



Mangere – Water Quantity Update

Susie Osbaldiston

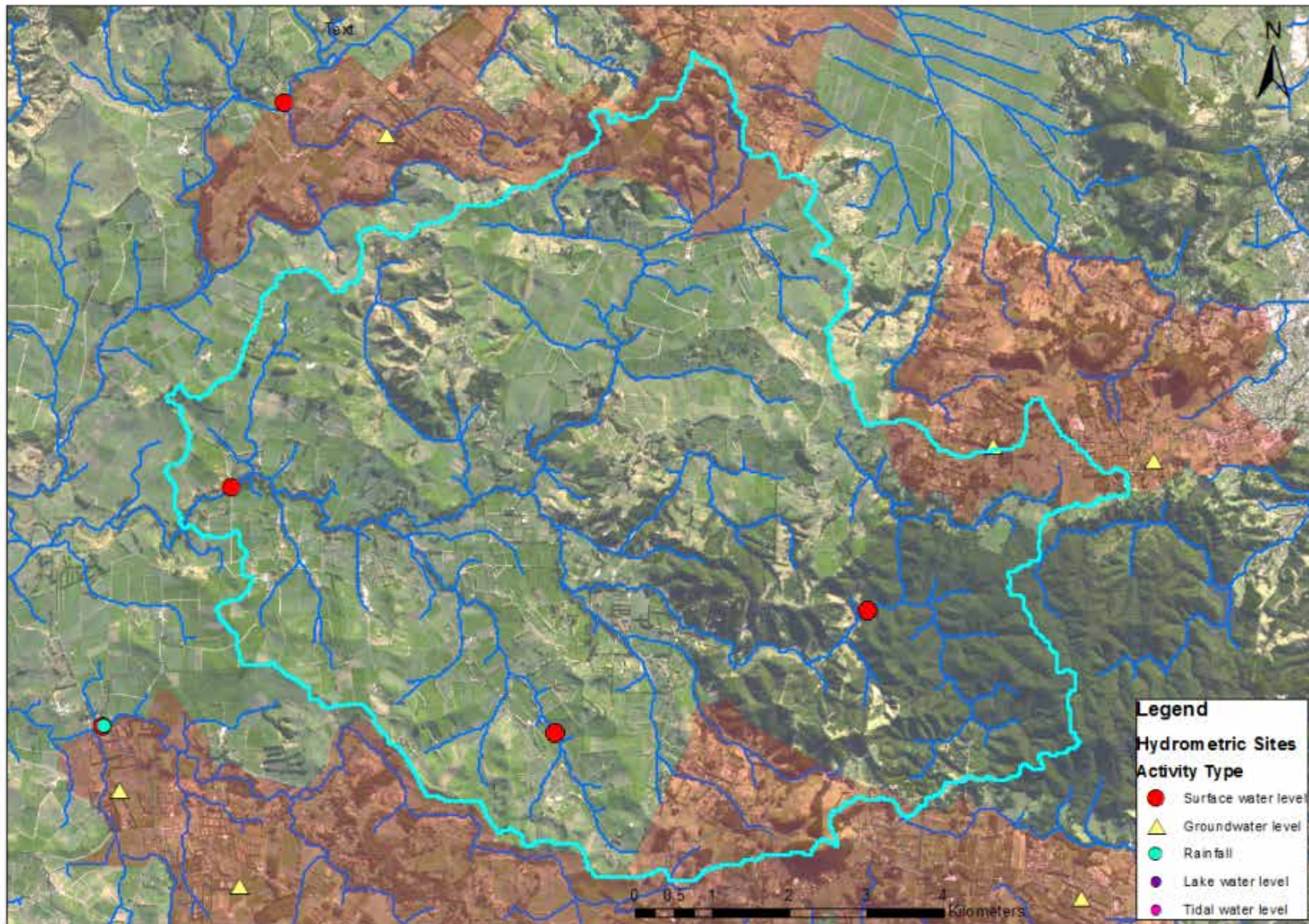
24 June 2014

What's monitored in Mangere?

