Date: Thursday 24 September 2020
Time: 4.00pm
Meeting Room: This meeting will proceed via Skype for Business.
Venue: Either a recording or written summary will be uploaded to the Auckland Council website.

Waitākere Ranges Local Board

OPEN ATTACHMENTS
ATTACHMENTS UNDER SEPARATE COVER

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Note: The attachments contained within this document are for consideration and should not be construed as Council policy unless and until adopted. Should Councillors require further information relating to any reports, please contact the relevant manager, Chairperson or Deputy Chairperson.
## Waitākere Ranges Local Board Informal Notes

Workshop record of the Waitākere Ranges Local Board held via Skype for Business on Thursday, 3 September 2020, commencing at 10.35am.

### Present
Chairperson: Greg Presland  
Members: Michelle Clayton out 10.49am, back 12.22pm (Zeal item)  
Sandra Coney  
Ken Turner  
Mark Allen  
Saffron Tomm until 2.33pm  

Apologies: Nil  
Also present: Glenn Boyd, Raewyn Curran, Bratt Lane, David Rose, Claire Lioussie, Elizabeth Stewart

### Workshop Item | Summary of Discussions
--- | ---
Grants - Local Grants AND Multi-board Grants applications | The Board reviewed and discussed the round one 2020/2021 local and multi-board grants.  
**Ann Kuruvilla, Grants Advisor**  
**Claire Lioussie, Strategic Broker**  
Time: 10.35am – 12.45pm  

Draft proposal for new Navigation Safety Bylaw | Staff sought the Board’s views on the draft proposal for the new Navigation Safety Bylaw.  
**Baylee Vyle, Policy Advisor**  
Time: 1.08 – 1.35pm  

Waitākere Ranges Draft Recreation Assessment | Thomas introduce himself to the Board. Staff presented the draft recreation assessment and the rationale behind it to the Board and requested feedback and direction from the Board.  
**Thomas Dixon, Parks & Places Specialist**

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### Workshop Item  
**Michelle Sanderson**, Parks Sports and Recreation Portfolio Manager  
**Gerry Fitzgerald**, Parks & Places Team Leader  
**Helen Biffin**, Work Programme Lead  
**Time:** 1.35 – 2.50pm  

### Summary of Discussions  
**Next steps**  
- Work to continue on the draft plan, to come back to a workshop or business meeting.

The workshop concluded at 2.50pm.
WAITĀKERE RANGES

Local Parks Play Provision
& Recreation Assessment

Thomas Dixon, Parks & Places Specialist
Thursday 03 September 2020

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Attachment B  Item 20
Why is this Important?

- A quality play network is diverse, challenging and inclusive. It will encourage people to visit different parks, be able to respond smoothly to growth and changing demographics and will engage our communities with their local parks.

- To ensure the best outcomes are achieved for our communities given the fiscal constraints facing Auckland Council, a holistic view of play provision across the parks network is required.

- Through mapping and analysis, opportunities can be identified to strategically improve the play network.
Playspace Investment Principles

- **Play along the way** – part of the everyday spaces people utilise. Always a consideration.
- **Play in nature** – foster a life long appreciation of nature through interaction.
- **Play in urban spaces** – temporary activation of play, or inclusion into design of urban spaces.
- **Play for future generations** – meet the need of communities now and in the future
- **Play for everyone** – provides equitable access to play across a variety of play opportunities.
- **Know where to play** – our website and other resources provide easy to access information regarding play.
Method

1. Define key network prioritisation principles and provision metrics

2. Conduct individual playspace visits to collect raw data and photographs

3. Map the existing play provision, including gaps in provision for different playspace typologies, different age groups, and provision of accessibility features and shade

4. Undertake analysis of play provision relationships at a network level

5. Prepare table and commentary outlining the prioritised list of opportunities
Waitākere Ranges

Rural / Urban Divide

- Urban Playspaces should be available within a 10 minute walk of all residents.
- Rural Playspaces should be available for each distinct community.

Park Environments

- Native Forest park environment
- Coastal (harbour) park environment
- Coastal (sea) park environment
- Open Grasped park environment
- Riparian park environment
- Thoroughfare / Accessway park environment
- Village Centre park environment
Existing Play Provision

There is reasonable distribution of play across the Local Board area, with a total of 32 local parks with playgrounds or play facilities of some type including:

- Formal playgrounds
- Skateparks / Pump tracks / Learn to ride trails
- Basketball half courts / public tennis courts / netball hoops

Age

Most playspaces provide opportunities for Early Childhood and Junior age groups (0-8). Senior Child age groups (9-12) are provided for in limited numbers across the network. 30% of play spaces include play suitable for Teenagers (13+).
Existing Play Provision

There are gaps in provision of **specialised play facilities**.

- Wheeled Play - five skate parks, three bike skills trails, one pump track. Limited quality and lack of variety in experience (particularly mountain biking)
- Water/Sand Play - limited provision, however the coast provides opportunity.
- Nature Play – not formally provided at any local parks, again significant opportunity.
- Courts – reasonable provision of courts across the region, with a possible gap in Glen Eden central and towards Titirangi.
Existing Play Provision

Accessibility

- Very few playspaces provide full accessibility (Parrs Park)
- Only a limited number can be considered partially accessible

Shade/Shelter

- Very few playspaces provide full shade
- Only a limited number have partial shade (often natural)
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Item 20

Undersupply / Network Gaps

- East of Waikumete Cemetery - This area has no existing provision of play, and there are no playspaces in neighbouring Local Board areas which effectively serve these communities.

- Clayburn Reserve presents the best opportunity to provide additional play in this area in the future.

- Suburb scale, with youth.

- Southern Glen Eden, towards the southern end of Woodglen Road - The closest neighbourhood playgrounds are all 1km+.

- George Herring Common should be considered for a neighbourhood playground with a junior focus.

- Eastern Glen Eden and the border with the Whau - There is one private Kohanga reo play centre.

- Westview Reserve could be developed in the long term. Improved connections to the park are a big priority here.
Undersupply / Network Gaps

- Western Glen Eden Town Centre – Very small gap for residents along Woodbank Drive.
  Low priority – consider instead improving walking connections to Parris.

- Central Titirangi and Ridgeline - This heavily forested area has very limited open space provision. The Titirangi School is available outside of school hours.
  Upgrade quality of surrounding playspaces such as Titirangi Beach Reserve, Waima Reserve and Tangiwi Reserve.

- Well established communities at Te Henga and Karekare along the coast have no provision of formal playspaces.
  Development of an appropriate playspace in Te Henga recommended, as outlined in LAP. Consider cultural and nature play. Alternative may be the Quarry site in future. Karekare more difficult.
Existing Playspace Improvements

Improvements to help plug Network Gaps:

- **Titirangi Beach Reserve** – upgrade to suburb scale playspace. Inclusion of nature and sand play, as well as BBQ and picnic facilities to enable people to stay for a longer time. Consider shade and accessibility.

- **Waima Reserve** – Already a suburb scale playspace. Upgrade to modern standards on renewal.

- **Tangiwai Reserve** – upgrade to improve network provision. Consider interactions with dog walkers, fencing recommended, as proven successful in Craigavon Park.

Improvements to overall playspace quality:

- Recommendation for best value for money to prioritise renewals opportunities to uplift the overall quality across the local board area. Targetting opportunities to add additional LDI Capex to upgrade facilities.
  (Work in Progress)
Existing Playspace Improvements

Improvements for specific age groups:

- Age specific gaps have been identified in numerous playspaces across the Local Board area.
- Recommendation to prioritise renewals opportunities to add missing age group features.
- Specific examples where there are clear gaps could be improved using LDI Capex funding in the short term.

(Work in Progress)

Improvements upon Renewal:

- Renewals List for the next three years is already included in your draft work programme.
- Further renewals will be prioritised using this document.

(Work in Progress)
Specialised Playspace Improvements

- Wheeled Play – focus on improving the existing facilities with limited establishment of new.
  
  Skate – consolidation at Parrs Park, junior at Swanson Station, upgrade at Ceramco for integration, upgrade at Waitakere War Memorial. Consider new facility within Piha to meet community aspiration.

  Mountain Biking & Pump – explore mountain biking at Kay Road Bale Fill and Waitakere Quarry, as well as Concordia in the long term. Work with the community to upgrade the Kowhai Pump Track.

  Learn to Ride – consider minor alterations to path networks in urban parks such as Prospect Park to create a learn to ride experience at low cost. Consider learn to ride experiences integrated into playground development such as at Huia Domain.

- Courts – focus on providing these experiences within areas of higher Youth (teenager) density, and in areas where there is a lack of existing provision.

  Central Glen Eden, as well as south towards Konini and Titirangi should be prioritised.

  Shape the existing court facilities to meet the current needs of users on site. This could mean altering court function, or providing supporting infrastructure like seating, shade, drinking fountains.
Specialised Playspace Improvements

- Nature Play

Consider opportunities for nature and wilderness play. These do not have to be expensive and could be incorporated easily into all current play spaces through adding planting, logs, rocks or local materials.

Māra hūpara are a great example of low-cost nature play implementation which also celebrate traditional Maori play.

Consider activation of these assets, including organised programmes such as Wild the Child.

- Play Along the Way

Making play a part of everyday spaces, e.g. Painted footpath patterns and games, stepping stones, balance logs, purposeful puddles.

This is something that can be considered when renewing public spaces and infrastructure in both park contexts and in urban spaces like Town Centres.
Accessibility / Shade Improvements

- **Accessibility**
  Focus on bringing all playspaces up to a semi-accessible standard with minor alterations such as addition of connecting paths and ramped access up raised wooden edging and carpark kerbs.
  Consider upgrades to semi accessible play spaces to raise the level to fully accessible through the use of accessible matting and installation of particular accessible play features.
  Undertake a full Parks Accessibility Audit to further define opportunities for improvements in this space.
  Ensure accessible design is included in every future playspace renewal and development.

- **Shade**
  Fund the installation of formal shade features or shelters within suburb and destination play spaces. Parris Park is high priority.
  Targeted planting within all parks that currently have no shade to raise the standard to partial shade over all playspaces in the network. Implementation could be integrated into the board’s Ngahere Strategy.
Optimisation

Four areas of possible oversupply or integration opportunities were identified. These are:

- South West Glen Eden - Sunvue Park, Prospect Park and Virgo Common.
- Kaurilands/Konini - Withers Reserve, Kowhai Reserve, Annison Green and Onedin Green.
- Swanson – Swanson Station Park, Robert Knox Memorial Park, Penihana Reserve.
- Parau – Armour Bay Reserve, Takaranga Reserve

Recommendations

- Consider removal of single play items at Onedin Green and Virgo Common upon end of life.
- Development of play in Penihana to be cognisent of nearby play features to avoid replication. Consider on renewal downscale of Robert Knox Memorial to focus on junior play, and upgrade to Swanson Station for older children.
- Takaranga options outlined in following slide
Takaranga / Armour Bay Reserve

Takaranga Reserve

Positives:
Easily and safely accessible to local families
Good passive surveillance through neighbouring house
Existing project already scoped and designed for delivery – playground currently partially closed
Could combine project to improve walkway access from road and from Armour Bay Reserve

Negatives:
Lack of supporting infrastructure
Low awareness from those outside the community
Takaranga / Armour Bay Reserve

Armour Bay

Positives:
Destination park used by wider region
Existing supporting infrastructure
Development of play suggested in management plan and LAP
Good passive surveillance as heavily activated

Negatives:
Already highly popular in nice weather – may become overloaded
Perhaps not as accessible to the local community
Would mean pushing renewal project out by a year
Takaranga / Armour Bay Reserve

Options

A) Progress with renewal at Takaranga Reserve.
   - Prioritise improving connection and awareness through track upgrade and signage at both reserves
   - Develop Armour Bay as a youth space (13+) instead.

B) Pause renewal at Takaranga and instead move playground to Armour Bay Reserve.
   - Prioritise improving connection and awareness through track upgrade and signage at both reserves
   - Would result in one integrated play facility to serve a wider user group.
   - Would result in delay.
Prioritisation Principles

All playspaces are to be assessed using key principles to determine priority for development (high, medium or low). These principles are:

- Prioritise redevelopment of playspaces which address significant network provision gaps or improve synergies with adjacent playspaces (network view)
- Prioritise upgrade of existing playspaces, or relocation to more appropriate locations over development of new
- Prioritise playspaces that are well-connected, closer to community facilities, and easily accessible
- Prioritise playspaces possessing significant deficiencies and/or failing to meet baseline requirements over those of an already high quality
- Prioritise existing playspaces which are likely to renewed in the short term
- Prioritise playspaces located within areas of population growth
Next Steps

- Final analysis on improvements to existing playspaces (age group)
- Additional research and response to any questions / ideas from today
- Update the maps to bring up to final versions (legibility)
- Prioritisation Process
- Check in with Mana Whenua partners
- Final Draft produced
- Either additional workshop or straight to a report
# Waitākere Ranges Local Board Workshop Record

Workshop record of the Waitākere Ranges Local Board held via Skype for Business on Thursday, 10 September 2020, commencing at 9.33am.

