



**TRELISSICK PARK GROUP
TRELISSICK PARK FIVE-YEAR PLAN 2016 – 2021
(updated March 2019)**

<i>Abbreviations:</i>	<i>WCC:</i>	<i>Wellington City Council.</i>
	<i>GW:</i>	<i>Greater Wellington Regional Council.</i>
	<i>DOC:</i>	<i>Department of Conservation</i>
	<i>TPG:</i>	<i>Trelissick Park Group</i>
	<i>HPPA:</i>	<i>Highland Park Progressive Association</i>
	<i>NCDRA:</i>	<i>Ngaio Crofton Downs Resident's Association</i>

Footbridges are numbered 1 – 6 from the upstream end of the Park.

Wellington Water is responsible for stormwater and sewer issues and debris trap servicing.

Map: See www.trelissickpark.org.nz via Home Page.

TPG has worked on the restoration of Trelissick Park, in conjunction with WCC and GW, since 1991. TPG is made up of the community organisations listed in the footer at the end of this document.

This is the fifth Five-Year Plan and is structured as follows:

- Introduction
- Historical background
- Problems resulting from interference
- Vision
- Management plan
- Major purchases and work undertaken
- Current issues and action plan.

Introduction

Trelissick Park is bordered by the suburbs of Highland Park, Wadestown, Crofton Downs and Ngaio. It is located in and around the valleys of the lower Kaiwharawhara Stream and its tributary, the Korimako, and includes the Ngaio Gorge.

The park occupies a pivotal position within the Kaiwharawhara catchment (stretching from Karori to Khandallah and down to the harbour), which has been recognised as a significant part of Wellington's natural heritage, with spectacular natural features of the rocky gorge landscape and a diversity of species and habitat. It acts as an ecological corridor between the Harbour and Otari/Wilton's Bush, Zealandia, Huntleigh and Khandallah Parks. It contains areas of original forest remnant. It is also an area of historic significance and protects the elements of land and forest essential to the Maori wairua or sense of well-being

Wellington is unique in having areas of native bush and open space land within and bordering the suburbs. Coupled with the hilly topography and the harbour, Wellington is an extremely attractive place to live and work, as well as to visit. Trelissick Park is a "gem", only 5-10 minutes from the centre of the city.

Historical Background

Between 1920-22 11 hectares were acquired for the park. Subsequent parcels were added. The large, flat area of Wightwick's Field was generously donated by the Wightwick family to WCC in 1993. Two parcels were then purchased – an area off Ngaio Gorge Road where the historic powder magazine building is situated (Historic Places Act Category II) in 1994 and another off Waikowhai Street in 1999, Ngaio (re-zoned from 'Residential' to 'Conservation'). Both have provided excellent east and north entrances to the park. Another piece of land below Oban Street, Highland Park, was added to the park in 1997 when a WCC property was sold. The total area for the Park is now 20.25 hectares (compared with 100 hectares in Otari/Wilton Bush).

Parts of the Park adjoin railway land and parts border private land. Some owners off Hanover Street covenanted their hilly slopes down to the stream to the QEII Trust, so the land will remain in bush in perpetuity (registered 1999 - 2002).

Some historic aspects include the powder magazine buildings from the 1870s, dry-stone walls bordering the track from the lower park entrance, old Maori tracks up the valley from the pa by the harbour and an old track linking Wadestown with Ngaio (now part of the Northern Walkway).

The Korimako Stream from below Waikowhai Street at the western boundary of Lot 1 DP 350309 and down to where the Kaiwharawhara Stream discharges into Wellington Harbour is one of the areas specifically referred to in the Deed of Settlement between Taranaki Whanau ki Te Upoko o Te Ike and the Crown and is subsequently referred to in the Port Nicholson Block Claims Settlement Act 2009 as an area of Statutory Acknowledgement with participation rights for the Port Nicholson Trust.

Problems Resulting from Interference

Interference with the land covered by or adjoining the Park has been major, affecting its bush/environmental attributes. Some are noted below:

- Nineteenth century activities, including farming and logging.
- Building the railway line (initially the main trunk line) from 1886 with subsequent alterations. Spoil was tipped down the hillsides from construction of major embankments, cuttings, tunnels and culverting for the Kaiwharawhara Stream and for the stream from Crofton Downs. This disturbed and eroded re-growth on railway land, now mainly covered by pest weeds, and caused erosion into the stream in places. In 2008-9 the railway lines were lowered within tunnels to accommodate new trains, with access for heavy machinery and major earthworks affecting the park. Several major slips on railway land have affected the Park.
- Developing in 1898, then realigning the Ngaio Gorge Road, with consequent bad slips and spoil tipped down the hillsides into the park. Earthquake strengthening of Ngaio Gorge Road - ongoing from 2003 resulting in removal of natural vegetation, spoil tipped down the hillsides into the park and weed infestation.
- Sewage pipe installation in the valleys with tunnels from Otari Wilton's Bush and Khandallah. Clearance work contributed to large blackberry areas on the slopes and stream-sides in places. Sewage smells are sometimes present near the sewage tunnels. Upgrades caused further disruption from removal of bush and excavation: a new sewer from the Waikowhai Street entrance into the park in 2010 and at the Korimako Stream below Waikowhai Street due to earthquake damage in 2013 and foundation undermining by the stream in 2014. Sewer pipe leaks are not infrequent.
- Use of the streams to receive all storm-water from the catchment (about 20 km²), with volumes increasing considerably as more houses are built. This arises from removal of bush cover and faster runoff from hard surfaces. In some cases storm-water pipes exit on to hillsides above the park, creating unnatural deep gullies, bogs, washouts and destruction of tracks. After heavy rain the swift and violent volume of water in the stream leads to bank erosion and build-up of silt/gravel, affecting stream bed invertebrate life. An ugly debris trap to collect logs and gravel was hurriedly constructed out of demolition concrete and rusty railway lines in Kaiwharawhara Stream after the severe storms of 1976. Some improvement work on the trap was subsequently carried out.
- Prior to the formation of TPG in 1991, cleared stream-bed material was gradually being dumped in the main part of the valley - in one place forming a huge mound. This was eventually spread out over the area, raising the level and making successful tree planting extremely difficult in the gravel.
- Ongoing rubbish dumping into the park at the lay-by half-way up Ngaio Gorge Road, also from Trelissick Crescent.
- Accidents on Ngaio Gorge Road resulting in cars falling into the park. Occasional abandoned cars.
- Weed infestation from garden escapes and dumping garden waste. Weed infestation from the railway corridor and from birds carrying seeds from urban exotics.

Vision

Trelissick Park to be a healthy wilderness of representative indigenous native bush, hillside, rocky outcrop, riparian and freshwater ecosystems. It will be an attractive and desirable area, freely accessible for all to visit and enjoy.

Management Plan

This Five-Year Plan should be viewed in conjunction with the aims and objectives in the *WCC Suburban Reserves Management Plan 2015*.

Primary Aims

- Maintain, enhance and restore the natural environment and wilderness character.
- Facilitate recreational use while maintaining environmental values and enhancing public appreciation of these values.
- Recognise cultural and historic significance.

Achievement of these Aims

The headings below are retained from those in the original *Trelissick Park Management Plan June 1995* and in previous TPG Five-Year Plans with animal pest control added.

- Statutory Management - Manage the park according to local and national statutory aims and provisions relating to reserves.

- Conservation/Landscape Significance - Manage the park as a significant conservation/historical site and landscape feature of the Wellington District.
- Regeneration/Planting - Encourage natural regeneration and replanting using species indigenous to the area, with particular consideration to encouraging a greater variety of native birdlife.
- Weeds and Adventive Species - Control or eliminate noxious weeds and inappropriate adventive species.
- Animal pest control - Control or eliminate possums, mustelids, rats and hedgehogs.
- Water quality/Habitat - Encourage the improvement of water quality in the streams and the enhancement of freshwater habitat.
- Recreational Use - Facilitate recreational use and development in a manner that maintains the natural environment.
- Education - Promote awareness of the environmental, historic and cultural features through appropriate interpretation.
- Adjacent Areas - Ensure where possible that adjacent areas are managed in a way that protects park values and if appropriate acquire such areas for addition to the park.
- Service/Infrastructure Interference - Make provision for service and utility infrastructure where this cannot be located elsewhere and ensure that the impacts on natural, recreational, landscape and cultural values are minimised where practicable.

Major Purchases and Work Undertaken

Major purchases and work undertaken: refer Appendix 1.

Current Issues and Action Plan

Current issues and the action plan to address these in the five-year period (2016 – 2021) are listed below. This detail is provided to illustrate the special and complicated needs of Trelissick Park resulting from its background and surroundings in the wider context of WCC's *Our Natural Capital Wellington's biodiversity strategy and action plan 2015* and *Suburban Reserves Management Plan 2015*.

The same headings as in the above achievement of aims are used (applied broadly in some cases).

