



An enhanced picture of **Water Allocation in Northland**

Janelle Palmer - Geospatial Analyst

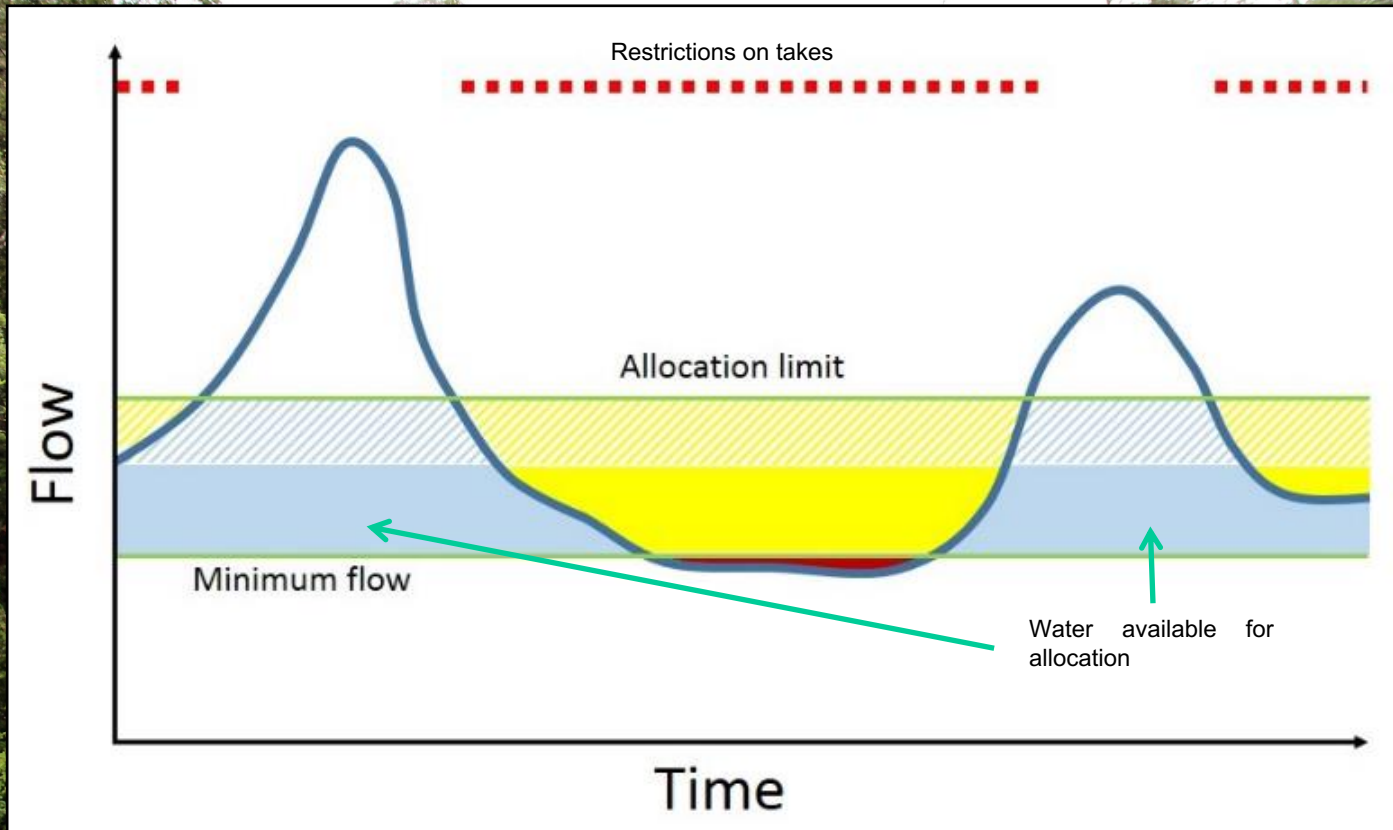
Water is Life...