**PRESENT**
- **Chairperson:** Greg Presland
- **Members:**
  - Michelle Clayton
  - Sandra Coney
  - Ken Turner out 10.21 – 10.30am
  - Mark Allen out 10.00 – 10.57am
  - Saffron Toms
- **Apologies:** Nil
- **Also present:** Glenn Boyd, Raewyn Curran (until 10.07am), Brett Lane, David Rose, Claire Lousse, Elizabeth Stewart

## Workshop Item

<table>
<thead>
<tr>
<th>Workshop Item</th>
<th>Summary of Discussions</th>
</tr>
</thead>
<tbody>
<tr>
<td>Scoping the FY21 work programme</td>
<td>Staff provided an overview of the FY 2020/2021 Local Parks Work Programme for the Waitākere Ranges Local Board. New projects, considerations and scope for the projects were discussed, in order for the Board to have an opportunity to provide some input at the very start.</td>
</tr>
<tr>
<td><strong>Linda Smith</strong>, PSR Portfolio Manager</td>
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<tr>
<td><strong>Thomas Dixon</strong>, Parks &amp; Places Specialist</td>
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<tr>
<td><strong>Josh Grigg</strong>, Parks Graduate</td>
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<tr>
<td>Time: 9.33 – 10.15am</td>
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<tr>
<td>Les Waygood Reserve, Piha - Flooding</td>
<td>The Board were given an update about flooding at Les Waygood Reserve, Piha.</td>
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<tr>
<td><strong>John Cranfield</strong>, Manager Area Operations</td>
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<tr>
<td><strong>Nick FitzHerbert</strong>, Relationship Advisor</td>
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<tr>
<td><strong>Paul Klinac</strong>, Head of Specialist Delivery Unit</td>
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<td><strong>Richard Smedley</strong>, Principal - Network Planning</td>
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<tr>
<td><strong>Next steps</strong></td>
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<tr>
<td>- Staff were asked to keep working on the challenges and short and long term solutions, with overall support from the Board.</td>
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<tr>
<td>Workshop Item</td>
<td>Summary of Discussions</td>
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<tr>
<td><strong>Donna Cooper</strong>, Community Lease Specialist</td>
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<td><strong>Helen Biffin</strong>, Work Programme Lead</td>
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<tr>
<td><strong>Dana Price</strong>, Project Manager Operations</td>
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<td>Inaugural member of the public at an open workshop:</td>
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<td>Gareth Neilson, United North Piha Club Rebuild</td>
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<td>Time: 10.30 – 11.25am</td>
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<td>Regular Monthly Community Facilities Update</td>
<td>Staff updated the Board. Upcoming projects were discussed.</td>
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<tr>
<td><strong>John Cranfield</strong>, Manager Area Operations</td>
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<tr>
<td><strong>Helen Biffin</strong>, Work Programme Lead</td>
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<tr>
<td><strong>Dana Price</strong>, Project Manager Operations</td>
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<tr>
<td>Time: 11.25am – 12.02pm</td>
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<tr>
<td>Weed Management on footpaths, berms, the kerb and channel in the urban road</td>
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<tr>
<td>corridor</td>
<td>Staff provided information on a regional review of methodologies to control weeds on footpaths, berms and the kerb and channel in the urban road corridor.</td>
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<tr>
<td><strong>John Cranfield</strong>, Manager Area Operations</td>
<td>Staff sought feedback from the Board on their priorities for methodologies to managed weeds on footpaths, berms and the kerb and channel in the urban road corridor.</td>
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<tr>
<td><strong>Jenny Gargiulo</strong>, Principal Environmental Specialist</td>
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<td>Member of the public:</td>
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<tr>
<td>Peter Hosking</td>
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<tr>
<td>Time: 12.31 – 1.37pm</td>
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The workshop concluded at 1.37pm
Scoping the FY21 work programme

WAITĀKERE RANGES
FY20/21 Work Programme

Thomas Dixon, Parks & Places Specialist
Thursday 10 September 2020
Purpose of Workshop

- To provide an overview of the FY 20/21 Local Parks Work Programme for the Waitākere Ranges Local Board.

- Outline the purpose, key considerations, and possible outcomes for each project, and how they respond to outcomes from Waitākere Ranges Local Board Plan.

- Give the board an understanding of the timeframes and next steps for each project.

- Provide an early opportunity for members to provide input into the scope for each project.
Tom’s Work Programme – 12 items!

- Recreation Assessment / Play Provision
- Piha Wetland Service Outcomes Plan
- Huia Domain Service Outcomes Plan
- Kay Road Bale Fill Service Outcomes Plan
- LAP Reviews
- Waitakere Quarry Service Outcomes Plan
- Drinking Fountain Provision Assessment
- Public Toilet Provision Assessment
- 300 West Coast Road Service Assessment
- Small Urban Parks Service Assessment
- Parks Accessibility Study
- Shade/Shelter Provision Assessment

Carryforward Projects
New Projects
BAU
Deferred FY21-22
Waitākere Quarry Service Outcomes Plan

- **Purpose:**
  - To produce a service outcomes plan to direct the future development of this site as a local park.

- **Considerations:**
  - The needs and aspirations of the local and wider community, other stakeholders, and our mana whenua partners.
  - How this space interacts with other public open space in the Waitākere Valley.
  - Health and safety concerns, and appropriate activities for inclusion at the future park.
  - Existing planning and documentation related to the site and wider area.

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Waitākere Quarry Service Outcomes Plan

- **Outcomes:**
  - Improved recreation within the Waitākere Valley.
  - Enables opening of the Quarry, possibly reducing overloading at Te Henga.
  - Explores and defines opportunity to accommodate the film industry on site.
  - Prioritisation of future LDI or ABS CAPEX budgets, and identifies partnership/advocacy opportunities.
  - Responds to outcomes 1, 2, 4 & 6 (particularly 6) of the Waitākere Ranges Local Board Plan 2017.
  - Responds to action 7.2 of the Te Henga & Waitākere Valley Local Area Plan, to develop the site as a reserve.

- **Timeframe:**
  - Secure a consultant and produce draft plan – End 2020.
  - Final Plan to be adopted – Mid 2021.

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Public Toilet / Drinking Fountain Provision Assessments

- Parks Graduate Josh Grigg will be supporting on these two projects, and will be leading future engagement with the board on these as part of his professional development.

- You will all know Josh for the great work he has done supporting the Project Twin Streams initiative out West.
Public Toilet / Drinking Fountain Provision Assessments

- **Purpose:**
  - Network provision assessments, determining the current extent of provision, and investigating opportunities to improve these networks through future investment.

- **Considerations:**
  - Benefits these facilities provide to park users and local communities.
  - Principles for why, where, when and how the local board might invest in these assets in the future.
  - Gaps in the current network provision of both public toilets and drinking fountains.
  - Changing future requirements due to growth or park development.
  - Existing work already undertaken and community stakeholders involved in these areas.
Public Toilet / Drinking Fountain Provision Assessments

- **Outcomes:**
  - Enhanced network of toilet and drinking fountain facilities throughout the Local Board
  - Improved health and wellbeing outcomes related to provision of drinking water.
  - Enables longer activation and a higher quality experience for park users, particularly for accessible communities.
  - Prioritisation of future renewals and LDI CAPEX budgets, and identifies partnership/advocacy opportunities.
  - Responds to outcomes 3, 5 & 6 (particularly 6) of the Waitākere Ranges Local Board Plan 2017.

- **Timeframe:**
  - Research, site visits and mapping – End 2020.
  - Final Plan to be adopted – Mid 2021.
300 West Coast Road Service Assessment

- **Purpose:**
  - Undertake and assessment to enable informed feedback to Council and Panuku regarding the potential disposal of this open space.

- **Considerations:**
  - Future use of the land as a park
  - Future use of the land to enable improved greenways connections
  - Ecological implications of sale (e.g. Ngāhere Strategy, Stormwater)
  - Growth and changing demographics

- **Outcomes:**
  - Able to provide informed feedback to internal departments and CCO’s around disposal of this site.
  - Enables regular conversations with the Board on this topic.

- **Timeframe:**
  - Undertake analysis and write report - End 2020.
  - Workshop with Board and provide final feedback - Early 2021

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Small Urban Parks Service Assessment

**Purpose:**
- Undertake and assessment to enable informed feedback to Community Facilities around possible small park improvements to benefit the wider parks network.

**Considerations:**
- Community need and feedback received.
- Outcomes identified within existing concept plans and provision documents.
- Existing or ongoing projects and possible additions to enhance those projects.
- Growth and changing demographics

**Outcomes:**
- Able to provide informed feedback to Community Facilities around small asset development within the Local Parks network.
- Enables regular conversations with the Local Board on this topic.

**Timeframe:**
- Undertake analysis and write report - End 2020.
- Workshop with board and provide final feedback - Early 2021

COVID dependent
Next Steps

- Finish carry-forward projects and formally seek resolution from the board where required.
  
  Recreation Assessment Piha Wetland Plan  
  Huia Domain Plan  
  LAP Reviews

- Develop detailed scope of works and engage contractor through formal process.
  
  Begin process to deliver Plan  
  Waitākere Quarry

- Work with Closed Landfill Team to determine if able to continue. If so, reengage consultant.
  
  Kay Rd Bale Fill

- Work with Josh to refine scope of project and begin data collection and site visits.
  
  Drinking Fountain Provision Assessment  
  Public Toilet Provision Assessment

- Begin working on assessments for BAU projects.
  
  300 West Coast Rd  
  Small Urban Parks
Les Waygood Reserve - Piha Flooding

United North Piha Lifeguard Service Inc
Les Waygood Park, Piha

John Cranfield & Donna Cooper, Community Facilities
Paul Klinac, Nick FitzHerbert and Richard Smedley,
Infrastructure and Environmental Services
Les Waygood Park
UNPLS – leased area

Lease Term: 10 years commencing 17 November 2010 with one five year right of renewal.
Rent: $633 plus GST per annum
Lease area includes three council owned amenities; kitchen/cook house and male and female ablutions
Flood Risk Assessment

1. The site is subject to rainfall induced flooding. Tide level is not a factor.
2. Flooding of the site is expected to be frequent (<2-year ARI) as confirmed by past observations and current estimates of water levels.
3. The predominant cause of flooding of the site is the level of beach sand (4mRL) and the size of the beach channel.
4. The flood depth of 1.2m at the site (which happened on 27th June 2020) is expected to occur at 2 to 5 year ARI frequency. This depth has a high flood safety risk. Using UK and Australian standards fatalities are likely to occur.
5. Given the current and future flood safety risk at this site we recommend the site not be used for camping (tenting or caravans).
Campground after 27 June 2020 flood
Microsoft Teams meeting with UNPLS 25 August 2020

- A high-level discussion was held between key surf club representatives in August to understand long term plans for the leased area
- The surf club does want to continue the lease and highlighted the campground is important for attracting and retaining club membership. Ideally the club would like to increase the utilization of this area
- There were a number of questions about management options, including whether there was the ability to relocate to higher ground within the reserve
Attachments

Attachment C

Project Streetscapes

Weed Management in the road corridor

Waitākere Ranges

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Weed Management in the Road Corridor

Council completes weed management on footpaths, roads shoulder and the kerb and channel across 7,634 kilometres of roading. 5,000 kilometres of urban roads and 2,634 kilometres of rural roads for asset protection, amenity and ecological outcomes.

Since 2019 this has been completed by Community Facilities on behalf of the asset owner Auckland Transport.

Auckland Transport is responsible for the management of roads within the Auckland transport system as the Road Controlling Authority for the wider Auckland region.
Weed Management in the Road Corridor

- prevents root intrusion causing damage to the road surface, kerb and channel, footpaths and other road assets
- ensuring vegetation growing in the kerb and channel and open water channels does not interfere with water flow
- maintaining the safety of pedestrians and road users by maintaining clear sight lines
- maintaining the streetscape in a tidy and aesthetically pleasing condition

If weeds are not controlled on footpaths, road shoulders and the kerb and channel, the damage they cause leads to increased repairs and renewals requiring additional funding and environmental impact.
Weed Management – Road Corridor

Currently there is regional inconsistency in how weeds are managed on grassed berms, footpaths and the kerb and channel across Auckland.

This reflects the continuation of legacy practices prior to amalgamation.

Service levels for the road corridor are set by the governing body but local boards can fund increases in service levels.

<table>
<thead>
<tr>
<th>Control Method</th>
<th>Mode of action</th>
<th>Freq</th>
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<tbody>
<tr>
<td>Synthetic herbicide, e.g. glyphosate</td>
<td>Synthetic herbicides are systemic, they kill the entire plant. They are applied via foliar spray in the road corridor.</td>
<td>4 p.a</td>
</tr>
<tr>
<td>Plant based herbicide e.g. Biosafe</td>
<td>Plant-based herbicides are contact desiccants. Full coverage of the plant is needed with contact herbicides. They are non-systemic and do not kill the plant to the root. They are applied via foliar spray in the road corridor.</td>
<td>12 p.a</td>
</tr>
<tr>
<td>Thermal e.g. hotwater/Steam, (glyphosate is used in some areas and for some weeds)</td>
<td>Thermal weeding techniques kill the parts of the plant that it is in contact with but does not kill the plant root. It is applied by a hose and nozzle connected to a water tank. Flow rates vary between 12-42 litres per minute.</td>
<td>12 p.a</td>
</tr>
<tr>
<td>Combination of synthetic and plant-based herbicide</td>
<td>A combination of plant-based herbicide and spot spraying synthetic herbicides to kill difficult to treat weeds. They are applied via foliar spray in the road corridor.</td>
<td>8 p.a</td>
</tr>
</tbody>
</table>
Auckland Council - No Spray Register

All of Auckland is covered by a No-Spray Register for berms adjacent to private property.

Any resident who agrees to manage weeds to a specified standard can apply to ‘opt out’ of weed management completed by council through recording their intent on the no-spray register.

Residents can register through a dedicated form on the council website or through the call centre.
Weed Management – Regional Review Considerations

In April 2019 a review of the current methodologies was initiated when Community Facilities took over weed management on behalf of Auckland Transport.

<table>
<thead>
<tr>
<th>Regional Review Considerations</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Best Practice Weed Management</strong></td>
</tr>
<tr>
<td>• Technical advice from Weed Management experts and suppliers</td>
</tr>
<tr>
<td>• International research on weed management on hard surfaces</td>
</tr>
</tbody>
</table>

| Te Tāruke-ā-Tāwhiri: Auckland’s Climate Action Framework and the direction to reduce carbon emissions |
| • Emissions and water use by methodology |

| Community views on weed management and the methodologies used to manage weeds |
| • People panel survey of ratepayers on weed management in the road corridor |
| • Community input in the Weed Management Political Advisory group |

| The Weed Management Policy |
| • The eight objectives of the weed management policy |

| Financial considerations and the cost implications of the different weed management methodologies |
| • Supplier costings and national and international learnings |
Weed Management Policy

Auckland Council adopted a Weed Management Policy for parks and open spaces in August 2013 (resolution number RDO/2013/137). This policy guides the management of weeds in Auckland’s parks, open spaces and the road corridor.

