



# Pollok Sawmill & Hydropower

Refurbishment and electricity generation

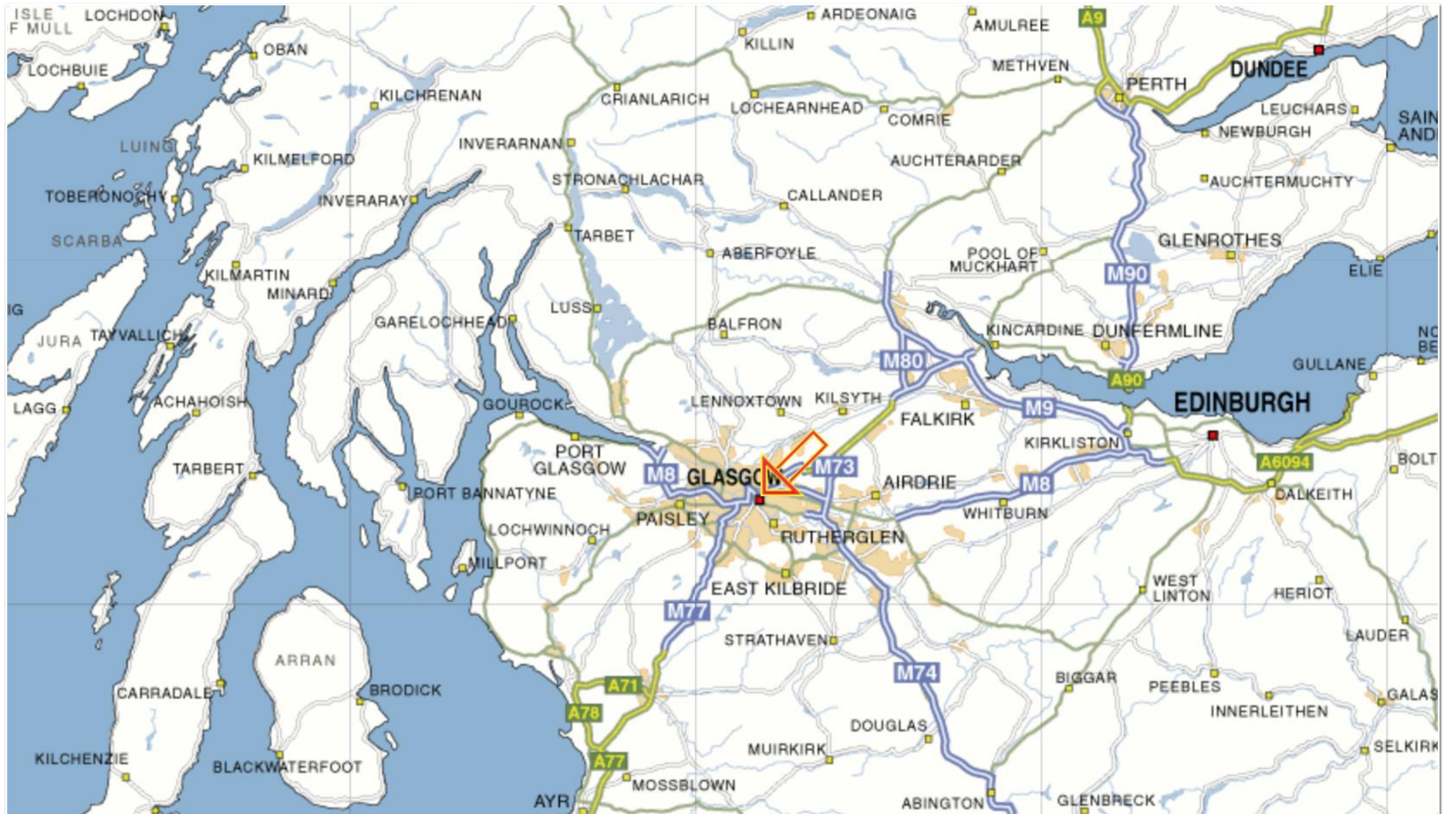
Gordon Black



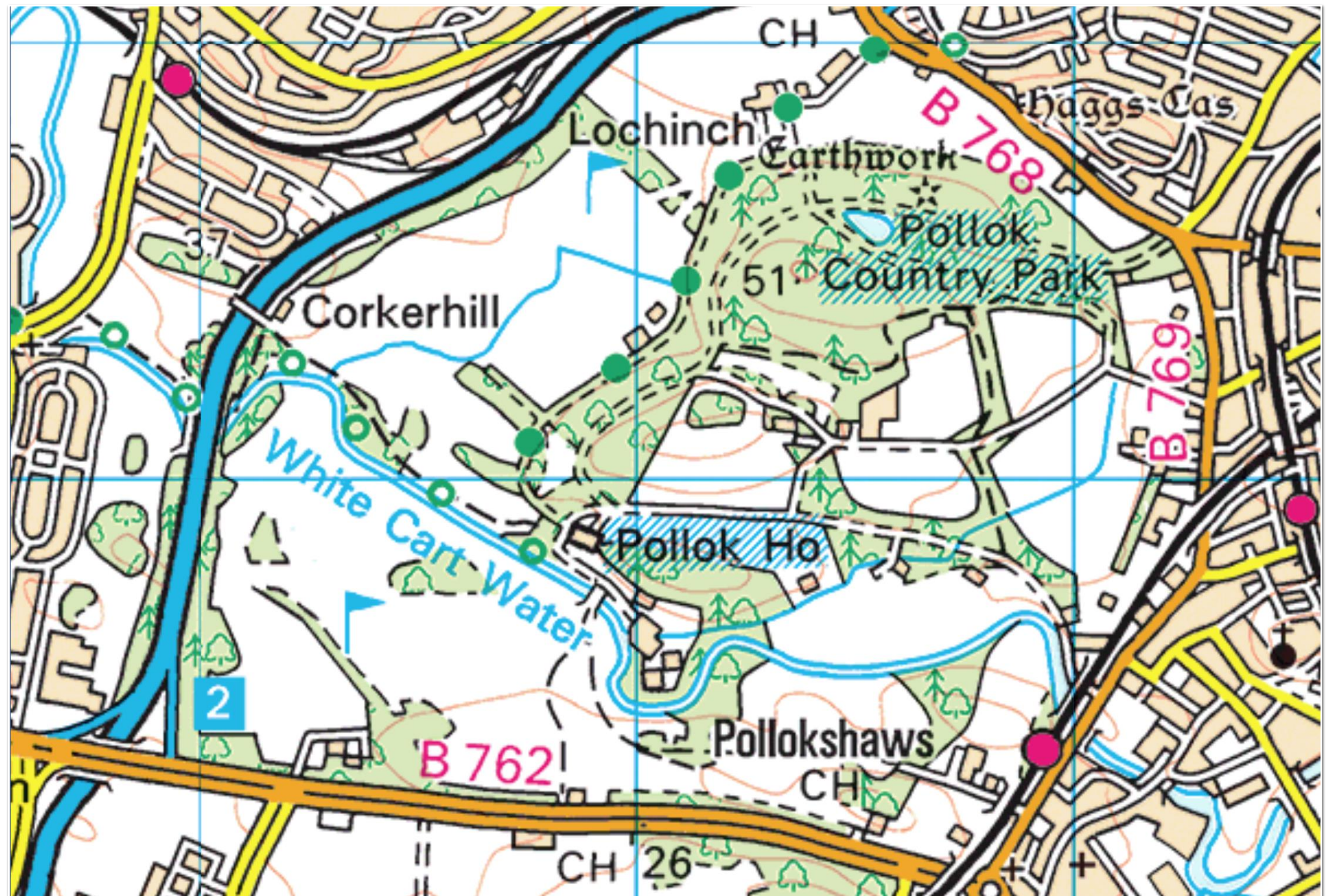












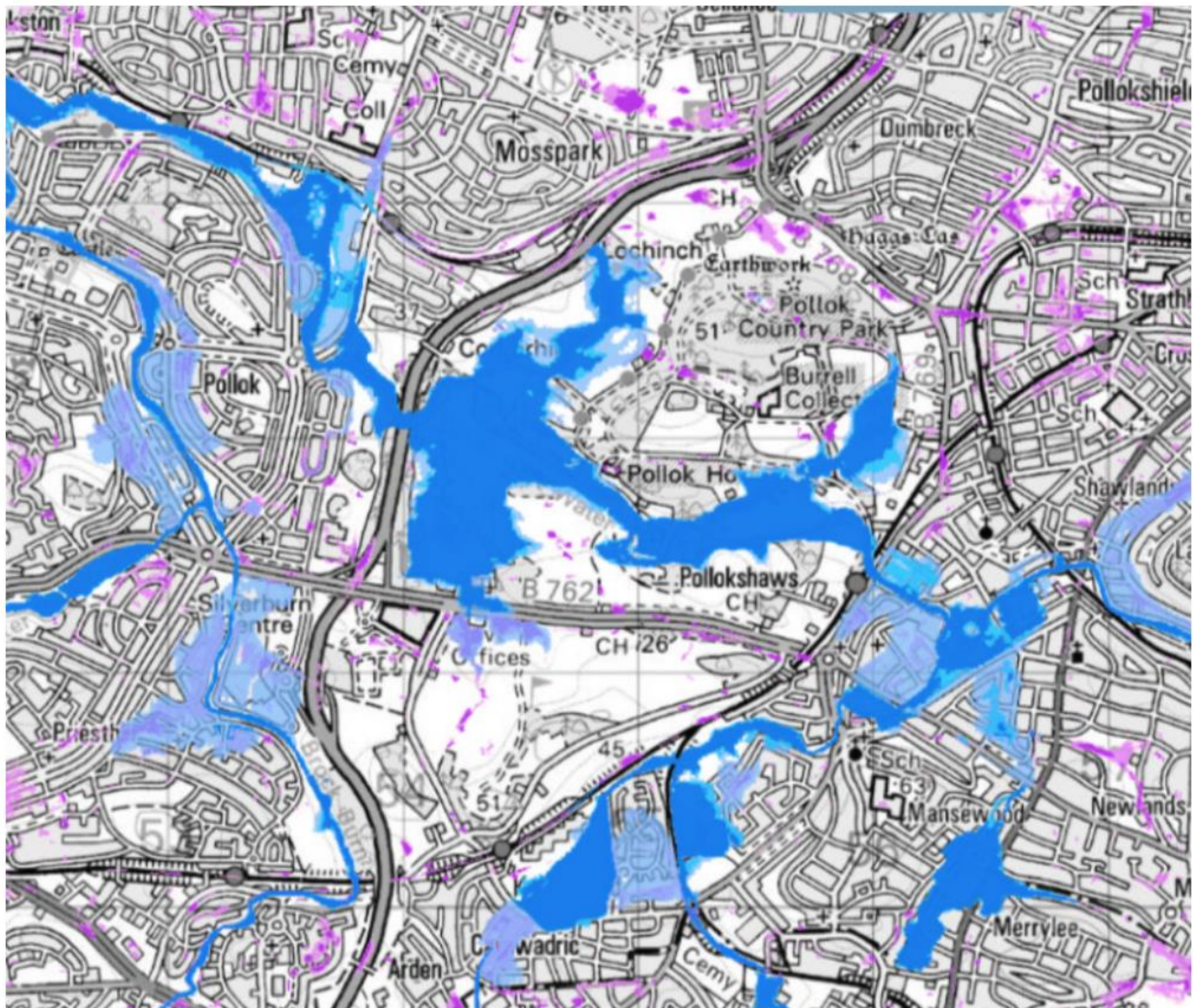












Areas that may flood - All Likelihoods

- River
  - High
  - Medium
  - Low
- Surface Water
  - High
  - Medium
  - Low



# Hydropower Revival at Pollok Sawmill

- Pollok House was built by the Maxwell Family in 1752.
- Sawmill probably originates from around 1860.
  - Originally an undershot waterwheel
  - 'Upgraded' with the installation of 'modern' turbines;
    - McCormicks Holyoke Turbine in 1888
    - Waverley turbine around 1930
- Later an Ewell-Parker dynamo installed to generate electricity to light the sawmill, the adjoining stables and of course the 'Big House'.





