

# The Devil Is In The Detail: Is The Planning Process Enabling Stream Loss?

*Justine Quinn + Josh Markham*



# Overview and context

- The need for housing is pushing development into greenfield areas within the Auckland region
- Rapid growth and the affordable housing crisis is putting pressure on developers and their consultants to 'get things done' with mixed outcomes for the environment
- Ecological constraints are really opportunities for stormwater management

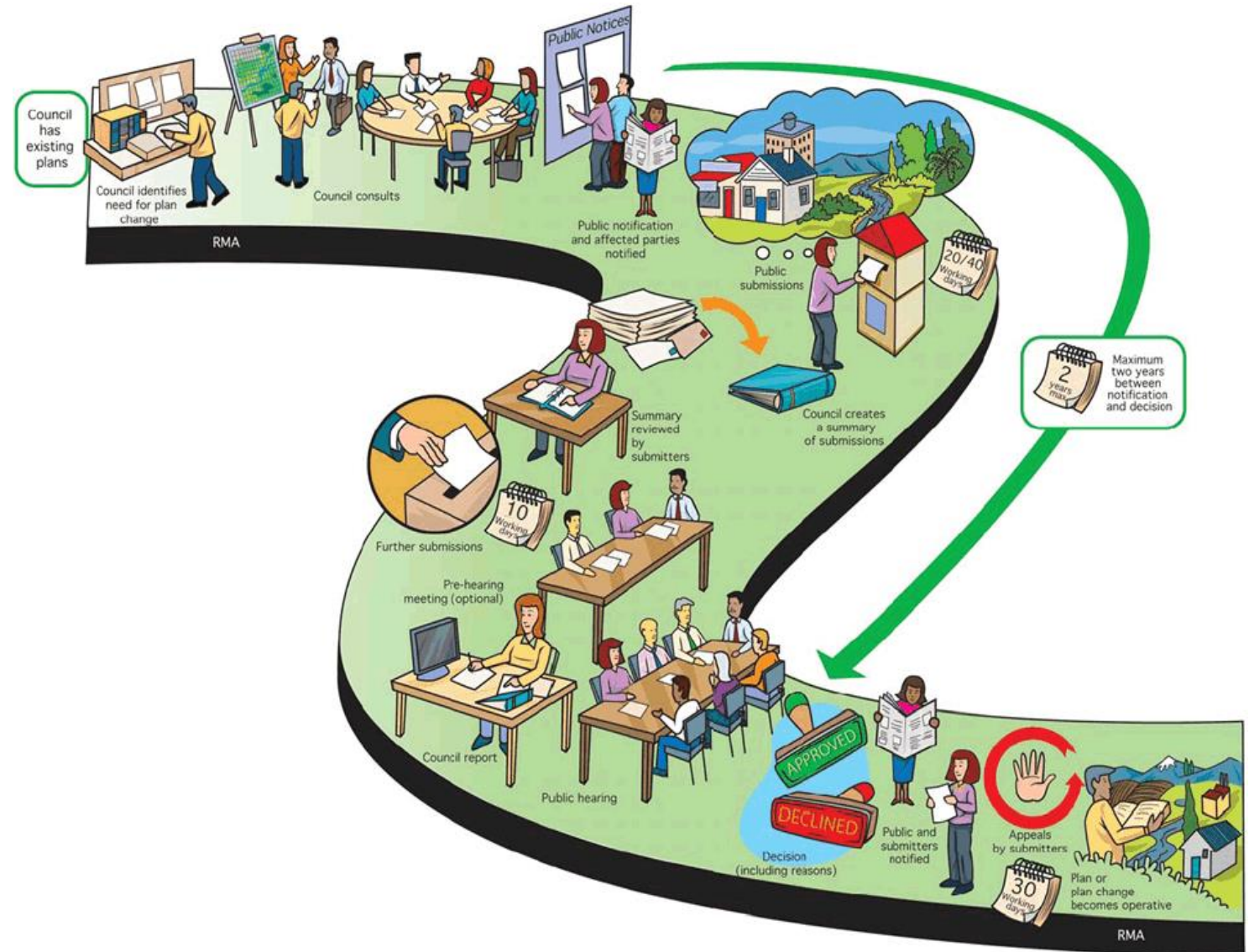
# Making land developable



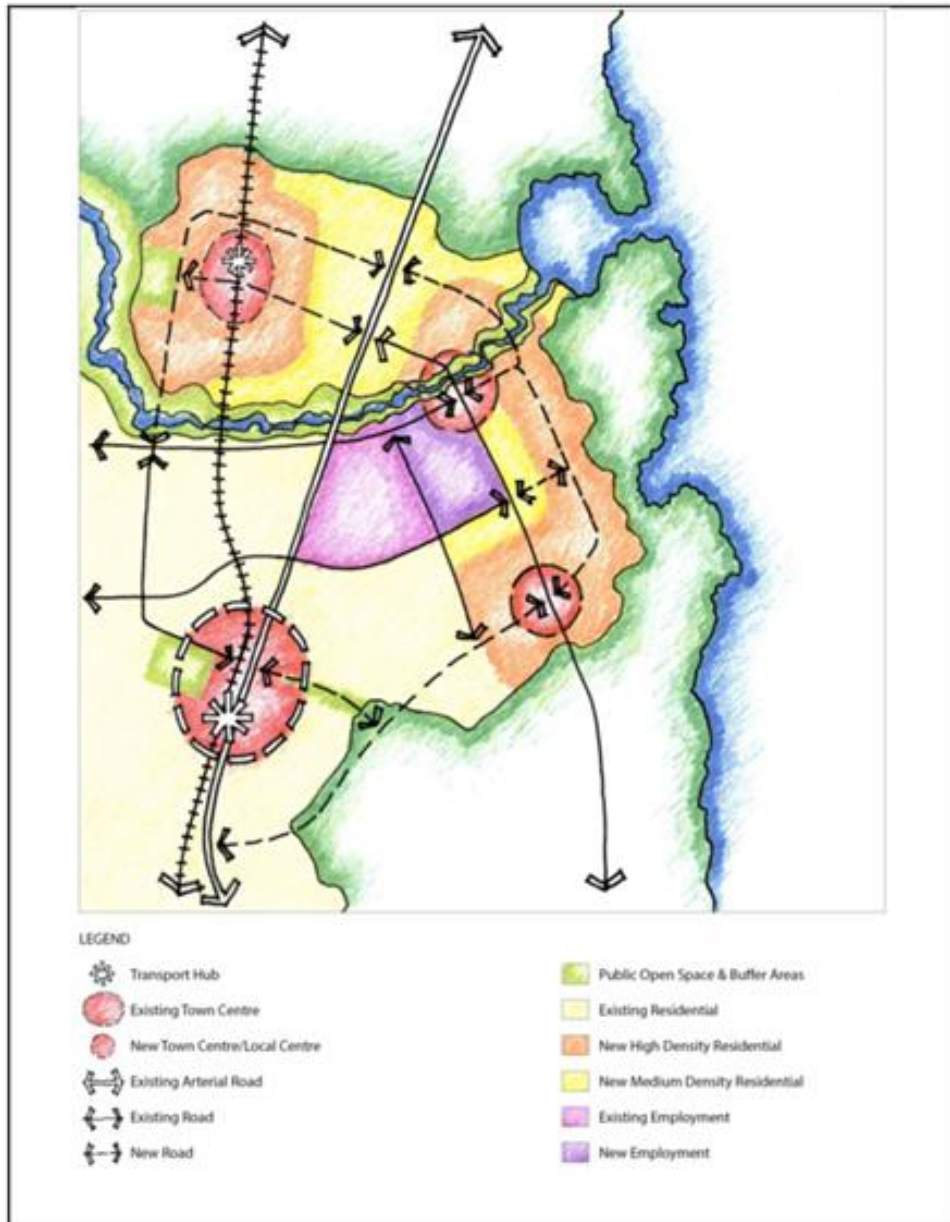
- Rural land use / future urban
- Plan change and master planning required
- High level assessments often over large areas and miss majority of ecological features