Objectives

1. take an integrated approach to weed management and vegetation control
2. ensure best practice in weed management and vegetation control
3. minimise agrichemical use
4. minimise non-target effects of agrichemical use
5. ensure public health and safety
6. protect and enhance the environment
7. empower the community to manage weeds in accordance with the policy
8. deliver weed management and vegetation control which is value for money
Regional Review – Emissions and Water Use

Operational decisions need to reflect the council’s commitment to reduce emissions and water consumption.

The choice of methodology to manage weeds within the road corridor has an impact on council emissions and water usage.
Peoples Panel – Weed Management

A survey way done to understand how Aucklanders feel about managing weeds on footpaths and kerbs.

Methodology
- 39,789 members of the People’s Panel received an invitation
- 5,686 surveys were completed (a 14% response rate)
- Survey was officially open for 7 days (23 - 30 October 2019)

About the People’s Panel
The People's Panel is a quick and easy way for Aucklanders to help shape Auckland by taking part in short online surveys.

The panel is not representative of Auckland’s demographic make-up and the recruitment of members of groups that are underrepresented (i.e. youth, Asian, Pacific, and Maori People’s) is a focus.
Peoples Panel – Weed Management

Question 2D How many weeds are you okay with along Auckland’s footpaths and kerbs?

- I don’t know 1%
- Other (please specify) 5%
- Many weeds are acceptable 5%
- No weeds are acceptable - zero weeds 17%
- Quite a few weeds are acceptable 20%
- One or two weeds are acceptable 52%

Question 2B How much do you care about the weed control methods that Auckland Council uses on footpaths and kerbs?

- I don’t know 1%
- 1 - I don’t care at all 6%
- 2 - 7%
- 3 - 19%
- 4 - 26%
- 5 - I care very much 40%

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Peoples Panel – Weed Management at home

Which of the following weed control methods do you use at home?

Question 1A
Please select all that apply.

- I don’t know 3%
- None of these - I don’t do any weeding at home 20%
- Other (please specify) 6%
- Hot water treatment e.g. boiling water 57%
- Weed killer e.g. synthetic or plant-based / organic herbicide 61%
- Weed eating/mowing 85%
- Removal by hand / hand-tool

What kind of weed killer do you use?

Question 1B
Please select all that apply.

- I don’t know 4%
- Other (please specify) 6%
- Not sure - I don’t know what kind of weed killer it is 32%
- Plant-based herbicide / organic herbicide 77%
- Synthetic weed killer e.g. Roundup or other glyphosate products

The results found that 43 per cent of residents use synthetic herbicide (e.g. glyphosate) in their own homes.
Peoples Panel – Least and most Preferred

Question 4C
Which is your least preferred method of weed control for Auckland’s footpaths and kerbs?
Please select one only.

<table>
<thead>
<tr>
<th>Method</th>
<th>Percentage (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>None – I think there should be no weed control at all</td>
<td>52</td>
</tr>
<tr>
<td>I don't know</td>
<td>10</td>
</tr>
<tr>
<td>Hand-based herbicide</td>
<td>18</td>
</tr>
<tr>
<td>High-pressure steam</td>
<td>10</td>
</tr>
<tr>
<td>Other (please specify)</td>
<td>6</td>
</tr>
<tr>
<td>Heat water</td>
<td>3</td>
</tr>
<tr>
<td>Mechanical e.g. weed-eating / mowing</td>
<td>3</td>
</tr>
<tr>
<td>None – I don’t have a preference</td>
<td>10</td>
</tr>
<tr>
<td>None – I don’t know enough to answer this question</td>
<td>10</td>
</tr>
<tr>
<td>Manual e.g. removal by hand</td>
<td>2</td>
</tr>
<tr>
<td>Synthetic herbicide (excluding glyphosate)</td>
<td>1</td>
</tr>
</tbody>
</table>

Question 4A
What is your most preferred method of weed control for Auckland’s footpaths and kerbs?
Please select one only.

<table>
<thead>
<tr>
<th>Method</th>
<th>Percentage (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>None – I think there should be no weed control at all</td>
<td>52</td>
</tr>
<tr>
<td>I don't know</td>
<td>10</td>
</tr>
<tr>
<td>Manual e.g. removal by hand</td>
<td>7</td>
</tr>
<tr>
<td>Heat water</td>
<td>3</td>
</tr>
<tr>
<td>Other (please specify)</td>
<td>5</td>
</tr>
<tr>
<td>Mechanical e.g. weed-eating / mowing</td>
<td>5</td>
</tr>
<tr>
<td>None – I don’t have a preference</td>
<td>3</td>
</tr>
<tr>
<td>Synthetic herbicide (excluding glyphosate)</td>
<td>10</td>
</tr>
<tr>
<td>Plant-based herbicide</td>
<td>18</td>
</tr>
<tr>
<td>None – I don’t know enough to answer this question</td>
<td>10</td>
</tr>
<tr>
<td>High-pressure steam</td>
<td>3</td>
</tr>
</tbody>
</table>

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Peoples Panel – Budget

**Question 4E**  
Would you be happy to pay more rates for council to use alternatives to synthetic herbicide (including glyphosate) on footpaths and kerbs?

19% of respondents would be willing to pay more for council to use alternatives to synthetic herbicide, a further 36% say they ‘maybe’ willing, while 42% say they are not willing to pay extra.
Peoples Panel – Budget

37% say they are happy using the same weed control as the rest of the region
20% of people say they would pay more to get the weed control method they want
Peoples Panel – Decision making factors

How important you think the following factors are for council to consider when selecting a weed control method for footpaths and kerbs?

[Bar chart showing the importance of factors such as effectiveness, health and safety, environment, cost, frequency of application, labour/time involved, preferences of local, energy used/carbon footprint.]

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Peoples Panel – Local Board Waitākere Ranges (n=297)

Those from Waitākere Ranges are more likely than the overall sample to:

- Use removal by hand / hand-tool (92%), and weed-eating/mowing (68%) at home
- Say ‘the environmental impact’ (39%) determines their at home weed killer choice
- Say ‘it does not matter’ (21%) that there are weeds on the footpaths and kerbs
- Say many weeds are acceptable (8%) along Auckland’s footpaths and kerbs
- Say ‘they are on the register to opt out of weed spraying’ (12%)
- Have heard of council using synthetic herbicide (58%) to manage weeds
- Say ‘manual e.g. removal by hand’ (6%) is their preferred method of weed control for footpaths and kerbs
- Say it’s important to consider the preferences of the local community (88%), the environmental impact of the method (88%), and health and safety (91%) when selecting a weed control methodology
- Say it’s not important to consider (15%) to the frequency of application required when selecting a weed control methodology
### Feedback on Local Board Priorities

#### Attachment C

<table>
<thead>
<tr>
<th>Control Method</th>
<th>Mode of action</th>
<th>Freq</th>
</tr>
</thead>
<tbody>
<tr>
<td>Synthetic herbicide, e.g. glyphosate</td>
<td>Foliage spray</td>
<td>4 p.a.</td>
</tr>
<tr>
<td>Plant-based herbicide, e.g. BioSafe</td>
<td>Foliage spray in the road corridor</td>
<td>12 p.a.</td>
</tr>
<tr>
<td>Thermal weeding techniques</td>
<td>Spot spraying synthetic herbicides</td>
<td>12 p.a.</td>
</tr>
<tr>
<td>Combination of synthetic and plant-based herbicide</td>
<td>Via foliar spray in the road corridor</td>
<td>8 p.a.</td>
</tr>
</tbody>
</table>

*Note: These recommendations are based on best available evidence and should be reviewed annually.*
Feedback on Local Board Priorities

<table>
<thead>
<tr>
<th>Consideration</th>
<th>1 Not important to 5 Very important</th>
</tr>
</thead>
<tbody>
<tr>
<td>Efficacy e.g. frequency, time and labour to achieve weed management outcome</td>
<td></td>
</tr>
<tr>
<td>Best Practice Advice</td>
<td></td>
</tr>
<tr>
<td>Agrichemical use</td>
<td></td>
</tr>
<tr>
<td>• Glyphosate</td>
<td></td>
</tr>
<tr>
<td>• Plant-based herbicide</td>
<td></td>
</tr>
<tr>
<td>Water usage</td>
<td></td>
</tr>
<tr>
<td>Carbon emissions</td>
<td></td>
</tr>
<tr>
<td>Budget for weed management</td>
<td></td>
</tr>
</tbody>
</table>
Memorandum

To: Environment and Community Committee, Local Board Members and Independent Māori Statutory Board members
Subject: Project Streetscapes – Weed management
From: Rod Sheridan, General Manager, Community Facilities

Purpose

1. To update elected members on changes to weed management contracts in the road corridor, as part of Project Streetscapes.

Summary

- From April 2019, there will be a transfer of services and budget to the council unit Community Facilities to manage weeds within the road corridor on behalf of Auckland Transport. Initially, Community Facilities will continue with the current Auckland Transport weed control methodologies.

- After the first year, consultation with local boards will begin as part of a regional review of vegetation management methodologies within the road corridor.

- The regional review will be informed by data gathered in the first year of the contract. This will include costings for different methodologies, asset condition and supplier investigations on the feasibility of new technologies for weed management in the road corridor.

- Community Facilities, Biosecurity and Auckland Transport are working together on coordinating the implementation of the proposed Regional Pest Plant Management Plan within the road corridor.

Context/Background

2. From April 2019, as part of Project Streetscapes (which does not include the Gulf Islands), vegetation in the road corridor, including street to street walkways, will be managed by Community Facilities through the Full Facilities contracts. This activity will be completed on behalf of the council-controlled organisation Auckland Transport, who will retain ownership of all greenspaces in the road corridor.

3. Auckland Transport undertakes vegetation management in over 7,452 kilometres of road corridor. This management achieves the following outcomes:
   - Ensuring vegetation growing in the kerb and channel and open water channels does not interfere with water flow.
   - Controlling vegetation within the concrete expansion gaps in footpaths.
   - Maintaining the safety of pedestrians and road users by maintaining clear sight lines.
   - Maintaining the streetscape in a tidy and aesthetically pleasing condition.
   - Preventing root intrusion causing damage to the road surface, kerb and channel, footpaths and other road assets.
   - Complying with the Auckland Regional Pest Management Plant and the Biosecurity Act 1993 to fulfil landowner requirements.

4. See Attachment A for examples of weeds in the road corridor.

5. Auckland Transport is a council-controlled organisation that has decision-making responsibility for transport networks and infrastructure and regional spend within the road corridor.
Discussion

Vegetation management methodologies

6. Current weed control methodologies within the road corridor have been set by Auckland Transport. Auckland Transport has continued to use the same weed control methods and herbicides as those used by the legacy councils: Auckland City Council, Manukau City Council, Waitakere City Council, North Shore City Council, Papakura District Council, Rodney District Council and most of Franklin District Council.

7. This continuation of legacy arrangements means that there are differences between local board areas in the methods used to meet weed management outcomes, e.g. glyphosate, biosafe, hotwater and steam. In some cases, different methodologies are used within the same local board boundaries (see summary in Table 1 below). Glyphosate is used to some extent to treat specific weeds.

8. Initially, after transfer of services and budget to Community Facilities, council will continue using the same methodologies as Auckland Transport to ensure continued achievement of desired service levels.

9. Consultation with elected members and Community Facilities suppliers will start after the first year of the contract as part of a regional review of vegetation management within the road corridor.

10. A working group will be established to put forward options for weed management in the road corridor. The review will be informed by data gathered in the first year of Community Facilities managing the contracts. This will allow time for staff to confirm the cost of different methodologies of weed control, road asset condition and supplier investigation on the feasibility of new technologies for weed management in the road corridor.

Table 1. Overview of the different weed control methodologies used by Auckland Transport

<table>
<thead>
<tr>
<th>Control method</th>
<th>Mode of action</th>
<th>Frequency</th>
<th>Local boards</th>
</tr>
</thead>
<tbody>
<tr>
<td>Synthetic herbicide, e.g. formulations of glyphosate</td>
<td>Kills the entire plant including its root system.</td>
<td>Glyphosate is typically applied three to four times per year to achieve the desired level of service.</td>
<td>Franklin, Henderson-Massey, Howick, Māngere-Ōtāhuhu, Manurewa, Ōtara-Papatoetoe, Papakura, Rodney, Waitakere Ranges, Whau</td>
</tr>
<tr>
<td>Plant based herbicide e.g. Biosafe</td>
<td>Plant-based herbicides are activated on contact with the foliage of weeds and burn off the foliage, thus preventing or reducing seed production and restricting growth.</td>
<td>Needs to be applied more frequently. Approx. 2.6-3.2 times the cost of glyphosate. (based on data from 2015)</td>
<td>Albert-Eden, Maungakiekie-Tāmaki, Ōrākei, Puketapapa, and Waitāmatatanga. (Glyphosate is used in some areas and for some weeds)</td>
</tr>
<tr>
<td>Mechanical and thermal e.g. hotwater or steam</td>
<td>Hot water/steam destroys the surface foliage of the weeds, leaving the roots primarily untreated as the temperature of the water decreases rapidly upon touching the ground.</td>
<td>Needs to be applied more frequently with additional traffic management requirements. Approx. 2.7-3.5 times the cost of glyphosate. (based on data from 2015)</td>
<td>Devonport-Takapuna, Hibiscus and Bays, Kaipātiki, Upper Harbour (Glyphosate is used in some areas and for some weeds)</td>
</tr>
</tbody>
</table>

1 PricewaterhouseCoopers, Weed Management Cost Review, 15 September 2015
2 This document forms part of a workshop record and should not be construed as Auckland Council policy unless and until adopted. Should you require further information relating to any documents or information, please contact the relevant manager, Chairperson or Deputy Chairperson.
11. Community Facilities will be following the eight objectives of the Weed Management Policy (see Attachment C) for vegetation and pest plant control within the road corridor including:
   ○ Reducing agrichemical use. Community Facilities suppliers have a contractual Key Performance Indicator (KPI) to reduce agrichemical use from a baseline established in the first year (2018/2019). This KPI will be applied for the road corridor.
   ○ Investigating alternative weed control technologies. As part of continuous improvement and best practice, Community Facility suppliers are investigating non-agricultural weed control methods including hot foam and its potential for the road corridor.
   ○ Minimising non-targeted effect of weed control. The contract specifications do not permit spraying outside schools, early education centres, or places of public assembly on days that these institutions are in use. There are limitations on the time of spraying in urban areas to avoid times when children are walking to and from school.
   ○ Community empowerment and the no-spray register. From April 2019, council will take over the management of the no-spray register. This register is maintained for residents who have requested that no agrichemicals be used directly outside their properties. A condition of being placed on the no-spray register is that the property owner maintains the road berm outside their property in a weed-free condition.

