

living together flora, fauna and roads

Carl Reller, Environment and Urban Design Manager

recent
examples

Northland

Auckland

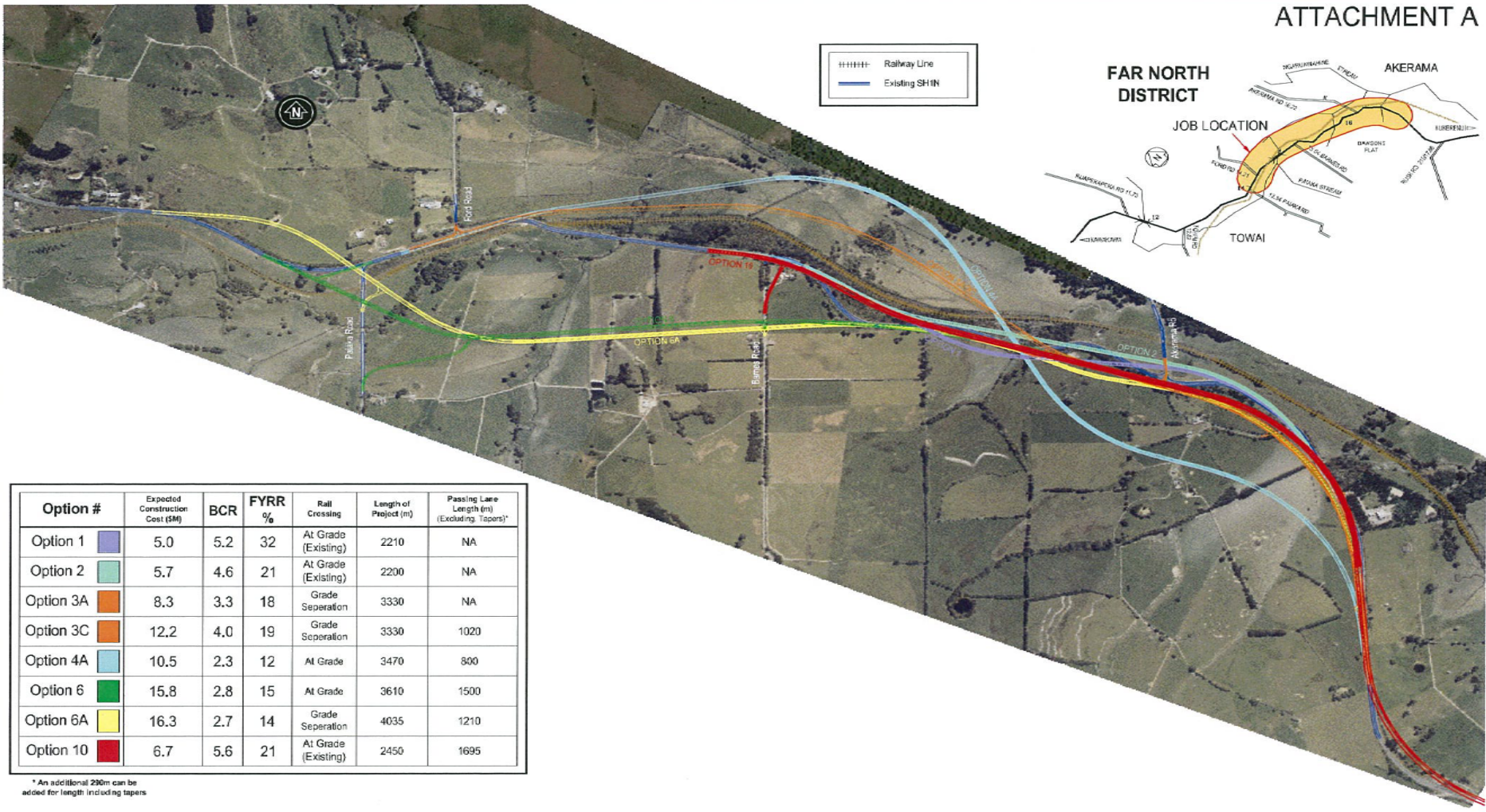
Waikato

West Coast

Otago

Northland

ATTACHMENT A



Option #	Expected Construction Cost (\$M)	BCR	FYRR %	Rail Crossing	Length of Project (m)	Passing Lane Length (m) (Excluding Tapers)*
Option 1	5.0	5.2	32	At Grade (Existing)	2210	NA
