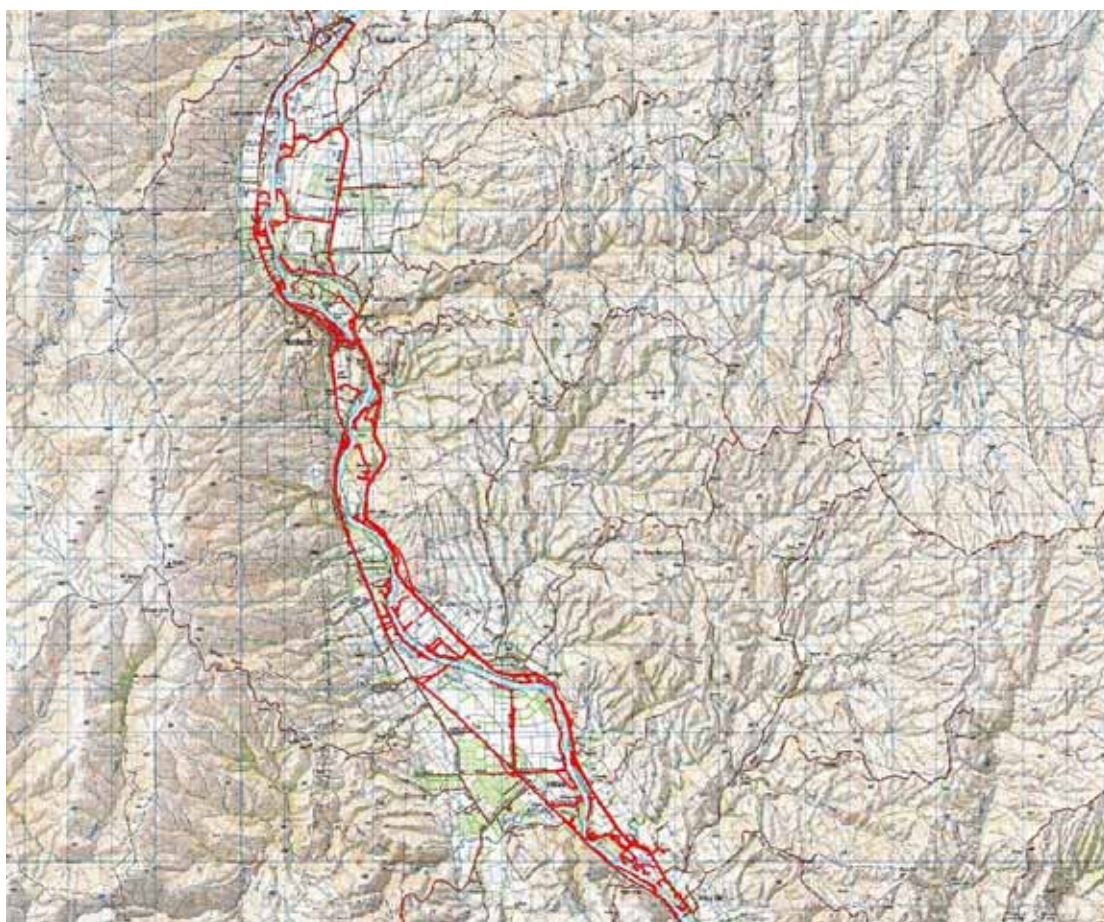


Figure 14. Treatment areas for OMB on the Lower Clutha River

6.5 Clutha River at Alexandra OMB

LINZ had received a complaint regarding OMB infestations growing amongst willows along the Clutha River adjacent to Alexandra. At the request of LINZ, Landward arranged for this area to receive some control.

Ground control work was carried out on 13 May 2009 on this site to control the Old Man's Beard infestations on LINZ land. Work commenced at the Alexandra Bridge and continued upstream.

The contractor noted that there was a lot of OMB growing on land adjacent and this will be a source of further infestations unless controlled by the relevant landowners, which includes the Central Otago District Council.