Glyphosate use in the road corridor

12. Glyphosate is a low toxicity broad-spectrum non-selective herbicide which is particularly effective on broadleaf weeds and grasses. Glyphosate is used by most, if not all, Road Controlling Authorities in New Zealand to control vegetation in the road corridor.

13. The council's agrichemical use is guided by the New Zealand Environmental Protection Agency, which has granted approvals for the use of glyphosate-containing substances in accordance with their code of practice. For all agrichemical use council complies with the Environmental Protection Agency Code of Practice (NZS 8409:2004 Management of Agrichemicals) for the storage, mixing, use, disposal and certification of contractors for agrichemicals. In urban and rural areas if the berm is being maintained by the adjoining property owner and there is no vegetation overhanging the kerb or footpath then no spraying will be undertaken.

14. Round up, a product containing glyphosate, has recently been in the media. Round up contains an additive called POEA (Polyethoxyated tall oil amine). Recent assessments have identified that this additive is more toxic than the glyphosate active ingredient. Countrywide Facilities will only be using approved formulations of Glyphosate within the road corridor which do not include POEA. Therefore, the brand Round up will not be used within the road corridor.

Regional Pest Management Plan

15. In 2019, the new Regional Pest Management Plan will be introduced which will supersede the existing strategy. The plan will create some additional requirements for pest plant control in the parts of the road corridor.

16. Biosecurity, Auckland Transport and Community Facilities are working together to confirm the scope and resourcing requirements for implementation of the new Regional Pest Management Plan on Auckland Transport land.

Next Steps for Project Streetscapes – Vegetation Management

17. Next steps for this project are outlined below in Table 2.

Table 2. Timing of next steps for management of vegetation in the road corridor

---

2 Glyphosate: Commercially Available Options. Cathy Bebelman Consulting Ltd.
3 This document forms part of a workshop record and should not be construed as Auckland Council policy unless and until adopted. Should you require further information relating to any documents or information, please contact the relevant manager, Chairperson or Deputy Chairperson.
### Next Step

<table>
<thead>
<tr>
<th>Next Step</th>
<th>Timing</th>
</tr>
</thead>
<tbody>
<tr>
<td>Community facilities take over weed control in the road corridor</td>
<td>April 2019</td>
</tr>
<tr>
<td>Review of weed control methodologies</td>
<td>April 2020</td>
</tr>
</tbody>
</table>

### Attachments

- Attachment A – Examples of vegetation in the road corridor
- Attachment B – Weed control methodology table
- Attachment C - Weed Management Policy
October 2019 - Weed Management Survey Summary

Total Responses 5,686
Average time to complete About 8 minutes
First Response Wed 23 October 2019, 9:10 AM
Last Response Sun 3 November 2019, 11:06 PM

Which of the following weed control methods do you use at home?

Please select all that apply.

- I don't know
- None of these - I don't do any weeding at home
- Other (please specify)
- Hot water treatment e.g. boiling water
- Weed killer e.g. synthetic or plant-based / organic herbicide
- Weed-eating / moving
- Removal by hand / hand-tool

Number of responses to this question 5,686 (100%)
Total number of responses for this survey 5,686

Answer Count %
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### Question 1B

**Please select all that apply.**

<table>
<thead>
<tr>
<th>Answer</th>
<th>Count</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>Weed killer e.g. synthetic or plant based / organic herbicide</td>
<td>3,220</td>
<td>57</td>
</tr>
<tr>
<td>Hot water treatment e.g. boiling water</td>
<td>1,138</td>
<td>20</td>
</tr>
<tr>
<td>Removal by hand / hand-tool</td>
<td>4,841</td>
<td>85</td>
</tr>
<tr>
<td>Weed-eating / mowing</td>
<td>3,480</td>
<td>61</td>
</tr>
<tr>
<td>None of these - I don't do any weeding at home</td>
<td>175</td>
<td>3</td>
</tr>
<tr>
<td>I don't know</td>
<td>9</td>
<td>0</td>
</tr>
<tr>
<td>Other (please specify)</td>
<td>337</td>
<td>6</td>
</tr>
</tbody>
</table>

**Number of responses to this question**: 3,220 (57%)

**Total number of responses for this survey**: 5,686

### Question 1C

**Please choose no more than 4 things that influence your decision.**

<table>
<thead>
<tr>
<th>Answer</th>
<th>Count</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>Synthetic weed killer e.g. Roundup or other glyphosate products</td>
<td>2,472</td>
<td>77</td>
</tr>
<tr>
<td>Plant-based herbicide / organic herbicide</td>
<td>1,015</td>
<td>32</td>
</tr>
<tr>
<td>Not sure - I don't know what kind of weed killer it is</td>
<td>185</td>
<td>6</td>
</tr>
<tr>
<td>I don't know</td>
<td>15</td>
<td>0</td>
</tr>
<tr>
<td>Other (please specify)</td>
<td>136</td>
<td>4</td>
</tr>
</tbody>
</table>
Number of responses to this question 3,220 (57%)
Total number of responses for this survey 5,686

<table>
<thead>
<tr>
<th>Answer</th>
<th>Count</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>The price / cost</td>
<td>1,313</td>
<td>41</td>
</tr>
<tr>
<td>Whether it is a well-known brand</td>
<td>593</td>
<td>18</td>
</tr>
<tr>
<td>The ingredients</td>
<td>667</td>
<td>21</td>
</tr>
<tr>
<td>The concentration / effectiveness of managing weeds</td>
<td>1,932</td>
<td>60</td>
</tr>
<tr>
<td>The application method e.g. spray, powder</td>
<td>1,298</td>
<td>40</td>
</tr>
<tr>
<td>I just buy what I have bought in the past</td>
<td>609</td>
<td>19</td>
</tr>
<tr>
<td>The environmental impact</td>
<td>930</td>
<td>29</td>
</tr>
<tr>
<td>Frequency of application e.g. monthly, yearly</td>
<td>514</td>
<td>16</td>
</tr>
<tr>
<td>The labour / time involved</td>
<td>546</td>
<td>17</td>
</tr>
<tr>
<td>Health and safety considerations</td>
<td>852</td>
<td>26</td>
</tr>
<tr>
<td>None of these - I don't buy weed killer</td>
<td>30</td>
<td>1</td>
</tr>
<tr>
<td>I don't know</td>
<td>16</td>
<td>0</td>
</tr>
<tr>
<td>Other (please specify)</td>
<td>139</td>
<td>4</td>
</tr>
</tbody>
</table>

Question 2A In general, are the weeds on our footpaths and kerbs something that matters to you?
Number of responses to this question 5,686 (100%)
Total number of responses for this survey 5,686
Answer Count %
1 - It does not matter to me at all 331 6
2 518 9
3 1,181 21
4 1,623 29
5 - It matters to me a lot 2,006 35
I don't know 27 0

Question: How much do you care about the weed control methods that Auckland Council uses on footpaths and kerbs?

Number of responses to this question 5,686 (100%)
Total number of responses for this survey 5,686
Answer Count %
1 - I don't care at all 314 6
2 403 7
3 1,107 19
4 1,496 26
5 - I care very much 2,281 40
I don't know 85 1

Question: How aware are you of the weed control methods Auckland Council uses on footpaths and kerbs?

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Number of responses to this question 5,686 (100%)
Total number of responses for this survey 5,686

<table>
<thead>
<tr>
<th>Answer</th>
<th>Count</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>1 - Not aware at all</td>
<td>1,748</td>
<td>31</td>
</tr>
<tr>
<td>2</td>
<td>1,015</td>
<td>18</td>
</tr>
<tr>
<td>3</td>
<td>1,353</td>
<td>24</td>
</tr>
<tr>
<td>4</td>
<td>889</td>
<td>16</td>
</tr>
<tr>
<td>5 - Very aware</td>
<td>560</td>
<td>10</td>
</tr>
<tr>
<td>I don’t know</td>
<td>121</td>
<td>2</td>
</tr>
</tbody>
</table>

Question 2D How many weeds are you okay with along Auckland's footpaths and kerbs?

Number of responses to this question 5,686 (100%)
Total number of responses for this survey 5,686

<table>
<thead>
<tr>
<th>Answer</th>
<th>Count</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>No weeds are acceptable - zero weeds</td>
<td>973</td>
<td>17</td>
</tr>
<tr>
<td>One or two weeds are acceptable</td>
<td>2,982</td>
<td>52</td>
</tr>
<tr>
<td>Quite a few weeds are acceptable</td>
<td>1,154</td>
<td>20</td>
</tr>
<tr>
<td>Many weeds are acceptable</td>
<td>287</td>
<td>5</td>
</tr>
<tr>
<td>I don’t know</td>
<td>34</td>
<td>1</td>
</tr>
<tr>
<td>Other (please specify)</td>
<td>256</td>
<td>5</td>
</tr>
</tbody>
</table>

Question Are you on the Auckland Council No Spray Register where you can opt out of weed spraying

2E on your berm or park boundary?
Number of responses to this question  5,686 (100%)
Total number of responses for this survey  5,686

<table>
<thead>
<tr>
<th>Answer</th>
<th>Count</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>Yes</td>
<td>284</td>
<td>5</td>
</tr>
<tr>
<td>No</td>
<td>4,234</td>
<td>74</td>
</tr>
<tr>
<td>No - but I am planning to apply</td>
<td>518</td>
<td>9</td>
</tr>
<tr>
<td>I don't know</td>
<td>650</td>
<td>11</td>
</tr>
</tbody>
</table>

Which of the following weed control methods have you heard of council using on footpaths and kerbs before?

Please select all that apply.

<table>
<thead>
<tr>
<th>Method</th>
<th>Count</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>Synthetic herbicide (including glyphosate)</td>
<td>2,800</td>
<td>49</td>
</tr>
<tr>
<td>Hot water</td>
<td>1,343</td>
<td>24</td>
</tr>
<tr>
<td>High-pressure steam</td>
<td>1,810</td>
<td>32</td>
</tr>
<tr>
<td>Plant-based herbicide</td>
<td>1,057</td>
<td>18</td>
</tr>
<tr>
<td>Mechanical e.g. weed-eating / mowing</td>
<td>2,113</td>
<td>37</td>
</tr>
<tr>
<td>Manual e.g. removal by hand</td>
<td>483</td>
<td>8</td>
</tr>
</tbody>
</table>

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If you require further information relating to any documents or information, please contact the relevant manager, Chairperson or Deputy Chairperson.
What is your most preferred method of weed control for Auckland’s footpaths and kerbs?

Please select one only.

Number of responses to this question: 5,686 (100%)
Total number of responses for this survey: 5,686

Answer Count %
Synthetic herbicide (including glyphosate) 643 11
Hot water 293 5
High-pressure steam 1,476 26
Plant-based herbicide 928 16
Mechanical e.g. weed-eating / mowing 365 6
Manual e.g. removal by hand 198 3
None - I don’t know enough to answer this question 954 17
None - I don’t have a preference 412 7
None - I think there should be no weed control at all 12 0
I don’t know 60 1
Other (please specify) 335 6

Which is your least preferred method of weed control for Auckland’s footpaths and...
kerbs?

*Please select one only.*

![Percentage of responses](chart)

**Number of responses to this question**: 5,686 (100%)

**Total number of responses for this survey**: 5,686

<table>
<thead>
<tr>
<th>Answer</th>
<th>Count</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>Synthetic herbicide (including glyphosate)</td>
<td>2,929</td>
<td>52</td>
</tr>
<tr>
<td>Hot water</td>
<td>1,764</td>
<td>31</td>
</tr>
<tr>
<td>High-pressure steam</td>
<td>96</td>
<td>2</td>
</tr>
<tr>
<td>Plant-based herbicide</td>
<td>85</td>
<td>1</td>
</tr>
<tr>
<td>Mechanical e.g. weed-eating / mowing</td>
<td>190</td>
<td>3</td>
</tr>
<tr>
<td>Manual e.g. removal by hand</td>
<td>924</td>
<td>16</td>
</tr>
<tr>
<td>None - I don't know enough to answer this question</td>
<td>647</td>
<td>11</td>
</tr>
<tr>
<td>None - I don't have a preference</td>
<td>419</td>
<td>7</td>
</tr>
<tr>
<td>None - I think there should be no weed control at all</td>
<td>9</td>
<td>0</td>
</tr>
<tr>
<td>I don't know</td>
<td>78</td>
<td>1</td>
</tr>
<tr>
<td>Other (please specify)</td>
<td>135</td>
<td>2</td>
</tr>
</tbody>
</table>

**Question**: Would you be happy to pay more rates for council to use alternatives to synthetic 4E herbicide (including glyphosate) on footpaths and kerbs?

![Percentage of responses](chart)

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49/2020

Number of responses to this question 5,686 (100%)
Total number of responses for this survey 5,686

Answer     Count %
Yes        1,082 19
Maybe - it depends 2,067 36
No         2,376 42
I don’t know 161 3

How important you think the following factors are for council to consider when selecting a weed 5A(i) control method for footpaths and kerbs?