Issues	Actions to Address the Issues (action party in bold. Sufficient WCC budget essential.)
Statutory Management	Applicable to work below.
Conservation/Landscape Significance	
<p><u>Implementation Plans</u> - Efforts have been made in the past by TPG to prepare implementation plans, and requests for specific action under Annual Plans but a problem has been not knowing what details for funding WCC officers are recommending in these plans.</p> <p>Issues such as overall drainage, stormwater and building conditions, affect the Park through action taken outside its boundaries but within the catchment.</p> <p><u>Resource Consent/District Plan compliance</u> - Lax monitoring by WCC officers and increasing tendency to issue non-notified consents.</p>	<p>TPG: Submissions on WCC and GW 10 year plans, WCC Annual Plans, various WCC District Plan changes, policies and other plans/guidelines.</p> <p>TPG: Report any non-compliance observed and advocate for notified consents.</p>
<p><u>General Maintenance</u> - Constant vigilance needed to report on exactly where maintenance work is required, such as removal of trees fallen across tracks and into streams, slips and erosion damage affecting tracks or park furniture, repair of sewer leaks, removal of rubbish and removal of graffiti.</p>	<p>TPG: Report for WCC to fix where work too large to handle or requiring machine tools.</p> <p>WCC: Weed-eat Wightwick's Field, grass slope below Trelissick Crescent opposite No. 19, Waikowhai Street entrance, flat area beside magazine building and grass areas beside the vehicle track from the debris trap up to the first sewer tunnel.</p> <p>TPG: Weed-eat grass areas just upstream of bridge 2, downstream of bridges 4 and 5 and beside the vehicle track from the lower Ngaio Gorge Road entrance.</p>

	<p>WCC: Ensure vegetation clear on both sides of Northern Walkway and Sanctuary to the Sea tracks.</p> <p>TPG: Ensure vegetation clear on other tracks.</p> <p>TPG: Collect rubbish from the park to a 'dump' area below Trelissick Crescent.</p> <p>WCC: Collect/remove from Trelissick Crescent roadside when requested by TPG.</p>
Regeneration/Planting	
<p>Areas to be planted:</p> <ul style="list-style-type: none"> • Ground cover for tradescantia sprayed areas. • On railway land following old man's beard/Japanese honeysuckle/buddleia clearance by WCC's contractor on slopes upstream of bridge 6. • Slopes below Ngaio Gorge Rd, following earthquake strengthening, after weed eradication. • Additional 'heritage' canopy trees. • Additions of species to enhance diversity, eg epiphytes, ferns, nikau, maire, rimu, grasses/sedges, various shrubs. • On-going maintenance and infill of recently planted areas. • Need to maintain some clear areas, view shafts and views/access to streams. 	<p>TPG planting plan:</p> <ul style="list-style-type: none"> • Plants to be sourced from WCC annual allocation, donations and home or other nurseries. Planting via working bees, corporate, school or other groups and adopt-a-spot or 'roaming' volunteers. • All plants to be locally appropriate for the representative ecosystem types and eco-sourced. • Releasing of weeds over first 3 – 4 years around plants. • Removing branches/vines of fast growing species impeding the growth of adjacent slow-growing canopy species. <p>KiwiRail/WCC: More planting along the railway corridor for KiwiRail, if funding allows.</p>
Weeds and Adventive Species	
<p>There are problems with pest weeds spreading:</p> <ul style="list-style-type: none"> • From the railway corridor. • From recently excavated slopes below Ngaio Gorge Road during earthquake strengthening. • From garden escapes and weed dumping. • From sycamores in adjacent areas, eg on Old Porirua Road and covenanted land below Hanover Street • From Australian wattle spreading from the railway corridor. • From remaining tracts of tradescantia in the park, which will spread. • Infestations of old man's beard and climbing asparagus are increasing. • Non-endemic natives, in particular karaka. <p>Isolated instances of other species within the park, eg Old man's beard, Japanese honeysuckle, bindweed, gorse, sycamore, flowering cherry, Asiatic knotweed, blackberry, buddleia, montbretia, Himalayan balsam.</p>	<p>WCC: Continuing pest plant control. Old man's beard, Japanese honeysuckle and climbing asparagus are priorities and will require long-term and ongoing management. Tradescantia control will be to targeted areas only, eg areas where TPG would like to replant, the infestation is isolated, there is a decreased risk of reinvasion and adjacent to the remnant forest area.</p> <p>TPG/WCC: Continue liaison and confirm programme to allow coordination with planting.</p> <p>TPG: On-going manual weed clearance.</p> <p>TPG: Removal of karaka under 2 m.</p>
Historic Magazine Buildings and Wall - Weeds regularly invade along the access road wall and also on top of the walls of the magazine buildings and around the bases.	WCC: Periodic spraying.
Animal Pest Control	
<p>Although there has been no evidence of possum damage in the park for the last 10 years, there are ongoing problems with rats, stoats, hedgehogs and rabbits.</p>	<p>TPG: Ongoing monthly mustelid trap and bait station servicing/reporting to WCC/GW.</p> <p>GW: Servicing of 'Baitsafe' stations for possums.</p> <p>WCC/GW: Supply of bait and equipment. Removal of bait collected after use.</p>

