

100 years of automated level recording on the River Irvine

Grant Kennedy



Historic aerial view of Glenfield and Kennedy Ltd engineering works



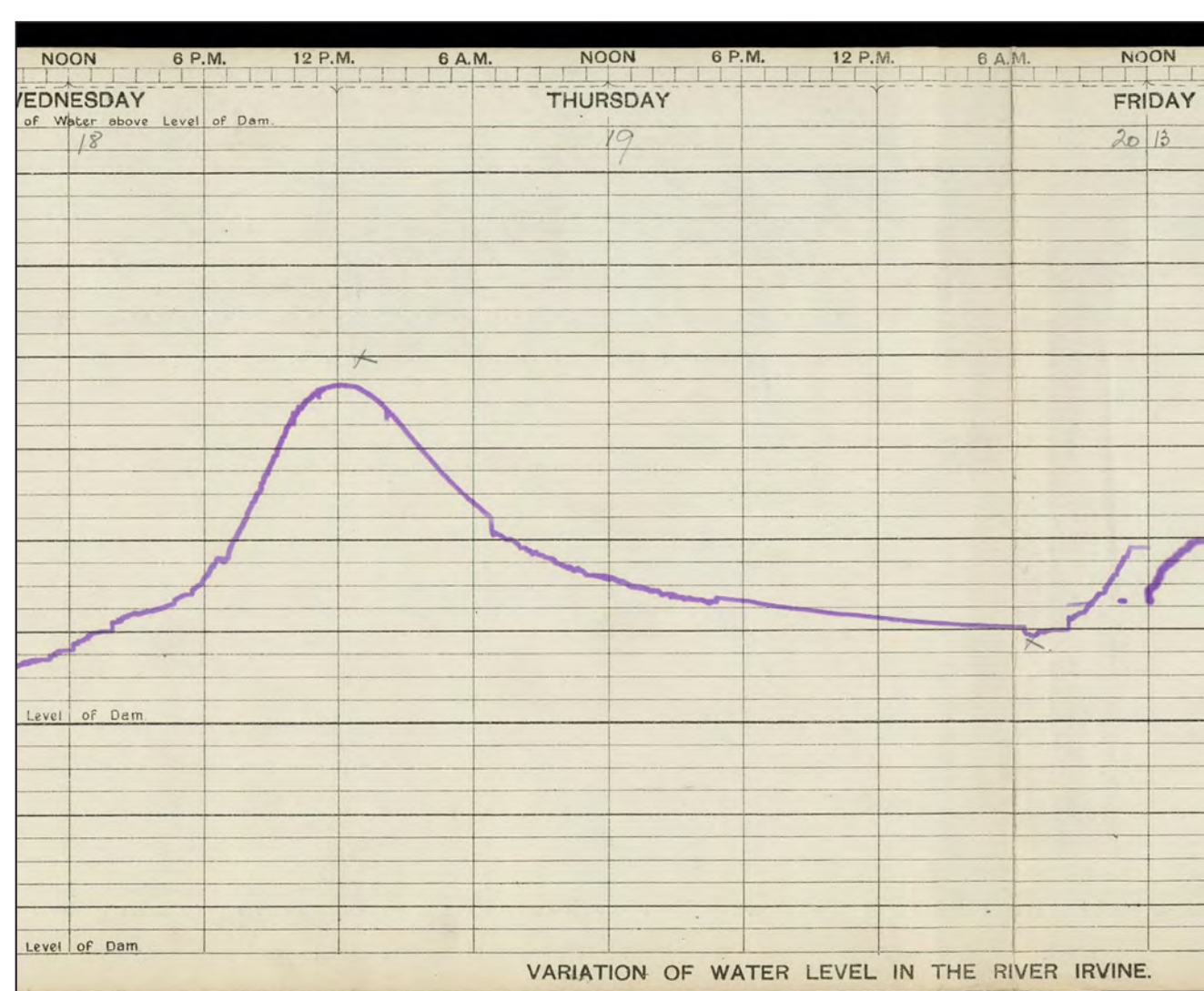
Flooding at Glenfield on 3 January 1932

Automated level recording on the River Irvine has been taking place since at least 1913, which marks the start of the surviving archive. This is the first record of its kind in Scotland. Such a long automated record is rare and provides significant research potential.

