



Developing a Report Card Framework to assess Cultural Health

Using data from Kaitiaki
Runanga

Presentation by Gail Tipa

Acknowledgement

This presentation relies on

- Evidence of whanau
- Mahaanui Iwi Plan
- The assessments of team members participating in the COMAR study for the catchment
- Comments from whanau attending the Selwyn Waihora Focus Groups

Overview

In this presentation we will –

- Explain why you may choose to use report cards
- Give examples of report cards in use
- Explain how we developed the “card” for assessing cultural health

Why report cards

- Enable large and often complex amounts of information to be communicated to a broad audience
- Provide a framework for monitoring and communication activities
- Can provide accountability; measuring the success of a particular effort
- Identify issues of concern
- And others...

Examples of existing report cards

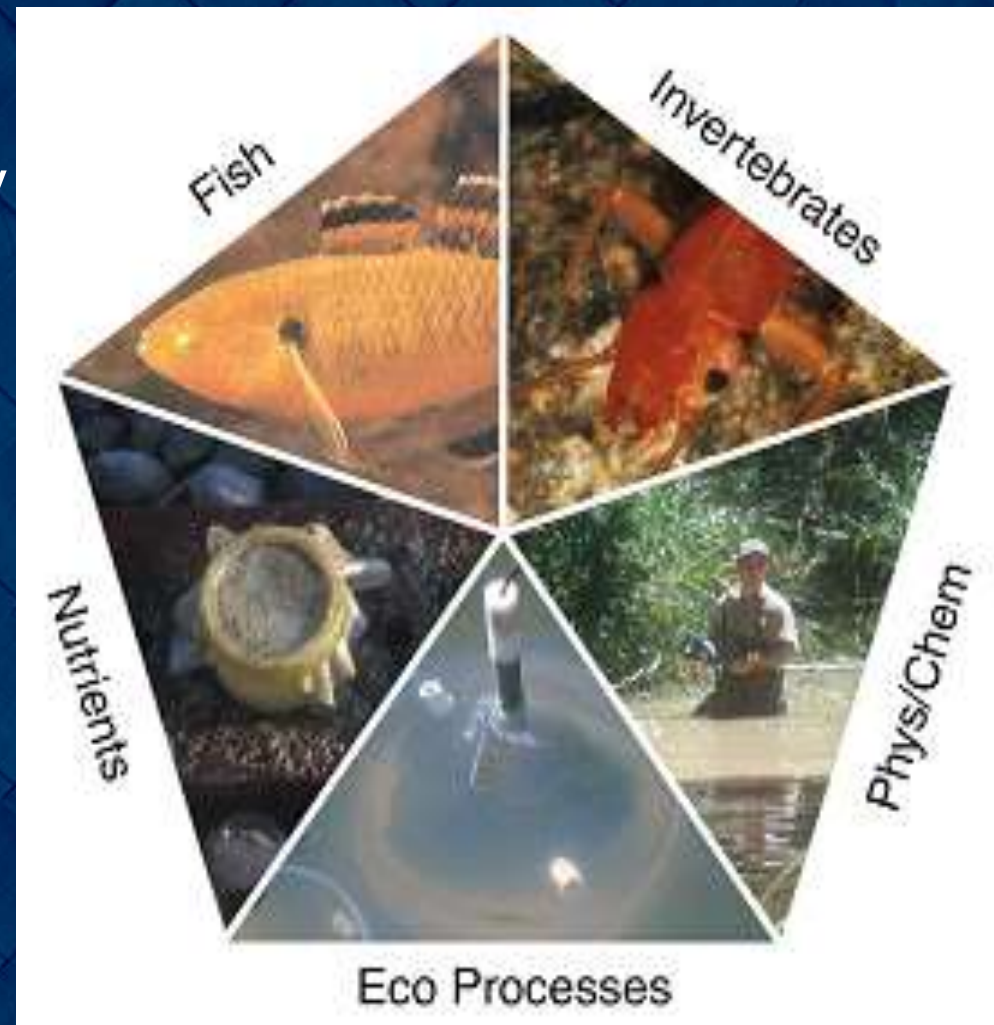
- Australia
 - Moreton Bay
 - Great Barrier Reef
- United States
 - San Francisco Bay
- New Zealand
 - Tamaki Estuary