	TPG: Remove chew card signs.
Water Quality/Habitat	
<u>Erosion and Sedimentation</u> <ul style="list-style-type: none"> • Stream-bank erosion from sudden large downpours • Storm-water run-off from hard surfaces of urban development after removal of bush cover • Hillside slips • Concern about possible heavier rain events due to climate change • Water quality affected. <p>The Park is much affected by what occurs in the wider catchment.</p> <p>WCC has made some progress - eg the WCC <i>Our Natural Capital</i> for 2015 states "The use of green infrastructure and water sensitive urban design is commonplace". WCC have also produced water sensitive urban design guidelines (WSUD), to be incorporated into the <i>Code of Practice for Land Development</i>. WCC expect it to be a consideration in the land use consent, but not in the <i>District Plan</i>. The District Plan team and Wellington Water are working on how urban growth and infill will affect stormwater run-off quantity and quality, possibly not with hydrologic neutrality, but to at least minimise and mitigate the impacts of stormwater.</p> <p>Wellington Water are working on <i>Integrated Catchment Management Plans</i>, but the one for the Kaiwharawhara catchment will be completed after 2018.</p>	WCC: Consider mandatory permanent stormwater slowing provisions in new infill or housing developments in the hills of the catchment, to give neutral effect and stormwater slowing provisions in stormwater upgrades or in new stormwater systems.
<u>Debris Trap</u> - The trap was restored some years ago with rocks replacing most demolition concrete, and the upright rails re-inserted. In 2013, a layer of rocks was removed from the trap, which has overcome the problems of silt accumulation and pooling upstream and impediment to fish passage.	TPG: Remove debris frequently, to prevent build-up. Wellington Water: Remove major debris by machine if requested by TPG.
<u>Sewage/pollution</u> - Smells from sewer pipes and sewage discharge into the streams of the park, also general pollution of the streams.	TPG: Monitor constantly, then advise WCC and GW pollution hotline. Encourage more public reporting. WCC/GW: More/ongoing publicity, e.g. car washing, cleaning after painting and concreting going into stormwater system.
<u>Fish Passage</u> - There are impediments to fish passage throughout the catchment. In 2016 Wildlands produced a report on these.	WCC: Implement solutions at the impediments identified in the 2016 Wildlands study.
Recreational Use	
<u>Dogs</u> - The off-leash status of the park has resulted in increased usage by dog walkers, with attendant problems of poo-bag littering, stream bank erosion and dogs not under control. <u>Additional Tracks</u> - An entrance from Oban Street, Highland Park was listed in the 1995 Management Plan and is being implemented (2019), including a footbridge across Kaiwharawhara Stream to connect with the existing track network.	WCC/TPG: Continue public education and monitoring. TPG: <ul style="list-style-type: none"> • Funding for footbridge. • Track in the Park to WCC standard. • GW resource consent. WCC <ul style="list-style-type: none"> • Entrance work across road reserve and

	<ul style="list-style-type: none"> between the houses, including landscaping. • Project management for all track and bridge work. • WCC resource and building consents. • Insurance and subsequent maintenance.
Education	
<u>Publicity</u> – On-going.	TPG: See under same heading, Appendix 1.
Adjacent Areas	
<p><u>Railway Land</u> - WCC has obtained verbal approval from Ontrack (now KiwiRail) for WCC or TPG to work on all streamside areas on railway land. However, work on the most precipitous gorge areas is impracticable and any vegetation clearance may initiate slips.</p> <p>There are also three areas of railway land leased to WCC.</p>	
<u>Land Classification</u> - Some areas beside Ngaio Gorge Road are designated as 'road reserve', but managed as part of the park - in particular the area south of the magazine site.	WCC: Review District Plan zonings for the park and where appropriate rezone to Conservation Site.
<p><u>QEII National Trust Covenants</u> - Private landowners off Hanover Street with land down to Kaiwharawhara Stream have had covenants for several years – only one owner did not join. TPG have tried to get relevant Trelissick Crescent owners to seriously consider covenanting but have made no progress so far. (Note: TPG have done much restoration work on private land near Wightwick's Field). The rates relief given by WCC is not sufficient incentive although the fact that the land is protected for the future is enough for some landowners.</p>	<p>WCC: Seek to protect ecologically significant sites on private land through District Plan, voluntary agreements and/or acquisition.</p> <p>TPG: Again approach Trelissick Crescent owners about covenanting.</p> <p>TPG: Assess boundaries of existing zones eg Conservation/Outer Residential encompassed by each property, then prepare a paper to WCC concerning any risks of future housing development.</p>
<u>Silverstream Historic Revetment Wall</u> – Partial collapse, could jeopardise railway above?	TPG: Discuss restoration with WCC before any further contact with KiwiRail.
<u>Remaining Garages on Park Side of Ngaio Gorge Road</u> - Rubbish issues, actioned by WCC. The requirement to house cars is thought to be non-compliant.	TPG: Monitor.
<p><u>Kaiwharawhara Estuary/Reclamation</u> – Rubbish and weed control need attention. This messy area may eventually be one end of the Sanctuary to Sea Walkway.</p> <p>Access to the attractive beach at the north side of the reclamation is not available.</p> <p>Concern about access to the northern beach area was raised in TPG's submission on the 2015 GW <i>Proposed Natural Resources Plan</i>.</p>	<p>TPG: Continue organising/participating in annual 'Sea Week' clean-up, which includes weeding at plantings at the northern end of the vehicle marshalling area.</p> <p>Wellington Civic Trust (who took over from TPG in 2012): Follow-up advocating/monitoring.</p>
<u>Kaiwharawhara Stream to Hutt Road</u> - TPG have worked with The Body Shop on the lower section. Regeneration planting has been carried out on the upper section. TPG, assisted by WCC have cleared and planted 57 Kaiwharawhara Road, with permission from Wellington Water	TPG/WCC/Property Owners: Ongoing maintenance. TPG will continue with maintaining 57 Kaiwharawhara Road.
<u>Churchill Reserve</u> - Weeds from this reserve, upstream of the park, get carried downstream into the	TPG: Ongoing sweeps of this reserve for Himalayan balsam.