Map of 1909







## The Positives:



## The Issues:







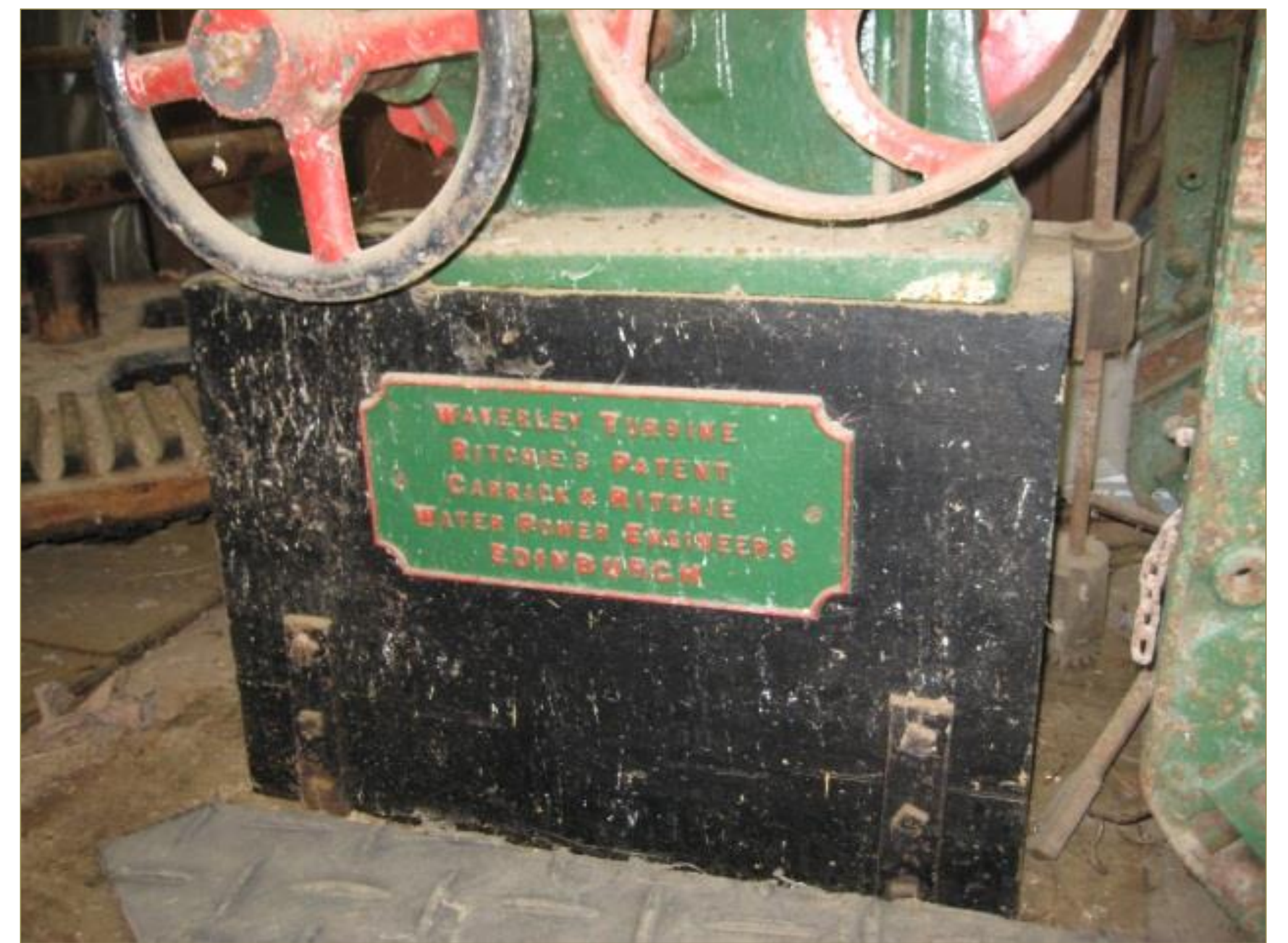








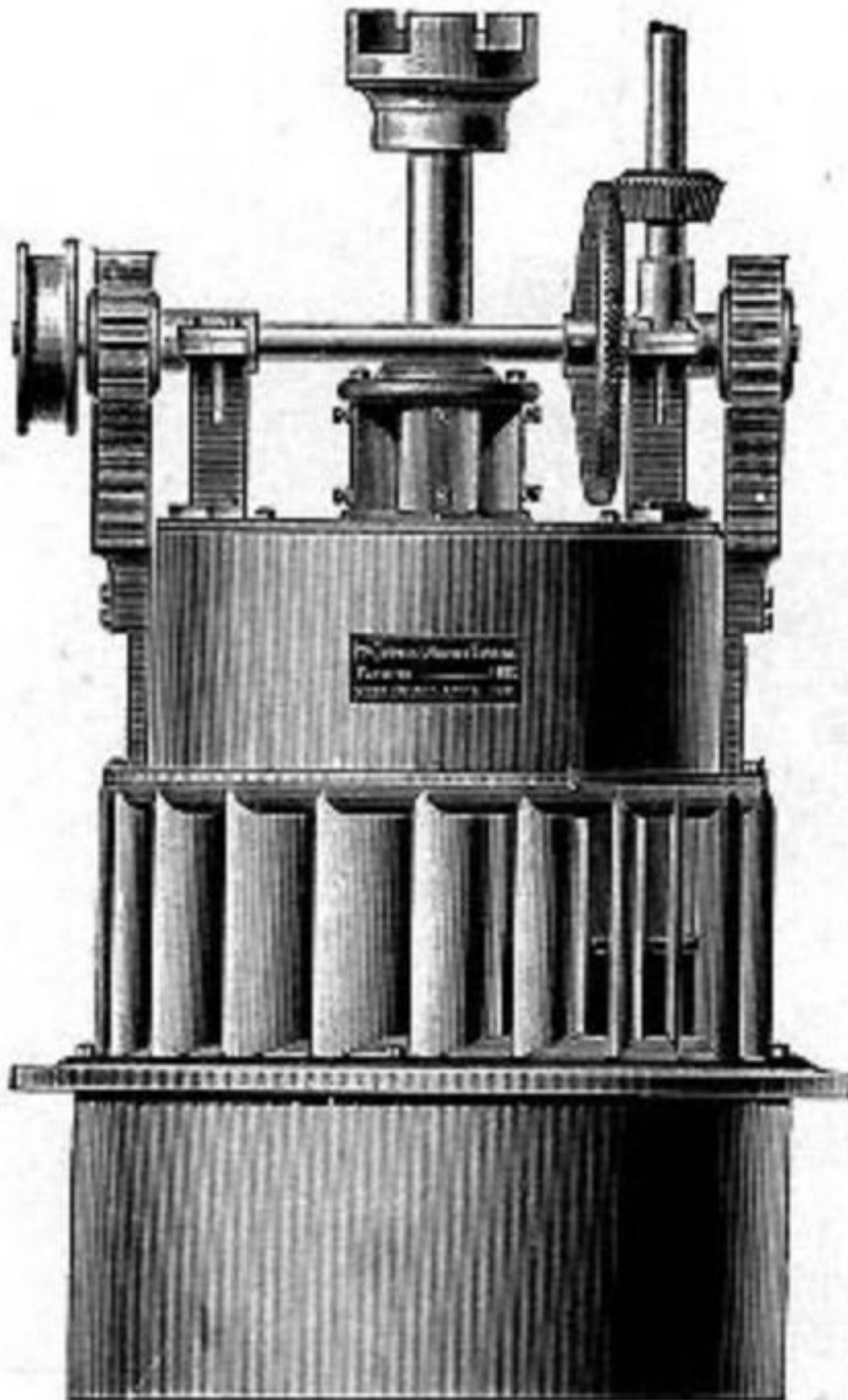




- 1890 Holyoke turbine manufactured by McCormicks of Massachusetts, USA.
- 1930 (probably) extension added with a Waverley turbine, manufactured in Edinburgh by Carrick and Ritchie.



# Holyoke Turbine installed 1888 to replace waterwheel



McCormick's Holyoke Turbine.



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*Thesis*  
*Efficiency Test*  
*of a*  
*33" M<sup>c</sup> Cormick L. H. Holyoke Turbine*  
*made at the*  
*Holyoke Testing Flume*