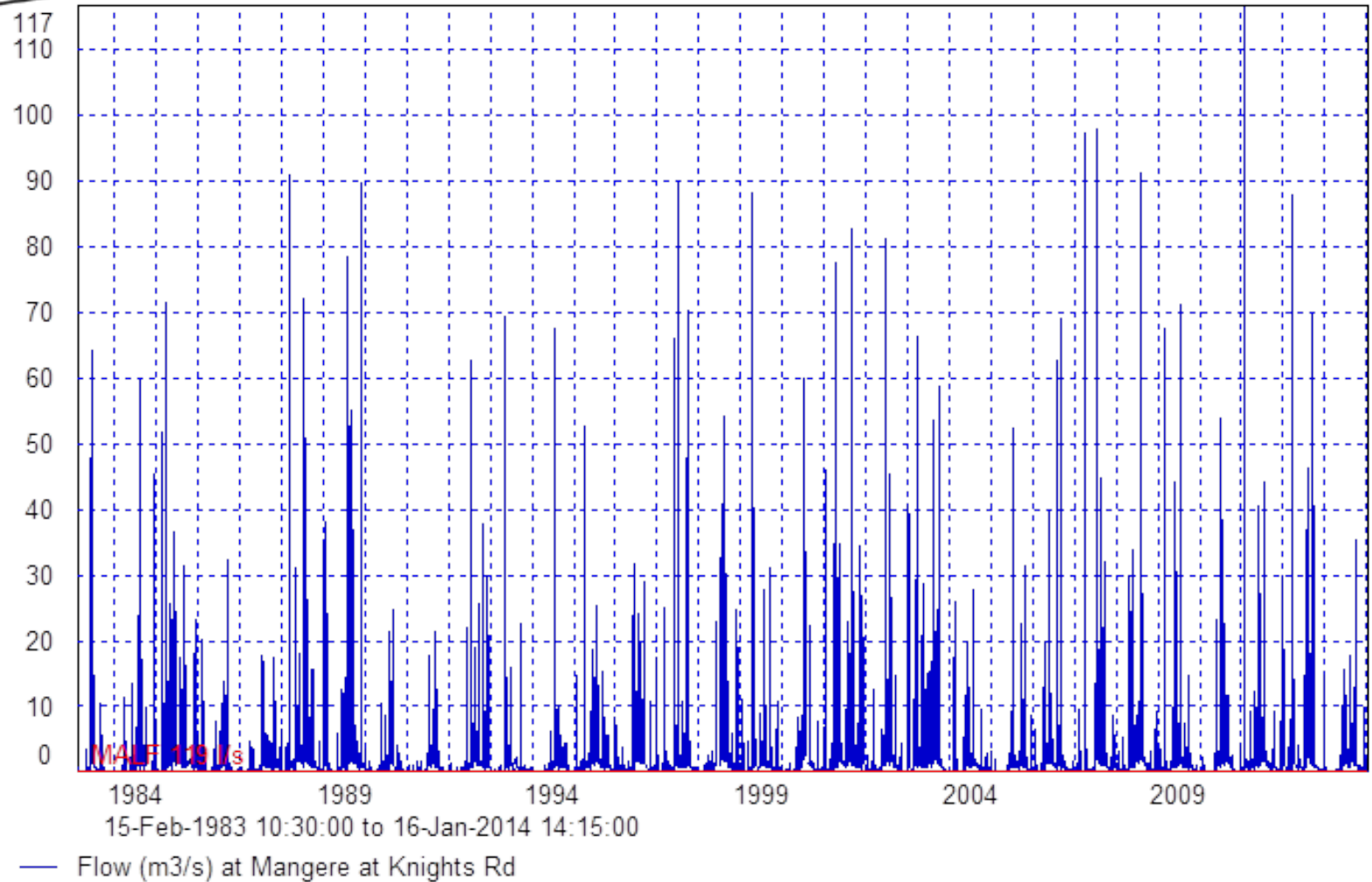
Mangere monitoring

- 1 River flow (2 historic recorders)
- 3 Historic Rainfall
- Groundwater levels in surrounding aquifers