What do they report? Typically ecological or water quality information

Five freshwater indicators

1. Nutrient cycling (availability of nutrients)
2. Ecosystem processes (stream pulse)
3. Aquatic macroinvertebrate communities
4. Fish communities (↑ diversity of native fish)
5. Physical & chemical (DO, temp, pH)



Report

| | State Indicator | Prognosis | Grade |
|-------|-----------------------------------|--|-------|
| STATE | Zinc (Zn) | Red | |
| | Copper (Cu) | Amber - Red | |
| | Lead (Pb) | Green - Red | |
| | Polynuclear Aromatic Hydrocarbons | Green | |
| | Organochlorine pesticides | DDT and dieldrin Green - Red | |
| | Rate of deterioration | Fast | |
| | Benthic Community Health | Poor in upper reaches, good lower reaches | |
| | Overall sediment quality | | D - |
| | Water Quality | Good in dry weather, probably poor during wet weather | C |
| | Estuary infilling | Past high rates, probably moderately high from continual development and flood plain storage | D - |

D-

Overall Grading of the Upper Tamaki Estuary

The Upper Tamaki estuary has been assigned a "D -" grade because:

- ★ sediment quality is 'red'
- ★ zinc concentrations are predicted to increase rapidly
- ★ benthic animal community health is poor in parts of the estuary, but OK in others
- ★ the estuary has infilled and is susceptible to further infilling
- ★ the water quality is good during dry weather in the main body of the estuary, but probably poor during rain events

Challenges for Maori

Usually report cards –

- are “top down”
- are not explicitly driven by values – let alone cultural values
- are informed by scientists / managers as “experts”

In contrast –

- Mataranga Maori provides “flax roots” data
- Whanau, hapu and iwi are the experts
- Planning is “bottom up”
- Whanau want to know if their aspirations are being realised

Constructing a framework for whanau



Lets talk about a lake

Constructing our framework

Whanau can describe:

- What is valued & why it is valued
- What they want to achieve
- How a value is to be measured & where measurement is to take place
- When & how the measurement is to occur
- Who is to do the monitoring

