LAKE DISTRICT NATIONAL PARK AUTHORITY

DEVELOPMENT CONTROL COMMITTEE – WEDNESDAY 1 JULY 2009

REPORT BY THE HEAD OF DEVELOPMENT MANAGEMENT

PLANNING APPLICATIONS

COPELAND BOROUGH COUNCIL (WHITE SHEETS)
Application no: 7/2009/4025
Applicant: Mr M Cropper
Date of Application: 23 January 2009
Type of Application: Full

Location: Beck Foot Farm, Duddon Bridge, Broughton-in-Furness, LA20 6EU
Grid Reference: 318591 490233  See Plan
Proposal: Construction and operation of a small hydro electric scheme on Logan Gill comprising intake weir, burled or over ground pipeline, traditional building housing turbine and ancillaries and tailrace

District Council:  
Parish Council:  
Highway Authority: No objection

RECOMMENDATION: Head of Development Management will report

REPORT:

1 BACKGROUND AND PROPOSAL

1.1 I am reporting this application to Committee as a Member has requested that it be considered by Committee as a result of the interest expressed by Members in the hydro schemes at Longsleddale which committee considered earlier this year.

1.2 The application site is referred to at Beck Foot Farm and the beck from which the water would be taken and a new weir constructed is known as Logan Beck. Logan Beck is a tributary of the River Duddon and located 1.7km north of Duddon Bridge and 3km North West of Broughton in Furness. The application site extends from a point south of the unsurfaced road that runs from Beckstones to Firth Hall near Logan Beck Bridge to a point 120m upstream from the confluence of Logan Beck and the River Duddon. The application site involves works through a Cumbria Wildlife Site (Walk Mill Cottage Moss), and Duddon Valley Woodlands Site of Special Scientific Interest (SSSI). The site passes through many different habitats. The River Duddon flows into the Duddon Estuary Special Protection Area (SPA) and Morecombe Bay Special Area of Conservation (SAC) downstream of the works. Several surveys have been undertaken including an Ecological Impact Assessment including a Phase I habitat survey, a protected species survey, a Bryophyte survey, and a fisheries survey which consider the impact of the development on various habitats, protected species and wildlife designated sites and the results submitted as part of the application.
1.3 A public footpath (FP 427006) runs across part of the route of the penstock (pipeline) and another public footpath runs adjacent to the proposed turbine building. That path is not the definitive route but one used by the public. The upper part of the works is within open access land.

1.4 There is a residential property Walk Mill Cottage close to the proposed compound area near Logan Beck Bridge. This property is not related to the works being undertaken. There are also 6 properties which take their water supply from the beck downstream of the new weir and abstraction point which are located downstream in the region of the new turbine building but not adjacent to it and largely out of sight of it. None of these properties are related to the proposed works.

1.5 It is proposed to install a micro hydro-electric scheme. The applicant advises that the scheme would have an installed capacity of about 450 kw which is projected up to 1330 MWh of renewable electricity per year, which is equivalent to the consumption of 280 average homes per year, saving 1290 tonnes/year of CO2 emissions from UK coal fired power stations.

1.6 The proposed development includes the following elements:

- A concrete intake structure across Logan Beck. A fine gauge screen mounted on the downstream face of the intake (known as a Coanda screen) would enable water to flow into a pipeline. The screen would prevent anything larger than 1mm entering the pipeline.

- A 1050m length of plastic pipeline with an outside diameter of 630mm running from the intake on the northern bank of the beck buried at the lower and upper ends but above ground through woodland where it would be camouflaged as much as possible down to the new powerhouse

- A turbine enclosure to house the turbine, generator and control panel and transformer. This would be a stone and slate building located close to the fence adjacent to the public right of way.

- A tailrace pipe 120m back to the beck to discharge downstream of the bridge.

- A buried electrical cable from the turbine enclosure to a nearby transformer pole.

1.7 Amendments to the scheme have been submitted which address concerns regarding access and site compounds within the Cumbria Wildlife Site which include removing two of the site compounds to remove on site storage in sensitive areas and use of Bog Mats for the access route. All other matters are the same.