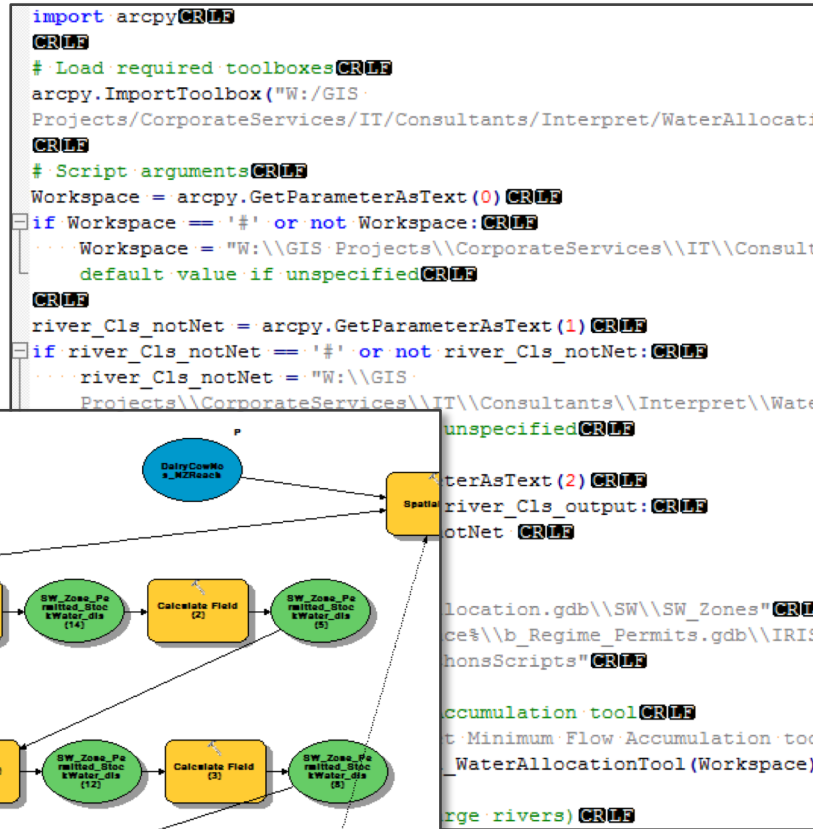
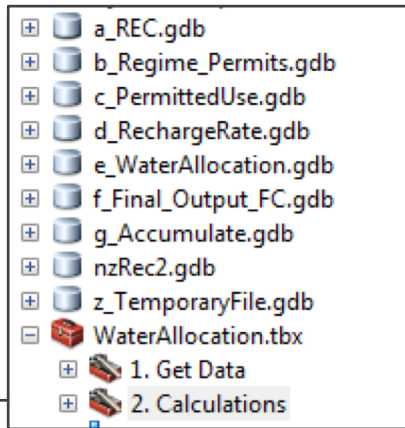
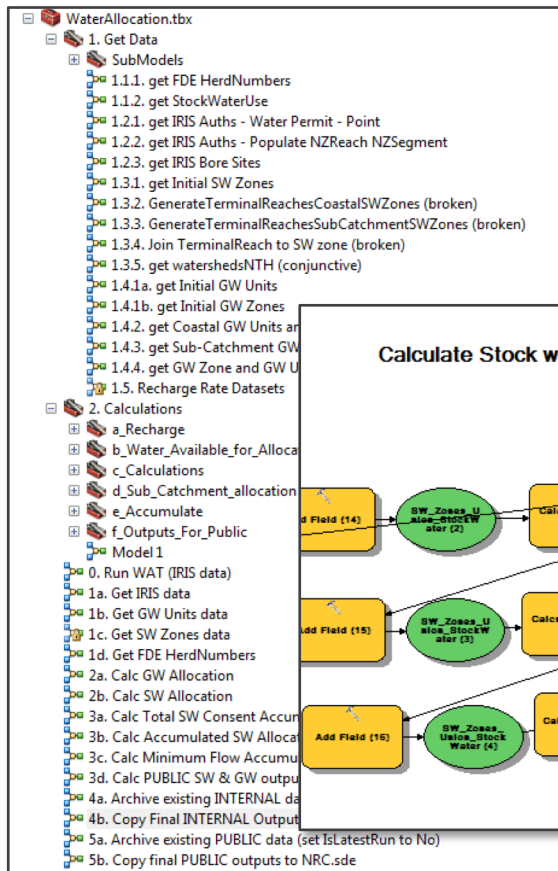
How much water can we allocate?



