

# LERNZdb Freshwater Database

## – Fact Sheet

Linking lake restoration with end users for positive environmental outcomes



### LERNZdb

The LERNZdb Freshwater Database is a repository for freshwater quality data and biodiversity measurement data for lakes, rivers and wetlands in New Zealand. It was developed as part of the Lake Ecosystem Restoration New Zealand (LERNZ: LERNZ.co.nz) programme in co-operation between the Information & Technology Services Division (ITS) and LERNZ researchers at the University of Waikato. LERNZdb has the ability to store a wide variety of freshwater data in a consistent format, it also scores the quality of the data based on the provided quality controlled information. This allows the user to filter data based on the standard of data collection and encourages the provision of high quality data for use in modelling applications.

### The Aim of LERNZdb

The aim of LERNZdb is to be a discipline-specific data repository, enable cross-institutional participation, ensure data quality, link data to publications through digital object identifier (DOI) support, and in the future, to allow specific variable searches within multiple data sets.

### Data in LERNZdb

Data within LERNZdb are obtained using a range of collection methods including high-frequency automated monitoring buoy data or data that is manually collected from routine surveys. Data that is manually processed includes error correction and quality control information. LERNZdb is designed to accommodate various kinds of freshwater quality and biodiversity measurement data, including:

- Discrete measurements such as concentrations of nutrients, chlorophyll *a*, etc.
- Sediment measurements
- Water quality profiles like conductivity-temperature-depth casts, Biofish, etc.
- Fish surveys, including fish length measurements (for electro-fishing and netting)
- Macroinvertebrate counts, biomass and size measurements
- Phytoplankton counts and biovolume
- Zooplankton counts

Data may be collected for a specific research project or as part of on-going monitoring. Data within LERNZdb is arranged according to organisations, lakes, rivers, wetlands and variables or species. There are currently 1200 datasets within LERNZdb from 41 lakes, 13 rivers, and 8 wetlands and these include 31 variables and 48 species. LERNZdb has been designed to include further variables and species as the database expands.



# LERNZdb Freshwater Database

## – Fact Sheet Continued



## Submitting a Dataset

LERNZdb allows any registered user to submit a dataset to share with others. The process of submitting a dataset involves downloading a template and uploading a dataset. The data is then reviewed by a senior member of the LERNZ research group, data may either be returned with a request for further information or correction, or approved for inclusion in the database.

Reasons are given if a dataset is rejected and recommendations are given to improve the quality rating of the dataset. By default, all datasets will be made public immediately after a successful review process. However, LERNZdb offers the option to embargo or suppress your dataset temporarily from public access e.g. to allow for publication.

LERNZdb is free to use and available to both New Zealand and international researchers, although it currently only accepts New Zealand data sets.

## Data Format

LERNZdb datasets are uploaded and made available as Excel spreadsheets.

## Licensing

All data in LERNZdb has a Creative Commons Attribution license. This licence allows users to share data openly but still receive credit for it.

## Contact Information

For more information on LERNZdb including the LERNZdb manual, please visit <http://lernzdb.its.waikato.ac.nz> or contact [lernzdb@waikato.ac.nz](mailto:lernzdb@waikato.ac.nz)

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**Waikato River (2007).**  
Environmental Research Institute (ERI), The University of Waikato

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Waikato River EF survey 2007.xlsx  
19.93Kb  
Microsoft Excel 2007  
[Download](#)

**Dataset Description:**  
Waikato River electro-fishing survey (2007).

**Cite as:**  
Hicks, Brendan. (2014) Waikato River (2007). [dataset]. Environmental Research Institute (ERI), The University of Waikato [producer]. LERNZdb [distributor]. <http://lernzdb.its.waikato.ac.nz/handle/123456789/32>

**Category:** Fish electro-fishing surveys for a river  
**Variables:** Area Fished; EF pulse rate; Time fished; EF current; EF Range; EF % range; Distance fished; Black Disc; Water Temperature; Specific Conductance; Fish Species Counts  
**Date range:** 2007-02-21 to 2007-12-11  
**Region(s):** Waikato  
**Rivers:** Waikato River

**LERNZdb quality rating:** ★★☆☆

**Factors that positively contribute towards the rating:**

- All variables belong to the chosen category.
- All variables are known to LERNZdb.
- The timestamp information is complete.
- All datapoints have a unit.
- All datapoints are measured in their preferred unit.
- All species are known to LERNZdb.
- All species belong to the chosen category.
- The geo coordinate information is complete, in WGS84 decimal degrees and all coordinates are in NZ.

**Factors that stand in the way of a higher rating:**

- There are missing datapoints.

[Show full dataset record](#)

Screen-shot of data submission to LERNZdb



University of Waikato, Hamilton. Photo: Warrick Powrie