- Cost / impact on rates

<table>
<thead>
<tr>
<th>Percentage (%)</th>
<th>Count</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>3%</td>
</tr>
<tr>
<td>2</td>
<td>6%</td>
</tr>
<tr>
<td>3</td>
<td>24%</td>
</tr>
<tr>
<td>4</td>
<td>28%</td>
</tr>
<tr>
<td>5</td>
<td>41%</td>
</tr>
<tr>
<td>I don’t know</td>
<td>1%</td>
</tr>
</tbody>
</table>

Number of responses to this question 5,685 (100%)
Total number of responses for this survey 5,686

Answer     Count %
1 - Not important 173 3
2           337 6
3          1,337 24
4          1,463 26
5 - Very important 2,317 41
I don’t know 58 1

How important you think the following factors are for council to consider when selecting a weed 5A(ii) control method for footpaths and kerbs?

- Environmental impact of the method
Number of responses to this question 5,685 (100%)  
Total number of responses for this survey 5,686  

<table>
<thead>
<tr>
<th>Answer</th>
<th>Count</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>1 - Not important</td>
<td>123</td>
<td>2</td>
</tr>
<tr>
<td>2</td>
<td>166</td>
<td>3</td>
</tr>
<tr>
<td>3</td>
<td>614</td>
<td>11</td>
</tr>
<tr>
<td>4</td>
<td>1,152</td>
<td>20</td>
</tr>
<tr>
<td>5 - Very important</td>
<td>3,561</td>
<td>63</td>
</tr>
<tr>
<td>I don't know</td>
<td>69</td>
<td>1</td>
</tr>
</tbody>
</table>

How important you think the following factors are for council to consider when selecting a weed control method for footpaths and kerbs?

- Effectiveness at managing weeds

Number of responses to this question 5,685 (100%)  
Total number of responses for this survey 5,686  

<table>
<thead>
<tr>
<th>Answer</th>
<th>Count</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>1 - Not important</td>
<td>45</td>
<td>1</td>
</tr>
<tr>
<td>2</td>
<td>91</td>
<td>2</td>
</tr>
<tr>
<td>3</td>
<td>540</td>
<td>9</td>
</tr>
<tr>
<td>4</td>
<td>1,482</td>
<td>26</td>
</tr>
<tr>
<td>5 - Very important</td>
<td>3,463</td>
<td>61</td>
</tr>
<tr>
<td>I don't know</td>
<td>64</td>
<td>1</td>
</tr>
</tbody>
</table>

5A(iv)
Item 20

- Frequency of application required

Number of responses to this question: 5,685 (100%)
Total number of responses for this survey: 5,686

<table>
<thead>
<tr>
<th>Answer</th>
<th>Count</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>1 - Not important</td>
<td>234</td>
<td>4</td>
</tr>
<tr>
<td>2</td>
<td>315</td>
<td>6</td>
</tr>
<tr>
<td>3</td>
<td>1,346</td>
<td>24</td>
</tr>
<tr>
<td>4</td>
<td>1,694</td>
<td>30</td>
</tr>
<tr>
<td>5 - Very important</td>
<td>1,970</td>
<td>35</td>
</tr>
<tr>
<td>I don't know</td>
<td>126</td>
<td>2</td>
</tr>
</tbody>
</table>

How important you think the following factors are for council to consider when selecting a weed control method for footpaths and kerbs?

- The labour/time involved

Number of responses to this question: 5,685 (100%)
Total number of responses for this survey: 5,686

<table>
<thead>
<tr>
<th>Answer</th>
<th>Count</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>1 - Not important</td>
<td>309</td>
<td>5</td>
</tr>
<tr>
<td>2</td>
<td>417</td>
<td>7</td>
</tr>
<tr>
<td>3</td>
<td>1,497</td>
<td>26</td>
</tr>
<tr>
<td>4</td>
<td>1,582</td>
<td>28</td>
</tr>
<tr>
<td>5 - Very important</td>
<td>1,794</td>
<td>32</td>
</tr>
<tr>
<td>I don't know</td>
<td>86</td>
<td>2</td>
</tr>
</tbody>
</table>

5A(vi)
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Should you require further information relating to any documents or information, please contact the relevant manager, Chairperson or Deputy Chairperson.
How important you think the following factors are for council to consider when selecting a weed control method for footpaths and kerbs?

- Energy used and carbon emissions

<table>
<thead>
<tr>
<th>Answer</th>
<th>Count</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>Not important</td>
<td>594</td>
<td>10</td>
</tr>
<tr>
<td>2</td>
<td>531</td>
<td>9</td>
</tr>
<tr>
<td>3</td>
<td>1,294</td>
<td>23</td>
</tr>
<tr>
<td>4</td>
<td>1,377</td>
<td>24</td>
</tr>
<tr>
<td>Very important</td>
<td>1,723</td>
<td>30</td>
</tr>
<tr>
<td>Don't know</td>
<td>166</td>
<td>3</td>
</tr>
</tbody>
</table>

Number of responses to this question: 5,685 (100%)
Total number of responses for this survey: 5,686

How important you think the following factors are for council to consider when selecting a weed control method for footpaths and kerbs?

- Health and safety

<table>
<thead>
<tr>
<th>Answer</th>
<th>Count</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>Not important</td>
<td>82</td>
<td>1</td>
</tr>
<tr>
<td>2</td>
<td>98</td>
<td>2</td>
</tr>
<tr>
<td>3</td>
<td>531</td>
<td>9</td>
</tr>
<tr>
<td>4</td>
<td>1,014</td>
<td>18</td>
</tr>
<tr>
<td>Very important</td>
<td>3,892</td>
<td>68</td>
</tr>
<tr>
<td>Don't know</td>
<td>30</td>
<td>1</td>
</tr>
</tbody>
</table>

Number of responses to this question: 5,685 (100%)
Total number of responses for this survey: 5,686
- Preferences of the local community

<table>
<thead>
<tr>
<th>Count</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>68</td>
<td>1</td>
</tr>
</tbody>
</table>

How important you think the following factors are for council to consider when selecting a weed control method for footpaths and kerbs?

Across the urban Auckland road network, the difference in weed control methodologies is millions of dollars.

Would you be willing to pay a local rate for a particular methodology to be used in your local board?

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4/9/2020

**Utility Engage**

<table>
<thead>
<tr>
<th>Answer</th>
<th>Count</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>I don’t know</td>
<td>487</td>
<td>9</td>
</tr>
</tbody>
</table>

**Question 6B Are you:**

- Male: 41%
- Female: 56%
- Gender diverse: 2%
- I prefer not to say: 3%

Number of responses to this question: 5,686 (100%)
Total number of responses for this survey: 5,686

<table>
<thead>
<tr>
<th>Answer</th>
<th>Count</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>Male</td>
<td>2,327</td>
<td>41</td>
</tr>
<tr>
<td>Female</td>
<td>3,193</td>
<td>56</td>
</tr>
<tr>
<td>Gender diverse</td>
<td>23</td>
<td>0</td>
</tr>
<tr>
<td>I prefer not to say</td>
<td>143</td>
<td>3</td>
</tr>
</tbody>
</table>

Which of the following age groups do you belong to?

**Question 6C**

*Please select one only.*
Number of responses to this question 5,686 (100%)
Total number of responses for this survey 5,686

<table>
<thead>
<tr>
<th>Answer</th>
<th>Count</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>15 - 17 years</td>
<td>14</td>
<td>0</td>
</tr>
<tr>
<td>18 - 24 years</td>
<td>105</td>
<td>2</td>
</tr>
<tr>
<td>25 - 29 years</td>
<td>158</td>
<td>3</td>
</tr>
<tr>
<td>30 - 34 years</td>
<td>195</td>
<td>3</td>
</tr>
<tr>
<td>35 - 39 years</td>
<td>329</td>
<td>6</td>
</tr>
<tr>
<td>40 - 44 years</td>
<td>456</td>
<td>8</td>
</tr>
<tr>
<td>45 - 49 years</td>
<td>533</td>
<td>9</td>
</tr>
<tr>
<td>50 - 54 years</td>
<td>615</td>
<td>11</td>
</tr>
<tr>
<td>55 - 59 years</td>
<td>606</td>
<td>11</td>
</tr>
<tr>
<td>60 - 64 years</td>
<td>597</td>
<td>10</td>
</tr>
<tr>
<td>65 - 69 years</td>
<td>641</td>
<td>11</td>
</tr>
<tr>
<td>70 - 74 years</td>
<td>658</td>
<td>12</td>
</tr>
<tr>
<td>75 years and over</td>
<td>573</td>
<td>10</td>
</tr>
<tr>
<td>I prefer not to say</td>
<td>208</td>
<td>4</td>
</tr>
</tbody>
</table>

Question 6: Which of the following ethnic groups do you belong to?

*Please select all that apply.*
Number of responses to this question 5,686 (100%)
Total number of responses for this survey 5,686

<table>
<thead>
<tr>
<th>Answer</th>
<th>Count</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>New Zealand European / Pākehā</td>
<td>4,268</td>
<td>75</td>
</tr>
<tr>
<td>Māori</td>
<td>299</td>
<td>5</td>
</tr>
<tr>
<td>Other European</td>
<td>427</td>
<td>8</td>
</tr>
<tr>
<td>Samoan</td>
<td>64</td>
<td>1</td>
</tr>
<tr>
<td>Cook Islands Māori</td>
<td>19</td>
<td>0</td>
</tr>
<tr>
<td>Tongan</td>
<td>52</td>
<td>1</td>
</tr>
<tr>
<td>Niuean</td>
<td>21</td>
<td>0</td>
</tr>
<tr>
<td>Tokelauan</td>
<td>4</td>
<td>0</td>
</tr>
<tr>
<td>Fijian</td>
<td>22</td>
<td>0</td>
</tr>
<tr>
<td>Other Pacific Peoples</td>
<td>16</td>
<td>0</td>
</tr>
<tr>
<td>Southeast Asian</td>
<td>44</td>
<td>1</td>
</tr>
<tr>
<td>Chinese</td>
<td>146</td>
<td>3</td>
</tr>
</tbody>
</table>

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### Attachment C

**Item 20**

<table>
<thead>
<tr>
<th>Answer</th>
<th>Count</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>Korean</td>
<td>10</td>
<td>0</td>
</tr>
<tr>
<td>Indian</td>
<td>121</td>
<td>2</td>
</tr>
<tr>
<td>Other Asian</td>
<td>50</td>
<td>1</td>
</tr>
<tr>
<td>Middle Eastern</td>
<td>14</td>
<td>0</td>
</tr>
<tr>
<td>Latin American</td>
<td>20</td>
<td>0</td>
</tr>
<tr>
<td>African</td>
<td>28</td>
<td>0</td>
</tr>
<tr>
<td>I prefer not to say</td>
<td>319</td>
<td>6</td>
</tr>
<tr>
<td>Other ethnicity (please specify)</td>
<td>284</td>
<td>5</td>
</tr>
</tbody>
</table>

**And on a different note...**

**Question 6G**

Would you be interested in participating in further research (e.g. focus groups or interviews) with other young people to talk about living in Auckland and what is important to you?

You will be rewarded for your time.

- No thanks - 18%
- Maybe - send me more information and I'll decide - 34%
- Yes - 47%

**Number of responses to this question** 119 (2%)

**Total number of responses for this survey** 5,686

<table>
<thead>
<tr>
<th>Answer</th>
<th>Count</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>Yes</td>
<td>56</td>
<td>47</td>
</tr>
<tr>
<td>Maybe - send me more information and I'll decide</td>
<td>41</td>
<td>34</td>
</tr>
<tr>
<td>No thanks</td>
<td>22</td>
<td>18</td>
</tr>
</tbody>
</table>

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Should you require further information relating to any documents or information, please contact the relevant manager, Chairperson or Deputy Chairperson.
Figure 1: Kikuyu grass growing over the pavement
Figure 1. Weeds in the kerb and channel.
Figure 3: Bamboo growing through tar seal

Figure 4: Weeds growing through a crack in the tar seal

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### Comparison of weed control methodologies

<table>
<thead>
<tr>
<th>Method</th>
<th>Effectiveness</th>
<th>Environmental Impacts</th>
<th>Human health risks</th>
</tr>
</thead>
</table>
| No control           | In most situations, no control would result in council's failure to meet current level of service. | In some cases native species may co-exist with weed species if the weed populations do not dominate to the point of excluding native species suited to the particular habitat. More commonly weeds do out-compete and therefore eliminate native plant populations. | Perceived or actual indirect impact from the growth of weeds:  
  - Species like poa may trigger hay fever and asthma.  
  - Other species can present a physical hazard (e.g., moth plant sap is an irritant). |
| Mechanical           | Mechanical control methods are not effective ways of killing the entire plant including the root system, but they trim foliage and can prevent or reduce weed production and restrict growth. Mechanical control is used most often in combination with other weed control methods in the road corridor (glyphosate, steam and hot water) to increase effectiveness. | Some potential impact on biodiversity, via risk of spreading weeds as fragments can travel on machinery, or re-sprout from fragments on site.  
  The equipment used for mechanical control may use some fuel. Fuel consumption and associated carbon emissions have not been quantified. | There is a minor risk of injury to the applicator from equipment, or to passers-by (e.g., from stones being kicked up by machinery (timber). |
| Manual               | Manual control is not an effective method for most of the hard edges in local parks, nor for much of the road corridor. It can be effective against small shrubs and trees and herbaceous weeds in small infestations, removing the whole plant. It is best suited to small plants without extensive root systems that can be removed without breakage. It is not recommended for plants with deep underground roots and/or easily broken roots.  
  Most weeds should be removed from the site entirely to avoid fragments or seed containing. Careful disposal is important for some species (e.g., those that re-sprout from fragments, such as teo-scabia). | This method creates soil disturbance, which can lead to weed invasion.  
  Manual control on species that re-sprout from fragments can lead to weeds spreading further.  
  There is risk to the applicator through injury via over-exertion during operation or injuries caused by weed thorns (e.g., reaction to sap, or injury from appendages such as thorns). Personal Protective Equipment (PPE), such as long sleeves, pants and gloves, will minimise risk. |
High Pressure Steam

Steam is not an effective way of killing the entire plant including the root system, but it treats the foliage and can prevent/reduce seed production and weed growth. The steam destroys the surface foliage of the weeds, leaving the roots primarily untreated as the temperature of the steam decreases (forming liquid water) rapidly upon touching the ground.1

Steam does not destroy the foliage of some types of weeds (e.g., grass and kikuyu for example).