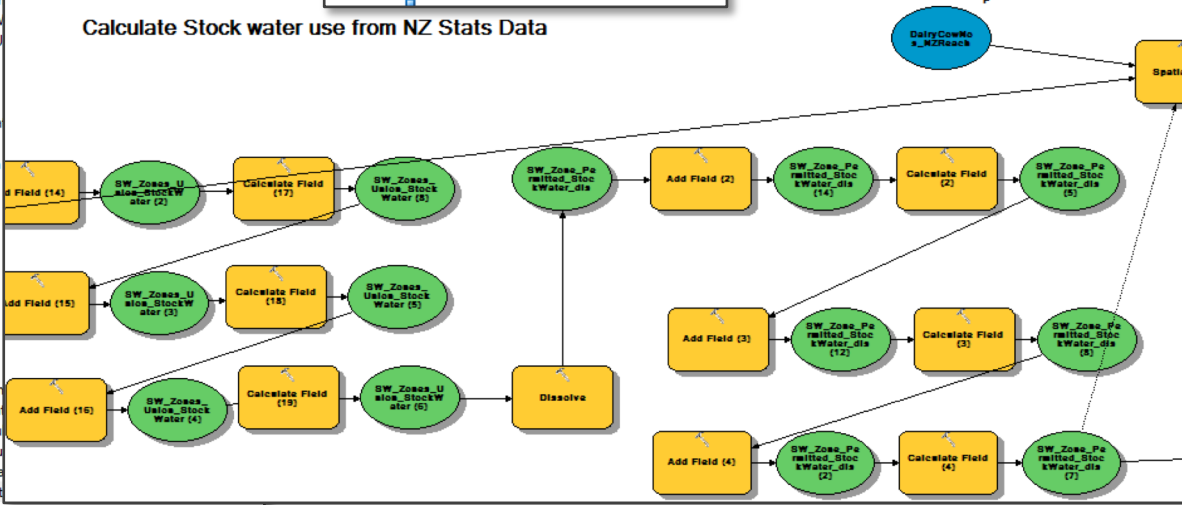
It's all about flow...



What is WAT?



Calculate Stock water use from NZ Stats Data



Simply put...