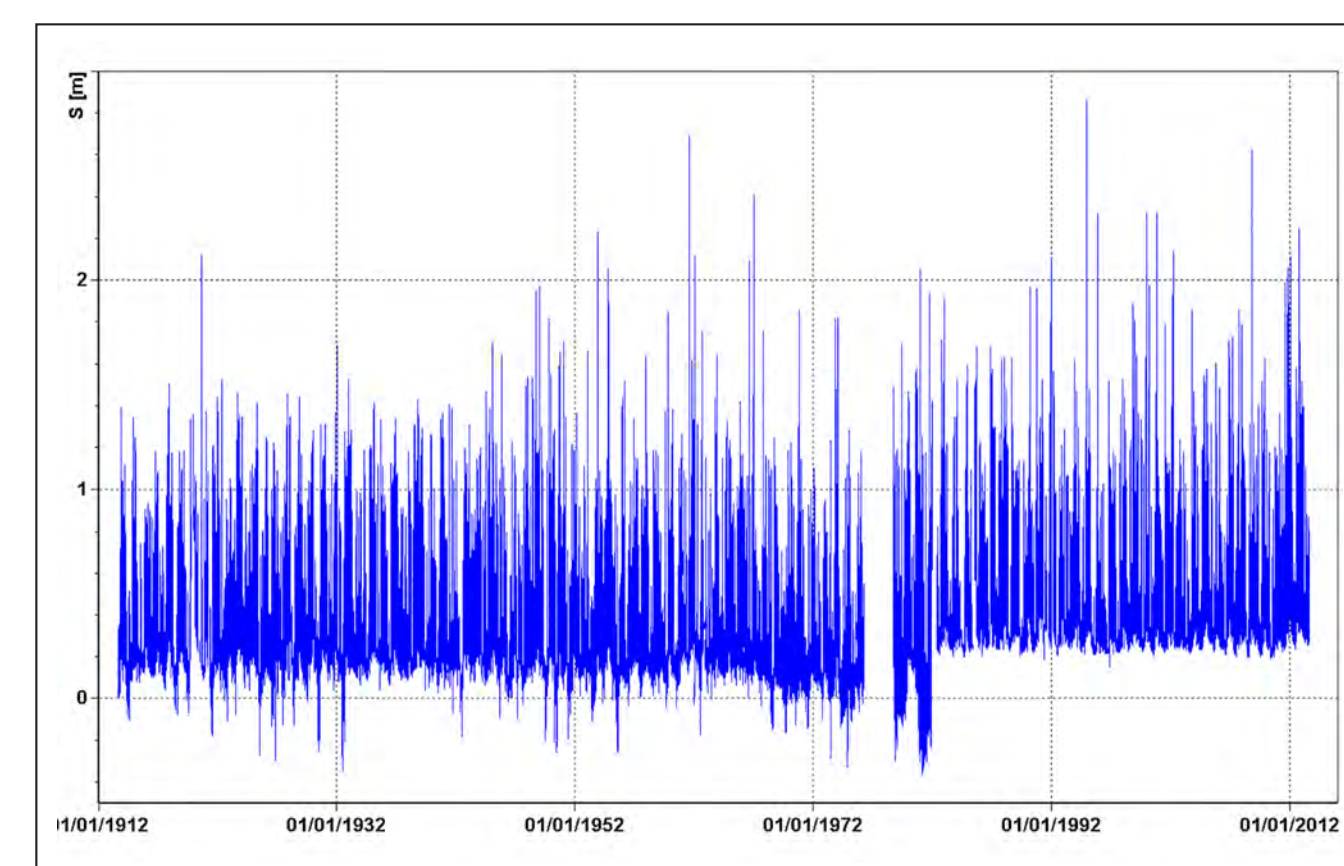
Recording between 1913 and 1981 was undertaken by Glenfield and Kennedy Ltd engineering works for their operational purposes using their own design of autographic recorder.

We, and our predecessor, The Clyde Purification Board, have continued to record river level and flow at the site since 1982. Until 1981 data was recorded on paper charts. In order to preserve the record and increase its utility, we commissioned the digitising of the paper archive.

There are a number of factors that limit the use of the archive. We hope to reduce these in the near future. However, understanding any remaining quality issues will be a necessity in any future research.



Sample graph from January 1928



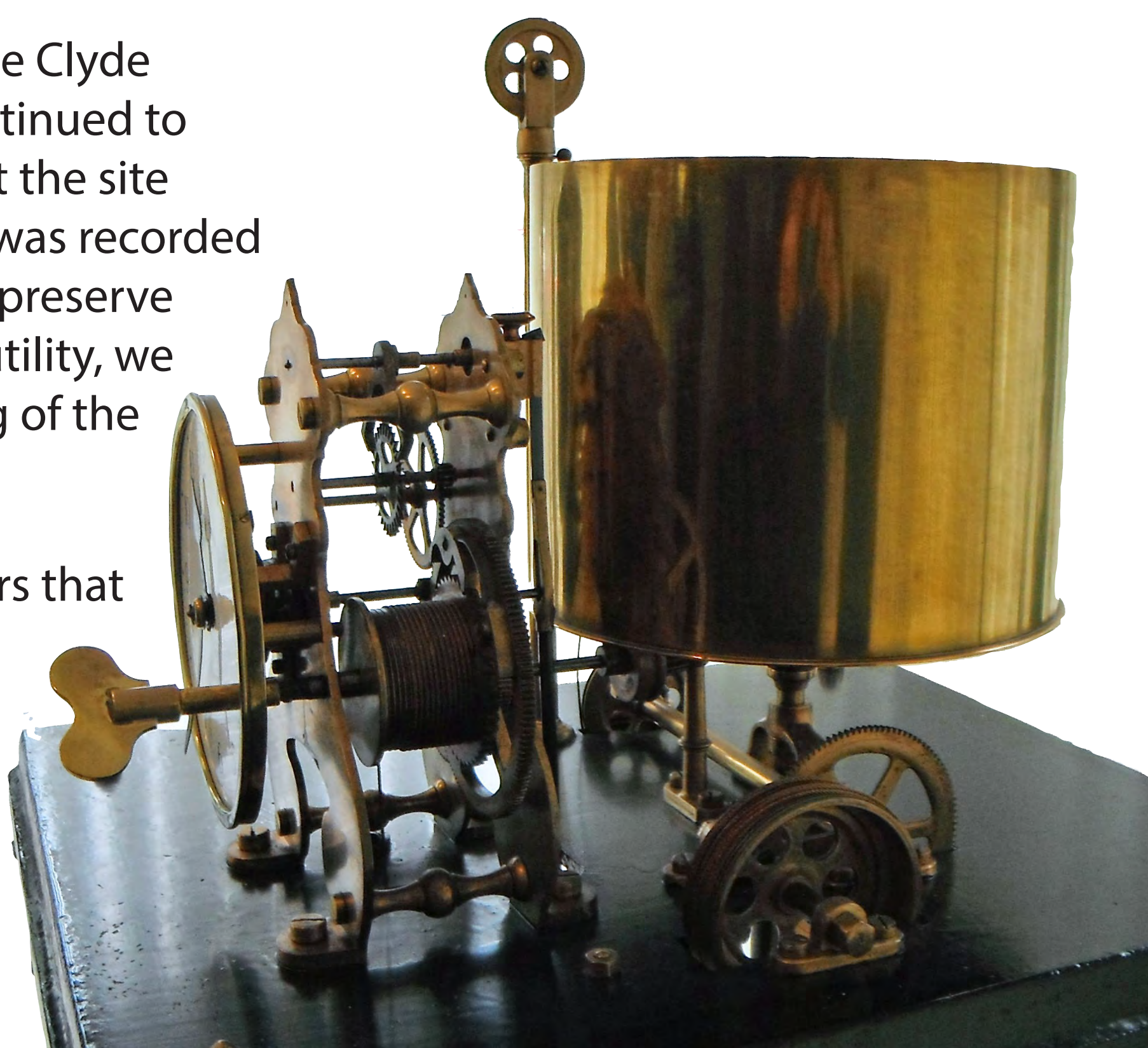
The full record from August 1913

Challenges include:

- missing data;
- river abstractions;
- truncated and annotated flood peaks;
- catchment changes;
- datum changes.

The 100 year continuous river level and flow archive from the River Irvine opens up potential for research in a number of areas, including flood analysis and land use impacts.

Details of the record are provided in a SEPA report available on request from grant.kennedy@sepa.org.uk



Glenfield and Kennedy Ltd autographic recorder