

## **16. UPPER DERWENT VALLEY RESERVOIR EXPANSION (BJT)**

### **1. Purpose of the report**

For members to consider the position of the Authority in respect to options proposed by Severn Trent Water (STW) to increase the supply of water in the Upper Derwent Valley

#### **Key Issues**

- **The impact of the options on National Park purposes**

### **2. Recommendations**

- 1. That members support a holding objection to the Upper Derwent reservoir expansion plans from the National Park Authority**

#### **How does this contribute to our policies and legal obligations?**

3. The potential impact of reservoir expansion in the Upper Derwent Valley represents a massive impact on both statutory purposes of the National Park and its duty to seek to foster social and economic well-being.
4. All of the options currently being explored create the potential for massive loss to our varied landscapes, (including natural and cultural capital) as well as the opportunities to understand and enjoy of the special qualities within the areas concerned. The Upper Derwent is one of most popular visitor destinations within easy access for millions in nearby urban areas.
5. While the Authority must respect the public interest case at the heart of these options and the reasons for expanding our national water capacity, we must be absolutely clear on the justification for landscape loss at this scale and the legal and policy principles intended for the long-term protection of our most valued landscapes and the opportunities these afford for outdoor recreation, nature recovery and connection with nature and heritage by the public.
6. As such National Park purposes (as set out in the Environment Act 1995) must be at the core of the Authority's position as we move through the options stages. In addition, we must also ensure that section 62 of the Environment Act is also strongly promoted, namely the need to ensure that any public bodies also demonstrate how they have had regard to these purposes in undertaking their work.
7. Moreover, we should also consider the National Policy presumption that major development should not take place in a National Park unless exceptional circumstances exist. It is essential that a strong understanding and demonstration of the major development tests takes place to the satisfaction of the National Park Authority.
8. Whilst a matter which would ultimately be dealt with as a major infrastructure project and not determined by the National Park Authority, the Authority still has a vital role in promoting and upholding these principles including the steer set down in its own adopted planning policies which guide development with principles and criterion for landscape character, heritage and wildlife and with detail of our many and special designations set out in our policy maps.

9. Alongside this legal and policy context the Authority has recently adopted its National Park Management Plan, working with committed partners to further a range of high level Aims and Objectives, including for climate change, nature recovery, welcoming places and thriving communities. We need to ensure that these important and ambitious aims are not significantly undermined by the options being presented.

**Background Information made available to date**

10. The Upper Derwent Valley comprises three cascading reservoirs built between 1902 – 1916 and 1935 – 1945.
11. Reservoir heights range from 36.4m to 46m with combined storage of 46,260 MI.
12. Howden & Derwent supply raw water by gravity to STW Bamford Water Treatment Works (WTW) and an export to Yorkshire Water Rivelin Water Treatment Works.
13. Ladybower is pumped to Bamford WTW and provides compensation flows to the River Derwent, a tributary of the River Trent. In recent years there has been insufficient storage to maintain Bamford and Rivelin WTWs output at all times. During dry periods, abstraction has to be reduced.
14. Bamford WTW is one of STWs lowest carbon, lowest operating expenditure sources of water which is transferred by gravity through the Derwent Valley Aqueduct.
15. The National Water Regulators indicate that the risk of a severe drought is significant and growing (1:4 chance by 2050). Access to water is limited now in catchments where need is greatest. The country has been experiencing severe challenges in recovering from prolonged dry weather since 2016 including times of drought and heatwave.
16. It is anticipated that there will be a supply deficit equivalent to 9 million people by 2030.
17. OFWAT has released significant funding to allow all water companies to investigate and develop strategic water resource solutions that benefit customers, protect and enhance the environment and benefit wider society.
18. RAPID is the Regulator’s Alliance for Progressing Infrastructure Development and includes OFWAT, Environment Agency, Natural England and the Drinking Water Inspectorate.
19. The approach to considering the need for improved water capacity and infrastructure is governed by RAPID. RAPID was formed to deliver the gated process and to fund the appraisal of strategic solutions. At each gate RAPID assess the quality of the submissions, efficiency of expenditure, and their suitability for progression.
20. In June 2022 officers of the National Park Authority were first introduced to the strategic context and early thinking on options for the Upper Derwent Valley Reservoir Expansion. A presentation was delivered by officers from Severn Trent Water to explain the context to this issue. This event explained the gated process and that the scheme was at the Gate 1 on developing the feasibility of early options.
21. Following this meeting officers set out in writing the need for clear justification of the scheme. See full letter at Appendix 1.

22. In December 2022 a survey was circulated by STW into the potential for the scheme to realise a package of benefits and sought views from stakeholders on these. A response was made from the National Park Authority to say that officers had considered the survey but determined that it would be premature to give a view on the potential benefits of a Reservoir Expansion scheme in the Upper Derwent Valley at that time.
23. Officers reminded STW of the significant questions regarding the justification for identifying this location in a protected landscape and to consider the scope for alternatives at a national scale before resorting to options that would cause harmful and large-scale loss of landscape. As things stand all of the options cause significant concern in landscape, wildlife and heritage terms, matters that are at the core of our purposes as a National Park, as well as the opportunities that are afforded to the public to enjoy these special qualities.
24. STW were informed that officers would be discussing our position and would consider the timeframe for seeking a formal view from the full Authority in due course.

