Case Study - Bowden Mill

Domestic scale micro-hydro installation at historic mill site
• Existing mill in non-operational condition
• Salmonid river in National Park
• 7m of fall
• Very capable owner looking for assistance on technical side
• Feasibility study already completed by other firm
  • hydrological modelling
  • Costing
  • Design
• Owner wanted extra opinion on design and different layout
• WRE provided Flood Risk Assessment
• WRE negotiated EA licenses (Transfer license to simplify licensing)
• WRE and owner developed detailed design
• Agreed schedule & cost
• WRE Installed powerhouse equipment and screening
• Commissioning
• Powerhouse located downstream from original consultant’s plan
• Fish screening agreed at forebay with fish bywash
• New WRE automatic stainless steel screener used
• 100 l/s crossflow turbine
• Efficient flat belt drive
• Set out to WRE standard small crossflow layout
• 5.5kW G83 grid connection
• Completed on time and on budget
• Quiet operation
• Spacious powerhouse
• Re-use of existing historic system brings mill ‘back to life’