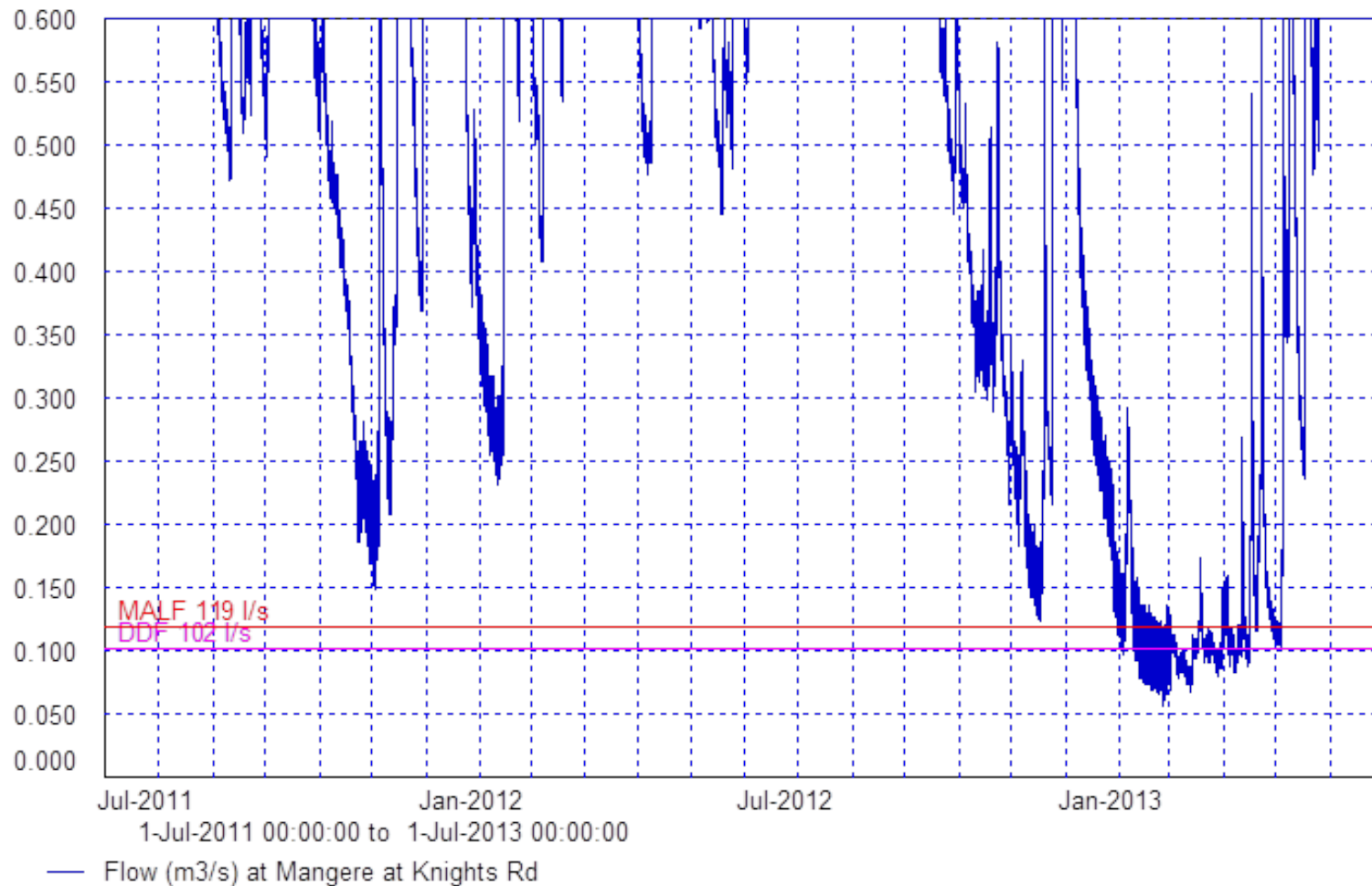
Provides important information for flood management, water quality and water use management



