

Catchment meeting 3

Scenarios and Socioeconomic outcomes

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Background

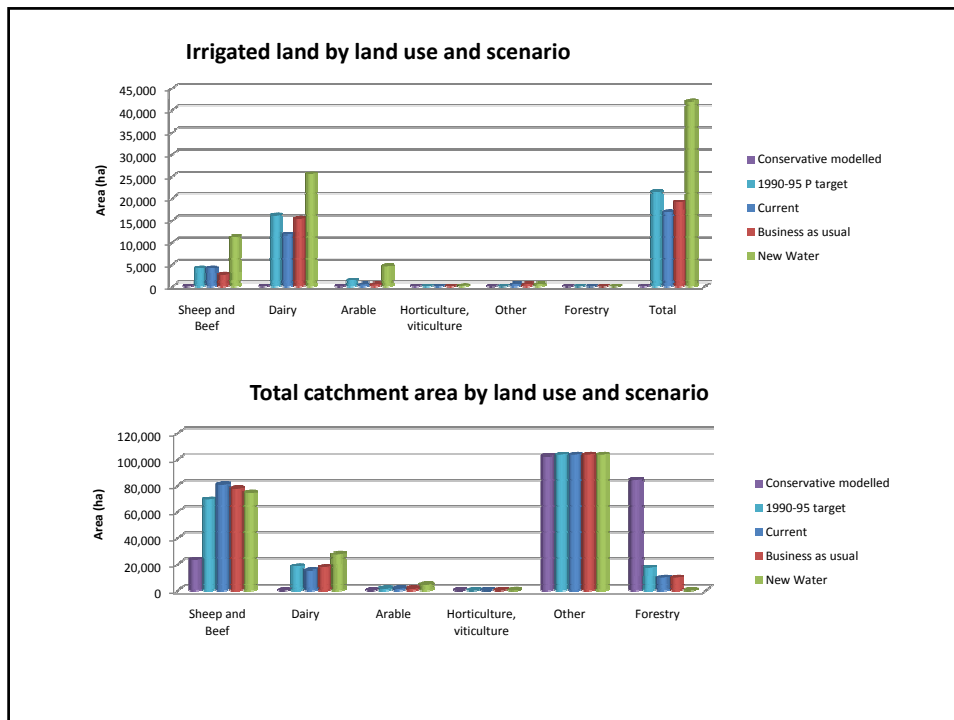
- 3 previous scenarios
 - Current
 - Business as usual 20 years out
 - Extensive irrigation development 20 years out
- 2 new scenario in response to last meeting
 - Conservative modelled scenario
 - 1990-95 Hurunui water quality
- Scenarios explore futures, they are not forecasting

Conservative modelled scenario

- Converted all productive land to forestry apart from high country
- Doesn't achieve standard on a mass balance approach

