

Scottish Water has put in a planning application for the upgrading of the water pipeline that runs the length of Glen Einich from the mouth of Loch Einich to the Black Park in Rothiemurchus. Examining the planning application, the Cairngorms Campaign, while accepting that the upgrading was necessary, felt that the aspects of the application as it stood were unsatisfactory and lodged the objection below.

Don McKee,  
Planning Manager,  
Cairngorms National Park,  
Albert Memorial Hall,  
Station Square,  
Ballater,  
Aberdeenshire AB35 5BQ

Dear Mr McKee

2005-03-26

***04/538/CP Planning Application at Glen Einich, Aviemore***

Thankyou for the opportunity to comment on this application.

The Cairngorms Campaign **Objects** to this application as it stands, on the following grounds.

- 1) ***It decouples the problem of meeting increased demand for water in Badenoch and Strathspey after about 2016 from that of the improving reliability of current supplies.***

Both these problems are acknowledged in para 1.1 of the summary report, stating:-

*“Concerns over the reliability of the water supply infrastructure in Glen Einich, now over 30 years old, coupled with actual supply failures and projected growth in demand, have prompted Scottish Water (formerly the North of Scotland Water Authority, NOSWA) to examine how existing supply arrangements can be improved and made more reliable.”*

Despite the rationale presented in the report, the logic of investing in upgrading the present supply prior to resolving the more strategic question of future supplies seems unjustified for the following reasons:-

- a) Major investment through this upgrading will inevitably weigh heavily in the scales when considering whether to attempt to meet demand from Loch Einich or consider alternatives. It should be noted that the original study to appraise alternative water sources for Badenoch and Strathspey (1) failed to meet its brief and identify best options. As meeting further demand from Loch Einich would

- almost certainly involved the building of a dam at the mouth of the loch, as proposed by Scottish Water on occasion, this would lead to a major environmental conflict. If it is not intended to go down the road to such a conflict within the National Park, now is the time to decline to start on that route.
- b) Loch Einich already demonstrates considerable problems in being used as a major water supply source, particularly in view of the destabilized weather patterns induced by climate change. The advantages of Loch Einich as a water source are well known. It is a “clean” source that requires little treatment, and its altitude permits the entire system to be supplied by gravity without expensive pumping. Its disadvantages remain unexamined. The capacity of a resource lies only partly in the reservoir water body. Most of the storage that evens out the fluctuations between periods of precipitation and dry periods is in the groundwater resources that feed the water body. In this respect, Loch Einich is almost certainly the most unreliable water supply in the Eastern Highlands. The sides of the Glen above the loch are steep, with thin soils or bare rock and the limits of its catchment are effectively the skyline as seen from the loch mouth, except for one peat bog at higher altitude. As a result the catchment’s groundwater resources are very limited and hence loch levels fluctuate strongly between wet and dry periods leading to repeated difficulties in ensuring a water supply.

The effects of this on water supplies are easily observed. Scottish Water at times builds temporary dams of sandbags across the mouth of the loch to aid storage. These are on occasion removed, we are reliably informed by an irate landowner, who finds inadequate water reaching his fish farm as the legally required compensation flow is prevented or reduced. On other occasions, pumps have to be flown in and water siphoned from the loch into the water supply as loch levels fall to the point where no water flows from the loch. Even the legality of these activities seems doubtful, but they emphasize disadvantages of Loch Einich as a water supply, any ideas of increasing water harvest from it, and the disadvantages of its continued use.

- c) It is not known how much water is being extracted from the loch and whether Scottish Water is working within the limits of the current water order, unless significant changes have already been made to the extraction arrangements at the loch mouth. This is an extraordinary omission by Scottish Water. Some visual evidence from photographs taken during the initial construction phase 30 years ago suggest that the rate of extraction may be considerably above the permitted level, and evidence from those who worked on this project indicates that leakage from the pipeline might be very considerable. There is also much but unmeasured amounts of extracted water released at the present break pressure control tank. For these reasons, and the scope for decreasing the high levels of leakage in the water distribution system, it remains uncertain whether there would be any need for increased water supplies after 2015.

The Cairngorms Campaign feels the wider and more strategic issues need to be resolved prior to committing considerable public funds to upgrading the present system. Also,

improvement of extraction arrangements at the loch mouth should precede upgrading of the pipeline, to establish how much water is being extracted, and whether any proposed measures there such as building a dam are likely to be acceptable in any circumstances.

***2) There is a complete lack of “fallback” procedures in the event of relining operations being unsuccessful.***

There is a presumption underlying the statements in the application that the relining technique will be practicable. We are aware that the specialist installers of this method are confident that it will be so. However, local people who worked on the initial installation of the pipeline made clear the origins of the present problem. Due to holdups of laying a pipeline in the upper glen through peat up to fourteen feet deep, laying of the pipeline in the rest was hurried and well below standard. Sealing rings between pipes knocked out of their seating and protruding into the pipeline were left there, forming potential obstructions. Points where the pipeline changed direction were not properly bolstered, permitting possible distortions of the pipeline when pressurized by water, etc. These problems, rather than the class of pipe used, have been the source of ruptures in the pipeline. There is thus significant uncertainty as to whether relining will work, and as to how extensive problems with it might be.

There seems to be no consideration in the EIA as to how such uncertainties at this and other levels will be dealt with. This aspect is considered in more detail in the attached paper written earlier when this project met organizational problems.

Lastly, there are alternative methods of pipe relining which might be more applicable in this situation and cause fewer environmental and other impacts, but these are not considered in the report.

***3) There is a need for clearer information as to how certain interventions and impacts will be handled.***

Examples include the intervention sites are the southern junction of the upper and lower tracks, where a difficult and potentially dangerous problem must be tackled, and the intervention site to the north of this where omission of contours from the map conceals the fact that this must take place on a steep slope, difficult to access, which creates apparently unresolved problems. Another example is the failure to identify the extensive tree lopping of overhead branches and other potential damage that will occur in order to permit vehicles and plant to proceed up the glen. This needs more clearly tackled in the EIA.

Further, the protocols described for minimizing damage to soils, plants and animals, do not seem finely enough tuned to the diversity of habitats etc that will be encountered at various intervention sites.

***4) The role of the environmental manager is inadequate and that person’s efforts misdirected.***

The role of the environmental manager in ensuring that environmental damage is minimized will be critical in this project if it is given planning permission. The recent incident in which construction engineers working for Scottish Water on the Island of Arran dug through a protected saltmarsh without supervision demonstrates this clearly. However, the list of duties ascribed to the environmental manager is largely that of public relations which are nothing to do with environmental management. It provides a “last resort” power to halt operations not being done to protocols, but the most important duty of the environmental manager is to be on site and guide operations –otherwise how is that person even to know that operations are disregarding protocols? This should be remedied!

I am happy to discuss any of the points raised in this submission and Campaign representatives would like to attend any site visit arranged.

Yours sincerely,

R Drennan Watson (Convenor, Cairngorms Campaign)

Reference:-

(1) Cuthbertson Maunsell Limited (July 1998) *Strathspey & Badenoch Water Supply – Source Options – Summary of Engineering Options*