# The process

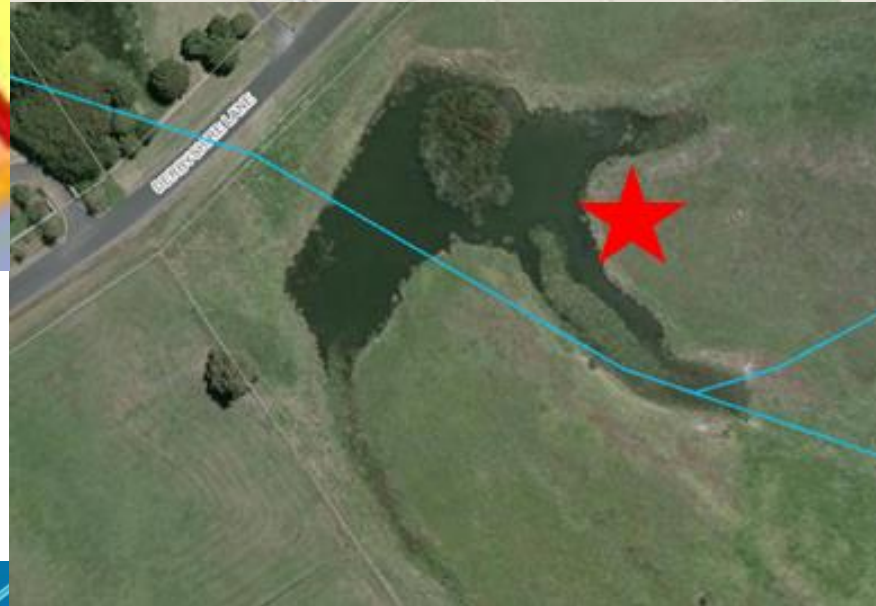
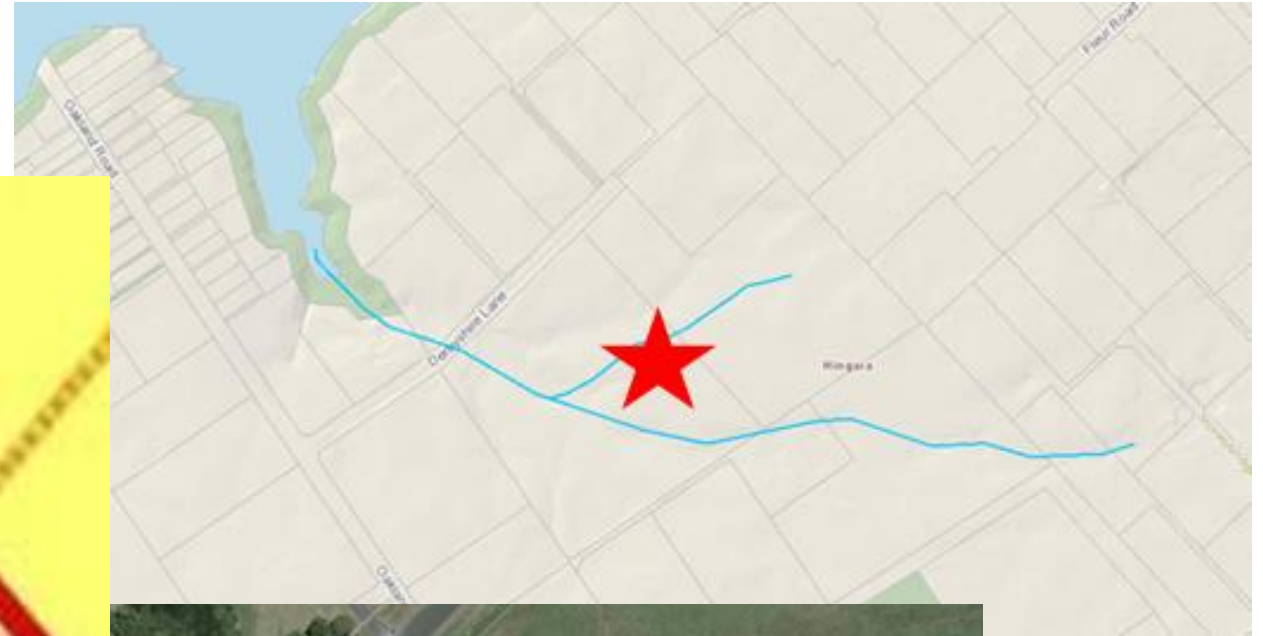
- Town centres
- Transport / pedestrian networks
- Connection to wastewater networks
- Recreational areas
- Housing density and lot yield
- Regional and district consenting requirements come later!



