

### **Appendix 3: Site Data Summary 2010**

#### **Awanui at FNDC take**

<b>Habitat Quality Score</b>	<b>81 (Sub-optimal)</b>
<b>Pfankuch Stability Index Score</b>	<b>67.5 (Good)</b>
Surrounding land-use	Pasture/Urban
Livestock access	No
Channel Shading	60%
Macrophyte cover	Common
Periphyton cover	Abundant
Flow type	Pool/riffle/waterfall
Inorganic substrate	Boulder/cobble
Organic substrate	Algae/bryophytes
Bank type	Mixed
Bank stability	Unstable
Riparian canopy cover	None/exotic treeland
Riparian understorey cover	None

#### **Awanui at Waihue Channel**

<b>Habitat Quality Score</b>	<b>66 (marginal)</b>
<b>Pfankuch Stability Index Score</b>	<b>Not available</b>
Surrounding land-use	Pasture
Livestock access	Yes
Channel Shading	40%
Macrophyte cover	Common
Periphyton cover	Common
Flow type	Pool/Run
Inorganic substrate	Not available
Organic substrate	Not available
Bank type	Earth
Bank stability	Unstable
Riparian canopy cover	Exotic treeland
Riparian understorey cover	Thin exotic/none

#### **Hakaru at SH1**

<b>Habitat Quality Score</b>	<b>77 (sub-optimal)</b>
<b>Pfankuch Stability Index Score</b>	<b>56 (good)</b>
Surrounding land-use	Native scrub/pasture/planted forest
Livestock access	One bank only
Channel Shading	20%
Macrophyte cover	Common
Periphyton cover	Common
Flow type	Run/Waterfall
Inorganic substrate	Bedrock/cobble/gravel
Organic substrate	Algae
Bank type	Mixed
Bank stability	80% stable
Riparian canopy cover	Young native/none
Riparian understorey cover	Exotic/native/none

### Hatea at Mair Park

<b>Habitat Quality Score</b>	<b>98 (sub-optimal)</b>
<b>Pfankuch Stability Index Score</b>	<b>50 (good)</b>
Surrounding land-use	Native forest/urban
Livestock access	No
Channel Shading	80%
Macrophyte cover	Rare
Periphyton cover	Rare
Flow type	Run
Inorganic substrate	Boulder/cobble/silt
Organic substrate	Algae/woody debris
Bank type	Manmade/mixture
Bank stability	Stable
Riparian canopy cover	Mature native
Riparian understorey cover	Thin native

### Kaeo River at Dip Rd

<b>Habitat Quality Score</b>	<b>27 (poor)</b>
<b>Pfankuch Stability Index Score</b>	<b>78 (fair)</b>
Surrounding land-use	Pasture
Livestock access	Yes
Channel Shading	0%
Macrophyte cover	Rare
Periphyton cover	Rare
Flow type	Run
Inorganic substrate	Silt/sand
Organic substrate	None
Bank type	Earth
Bank stability	Unstable
Riparian canopy cover	None
Riparian understorey cover	Thin exotic

### Kaihu at Gorge

<b>Habitat Quality Score</b>	<b>101 (sub-optimal)</b>
<b>Pfankuch Stability Index Score</b>	<b>43 (good)</b>
Surrounding land-use	Native forest
Livestock access	No
Channel Shading	70%
Macrophyte cover	Rare
Periphyton cover	Abundant
Flow type	Riffle/run
Inorganic substrate	Boulder
Organic substrate	Bryophytes
Bank type	Mixture
Bank stability	Stable
Riparian canopy cover	Mature native/young native/exotic
Riparian understorey cover	Dense native/dense exotic

### Kerikeri at Stone Store

<b>Habitat Quality Score</b>	<b>94 (sub-optimal)</b>
<b>Pfankuch Stability Index Score</b>	<b>67 (good)</b>
Surrounding land-use	Native scrub/urban/native forest
Livestock access	No
Channel Shading	30%
Macrophyte cover	Rare
Periphyton cover	Rare
Flow type	Riffle/run/waterfall
Inorganic substrate	Boulder/cobble/gravel
Organic substrate	Algae/woody debris
Bank type	Earth/mixture
Bank stability	75% stable
Riparian canopy cover	Exotic treeland/none
Riparian understorey cover	Thin exotic