### **Proposals**

25. **Options set out at the early stage were as follows:**
  - Raise Ladybower Dam: Would allow additional releases to River Derwent to support downstream abstractions
  - Raise Derwent Dam: Options limited unless we divert Ashop gravity inflows to Ladybower Reservoir
  - Raise Howden Dam: Various options to raise height being considered. Could deliver significant additional storage levels e.g. 7.5m raising would maintain YW export and increase STW Deployable Output by 80 Ml/d
  - New reservoir: All potential sites within Upper Derwent Valley to be investigated. New dam requirement providing significant additional storage
  - Stop Yorkshire Water Export: Maintains Bamford WTW output for longer periods. But, causes a notable problem for Yorkshire Water

### **26. Officer Comments on Options**

27. At this stage each of principle reservoir options gives rise to significant concerns in terms of:
  - landscape loss (impacts to valued scenic beauty and high-level designations)
  - Impact to cultural heritage, including designated heritage assets of national significance, and cultural experiences e.g. through intellectual access (interpretation, stories, media etc)
  - loss of habitat (internationally important designations covering flora and fauna)
  - loss of functioning habitat and planned areas or restoration (e.g. moorland areas for improvement of carbon storage and water quality).
  - loss of access related infrastructure (paths, car parks, road ways), that would potentially require replacement and further impact to new landscape areas.

28. The potential for large scale loss and negative impact to both statutory purposes of the National Park means that the Authority should continue to engage closely and cautiously with this process. Any of these works are likely to represent major development of the National Park. It is a longstanding principle that major development should not take place in National Parks unless exceptional circumstances apply and that the tests surrounding such developments are met. In particular is the need to explore and demonstrate alternatives that do not involve significant harm to the National Park. It is vital that any justification for the scheme spells out the options explored for avoiding such harm, and not only those within the National Park.
29. Despite the fact that these developments would not progress to the National Park Authority as a planning application it is incumbent upon the Authority to uphold and promote National Park purposes and to ensure that other public bodies have demonstrated how they have also taken National Park purposes into account in undertaking their work. This alludes to Section 62 of the Environment Act 1995.
30. So far, despite the high-level questions set out in summer 2022 officers have not been satisfied that the strategic tests including other alternatives that could be available outside the National Park have been adequately demonstrated. There is significant concern regarding the scope for further large-scale infrastructure development leading to further landscape loss in area that has already been flooded with the historic loss of landscape and villages in this area.
31. Moreover, in pursuing the statutory purposes of designation as a National Park the Authority also has a duty to have regard to the social and economic well-being of the Park's communities. Officers are aware of a number of properties and landowners that form part of the Derwent and Hope Woodlands Parish that could be significantly affected by the options set out.
32. For the reasons set out above officers consider that the Authority should respond at this early stage with a holding objection to ensure a proper justification case is submitted with clear reasons why alternative approaches cannot be taken.

**Are there any corporate implications members should be concerned about?**

**Financial:**

33. Officer resources to ensure appropriate connection with the options and RAPID gateways as the move forward. It is proposed to engage our Strategic Planning Manager with other specialist officer input as we move forward through the gateway process

**Risk Management:**

34. The issue has been added to the corporate risk register

**Sustainability:**

35. It is important for the Authority to stress the need for sustainability in all options including the contribution to sustainability of the no change option, owing to value of the area e.g. for nature, health and culture that already exists.

**Equality:**

36. Ensuring the great opportunities for access to all are not lost through the development of the options.

**37. Climate Change**

1. How does this decision contribute to the Authority's role in climate change set out in the UK Government Vision and Circular for National Parks?

- a. Educators in climate change
  - b. Exemplars of sustainability
  - c. Protecting the National Park
  - d. Leading the way in sustainable land management
  - e. Exemplars in renewable energy
  - f. Working with communities
2. How does this decision contribute to the Authority meeting its carbon net zero target?
  3. How does this decision contribute to the National Park meeting carbon net zero by 2050?
  4. Are there any other Climate Change related issues that are relevant to this decision that should be brought to the attention of Members?

The Authority should be conscious of the role of adjoining landscapes of the Upper Derwent play in our commitment to the improvement of water, flow and quality and of carbon retention. More information would be required on the potential impacts to these functional eco-systems before future decisions on strategic reservoir options can be taken.

**38. Background papers (not previously published)**

Presentation given to officers  
FAQ's from STW

**39. Appendices**

Appendix 1 - Letter of response at Gateway 1

**Report Author, Job Title and Publication Date**

Brian Taylor, Head of Planning, 10 May 2023