



FIVE CATCHMENTS, NATIONWIDE

# ON-FARM BIODIVERSITY ASSESSMENTS PILOT PROJECT

## PROJECT DETAILS

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### Project cost:

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\$103,000 for assessments

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\$270,000 to kick start projects on farms

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### Locations:

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Wairua, Pūkorokoro-Miranda, Waikato, Te Waihora, Waituna

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### Parties:

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Contractors: AB Ecology (Wairua)

Wildlands (Waikato and Pūkorokoro-Miranda)

Instream Consulting and Tussocklands (Te Waihora)

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Fonterra farmers

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QEII National Trust (QEII)

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### Project purpose:

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To complete biodiversity assessments on farms across the five Living Water catchments.

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### Project timeframe:

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July 2016-June 2017

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**This is an overview of the Living Water on-farm biodiversity assessments pilot project, which provided on-farm assessments and action plans as a way of engaging directly with farmers on biodiversity protection and enhancement.**

**An additional objective of the pilot project was to identify a simple best practice method for measuring, protecting and enhancing biodiversity on farms throughout New Zealand.**

## BACKGROUND

Farm Environmental Plan (FEP) templates are currently available from various councils, consultants, DairyNZ and through industry to help farmers identify environmental risks, record good management practices and document actions for improvement. Living Water identified that most of these templates omit or have limited scope for biodiversity assessments and related actions.

This means that they do not include an assessment of the variety of native plants, animals, and the ecosystems they form, and therefore there is no measure of the richness of life that may, or may not, exist on farms.

This project piloted the effectiveness of completing specialist biodiversity assessments for farms as a way of increasing on-farm biodiversity protection and enhancement activities. The Department of Conservation developed the biodiversity assessment approach which was trialled and refined before being implemented by contract ecologists on 17 North Island farms and six South Island farms in Living Water catchments.



**Number of farms involved**

23

**Priority actions most often identified through the assessments**

- Stock exclusion
- Control of pest plants
- Enhancement of fish passage

**Outcomes**

- Each farm was provided a comprehensive report of their property with maps and photos and provided with financial and technical support to complete at least one of the highest priority actions identified in their assessment.
- A template approach for assessing on-farm biodiversity was developed

**Lessons / Observations**

- At an average cost of \$5,000 per farm to complete an assessment (up to \$12,000 for larger farms or where there is significant biodiversity to assess), this approach might be too costly to apply widely across the agricultural landscape.
- However, a valuable lesson from this pilot is that while the biodiversity assessments picked up a range of ecological values on farm, some of the key **actions** described to protect or enhance these biodiversity values would generally be considered good management practice/good farming practice and should be picked up through a farm environment plan (FEP). For example:
  - Stock exclusion of natural features (forest blocks, wetlands and streams)
  - Retirement and revegetation of waterways, springs and seepage areas.

Therefore some farm scale biodiversity gains will be achieved through the FEP process and should occur whether or not the farm has had a biodiversity assessment

- The input of specialists is needed to identify threatened species or provide an ability to engage the farmer with specific information about their farm in order to enhance their local biodiversity. In addition the pilot found that:
  - Having an assessment carried out by a specialist increased awareness with farmers of the biodiversity values on their farms
  - Both the farmers and the Fonterra Sustainable Dairying Advisors involved in the pilot appreciated working with the specialists due to their knowledge and had more confidence in the actions proposed
  - Specialists are in a better position to prioritise actions to protect and enhance the biodiversity values that exist on individual farms
- Having an assessment with prioritised actions doesn't translate into action, especially where the action required is not a regulatory requirement and/or in lower pay out years when farmers are focusing on maintaining the basics for running the farm
- To overcome this, Living Water funded at least one project per farm to help get action underway. Incentivising in this way (e.g. via government/council grants or through industry incentives) might need to be considered if protecting and enhancing biodiversity on farm continues to be a voluntary activity
- Significant biodiversity values and natural remnant areas identified on several Northland farms led to QEII Trust involvement and the eventual covenanting of areas
- The credibility of a specialist developed plan is useful for farmers when applying for grant funding available through councils to protect biodiversity.

**Recommendations / Next Steps**

- Raise awareness with Fonterra Sustainable Dairying Advisors (and therefore with farmers) that relatively simple GMP/GFP actions identified through the FEP process can have a positive impact on biodiversity on farm
- Work with Fonterra and DOC on building biodiversity assessments, and actions that enhance biodiversity, into the FEP process
- Build the case for protecting/enhancing biodiversity on farm and therefore a compelling reason for farmers to engage e.g. maintaining/creating plantings/forest might help with any carbon tax regulation, or nutrient leaching requirements.