

## **16.viii Water Extraction**

### **Summary**

Ennerdale Water is a stunning natural asset in the valley. At two and a half miles long and just under one mile wide, it is a prominent feature in the landscape. The lake is designated a SSSI for its high biological value and characteristic flora & fauna typical of an oligotrophic (nutrient poor) lake. This includes a rare fish, the Arctic Charr, with a fragile population currently in decline<sup>1</sup>. The lake is reputed to have some of the cleanest water in the country, fed by the River Liza which flows the length of the valley. Records of human activity on the lake (extraction of water, raising water levels, fishing, transporting of raw materials) date back to the mid 1800s. Water extraction dates back to 1848<sup>2</sup> and the level of the lake has been raised on a number of occasions since, to meet increasing demands for water from West Cumbria. Recent declines in industry have significantly reduced demand.

United Utilities (formerly North West Water) now owns the lake and a new treatment works was built at Bleach Green in 1999<sup>3</sup>. Water levels fluctuate as a result of water extraction and there are several associated structures which detract from the landscape. Most notably is the several hundred metres of stone and concrete revetment along the lakeshore, along with structures around the outfall site and the fish pass. Ennerdale falls within the 'Quiet Lakes' area of Lake District National Park. Recreation on lake is limited to rowing, canoeing & angling (no sail craft or motor powered craft), managed through a permit system by United Utilities. Lakeshore walks are also popular with visitors. Water extraction is by far the most economically significant activity in the valley.

### **Actions (within the next 10 years)**

- Develop a greater understanding of the economic significance of maintaining the current high level of water quality
- Incorporate UU's AMP4 programme: compensation flow for the River Ehen & possible knock-on impacts on the lake, new fish pass to improve the area for migratory fish.
- Develop a short term plan (1 – 3 years) for lakeshore revetment repair or removal in high priority areas.
- Develop a long-term plan (3 – 10 years) for the lakeshore revetment with a view to creating a more natural lakeshore.
- Work with English Nature, Environment Agency and farmers to protect and improve habitat of becks and fish spawning grounds, particularly in relation to Arctic Charr.
- Remove or improve any other features which detract from the natural beauty of the lake and adjacent landscape as appropriate.

**Linked maps: G, L & Q**

**Linked photos: Plates 21 - 24**

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<sup>1</sup> Review & Assessment of Brown Trout and Arctic Charr stocks, Environment Agency, March 2005

<sup>2</sup> Lake then owned by the Dickinson family of Red How, Lamplugh

<sup>3</sup> Formerly the site of a bleach works, built 1866