Water
Available

- GW: rainfall, recharge
- SW: % MALF

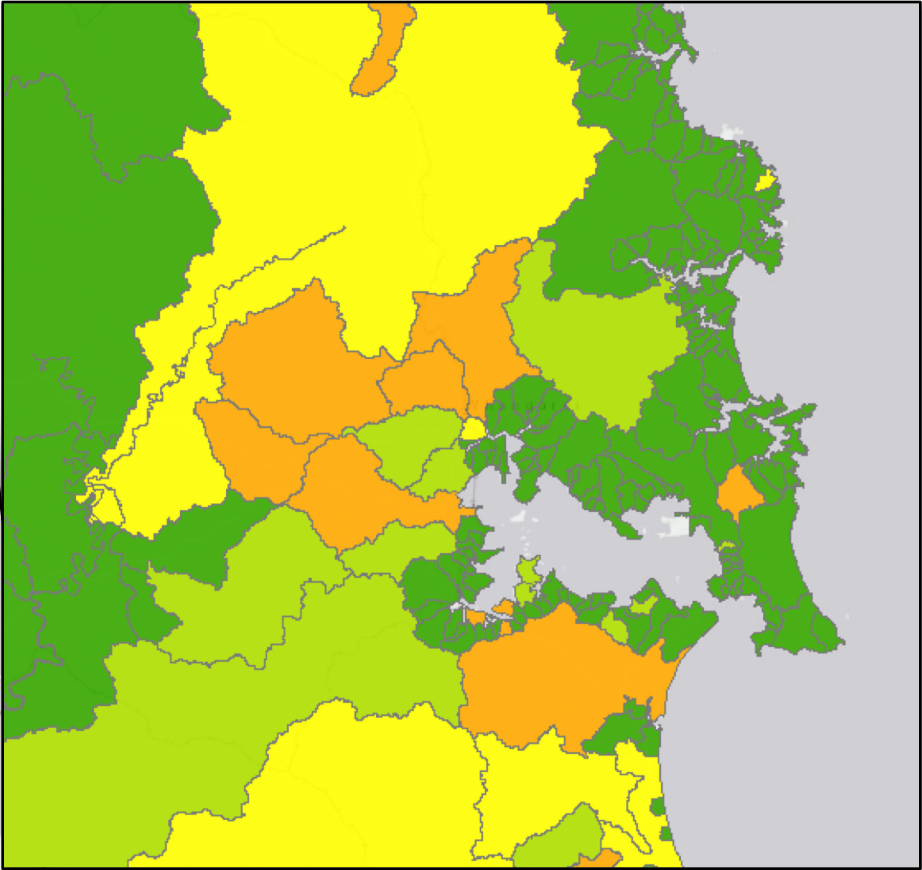
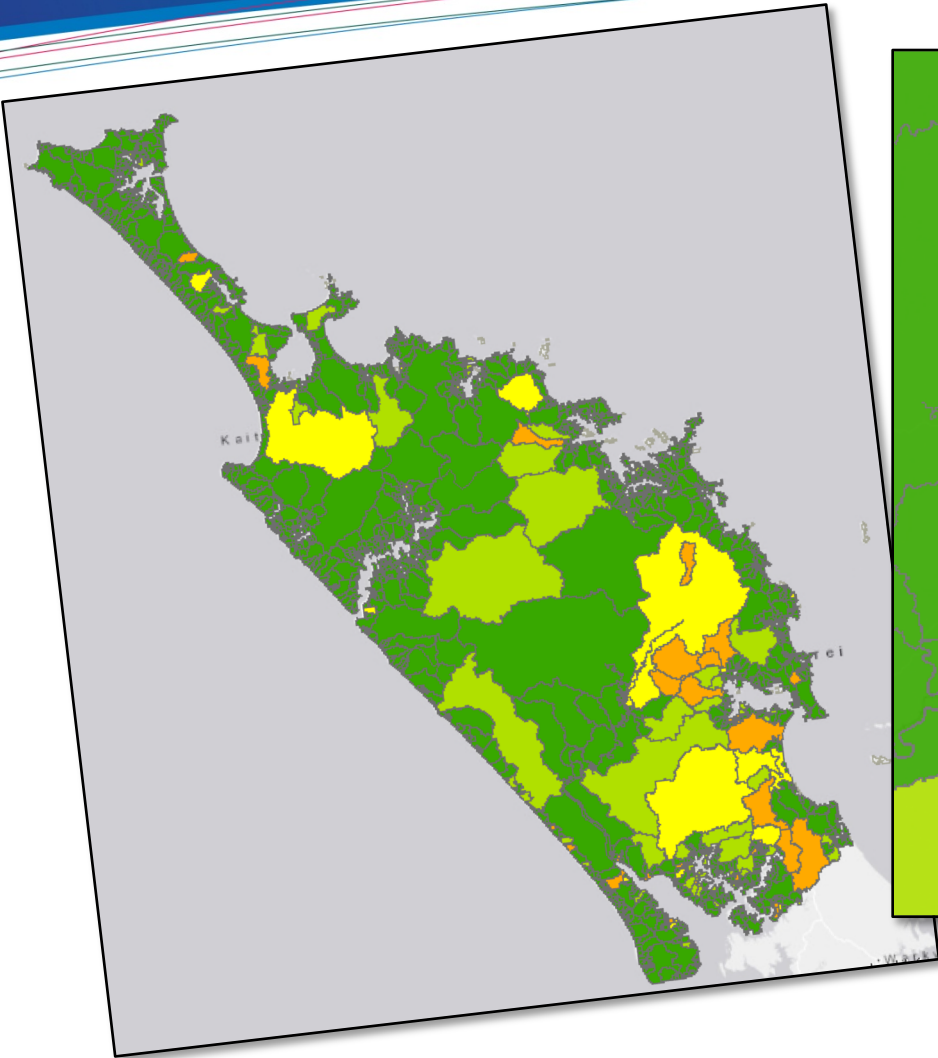
Water
Used

