

ECONOMIC IMPACT

Q. WHAT IS THE EXPECTED COST FOR THE PROPOSED PLAN CHANGE?

A. Council used economic modelling to get a better idea about expected costs for the proposed plan change. This modelling estimated approximately a 4 per cent loss, or \$37.85 million, in annual profit due to implementing the proposed plan change. The proposed plan change may impact sectors differently. The economic modelling looked at the change in annual profit now and during implementation:

SECTOR	CURRENT ANNUAL PROFIT	ANNUAL PROFIT DURING IMPLEMENTATION
Dairy	\$617.53m	\$604.13m
Drystock	\$210.15m	\$210.99m
Horticulture	\$28.21m	\$25.91m
Forestry	\$58.86m	\$58.86m

Q. HOW DID THE COLLABORATIVE STAKEHOLDER GROUP ARRIVE AT THIS AMOUNT?

A. To determine how much the plan change will cost, the technical team started with a series of different land uses and farm systems and looked at what might be typical discharges of contaminants on these properties. They then considered how different mitigations could reduce those discharges, and how they would affect profits.

This model was linked to water quality objectives and used to estimate the cost of hitting different water quality targets. For example, if costly mitigations are required to reach a specific target, the land use profit will decrease. These scenarios are then applied to the whole catchment to give a total cost of the policy, which can then be used to estimate impacts on the regional and national economy.

Q. WHAT WERE ALL OF THE MODELLING/ SCENARIO OPTIONS THE CSG CONSIDERED?

A. There were a number of different scenario modelling options available to the CSG and their advisors from the independent Technical Leaders Group. These ranged from immediately making all changes to meet the Vision and Strategy from day one, through to modelling a 10 per cent improvement over the first 10 years, as part of an 80-year journey towards reaching water quality targets. As with any kind of modelling there are some limitations and the results are giving an estimate of the predicted costs over the first 10 years.

Q. WHAT MODELLING/SCENARIO DID THE CSG DECIDE TO USE?

A. CSG agreed to an 80 year timeframe to achieve the goals of the Vision and Strategy. They developed a staged approach to implement the plan change, based on the extent of changes needed to achieve water quality targets. The staged approach is still an ambitious rate of change.

Q. WHAT HAS ALREADY BEEN SPENT TOWARDS IMPROVING WATER QUALITY?

A. Significant investment has been made towards improving water quality in the Waikato Region in recent years both through local government infrastructure upgrades and through central government investment. The proposed plan change protects and builds on this investment. The investment outlined below does not include a share of the expenditure on national policy work that has been undertaken by the Ministry for the Environment and the Ministry of Primary Industries.