Option 2	5.7	4.6	21	At Grade (Existing)	2200	NA
Option 3A	8.3	3.3	18	Grade Separation	3330	NA
Option 3C	12.2	4.0	19	Grade Separation	3330	1020
Option 4A	10.5	2.3	12	At Grade	3470	800
Option 6	15.8	2.8	15	At Grade	3610	1500
Option 6A	16.3	2.7	14	Grade Separation	4035	1210
Option 10	6.7	5.6	21	At Grade (Existing)	2450	1695

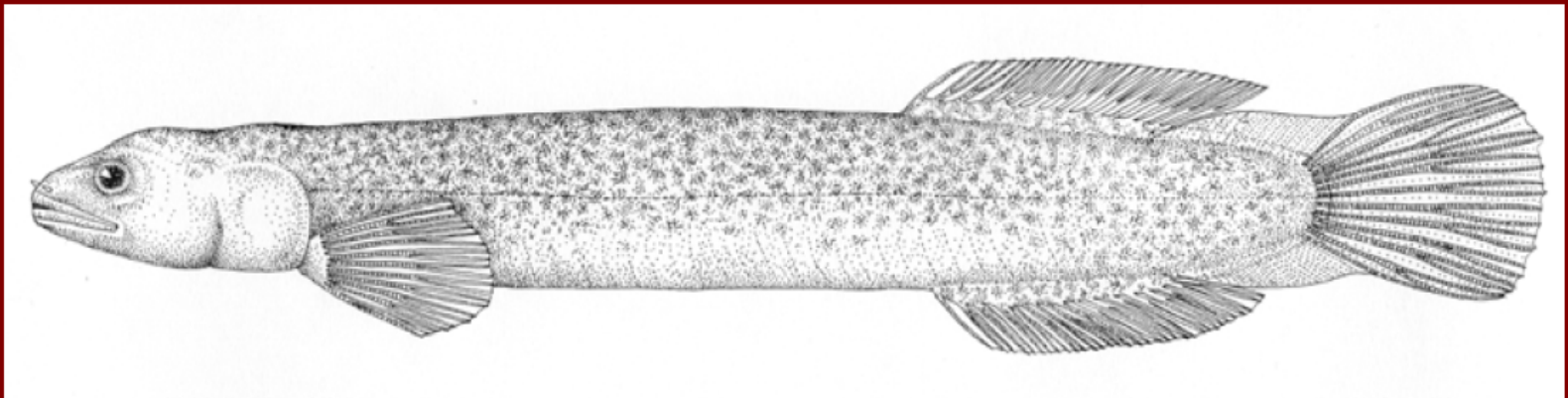
* An additional 230m can be added for length including tapers