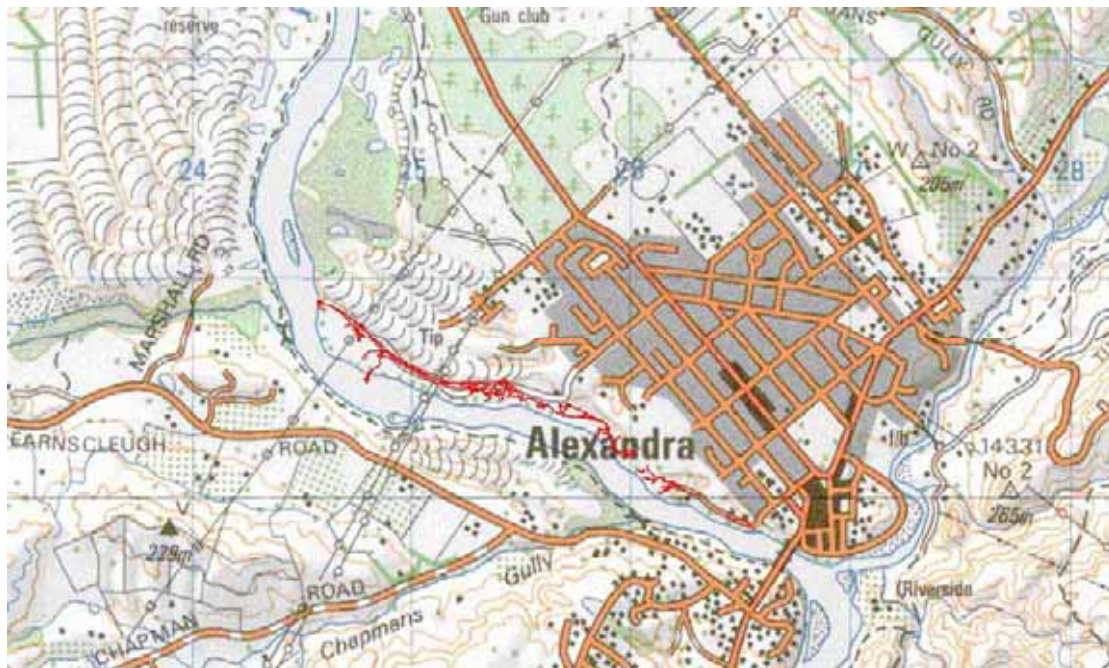


Figure 15. Treatment areas for OMB at Alexandra

6.6 Lake Dunstan Shoreline

On 21 March 2009 ground control work using two man spray trucks with guns and hoses was carried out along the shoreline of Lake Dunstan to control Old Man's Beard, gorse and broom. This work was the result of a request by the ORC to control OMB along the shoreline.

The operator covered the true left shoreline from the Clyde boat ramp and continued up to the Cromwell Bridge along the highway. OMB was reasonably prevalent along the area of shoreline covered. A large patch of gorse on the small hill face near the Clyde boat ramp on adjacent property was noted, and this will need to be controlled by the relevant landowner to prevent further infestation of LINZ land.

Future control work will be needed to maintain the area already covered, and expand the control area to include the true right shoreline of the lake.



Figure 16. Treated area OMB Lake Dunstan shoreline

7. WEED CONTROL WORKS DUNEDIN DISTRICT

7.1 Waianakarua River South Branch Old Man's Beard

The Waianakarua River OMB project is a long term commitment and has been included in the annual programme for the last seven years. In 2008/09 an area of 58ha was searched and 8ha treated with a spot gun from a helicopter.

There were still some large patches and single plants remaining to be treated in this area, and ground follow-up treatment is recommended around the boundaries with adjacent farms. Therefore, a move towards greater use of ground control is recommended for next season at this site.