*A. E. Hatch*  
*May 15<sup>th</sup> 1891*







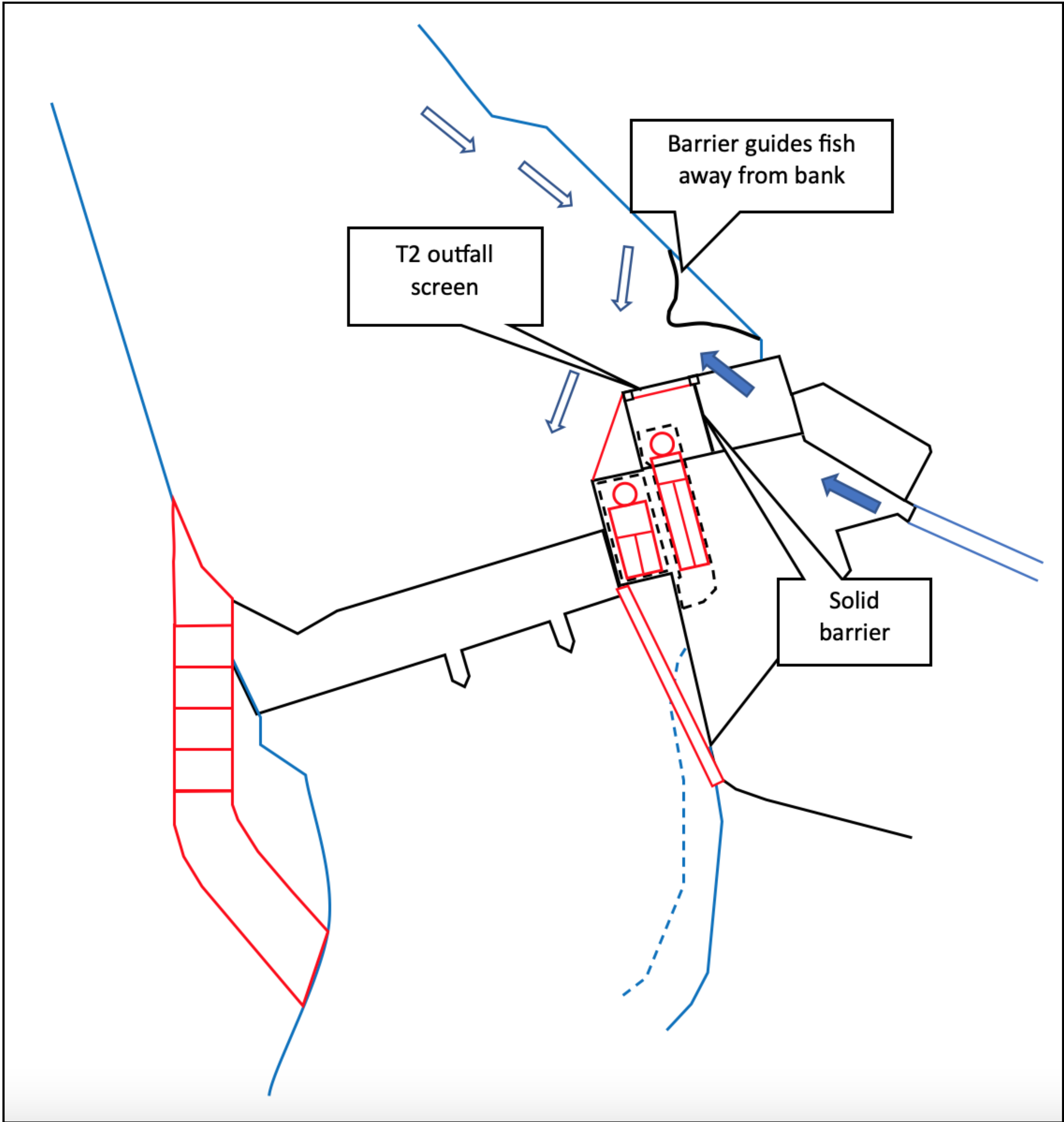




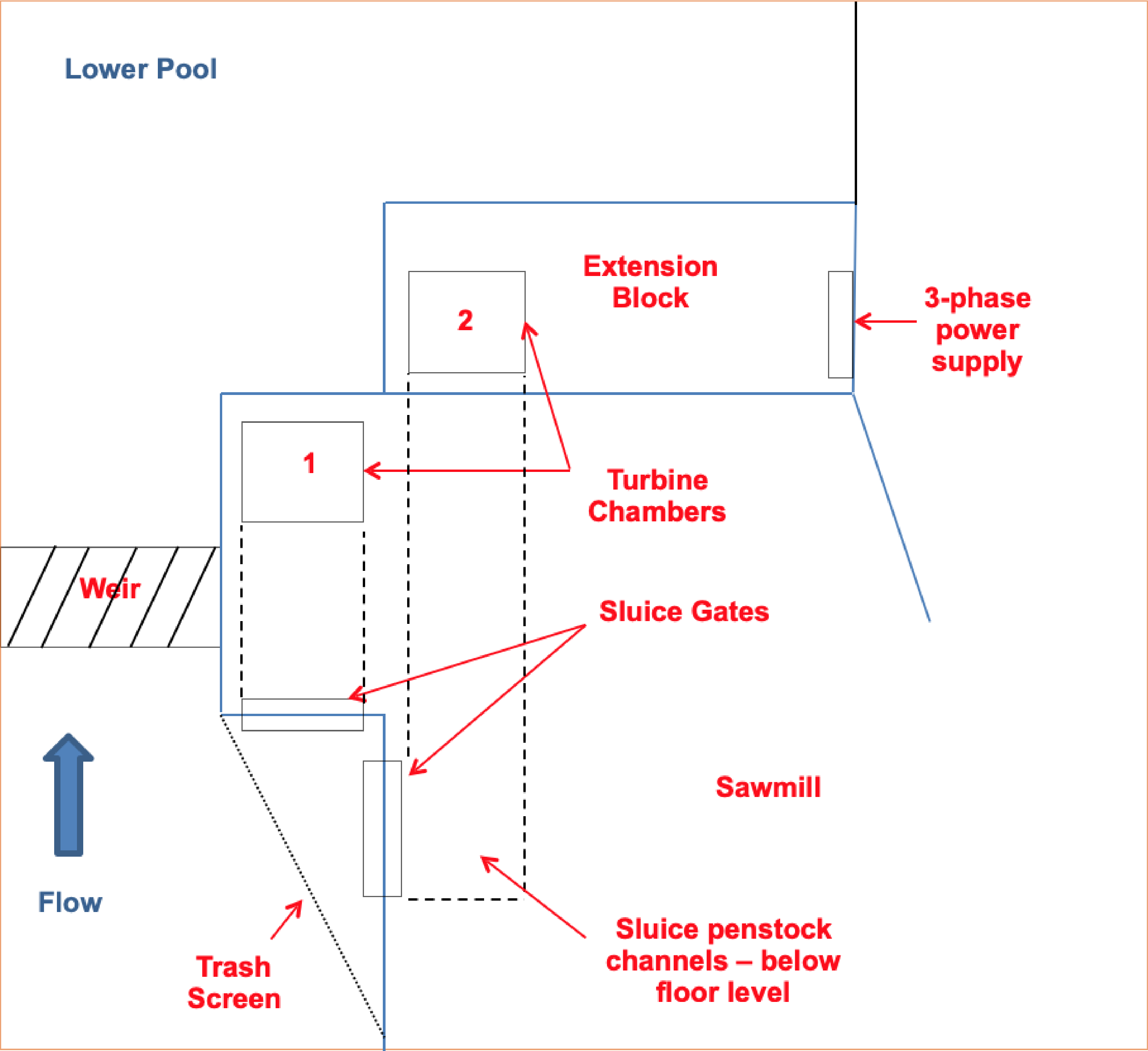
# Replacement Turbines being manufactured:



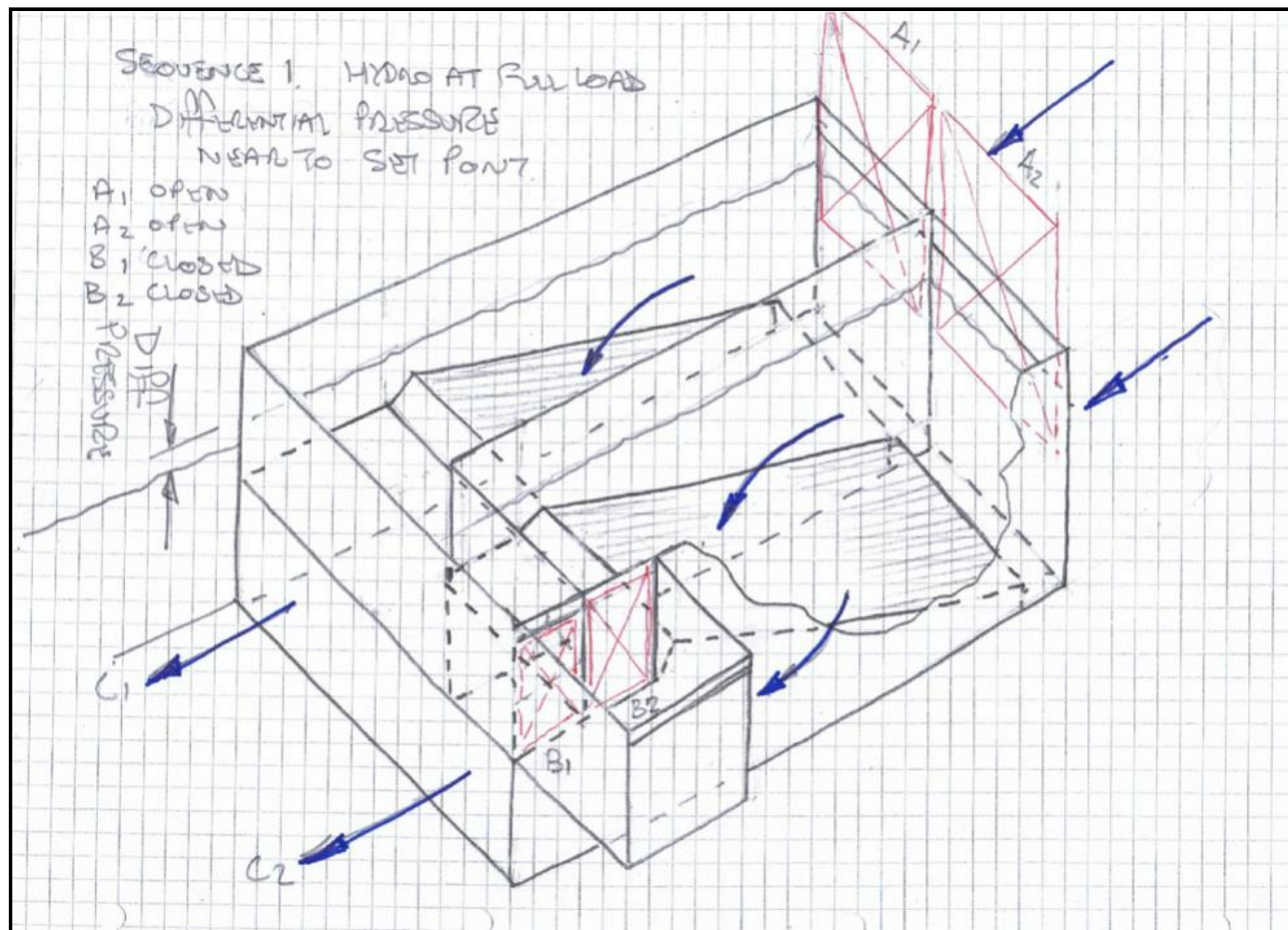




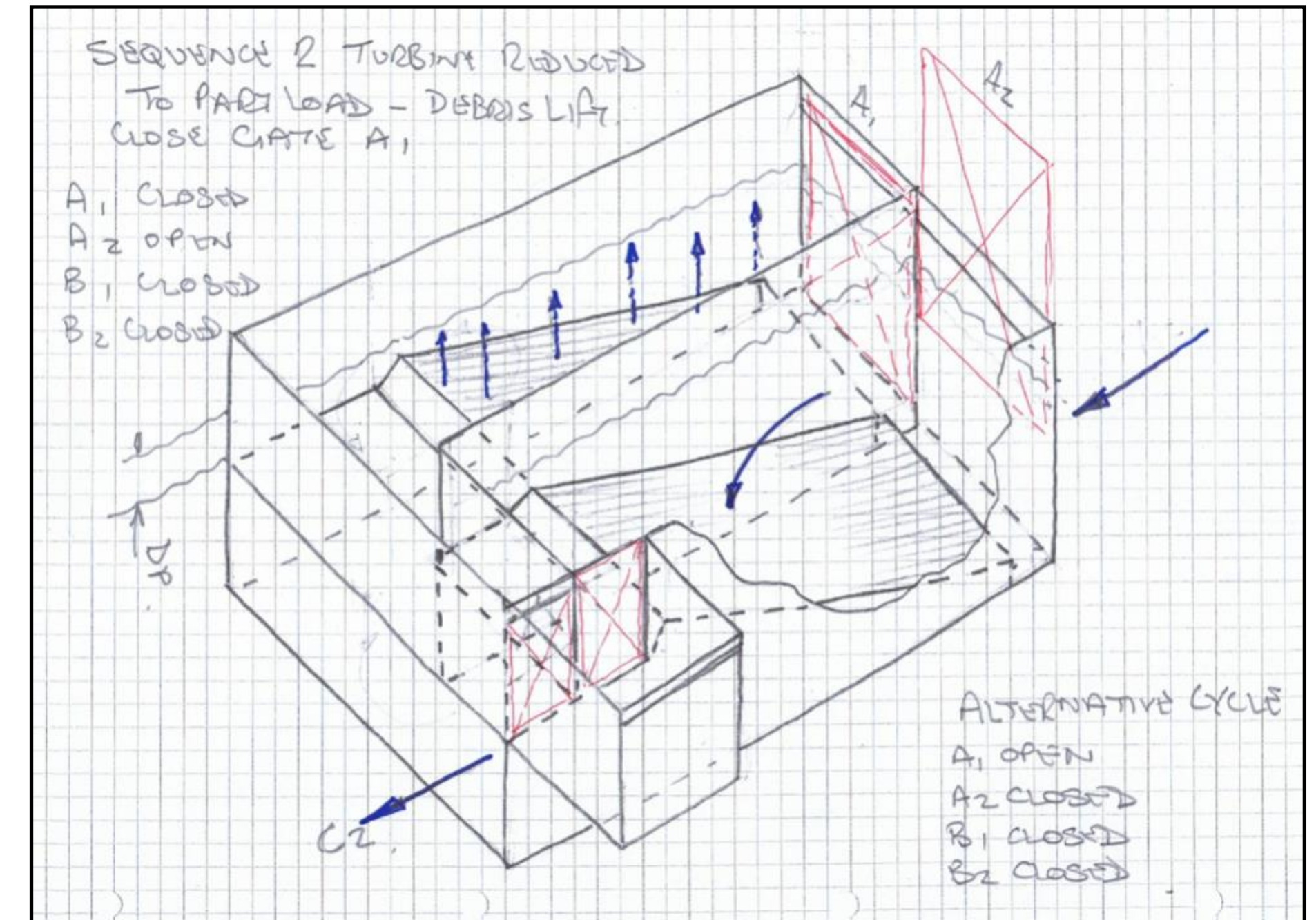