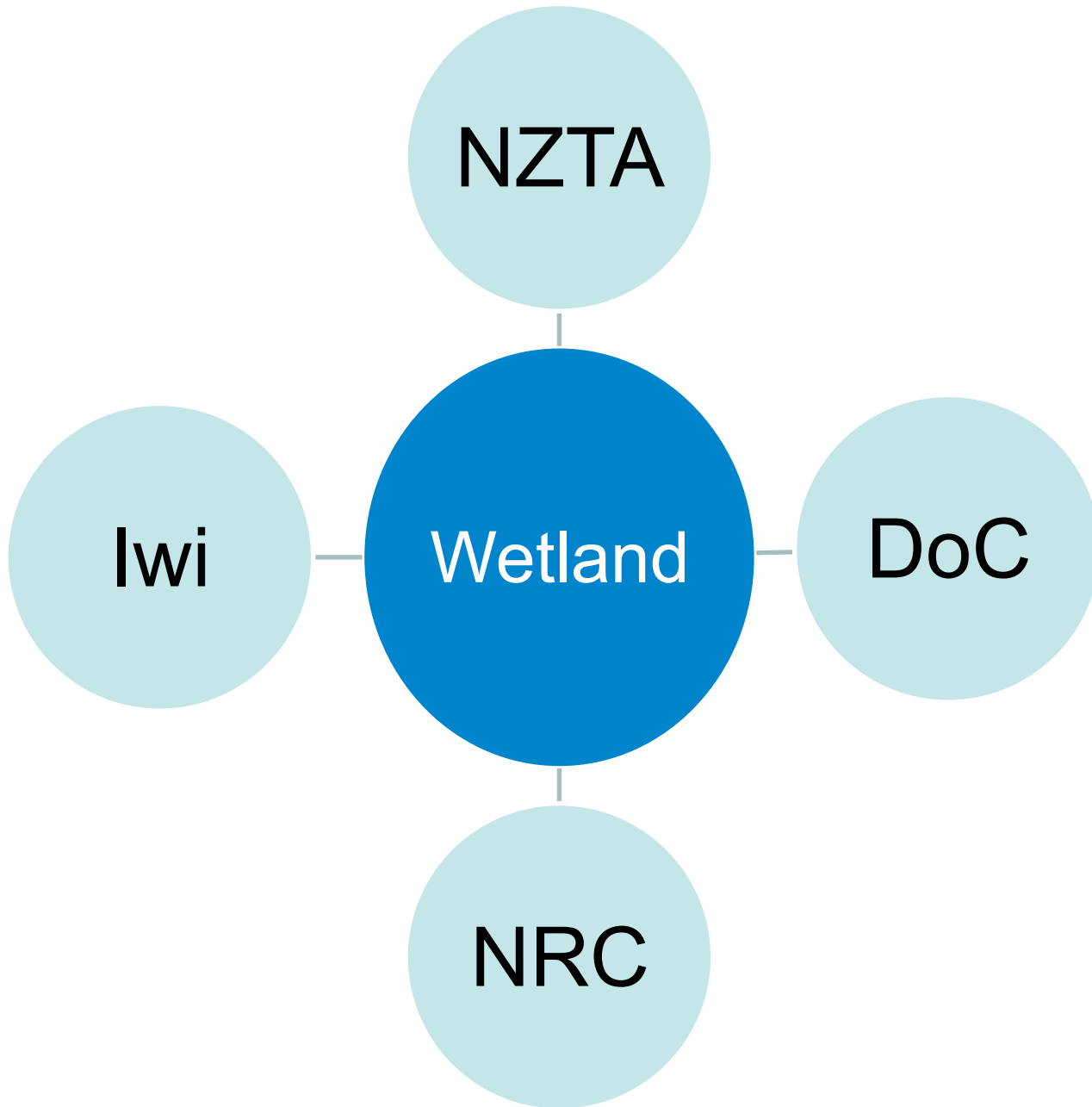
Northland mudfish – *Neochanna heleiios*



Barry O'Brien

Figure 7 Northland mudfish





10 Year Management Plan

- | | |
|--------|--|
| 1 – 5 | monitor water levels, plant replacement |
| 1 – 10 | monitor wetland health, pest plant control |
| 3 – 10 | fish monitoring and translocation |

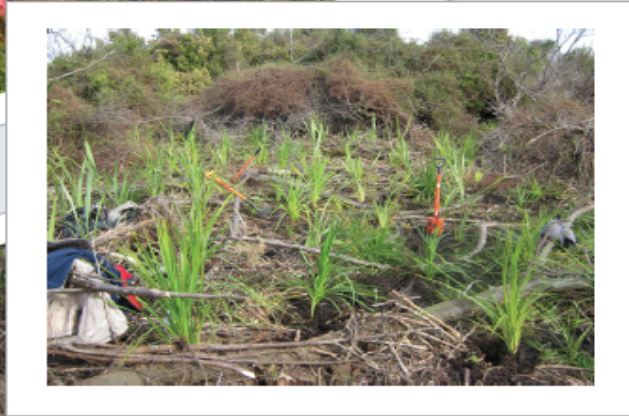
Auckland





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Waikato



Long-tailed bat
(*Chalinolobus tuberculatus*)