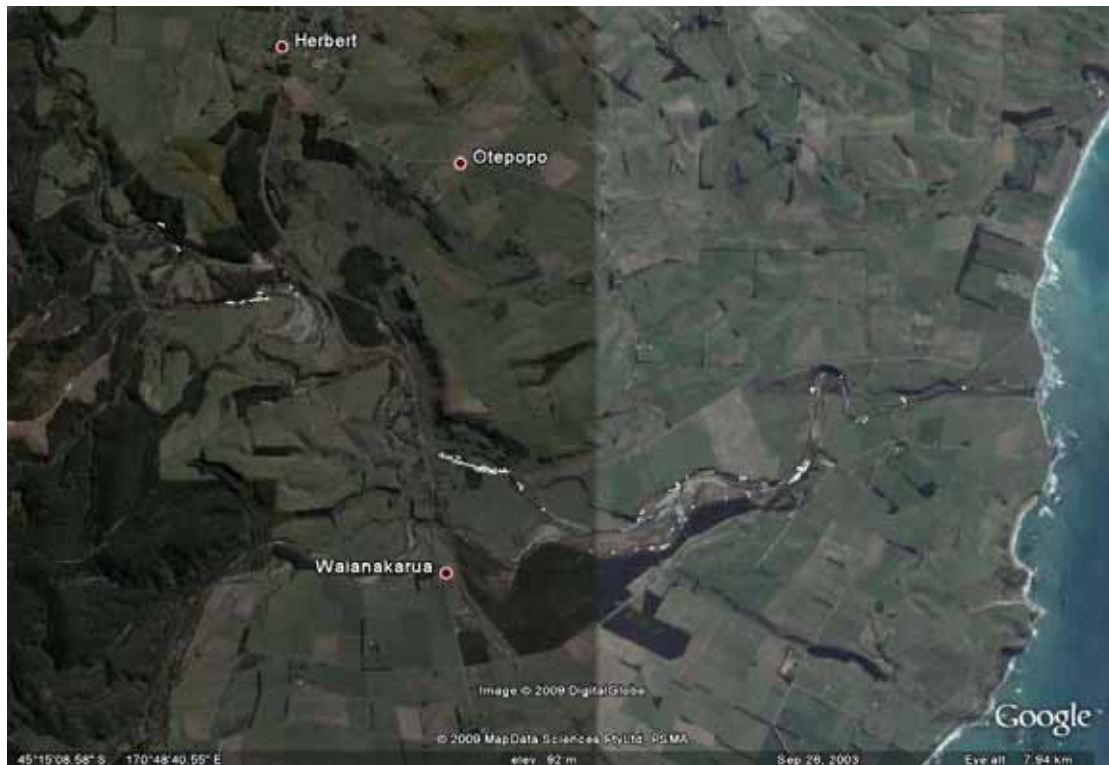


Figure 17. Treatment area in the Waianakarua River OMB

7.2 Waianakarua River North Branch Gorse and Broom

As part of the continuing long term programme to control gorse and broom in this area, this season a helicopter searched 40ha on 31 October 2008, and spot/broom sprayed a total of 7.4ha. There was weed regrowth in the downstream end of the area, and a lot of regrowth in the headwaters, however this was all controlled.

The area of weed remaining to be sprayed is estimated at 10-15ha, and more attention will be needed on the headwaters area, with the rest of the river in a regular maintenance cycle. This area will need a similar level of funding in 2009/10. With continued treatment all of this river will start entering a maintenance phase.



Figure 18. Treatment area in the Waianakarua River North Branch

7.3 Kakanui River Old Man's Beard

The Kakanui River OMB control programme is also a long term programme that is now in a maintenance phase. Between 1 April and 6 April 2009, aerial control work was completed using a helicopter and spot spray gun to treat an area of 9ha upstream of the Gemmells Crossing Road Bridge.

There are still a few remaining areas of OMB on the fringes of the riverbed downstream of Gemmells Crossing Road. However, a similar level of control is intended for the 2009/10 programme, and some ground control work may be necessary on adjacent land boundaries where aerial control is not appropriate.

