The New Zealand Cycleway Project

Te Ara Ahi

“Pathway of Fire”
Quick Start Projects

• Waikato River Trails (South Waikato)
• Hauraki Rail Trail (Thames Valley)
• Far North (Far North)
• Central North Island Rail Trial (Ruapehu)
• Mountains to the Sea (Tongariro & Whanganui National Parks)
• St James Trail (North Canterbury and Arthur’s Pass)
• Around The Mountain (Southland and Queenstown Lakes)
Second Round Projects

- Tauranga Moana Coastal Cycle Trail (Tauranga, Bay of Plenty)
- Old Motu Coach Road (Gisborne, Hawke's Bay)
- **Thermal by Bike (Rotorua, Waikato)**
- Lake Track (Taupo, Waikato)
- Mountains to Sea Cycleway (Ruapehu, Manawatu-Wanganui)
- Heretaunga Ararua: Land of a Hundred Pathways (Napier, Hawke's Bay)
- Dun Mountain and Tasman Cycle Loop (Nelson, Tasman)
- Old Ghost Road (West Coast)
- Westland Wilderness Trail (Greymouth, West Coast)
- Alps to Ocean Cycle Trail (Canterbury-Otago)
- Queenstown Trail (Otago)
- Roxburgh Gorge Trail (Otago)
- Clutha Gold Trail (Otago)
PROJECTS

FUNDING PROCESS
These projects are not finalised. They are subject to feasibility studies and business cases.

Phase 1
Quick Starts
Q1. Hokitika to Opua
Q2. Haastaki Plains
Q3. Waikato River
Q4. Central North Island
Q5. Mountain to the Sea (stage 1)
Q6. St James
Q7. Around the Mountain

Phase 2
Trails Approved for Feasibility Study
F1. Tauranga Moana
F2. Old Motu Coach Road
F3. Thermal by Bike
F4. Lake Taupo
F5. Mountain to the Sea (stage 2)
F6. Hekeasanga Aaranau
F7. Nelson/Tasman
F8. Old Ghost Road
F9. Westland Wilderness
F10. Alps to the Ocean
F11. Wakatipu
F12. Rees/Durhams Gorge
F13. Clutha Gold

www.tourism.govt.nz/cycleway

DISCLAIMER: This map is for illustrative purposes only and does not intend to be accurate. Rea Haerenga, the New Zealand Cycle Trail project does not accept any liability for any misconception or any decisions made based on this map.
New Zealand Cycleway Project – Thermal By Bike

Stage Two – Feasibility Study and High Level Business Case

Prepared for Rotorua District Council
By APR Consultants
May 2010
• Market Assessment
• Engineering Methodology
• Route Description
• Trail Specification
• Major Structures and Works
• Land Ownership and Consultation
• Statutory Approvals and Assessment of Effects
• Governance Structure and Partnerships
• Marketing Strategies
• Income and Expenditure
• Consultation and Stakeholders Management Plan
• Assessment of Economic Costs and Benefits
• Significant Issues to be Resolved Prior to Implementation
• Risk Assessment of Cycleway Ongoing Operation
“Nga Haerenga, The New Zealand Cycle Trail builds on our strong reputation as a premium tourism destination. It will bring important export dollars into our economy, provide a welcome boost to businesses, and create jobs in communities near the trails.”

[John Key, Prime Minister and Minister of Tourism]
Tourist Attractions on Route

• Te Puia (New Zealand Maori Arts and Crafts Institute)
• Waimangu Volcanic Valley
• Lake Okaro
• Rainbow Mountain and Kerosene Creek
• Department of Conservation Mud Pools
• Wai-O-Tapu Thermal Wonderland and Lady Knox Geyser
• Waikite Valley Thermal Park
• Lake Ohakuri
• Orakei Korako
### Guidelines and Characteristics of a Grade 2 Cycle Trail