Flows at Knights Road



Flows at Knights Road



Flows at Knights Road

Home > Environment > River and rainfall data > River flows > Graphs Text Size

Land

River and rainfall data

- Rainfall maps
- Rainfall data
- **River flows**
- Kaeo River webcam

Coast

Farm Management

Water

River Management

Weed and pest control

Waste and pollution

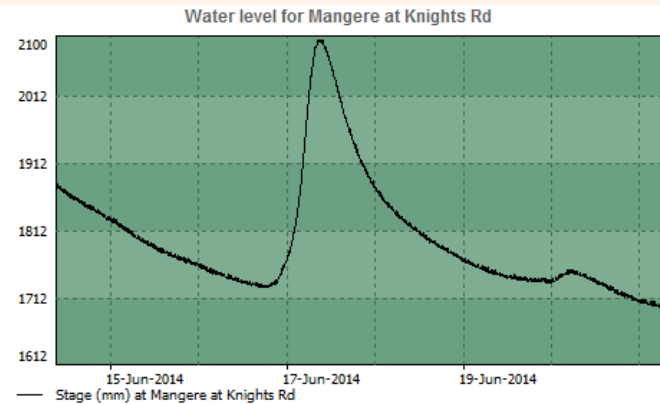
Air

Funding and awards

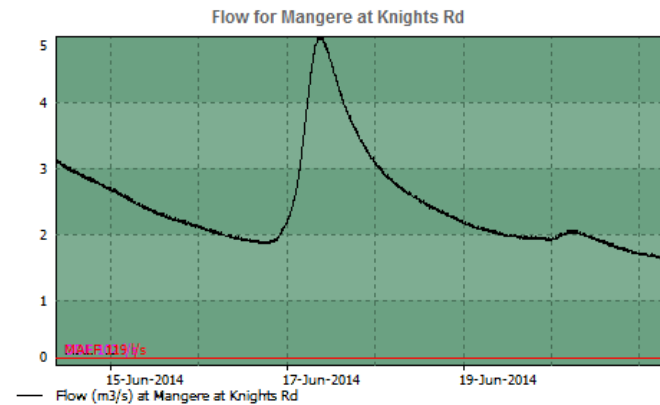
Eye on the environment

Environment

Graphs

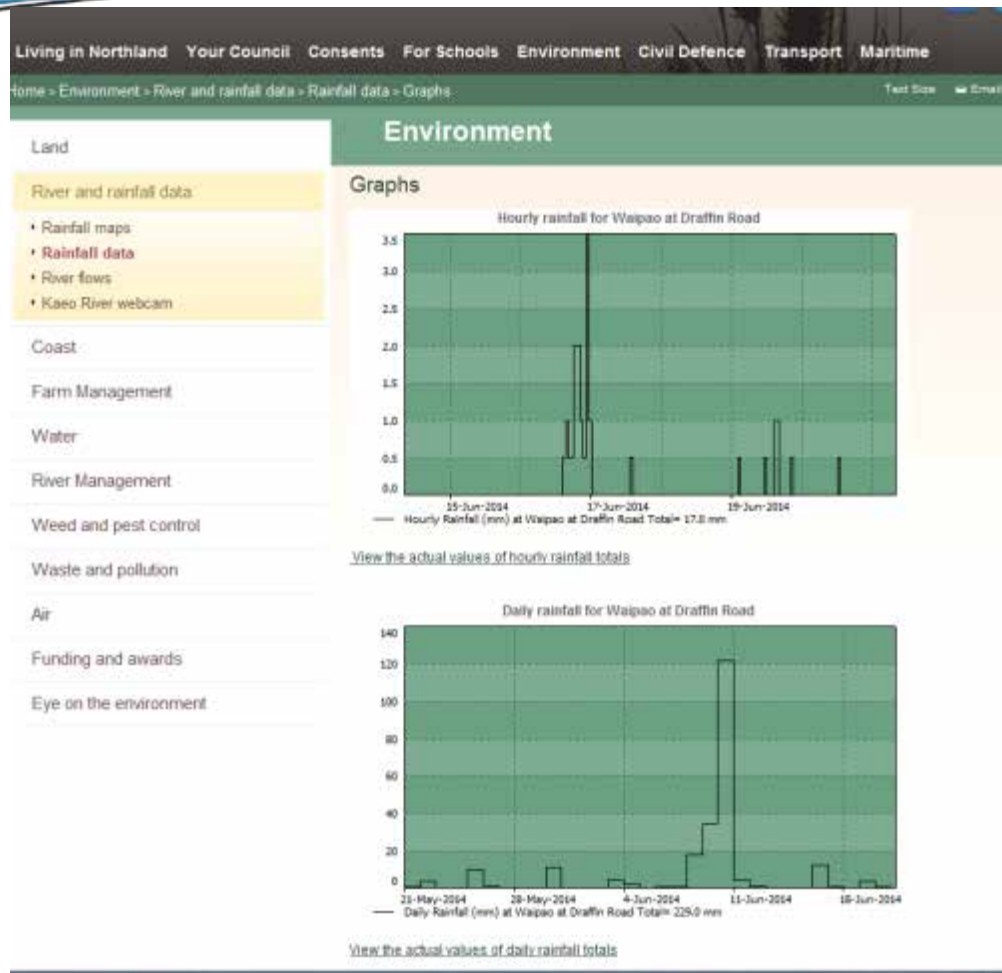


[View the actual water level values for the last 7 days](#)



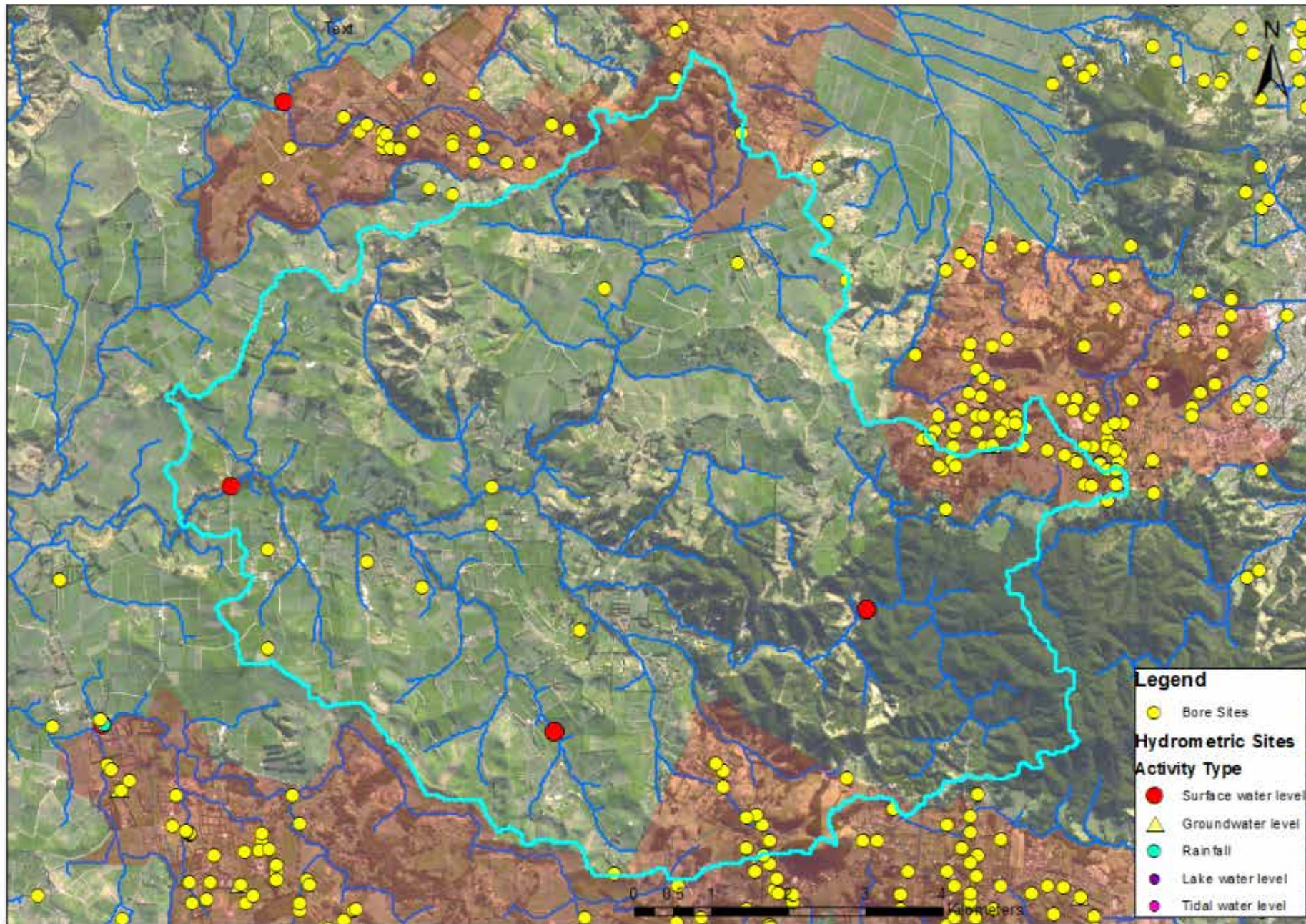
[View the actual water flow values for the last 7 days](#)