2 CONSULTATIONS & REPRESENTATIONS

2.1 The Environment Agency has advised:

- That land drainage consent would be required from themselves.
• An abstraction and impoundment licence has been applied for and will be granted which controls the quantity of water that can be taken out of the beck. The EA confirm that the licence is to be issued at the time of writing this report - in granting this the Environment Agency has to take account of the right of existing householders to continue receiving water from the beck which is their only water supply. By granting the abstraction licence they are satisfied that there will be no loss of quantity or continuity of water supply for the local residents.

• The proposal has potential to affect the Duddon Valley Woodlands SSSI and they have been in consultation with Natural England on this (see comments from Natural England).

• All works must comply with the Salmon and Freshwater Fisheries Act

• A permanent "Denil Type" fish pass is required within the impoundment.

• They would recommend re-routing of the access outside of the Cumbria Wildlife Site and use of Bog Mats.

• Regarding the risk of pollution to the watercourse during construction the applicant is advised to view the relevant Pollution Prevention guidelines PPG1 and PPG5 on the Agency website.

Unfortunately the Environment Agency has not been able to provide any comment or surety on the long term protection of the quality of the water supply for the local residents and indicate they are unable to do so.

2.2 Copeland Borough Council Environmental Health - They have been consulted on the issue of water quality for the homes and their views are awaited

2.3 Natural England have been consulted. They have raised no objection to the impact of the development on the Duddon Estuary SPA, or Morecambe Bay SAC or Duddon Valley Woodlands SSSI or impact on protected species. They initially raised concerns regarding the impact on the Cumbria Wildlife Site and the applicant has amended the proposal by removing two site compounds in this sensitive area and use of Bog Mats. Natural England has now removed their objection.

2.4 Our Rights of Way Advisors have indicated no objection but have commented on the need to keep the footpath and open access land clear at all times, ensure the safety of users and need to have specific details of the works to the footpath surface in accordance with our working guidelines.

2.5 Our Ecologists have no objections but require conditions relating to detail of the route of the penstock and monitoring and restoration of any disturbed areas.

2.6 One letter of representation has been received from a local resident. The neighbour has requested that his letter is not summarised or précised due to the technical nature of his comments however given the length of the letter
2.5 pages long is it considered appropriate to summarize the comments as follows:

- We note the effects the scheme would have on the SSSI and ecology, but there is scant analysis on the likely effect on the quality of water for human consumption and there is a need for a thorough and impartial assessment of the likely impact on our water supply both during construction and thereafter.
- Calculation of residual flow - we have protected rights for abstraction and the Environment Agency indicate they cannot normally issue a new licence to someone else that would reduce your ability to abstract.
- Additional mean flow - the mean flow quoted is misleading.
- Logan Beck Flow rates - the flow conditions are purely an estimate based on low flow model. We cannot believe there is sufficient flow to support a 630mm penstock and a good residual flow.
- Effect of low residual flow on water quality - There will be no natural cleaning/flushing of the beck by the force of the natural variation in beck flow except on occasions when flow exceeds the maximum requirement of the penstock. This will lead to a much poorer domestic water quality.
- Water run off into the beck - concerns that water, ground or rain, will be affected by the earthworks along the penstock route and it will be muddy and affect our water supply.
- Silt and mucky water - mucky water cannot be accepted and an intake filter will not be totally effective.
- Water impoundment - Concerns that the new pool will attract livestock which could urinate or defecate into the water supply.
- If the scheme goes ahead and our water quality is reduced we will have no back up.
- If there are problems with the water supply the developer should provide us with an alternative supply.
- We are very sympathetic to green energy schemes but not at the expense of domestic water supply.

A copy of the neighbour's letter was forwarded to the Environment Agency for their assessment and they would consider the issues raised as part of their response.