Fur	Dark brown
Weight	10–12 grams
Ears	Short, rounded
Tail	Almost as long as body – within the tail membrane
Wing span	25–28 cm
Habitat	Modified areas and indigenous forest
Activity	At dusk
Food	Catches insects in the air
Call (sound frequency)	33–65 kHz

Waikato



Lesser short-tailed bat
(*Mystacina tuberculata*)

Grey brown – appears frosted

11–15 grams

Long, pointed

Short – sticks out above the tail membrane

28–29 cm

Old-growth indigenous forest

Well after dusk

Catches insects in the air and on the ground. Also eats nectar, pollen and fruit

20–140 kHz

Waikato

direct and indirect impacts of roads on bats include:

- habitat and roost loss
- mortality due to tree felling and vehicle strikes
- changes in behaviour due to physical barriers or habitat fragmentation, artificial lighting, vehicle and/or construction noise

West Coast

Blue penguin road- kill on SH6



9 km length from
Meybille Bay to
McCarthys Ck,

nearly 100 blue
penguins have
been recorded
killed on road over
last 6 years.







Conservation Awards 2012



Special Recognition

To acknowledge and thank

Simon Underwood, NZTA

Your effort contributes to the wellbeing and prosperity of your community
and of New Zealand now, and into the future.

Signed:  Date: 10 September 2012



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**NEW YOU
ZEALAND**
CONSERVATIONWEEK.ORG.NZ
9-16 SEPTEMBER 2012

Department of
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Conservation for prosperity Tiakina te taiao, kia puawai

New Zealand Government



NZTA Environment and Urban Design team

National Specialists

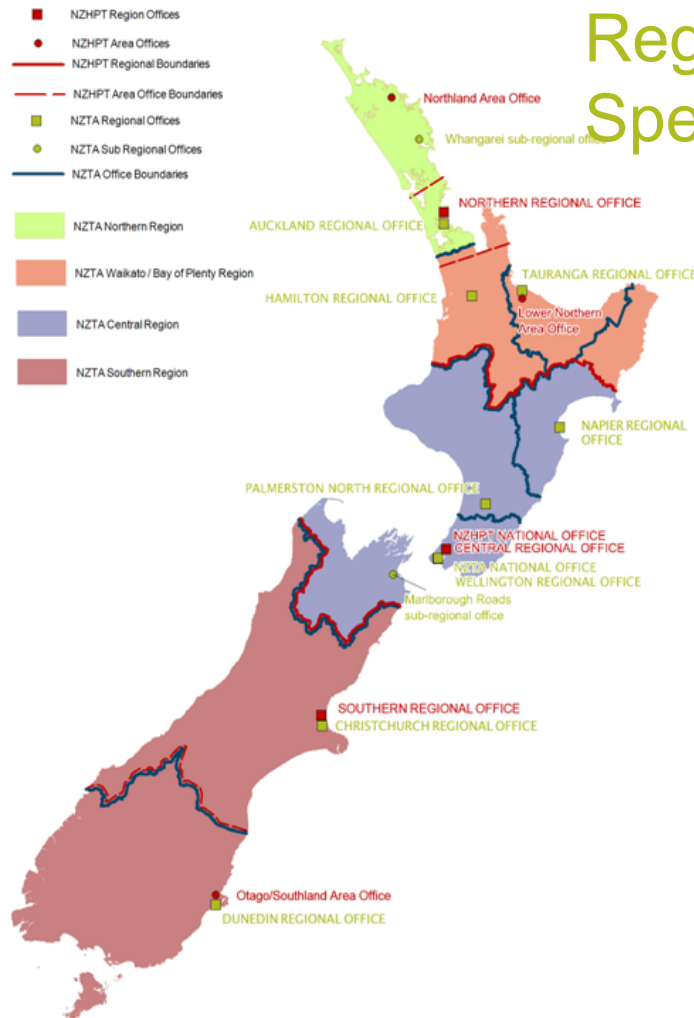
Carl Reller
Manager

Rob Hannaby
Public Health

Jacque Bell
Urban Design

Karolyn Buhring
Culture and Heritage

Georgie Cranswick
Social



Regional Environmental Specialists

David Greig
Northland/Auckland

Robert Mitchell
Waikato/BOP

Megan Kennedy
Central

Craig Redmond
Southern