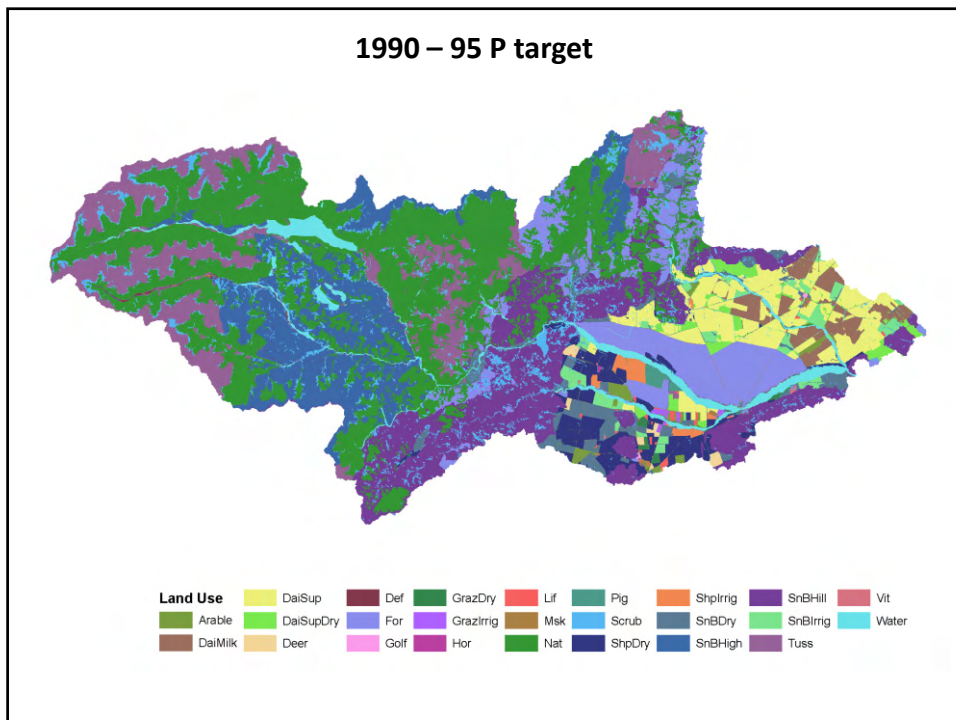
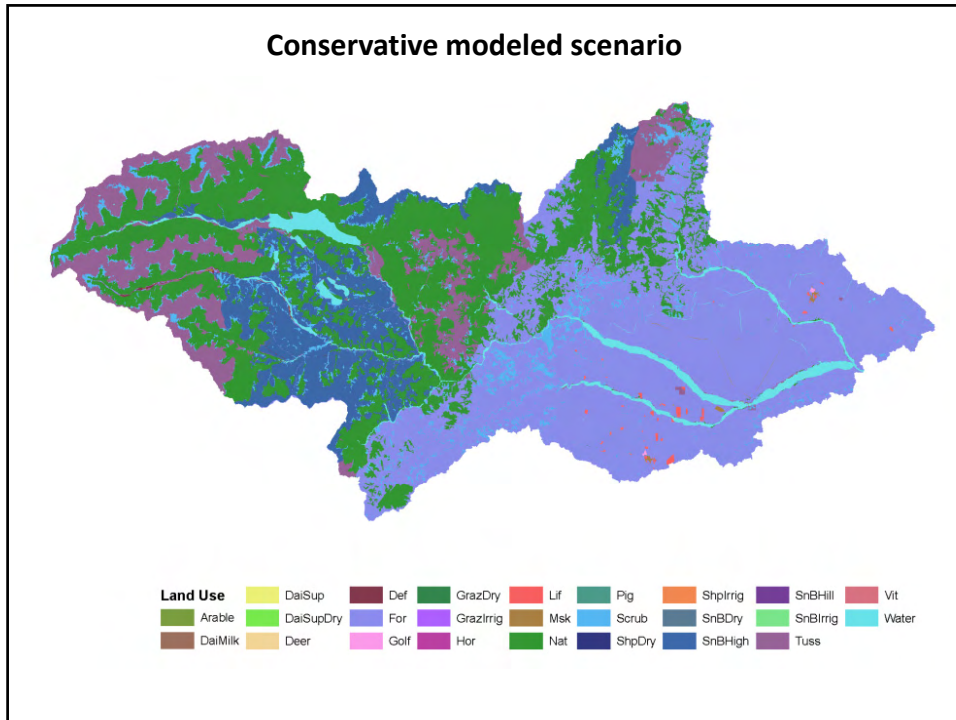
1990-95 Hurunui water quality

- Policy framework in place
- Approximately 10% reduction in P overall
- 20% in mid catchment tributaries for P and N
- Maximum mitigation with available practice, all land uses. No new mitigation available.
- No intensification
- Added additional conversion to irrigation and dairy where there was room
- Forestry conversion as per ETS scenario
- Some minor targets not hit



Converted to GIS maps

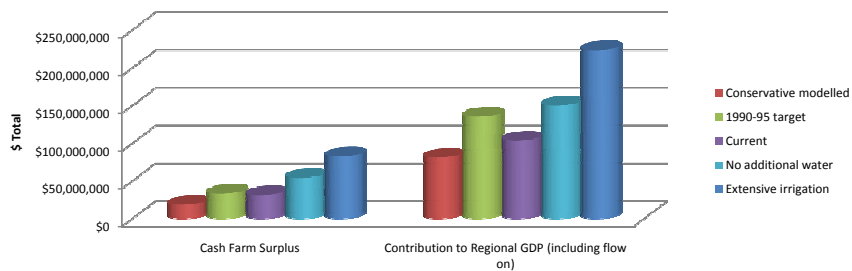
- Not targeting specific properties
- Very constrained by catchment targets in 1990-95 scenario
- Small changes in Pahau, St Leonards
- Only forestry conversion in other catchments



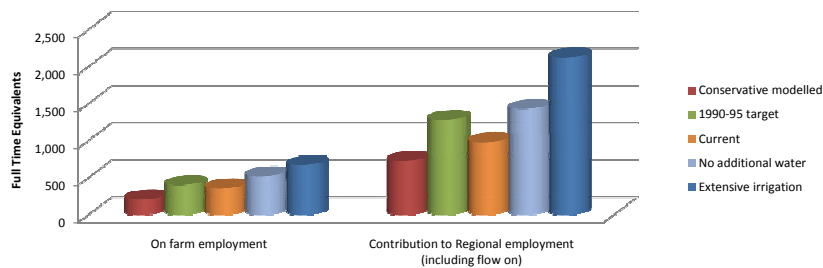
Economic and employment outcomes

- Significant changes
- Conservative modelled scenario
 - Economic indicators down -40%
 - Employment down by 25% - 30%. However many may not be locally based (forestry contractors)
- 1990-95 water quality
 - Economic indicators up from current by 25% - 30%
 - Employment up by 30% - 40%
 - Costs not supportable for some – mitigation expensive for less intensive, low return systems
- Externalities are not included – relying on community judgement

Economic outcomes by scenario



Employment changes by scenario

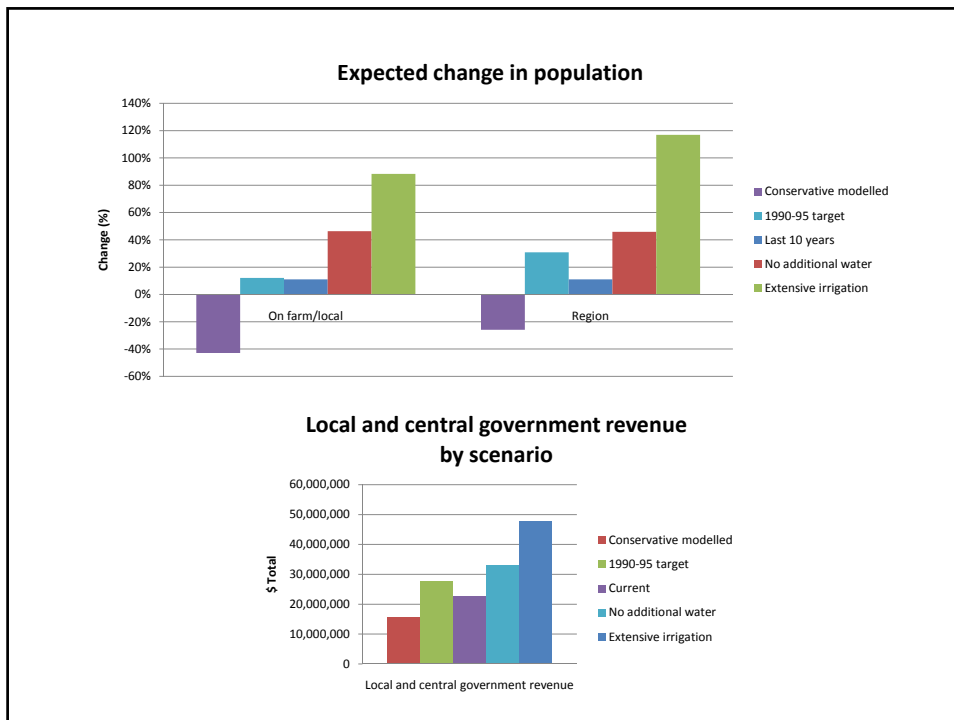


Emissions Trading Scheme impacts at \$25/tonne

- Estimated impact \$3 - \$5 million cost Scenarios 1 – 3,
- \$2 million gain 1990 -95 water quality target
- Potentially big impact in Conservative modeled scenario with all forestry ~\$50 million per annum gain

Social implications

- Expect population change to follow employment change
- Demographics reported affect vibrancy in schools, clubs, voluntary services
- Local and central govt revenue changes in line with household income and company surpluses. Indicative of ability to provide infrastructure and services (no guarantee!)
- Potential social upheaval with land use change and cost of mitigation



However!

- Uncertainties in modeling and ability to achieve outcomes
- Have to run to stand still