Steam must be repeated on a 6 weekly programmed cycle in combination with or interchanged with mechanical trimming/ removal to achieve the required level of service to meet required service standard.12

To achieve required level of service in this contract area, mechanical control (weed wasters) is used to remove any weeds in the channel or growing over the kerbs before high pressure steam is applied to the remainder of the plant. High pressure steam is used every second cycle with the intervening cycle being mechanical only. Weed wasters are also used to trim the edges of the footpath. Glyphosate-based herbicide is used to kill the weeds in the channel on the level 2 roads as the high pressure steam system (trucks and application systems) cannot be used safely on these roads, with mechanical control (weed wasters) used on the road. Glyphosate is also used to treat specific weeds such as knot grass.

The current high pressure steam system is too heavy to be accommodated on park infrastructure such as footpaths and lawns and is only used in the road corridor. Application involves large, slow moving vehicles which are noisy, so its limited to non-peak hours in some areas. Traffic management is required for high volume roads (1.2).

Hot water treatment

Hot water treatment is not an effective way of killing the entire plant including the root system, but it treats the foliage and can prevent/reduce seed production and weed growth.15 The hot water destroys the surface foliage of the weeds, leaving the roots primarily untreated as the temperature of the water decreases rapidly upon touching the ground.1

Hot water does not destroy the foliage of some types of weeds (e.g., weeds and kikuyu for example).

In this contract area, hot water is applied directly to the weed with no mechanical control undertaken prior to application of the hot water. Some mechanical control is used to trim the edges of the footpaths. Glyphosate is used in the area where hot water is used.

Control is repeated within an 8 weekly programmed cycle in combination with mechanical trimming/ removal. This cycle is not frequent enough to achieve the required level of service.18

The current hot water treatment system (trucks and disposal unit) is too heavy to be accommodated on park infrastructure such as footpaths and lawns, and can only be used in the road corridor. Application involves large, slow moving vehicles which are noisy, so it is limited to non-peak hours in some areas. Traffic management is required for high volume roads (1.2).

This method uses 2000L to 3000L of water per day of deployment.17 The environmental impacts of this water consumption will be dictated by whether the water is sourced from the mains supply or from roof supply, and has not been quantified.

Similarly the environmental costs from heating the water and powering the vehicles used for transporting the heated water to the site, will depend on the sources of the energy being consumed. If fossil fuels are used there will be associated carbon emissions. These have not been quantified.

Primarily risk to the operator through direct contact with hot water, equipment and proximity to traffic.

Exposure to the steam is minimal and the heat dissipates quickly once the steam contacts the weeds or ground. Risks caused by exhaust have also potential to cause harm.16

In the road corridor the treatment operator is exposed to moving traffic as they walk alongside the truck. This is minimised by treating the kerb and channel from the footpath.
Plant-based herbicide

Weed control by plant-based herbicide via foliar spray. Includes products like Organic Interceptor (derived from pine essence) and Agro Bio-safe (derived from coconut oil).

Used in approximately 1049 km² (13%) of road corridor in legacy Auckland City and Waitemata Island area.

Plant-based herbicides are activated on contact with the foliage of weeds and brown off the foliage thus can prevent/reduce seed production and restrict growth.

They are usually fast acting, and they can control some weeds that hot water and steam don’t affect (such as kikuyu).

Organic Interceptor is a non-solvent contact herbicide that causes rapid defoliation by penetrating green tissue and disrupting normal mitosis permitting cell physiology.

Bio Safe is a non-contact herbicide that causes rapid wilting of the leaves and is most effective on actively growing weeds and when applied in hot sunny conditions.

To meet service standards they must also be used in combination with other methods, and they require more frequent application compared to glyphosate. BioSafe is used on a 4-6 week cycle and is supplemented with glyphosate. Interceptor is used on a 12 day cycle in combination with mechanical removal.

A 2002 trial into weed control methods by the legacy Waiheke Island Council found that BioSafe was relatively effective only when vegetation is young especially kikuyu grass. The same trial looked at Organic Interceptor and glyphosate, and found that the least effective in the trial of controlling established vegetation especially kikuyu.

The vehicles used to apply plant-based herbicides use fossil fuels and generate some carbon emissions. There is concern that some plant-based herbicides contain ingredients that contribute to other environmental effects such as coconut oil. Some of these products are acidic and can be corrosive. These have not been quantified.

Direct application of Organic Interceptor may kill beneficial insects and bacteria.

BioSafe is inactivated on contact with the soil and has no residual activity.

The vehicles used to apply plant-based herbicides use fossil fuels and generate some carbon emissions. There is concern that some plant-based herbicides contain ingredients that contribute to other environmental effects such as coconut oil. Some of these products are acidic and can be corrosive. These have not been quantified.

Direct application of Organic Interceptor may kill beneficial insects and bacteria.

BioSafe is inactivated on contact with the soil and has no residual activity.

For example, the EPA has approved Organic Interceptor and Agro Bio-safe as a herbicide for use under the Hazardous Substances and New Organisms Act (HSNO) Act 1996.

Correct application methods are described in the New Zealand Standard on the Management of Agrochemicals (NZS 6409:2004). Proposed Auckland Urban Plan (part 3.14.4.2.2 and 3), and product label as registered by the EPA. Application must be in accordance with these standards.

Agro Bio-safe carries a health and safety risk to the operators and others who come into contact with the product. The product is corrosive to eyes and on skin, respiratory irritant. Protective equipment must be worn.

BioSafe is a coconut derived fatty acid with a strong, notable odor. This odor periods for some time after treatment, linger on warm days, and has been the source of complaint from the public.

Exposure pathways for occupational and public exposure are managed by compliance with standards and procedures.

Meet national health standards when correct application methods and procedure are adhered to. The EPA has approved glyphosate as a herbicide for general use under the Hazardous Substances and New Organisms Act (HSNO) Act 1996.

Correct application methods are described in the New Zealand Standard on the Management of Agrochemicals (NZS 6409:2004). Proposed Auckland Urban Plan (part 3.14.4.2.2 and 3), and product label as registered by the EPA. Application must be in accordance with these standards.

There is some community and international debate about health risk. In March 2015 a World Health Organisation (WHO) task group, the International Agency for Research on Cancer (IARC) Working Group, re-classified glyphosate as ‘possibly carcinogenic to humans’ (category 2B). However, the EPA has noted that another WHO assessment group, the Joint Meeting on Pesticide Residues, has determined that glyphosate does not pose a cancer risk to humans.

There is also some community concern associated with use of glyphosate on crops and entry into food chains however those potential entry points do not occur in the road corridor and hard edges of local parks. There is little evidence of this risk in NZ and appears to be associated with crops that are genetically modified to be resistant to glyphosate - this means such crops remain unaffected when glyphosate has been applied. This potential exposure pathway is not inherent in NZ as no genetically modified crops are grown commercially in NZ.

The EPA notes that the current opinion of relevant US, Canada, EU and Australian government authorities is that glyphosate is safe to be used as a herbicide. The EPA actively monitors the status of glyphosate and international developments. If needed it may initiate a reassessment after.
Biological control

Biocontrol is not suited to control weed species typically occurring on hard edges of local parks and many species in the road corridor. It relies on the weed’s natural enemy being free to grow, and in most areas this would contaminate the weed control standards of local parks and roads. Biological control might mean that areas are not tidy and safe, or could cause a nuisance to neighbours or damage to fences.

The risk of adverse impacts to the environment is low. Before a new biological control agent is released, approval from the EPA is needed and all proposed agents are rigorously tested to assess the risk of damage to non-target plants. They are also tested for disease and resistant for any other unwanted interactions it might have. A comprehensive cost-benefit analysis is also carried out and the results of all these studies are included in an application to the EPA. The application then goes through a public comment period.14

Biocidal agents may pose any risks to humans due to the stringent, precautionary assessment and registration process.

All species approved for release must initially come into a containment facility until permission to remove them is granted by MPI pending evidence of their correct identity and freedom from any diseases or other unwanted organisms.15

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3. Staff experience and in-field observations.
15. Auckland Transport.
17. Auckland Transport.
18. Auckland Transport.
19. Auckland Transport.
20. Auckland Transport.

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27 Diesel engine exhaust is a category 1 carcinogen (Carcinogenic to humans) and petrol engine exhaust is a category 2B carcinogen (Possibly carcinogenic to humans). Agents Classified by the IARC Monographs, Volumes 1–112 and http://monographs.iarc.fr/EN/Guide/Classification

28 Distance provided by Auckland Transport

29 Staff experience and in-field observations


31 Auckland Transport and their contractors receive complaints from neighbours due to the high noise levels during control work using this method – this has resulted in limited hours for operations in residential areas

32 Staff experience and in-field observations

http://wasp.eu/2011/07/09/attachment-27-

28 Diesel engine exhaust is a category 1 carcinogen (Carcinogenic to humans) and petrol engine exhaust is a category 2B carcinogen (Possibly carcinogenic to humans). Agents Classified by the IARC Monographs, Volumes 1–112 and http://monographs.iarc.fr/EN/Guide/Classification


29 Agent Bio-safe MSES

30 Distance provided by Auckland Transport

31 http://www.nzps.org/journal/65/ezpz_509818.pdf


33 New Zealand: Novachem Agricultural Manual, 2013

34 New Zealand: Novachem Agricultural Manual, 2013

35 http://www.nzps.org/journal/65/ezpz_S01638.pdf


41 Agent Bio-safe MSES

42 Distance provided by Auckland Transport

43 New Zealand: Novachem Agricultural Manual, 2013


45 Greame Boudot, AgResearch, Auckland Council Weed Management Workshop 18 June 2010.


47 Glyphosate 300 Material Safety Data Sheet (MSSD)


53 Staff experience and in-field observations

54 http://www.landcareresearch.co.nz/science/Summerporti/Summerporti/weeds/biocontrol/education/biocontrol-information/biocontrol-safety

55 http://www.landcareresearch.co.nz/science/plants-animals-fungi/plants/weeds/biocontrol/approvals

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Auckland Council
Weed Management Policy
for parks and open spaces

15 August 2013
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1. Introduction

1.1. Development of the Auckland Council Weed Management Policy

We have developed this weed management policy to guide the management of weeds in Auckland’s parks and open spaces, including the road corridor.

The policy does not intend to prescribe when and where Auckland Council or Auckland Council controlled organisations (CCOs) can undertake weed management, nor does it provide a basis for authorising weed management operations to be undertaken in any specific circumstances or location. We will make these decisions based on management aspirations, statutory requirements, agreed levels of service and operational policies and guidelines. In some instances, the applicant may need specific approvals before taking on such work (e.g. resource consent). This policy does not remove the need for applicants to obtain all the appropriate approvals before they can undertake weed management operations.

The policy will help deliver the strategic priorities of the Auckland Council’s Parks and Open Spaces Strategic Action Plan 2013 and will also support the strategic outcomes of the Auckland Plan and the priorities identified in the 21 local board plans.

While the weed management policy is a non-statutory document, there are a range of regulatory tools that will be used to implement the policy vision and objectives. These include the Unitary Plan, the Auckland Council Regional Plan: Coastal and the Auckland Regional Pest Management Strategy 2007-2012 (RPMS) or its successors.

We have developed this weed management policy following a review of weed management policies developed by the legacy councils, national and international best practice, current trends in weed management, and iwi, stakeholder and public consultation.

Together with the development of the weed management policy, Auckland Council is undertaking a weed management operational review. This will include a review of current weed management operational approaches, practices and costs, consider alternative approaches and their financial implications, and resulting changes to levels of service. The output of the operational review will be a weed management policy implementation plan.

1.2. What we mean by a weed

Different plant species may be considered a weed in different locations, often depending on land use or the environment in which it is growing. This is why we have adopted a broad definition of weeds for the purposes of the Auckland Council Weed Management Policy.

For the purposes of this policy, a weed is defined as any plant growing where it is not wanted and which has an adverse effect as defined within the policy.
In the context of this policy weeds include, but are not limited to, pest plants identified in the RPMS or its successors.

To be considered a weed, as defined by this policy, a plant needs to be growing in the wrong place and having an adverse effect on people, Māori cultural values, infrastructure, other built assets or the natural environment.

Adverse effects include where plants are:

- competing with and/or displacing native vegetation or planted exotic species, either directly or through habitat modification
- negatively impacting, or having the potential to negatively impact, on indigenous flora, fauna, ecosystems or ecosystem processes
- presenting an invasion risk to other parts of Auckland as defined by its pest plant status in the RPMS or its successors
- damaging infrastructure, increasing maintenance costs and reducing its lifespan
- negatively impacting on system performance (e.g. impeding the flow of stormwater resulting in flooding)
- reducing the usability of sports parks and turf areas
- damaging heritage sites
- conflicting with Māori values
- negatively impacting on human health.

A plant may be considered to be in the wrong place, but if it does not have an adverse effect as defined by this policy it will not be considered a weed in that specific location or context unless the species is identified as a pest plant in that location within the RPMS or its successors.

This includes, as an example, trees and shrubs which are considered to be obstructing views, overgrowing walkways or interfering with the transport functions and/or safe operation of the road corridor. Decisions regarding what, if any, action is appropriate in such circumstances is controlled by operational policies and guidelines, tree protection rules, requirements for resource consent for vegetation removal, rules of the Unitary Plan or other legislative requirements. The weed management policy does not and, as a non-statutory document, cannot supersede such requirements.

In some circumstances, plants identified as weeds in a particular location may not be removed or only partially controlled if there is some tangible benefit in retaining them (e.g. erosion prevention). However, this must be weighed up against the current or future adverse effects of their presence.