park.	
Service/Infrastructure Interference	
Sewer leaks and upgrades, road and railway upgrades, slips.	WCC/TPG: Joint mitigation and restoration.

TPG Funding - Not being an incorporated group, TPG cannot access some funds. However NCDRA and HPPA (both members of TPG) have acted as 'umbrella' organisations accepting funds on our behalf. TPG have managed to survive financially with the assistance of funding from WCC and GW, together with a range of donations and excellent work by volunteers, including developing home nurseries.

APPENDIX 1

Major Purchases and Work Undertaken Since 1991

Major purchases and work undertaken by the TPG, WCC and GW (apart from general maintenance) are listed below. The same headings as above are used (applied broadly in some cases, with animal pest control added).

Statutory Management

Applicable to work below.

- Preparation of *Trelissick Park Management Plan 1995*, superceded by the *Suburban Reserves Management Plan* in 2015 and other reports (non-statutory), such as the 1992 *Stream Management Plan*, 1998 *Pharazyn Enhancement Plan* for the historic site and the 2004 report for WCC/GW by Paul Blashke et al: *Priorities for Ecological Restoration of the Kaiwharawhara Catchment Wellington City*.
- 2007 - Agreement on Memorandum of Understanding between WCC and TPG.
- 2014 - Archiving of TPG records for Onslow Historical Society.

Conservation/Landscape Significance

- Submissions, advocacy and attendance at meetings by TPG to WCC and GW on various issues affecting the park, such as housing developments in the catchment, District Plan changes, WCC annual and long-term plans, the Kaiwharawhara estuary/reclamation area, access from Oban Street.
- Demolition of old plastics factory after the powder magazine area was purchased by WCC in 1994, then restoration work by WCC in 1999 before the fire damage on the powder magazine building in 2000 and subsequent restoration in 2002. Removal of adjacent concrete pad in 2004.
- 2003 - Trelissick Park was designated as a Key Native Ecosystem (KNE), but removed from that designation in 2014.
- 2003 - 2015 - Participation by WCC/GW/TPG in Project Kaiwharawhara activities.
- 2015 - Installation of a weta 'hotel' in forest below Trelissick Crescent.
- 2017 onwards - participation in Zealandia's 'Sanctuary to Sea' Project.

Regeneration/Planting

- Provision of plants from WCC annually, GW 'Take Care' funding, Honda Tree fund, home and other nurseries and from donations.
- Regular tree planting (including infill) and follow-up maintenance work, track clearance and removal of pest plants and trees by TPG volunteers, aided by Conservation Volunteers, school, scout/cubs/guides, corporate and other groups. Since 1991, around 90,000 trees have been planted in total up to the end of 2018.
- 2002 - 2003 - WCC/GW helicopter spraying to clear four slopes of blackberry, followed by planting by WCC/TPG in 2004 - 2006. WCC also planted stream-side from the powder magazine site to the lower entrance and below lower entrance (off Kaiwharawhara Road).
- From around 2003 - Development of home nurseries by TPG volunteers.
- 2006 - 2007 - Expansion of TPG adopt-a-spot scheme under a 1-year part-time contract for a coordinator, funded by the Ministry for the Environment (in conjunction with HPPA).
- 2007 - Planting of two railway land areas cleared of blackberry by GW - from 'Take Care' funding.
- 2008 - Planting of some infill podocarps by Royal Forest and Bird Protection Society.
- 2008 and 2010 - Restoration planting by contractor on two excavated areas after Ngaio Gorge Road strengthening work.