- Consents
- Permitted Use

Allocation
Limits

- Allocation of SW catchment and GW aquifers

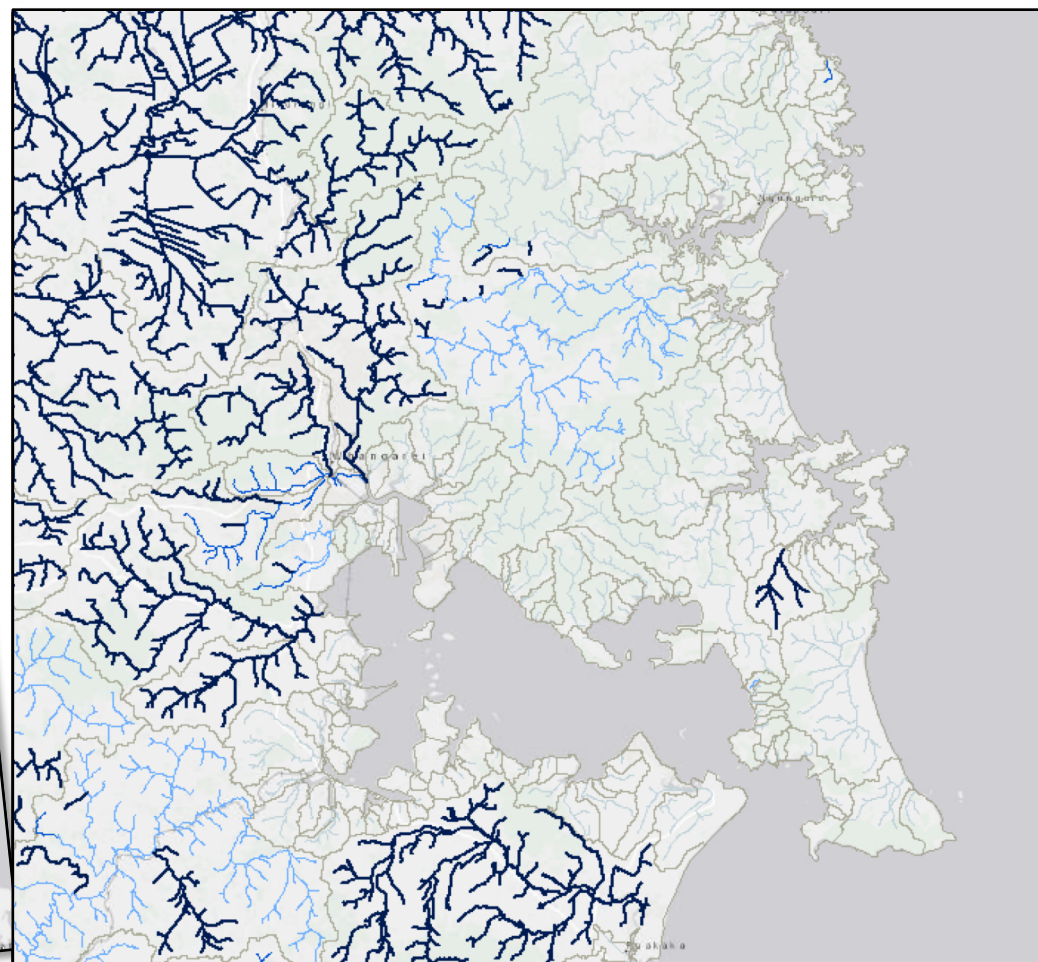
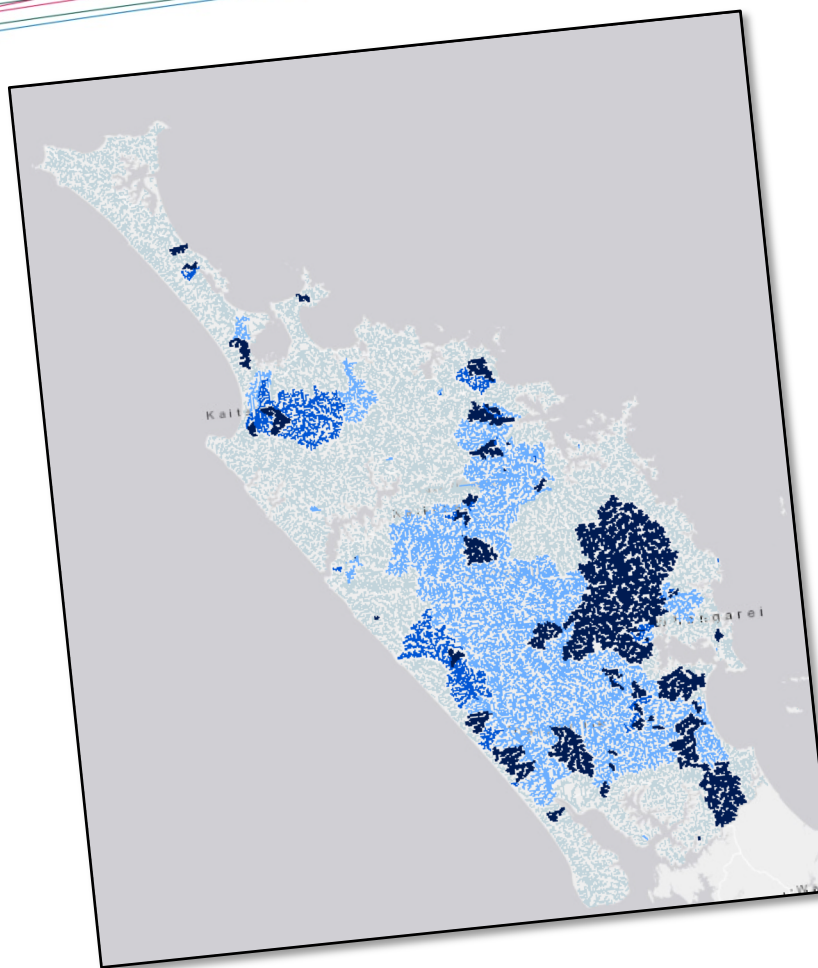
Northlands Water Allocation v1.0