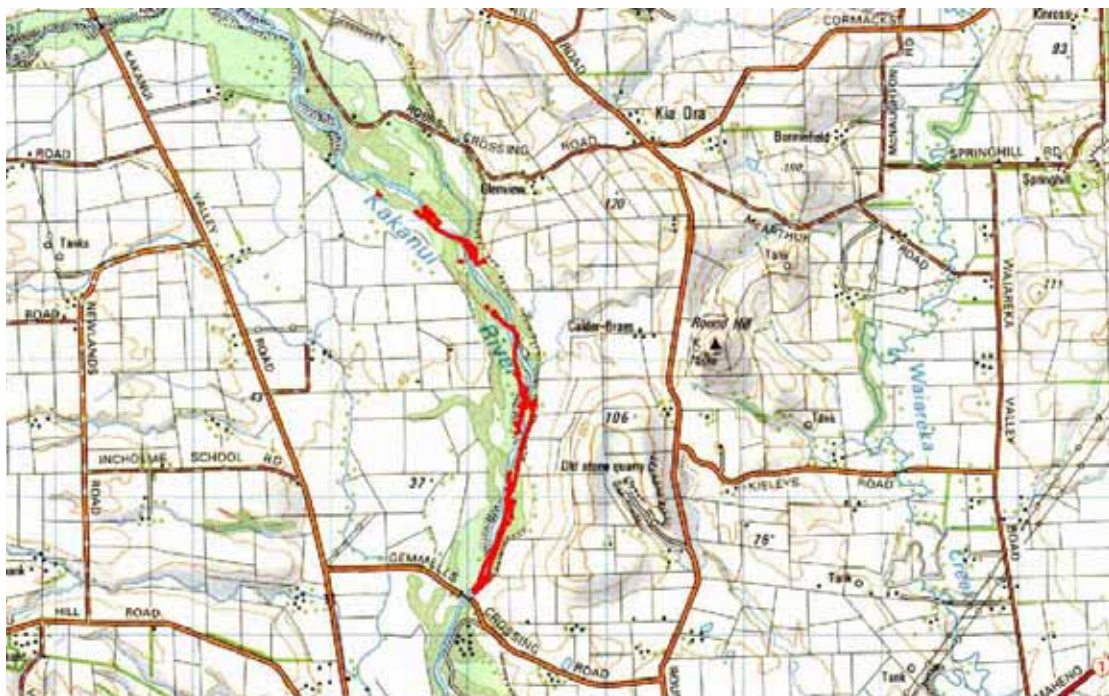


Figure 19. Treatment area in the Kakanui River

7.4 Kakanui River Gorse and Broom

Gorse and broom control had been occurring in the Kakanui River by LINZ for a number of seasons. However, an inspection following the 2007/08 programme showed that little support was being received on surrounding land and the level of infestation in the riverbed and on adjacent land was such that significant additional and sustained funding would have to be found to make any decent impact on the problem. Another issue is there are a lot of land parcels along the riverbed where it is unclear who is responsible for weed control. Therefore, the gorse and broom control programme in this river has been ceased for the foreseeable future. This can be reassessed in future should inspections show that LINZ funding can contribute to a wider programme.