Waikato River Clean-up

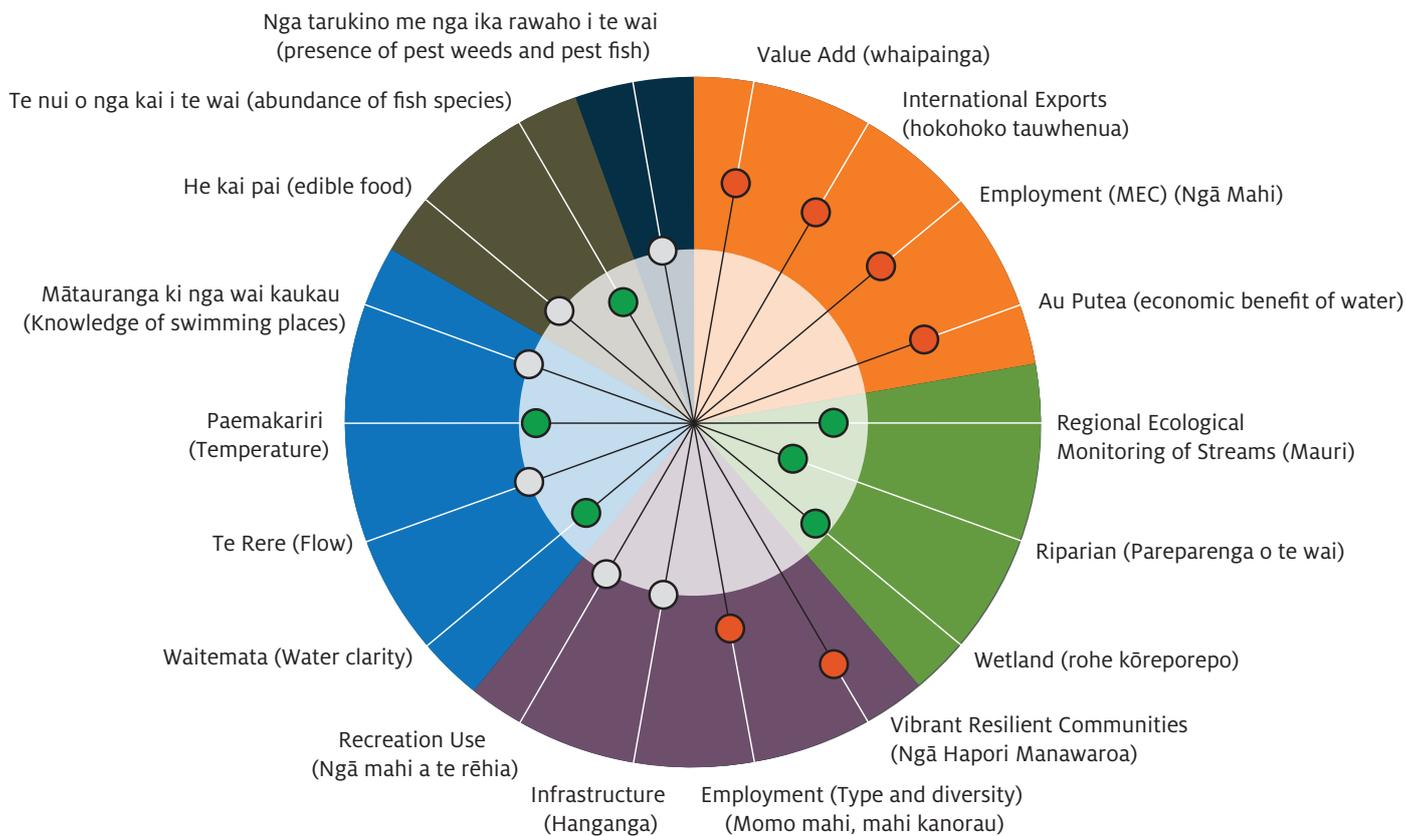
As part of the Treaty Settlement legislation for the catchment, a nominal sum of \$220 million dollars is being allocated to the Waikato River Cleanup Trust over the next 30 years. These funds are administered by the Waikato River Authority in its role as a trustee of the Clean-up Trust. In its first 4 years, \$22.4million has been allocated to projects around the catchment.

Lake Taupo Protection

As part of the implementation process for Variation 5 of the Waikato Regional Plan (which seeks to manage nitrogen discharges to Lake Taupo), the Lake Taupo Protection Trust was allocated around \$80 million from central government, the Waikato Regional Council and the Taupo District Council. The Crown contribution to this fund was \$35.6 million.

Trend wheel, scenario 1 - 10%

This wheel illustrates the impacts of the proposed plan change on the different social indicators modelled and shows if these are improving, worsening or showing no significant change. This helped inform CSG on an appropriate staged approach. The stages developed in the proposed policy provides for a change overtime. Everything won't happen at once.



Disclaimer: This is the models approach to achieving 10% of Scenario 1 as opposed to the proposed plan change which will achieve similar water quality but using different actions (and therefore will have different impacts).

Q.WHAT REGIONAL SOCIAL IMPACTS OF THE PROPOSED PLAN CHANGE WERE CONSIDERED?

A. Regional impacts, in terms of Value Added (a proxy for GDP) and employment numbers were considered in the economic analysis. It is predicted that there will be some effects on these. The social impact was also considered as part of the analysis. The assessment looked at 19 social, cultural, economic and environmental indicators and identified trends that might occur. Social indicators included employment, infrastructure, recreational use of the river, and vibrant resilient communities.

Q.WHAT INVESTMENT HAS BEEN MADE INTO WASTE WATER INFRASTRUCTURE?

A. In 2013, Opus International Consultants were commissioned to provide a report on the major municipal and industrial wastewater sites in the Waikato and Waipa river catchments. The report estimates that the total replacement cost of existing assets was approximately \$300 million, and that the operation of this infrastructure cost around \$20 million per year. Total expenditure of around \$250 million was expected over the ten years following 2013. It was estimated that these treatment plants remove approximately 93% of suspended solids, 71% of total nitrogen, 83% of total phosphorus, and 99.9% of E. coli from wastewater before it is discharged.

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HE TAIAO MAURIORA HEALTHY ENVIRONMENT
HE ŌHANGA PAKARI STRONG ECONOMY
HE HAPORI HIHIRI VIBRANT COMMUNITIES



Healthy Rivers
PLAN FOR CHANGE
Wai Ora
HE RAUTAKI WHAKAPAIPAI

Waikato
REGIONAL COUNCIL
Te Kaunihera ā Rohe o Waikato