
Appendix Two:

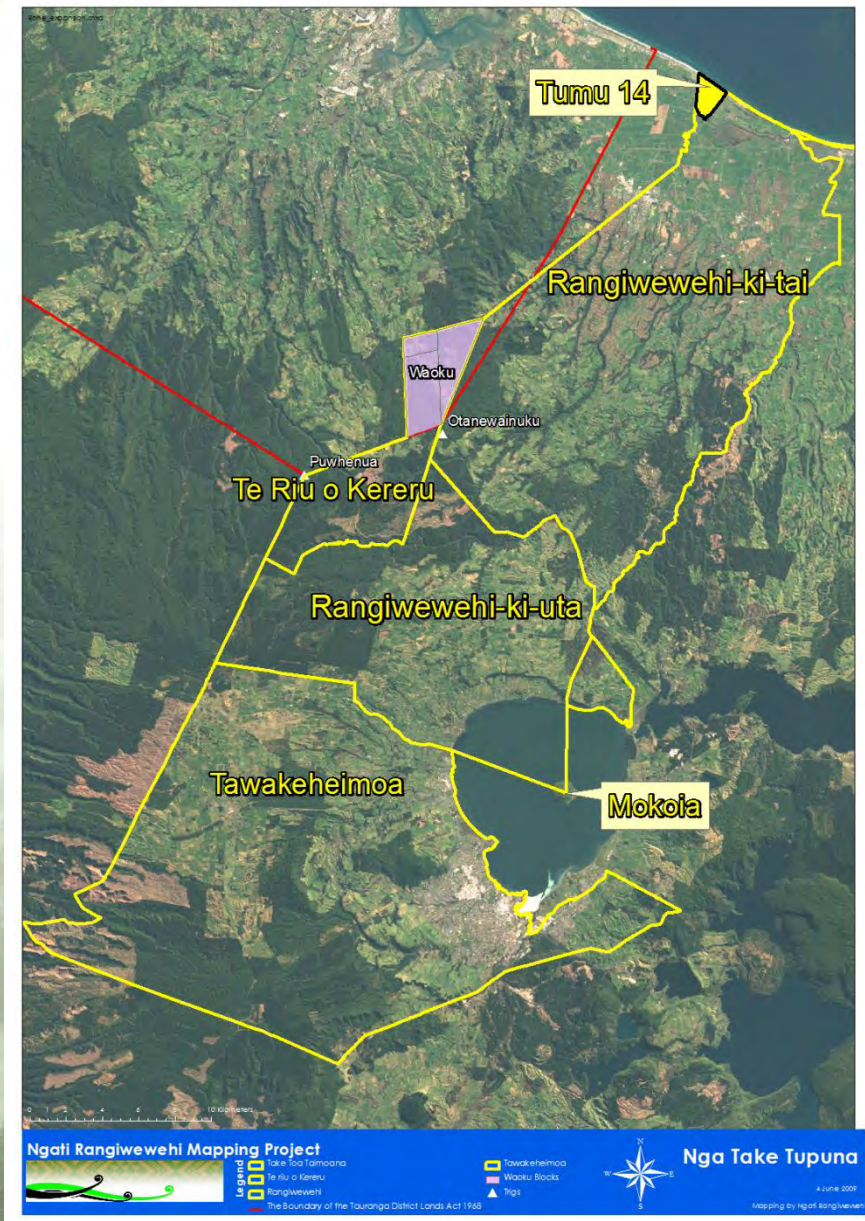
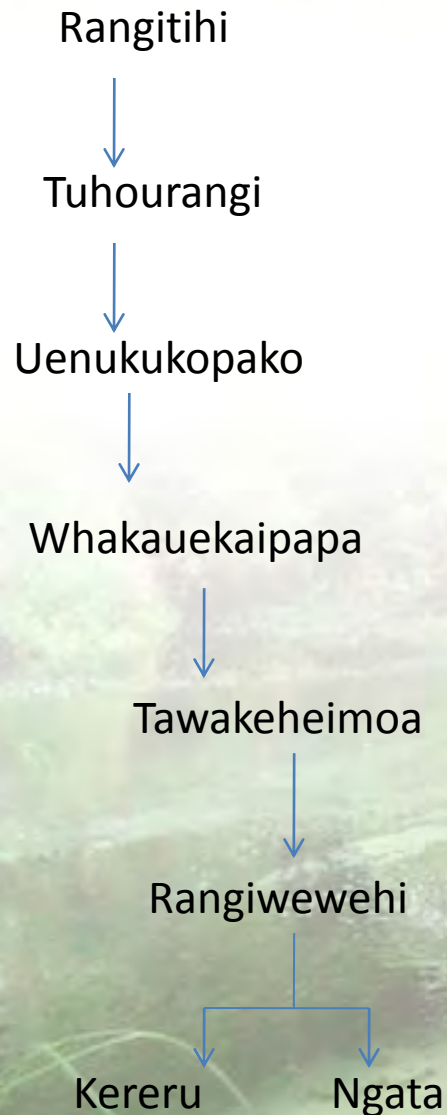
Strategic Mapping Analysis for Tarimano Marae, Awahou Village