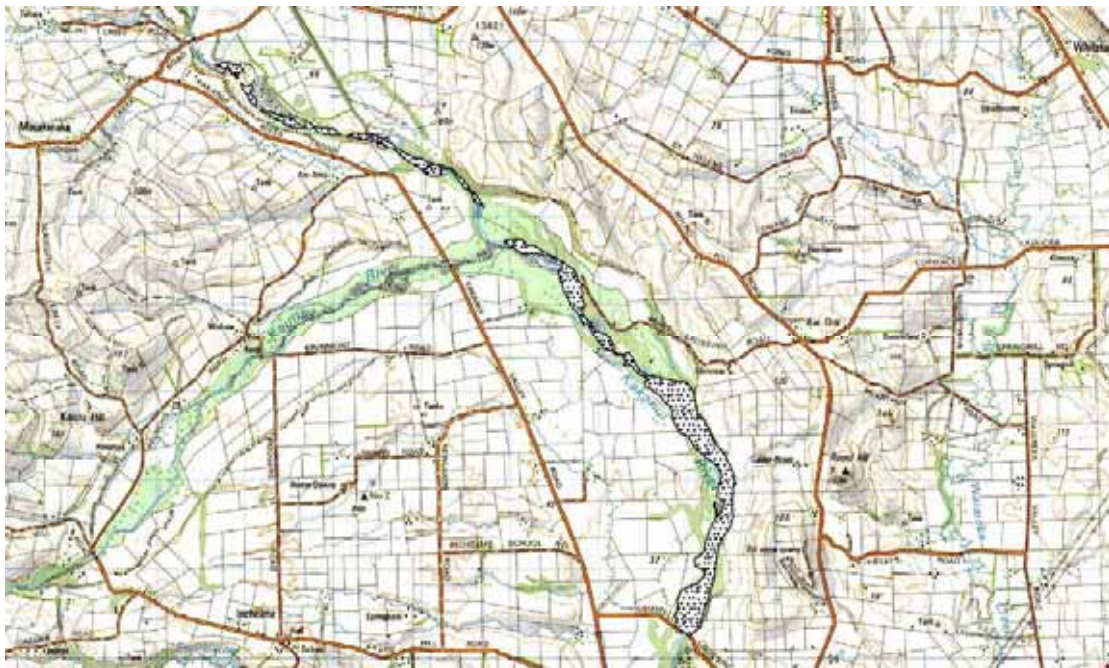


Figure 20. Treatment area in the Kakanui River

7.5 Kauru River Old Man's Beard

The Kauru River has been part of a long term programme supported by DoC and the ORC to control OMB along the length of the river.

Between 1 April and 6 April 2009 a helicopter with a spot gun treated 8ha of OMB on the Kauru River to follow up on regrowth.

The larger areas of OMB have now all been treated in this river. A similar amount of aerial work will be needed in 2009/10 to control regrowth. Some ground control work will also be necessary to control OMB near adjacent property boundaries and in areas where the helicopter can't reach due to the presence of willows and other natural boundaries from the air.



Figure 21. Treatment area in the Kauru River for OMB

7.6 Kauru River Gorse and Broom

Gorse and broom control had been occurring in the Kauru River by LINZ for a number of seasons. However, an inspection following the 2007/08 programme showed that little support was being received on surrounding land and the level of infestation in the riverbed and on adjacent land was such that significant additional and sustained funding would have to be found to make any decent impact on the problem. Another issue is there are a lot of land parcels along the riverbed where it is unclear who is responsible for weed control. Therefore, the gorse and broom control programme in this river has been ceased for the foreseeable future. This can be reassessed in future should inspections show that LINZ funding can contribute to a wider programme.

