

Turitea Reserve Management Plan

Progress Report & Summary of Operations 2007-2009

June 2009

Introduction

This report gives a brief summary of achievements under the Turitea Reserve Management Plan during the July 2007– June 2009 period.

Highlights are presented under each of the major management objectives in the Plan. A list of the policy areas covered by each objective is included.

1. Management and Administration

This section of the management plan sets out objectives and policies to ensure the effective and stable management of the Reserve. It includes the following management policy areas:

- 1.1 Responsibilities for management
- 1.2 Health and Safety
- 1.3 Plan review
- 1.4 Process for consideration of activities not covered by the plan
- 1.5 Issuing of Access Permits
- 1.6 Statutes and Bylaws apply
- 1.7 Coordination with the Management of City Infrastructure and Facilities

Highlights

Consideration by Council of a windfarm development in the Reserve.

- Ongoing discussion and supply of information to a range of parties examining potential windfarm development in the Reserve.

Access Permits

- Ongoing maintenance of the hunting permit system has been undertaken. Permit issuing is continuing and records are kept of all permit holders. Permits are currently being renewed for the year. There are a relatively constant number of approximately 150 permits issued for hunting in the Reserve.

Management coordination

- Kahuterawa Outdoor Recreation Plan: This plan has been prepared and adopted by Council over this period. Its preparation has involved strong coordination with different council interests in outdoor recreation, roading, forestry, water supply and other areas.

2. Community Consultation and Involvement

This includes the following policy areas:

- 2.1 Consultation
- 2.2 Community Involvement and Partnerships
- 2.3 Tangata whenua
- 2.4 Working with Neighbours

Highlights

Consultation

- Ongoing consultation effort has been undertaken with neighbours to the Reserve. This includes working with neighbours in relation to the harvest of exotic forest on South Range Road and in association with wind farm development investigations.

- Wide consultation has been undertaken around the development of a Kahuterawa Outdoor Recreation Plan. This plan includes integration with Hardings Park, at the southern end of Turitea Reserve.

Working with Neighbours

- Work with neighbours has continued to be an important part of management work. Particular focus has been on pest animal control and boundary weed control.
- Re assessment of all boundary fences with neighbours was undertaken in March 2009.
- Contact with NZ Defence has continued toward reaching agreement on boundary fencing and to set up pro active work on weed species present on NZ Defence land.

3. Protecting Water Supply Quality and Storage

Including:

- 3.1 Catchment Protection
- 3.2 Risk Management
- 3.3 Control of Sedimentation

Highlights

Catchment Protection

Work has been undertaken to ensure ongoing catchment protection, this includes

- Ongoing control of possums and goats: A more detailed description of this is provided under section 4 below.
- Fencing to exclude stock: This has included ongoing fence maintenance on the western boundary as well as a re-assessment of boundary fence condition to allow planning of future fence maintenance and replacement work.
- Maintaining exclusion of access by the general public. The permit system for access to the catchment has been maintained. Only those with an access permit are allowed entry.

Risk Management

- This has continued to include the deliberate choice of low risk pesticides and control methods in possum control operations. Bait stations are being used to contain toxins and cyanide (which rapidly breaks down in the air) and brodifacoum (which is insoluble) have been used. Leg hold and kill trapping has also been used in localised areas as a control method.
- Animal control and fencing operations have continued to be an important component of risk management, reducing the risk of introduction and spread of harmful microorganisms by animals and also reducing risk to the health of catchment vegetation.

4. Conserving and Restoring Flora and Fauna, Ecosystems and Natural Landscapes

Including:

- 4.1 Ecological Management Zones
- 4.2 Weed Control
- 4.3 Animal Control
 - 4.3.1 Feral Animals
 - 4.3.2 Fencing
 - 4.3.3 Grazing
- 4.4 Restoration of Ecosystems
- 4.5 Monitoring
- 4.6 Landscape protection
- 4.7 Protection from Fire
- 4.8 Facilitating linkages and corridors