- 2009 - Restoration planting funded by Ontrack (now KiwiRail) for area between powder magazine site and lower entrance including restoration of stream banks & excavated slope up to the railway line (following Johnsonville line tunnel/track upgrade damage).
- 2010, 2012 and 2014 - Restoration planting by contractor at excavated area after sewer installation from Waikowhai Street to bridge 1.
- 2010 - Planting of railway riparian strip downstream of bridge 5 after clearing blackberry - funded by DOC Community Conservation Fund.
- 2013 - 2015 - Gifting by TPG of surplus home nursery plants to other groups.
- 2014 - 2015 - Planting along railway corridor by Treescape for KiwiRail.
- 2016 ongoing - Infill and understory planting, also more heritage/canopy species. Clearing around planted heritage/canopy species

Weeds and Adventive Species

- Control of tradescantia, old man's beard, Japanese honeysuckle and other pest weeds by joint WCC/GW funding, then by WCC from 2014.
- Manual weed control by TPG volunteers, also removal of small karaka.
- 2006 - GroSafe training for TPG volunteers to use herbicide gel.
- 2007 - Poisoning and then cutting willows along Korimako and Kaiwharawhara Streams by WCC.
- 2009 - 2012 - Spraying of small outbreaks of tradescantia and montbretia under GW 'Take Care' funding.
- Around 2009 - One TPG volunteer certified to use TPG weed-eater provided by WCC.
- 2009 - Poisoning Asiatic knotweed by WCC/GW. Later follow-ups.
- 2011 - Cutting of some of the poplars below Crofton Downs railway station.
- 2011 - Introduction of tradescantia leaf beetle by GW opposite and downstream of powder magazine building (unsuccessful)
- 2013 - Restoration of dry-stone historic walls near lower entrance.
- 2015 - Regular spraying of historic powder magazine walls and of dry-stone historic wall near lower entrance.

Animal Pest Control

- 1996 - Possum bait stations installed, serviced by GW contractor.
- 2008 - Bait station servicing taken over from GW by TPG volunteers - done monthly instead of 3 monthly.
- 2008 - Mustelid traps installed by WCC/GW - serviced monthly by TPG volunteers.
- 2009 - Night shoot for rabbits by GW unsuccessful.
- 2012 - More bait stations installed in collaboration with WCC. Locations mapped.
- 2012 - All monitoring recorded in Google Docs spreadsheet to allow viewing by all parties.
- 2012 - 2013 - Chew card, tracking tunnel, night-video monitoring carried out by Victoria University in conjunction with WCC/TPG.
- 2012 - 2013 - Some rabbit kills by wire-haired terrier owned by frequent visitor.
- 2015 - Installation and monitoring of Victor rat traps on railway corridor above the Korimako Stream by Crofton Downs group as part of 'Halo' project.
- 2016 - Change from brodifacoum pellet bait to 'block bait' following problems with dogs eating bait.
- 2016/17 - Installation of self-resetting Goodnature A24 traps
- 2017 - GW installed possum lever-opening 'Baitsafe' stations. They will service them.
- 2017/18 - Photographic monitoring of animal pests, dogs and cats and other animal pest studies by Victoria University MSc students.

Water Quality/Habitat

- 1993 and 1996 - Kaiwharawhara Stream bank strengthening, including rock gabions, by WCC.
- 1993 and 1998 - Concreted gobi-blocks installed by WCC for two watercourses across the access road alongside the Kaiwharawhara stream.
- 2002 - Improvement of debris trap by WCC - demolition concrete slab pieces replaced by rocks.

- 2006 - Installation of fish passage at exit of Kaiwharawhara Stream from tunnel at junction with Korimako Stream by WCC/GW.
- 2010 - Bridges 4 and 5 foundations protected by rock gabions.
- 2013 - Removal of a layer of rocks to facilitate fish passage.
- 2016 - Waste water monitoring station installed 500 m upstream of debris trap to help trace stormwater/sewer cross-connections.
- 2016 - Catchment fish passage study by Wildlands.
- 2017 - Upgrade of fish passage at Kaiwharawhara Stream exit from the tunnel under the railway line.
- 2017 - Riparian management and fish studies by Victoria University MSc students.
- 2018/19 - Installation of stream monitoring equipment by GW.