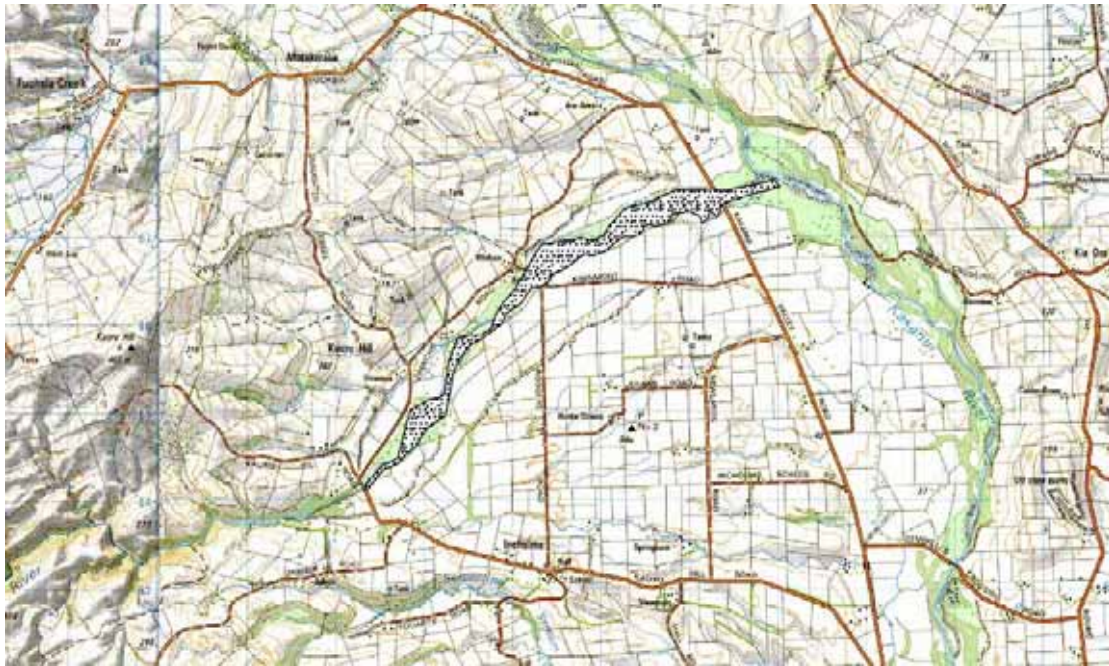


Figure 22. Treatment area in the Kauru River for gorse and broom

7.7 Deep Stream

Ground control methods using gun and hose and mistblower were used this year in Deep Stream, upstream of the Old Dunstan Rd, between 1 October and 30 November 2008. Because of the steep terrain, progress was sometimes very difficult. An area of 8ha was searched and 2ha treated. The infestation is mainly broom, with seedling regrowth in last year's sprayed areas, ranging up to 1.5m in height. There is still a large infestation above the hut area on the east side of the river, and 5 to 6ha of weed remaining.

A key to access the control area needs to be obtained from the Dunedin City Council, for which a large bond is required.

The adjacent landowner (Dunedin City Council) was not interested in spraying broom on adjacent land. This is concerning as much of the infestation in the upper reaches is on their land. Therefore, until they make a commitment to carry out their own control, it is recommended that LINZ withdraws its funding from this site. The ORC will be informed of this decision and they may be able to enforce compliance on the Dunedin City Council.



Figure 23. Treatment area in Deep Stream

8. SUMMARY

The Otago programme is mainly focussed on maintaining the regrowth of seedlings at most locations. This is particularly important in sites such as the Hunter and Nevis Rivers where infestation levels are low. By re-treating these areas future eradication may be possible. It is pleasing to see such good progress being made on the Von, Dart and Lochy Rivers, and it is important to see that these gains are maintained in future seasons.

It is unfortunate that the level of OMB in the North Otago areas is such that it will take a number of seasons to bring the infestation back to a level that requires a reduced level of funding. However, the development of a spraying gun to be used from the helicopter has allowed better targeted control in these areas and has resulted in less collateral damage of the host trees the OMB is growing on. The addition of ground control to the OMB programme in North Otago will see greater control on areas adjacent to other property boundaries, and also allow areas where the helicopter cannot access to be controlled.

It is interesting to note that a couple of sites in Otago will see a change in the agency responsible for weed control from the 2009/10 season. These are the Hunter River, which is now the responsibility of DoC, and the Lake Hawea Southern Shoreline which will transfer to the QLDC. The loss of these sites will be offset by the addition of new sites such as the Lake Dunstan foreshore and Clutha River at Alexandra OMB sites.

It was disappointing to note that some sites have not been receiving the level of support from adjacent landowners that would be hoped; e.g. The lower Clutha River OMB, Deep Stream, Kakanui River gorse and broom and the Kauru River gorse and broom. These sites will continue to be monitored but in some cases it is unlikely they will form part of the LINZ programme in the near future. However, overall the biosecurity programme for Otago progressed well in the 2008/09 season. Some additional funding allowed good gains to be made, particularly in the Lochy, Dart and Von Rivers.

The programme for 2009/10 will be aimed at continuing the progress being made and addressing any new threats that are identified.