### Mangahuru at Apotu

<b>Habitat Quality Score</b>	<b>47 (marginal)</b>
<b>Pfankuch Stability Index Score</b>	<b>102 (fair)</b>
Surrounding land-use	Pasture/urban
Livestock access	One bank
Channel Shading	0%
Macrophyte cover	Abundant
Periphyton cover	Rare
Flow type	Run
Inorganic substrate	Silt/sand
Organic substrate	Macrophytes/algae
Bank type	Earth
Bank stability	Unstable
Riparian canopy cover	None
Riparian understorey cover	None

### Mangahuru at Main Rd

<b>Habitat Quality Score</b>	<b>114 (optimal)</b>
<b>Pfankuch Stability Index Score</b>	<b>87 (Fair)</b>
Surrounding land-use	Native forest/planted forest/pasture
Livestock access	One bank
Channel Shading	90%
Macrophyte cover	Rare
Periphyton cover	Rare
Flow type	Pool/riffle/waterfall
Inorganic substrate	Gravel/silt/sand
Organic substrate	Detritus/woody debris/algae
Bank type	Earth
Bank stability	Stable
Riparian canopy cover	Mature native
Riparian understorey cover	Thin exotic

### Mangakahia at Titoki

<b>Habitat Quality Score</b>	<b>46 (marginal)</b>
<b>Pfankuch Stability Index Score</b>	<b>86 (fair)</b>
Surrounding land-use	Pasture/urban
Livestock access	One bank
Channel Shading	2%
Macrophyte cover	Rare
Periphyton cover	Common
Flow type	Run
Inorganic substrate	Silt/sand
Organic substrate	Algae/macrophytes/woody debris
Bank type	Earth
Bank stability	Stable
Riparian canopy cover	Exotic treeland/none
Riparian understorey cover	Exotic/none

### Mangakahia at Twin Bridges

<b>Habitat Quality Score</b>	<b>81 (sub-optimal)</b>
<b>Pfankuch Stability Index Score</b>	<b>68 (good)</b>
Surrounding land-use	Native forest/planted forest/pasture
Livestock access	No
Channel Shading	40%
Macrophyte cover	Rare
Periphyton cover	Common
Flow type	Riffle/run/waterfall
Inorganic substrate	Boulder/cobble
Organic substrate	Algae
Bank type	Mixed
Bank stability	Stable
Riparian canopy cover	Mature native/young native/none
Riparian understorey cover	Thin native/none

### Mangamuka at Iwiatua Rd

<b>Habitat Quality Score</b>	<b>51 (marginal)</b>
<b>Pfankuch Stability Index Score</b>	<b>99 (fair)</b>
Surrounding land-use	Pasture
Livestock access	Yes
Channel Shading	0%
Macrophyte cover	Rare
Periphyton cover	Common
Flow type	Riffle/run
Inorganic substrate	Gravel
Organic substrate	Bryophytes/algae
Bank type	Earth
Bank stability	10% stable
Riparian canopy cover	None
Riparian understorey cover	None

### Manganui at Mitaitai Rd

<b>Habitat Quality Score</b>	<b>44 (marginal)</b>
<b>Pfankuch Stability Index Score</b>	<b>109 (fair)</b>
Surrounding land-use	Native scrub/pasture/urban
Livestock access	One bank
Channel Shading	5%
Macrophyte cover	Rare
Periphyton cover	Common
Flow type	Riffle/run
Inorganic substrate	Silt/sand
Organic substrate	Algae/woody debris
Bank type	Earth
Bank stability	Unstable
Riparian canopy cover	Young native/exotic
Riparian understorey cover	Thin exotic/thin native/none

### Mangere at Knight Rd

<b>Habitat Quality Score</b>	<b>77 (sub-optimal)</b>
<b>Pfankuch Stability Index Score</b>	<b>Not available</b>
Surrounding land-use	Native scrub/pasture
Livestock access	No
Channel Shading	50%
Macrophyte cover	Rare
Periphyton cover	Common
Flow type	Pool
Inorganic substrate	Not available
Organic substrate	Not available
Bank type	Earth
Bank stability	Unstable
Riparian canopy cover	Mature native/young native/none
Riparian understorey cover	Thin native/none