Highlights

Weed Control

- Active control operations have occurred in the Turitea Gorge area, between the upper dam and Greens Road intersection. This work has included:
 - Targeted ground control of banana passion fruit, old mans beard, cotoneaster and pampas
 - Aerial survey and spray of localised areas of old mans beard
 - Intensive ground spraying of tradescantia along the Turitea stream
 - Follow up control on small area of jasmine
 - Follow up spaying of banana passion fruit and tradescantia
- Pulling of ragwort on the boundary with Andy Shilton's property
- Localised control of areas of Himalayan honeysuckle and montbretia along the catchment access track
- Pulling of radiata pine seedlings on cut over forest on South Range Road that is being returned to native forest.
- Assessment of boundary weed issues in conjunction with boundary fence survey.
- Mapping of weed distribution and weed control around the reserve boundary and also in Turitea Gorge.

Animal Control

- Ongoing possum control in bait stations using feratox for knock down of any higher population areas, followed by maintenance pulsing with brodifacoum.
- Possum control targets set in the management plan (5% in the catchment and 10% in buffer area) have now been achieved. Results from a full RTC monitor in March – April 2008 gave the following results:
 - E2 (Catchment) tawa: 0.64% ± 0.73%
 - E2 (Catchment) tree fern: 4.86% ± 5.13%
 - E3 East Block: 5.77% ± 4.95%
 - Hardings Park: 8.23% ± 8.65%
- Possum control approach was reviewed again in April 2009. It is intended to introduce some pulsing of pindone as an alternative to brodifacoum which is being used for maintenance. This toxin has been successfully used by Greater Wellington Regional Council in similar circumstances.
- Maintaining and increasing the animal control track and bait station network. A total of 2761 bait stations are now present in the Reserve. These are predominantly "Philproof" stations, with 95 maxi stations also present along roads and boundary areas. The total length of animal control tracks is now 125 km, up from 110 km in 2008 and 90km in in 2007.
- Pulsing of brodifacoum in to existing bait stations applied 3,730 kgs of bait in 2008 and 1,800 kgs to date in 2009.
- Coordination with Horizons Regional Council to undertake possum control and other biodiversity work
- Contract goat control. Kills over the last two years are given in the table below.

Animal kills	2008	2009
Goats	34	38
Deer	25	16
Pigs	0	5

- Recreational hunting has been the main form of deer control. Kills are voluntarily reported by hunters, so are indicative only. A summary for March 2008 to February 2009 is provided below.

Recreational Hunting Annual Return for Year from 1 March 2008 to 28 February 2009

Total Days Hunted 559

Species	Catchment		East Catchment		Hardings Park		Total Seen		Total Killed	
	Seen	Killed	Seen	Killed	Seen	Killed	Total	per Day	Total	per Day
Deer	114	26	10	6	85	28	209	0.37	60	0.11
Goat	8	0	14	7	3	1	33	0.06	8	0.01
Pig	10	3	2	0	8	10	33	0.06	13	0.02
Possum	3	4	3	0	2	0	12	0.02	4	0.01
Cat	7	1	0	0	0	0	8	0.01	1	0.00
Other	0	0	0	0	0	0	0	0.00	0	0.00

This information is most valuable to monitor relative trends in levels of hunting, animals seen, and kills over time. Deer kills reported over the last 5 years have ranged between approximately 50 & 80 per annum. This compares to earlier peaks of over 100 per annum in the mid 1990's. This data will continue to be monitored to see if any clear trends are occurring.

Fencing

- Following previous major construction of new fencing, work over the last two years has focused on maintenance of some areas of fencing on the western boundary.
- A re-assessment of the entire boundary fencing was undertaken in March 2009. This will allow planning of future fence maintenance and replacement.

