



Environmental Biology

Our Environmental Biology team comprises environmental scientists working across the multi-disciplinary specialist work areas of:

- Freshwater and marine ecology
- Water quality
- Freshwater fisheries
- Terrestrial ecology
- Flora and fauna
- Land and habitat restoration
- Ecological engineering and design
- Ecotoxicology
- Ecological modelling
- Environmental policy development.

Experience

- Auckland Water Supply Dams
 - Assessment of water abstraction on aquatic ecosystems and fish habitat in ten dams through the Hunua and Waitakere Ranges. Evaluation of instream habitat requirements to support fisheries. Assessments of impacts on water quality. Evaluations of macroinvertebrate and periphyton communities using biotic indices to establish habitat quality.
- Auckland and Wellington Beach Replenishment Projects
 - The evaluation of impacts on marine ecosystems associated with the major beach replenishment projects at Kohimarama and St Heliers Beaches in Auckland and Oriental Bay in Wellington. Evaluations focused on the effects of habitat change on existing and future macrobenthic communities, and involved intertidal and subtidal survey of available habitat types, including assessment of potential impacts on shellfish resources and kai moana.
- Fish Passage Design and Development
 - Fish passage design and development projects range from the development of fish pass structures to provide access over 30 m high dams, the design of long culvert systems using fish friendly methods, the design of fish pass facilities at hydrologic flow monitoring stations, and the development and implementation of methods to facilitate the trap and transfer for fish over dam systems.
- Land Development Flora and Fauna Surveys
 - Associated with land development projects involving subdivision, roading, linear transmission corridors, dam and reservoir development, these evaluations have covered the diverse range of habitat present in the New Zealand landscape from Northland lowland forest, through to podocarp and beech forest systems, wetlands, coastal and maritime habitats. Assessments have included botanical surveys, threatened species evaluations, weed and pest assessments, habitat mapping, and GIS based analysis.
- Wastewater Discharge Evaluations
 - Assessments of wastewater discharges impacts on freshwater and marine ecosystems have been completed at a wide range of sites, including discharges from large cities and towns, food processors, and industry ranging from fertiliser manufacturing through to pesticide and herbicide manufacture and processing. Assessments have included impacts on water and sediment quality, ecotoxicology, habitat quality, macrobenthic community characteristics, temperature and oxygen modelling, nutrient enrichment, and bathing quality.