Rainfall at Draffin Road, Waipao



Groundwater – 3 Aquifers

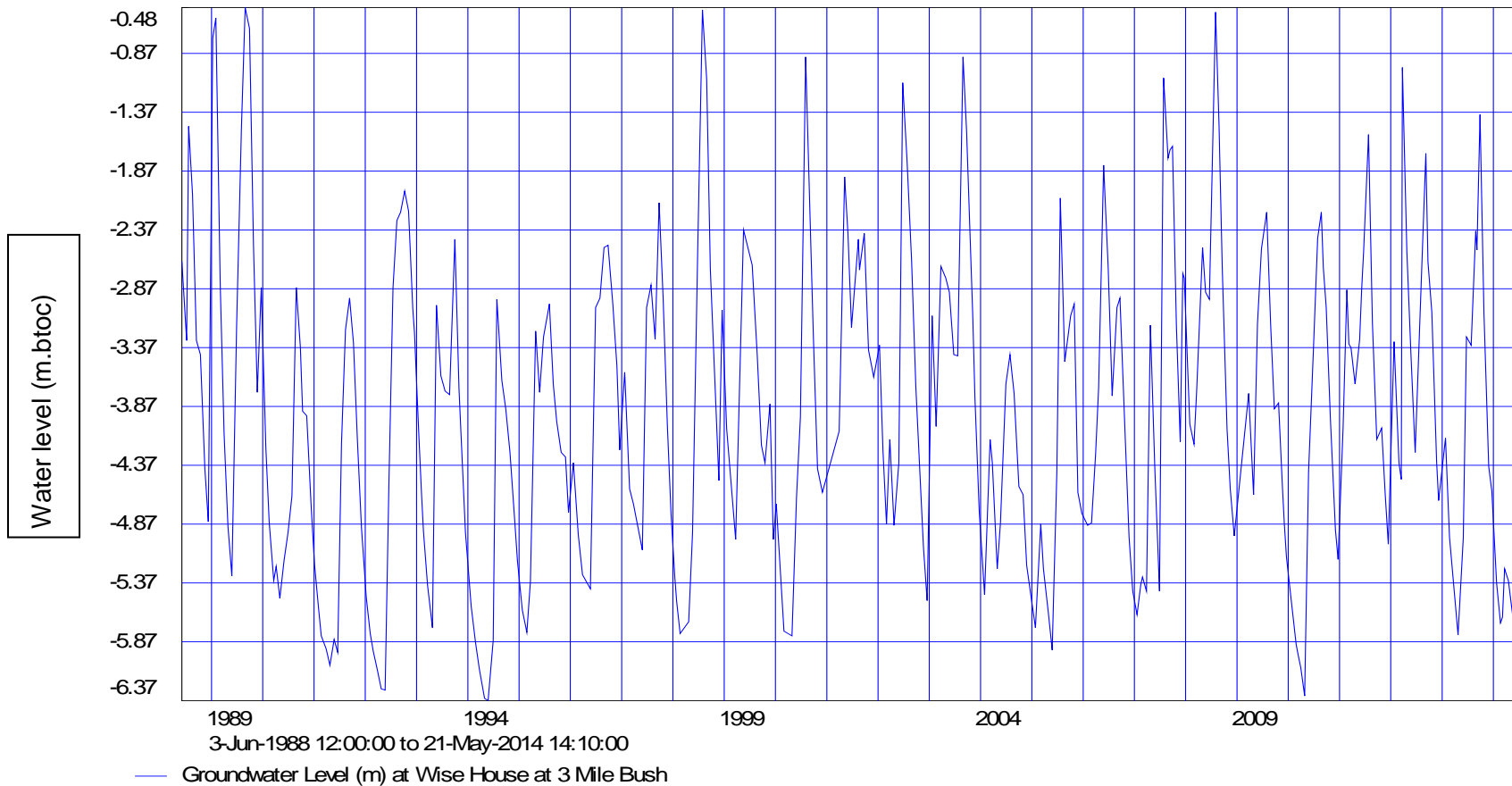
- Matarau, Three Mile Bush, Maunu, Whatitiri Mangatapere
- Basalt of varying age
- Important base flow to streams
- Generally good water quality with MRT (mean age) of approx. 40-50 years.