Recreational Use

- When TPG was formed in 1991 there was only one through-track from Hanover Street to Trelissick Crescent. Two old overgrown tracks off the Northern Walkway were opened in 1993. New track developments include one joining the magazine site with the debris trap (1993); 'access' track from below Hanover Street to memorial seat (2007); 'tramping' track traversing hillside below Ngaio Gorge Road (2007) and Korimako streamside track from Waikowhai Street to bridge 6 in 2005. Bridge 1 was completed in 2004 and the streamside track from Bridge 1 to Wightwick's Field was opened in 2004 after gaining an easement.
- 1995 - Seven bench seats provided by WCC throughout the park (one later fell into stream).
- 2005 - Two bench-type seats donated by NCDRA along Korimako Stream.
- 2005 - Car parking area on Ngaio Gorge Road planted and resurfaced.
- 2006 - Picnic table and seats provided by WCC at Wightwick's Field.
- 2006 - Completion of foot-bridges 2 - 5 by WCC in conjunction with the new Korimako stream-side track. All bridges provided with numbers in 2008. Bridge 6 already existed.
- 2006 - Renewal/relocation of one track-side seat below Hanover Street. One stream-side memorial seat installed below Hanover Street in 2007.
- Around 2007 - Boardwalk installed across side-stream near memorial seat below Hanover Street. One seat provided by local community in 2011 at open grassy area between bridges 4 and 5.
- 2008 - Installation of track signage markers showing sections of the following tracks which traverse the park: WCC's Northern Walkway, WCC's Sanctuary to the Sea Walkway and the Te Araroa Walkway. Caution and private land signs were also installed for the traverse track below Ngaio Gorge Road. 'No cycling' signs installed on bollards and at entrances.
- 2008 - Bollards installed at Trelissick Crescent entrance (opposite No. 19) and in 2011 near Waikowhai Street entrance, to prevent vehicle entry.
- 2009 - Park-wide designation for dogs changed to 'off-leash, but under control'.
- 2009 - Two picnic tables with seats built from railway sleepers provided by Ontrack (now KiwiRail) next to powder magazine building.
- 2011 - New seat in Korimako valley in grassy area between bridges 4 and 5, funded by community.
- 2012 - Repair to Northern Walkway and seat after slip damage from railway below Hanover Street entrance.
- 2014 - 'Frances Lee Track' named and signage provided.
- 2014 - 2015 - Repair to scoured track downstream of Wightwick's Field.
- 2015 - Upgrade of Northern Walkway zig-zag section from grassy slope below Trelissick Crescent (opposite No. 19) down to the Korimako stream, also new boardwalk next to stream.
- 2015 - Repair to scoured track downstream of debris trap, with short boardwalk added.
- 2016 - New bins installed at Park entrances.
- 2017 - Installation of gabions beside Korimako stream downstream of Wightwick's Field.
- 2017 - Removal of undermined old bridge opposite Wightwick's Field.
- 2017 - Replacement of Bridge 3 after foundations undermined in floods and new gabions for bridge 2.
- 2018 - Upgrade of Northern Walkway from Waikowhai Street entrance.
- 2018 - Northern Walkway signposts installed.

- 2019 - New entrance from Oban Street, Highland Park and new Kaiwharawhara Stream footbridge to connect with existing track network - fund-raising and preliminary work (March 2019).

Education/Publicity

- Attendance of TPG members at courses/workshops, e.g. botanical, health and safety, annual Restoration Day, Freshwater Hui.
- Displays at Conservation Week and Wadestown Fair.
- From 1992 - Production of adopt-a-spot and working bee programme.
- 1994 - 1998, then from 2007 - Distribution of TPG newsletter *Gorge Gazette* 3 – 4 times/year.
- 2001 - Creation of web-site, a comprehensive resource for records and information. Updating on-going. Frequently referred to and visited.
- Around 2001 - Installation of 'Trelissick Park' signs along roadways.
- 2002 - Preparation of comprehensive map of the park by John Foden (two versions: one un-gridded and one gridded).
- Around 2004 - Installation of Project Kaiwharawhara information board near historic powder magazine site (and at locations in the catchment).
- 2004 - Installation of shelter for map-board at lower entrance off Kaiwharawhara Road along with enhancement planting.
- 2007 - Creation of TPG logo.
- 2007 - Preparation of guidelines and health and safety requirements for volunteers.
- 2007 - Production of TPG brochure.
- 2007 - Installation of weatherproof brochure holders at three park entrances.
- 2007 - Installation of two large map/information boards and five smaller map boards.
- 2007 - Installation of interpretation board at historic powder magazine site.
- From 2008 - Letter drops to nearby residents about garden waste dumping and old man's beard.
- Various articles, including Dominion Post, local newspapers and publications for NZ Biosecurity Institute (2009) and 'Indigena' magazine (Farm Forestry Association) in 2015.
- 2011 - TPG has content and linkage to DOC's nationwide *NatureSpace* website.
- 2012 - TPG has a Facebook page (many visits).
- Conducted tours of park for various groups and individuals, including Youth Environment Forum (2007, 2009, 2010), combined Ngaio Union and Wadestown Presbyterian churches (2008) and Otari Wilton's Bush Trust (2015), NZ Biosecurity Institute (2017).
- 2013 - Production of *The History of Trelissick Park Group 1991-2013* for The Onslow Historical Society's *Onslow Historian* publication.
- Talks for Friends of Waikanae River (2014) and Wadestown Horticultural Society (2015).
- 2013 - Provision of text about TPG for book *Paradise Saved*.
- 2015 - TPG included in Wellington Zoo 'Meet the Locals' display.
- 2015 - Installation of long-fin eel information board near debris trap.
- 2015 and ongoing - Major website updates/additions (adopt-a-spot guidelines, health and safety, plants, weeds, predators, history, management plan).
- 2016 - Talk for 'Predator Free Parks' Workshop.
- 2018 - Talk for Khandallah Cubs.