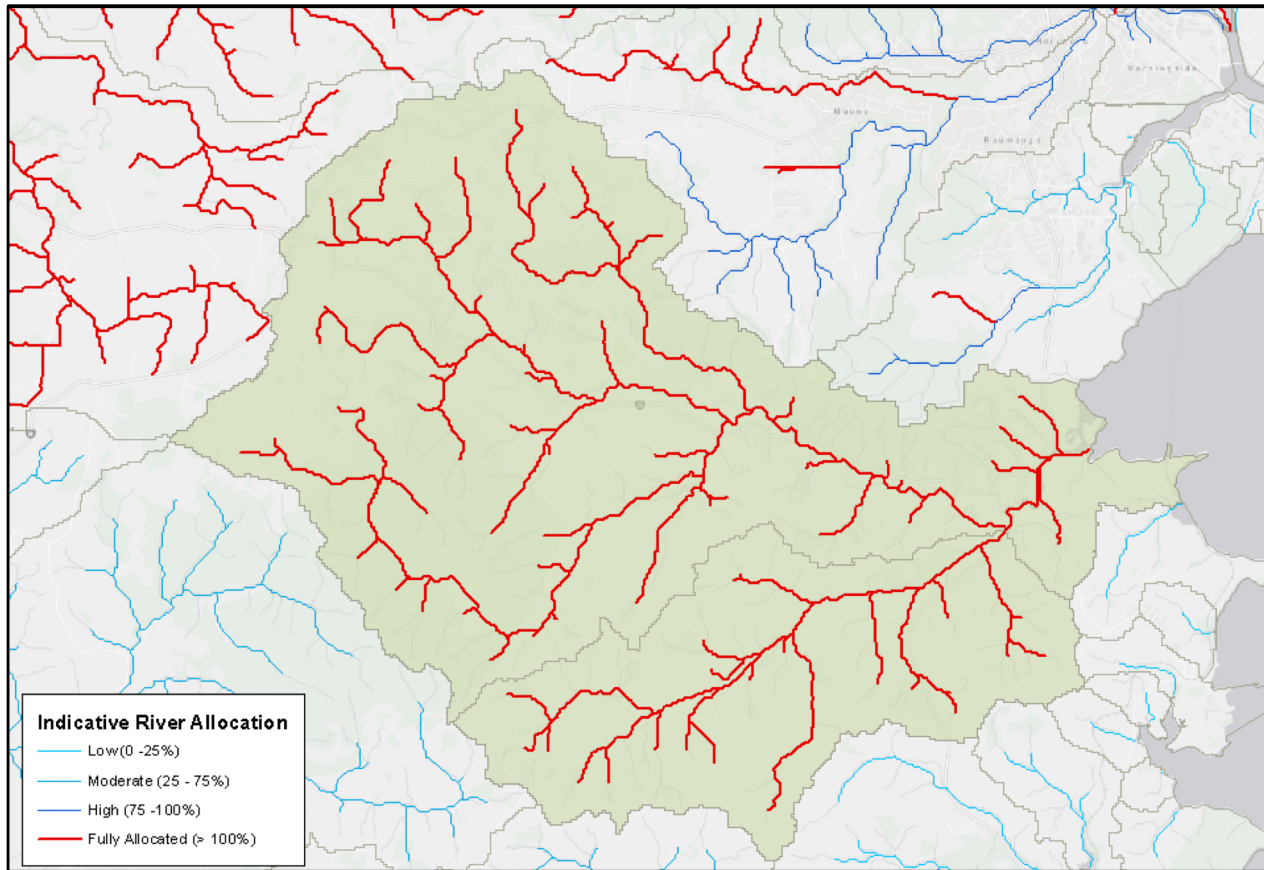
Initial challenges

-  **Huh?** Learning to speak hydrology
-  **How?** Extending someone else's work
-  **Oh no!?** Poor quality data
-  **When?** Getting the project prioritized

I can see clearly now...



Applying accumulation



While you're at it...

Increase accuracy of tool

- Apply Minimum flow accumulation
- Apply affects of over-allocated SW's to GW
- Improve quality of data

Improve usability of tool

- Improve structure of the tool
- Automate sequences of models
- Make outputs easily accessible