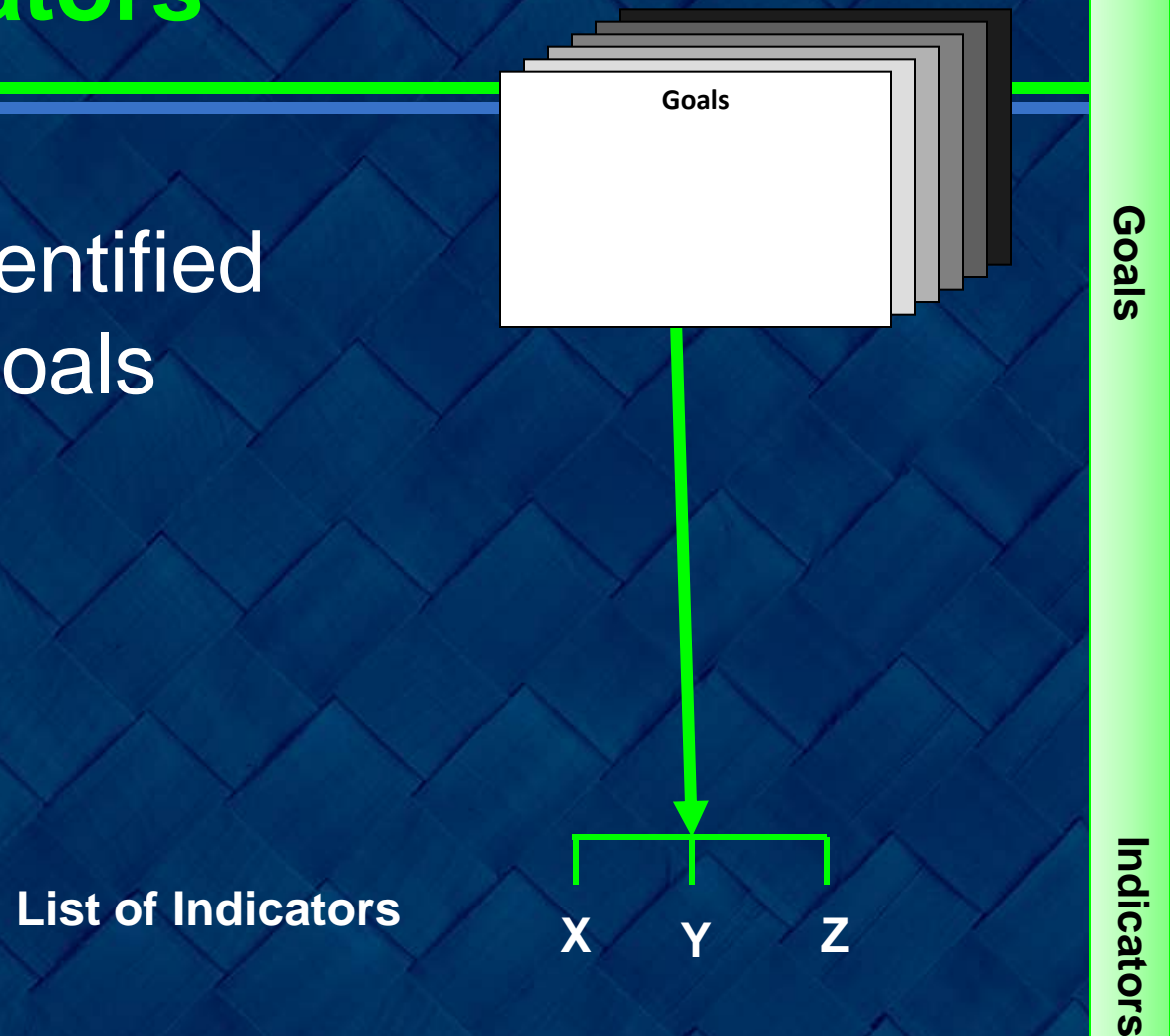
For our “interim report card” we started with the goals in the Mahaanui Iwi Management Plan

Level 1: Goals

- Governance of the catchment
- Cultural health of Te Waihora restored, including the restoration of mahinga kai species abundance and diversity to a level to enable customary use.
- etc

Level 2: Indicators

Indicators are identified for each of the goals



Example: Governance

Indicators include:

- Co-governance agreement
- Whakaora Te Waihora

Example: Lake management, reflects living with the lake, rather than forcing the lake to live with us.

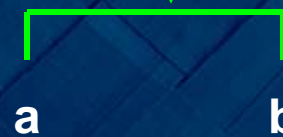
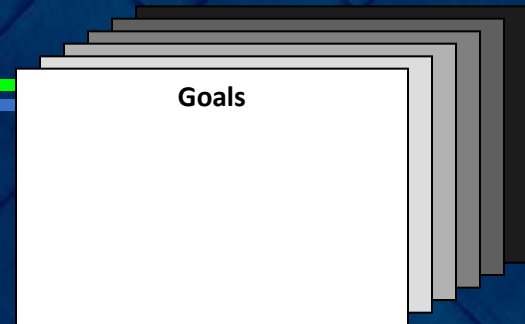
Indicators include:

- Satisfaction of whanau with lake level management – including openings that allow for:
 - Increased fish recruitment;
 - Higher and fluctuating lake levels;
 - Salinity maintained at a higher level than current regime allows;
 - Longer duration of openings when required for fish values; and
 - Allowing the lake to be tidal for longer periods of time.
- The investigation of opening the lake at the southern end of Te Koru
- Water quality (TLI)

Level 3: Measures

List of Indicators

Measures



Goals

Indicators

Measures

Why is measurement important

The type of measure determines the role of whanau and hapu

- Some indicators must be informed by Maori (perception, preference or their satisfaction)
- enable whanau and hapu to utilise their own means of assessment rather than having a standardised unit of measurement artificially prescribed

