

## Questions and Answers: Economic Review of Wairarapa Water's Application for Stage 2 (Feasibility) Funding from the Irrigation Acceleration Fund

**Question 1:** What's this all about?

*Answer*

- *Wairarapa Water (WW)* applied to the *Ministry for Primary Industries' (MPI) Irrigation Acceleration Fund (IAF)* for \$821,500 to undertake project feasibility analysis. The application was successful and matched the same level of funding already received from the *Greater Wellington Regional Council (GWRC)*.
- *Rōpere Consulting Limited* was commissioned by *Fish and Game (Wellington Region)* to access the credibility of the economic analysis employed by *WW* in its IAF application.

**Question 2:** I'm a busy person; so rather than trawling through the report can you cut straight to the punch line?

*Answer*

- The mischief is primarily one of bad process and involves a 'double failure'.
  - Firstly, *WW* submitted a grossly misleading funding application to *MPI* based on outdated economic analysis.
  - Secondly, *MPI*, as administrating agency, failed to identify these flaws and paid out the requested amount regardless.
- *WW* is still using the same outdated and grossly misleading data when applying for funding from Councils.

**Question 3:** What is the basis to your claim that the economic analysis in Wairarapa Water's IAF application was outdated and misleading?

*Answer*

- *WW's* application is based on a 2014 Report by *Butcher Partners*,<sup>1</sup> which employed a 2013 assumption that the long-run farm gate milk price is \$7.07 kgMS. Based on this milk price, the report then assumes 55% of the irrigated area will be conversions to irrigated intensive dairy farms. Whilst a long run milk price above \$7.00 kgMS was questionable in 2014, given changes in international dairy markets since it is a completely unrealistic basis for decision making in 2016.

**Question 4:** A \$7 milk price does sound a tad high but wont dairy prices bounce back?

*Answer*

- It is unlikely.

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<sup>1</sup> See: <http://www.waterwairarapa.co.nz/news/images/3-regional-economic-impact-report-analysis-of-proposed-wairarapa-water-use-project-october-2014.pdf>

- It can be reasonably argued there has been a structural change in international dairy markets, brought about by events such as the elimination of European milk quotas. Whilst a consensus about the 'new normal' long-run farm gate milk price is yet to emerge, a good case can be made for \$5 +/- \$1 (so a range between \$4.00-\$6.00 kgMS).
- At a price level of \$5 +/- \$1 irrigated intensive dairying in the Wairarapa is simply not viable *even if the price for irrigated water is zero*.

**Question 4:** What is the basis of your claim irrigated dairying is not viable in the Wairarapa?

*Answer*

- In 2014, WW's predecessor, the Wairarapa Water User Project, commissioned a report from Baker Associates<sup>2</sup> to calculate the expected increase in farm profitability associated with irrigation. That report included irrigated intensive dairying and assumed a milk price of \$6.50 +/- 50 cents. The report shows irrigated intensive dairying is viable at \$6.00 *before water charges are added*, but becomes increasingly uneconomic at prices below \$6.00 *even if the water is free*.
- Once the Baker Associates Report is updated to include an indicative water price irrigated intensive dairying is barely viable at \$6.00 and not viable at all below that.

**Question 5:** OK, its looks like dairying is out - but so what? If Wairarapa has irrigation wont some other activity just take its place?

*Answer*

- Firstly, it is necessary to understand what this means in terms of WW's proposal, as a completely unrealistic milk price creates a 'cascade failure' where the milk price assumption dooms the land use change assumption that dooms the economic benefit and job creation assumptions resulting from that change. In other words, WW's dairy dependent proposal resembles a house of cards that collapses upon itself once dairy numbers are revised.
- Secondly, in terms of alternative activities:
  - WW's proposal is large scale - potentially storing almost 100 million cubic metres of water and capable of irrigating almost 30,000 hectares. The reality is without a large scale water intensive industry like dairying there is no need for this volume of storage in the Wairarapa.
  - The suggested alternatives - such as dairy sheep - are very much niche activities; and this includes high value irrigated land uses such as horticulture (assumed by WW to be no more than 3% of the irrigated land area [c/f. 55% for dairying]).

**Question 6:** So what does this mean to the estimated economic benefits and the resultant job creation prospects?

*Answer*

- Both become 'vapourware'; because even if the land uses that cover the remaining 45% of the assumed irrigated area are profitable at the prevailing water price, they cannot proceed in the absence of the 55% - because without the 55% dairy the dam (or dams) will not be built.

<sup>2</sup> See: <http://www.waterwairarapa.co.nz/news/images/land-use-affordability-under-irrigation-april-2014---final.pdf>

### Question 7: What is MPI's role?

#### Answer

- MPI is the administrating agency for the IAF. Whilst some functions have recently been moved to *Crown Irrigation Investments Limited (CIIL)*, final grant approval rests with the Director General of MPI. It is therefore MPI's job to ensure the rigour of IAF applications.

### Question 8: What is the basis to your claim that MPI failed to undertake a proper analysis?

#### Answer

- The IAF has sensible and realistic assessment criteria whereby all key economic assumptions must be outlined and supported - and wherever possible also include sensitivity analysis. Whilst WW failed to do this, it is reasonable to expect MPI to have noticed.
- MPI should have either rejected the application or returned it to WW for revision and resubmission. Instead, it appears the requested funding was paid out in full.
- MPI's actions seriously questions the rigour and professionalism of the review process undertaken - as the key faults are easy to identify (i.e. an unrealistic milk price assumption, the absence of a water price assumption, no indicative scheme build cost, and no sensitivity analysis for the same).

**NB:** It is necessary to clarify that the problem is not the modelling in the Butcher or Baker reports was somehow 'wrong', but the analysis contained therein had not been updated. Indeed, one of the key roles the Rōpere Consulting report has done is provide the update WW should have provided - but failed to do so.

### Question 9: What is the impact of MPI's failure to undertake a thorough analysis?

#### Answer

- There are three issues here:
  - Firstly, it seriously questions MPI's allocation of public monies for industry assistance
  - Secondly, it puts both the Director General and Minister for Primary Industries in unenviable positions of supporting both an application and scheme based on grossly misleading analysis
  - Thirdly, it gives an inaccurate signal to other potential funders - especially at a local government level - who would reasonably assume that a success IAF grant is a vote of confidence in the proposal and signal of rigour for the assumptions that underpin it.

### Question 10: Are there any irrigation-based alternatives?

#### Answer

- Maybe. As a planning exercise, Rōpere Consulting built a theoretical 'counterfactual' scheme based on 10,000 ha. This scales up the alternative land uses outlined in the Butcher Report whilst holding dairy constant. This produced a similar number of jobs as WW's proposal, albeit via horticulture alone rather than dairy and horticulture. However, as with any counterfactual, there are a substantial number of caveats that need to be taken account of.
- The key issue the counterfactual illustrated is that in the absence of dairy only horticulture creates *additional* jobs. It therefore seemed illogical to build a scheme to irrigate 10,000 hectares when all

the jobs were generated from less than 500. A smaller and more targeted scheme may therefore have merit.

### **Further Information**

Peter Fraser

Principal, Rōpere Consulting Limited

0276688618

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