Strategic Mapping Analysis
for

**Tarimano Marae, Awahou
Village**

Ngati Rangiwewehi Ancestral Rohe

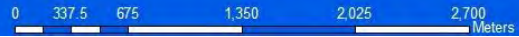




Ngāti Rangiwewehi

IDREC_BOP_Rivers	Sites of Significance	Ngati Rangiwewehi Rohe
Stream	Rapo	

Nga puna-wai o Kahumatamomoe



15 September 2009

This map has been produced as a result of information provided by the client and/or sourced by or provided to Ngati Rangiwewehi. It is provided to the client for the purposes of providing the services. No responsibility is accepted by Ngati Rangiwewehi for any liability or action arising from any incomplete or inaccurate information provided to Ngati Rangiwewehi. Where necessary, client and third party. These plans/drawings are provided to the client for their use.



- Legend**
- Awahou_community
 - Repo
 - Waihi Tapu
 - Awa
 - Puna
 - Maunga
 - Pa
 - Urupa
 - Marae



Ngati Rangiwewehi

Mapping by Tari Talao / www.rangiwewehi.com



Awahou Village

30 June 2010



Ngati Rangiwewehi Mapping Services



Tarimano Marae
Extant



Mangorewa Kaharoa 13 (Tawakeheimoa) & Mangorewa Kaharoa 6E3 2 Pap 4A (Te Aongahoro)



Ngāti Rangiwewehi

Tarimano Marae
Awahou

0 4.5 9 18 27 36 Meters





Historical/Legal

Geo-referenced survey plan ML 5343 Mangorewa



1944 Aerial Photo



1945 Aerial Photo



1953 Aerial Photo



Maori reserves and reserve ID number



Maori reserves and reserve ID number



RDC infrastructure and utilities





Sub-surface

Geology



Soils



Geology – surface caldera





Groundwater

Water chemistry of sample taken from stream mouth

Field	Record	explanation
FID	41	Unique GIS identifier
Shape *	Point	GIS shapefile type
SITE_ID		GNS Site identifier
TYPE	TP	GNS type of site
TYPENUMBER	2	GNS type of site number
EASTING	2792985	coordinate
NORTHING	6945196	coordinate
SURF_GEO	Huka	Surface geology
SUBSURF_GEO	Huka_H1	subsurface geology
LAND_USE	Indigenous Forest	incorrect that this is indigenous forest
SOIL_TYPE	Waiwhiro sand	
TN	17.945	Total Nitrogen
TP	4.73	Total Phosphorous
COND	172	Conductivity
DO	2.1	Dissolved oxygen
ORP	170	Oxidation reduction potential
PH	7.01	measure of acidity/alkalinity
TEMP	15.5	water temperature
TURB	0	turbidity
MRT		Mean residence time
NH3_N	0.25	Ammonia
TKN	17.6	Total Kjeldahl Nitrogen or TKN is the sum of organic nitrogen, ammonia and ammonium
NO2_N		Nitrite
NO3_N		Nitrate
TDN	0.095	Total organic nitrogen
TN_1	17.945	Total Nitrogen
DRP	0.017	Dissolved reactive Phosphorous
TP_1	4.73	Total Phosphorous
CA	13.5	Calcium
FE	1.2	Iron
MG	3.6	Magnesium
MN	0.31	Manganese
NA	3	Sodium
K	14.1	Potassium
HC03	90	Calcium Bicarbonate
BR		Bromine
CL	6.5	Chlorine
F	0.13	Fluorine
NO3_N_1	0.095	Nitrate
S04	3.1	Sulfate
SiO2	52	Silicon Dioxide
SWL		Static Water level
CASING		unknown, assume pipe casing
TD		unknown classification
GL	280	unknown classification
CATEGORY	Shallow	shallow groundwater
CATCHMENT	Waimehia	sub water catchment
CATCHMENTN	12	sub water catchment number



Ngāti Rangiwewehi

Awahou community dataset samples

GNS Water chemistry sample

17/04/2012

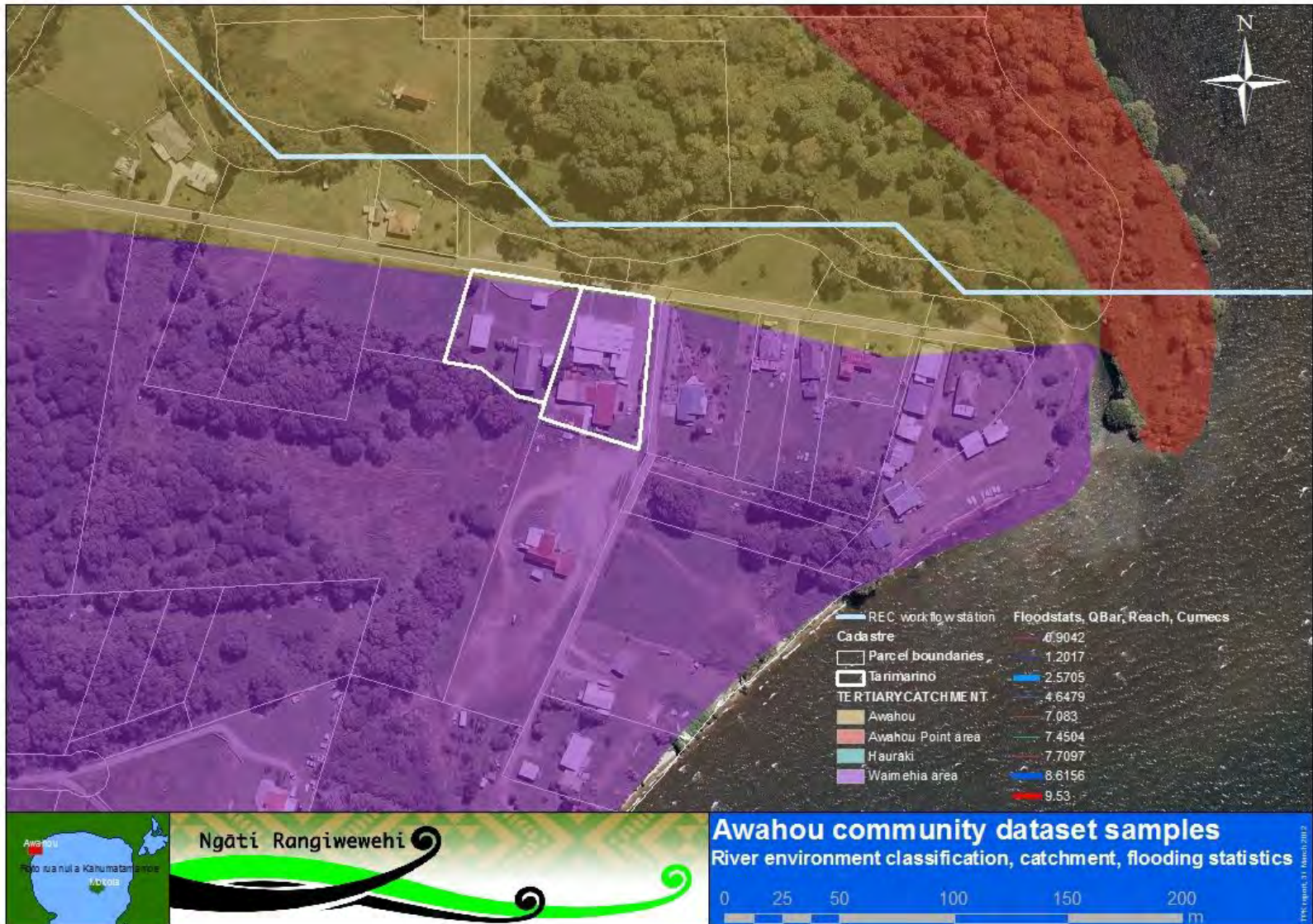
Water Use Statistics





Surface water

River catchment and flooding statistics



Permitted water takes



Water quality, wastewater reticulation and well sites



Vegetation / land cover

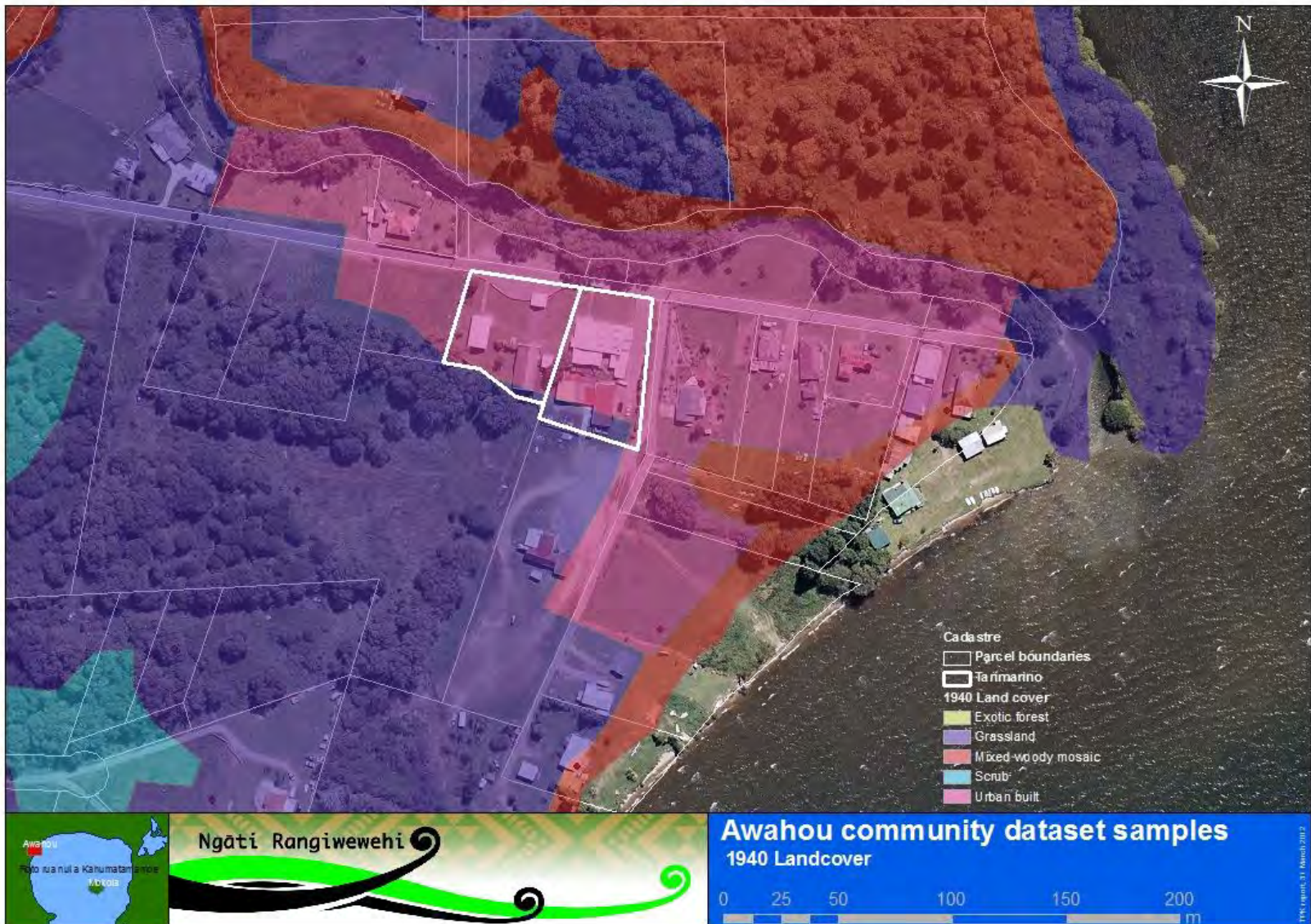
Pre-human vegetation



1840 vegetation



1940 land-cover



Ecosat: satellite imaging – 1999 land-cover



Ecosat: satellite imaging – 1999 riparian vegetation



Ecosat: satellite imaging– woodland vegetation



Ecosat: satellite imaging – wetland vegetation



2001 land-cover



2003 land-cover and use



LUCAS satellite imaging



Land Resource Inventory



LENZ – potential vegetation



Land-cover and agricultural use



Bio climate



Te Putahi wetland bio-diversity site





Climate / Atmosphere

Predicted rainfall for 2030 & 2050



Predicted temperature for 2030 & 2050



Landslide susceptibility



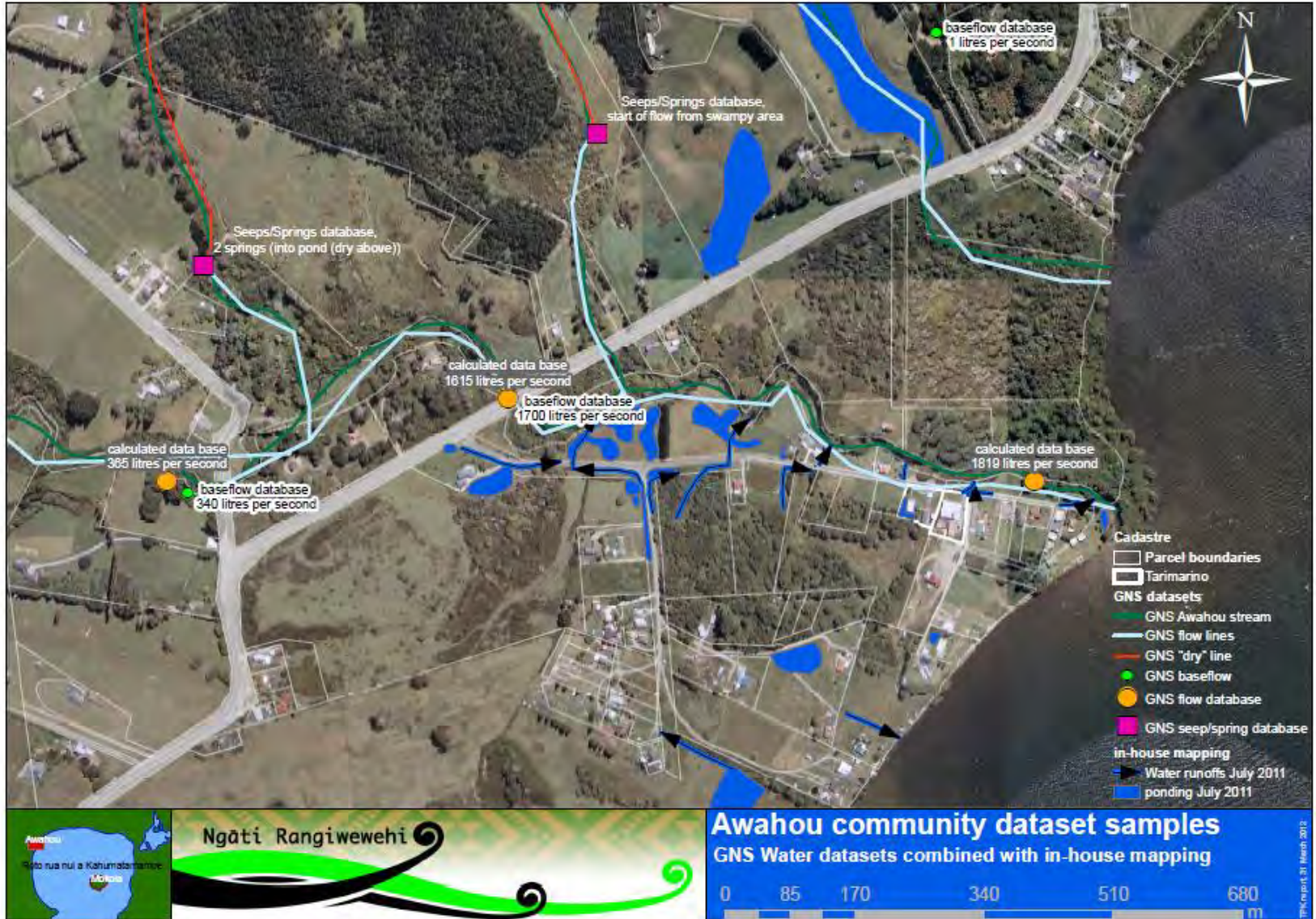
2m DEM- predicted water level rise



Local ponding and stormwater runoff



Local ponding and stormwater runoff



GIS SERVICES PROVIDED BY:

TE TARI TAI AO

Rangiwewehi Charitable Trust
Te Maru O Ngati Rangiwewehi Iwi Authourity
12 Western Road
Po Box 131 Ngongotaha

Ph: 07-3575814

info@rangiwewehi.com