<table>
<thead>
<tr>
<th>Attributes</th>
<th>Guidelines and Characteristics</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Description</strong></td>
<td>Some gentle climbs, smooth trail. Suitable for beginner riders, the trail is predictable with no surprises. Social component with riders able to ride side by side at times, but large sections of single trial.</td>
</tr>
<tr>
<td><strong>Gradient</strong></td>
<td>0-4° for 90% of the trial on any one day, maximum of 6°, and more than 4° gradient for no longer than 200m at a time.</td>
</tr>
<tr>
<td><strong>Width</strong></td>
<td>Between 0.9m and 1.5m for a single trail.</td>
</tr>
<tr>
<td><strong>Radius of Turn</strong></td>
<td>3m minimum with 4m desirable</td>
</tr>
<tr>
<td><strong>Surface</strong></td>
<td>Compacted/ stabilised base course, with maximum top course aggregate of 30mm.</td>
</tr>
<tr>
<td><strong>Traffic Volume</strong></td>
<td>Where public roads are used, a maximum of 200vpd.</td>
</tr>
<tr>
<td><strong>Watercourses</strong></td>
<td>Watercourses bridged, except for fords with less than 100mm of water in normal flow, which can be easily ridden.</td>
</tr>
<tr>
<td><strong>Bridge Width</strong></td>
<td>Minimum bridge width 1.2m (structurally able to carry ATV quad bike for servicing).</td>
</tr>
<tr>
<td><strong>Obstacles</strong></td>
<td>Some rocks/roots/ruts that can either be avoided or are less than 50mm high. No stiles. Cattle stops should be minimum 1.2m width.</td>
</tr>
<tr>
<td><strong>Length</strong></td>
<td>4-5 hours per day (30-50km)</td>
</tr>
<tr>
<td><strong>Barriers/guard rails</strong></td>
<td>Hand rails required for all areas such as bluffs or bridges where a fall would result in death or significant hard.</td>
</tr>
</tbody>
</table>

Governance Structure and Partnership

- Rotorua District Council
- New Zealand Transport Agency
- Department of Conservation
- Forestry Land Owners
- Iwi - Ngati Tahu/ Ngati Whaoa
- Key tourism attractions, businesses, and service providers along the cycling route
- Local cycling interest groups
- Local community groups
## Estimated Construction Costs for Major Structures and Works

### Thermal by Bike - Summary of Design and Construction Costs

<table>
<thead>
<tr>
<th>Description</th>
<th>Section 1</th>
<th>Section 2</th>
<th>Section 3</th>
<th>Section 4</th>
<th>Section 5</th>
<th>Total (excl GST)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Section Locations</td>
<td>Te Puia to Green Lake Turnoff</td>
<td>Green Lake Turnoff to Waimangu Road</td>
<td>Waimangu Road to Rainbow Mountain</td>
<td>Rainbow Mountain to Wai-O-Tapu Lp Road</td>
<td>Wai-O-Tapu Lp Road to Tutukau Bridge</td>
<td></td>
</tr>
<tr>
<td>Structures and Works</td>
<td>$349,200</td>
<td>$229,100</td>
<td>$468,675</td>
<td>$223,800</td>
<td>$1,566,045</td>
<td>$2,836,820</td>
</tr>
<tr>
<td>Engineering and Consents</td>
<td>$20,662</td>
<td>$16,070</td>
<td>$20,662</td>
<td>$16,070</td>
<td>$96,421</td>
<td>$169,885</td>
</tr>
<tr>
<td>Contingency</td>
<td>$73,972</td>
<td>$49,034</td>
<td>$97,867</td>
<td>$47,974</td>
<td>$332,493</td>
<td>$601,341</td>
</tr>
<tr>
<td><strong>Total Estimated Design and Construction Costs (excl GST)</strong></td>
<td><strong>$443,834</strong></td>
<td><strong>$294,204</strong></td>
<td><strong>$587,204</strong></td>
<td><strong>$287,844</strong></td>
<td><strong>$1,994,959</strong></td>
<td><strong>$3,608,046</strong></td>
</tr>
</tbody>
</table>

Source: Compiled from figures provided by Moorland Services, NZ Trail Solutions, Fulton Hogan, Downer NZ, and Canmap Hawley.

*Thermal By Bike - Stage Two - Feasibility Study (May 2010)*
Nga Haerenga
THE NEW ZEALAND CYCLE TRAIL