3 POLICY AND ASSESSMENT

3.1 There is a range of policies of relevance to a development of this type, ranging from broad strategic objectives to more detailed considerations:

North West of England Plan Regional Spatial Strategy to 2021:

- EM17: Renewable energy
- EM1: Integrated Enhancement and Protection of the Region's Environmental Assets
- DP1: Spatial Principles; Sustainable communities
- DP7: Promote Environmental Quality
- DP9: Reduce emissions and adapt to climate change
Cumbria and Lake District National Park Joint Structure Plan extended policies:

- R45 Renewable Energy

Lake District National Park Local Plan saved policies:

- RE4: Small scale hydro-electric schemes
- NE1: Development In the open countryside
- BE1: Roof and Wall Materials

3.2 We recognise the potential and opportunity for appropriate renewable energy development in the National Park. The Low-carbon Lake District: Responding to climate change in the Lake District National Park publication recognises the importance of renewable energy and the potential within the National Park. There is a heritage of hydro power in the region, providing an opportunity to utilize a locally distinctive resource. The thrust of policy, from strategic objectives in relation to emissions and energy in the Regional Spatial Strategy, through the Structure Plan providing a positive context for sensitive renewable energy developments, to the specifics of Local Plan policy, there is positive support for this type of development. The most relevant Policy is RE4 which states that favourable consideration will be given to small scale hydro-electric schemes where various criteria are satisfied and subject to appropriate environmental safeguards. The following assessment recognises this position and seeks to address the potential impacts.

3.3 It is appropriate to set out the criteria for considering small scale hydro-electric schemes as stated in Policy RE4 of the Local Plan. That policy indicates small scale hydro-electric schemes will be favourably considered where all the following criteria are satisfied:

(a) there would be no harm to the character and appearance of the landform, river profile and landscape resulting from engineering works, access requirements, the erection of a turbine house or other ancillary buildings or works:

(b) there would be no adverse impacts on the nature conservation interests or cultural heritage;

(c) where possible an existing redundant building would be used to house machinery and equipment;

(d) cables to, and power lines from, the turbine house would be placed underground;

(e) the flow of water would be sufficient at all times to ensure that the supply to the turbine would not result in an inadequate flow of water in any stream which would reduce its visual attractiveness or its ecological value; and

(f) landscaping and reinstatement measures are proposed and can be secured through the imposition of planning conditions or through a planning obligation secured by agreement.
Policy considerations

3.4 I have set out relevant considerations against each of these criteria in turn.

(a) there would be no harm to the character and appearance of the landform, river profile and landscape resulting from engineering works, access requirements, the erection of a turbine house or other ancillary buildings or works:

3.5 The development required is of a reasonable scale both in terms of the size of the intake, the length of the penstock, creation of a pond and size of turbine building which incorporates room for a transformer. The location of the temporary compounds at the top of the site and bottom of the site will be visible from public viewpoints but these are temporary disturbances which will have only a short term impact on the landscape. The pipe would be buried in the most exposed locations at the top and bottom of the site and therefore in these more exposed areas would not have a detrimental impact on the landscape. The pipeline through the woodland would be overground due to the desire not to disturb tree roots but would be visually camouflaged. The pipe is black polyethylene and flexible and there would be anchorage at intervals and can be covered by a geotextile or similar covering to encourage moss or lichen growth. There is no public right of way or access through the woodland and the route would not be visible from outside the site and therefore no impact on long distant views. Within the woodland there would be some visual impact both from the pipeline and the disturbance to the working area around the pipeline until the camouflage of the geo textile material became effective. This impact would be localised and not long term. The new pond created would have little impact on the landscape as a whole as the site has limited long distance views and the new weir has limited public views.

3.6 The power house structure would look like a traditional field barn with the only difference being the louvers openings in the top gable ends of the building. It is larger than some turbine buildings as it incorporates room for the transformer to connect into the mains rather than have a free standing structure. It would not have any detrimental impact on the landscape. The location of the structure in landscape terms close to the field boundary would not be congruous or out of place in this valley.

3.7 Aside from the temporary disruption to the landscape during construction of the scheme, the long term impact on the landscape would be negligible.