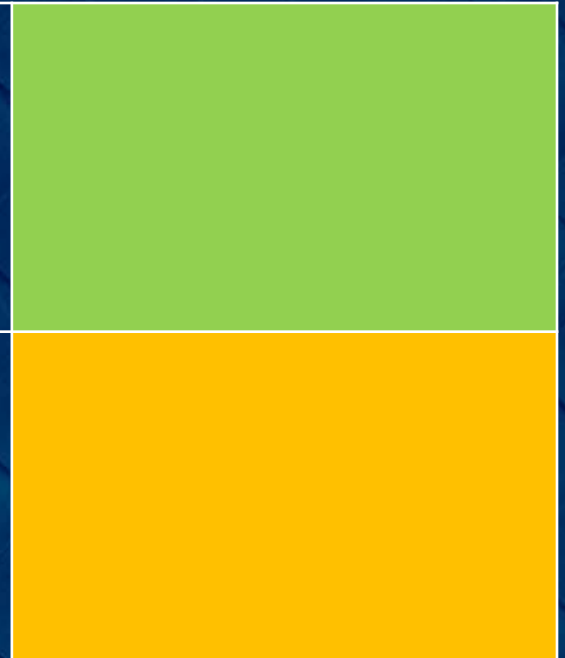
Measures

| | |
|-------------|--|
| Green | This outcome has been achieved. |
| Light Green | Processes are being implemented, work is in progress and there is a likelihood that this outcome will be achieved. |
| Yellow | This outcome has not been achieved. There are processes in place that could realise this objective. |
| Orange | This outcome has not been achieved. Processes are still being developed that could realise this objective. |
| Red | This outcome has not been achieved. There are no processes in place that are likely to realise this objective. |

Ngai Tahu are active co-governors of Te Waihora and its catchment.

Yes / No to formal co-governance arrangement in place for the catchment as a whole.

Yes / No to formal long term commitment to Whakaora Te Waihora



Land and water management in the catchment effectively provides for the Treaty partner status of Ngai Tahu, and the taonga status of Te Waihora.

| | |
|--|--|
| Yes / No to Te Waihora Management Board being joint holders of the consent for the lake opening. | |
| Yes / No to Te Waihora Management Board being the joint consent authority for the catchment | |
| Yes / No to Ngai Tahu approval being sought for activities involving the lakebed | |

The cultural health of Te Waihora is restored, including the restoration of mahinga kai species abundance and diversity to a level to enable customary use.

Good health of, and physical access to, mahinga kai sites and places within the Te Waihora catchment is restored

Mahinga kai species traditionally gathered still found across historic range

The customary rights of Ngai Tahu whanui associated with mahinga kai and Te Waihora are protected mō tātou, ā, mō kā uri ā muri ake nei.

Satisfaction of whanau that Te Waihora and its tributaries are managed as a customary fishery including but not limited to:

- A lake opening regime that reflects the needs of the customary fishery;
- Tributary water quality and quantity that enhances cultural health and mahinga kai, and enables customary use;
- The use of exclusion zones for commercial fishing / non-commercial fishing areas.

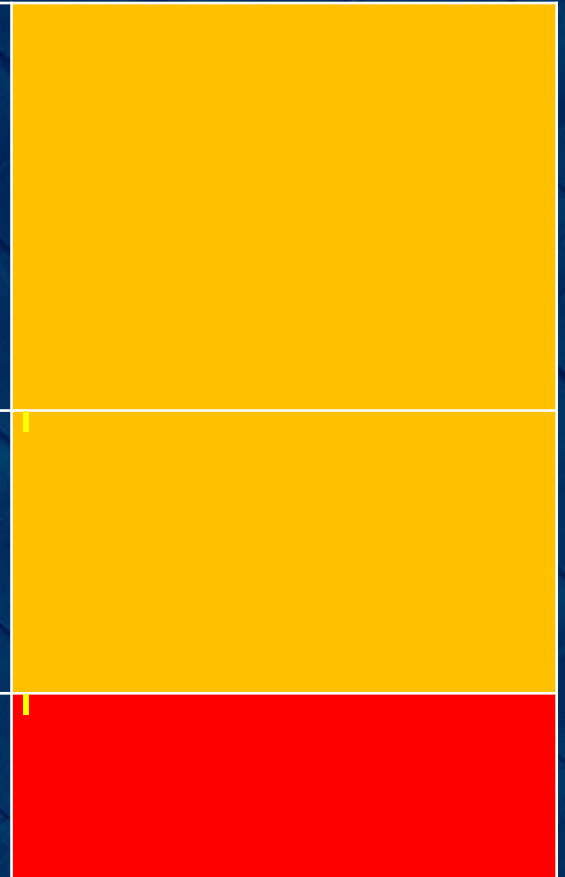
Whanau can access sites to gather where they wish, and how they wish.