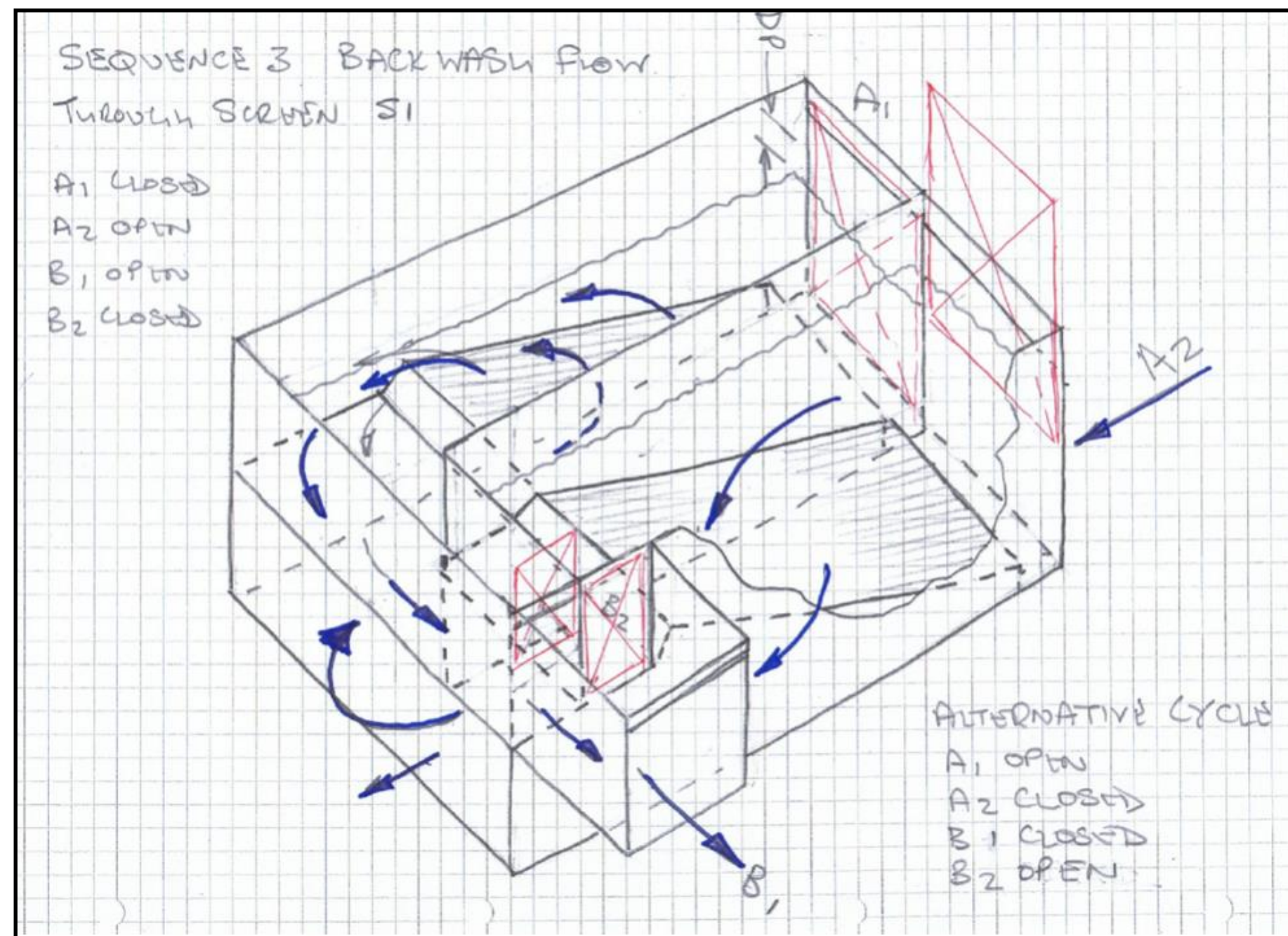


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