Groundwater

- Monitoring indicates no long term trends
- Some bores
 - have occasional elevated bacteria
 - show elevated Fe and Mn – naturally occurring
- One area of elevated nitrates (within Drinking water Standards) in Maunu aquifer – area of investigation

Groundwater levels at Wise Three Mile Bush



General Pressures

- General water takes
- Water quality



Water Takes

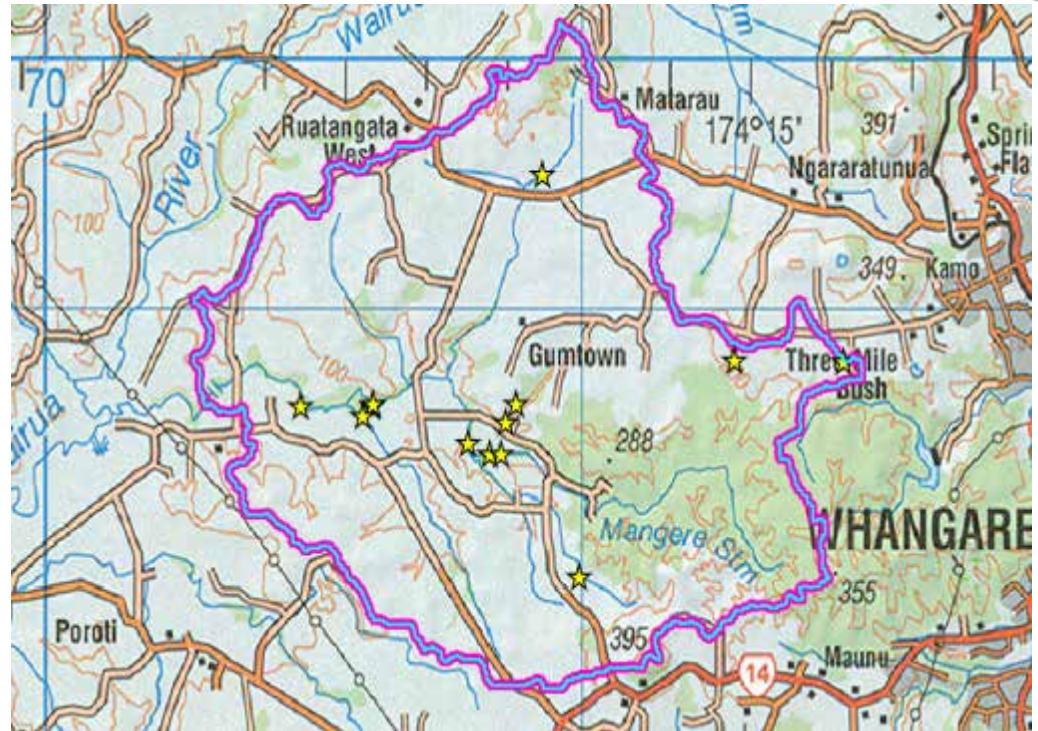
- RMA permits takes for reasonable stock drinking (S.14)
- Beyond this a resource consent required unless permitted in a rule in a Plan
- Northland Regional Water and Soil Plan permits takes up to 10 m³ per day for any purpose in most catchments provided criteria met including 'use' information supplied to the council on request