### Ngunguru at Waipoka Rd

<b>Habitat Quality Score</b>	<b>90 (sub-optimal)</b>
<b>Pfankuch Stability Index Score</b>	<b>Not available</b>
Surrounding land-use	Native scrub/planted forest/pasture
Livestock access	One bank
Channel Shading	65%
Macrophyte cover	Rare
Periphyton cover	Rare
Flow type	Pool
Inorganic substrate	Not available
Organic substrate	Not available
Bank type	Earth
Bank stability	Stable
Riparian canopy cover	Mature native/exotic/none
Riparian understorey cover	Thin native/none

## Opouteke at Suspension Bridge

<b>Habitat Quality Score</b>	<b>58 (marginal)</b>
<b>Pfankuch Stability Index Score</b>	<b>59 (good)</b>
Surrounding land-use	Native forest/pasture/planted forest
Livestock access	Yes
Channel Shading	10%
Macrophyte cover	Rare
Periphyton cover	Common
Flow type	Run/waterfall
Inorganic substrate	Boulder/cobble
Organic substrate	Algae
Bank type	Mixed
Bank stability	Stable
Riparian canopy cover	Mature native/young native/none
Riparian understorey cover	Thin native/thin exotic/none

## Oruru at Oruru Rd

<b>Habitat Quality Score</b>	<b>61 (marginal)</b>
<b>Pfankuch Stability Index Score</b>	<b>103 (fair)</b>
Surrounding land-use	Planted forest/pasture
Livestock access	Yes
Channel Shading	10%
Macrophyte cover	Common
Periphyton cover	Common
Flow type	Riffle/run
Inorganic substrate	Gravel/silt/sand
Organic substrate	Macrophytes
Bank type	Earth
Bank stability	Unstable
Riparian canopy cover	None
Riparian understorey cover	None

## Paparoa at SH12

<b>Habitat Quality Score</b>	<b>33 (poor)</b>
<b>Pfankuch Stability Index Score</b>	<b>122 (poor)</b>
Surrounding land-use	Pasture/urban
Livestock access	No
Channel Shading	59%
Macrophyte cover	Rare
Periphyton cover	Rare
Flow type	Pool
Inorganic substrate	silt/sand
Organic substrate	Woody debris
Bank type	Earth
Bank stability	40% stable
Riparian canopy cover	Exotic treeland
Riparian understorey cover	Thin native/thin exotic

### Punakitere at Recorder

<b>Habitat Quality Score</b>	<b>66 (marginal)</b>
<b>Pfankuch Stability Index Score</b>	<b>69 (good)</b>
Surrounding land-use	Pasture
Livestock access	Yes
Channel Shading	60%
Macrophyte cover	Rare
Periphyton cover	Common
Flow type	Pool/riffle/run
Inorganic substrate	Bedrock/boulder/cobble/silt/sand
Organic substrate	Algae
Bank type	Earth/mix
Bank stability	10% stable
Riparian canopy cover	Young native/none
Riparian understorey cover	Thin exotic/none

### Ruakaka at Flyger Rd

<b>Habitat Quality Score</b>	<b>96 (sub-optimal)</b>
<b>Pfankuch Stability Index Score</b>	<b>89 (fair)</b>
Surrounding land-use	Native forest/pasture
Livestock access	No
Channel Shading	90%
Macrophyte cover	Rare
Periphyton cover	Common
Flow type	Pool/riffle
Inorganic substrate	Cobble/gravel/silt/sand
Organic substrate	Bryophytes/algae
Bank type	Earth/manmade
Bank stability	10% stable
Riparian canopy cover	Mature native/none
Riparian understorey cover	Thin native/thin exotic/none

### Utakura at Rangihua Rd

<b>Habitat Quality Score</b>	<b>48 (marginal)</b>
<b>Pfankuch Stability Index Score</b>	<b>Not available</b>
Surrounding land-use	Pasture/urban
Livestock access	One bank
Channel Shading	75%
Macrophyte cover	Rare
Periphyton cover	Rare
Flow type	Pool
Inorganic substrate	Not available
Organic substrate	Not available
Bank type	Earth
Bank stability	Unstable
Riparian canopy cover	Exotic/none
Riparian understorey cover	Thin exotic/none