(b) there would be no adverse impacts on the nature conservation interests or cultural heritage:

3.8 The applicant has provided detailed and comprehensive ecological surveys, method statements and environment management plans for the proposal. Natural England has made comments on the scheme and have removed their initial objection regarding harm to the Cumbria Wildlife Site as a result of the amended details. The works could result in some disturbance to the vegetation and surface of the Cumbria Wildlife Site where the compound and access is to
be made and some damage to the area outside the Cumbria Wildlife site. Restoration and monitoring of the restoration works would be required for sections of the site so disturbed but the impacts are not considered to be such as to warrant a refusal of the development. There are no objections from Environment Agency Fisheries section or our Ecologists over the principle and broad detail of the proposal. If approval were granted then conditions would be required in relation to some of the detailed work and restoration of the site and mitigation work for the pipeline and compound and access areas. There would be no adverse impacts on the nature conservation interests. There are no cultural heritage issues involved with this site.

(c) where possible an existing redundant building would be used to house machinery and equipment:

3.9 There is no suitable existing redundant building which could be used and therefore a new building is required to house the turbine and transformer.

(d) cables to, and power lines from, the turbine house would be placed underground:

3.10 The power cables to and from the turbine house would be buried to the site of the existing pole. A new transformer is proposed within a purpose built part of the new turbine building. This small section of power cable from the building to the pole would not have any significant impact on the landscape.

(e) the flow of water would be sufficient at all times to ensure that the supply to the turbine would not result in an inadequate flow of water in any stream which would reduce its visual attractiveness or its ecological value; and

3.11 The impact on water flow levels will be managed and minimised by the design of the concrete intake, ensuring that a minimum flow is maintained. The abstraction levels will be agreed with the Environment Agency taking into account the need to maintain adequate quantity of water supply for 6 households which take their water supply from the beck downstream of the proposed abstraction point for the hydro scheme. The Environment Agency confirm that they will be issuing an abstraction licence and are satisfied therefore that the quantity of water serving local residents will be maintained. The agreed abstraction rate also takes account of the need to maintain flows to reduce any negative visual and ecological impacts of the scheme both on protected species and habitats.

(f) landscaping and reinstatement measures are proposed and can be secured through the imposition of planning conditions or through a planning obligation secured by agreement.

3.12 Landscaping and reinstatement measures will be required for areas affected by disturbance during construction works and these can be addressed by conditions in consultation with our ecologist.

Other issues
Would the residential amenities and living conditions of the occupiers of neighbouring properties be adversely affected?

3.13 There are a number of issues that this development raises with regard to the impact on the residential amenities of neighbouring properties to the development.

Would the development result in any detrimental disturbance, noise or visual impact on the amenities of neighbours?

3.14 The construction compound and works at the weir end of the site would have some impact on the residents of Walk Mill Cottage and to a lesser extent on Beckstones as these are close to the proposed compound and the works taking place at the weir and pipeline. The disturbance, noise and visual impact would be limited to the period of construction and therefore temporary in nature and would not be a reason for refusal of the development. The overall long term benefit to carbon reduction resulting from this scheme outweighs the temporary disturbance during construction works. The works along the route of the pipeline and at the turbine building end of the site would not have any long term impact on the occupiers of the neighbouring properties to this site. There may be some disruption of a temporary nature during construction from construction traffic. The turbine building is of sufficient distance from the closest residential property (160m) that noise from the operation of the turbine building would not cause harm.

Would the development result in loss of water supply (quantity) to local residents?

3.15 The local residents take their water supply directly from the Logan Beck, downstream of the proposed weir. A licence from the Environment Agency is required before abstraction for the purpose of hydro electric generation can take place. The Environment Agency indicate they are satisfied that there will not be an issue regarding the capacity of the beck to maintain a water supply to the local residents. They will not issue a licence if this is not possible. Given the reassurance from the EA and requirement to obtain an abstraction licence from the EA I am satisfied that the development would not result in loss of water supply to those residents in terms of quantity of supply to the properties. There may be some temporary disruption during construction works but this could be resolved by provision of a temporary supply to the residents by the applicant.

Would the development result in loss of water quality to local residents?