Adjacent Areas

- Purchases and transfers of land into the park mentioned in the historical background above (many small concrete buildings had to be removed from the historic site, together with the concrete platform of the old factory, and the entrance way has been landscaped).
- Two areas of railway land adjacent to Korimako Stream (2005) and an area below Wadestown alongside the railway leased to WCC (1982).
- Around 2001 - Single garage along Trelissick Crescent removed. Double garage near the top of Ngaio Gorge Road removed.
- Kaiwharawhara estuary/reclamation:

- 2002 - Planting at end of vehicle marshalling area by GW.
- 2003 - New Project Kaiwharawhara sign installed at an agreed location further away from vehicle parking area. Participation in 'Project Kaiwharawhara'.
- 2011 - Study of the ecological values of the Kaiwharawhara Stream estuary area completed by Boffa Miskell.
- From 2007 - Participation in annual 'Sea Week' clean-up.
- 2012 - TPG produced papers on Maori interests, regulations and statutory authorities, recreation access, land ownership and titles.
- 2017 - Study by Victoria University MSc student.
- 2017 ongoing - Participation in Zealandia's 'Sanctuary to Sea' project.

Service/Infrastructure/Rubbish/Other Interference

- Ongoing - Removal of rubbish of all types and sizes carried into the Park by gravity, wind and by the streams. Periodic removal by WCC. Sewer leakage, stream pollution and silting/sedimentation events. Clearance of trees fallen into stream, across tracks and growing near the TransPower tower beside the Northern Walkway.
- 1992, 1998, 1999, 2003 - Removal of old sewer pipes.
- Replacement of sewer pipe at bridge 6 (around 2000) and at stream below Waikowhai Street entrance after foundation undermining and earthquake damage (2013).
- 2002 - Stormwater piping below Crofton Downs station re-routed down to stream after slip due to erosion from the previous exit further up-slope.
- From 2003 - Earthquake strengthening of several sections of Ngaio Gorge Road requiring tree removal and excavations bordering the park.
- 2009 - Tunnel widening and railway track upgrade above powder magazine building requiring temporary bridge across stream, temporary bulldozed track up slope to railway for machinery. Ballast storage on flat area by magazine building - all subsequently cleared.
- Stormwater dispersal unit installed below Hanover Street (around 2005). Eroded gulch (further up) filled with rocks (2010).
- 2010 - New sewer pipe installed from Waikowhai Street entrance down to the existing system by bridge 1.
- 2010 - Existing sewer pipe on private land adjacent to Korimako Stream upstream of bridge 1 upgraded.
- 2017 - Major slips above Ngaio Gorge Road required re-routing of road and restriction of access to both lower Ngaio Gorge Road accesses. Large slip from railway land required temporary bridge across Kaiwharawhara Stream to install mesh protection.

TPG Awards

- 1999 Department of Conservation/Wellington Regional Environmental Agency Winner – *Conservation Award*.
- 1999 Wellington City Council – *Absolutely Positively Award*.
- 2003 Department of Conservation/Wellington Conservation Board – *Meritorious Award for Adopt-a-Spot Scheme*.
- 2003 Wellington Civic Trust – Certificate as a *Nominee for the Main Award*.
- 2005 Wellington Civic Trust – Certificate as a *Nominee for the Main Award*.
- 2005 Community Trust of Wellington – Winner of *Heritage & Environmental Category, Wellington Section of Regional Awards*.
- 2006 Department of Conservation/Greater Wellington Regional Council – Winner *Weedbuster's Award 06* for overall excellence.
- 2010 Greater Wellington Regional Council/Department of Conservation/Wellington Hawke's Bay Conservation Board Encore Awards – Winner, *Community Partnerships Award*.

Membership drawn from Highland Park Progressive Association Inc., Ngaio Crofton Downs Residents' Association Inc., Onslow Historical Society Inc., Private Landowners Group, Royal Forest and Bird Protection Society Inc. (Wellington Branch), Wellington Botanical Society Inc., Wadestown Residents' Association.