Consented Takes

11 Consents

9 surface water
(2 Dams)
2 groundwater

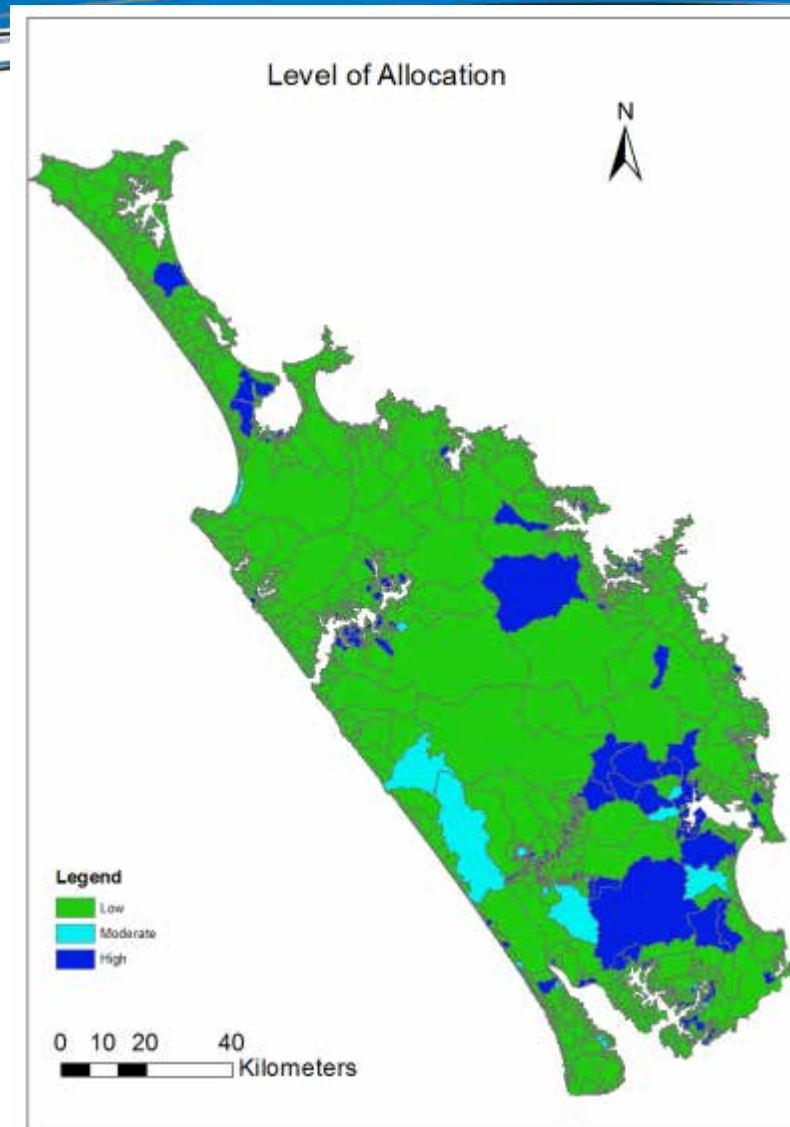
Total take 107 L/s (9307
m³/day)



Permitted Use / Unauthorised Takes

- Estimate based on land use capability maps, stocking rates and actual stock numbers
- Dairy
 - 70 L/cow per day – washdown /cooling
 - 70 L/cow per day – drinking
- Estimated Permitted / Unauthorised Dairy 8.4 L/s
- Other Stock 2.3 L/s

Total Surface Water Allocation



Level of allocation is shown as percentage of default allocation level proposed in the Proposed National Environmental Standard for Ecological Flows

Catchment Specific Limits

- Proposed NES (2008) – Default allocation limit of 30% Mean Annual Low Flow (MALF)
- Default Allocation for Mangere Catchment = 38 L/s
- Total Estimated Allocation = 117.7 L/s L/s
- Current allocation in excess of potential defaults - need catchment specific limits

What's next?

Next key steps include:

- Continue Catchment Specific Work
- Introduce catchment work and decision support tools to stakeholder groups
- Assisting stakeholders to understand the technical information and potential trade-offs
- Integrating any allocation limits with water quality limits

What's next? - Catchment Specific Work

- Trial - Cumulative Hydrological Effects Simulator (CHES)
- Instream Habitat Assessment
- Environmental Flow Strategic Assessment Platform (EFSAP)
- Ongoing refinement of Allocation map information
- Integrated Groundwater / Surface Water allocations
- Water Use Metering Trial (?)

Catchment Group Help?


Help understand permitted water takes:

- Promote registration of takes
- Promote registration of bores
- Water use surveys?



Thank you

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