## Victoria at Thompson's Bridge

<b>Habitat Quality Score</b>	<b>88 (sub-optimal)</b>
<b>Pfankuch Stability Index Score</b>	<b>86 (fair)</b>
Surrounding land-use	Lifestyle/pasture
Livestock access	No
Channel Shading	30%
Macrophyte cover	Common
Periphyton cover	Common
Flow type	Pool/riffle/run/waterfall
Inorganic substrate	Cobble/gravel
Organic substrate	Detritus/bryophytes/algae/woody debris
Bank type	Earth
Bank stability	10% stable
Riparian canopy cover	Exotic/none
Riparian understorey cover	Thin exotic/none

## Waiarohia at 2nd Avenue

<b>Habitat Quality Score</b>	<b>68 (marginal)</b>
<b>Pfankuch Stability Index Score</b>	<b>74 (good)</b>
Surrounding land-use	Urban
Livestock access	No
Channel Shading	50%
Macrophyte cover	Common
Periphyton cover	Rare
Flow type	Riffle/run/pool/waterfall
Inorganic substrate	Gravel/silt/sand
Organic substrate	Detritus/bryophytes/macrophytes/algae
Bank type	Mixed
Bank stability	60% Stable
Riparian canopy cover	Young native/none
Riparian understorey cover	Thin exotic/none

## Waiarohia at Whau Valley

<b>Habitat Quality Score</b>	<b>101 (sub-optimal)</b>
<b>Pfankuch Stability Index Score</b>	<b>80 (fair)</b>
Surrounding land-use	Native scrub/pasture
Livestock access	Yes
Channel Shading	90%
Macrophyte cover	Common
Periphyton cover	Common
Flow type	Pool/riffle/run/waterfall
Inorganic substrate	Boulder/cobble/gravel/sand/silt
Organic substrate	Algae/woody debris
Bank type	Earth/mixed
Bank stability	50% stable
Riparian canopy cover	Young native/none
Riparian understorey cover	Thin native/thin exotic/none



## Waiharakeke at Stringer Rd

Habitat Quality Score	76 (sub-optimal)
Pfankuch Stability Index Score	112 (fair)
Surrounding land-use	Native scrub/pasture
Livestock access	One bank
Channel Shading	85%
Macrophyte cover	Rare
Periphyton cover	Rare
Flow type	Pool/run/waterfall
Inorganic substrate	Boulder/gravel/silt/sand
Organic substrate	Detritus/algae/woody debris
Bank type	Earth/mixed
Bank stability	75 % stable
Riparian canopy cover	Mature native/young native
Riparian understorey cover	Thin native/thin exotic/none

## Waimamaku at SH12

Habitat Quality Score	80 (sub-optimal)
Pfankuch Stability Index Score	60 (good)
Surrounding land-use	Pasture/urban
Livestock access	Yes
Channel Shading	40%
Macrophyte cover	Rare
Periphyton cover	Abundant
Flow type	Pool/riffle/run
Inorganic substrate	Boulder
Organic substrate	Bryophytes/algae/none
Bank type	Mixed
Bank stability	Unstable
Riparian canopy cover	None
Riparian understorey cover	Thin exotic/none

## Waiotu at SH1

Habitat Quality Score	47 (marginal)
Pfankuch Stability Index Score	Not available
Surrounding land-use	Native scrub/pasture
Livestock access	Yes
Channel Shading	10%
Macrophyte cover	Abundant
Periphyton cover	Common
Flow type	Run
Inorganic substrate	Not available
Organic substrate	Not available
Bank type	Earth
Bank stability	90% stable
Riparian canopy cover	None
Riparian understorey cover	Thin exotic

### Waipao at Draffin Rd Bridge

<b>Habitat Quality Score</b>	<b>97 (sub-optimal)</b>
<b>Pfankuch Stability Index Score</b>	<b>79 (fair)</b>
Surrounding land-use	Lifestyle/pasture
Livestock access	No
Channel Shading	20%
Macrophyte cover	Abundant
Periphyton cover	Common
Flow type	Pool/run
Inorganic substrate	Gravel/silt/sand
Organic substrate	Macrophytes/algae
Bank type	Earth
Bank stability	Stable
Riparian canopy cover	Young native/none
Riparian understorey cover	Thin exotic