The weed management policy recognises that weed management also encompasses a broader definition of vegetation control. In the road corridors and street environments this includes the control of grass verge edges where growth occurs over footpaths, kerbs and channels, and drainage culverts. There are differences between urban and rural road environments in terms of their roadside vegetation and the needs and
potential options for weed and vegetation control. This means that we need different approaches to weed and vegetation management. In parks, vegetation control includes edging of turf areas where vegetation grows up against hard surfaces such as paths, buildings and furniture, as well as edge control around gardens. Weed management in parks encompasses weed control in gardens, sports fields, and pest plant control in native bush and natural areas.

1.3. What we mean by parks and open spaces

We have developed the weed management policy to guide the prevention and management of weeds and the control of vegetation within all parks and open spaces owned or administered by Auckland Council or its CCOs. Parks and open spaces include: parks and reserves, cemeteries, road corridors, public transport facilities, public walkways, civic spaces, riparian margins, wetlands, beaches, volcanic landscapes, and areas of wilderness and native forest.

1.4. Relationship of the Auckland Council Weed Management Policy to the Auckland Regional Pest Management Strategy 2007-2012

The RPMS was developed under the Biosecurity Act 1993 and provides the statutory framework for the efficient and effective management of plant and animal pests in the Auckland region.

The RPMS lists 192 introduced pest plants that meet the criteria for inclusion in the document. Each pest plant is considered capable of causing serious adverse effects to people or the environment and has passed a cost-benefit analysis for control. The RPMS specifies the responsibility for management, be this eradication by the council (Total Control Pest Plants), control by landowners in certain locations (Containment Pest Plants) or restrictions on sale and distribution (Surveillance Pest Plants).

Our weed management policy applies to the management of all pest plants listed in the RPMS. It also provides a policy direction for the management of other plants, which although not considered such a significant threat as to be included in the RPMS, are considered weeds as defined by this policy.

The council has decided to approve a rollover of the RPMS, to take account of the requirements of the Biosecurity Law Reform Act 2012 and the consequent national policy direction from the minister. We anticipate that the review of the RPMS will start in 2013. The review will include full public and sector consultation.

The new document will be in the form of a regional pest management plan, rather than a strategy, in accordance with the amendments to the Biosecurity Act 1993 brought about by the Biosecurity Law Reform Act 2012. Once the review of the RPMS has been completed and it is superseded by a regional pest management plan our weed management policy will apply to the management of all pest plants listed in the new plan or its successors.
1.5. Responsibility for the Auckland Council Weed Management Policy

Auckland Council is responsible for the development and implementation of the weed management policy.

The policy applies to all land owned or administered by Auckland Council and its CCOs. All council and CCOs staff and contractors will be required to adhere to the policy.

Weed management on private land and other public land not owned or administered by Auckland Council or its CCOs is outside of the scope of the weed management policy. However, the policy will influence and empower others to take action on their land to prevent the establishment of weeds, to effectively manage their control and to stop them spreading to other locations.

Weed spread occurs at the landscape scale, so weed management must also happen at that scale. To achieve this, we must foster a coordinated and cooperative approach to weed management.
### Auckland Council
- Direct council control
  - Governing body: regional policy and minimum levels of service
  - Local boards: local policy and variations to levels of service

### Council controlled organisations (CCOs)
- Indirect council control and influence
  - Compliance with Auckland Council policy, statutory and regulatory requirements (e.g. Unitary Plan and RPMS)

### Operations
- Parks and open space
  - Cemeteries
  - Stormwater infrastructure
  - Council properties
  - Street gardens, planted traffic islands and roundabouts

### Auckland Council Weed Management Policy for Parks and Open Spaces 2013

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2. Vision statement

The vision of the weed management policy is as follows.

**Working together to reduce the adverse effects of weeds and their management on people and the environment.**

The policy vision statement acknowledges that weed management is the collective responsibility of all Aucklanders and that a partnership approach between Auckland Council, its CCOs and the community is the best way to achieve the desired outcomes.

The policy vision statement recognises that weeds can have adverse effects on Auckland’s people and the environment. Weeds can cause allergies and health problems in some people, damage infrastructure, affect heritage sites and impact on Māori cultural values, reduce amenity values in public spaces, negatively impact on sports fields and other playing surfaces (including artificial turf), increase the cost of asset maintenance and shorten the lifespan of assets. Exotic weeds can also invade areas of native vegetation, adversely affecting the integrity of ecological systems and the diversity of indigenous flora and fauna in our region. Weeds can also adversely impact on the rural production sector by competing with trees in forestry plantations, horticultural and agricultural crops and desirable pasture species.

The policy vision statement also acknowledges that weed management and vegetation control practices have the potential to adversely affect peoples’ health and that of the environment. Therefore, the process of managing weeds and controlling vegetation must be undertaken in a way that minimises adverse effects.

We must also acknowledge that Māori place great significance on both the physical and spiritual environment by way of kaitiakitanga (guardianship). This document recognises the importance of Auckland Council working in partnership with Auckland’s mana whenua to achieve the aims of the policy, as weeds and the methods used to manage them can negatively impact on Māori cultural values.

To achieve the vision of reducing the adverse effects of weed management and vegetation control, this policy promotes the concept of best practice. Best practice weed management takes an integrated approach to the control of weeds and vegetation, and uses methods that have the least potential to adversely affect human health and the environment while achieving the desired outcome.
3. Objectives

The objectives of the weed management policy are as follows.

| 1. Take an integrated approach to weed management and vegetation control |
| 2. Ensure best practice in weed management and vegetation control          |
| 3. Minimise agrichemical use                                              |
| 4. Minimise non-target effects of agrichemical use                        |
| 5. Ensure public health and safety                                         |
| 6. Protect and enhance the environment                                    |
| 7. Empower the community to manage weeds in accordance with the policy   |
| 8. Deliver weed management and vegetation control which is value for money|

Auckland Council and its CCOs must consider all eight objectives when determining options for weed management and vegetation control.

Objective 1. Take an integrated approach to weed management and vegetation control

An integrated approach involves the use of a range of different techniques to effectively prevent and manage weeds and control vegetation. This requires taking a site-led approach, tailoring management and control to address the specific plant species and site conditions at a particular location.

An integrated approach would include the following.

- **Prevention** – Methods for preventing and/or reducing the establishment of weeds, including: biosecurity at borders; best practice weed hygiene to prevent spread by people and machinery, including appropriate transportation and disposal of weeds through the waste management system; designing infrastructure with regard to reducing or eliminating sites for weed establishment; using native or non-weedy exotic plant species in amenity plantings and appropriate land management practices (e.g. revegetation of weed-infested riparian margins with appropriate native plant species to suppress exotic weeds).

- **Control** – Methods for the effective control of established weeds, including: manual control using hand tools, mechanical control (e.g. mowing, slashing, feling, frequent grading of unsealed roads), biological control using selected invertebrates or pathogens, habitat modification to remove establishment sites, trialling and adopting new technologies and the judicious use of herbicides.
Control methods used should reflect current best practice to achieve the desired outcome.

- **Education** – Training of council and CCOs staff and contractors on the full range of effective weed management and vegetation control techniques in keeping with current best practice. This also includes the role of public education, engagement, advocacy and support, specifically including mana whenua, to encourage effective weed management on land not owned or managed by the council or CCOs.

- **Restoration** – Ecosystem restoration and the wider use of native plants, including species for rongoa (medicine), mahi toi (arts and crafts) and kai (food) where appropriate.

- **Cooperation** – Facilitating inter-agency cooperation to prevent, control and eradicate weed species. Encouraging partnerships between the council, mana whenua, relevant stakeholders and the community.

**Objective 2. Ensure best practice in weed management and vegetation control**

Ensuring the integrated use of current best practice methodologies in the prevention and management of weeds is critical to the success of the weed management policy.

Best practice weed control requires constant research to keep up to date with evolving weed management techniques, both locally and internationally, and continual innovation to achieve effective, efficient and sustainable outcomes. The best practice approach needs cooperation and sharing of information between Auckland Council and its CCOs, other agencies and organisations, stakeholder groups, businesses and the public.

Auckland Council and its CCOs will set a best practice example for weed management on the land they own or administer. This includes managing the environment to reduce or eliminate habitat for weed establishment and selecting appropriate control techniques that minimise resource use and adverse environmental effects. The council will also ensure it is a good neighbour by managing weeds on land it owns or administers in a way that prevents adverse effects on adjacent land.

**Objective 3. Minimise agrichemical use**

This objective recognises that agrichemicals can be harmful to human health and the environment. It also recognises international best practice in integrated management of pests, including weeds, in which agrichemicals are used if non-chemical methods are not practical or adequate at achieving the necessary level of control.

The goal of minimising agrichemical use reflects national and international trends aimed at promoting environmental sustainability while still achieving desired weed control outcomes. To this end, the council and its CCOs will work to promote innovation.
and continual revision of weed management practices to maximise efficiency and effectiveness while minimising the use and adverse effects of agrichemicals. The simplest way of achieving an overall reduction in agrichemical use is through restrictions on the application of chemicals in specific areas or at specific times. Reduction of agrichemical use may require changes to existing levels of service but this may be acceptable if stakeholders and the public are educated as to the relative benefits and cost-savings achieved.

Objective 4. Minimise non-target effects of agrichemical use

Agrichemicals can be a valuable tool for the management of weeds; where they are used, it is vital that non-target impacts are minimised, and wherever possible, eliminated.

Non-target impacts can be minimised through the use of targeted application methods such as cutting tall vegetation prior to spraying; or cutting and painting, drilling and injecting, or spot spraying of herbicide, rather than broadcast application. Where appropriate, the use of low toxicity herbicides or selective herbicides can be effective in reducing non-target impacts. The selection of herbicides and additives (e.g. dyes, stickers or surfactants) needs to carefully consider their suitability, including efficacy and relative toxicity, with respect to the situation in which they are to be used and the desired outcome.

In New Zealand, NZS 8409:2004 Management of Agrichemicals is the industry standard for the use of agrichemicals and sets minimum health and safety and training requirements for contractors and staff applying chemicals. This weed management policy considers NZS 8409:2004 to be the minimum standard. The council and its CCOs will further minimise non-target effects of their weed management and vegetation control operations through ongoing research and development and continual review of best practice guidelines.

Objective 5. Ensure public health and safety


Additionally, Auckland Council and its CCOs have obligations under the Health and Safety in Employment Act 1992 and other legislation to ensure the safety of its staff, contractors and the public when undertaking weed management in public open space.

Therefore, any agreements with external parties or the public to manage weeds on land owned or administered by the council or its CCOs must acknowledge this and safeguard them from undue risk.

Public health and safety can be maximised through:

Auckland Council Weed Management Policy for Parks and Open Spaces 2013

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• appropriate training for Auckland Council and CCOs staff, contractors and volunteers, including the requirement for anyone applying agrichemicals to obtain GrowSafe certification

• careful selection of appropriate weed management and vegetation control techniques and using non-chemical techniques whenever they are available and effective

• adherence to industry best practice by Auckland Council and CCOs staff, contractors and volunteers, noting that national standards such as NZS 8409:2004 Management of Agrichemicals set a minimum requirement, including:
  o notification of the use of agrichemicals in open spaces including effective notification in local newspapers and signage where agrichemicals are being applied (Auckland Council currently publishes spraying schedules for parks in local newspapers)
  o use of the lowest toxicity herbicide and additives (e.g. dyes, stickers, surfactants) to effectively achieve the desired outcome
  o providing the ability for the public to opt-out of chemical weed control on the boundary of their properties (e.g. No Spray Register: Auckland Council and CCOs staff, contractors and volunteers ensure non-chemical maintenance is carried out adjoining the registrant’s property and the registrant commits to manage weeds and control vegetation to a specified standard)
  o providing effective notification of relevant agrichemical use to those on the No Spray Register who have requested to be notified
  o noting sensitive areas or locations, including schools, childcare centres, hospitals, rest homes, public places and amenity areas where people congregate, beehives, sensitive crops or farming systems (e.g. certified organic properties), public roads and times (e.g. when pupils are walking to or from school or there is an event taking place on a park). Auckland Council and its CCOs cannot be expected to know the whereabouts of all such facilities so we rely on their owners, occupiers, or operators to notify us and our CCOs of their existence or to arrange their inclusion on the No Spray Register).

Removing weeds can increase public safety by contributing to security and/or sight lines within public parkland, along public walkways or pathways and within the road corridor. Public health can be enhanced by reducing the incidences of allergies and other health problems that are caused by some weed species.

Objective 6. Protect and enhance the environment

Weeds can have adverse effects on both the natural and the built environment. Weed management and/or vegetation control is often necessary as part of routine asset...
maintenance to protect infrastructure from damage and to maintain the quality and functionality of parks and other open spaces.

Weeds have the ability to out-compete desired plant species in both natural and planted areas. Over time, weeds can decrease indigenous ecosystem diversity through competition for establishment sites and other resources, and remove food sources and habitat for native birds, lizards, bats and invertebrates. Effective weed management is therefore essential to the conservation and enhancement of indigenous biodiversity.

As well as the impact of the weeds themselves, we must take care to avoid potential adverse environmental effects of the methods used to manage weeds, both immediate and long-term. Reducing non-target effects of weed management needs particular attention. This includes the adverse effects of spray drift, accidental removal of desired species or the contamination of soil and/or water. We must consider the positive and negative impacts on indigenous biodiversity, including the presence and location of native flora and fauna identified by the Department of Conservation as ‘at-risk’ or ‘threatened’ when deciding which weed management methodologies to employ at a site.

In some circumstances, weeds can provide beneficial functions in the form of habitat, environmental buffers, shelter, erosion control and shading for waterways. The retention or gradual replacement of exotic weed species can be particularly important in areas of low native biodiversity. However, we need to assess the potential adverse effects of weed retention on a site-by-site basis to ensure that the long-term protection and/or enhancement of indigenous biodiversity and ecosystems, including soil nutrient profiles, are not compromised for short-term gain.

Also, some locations, including sites of cultural significance, may require specific methods of weed management. Auckland Council and its CCOs recognise the kaitiaki role of mana whenua and will engage with them to determine appropriate management methodologies for such sites. Weed management must consider the heritage, botanical, amenity or other values provided by exotic species, including historic plantings and evaluate them in that context where appropriate.