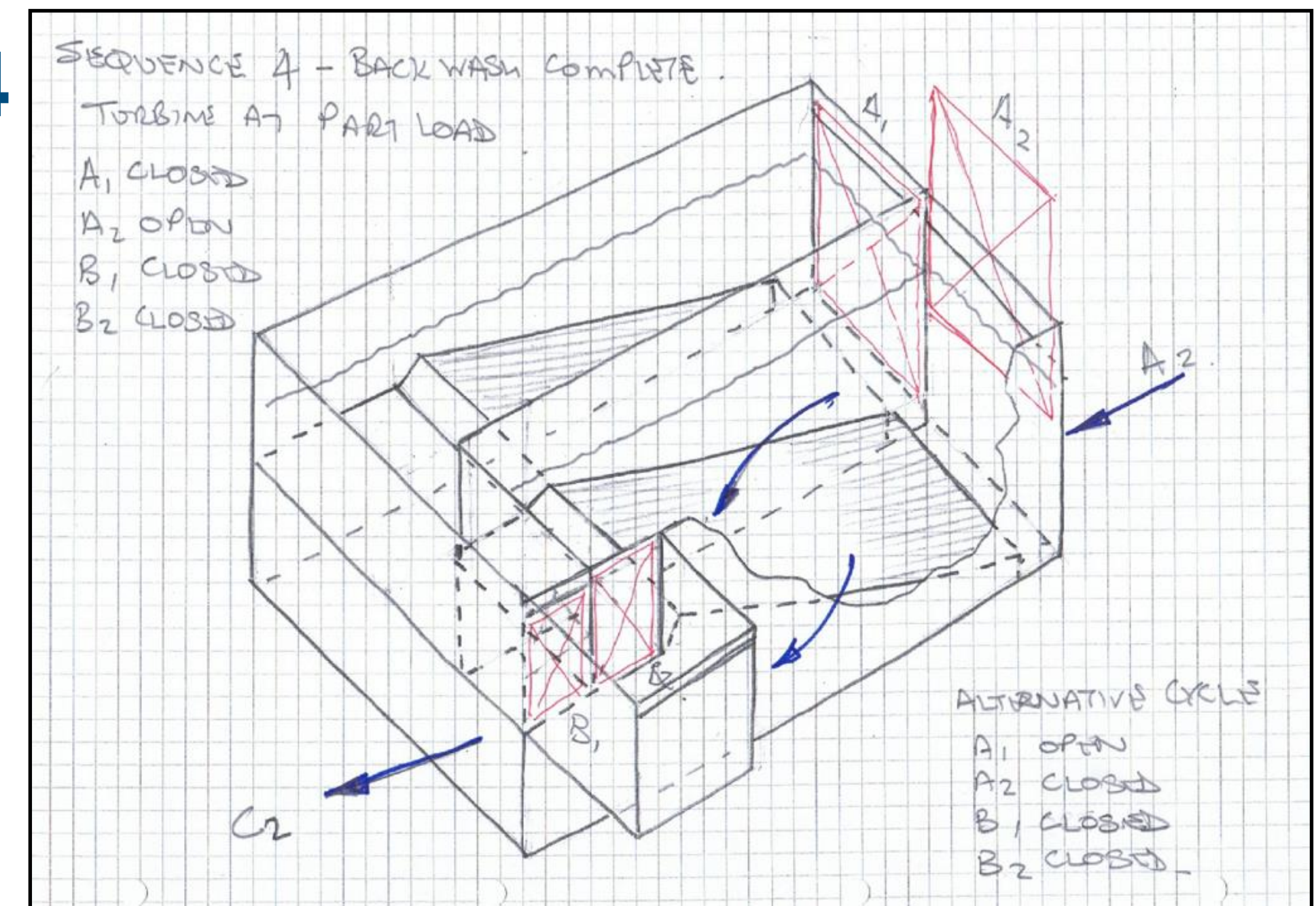


2

## Self Cleaning Backwash Screen



3



4

Designed by  
Ted Stowell of:

