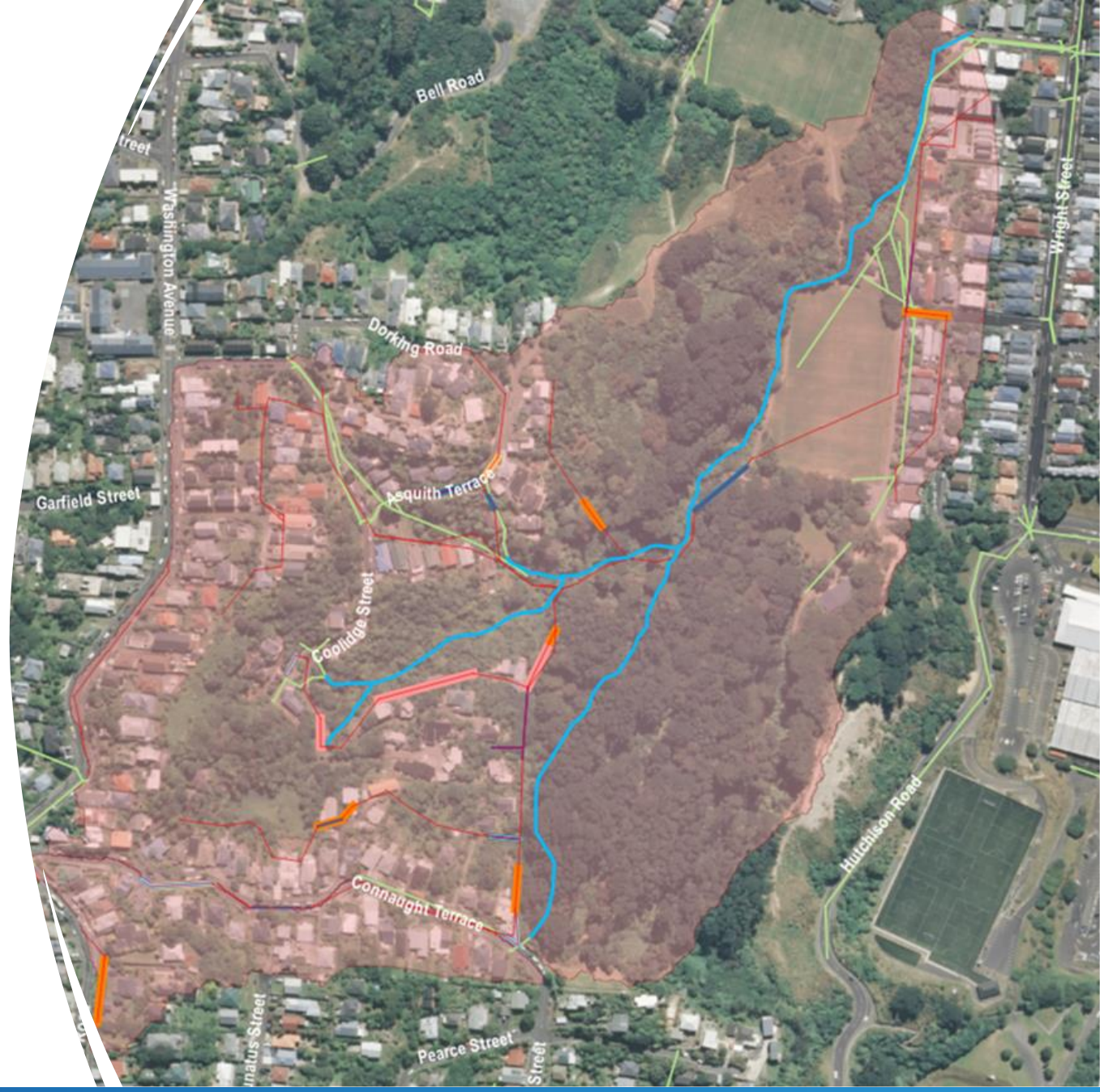
Stormwater Conference 2023

Stormwater Network Asset Transfer Decision Support tool

Agenda

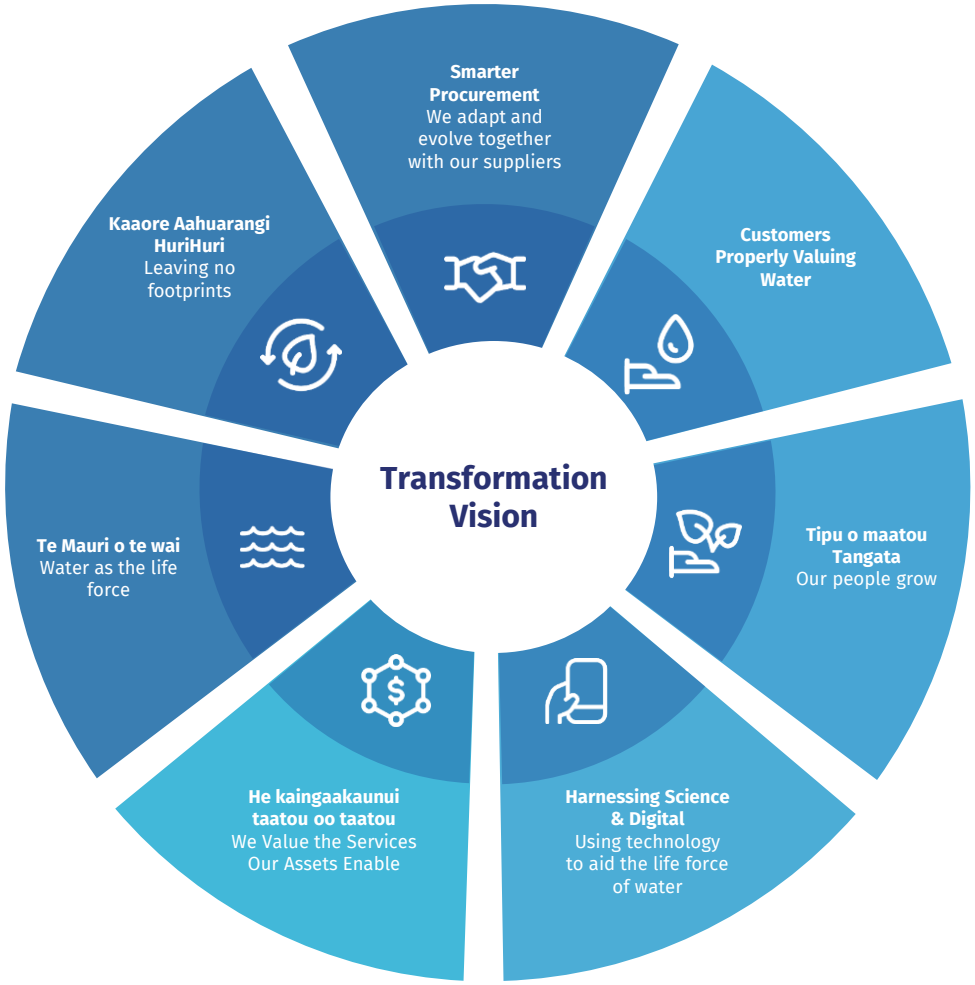
- Introduction
  - The reform context
- The Stormwater Decision Support Tool
  - Why, what and how
  - Some early Results
- Breakout Discussion
  - Impact on the sector
  - Opportunities and risks
  - Big ideas!



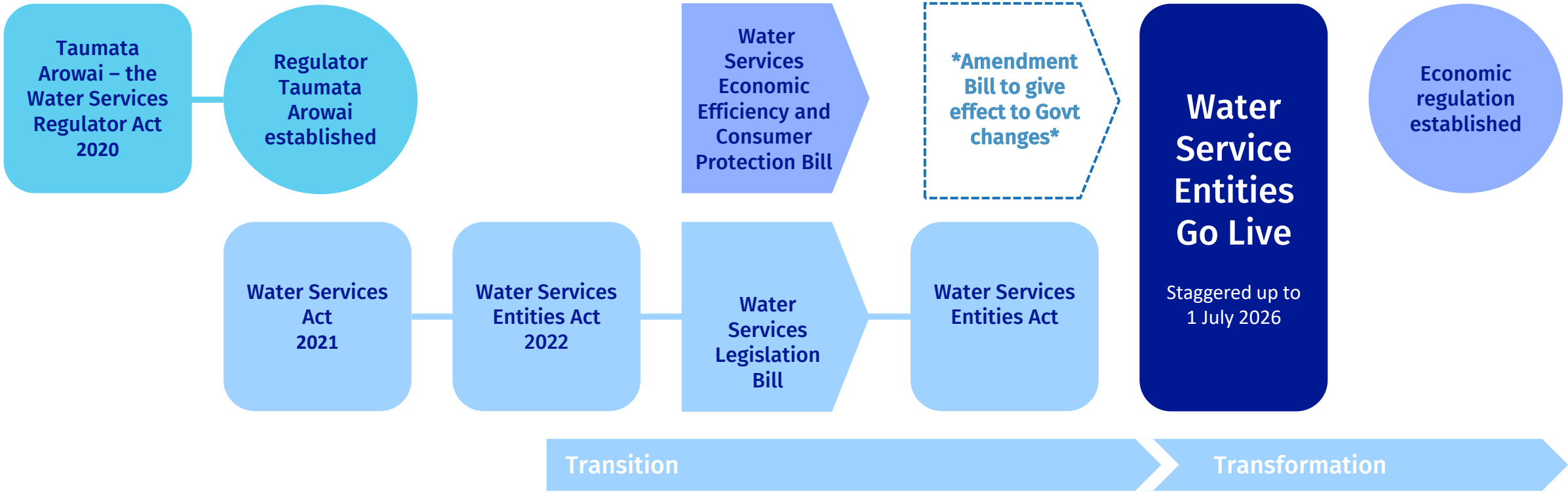
Some reform context

A generational transformation of our water services

- A uniquely New Zealand approach to building a world-class water system, guided by Te Mana o te Wai.
- Creates the **structural changes** that enable the significant investment required in water infrastructure which is out-of-reach of individual councils alone.
- Create the **conditions to build and sustain a highly skilled and adaptable water workforce** that can innovate and collaborate to drive better outcomes for NZ.
- **Ensure it is customer-focused, leveraging new technologies,** whilst also building customer awareness of their role in the water system and the value of water.



Legislative process



*In addition to the two Bills currently before the Finance and Expenditure Select Committee (report back due 8 June 2023) the Government intends to introduce and pass legislation before this year's election, giving effect to the changes it announced in April. It will be subject to Parliamentary timetable and processes, including the opportunity for public feedback.

Implementation- Impact of reset

Programme adjustments will take a few months to complete as we work in step with policy development to support government direction:

- Start with a high level implementation **strategy** focused on how we make the go-live window created by the government direction work in a way that is efficient and effective
- Move to a focus on **delivery** approach - how we embrace a regional delivery approach work to create the 10 entities in concert with what is delivered centrally within the NTU
- And then into detailed **planning**, which for a programme of this size is challenging

While we advance deliverables critical to the programme, we need to reconsider how we go about delivering the programme over a longer period of time. This provides the opportunity for:

- Stronger partnerships with **councils, iwi and the broader sector**
- **Greater regional stake**. Where we can be very clear about what work is best carried out centrally versus regionally
- A more **sustainable** delivery tempo over a longer period of time

Urban Stormwater – Future operational arrangements

Environmental Regulation

- WSE consent holders
- Coordinates activities to meet consent requirements

Stormwater Discharge consent(s)

Stormwater Management Strategy

strategic outcomes, risk management, management plan

WSE owns (assets) or operates (functions)

- Hard SW infrastructure
- Green SW Infrastructure
- Overland flow paths
- Urban Watercourses

Note that viewers are still being iterated.

Statutory Powers, SW rules

Relationship and Service Level agreements

Regional Council **Territorial Authority** **Transport Corridor Managers**

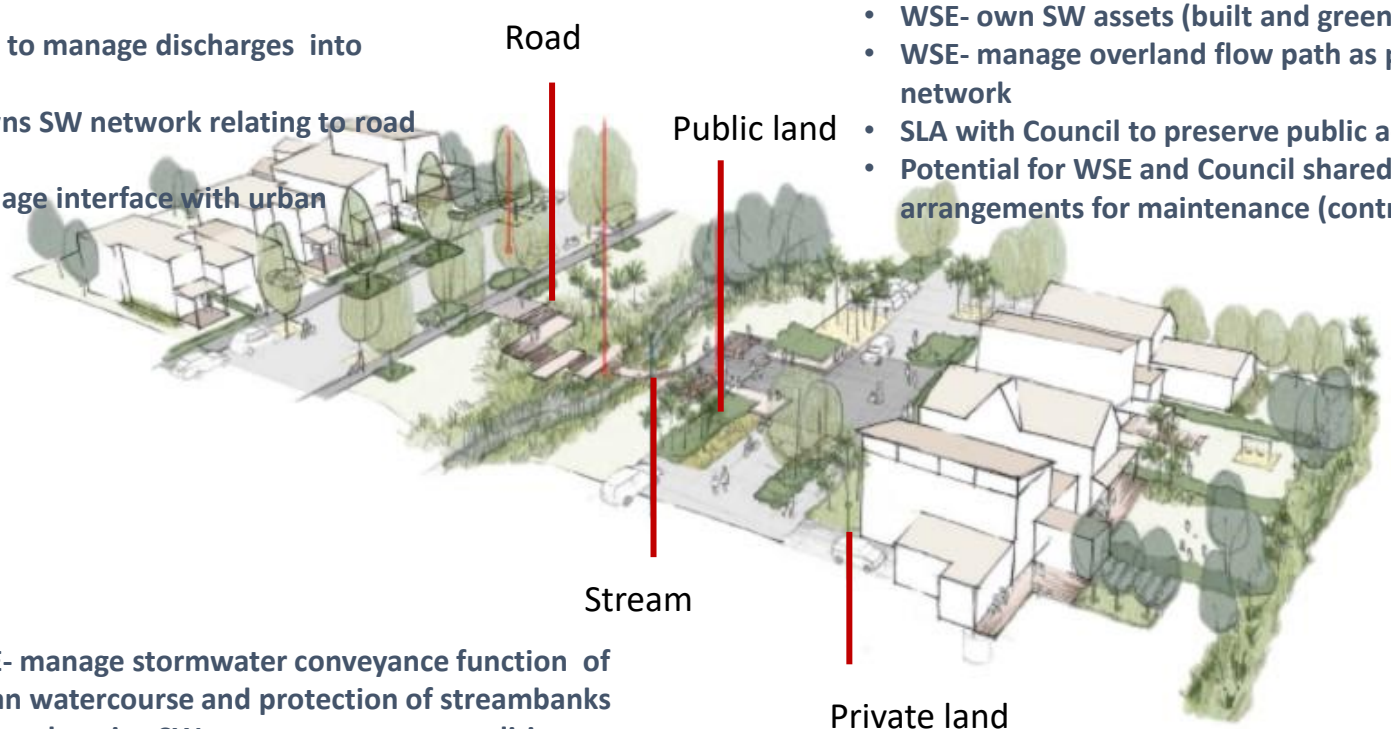
Land use & development

- WSE provides SME services to Council
- WSE approve connections to network
- WSE submit (or provide SME advice as a statutory consultee to Council) on plan changes

Identifies respective accountabilities and responsibilities
Key focus on local roads, parks and reserves, Growth & land use planning, emergency management
Model on existing agreements where available

Future arrangement – illustrative Case Study

- WSE- approves connections to stormwater network (in accordance with infrastructure connection guidance and code of practice)
- WSE may set stormwater rules to manage discharges into network
- Road Controlling Authority owns SW network relating to road corridor
- WSE and RCA have SLA to manage interface with urban stormwater network



- Land (including bed or river) continue to be owned by Council
- WSE- own SW assets (built and green)
- WSE- manage overland flow path as part of SW network
- SLA with Council to preserve public access
- Potential for WSE and Council shared arrangements for maintenance (contracts)

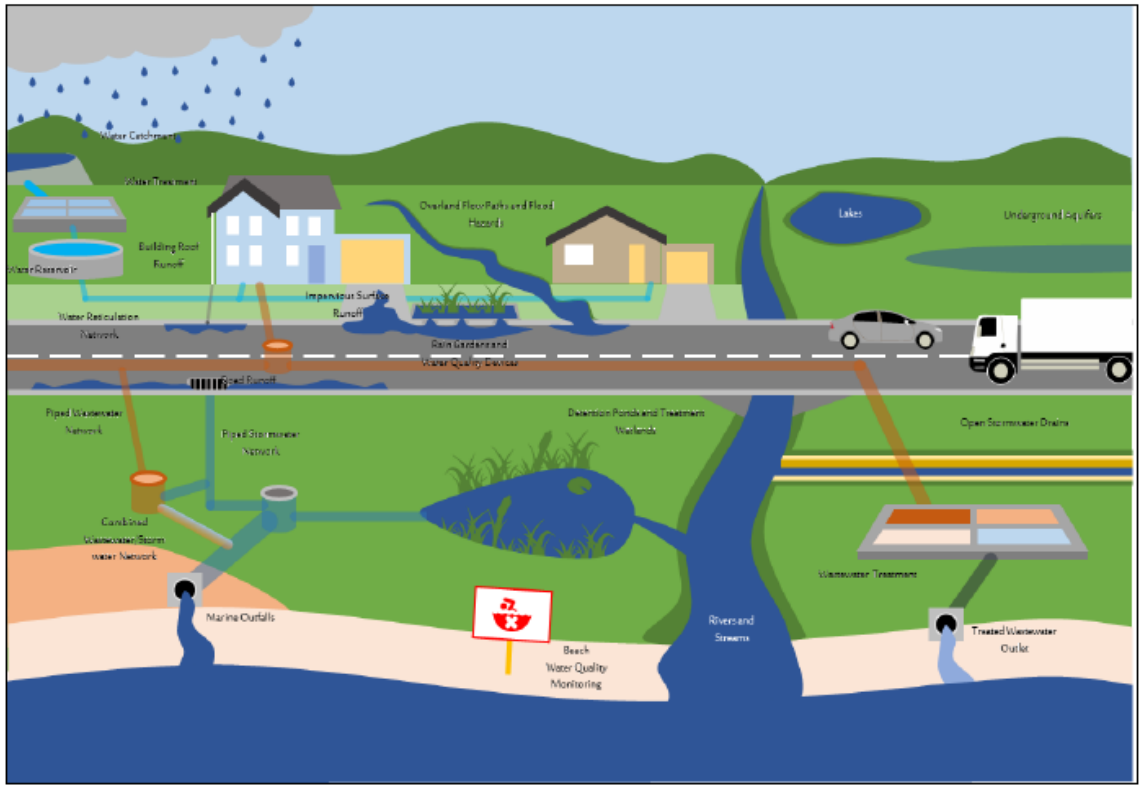
- WSE- manage stormwater conveyance function of urban watercourse and protection of streambanks
- Comprehensive SW resource consent conditions set management requirements
- SLA with council to manage cultural and amenity values

- Privately owned Stormwater Treatment. consented as part of subdivision
- WSE- provides SME advice to council (as consent authority) on SW impacts and flood risks
- WSE approves connection to urban SW network, subject to code of practice provides guidance of SW treatment devices (consistent with statutory obligations e.g. water sensitive urban design)
- WSE monitors performance/water quality impacts

Stormwater transition programme- Key activities

Focus is on transition – the key areas to support transfer of responsibility for urban stormwater infrastructure services are:

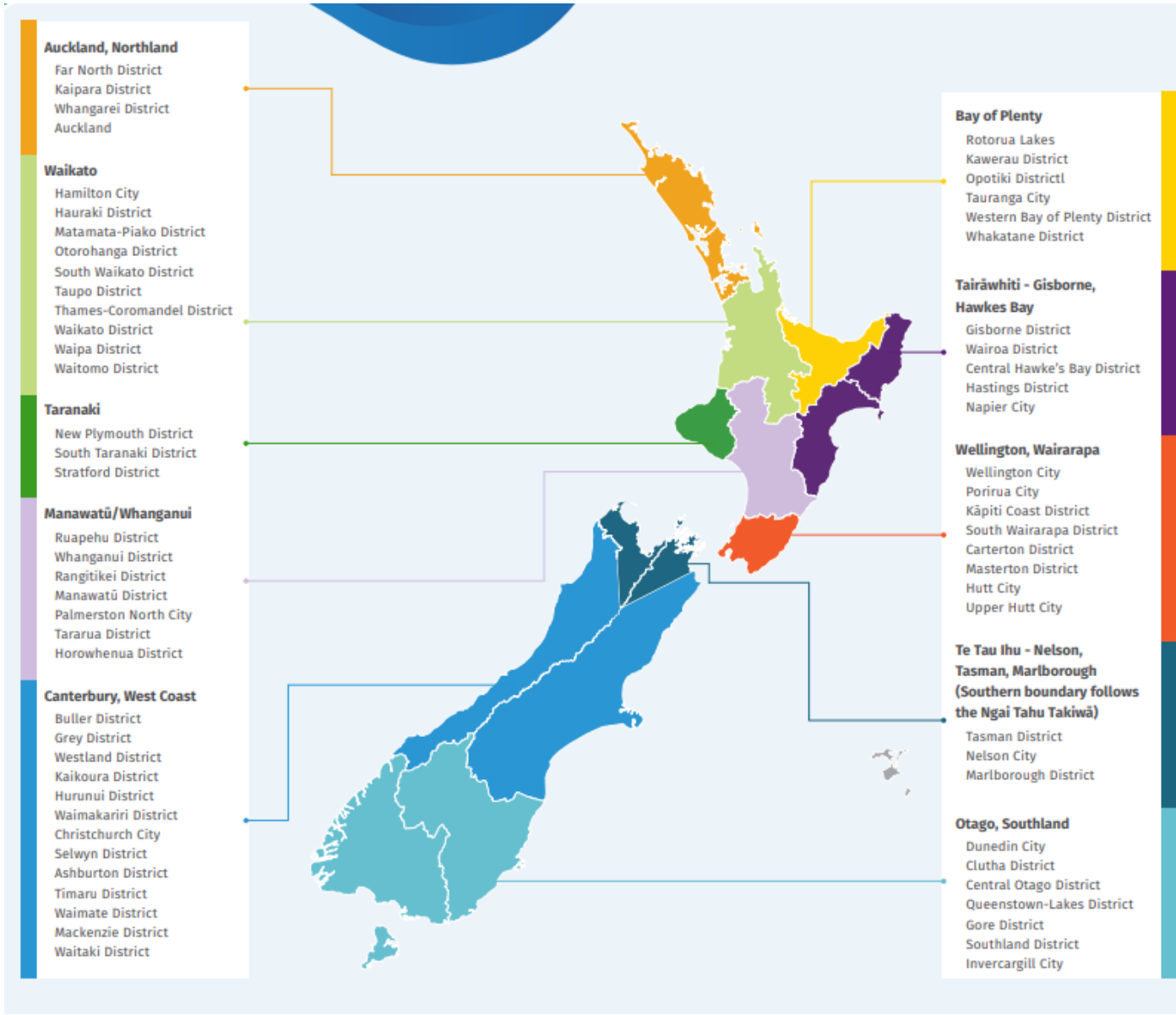
- Transfer stormwater network infrastructure and function
  - Decision-support tool to support the identification of urban stormwater network assets and interests that would transfer to the water service entities
  - Support development of system of record, and allocation schedule (transfer) processes
- SW content Relationship and Service Level Agreements
  - Develop SW content, support process to negotiate and agree the future arrangements
- Support Councils to contract the water services entities to provide rural drainage services
- Enable development of Stormwater instruments for day 1
  - Develop Transitional Stormwater Management Plans
  - Develop best practice Stormwater rules (based on Bylaws)
- Support the development of national guidance for urban stormwater modelling guidance
- Subject matter expertise to other workstreams (as required)



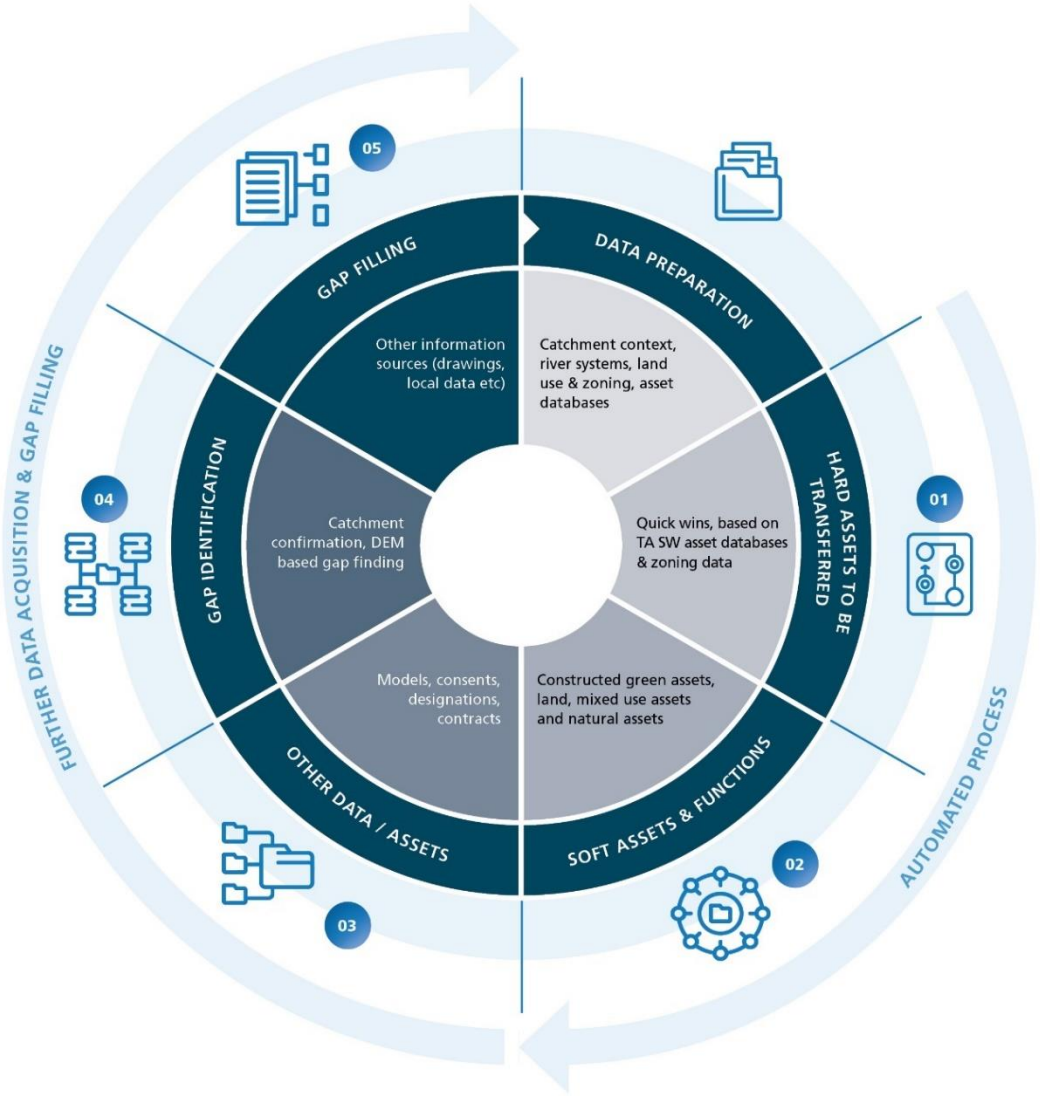
Decision Support tool

Why are we doing this?

- **Build an information base-** At a national level (at least) information on council's stormwater network was highly variable and poorly understood
- **Not everything transfers-** needed to support councils and NTU decision making to identify stormwater assets (and related functions) that will be transferred to Water Service Entities, what stays with councils, and what assets require further determination
- **Reduce the workload** - simplify the identification process by sorting the 'no brainer' assets from the ones that require further investigation or determination
- **Support the legal transfer** – provide a consistent and transparent approach to both the assumptions & transfer rules that council and NTU could use to reconcile the legal transfer processes (allocation schedules)



What is the decision support tool?



- A process not a database
- An automated geospatial data tagging process, but not a database
- Based on simple rules
- Input to other NTU workstreams
- Can be done by a digital team with SME support
- Intended to be an iterative process

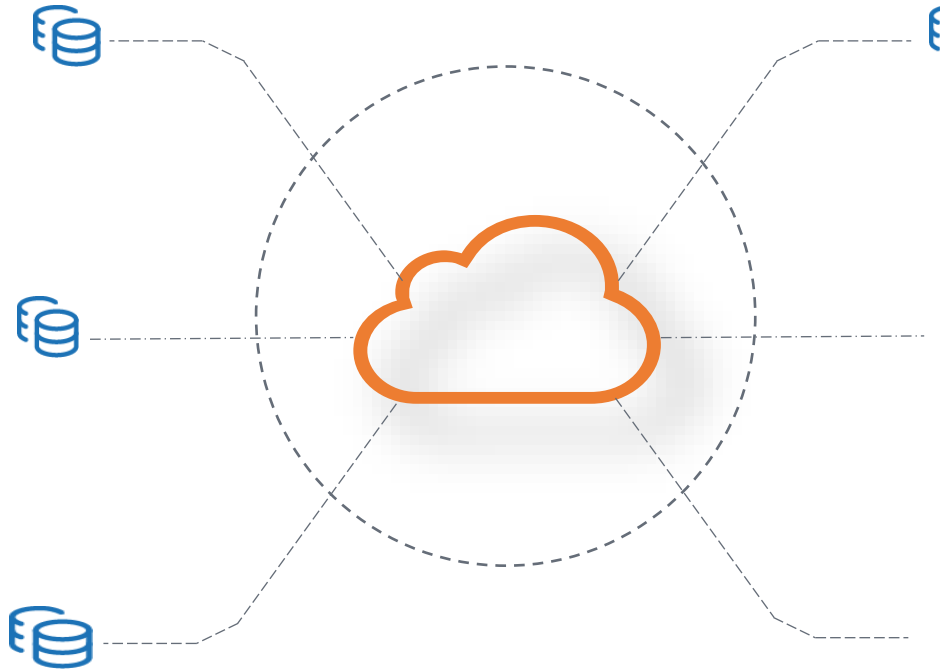
Input Datasets – open source, DIA portal, direct from TA

CRITICAL

Planning zones & parcels

Stormwater asset geospatial database / layers

LINZ road and rail corridors



USEFUL

Stormwater treatment databases / lists

Parks and recreational areas

Ponds, wetlands and lakes databases / lists

Results from the tool – Categorising Data

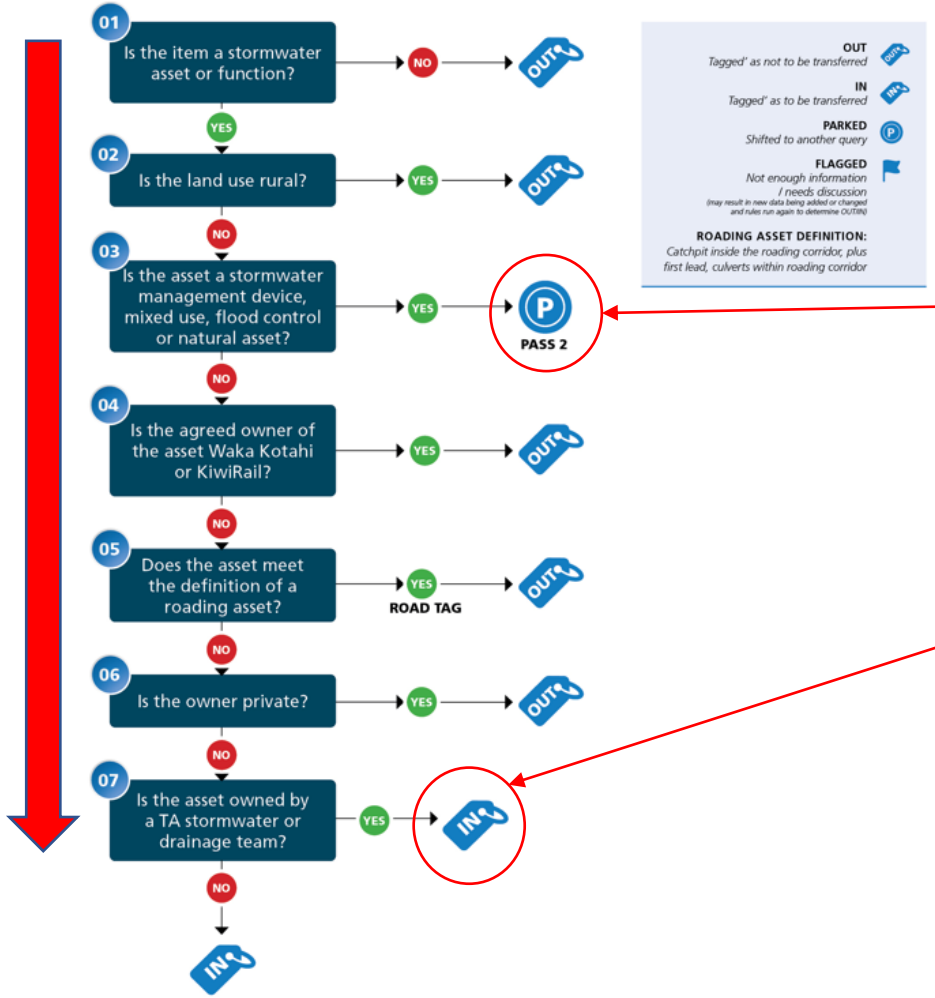
IN used to identify stormwater network assets/functions to be transferred to the WSE

OUT used to identify SW network assets/functions to remain with current organisation, per current legislation framework

FLAGGED used to identify SW network assets/functions where ownership/responsibility may be mixed, or further information is needed to clarify whether they are IN or OUT

The Process – Decision Trees

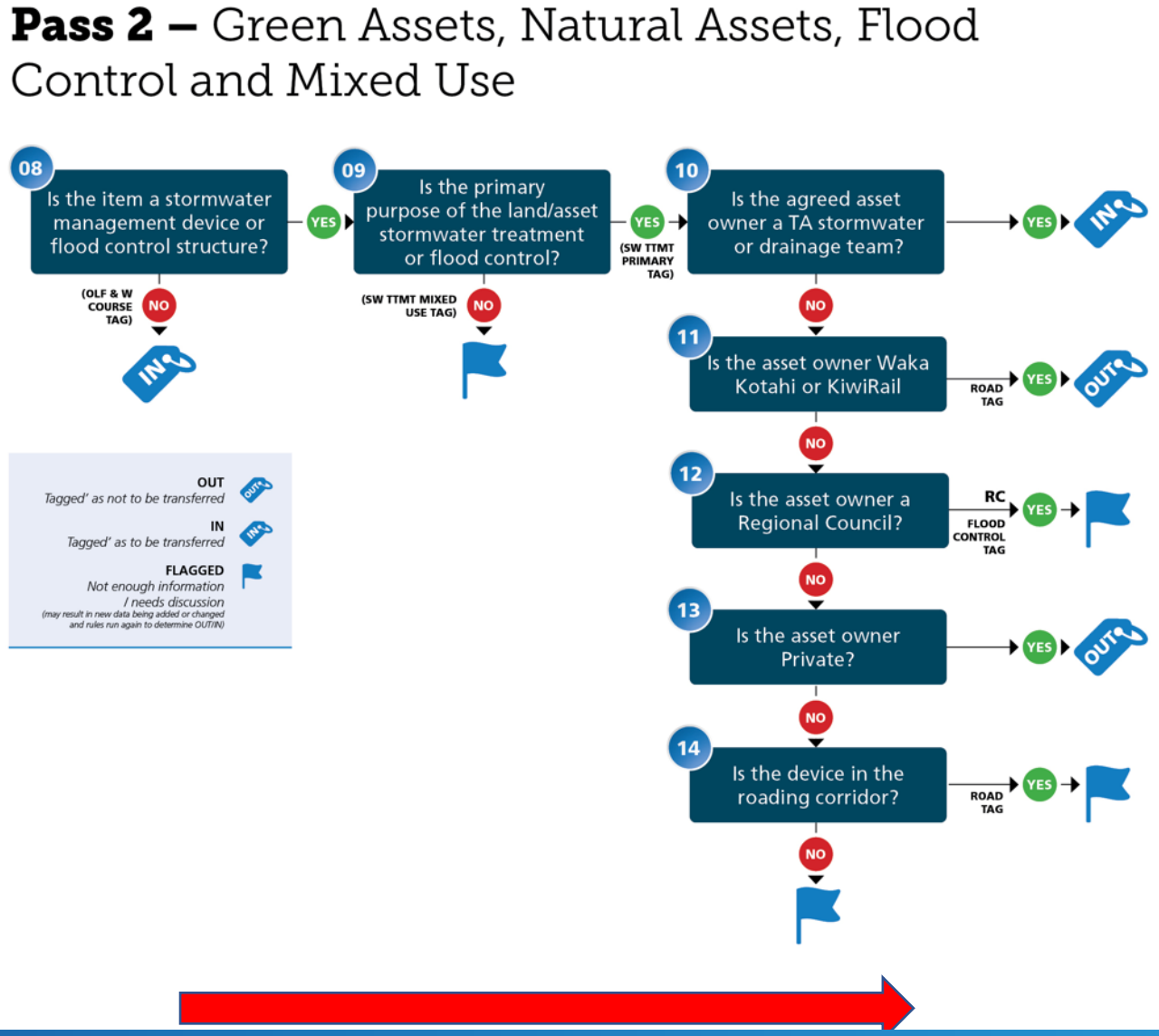
Pass 1 – Hard Assets for the Allocation Schedule



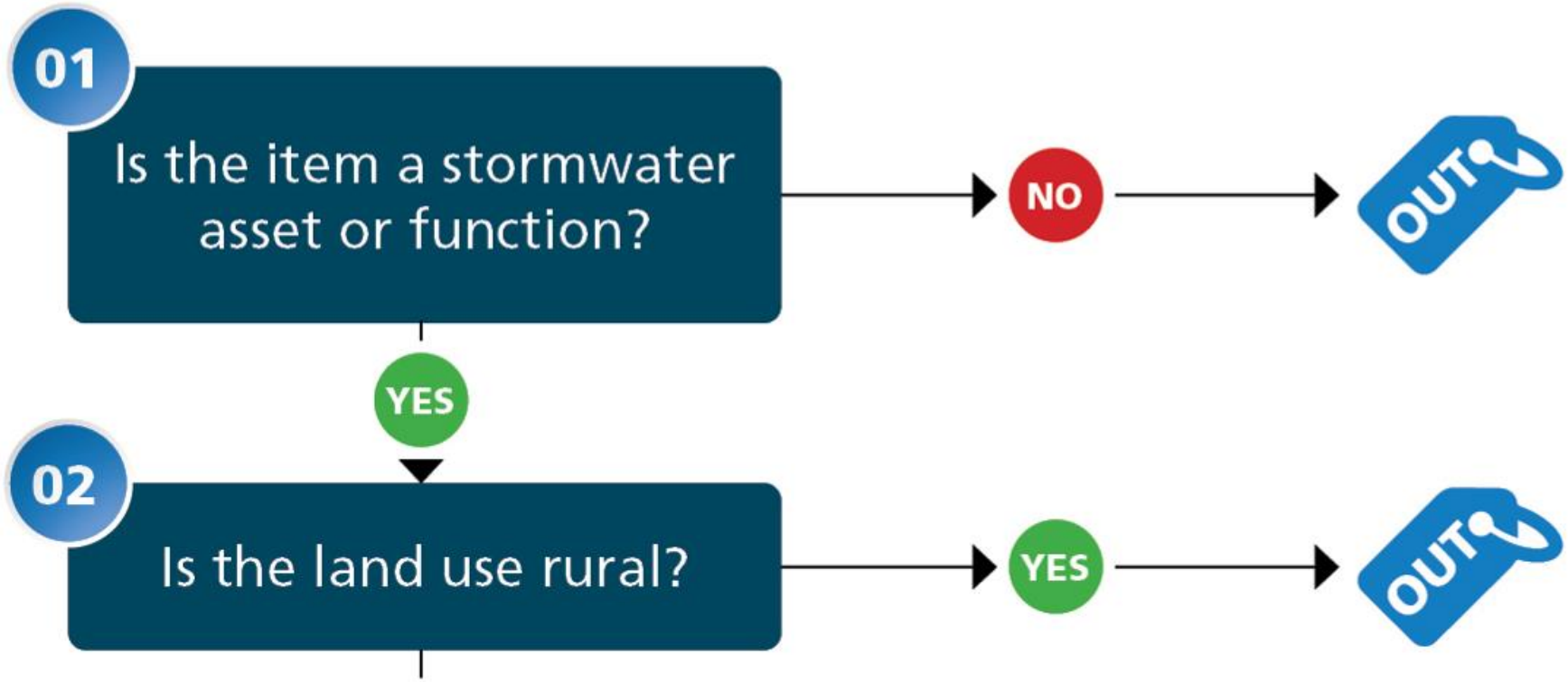
- Pass 1 deals with 'hard' assets
- Mixed use facilities, watercourses and constructed green assets are parked until the next stage.
- This pass works by exclusion to identify the obvious assets for transfer
  - Eg network pipes, manholes

The Process – Decision Trees

- Pass 2 deals with the tricky ones
  - *E.g watercourses, stormwater treatment*
- Most assets/functions end up 'flagged'

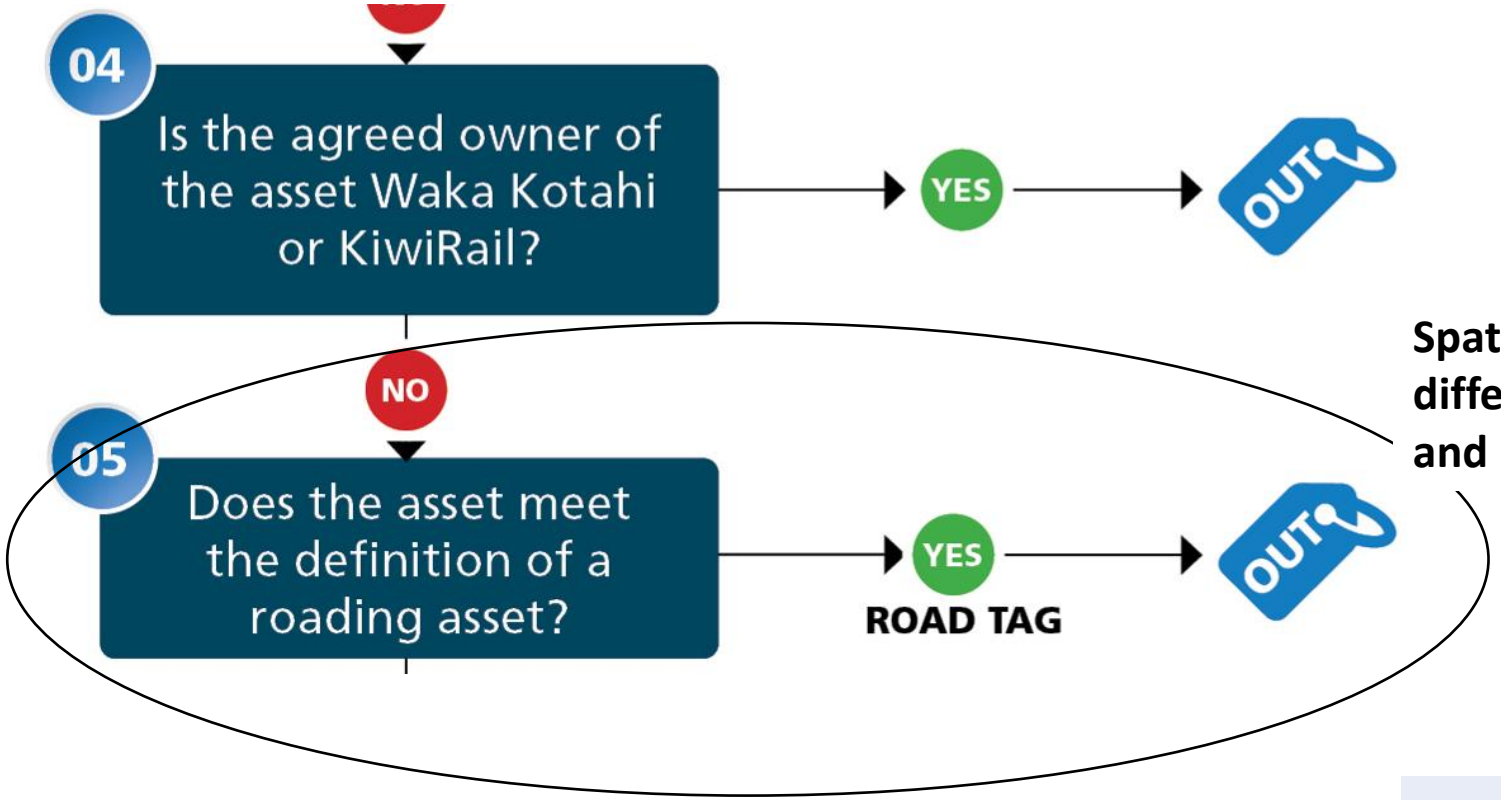


The Process – What's clearly out?



Pass 1 – Hard Assets for the Allocation Schedule

The Process – Roading Assets



Spatial query based due to differences in council approach and missing ownership data.

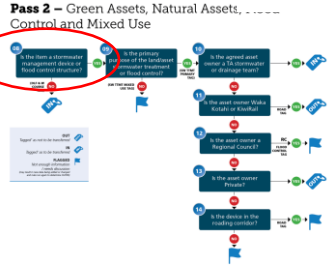
ROADING ASSET DEFINITION:
Catchpit inside the roading corridor, plus first lead, culverts within roading corridor

The Process – Private Assets

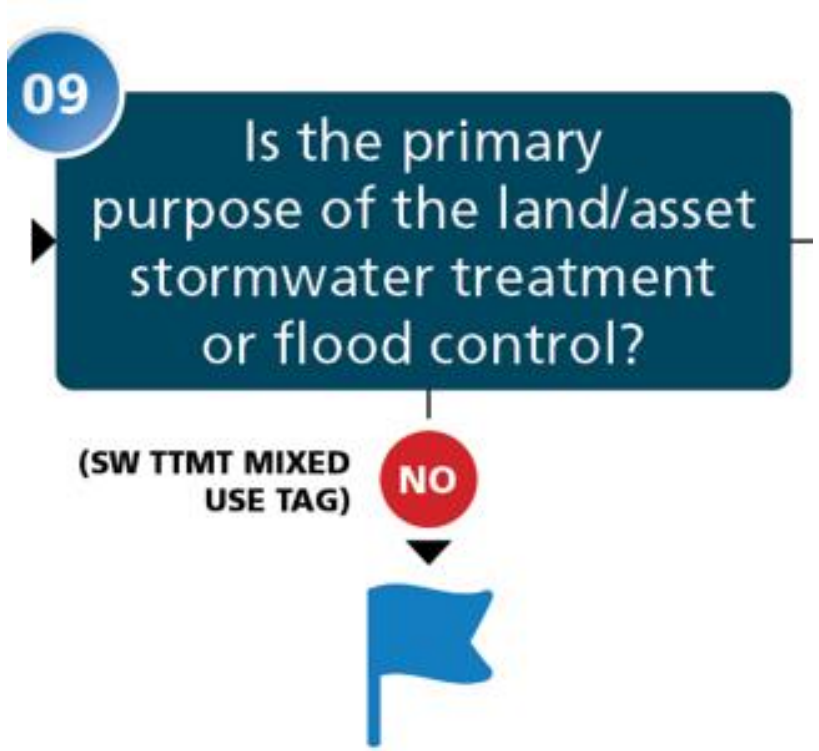
Query also identifies and ‘tags’ private pipes >= 300mm for double checking

The Process – Watercourses and Overland Flow

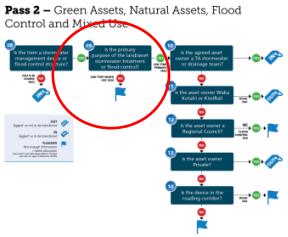
From Pass 1



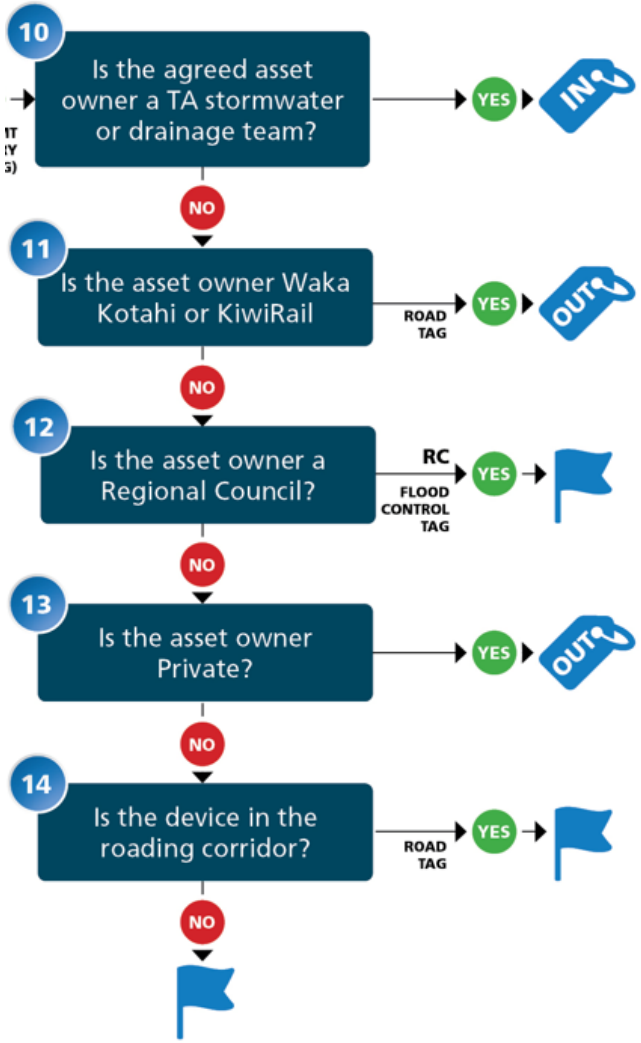
The Process – Mixed use facilities



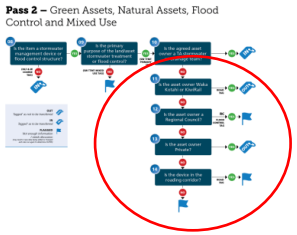
Spatial query looks at underlying land use – if a parks land parcel, the asset/land deemed mixed use



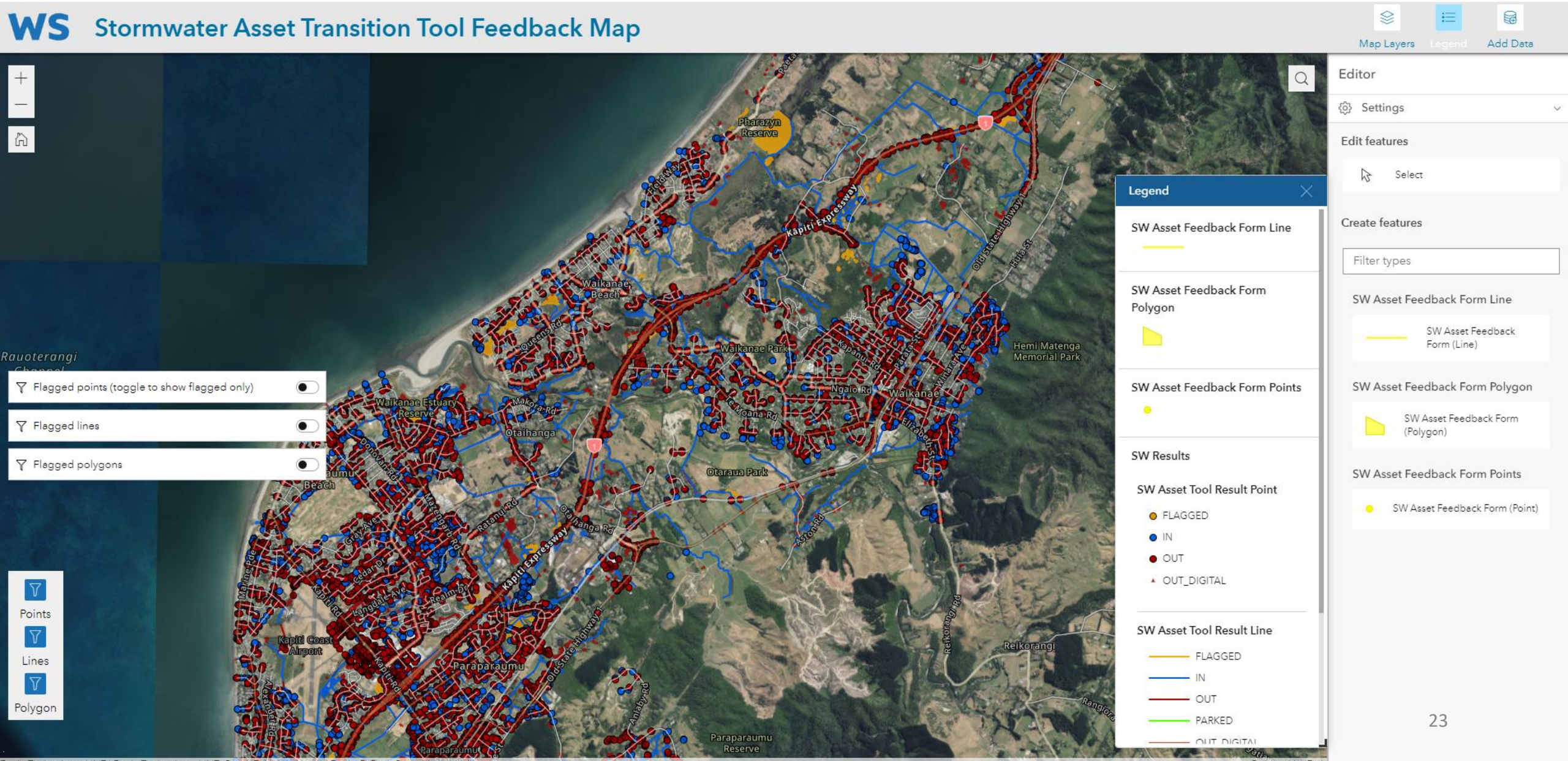
The Process – Stormwater treatment / flood control



Queries use ownership data – variable detail available in council datasets



Output for each TA



How are we rolling it out?

Dashboard

Viewer

Standby for attempt to do fancy tech stuff on a big screen in front of a crowd..

Workshop

View some preliminary results, looking at:

1. Rural/urban boundary
2. Infrastructure in the road
3. Watercourses and overland flow paths – functions only
4. Future development

Note: Please don’t take photos / screenshots – these are early results that WILL change!

Workshop

Discussion: What does this mean for how we deliver Stormwater?

1. What does this mean for the TAs?
2. What does this mean for the Water Services Entities?
3. What does this mean for consultants and contractors? (big and small)

Report back:

1. What are the opportunities and risks? (try and think about both!)
2. What is one thing that you think should be done to support the transition?

Report Back

1. What are the opportunities and risks?

2. What is one thing that you think should be done to support the transition?