Hydrology / SoE



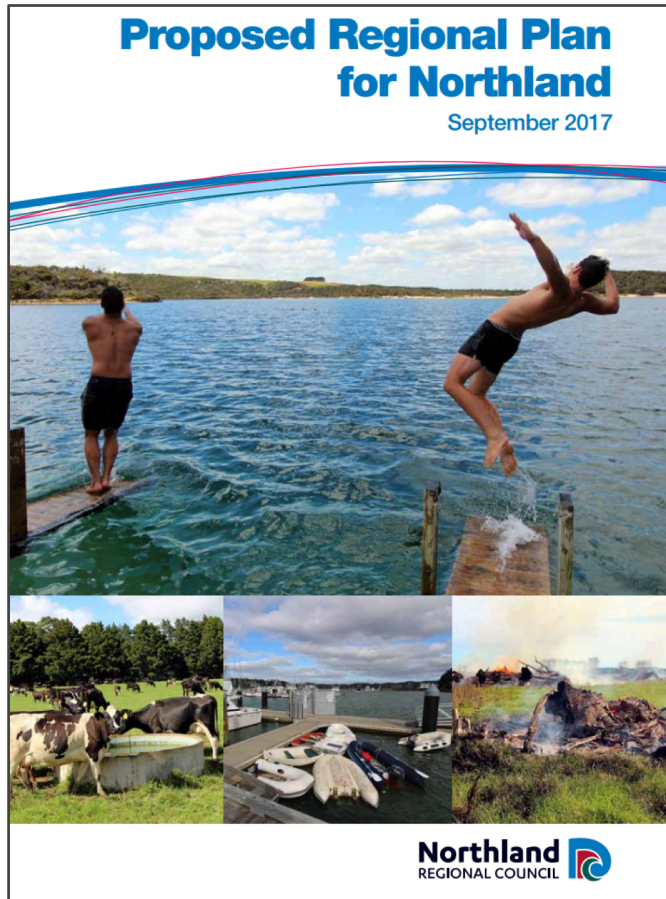
- Accurate picture of current state
- Identify pressure areas
- Prioritize monitoring and research
- Meet NPS-FM regulations
- Reduced workload

Consents



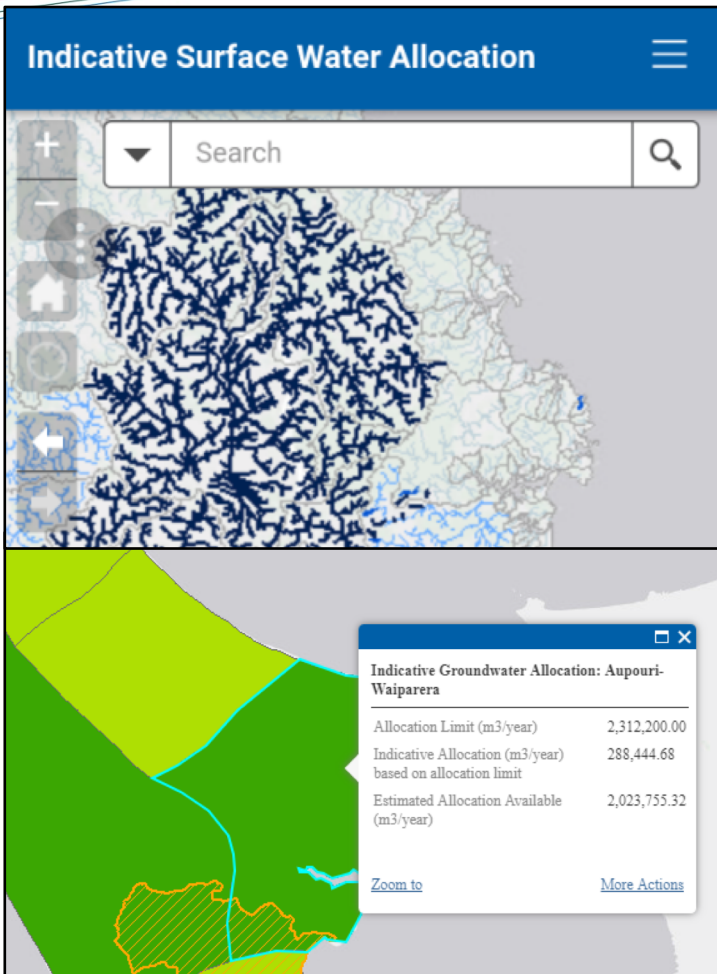
- “See” WA policy
- See over-allocation and availability
- Reduced time to process water take consents
- Easier to communicate decisions to public

Planning



- “See” WA policy
- Better data = better decisions
- Future planning thru scenario’s

Public



- “See” WA policy
- Transparency
- Confidence in NRC
- Self serve

What's next for WAT?



- Better Data
- Extend Accumulation
- 3D?
- SHARING...

Thank you

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