Te Ara Ahi
The Pathway of Fire
### Stage Three – Implementation Plan

<table>
<thead>
<tr>
<th>Section</th>
<th>Location</th>
<th>Length</th>
<th>Track Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Te Puia to Green Lake Turnoff</td>
<td>7.5 km</td>
<td>New Cycle Track – SH 5 Corridor</td>
</tr>
<tr>
<td>2</td>
<td>Highlands Lp Rd</td>
<td>2 km</td>
<td>Local Road - Minor Improvements</td>
</tr>
<tr>
<td>3</td>
<td>Green Lake turnoff to Highlands Lp Rd</td>
<td>5 km</td>
<td>New Cycle Track – SH 5 Corridor</td>
</tr>
<tr>
<td>4</td>
<td>Tumunui Access Rd</td>
<td>3.5 km</td>
<td>New Cycle Track – Private Iwi Land</td>
</tr>
<tr>
<td>5</td>
<td>Waimangu Rd</td>
<td>8 km</td>
<td>Local Road – Minor Improvements</td>
</tr>
<tr>
<td>6</td>
<td>Okaro Rd</td>
<td>1 km</td>
<td>Local Road – Minor Improvements</td>
</tr>
<tr>
<td>7</td>
<td>Rainbow Mountain</td>
<td>9 km</td>
<td>New cycle track – DOC Land</td>
</tr>
<tr>
<td>8</td>
<td>Kerosene Creek</td>
<td>0.5 km</td>
<td>Existing Track – Private Iwi Land Minor Improvements</td>
</tr>
<tr>
<td>9</td>
<td>Wai-o-Tapu Lp Rd and Lady Knox Rd</td>
<td>1 km</td>
<td>Local Road – Minor Improvements</td>
</tr>
<tr>
<td>10</td>
<td>SH 5 / Wai-o-Tapu Underpass</td>
<td>0.5 km</td>
<td>New Cycle Track – SH 5 Corridor</td>
</tr>
<tr>
<td>11</td>
<td>Waikite Valley Rd to Te Kopia Rd</td>
<td>9.5 km (27.5 km)</td>
<td>Local Road – Minor Improvements</td>
</tr>
</tbody>
</table>
Department of Conservation and Iwi Lands

Section 4 Tumunui Access Road
Section 7 Rainbow Mountain
Section 8 Kerosene Creek
Section 4 - Tumunui Access Road
Section 7 – Rainbow Mountain
State Highway 5 Corridor

Section 1 Te Puia to Green Lake Access Rd

Section 3 Green Lake Access Rd to Highlands Lp Road

Section 10 Waiotapu Underpass
View from Green Lake Access Road
Section 10 - Waiotapu Underpass
District Local Roads

Section 2 Highlands Loop Road

Section 5 Waimangu Road

Section 6 Okaro Road

Section 9 Waiotapu Lp Road and Lady Knox Road

Section 11 Waikite Valley Road & TeKopia Rd
Section 11 - Waikite Valley Road
Bank cut on left hand side 3.0m from extg edge seal. Refer to typical sections.

Start of Bank Cut (nominal 128m Long).

NOTE:
1. There is an addition bank nominal 30m beyond this bank. The bank is nominal 17.0m long. This bank shall be cut back
2. Telecom cable on this side. The contractor shall have all services located prior to excavation
Section 9 Waiotapu Lp Road and Lady Knox Road
NOTE:
1. All bank cuts are to be cut 3.0m wide from the edge of existing seal.

Start of Bank cut sight benching 32m nominal. Refer to typical sections.
NOTE:
1. All bank cuts are to be cut 3.0m wide from the edge of existing seal.
Section 5 - Waimangu Road
Start of bank cut sight
bench 3 and seal widening
110m nominal including
10m tapers. Refer to std
section Option 2

Bank cut on Left hand side
3.0m from extg edge seal.
Refer to typical sections

Do not cut entrance.
Contractor to shape bank
cut up to existing entrance
levels. Keep entrance 3.0m
wide nominal.

To SH5
Intersection
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THE NEW ZEALAND CYCLE TRAIL

SPECIFICATIONS FOR THE USE OF THE NEW ZEALAND CYCLE TRAIL LOGO

Version 1: February 2011

Prepared by Tark Communications Ltd.
Local Road Sections Remaining as of August 2011

Section 2 Highlands Loop Road

Section 5 Waimangu Road

Section 6 Okaro Road

Section 9 Waiotapu Lp Road and Lady Knox Road

Section 11 Waikite Valley Road and Te Kopia Road
Section 2 - Highlands Loop Road
Section 6 - Okaro Road
### Tracking
Estimated Cost vs. Actual Cost

*Te Ara Ahi - Summary of Estimated Costs vs Actual Costs June 2011*

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Note: Actual costs are based on approved contract sums and expenditure to date
Where to from here?

- Secure access over DOC and Iwi Land,
- Secure other funding sources for budget shortfall,
- Completion of physical works in 2011/2012 FY,
- Establish LOS for maintenance operations and budget for in 2012/2013 Annual Plan,
- Continued marketing and promoting of small business opportunities, and
- Establish other amenities on route such as directional signage, toilet blocks, camping facilities, and picnic areas.
Thank you