Grazing

- Grazing is no longer undertaken within any areas of the Reserve

Monitoring

- Annual monitoring of birds using the five minute bird count method has been undertaken in Turitea Reserve and a "non treatment" area in and around Gordon Kear Forest. This monitoring is now showing clear upward trends in a number of species in Turitea Reserve. These species include bellbird, tui & whitehead. These increases are not occurring to the same degree in Gordon Kear Forest.
- Monitoring of rodents and possums using wax blocks has been undertaken in autumn and spring. This wax block monitoring was first established in 2005. It is now showing a clear downward trend in possum indices to a current very low level of 3%. It is also showing a downward trend in rat indices since 2006 from levels of 50% to low current levels of around 3%. Mice appear to be showing a possible upward trend in wax block indices since 2005. This is expected due to reduced predation by rats.
- Exclosures: Two additional exclosure plots have been established and measured.
- Foliar browse index (FBI) monitoring: This monitoring was undertaken to repeat assessment of a small number of FBI plots initially established by Horizons Regional Council in 2003. These plots and additional viewpoints and photopoints have been repeated in 2007, 2008 and 2009. Results suggest a considerable improvement in canopy condition and reduction in possum impacts since 2003.
- Vegetation plots: Vegetation plots were established across the catchment area in 2003. 70 20x4m FORMAK plots were established. These have recently been re-measured and early data entry undertaken. Analysis and reporting is currently being completed.
- Fruit fall monitoring of tawa has been undertaken in Turitea with smaller non treatment samples in Gordon Kear Forest and Aokautere Forest. This monitoring has shown much higher fruit production and lower levels of fruit damage by possums and rats in Turitea Reserve compared to the non treatment areas.

Facilitating linkages and corridors

- Completion of the Kahuterawa Outdoor Recreation Plan has been a major achievement toward further development of linkages and corridors. It sets out proposed management of a range of pest animal control, weed control etc initiatives that will provide linkages to Turitea Reserve, creating corridors down into the lowland country of the Kahuterawa Valley.
- Discussions are underway with Horizons Regional Council staff, DoC and others toward the development of an integrated management approach across the Turitea and Kahuterawa areas. This will provide additional scope to coordinate pest animal and plant control and develop biodiversity linkages.

5. Protecting Cultural and Historic Resources

Permanent timber fences have been constructed around the vertical shafts in the Platinum mines area. These structures provide protection of the sites and safety to recreational users.

6. Providing for Outdoor Recreation and Education

Including

- 6.1 Zoning for public access
- 6.2 Recreational activities
- 6.3 Buildings, Facilities and Services
- 6.4 Building Recreational Links

Highlights

Recreational activities

- The Sledge track has provided good ongoing public access to Hardings Park. Apparently relatively high levels of use of the platinum ridge track are occurring.
- Hunting has continued to be undertaken throughout the Reserve

Buildings, Facilities and Services

- Maintenance of walking access tracks has occurred, including repair and re-opening of the Sledge Track.
- The Kahuterawa Outdoor Recreation Plan has identified a range of additional tracks linking to Hardings Park to be developed over coming years. A Track Development Group has been established to oversee the planning of these tracks.
- 125 km of animal control tracks are now established within the Reserve and used by recreational hunters as well as for possum control operations.

Recreational Links

- Completion of the Kahuterawa Outdoor Recreation Plan is a key achievement in further developing recreational links to the Reserve. This plan aims to manage a range of areas of Council land in an integrated way – developing tracks and other recreational linkages between them. Establishment of a Track Development Group has begun the process of planning the specific tracks that will be developed.
- The ongoing use of the Te Araroa Trail provides additional links close to Turitea Reserve.

7. Commercial Management of Exotic Plantations

Including

- 7.1 Harvesting
- 7.2 Replanting or new establishment

Highlights

Harvesting

- Initial harvesting of a large portion of the plantations in South Range Road was completed in late 2007.
- Completion of harvesting in this area will occur when market returns are acceptable.

Replanting or new establishment

- Reversion to native vegetation is being managed on the cut over areas. Main work being undertaken is the regular hand pulling of regenerating pine seedlings.
- Initial survey of other weed species on the cutover has been undertaken to allow targeted control of gorse and other weeds.

8. Energy

Highlights

- The small hydro electric plant has continued to operate in the Reserve.
- Ongoing evaluation and work to apply for resource consent for a wind farm in the Reserve has been undertaken by Mighty River Power. Investigations of the Reserve by a range of parties opposed to or supporting this project have been undertaken.

9. Facilitating Research

Highlights

- Access to the Reserve has been provided for student projects.
- The recently completed Kahuterawa Outdoor Recreation Plan also identifies the importance of facilitating research..