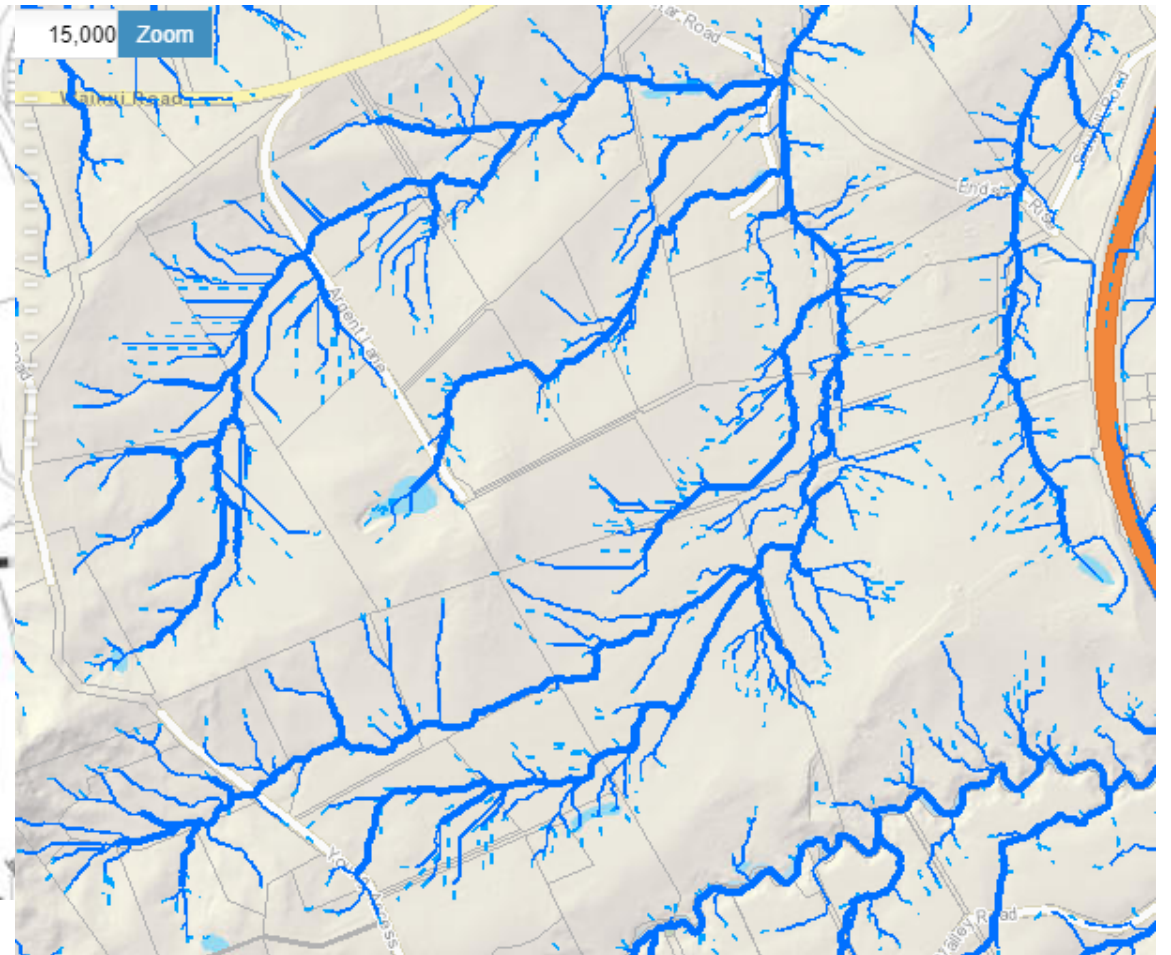
# Output v reality



# Output v reality



# Output v reality



## So what's the problem

- After finalisation of the plan change the developer anticipates an easy run through the regional and district consenting process
- An anticipated lot yield has been estimated \$\$\$\$ based on the plan change and master planning documents
- High level concept is set in stone prior to ecological considerations



# Protection and stream consenting provisions

- RMA – defines river and wetland but doesn't give much granularity
- Unitary Plan – provides definitions for permanent and intermittent stream but not wetland
- Unitary plan objectives and policies give guidance:
  - rivers, streams and wetlands are restored, maintained or enhanced, and
  - reclamation or a stream or wetland is avoided unless there is no practicable alternative.
- Mitigation or offsetting required to balance residual adverse effects

## Back to the drawing board

- Do these streams exist or have protection if they haven't been identified in the plan change process
- Can they be modified or reclaimed – we mean reclaimed!
- *“Can I get a consent for stream reclamation in two weeks as earthwork season starts in October and we have already signed up contractors”*
- Retaining streams means loss in anticipated yield, time delays and cost implications

## Detailed ecological assessment and process

- Usually done at detailed design when small changes = big cost implications
- More permanent and intermittent stream and wetlands than anticipated = current and potential values accounted for
- Redesign of master plan to try and avoid stream loss
- Unpicking and patching stormwater approach to enable WSUD
- The realised cost in losing yield compared to the actual cost of offsite offset



# Improved outcomes and solutions

- Spend time upfront identifying all potential constraints across a site prior to a plan change or master planning
- Identify entire stream networks – remembering freshwater systems exist on a continuum
- Suitably qualified and experienced practitioners (SQEP) – seasonal constraints
- WSUD and stream networks – multi benefit
- Sensitive and integrated design to reduce stream loss
- Balance stream loss and mitigation / offset onsite
- Stream corridors and other amenity values – multi purpose

# What can you do?

- Ask for better information
- How confident are we in the stream network identified?
- What WSUD provisions should I/can I incorporate if we keep these streams?
- Is it possible to divert and enhance rather than reclaim?
- What would it look like I if designed transport networks along stream alignments?
- What stormwater benefits can be quantified by retaining open channels?

# Questions?



**Acknowledgements** – our clients that have ‘seen the light’ and can appreciate the realities of working around streams. We also appreciate the opportunities afforded to us working both sides of the ‘fence’, for developers and regulators