### Waipapa at Forest Ranger

<b>Habitat Quality Score</b>	<b>111 (Optimal)</b>
<b>Pfankuch Stability Index Score</b>	<b>65 (good)</b>
Surrounding land-use	Native forest
Livestock access	No
Channel Shading	45%
Macrophyte cover	Rare
Periphyton cover	Abundant
Flow type	Riffle/run
Inorganic substrate	Gravel
Organic substrate	Algae
Bank type	Mixed
Bank stability	90% stable
Riparian canopy cover	Mature native/young native
Riparian understorey cover	Dense native/thin native/thin exotic

### Waipapa at Waipapa Landing

<b>Habitat Quality Score</b>	<b>83 (sub-optimal)</b>
<b>Pfankuch Stability Index Score</b>	<b>59 (good)</b>
Surrounding land-use	Native scrub/urban
Livestock access	No
Channel Shading	50%
Macrophyte cover	Common
Periphyton cover	Common
Flow type	Run/pool/riffle/waterfall
Inorganic substrate	Bedrock/cobble
Organic substrate	Algae/macrophytes
Bank type	Earth
Bank stability	Stable
Riparian canopy cover	Exotic treeland
Riparian understorey cover	Thin native/thin exotic

## Waipoua at SH12

<b>Habitat Quality Score</b>	<b>108 (sub-optimal)</b>
<b>Pfankuch Stability Index Score</b>	<b>47 (good)</b>
Surrounding land-use	Native forest
Livestock access	No
Channel Shading	60%
Macrophyte cover	Rare
Periphyton cover	Rare
Flow type	Pool/riffle/run
Inorganic substrate	Boulder
Organic substrate	Detritus/bryophytes/algae/none
Bank type	Mixed
Bank stability	Stable
Riparian canopy cover	Mature native/young native
Riparian understorey cover	Dense native/thin native/thin exotic

## Wairua at Purua

<b>Habitat Quality Score</b>	<b>90 (sub-optimal)</b>
<b>Pfankuch Stability Index Score</b>	<b>Not available</b>
Surrounding land-use	Native scrub/pasture
Livestock access	Yes
Channel Shading	20%
Macrophyte cover	Common
Periphyton cover	Common
Flow type	Pool/riffle/run
Inorganic substrate	Not available
Organic substrate	Not available
Bank type	Earth
Bank stability	90% stable
Riparian canopy cover	Young native/none
Riparian understorey cover	Thin native/thin exotic/none

## Waitangi at Waimate

<b>Habitat Quality Score</b>	<b>46 (marginal)</b>
<b>Pfankuch Stability Index Score</b>	<b>128 (poor)</b>
Surrounding land-use	Native scrub/pasture
Livestock access	Yes
Channel Shading	20%
Macrophyte cover	Rare
Periphyton cover	Rare
Flow type	Run/waterfall
Inorganic substrate	Cobble/gravel/silt/sand
Organic substrate	Algae/woody debris/none
Bank type	Earth
Bank stability	Unstable
Riparian canopy cover	Young native/none
Riparian understorey cover	Thin exotic

## Waitangi at Watea

<b>Habitat Quality Score</b>	<b>90 (sub-optimal)</b>
<b>Pfankuch Stability Index Score</b>	<b>86 (fair)</b>
Surrounding land-use	Native scrub/urban
Livestock access	No
Channel Shading	5%
Macrophyte cover	Rare
Periphyton cover	Common
Flow type	Riffle/run
Inorganic substrate	Cobble/gravel/silt/sand
Organic substrate	Algae/woody debris/macrophytes
Bank type	Earth/mixed
Bank stability	50% stable
Riparian canopy cover	Young native/none
Riparian understorey cover	Thin native/thin exotic/none

## Whakapara at Cableway

<b>Habitat Quality Score</b>	<b>67 (marginal)</b>
<b>Pfankuch Stability Index Score</b>	<b>83 (fair)</b>
Surrounding land-use	Native scrub/pasture
Livestock access	Yes
Channel Shading	10%
Macrophyte cover	Abundant
Periphyton cover	Common
Flow type	Riffle/run
Inorganic substrate	Gravel/silt/sand
Organic substrate	Macrophytes/algae
Bank type	Earth
Bank stability	Stable
Riparian canopy cover	None
Riparian understorey cover	Thin exotic