

Summary of the Initial Feasibility Report

The report describes the analysis of hydropower potential for three scheme configurations carried out on behalf of Peter Tavy Community Hydropower (PTCH) by Hydromatch Consulting. The funding received through the Rural Community Energy Fund and administered by the Waste and Resources Action Program in order to carry out this work is gratefully acknowledged.

The analysis consisted of a site appraisal that initially took the form of a **desk-based resource and scoping study**. Flow modelling software, 'Low Flows 2' was used for flow characterisation based on the catchment model which was developed.

Site survey and discussions with local residents allowed the layout options to be refined, measurements taken and possible schemes layouts short-listed. Suitable hydropower systems were selected for each scheme and **energy generation predictions** made. This was carried out using hydropower modelling tools found at www.hydromatch.com. A first **draft budget** for each proposal was assembled to allow initial evaluation of cost-effectiveness and to decide which layout options warranted further investigation. A summary of the analysis is presented overleaf.

At the time of calculation, all three configurations appeared to present viable opportunity to generate worthwhile quantities of renewable energy and could form a community-owned project with potential to fund other local activities.

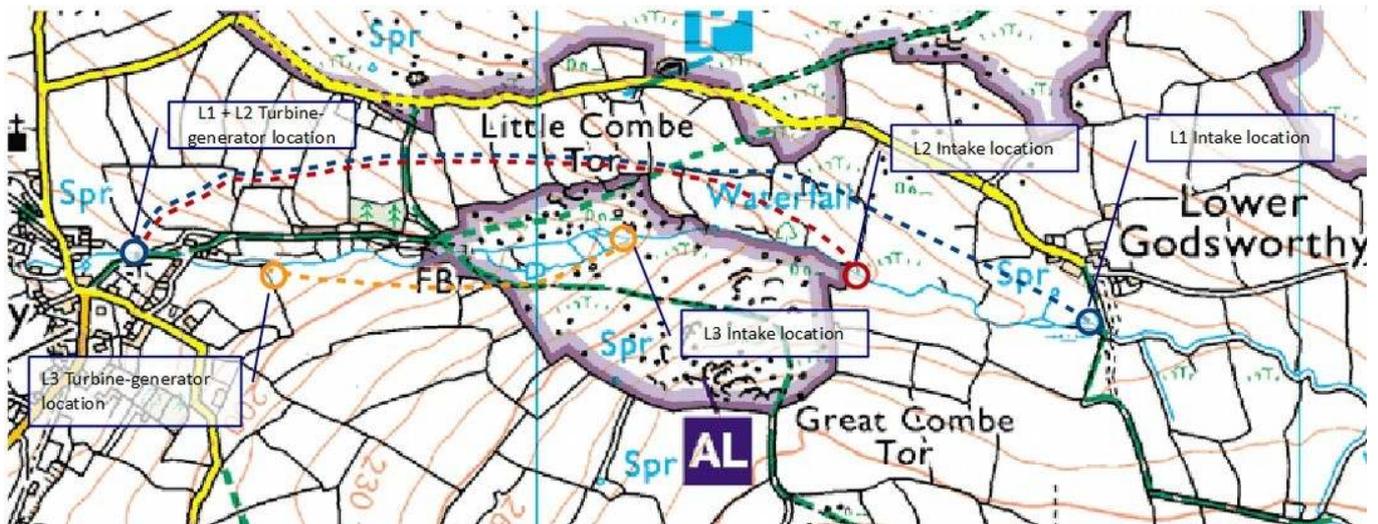
The analysis indicates that the scheme which can capture the highest head is likely to be the most cost-effective to implement. However this will require the **longest buried pipeline** and the feasibility of this aspect is likely to be the most crucial factor affecting the overall viability. Land owner consent is required and burial of the pipe may present **significant challenges** to avoid the large number of granite boulders.

Careful investigation of this route and a **strong local consensus** around the shape and scale of the project will be important. With sufficient local support, the challenges with obtaining planning and environment

permissions in the Dartmoor National Park should also be reduced.

The PTCH committee recommends moving ahead with the next phase of feasibility and consultation. Although there is considerable uncertainty regarding the future levels of support for renewable energy projects from the current UK Government, political, societal and technology changes may provide a more favorable environment. **We may not have such a good opportunity to conduct this study in the future.**

Diagram showing first options studied:



Option 1 starts at Lower Godsworthy and could generate an estimated 303,000KWh annually. Estimated cost of construction is £423,000. For Option 2, starting at the “middle” intake the estimates are 269,000KWh and £377,000 respectively. For Option 3 (Higher Mill leat intake) the estimates are 124,000KWh and £286,000

The full report of initial findings can be found at the PTCH website:
(<http://petertavyhydro.org.uk>)