

Restoration Timelines

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Acknowledgements to Bob Penter & Julian Williams

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Te Ture Whaimana o Te Awa o Waikato (Vision & Strategy)

- *“The vision is for a future where a healthy Waikato River sustains abundant life and prosperous communities who, in turn, are all responsible for restoring and protecting the health and wellbeing of the Waikato River, and all it embraces, for generations to come”*
- *13 Objectives:*
 - a) *The restoration and protection of the health and wellbeing of the Waikato River.*
 - i) *The protection and enhancement of significant sites, fisheries, flora and fauna.*
 - k) *The restoration of water quality within the Waikato River so that it is safe for people to swim in and take food from over its entire length.*

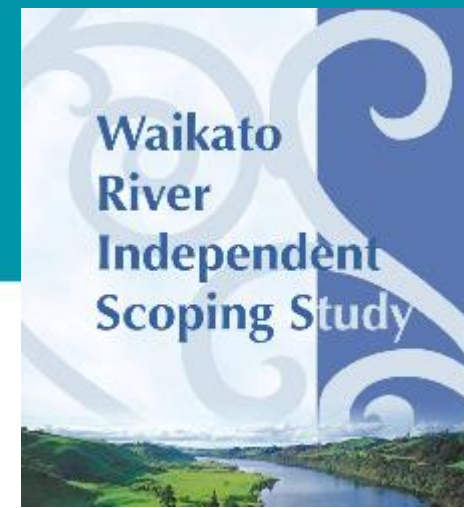
“The end of the beginning...”

- 1987 Waitangi Tribunal Claim over the Waikato River
- Guardians Establishment Committee delivers Te Ture Whaimana (2010)
- **Waikato River Independent Scoping Study (2010)**
- Waikato & Waipa River Restoration Strategy (2018)
 - 5-20 Year Action Plan – where should we focus our action?
 - Guides investment in specific, high priority actions in following areas:
 - Erosion and Sedimentation
 - Biodiversity associated with aquatic environments
 - Fish (native and pest fish in some circumstances)
 - Access and recreation
 - Cultural value
 - Non-statutory, Non-regulatory
- **2023:** 13 years of significant investment in the awa by the Waikato River Clean Up Trust

Restoring Te Awa o Waikato

- Degradation of the Awa has occurred over generations and restoration is recognised as an intergenerational challenge
- The fundamentals of restoration:
 - Where are we at now? (state & cause)
 - What are we aiming for? (clarity & achievability)
 - How will we get there? (feasibility, cost & timeframe)
 - **Action/Change/Transformation (engage & support)**
 - Monitor/Review/Adapt (maintain effort & will)
- How do we:
 - Manage expectations and provide confidence in trajectory
 - Target investment to ensure effort is maximised
 - Build and maintain a collective responsibility

WRISS - \$4.8bn 2010-2040



The 10 Tonics:

1. Governance
2. Engagement
3. Dairy farms
4. Dry stock farms
5. Point source discharges
6. Public health
7. Access
8. Fisheries, kai, taonga species
9. Shallow lakes restoration
10. Protection (precautionary)

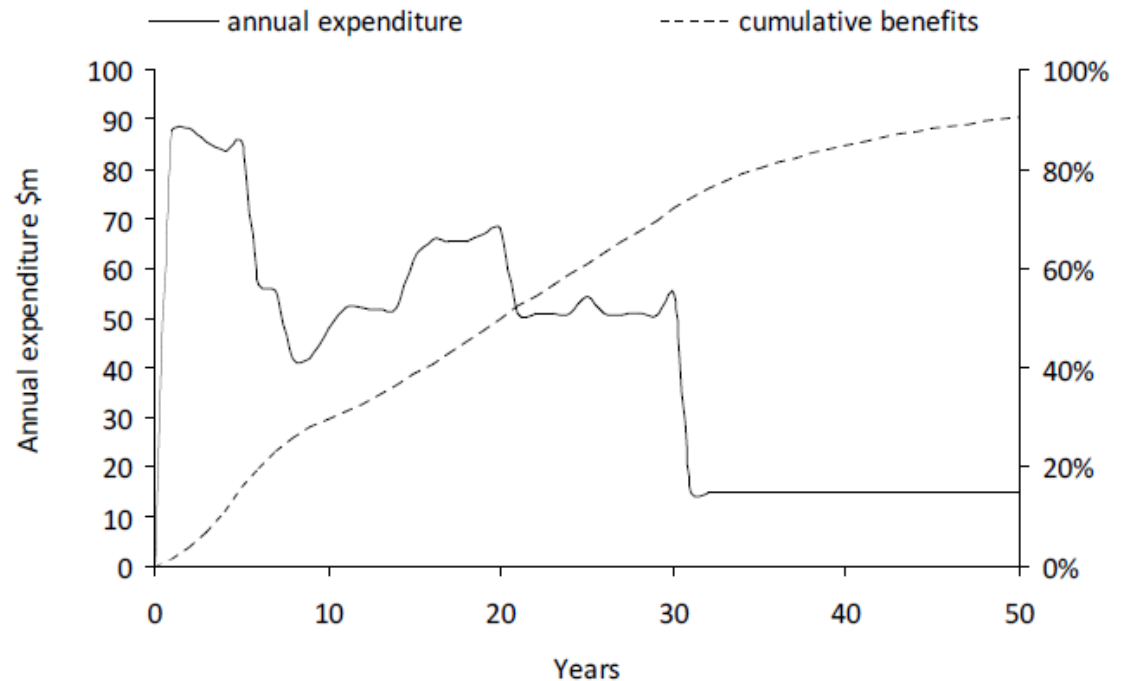


Figure 7.1: Possible timeline of expenditure and benefits for the priority actions summarised in Table 7.3. Benefits lag behind expenditure because of time delays and do not reach 100 percent within 50 years.

WRISS – 65 Recommended Priority Actions

Whitebait										
Action	Location	Benefits	Co-benefits	Cost \$ ₂₀₁₀ million	NPV \$ ₂₀₁₀ million	Who	Impediments	Timing	Timing	Comment
Enhance spawning habitat	Lower river and tributaries	Increased spawning	Recruitment, abundance	5.9	4.9	Landowners, EW, DOC	Land ownership		Year 5-10	
Modify tide gates	23 tide/flood gates	Allows iinanga passage	Increased access to adult habitat	6.9	6.9	LA, EW, Drainage Boards	Consents. Costs.		Year 10-20	
Modify road culverts	100 road culverts	Allows iinanga passage	Increased access to adult habitat	4.6	2.8	NZTA, LA	Industry collaboration. Costs.		Year 5-10	
Modify farm culverts	1,600 farm culverts	Allows iinanga passage		30.3	21.9	Farmers, EW, Drainage Boards	Education. Costs.		Year 5-20	New culverts must comply. Retrofit over 20 years starting with high priority sites.
Manage aquatic weeds	900 km of drains and small streams	Improved habitat	Tuna habitat	44.3	29.9	Farmers, DOC, EW, LA, Drainage Boards	Mechanical control expensive		Year 5-30	Needs more detailed investigation to determine most cost-effective methods. Mechanical harvesting very expensive.
Single whitebait management agency		Holistic management		7.5	3	DoC, EW, WRA, MFish	Legislation			Flagged in the Deed of Settlement.
Replant adult banded kookopu habitat	Headwater streams near the coast	Increased abundance	Taonga species, biodiversity	9.9	6	Farmers, EW, DoC.	Costs		Year 5-30	
				109.4	75.4					

Taura

- Taura are 'strands of rope'
- What success looks like
- Measurable and evidence-based

TE TURE WHAIMANA

...for a future where a healthy Waikato River sustains abundant life, and prosperous communities, who in turn are responsible for restoring and protecting the health and wellbeing of the Waikato River and all it embraces, for generations to come.

Our Long-Term Outcome: Tooku Awa Koiora me oona pikonga he kura tangihia o te maataamuri—The River of Life, each curve more beautiful than the last

KAI

Our kai are healthy, have a strong whakapapa, are safe to eat, locally abundant, and can be harvested according to our traditional practices

ECOLOGICAL INTEGRITY

Our kai have access to healthy habitats protected from adverse effects due to adjacent land use, and which enhance our associated practices

WATER QUALITY

Our land use and development practices support water bodies that have water that is safe to drink and physically interact with

WATER SECURITY

Our land use practices and land development supports communities and taonga species having access to life-sustaining supplies of water

SITES OF SIGNIFICANCE

Our sites of significance are forever recognised and celebrated as areas of historical and cultural important, and safe for us to interact with, and support a healthy Awa

EXPERIENCE

We have a flourishing and nurturing connection with the River and we are empowered to pursue and maintain our positive interaction



Overall Grade



TAURA & INDICATORS

- KAI**
Kai are healthy, and have a strong whakapapa, are safe to eat, locally abundant and can be harvested according to our traditional practices.
- WATER QUALITY**
Land use and development practices support water bodies that have water that is safe to physically interact with.
- EFFORT**
Communities, businesses and individuals are engaged in comprehensive contaminant control and rehabilitation to achieve the Vision and Strategy.
- ECOLOGICAL INTEGRITY**
Aquatic life has access to healthy habitats protected from adverse effects due to land use and contaminants.
- WATER SECURITY**
Our land use practices and land development supports communities and tangata species having access to life sustaining supplies of water.
- EXPERIENCE**
We have a flourishing and maturing connection with the rivers and we are empowered to pursue and maintain our positive interaction.

Two additional items were assessed at the whole catchment regional scale only, due to lack of finer scale information. There was insufficient information to score Sites of Significance.

- SITES OF SIGNIFICANCE**
Our sites of significance are forever recognised and celebrated as areas of historical and cultural importance and safe for us to interact with and support a healthy Awa.
- ECONOMY**
Communities are prosperous, as shown by high levels of employment, housing affordability, gross domestic product and income equality.

- A** Delivers in full on the Vision and Strategy aspirations for a healthy Waikato River. Excellent rating.
- B** Delivers in part on the Vision and Strategy aspirations for a healthy Waikato River. Good rating.
- C** Delivers on only some of the Vision and Strategy aspirations for a healthy Waikato River. Low rating.
- D** Does not deliver on the Vision and Strategy aspirations for a healthy Waikato River. Poor rating.

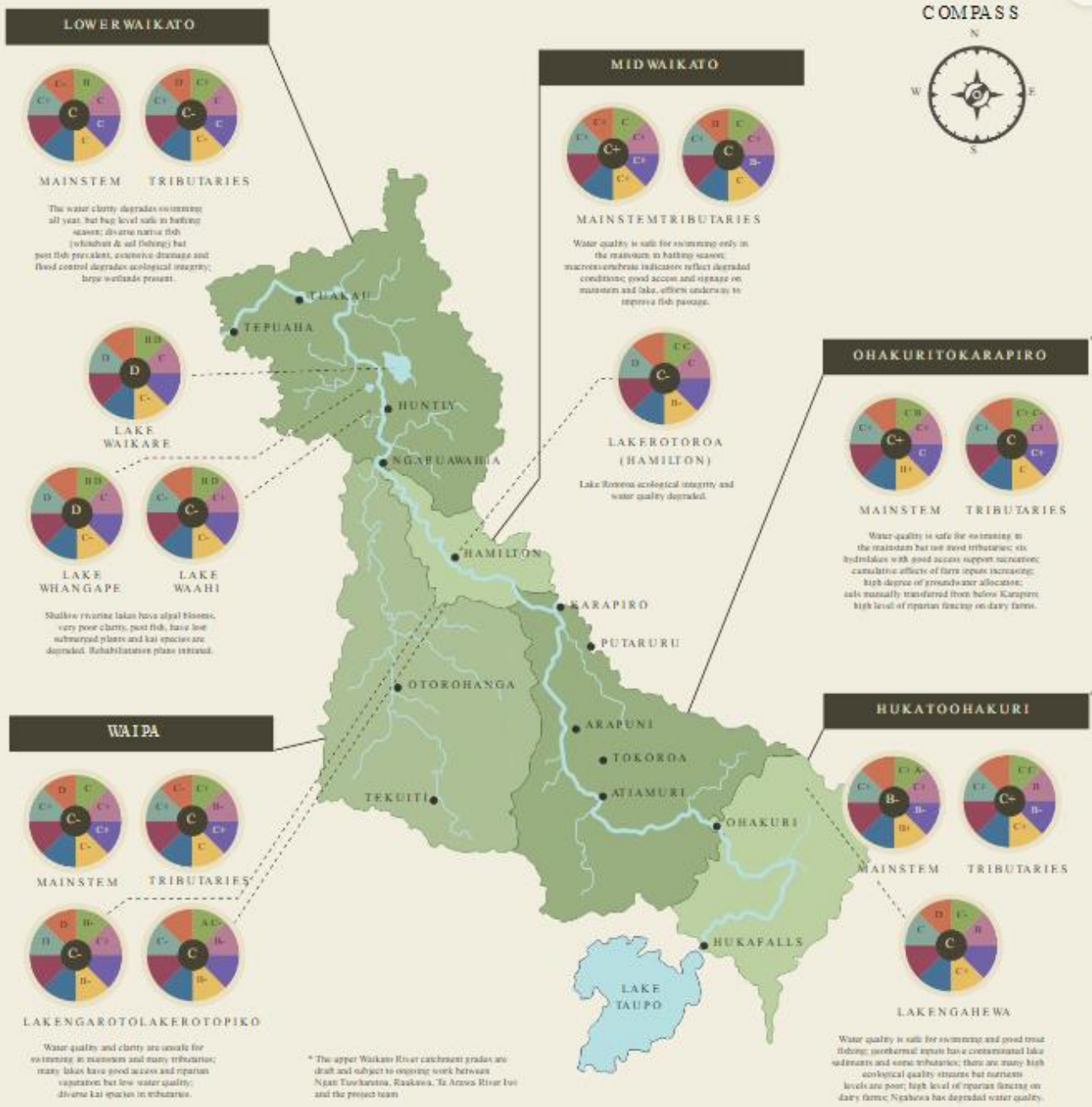
FEBRUARY 2016

REPORT CARD

THE WAIKATO RIVER AND WAIPA RIVER



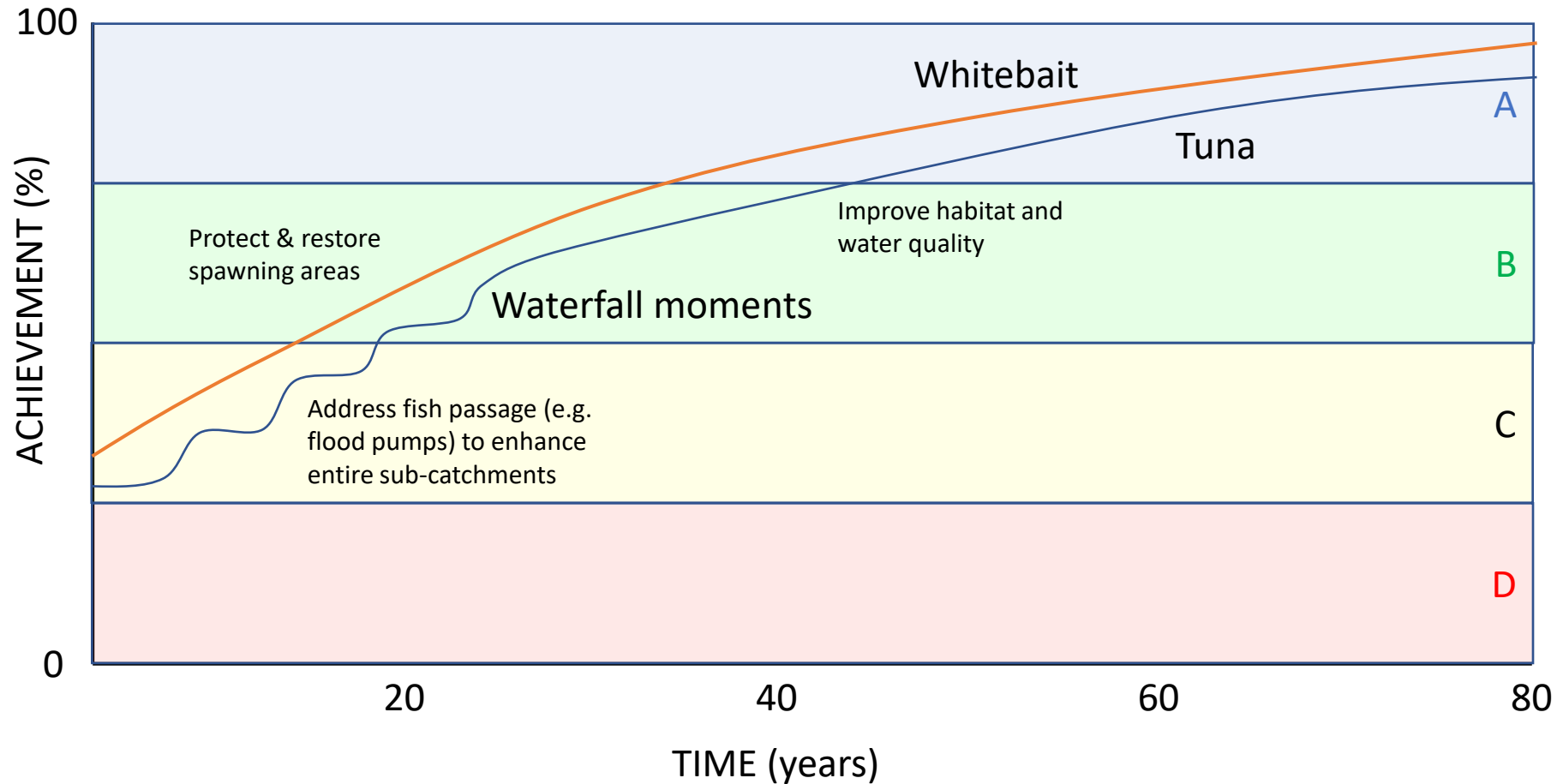
COMPASS



Restoration Timelines Concept

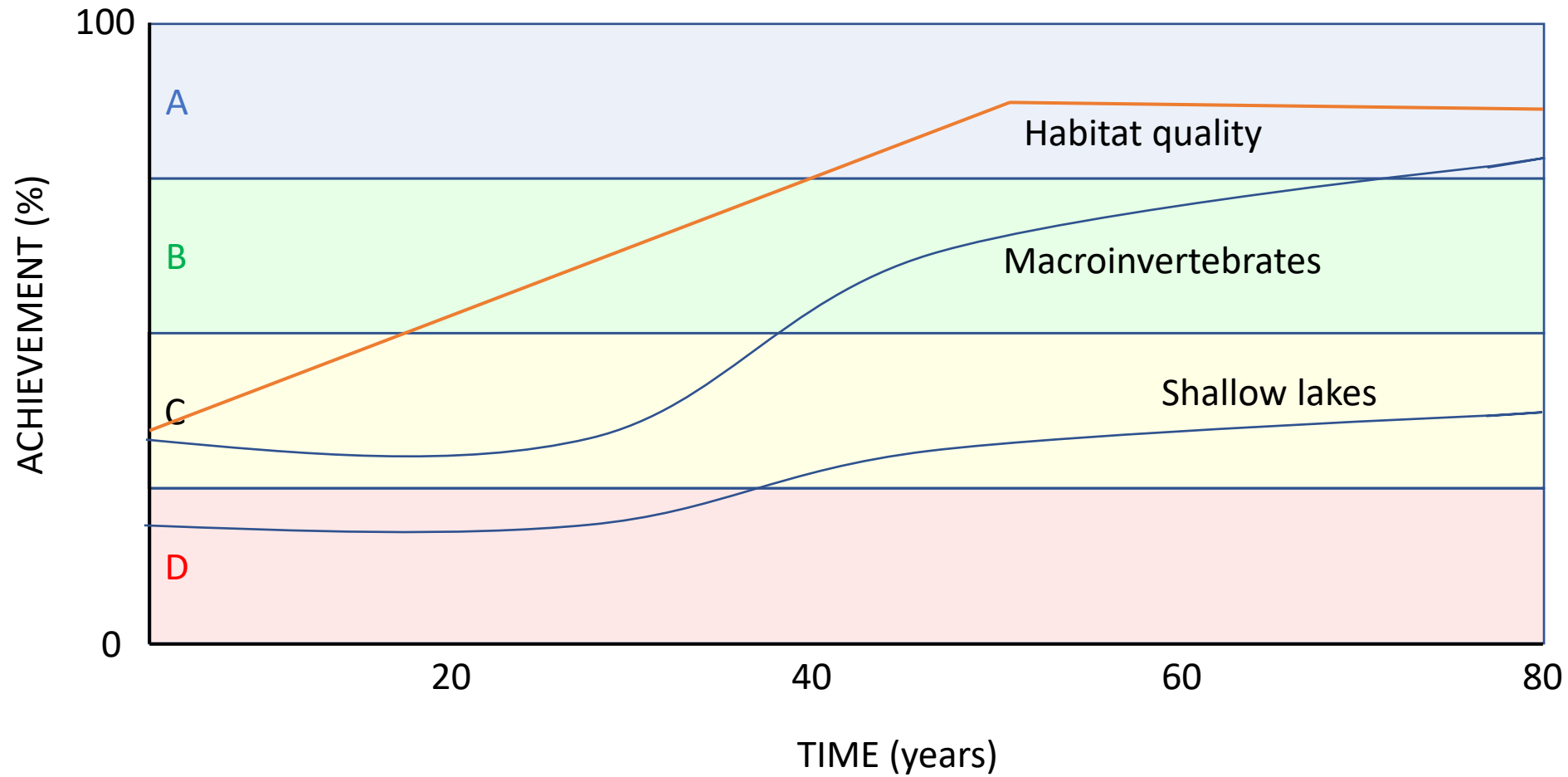
- Improving our collective understanding of how restoration pathways unfold through time is important for managing community expectations, keeping people engaged and understanding if we are 'on-track' or not
- Important questions:
 1. When should we expect to see the benefits of our actions and how might this vary for different taura/indicators?
 2. Are there critical points where we might expect to see step-changes?
 3. How might we increase the rate of improvement?

TAURA 1 - KAI- Kai are healthy, and have a strong whakapapa, are safe to eat, locally abundant and can be harvested according to our traditional practices.

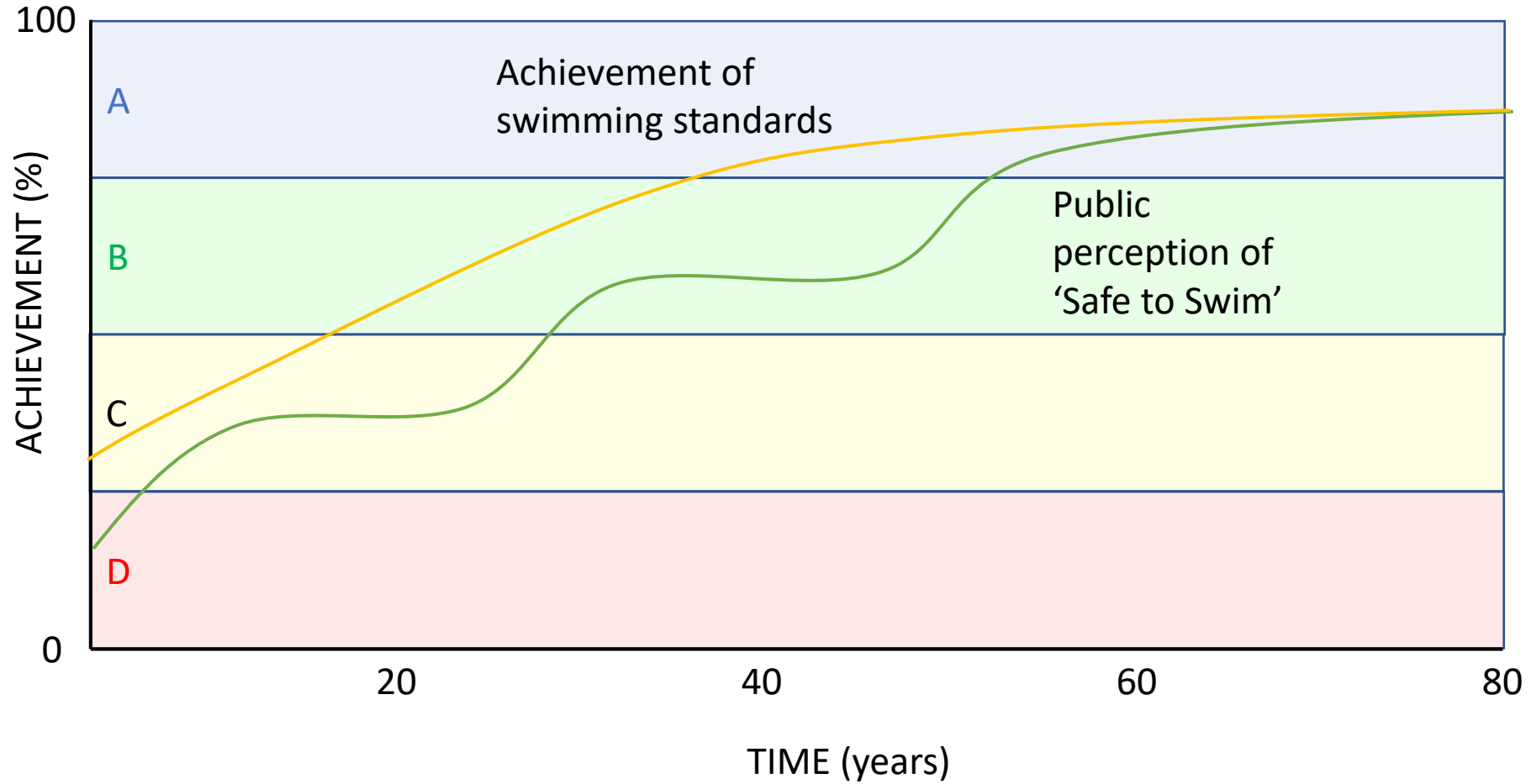


- A – Excellent - delivers in full on V&S aspirations
- B – Good - delivers in part on V&S
- C – Low - delivers on only some V&S aspirations
- D – Poor - does not deliver on V&S

TAURA 4 – ECOLOGICAL INTEGRITY - Aquatic life has access to healthy habitats protected from adverse effects due to land use and contaminants.

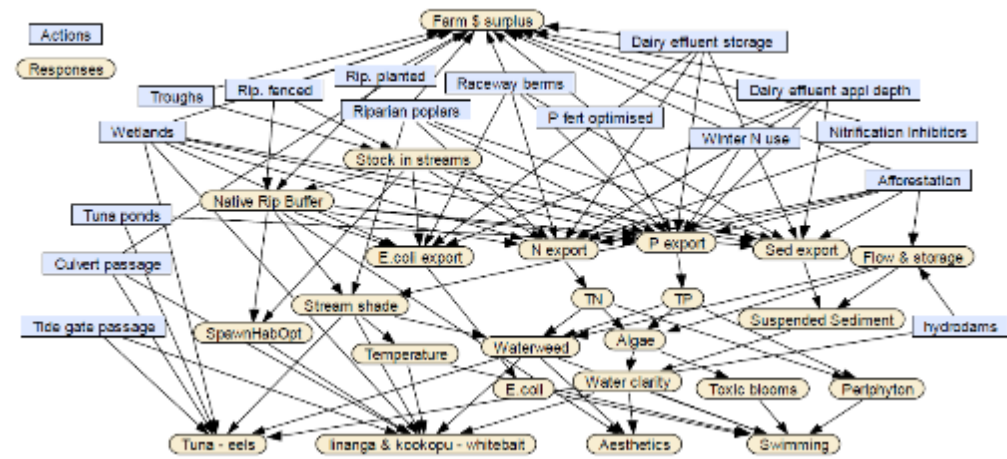


TAURA 6 - EXPERIENCE- We have a flourishing and nurturing connection with the rivers and we are empowered to pursue and maintain our positive interaction.



Restoration Timelines

- We are shifting focus from defining problems to promoting and implementing solutions
- We need to build confidence that our collective investments in action will deliver the desired outcomes
- Interactions of actions and responses over time are highly complex
- How do we build collective responsibility despite this complexity and uncertainty?



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