Objective 7. Empower the community to manage weeds in accordance with the policy

Any effective long-term solution to managing weeds in Auckland must include measures to educate and empower the community to help, and in some instances lead, weed management across parks and open spaces. A lack of knowledge about specific weeds in Auckland can mean that people are unaware of the extent or implications of the weed problem. For those that can identify weeds, there is often misinformation about the most appropriate methods of control and particularly a lack of information on suitable non-chemical methods which are both practical and adequate at achieving the necessary level of control.

Empowering and partnering with the community provides an opportunity for local people to get involved in the care of parkland and roadides. This includes local
management initiatives such as no-spray roads, through to the care of local parks by local people and volunteer groups, supported by the council.

Community education, advocacy and partnerships with mana whenua, relevant external organisations and stakeholders are an integral component of weed management. This is particularly important as Auckland Council and its CCOs manage only a small proportion of the region’s land area. Educating the community will allow residential, industrial and commercial landowners to more effectively manage their land and will potentially reduce weed abundance across the region.

Encouraging adjoining property owners or occupiers to work together with the council’s weed management endeavours is essential as weed re-infestation can occur on council-owned or administered land from seed sources on untreated neighbouring properties and vice versa.

Education can include changing peoples’ perceptions of weeds and expectations of weed management. In some places, exotic plants perform beneficial functions and weed control may not be required. For example, weeds can sometimes provide valuable habitat for native animals (e.g. copper skinks, *Oligosoma aeneum*, use rank grass), act as a nursery for regenerating native forest (e.g. gorse, *Ulex europaeus*) and/or prevent other weed species from establishing and reduce overall maintenance requirements. Tree weeds can require staged removal while native trees are planted beneath them to gradually replace the weed species. In some countries, long grass on roadsides is acceptable and even encouraged as animal habitat. Changing peoples’ perceptions of weeds can therefore deliver environmental benefits as well as cost savings in areas of low priority that can be transferred to target areas of higher priority.

Objective 8. Deliver weed management which is value for money

Auckland Council and its CCOs have a responsibility to ensure that ratepayers’ money is spent wisely. Weed management and vegetation control is an operational expense and needs to be cost effective.

Achieving value for money requires that we do weed management and vegetation control as efficiently as possible while still being consistent with the objectives of the policy, and our responsibility to protect people and the environment. This places the responsibility on Auckland Council and its CCOs to ensure staff and contractors are appropriately trained and employ best practice. Weed management and vegetation control needs to be tailored to the specific site conditions and plant species under consideration. A blanket approach across all situations is inappropriate.

Weed management needs to consider the whole-life costs of the proposed methods. This includes the long-term effectiveness of the method, potential adverse effects on human health and the environment – including the toxicity and persistence of any chemicals used – and inputs of fossil fuels, personnel and other resources. Alternatives to existing management regimes will be considered as part of the implementation plan.

Changing current management practices and expectations of the extent to which weeds need to be managed can also deliver cost savings and value for money. We can
achieve this by managing weeds differently and changing public perceptions and expectations of what are acceptable levels of weed management or vegetation control.

Local schools, community groups, volunteers and Department of Corrections Community work groups also provide an opportunity for the council to develop partnerships with external parties. These partnerships can be mutually beneficial by helping educate the wider community about weeds while obtaining their help in managing them across the region with the added benefit of reducing the financial burden on the council and its CCOs.
4. Action plan

The policy action plan sets out the range of tasks and actions that we will carry out to implement the vision and objectives of the weed management policy. The action plan does not directly address issues relating to specific changes to current operational approaches. The operational review will inform a subsequent implementation plan which will outline recommended new approaches to weed management.

The actions have been grouped into six categories, as follows.

1. Planning, policy and regulation
2. Operations
3. Identification and mapping
4. Governance, monitoring, research and reporting
5. Advocacy and education
6. Funding

Action 1. Planning, policy and regulation

1a incorporate the vision and objectives of the weed management policy into the Unitary Plan, the review of the RPMS, and other relevant Auckland Council or CCOs plans, policies and strategies as they are developed or reviewed by providing appropriate input during the consultation phase

1b explore incentives and regulation within the Unitary Plan to manage and prevent weeds on privately owned land

1c during consent processing, encourage the use of appropriate species for amenity planting, street trees and restoration plantings on public and private land (e.g. practice notes for planners, approved species lists)

1d prepare and promote a ‘weed watch’ list which contains plant species not recommended to be planted

1e remove impediments to weed control on public and private land, including the need for resource consents to remove tree species identified as weeds by Auckland Council, but not necessarily listed as pest plants within the RPMS, no matter how large or where they are located

1f explore rationalisation of rules regarding pest plants, as defined by the RPMS or successor documents, listed in the Auckland District Plan 2010 or Unitary Plan as scheduled trees

1g work with our CCOs, Crown entities and other relevant organisations to ensure compliance with the weed management policy (e.g. statements of intent, memoranda of understanding and service level agreements).
Action 2. Operations

2a undertake an operational review to:
- catalogue existing weed management approaches
- clearly document costs, benefits and risks of existing weed management approaches
- identify alternative approaches and their implications, including costs and changes to levels of service in accordance with the objectives of this policy
- consider opportunities to change levels of service where plants are not causing, or have the potential to cause, adverse effects as defined by the policy
- enable the development of a clear policy implementation plan which will become part of all relevant contract management procedures

2b develop and maintain best practice guidelines for weed management and vegetation control

2c assist local boards in setting levels of service for weed management across local parks and open spaces which align with the vision and objectives of the weed management policy by providing relevant technical assistance to inform decision-making

2d enable the development of a regional level of service which Auckland Council's CCOs can incorporate into their statutorily required statements of intent

2e include all weed management policy objectives within weed management and/or vegetation control contracts by reviewing and amending contracts where appropriate. This will include incorporating best practice methods into all weed management and/or vegetation control documents and contracts

2f effectively manage the council's contractors to ensure adherence with approved best practice methods by making appropriate amendments to auditing specifications and procedures

2g develop an implementation plan based on the findings of the operational review.

Action 3. Identification and mapping

3a locate populations of Total Control Pest Plants and any new weed species incursions across the region, with the objective of eradication

3b collate and use existing significant ecological area information we hold to prioritise weed management across the region:
• to identify areas that require more intensive weed management to protect infrastructure, assets or the natural environment to enable appropriately targeted and cost-effective prioritisation of investment

• for sites of high ecological value, develop park-specific weed management plans, including the identification and mapping of weed infestations.

Action 4. Governance, monitoring, research and reporting

4a form a governance group which will oversee the implementation and delivery of the Weed Management Policy. This group will comprise of representatives from the governing body, local boards, the council, key staff, mana whenua and, potentially, relevant external parties to ensure robust decision-making which takes account of both community and technical considerations. Composition of the governance group and its exact functions will be determined by the governing body. The governance group will meet at least twice annually and will audit the performance of both the Weed Management policy and all relevant operational programmes.

4b form a best practice reference group, which will report to the governing body and the governance group to ensure that the weed management policy and all operational programmes maintain international best practice. The best practice reference group will comprise senior technical staff from the council and its CCOs, relevant external parties and independent national and/or international experts. This group will meet periodically to recommend improvements to procedures and will maintain a presence on the Auckland Council website. Group members will be expected to keep up to date with relevant research and trends in weed management.

4c liaise with and provide weed management information to the Research, Investigations and Monitoring Unit so that the council’s published State of the Environment reporting can include data on the council’s weed control methods, types and volumes of herbicides used and areas being managed.

4d collaborate and undertake research on potential and actual weed species and weed management methods, including biological control, with the council’s biosecurity staff, Landcare Research, private sector weed management practitioners and any other relevant parties.

4e disseminate information on research and best practice to council staff, CCOs and contractors, relevant external organisations and stakeholders and the general public.

4f access government funding for research where possible.

4g together with our CCOs, trial alternative methods of weed management and, where successful, promote them internally and externally.
Action 5. Advocacy and education

5a support and/or work with volunteer groups to establish weeding and planting programmes to reduce weeds and weed habitat on public land

5b develop initiatives around educating mana whenua and the public on how to eliminate weeds and prevent weeds establishing or re-establishing on their land, and provide information that encourages the planting of appropriate non-weedy, preferably native, plant species

5c publicise the council’s and its CCOs’ weed management rationale and educate mana whenua and the public on the relative threats that weeds pose to change public perceptions and expected levels of service (e.g. long grass on roadsides may look messy but in some situations it may be the most environmentally sustainable and cost-effective way to manage that environment)

5d encourage collaboration between existing weed control programmes and initiatives across Auckland to prevent and control weeds, improve ecological health and increase community participation in weed management operations

5e assist local boards in advocating, partnering and supporting community initiatives and education, including mana whenua

5f promote exemplary weed management on private and public land (e.g. through well-publicised environmental sustainability awards).

Action 6. Funding

6a ensure that we provide appropriate budget and resourcing for us and our CCOs to implement this policy successfully

6b provide funding and/or technical support for weed control by mana whenua, community groups, other relevant organisations and the public

6c ensure that all recipients of council funding for weed management programmes adhere to council-approved best practice methods.
## Glossary

<table>
<thead>
<tr>
<th>Term</th>
<th>Definition</th>
<th>Source</th>
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<tbody>
<tr>
<td>Agrichemical</td>
<td>Any substance, whether inorganic or organic, manufactured or natural occurring, modified or in its original state, that is used in any agriculture, horticulture or related activity, to eradicate, modify or control flora and fauna.</td>
<td>New Zealand Standard 8409:2004, Appendix A.</td>
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<td>Best Practice</td>
<td>A ‘best practice’ is a method or technique that has consistently shown results superior to those achieved with other means, and that is used as a benchmark. In addition, a ‘best practice’ can evolve to become better as improvements are discovered.</td>
<td>Wikipedia 16 May 2013 Retrieved from <a href="http://en.wikipedia.org/wiki/Best_practice">http://en.wikipedia.org/wiki/Best_practice</a></td>
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<tr>
<td>Containment Pest Plant</td>
<td>Refers to pest plants that landowners/occupiers are required to treat throughout or in defined areas of the region, or in boundary situations, as described in section 7 of the RPMS. Plants are to be treated by a recognised method, at intervals that ensure the pest plant is completely controlled or controlled to or from a stipulated distance from a property boundary.</td>
<td>Auckland Regional Pest Management Strategy 2007-2012</td>
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<td>Health</td>
<td>In relation to human health, a state of complete physical, mental and social wellbeing, and not merely the absence of disease or infirmity.</td>
<td>Auckland Regional Pest Management Strategy 2007-2012</td>
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<tr>
<td>Herbicide</td>
<td>An agrichemical that is specifically designed to kill or eradicate unwanted plants.</td>
<td>New Zealand Standard 8409:2004, Appendix A.</td>
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<td>Kaitakitanga</td>
<td>The exercise of guardianship by the tangata whenua of an area in accordance with tikanga Mauri in relation to natural and physical resources, and includes the ethic of stewardship.</td>
<td>Resource Management Act 1991</td>
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<td>National Pest Plant Accord (NPAA)</td>
<td>The NPPA is a cooperative agreement between the Nursery and Garden Industry Association, regional councils and government departments with biosecurity responsibilities. All plants on the NPPA are unwanted organisms under the Biosecurity Act 1993. These plants cannot be sold, propagated or distributed in New Zealand.</td>
<td>National Pest Plant Accord 2012</td>
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<tr>
<td>Naturalise</td>
<td>Introduced plants that form self-sustaining populations outside cultivation, either through the production of viable seed or by vegetative reproduction.</td>
<td>Auckland Regional Pest Management Strategy 2007-2012</td>
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<td>Parks and open spaces</td>
<td>For the purposes of this policy, parks and open spaces include: parks and reserves, cemeteries, road corridors, public transport facilities, public walkways, civic spaces, riparian margins, wetlands, beaches, volcanic landscapes, as well as areas of wilderness and native forest owned or administered by Auckland Council or its CCOs.</td>
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<tr>
<td>Pest</td>
<td>An organism specified as a pest in a pest management plan.</td>
<td>Biosecurity Act 1993</td>
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<tr>
<td>Term</td>
<td>Definition</td>
<td>Reference</td>
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<tr>
<td>Pest Plant</td>
<td>Introduced plants subject to control or restrictions under the RPMS. Includes Total Control Pest Plants, Containment Pest Plants, and Surveillance Pest Plants. Can also refer to species listed in the NPPA.</td>
<td>Auckland Regional Pest Management Strategy 2007-2012</td>
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<tr>
<td>Plant</td>
<td>Any grass, tree, shrub, flower, nursery stock, culture, vegetable, or other vegetation, and also includes the fruit, seed, spore, portion or product of any plant. Includes all aquatic plants. Note that algae and lichens are not considered plants for the purposes of this policy but the use of agrochemicals for their management shall be guided by the principles of this policy.</td>
<td>Auckland Regional Pest Management Strategy 2007-2012</td>
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<td>Surveillance Pest Plant</td>
<td>Refers to pest plants for which there is no requirement prescribing control of field infestations, but for which the sale, propagation, distribution and exhibition has been prohibited, in order to arrest the further spread of these plants by humans, as described in section 8 of the RPMS.</td>
<td>Auckland Regional Pest Management Strategy 2007-2012</td>
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<td>Total Control Pest Plant</td>
<td>Pest plants that are of limited distribution or density within the Auckland region, or defined areas of the region, and are considered to be of high potential threat to the region, for which Auckland Council and its CCOs shall assume responsibility for funding and implementing appropriate management programmes. The aim is to eradicate these plants.</td>
<td>Auckland Regional Pest Management Strategy 2007-2012</td>
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<td>Weed</td>
<td>For the purposes of this policy, a weed is defined as any plant growing where it is not wanted and which has an adverse effect as defined within the policy. Therefore, whether a particular plant species (other than those identified as pests in the RPMS) is considered a weed is site and/or context-specific.</td>
<td>Auckland Council Weed Management Policy for Parks and Open Spaces 2013</td>
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