Land and water use in the catchment respects the boundaries, availability and limits of our freshwater resources and the need to protect soil and water resources for future generations.

Iwi specific flow preferences identified and provided for in catchment flow regimes.

Level of extraction (groundwater, surface water)

No inter-catchment transfers



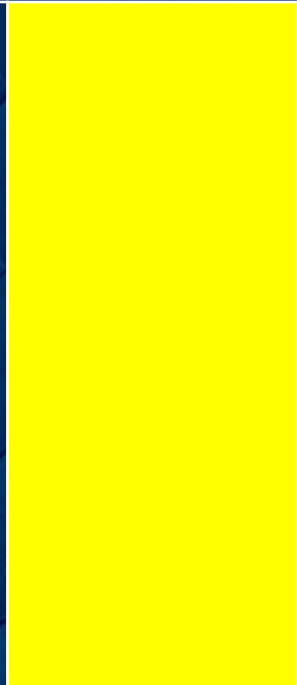
Lake management, including lake level management, reflects living with the lake, rather than forcing the lake to live with us.

Satisfaction of whanau with lake level management – including openings that allow for:

- (a) Increased fish recruitment;
- (b) Higher and fluctuating lake levels;
- (c) Salinity maintained at a higher level than current regime allows;
- (d) Longer duration of openings when required for fish values; and
- (e) Allowing the lake to be tidal for longer periods of time.

The investigation of opening the lake at the southern end of Te Koru, in addition to, or instead of, the current site.

Water quality (TLI)



The relationship between land use, groundwater, surface water and Te Waihora is recognised and provided for according to the principle of Ki Uta Ki Tai.

| | |
|--|--|
| Groundwater quality | |
| Quality of drinking water at the marae | |
| % of landuse change | |

The cultural health of lowland waterways is restored, through the restoration of water quality and quantity and riparian margins.

| | |
|---------------------------|--|
| Water quality parameters | |
| Water quantity parameters | |

Wetlands and waipuna are recognised and protected as wahi taonga, and there is an overall net gain of wetlands in the catchment.

| | |
|---|-------------|
| Area of wetlands (ha) restored as habitat | Yellow |
| Yes / No and number of restoration initiatives spread across the catchment. | Light Green |
| Satisfaction of whanau with the level of protection afforded springs | Yellow |

All waterways have healthy, planted riparian margins, and are protected from stock access.

| | |
|---|--|
| <i>Index of Riparian Condition</i> | |
| <i>Kilometres (%) of river/waterway length without stock access</i> | |
| <i>Kilometres (%) and/or hectares of river/waterway length with riparian protection</i> | |

Aggregating indicators

Aggregation enables us to reduce the number of indicators for the Report Card

We have chosen not to aggregate the scores to give an overall assessment.

The framework needs to

- Allow Ngai Tahu, scientists & managers to move backwards and forwards
 - forwards to calculate an overall score and complete a report card
 - backwards, if the score has changed, to determine what pressures have caused the change, and hence what action needs to be taken
- Be able to track management interventions and indicate whether or not they have been effective

Next steps

Over the next year we will

- Develop a report card framework with the Te Waihora Management Board;
- Agree values
- Agree attributes of those values
- Agree indicators for the attributes
- Agree measures for each indicator
- Involve manawhenua in the assessment