3.16 The response from the Environment Agency and subsequent discussions with them on the issue of water quality indicates that they cannot guarantee that the development would not have some impact on the quality of the water supply to local residents. This is because the lower flow means there is less likelihood of flushing the water course and could lead to stagnation of the water in places. There would be some loss of quality during construction works to the weir and whilst some siltation and sediment could be contained there would be likely be discoloration during in stream works. This would be
of a temporary nature and could be resolved by a temporary supply provided by the applicant during such work so the residents maintain a supply of usage and safe water. If this was the only issue relating to water quality then I would be satisfied that the development would not result in harm. However, as there is no surety from the Environment Agency over long term water quality as a result of the abstraction from the beck for the hydro scheme, and lack of response from Environmental Health on this issue at this time, it is not possible to conclude that there may not be a long term impact on the residents water quality. Given the fundamental requirement for a safe and clean water supply I consider that in the absence of a satisfactory resolution to this issue the precautionary principle should apply and unless there is sufficient evidence or information to indicate within reasonable doubt that there would not be a deterioration in water quality for the local residents then the development should not take place. The applicant has been advised of the outstanding issue of water quality and has responded by the letter attached as APPENDIX 1. I will update Committee on consultations and discussions on this new information at the meeting.

Would the proposal adversely affect the amenity or special qualities afforded by the adjacent public right of way?

3.17 Although it would be necessary to safeguard the public right of way and users during the construction phase there would be no post completion impacts on the public right of way. The turbine building would be visible from the public right of way as it is adjacent to it, but due to its design it would appear as a barn and would not be incongruous in this setting. The turbine building would not result in any loss of enjoyment for users of the public right of way and would not obscure any particular landscape viewpoints.

4 CONCLUSION

4.1 Policy favours such proposals subject to appropriate assessment and safeguards. Due to the timing of receipt of the information from the applicant on the unresolved issue over maintaining the quality of the water supply to local residents I am unable to make a positive recommendation at the time of writing this report. I will update Committee at the meeting.

Committee is recommended to:

Head of Development Management will report

BACKGROUND PAPERS: Background papers are available for inspection on the planning application file unless otherwise specified on that file as confidential by reasons of financial/personal circumstances in accordance with the Local Government (Access to Information) Act 1985.
Dear Mairi

Logan Gill Small Hydro Project – potential impact on water quality

Further to our discussion yesterday, I have discussed this issue with Charles Crewdson and we have agreed that it would be useful for the purposes of our planning application that we set out our activities and position with regards to this issue.

We are planning to attend the Development Control Committee meeting on 1 July should any members which to consult us any more on this point, or anything else.

Background

Six properties, primarily in the Beckfoot area, take their domestic water supply from a single source on Logan Beck. Four of these are permanently occupied, one vacant and the other a cottage let for holidays.

The water is taken from a small weir on Logan Beck impounding water approximately halfway down the stretch of the beck that we are taking water from. The weir was built at least a century ago and was historically also used to abstract water for a small hydro scheme at Duddon Hall. The weir has a pipe to one side for the domestic water supply. The intake has a basic metal water filter (of indeterminate age), and a shut off valve leading to an aged 8” pipe (we assume cast iron). Water is piped directly via this to the various properties, and the system has no header tank or reservoir.

We have been mindful of the potential impact of our scheme on this supply throughout the design and consenting stage. Accordingly, our actions to date have been as follows:

- Confirmation that there is sufficient quantity of water available in Logan Beck to meet resident’s needs. We have undertaken engineering calculations which have indicated that...
there is no issue with quantity – our proposed compensation flow is approximately 300x the quantity required, and there is on average about 40% more water than this entering the catchment below our intake and above the water supply intake. Details on volumes are given in our design and access statement, and as you have been advised, the Environment Agency is satisfied that there is no issue with quantity.

- Analysis of existing water quality. Various residents have confirmed that there are existing issues with water quality in the beck, primarily when the beck is in spate (leading to sediment in the water, primarily peat) and in times of prolonged drought.

- Analysis of the various risk factors that might influence water quality. Our position regarding our potential impact is outlined later in this letter, but it is worth summarising that water quality is influenced by several other potential external factors. Aside from floods and drought, these include:
  - deforestation. Timber felling has caused discolouration in the past
  - effluent from farms/properties located in the watershed.
  - Fly-tipping in the beck (this is a persistent problem in the area above the water supply intake – for example, there is a car and fridge amongst the garbage dumped from the Corney Fell Rd at present)
  - Fertiliser / slurry on fields in the watershed.
  - dead animals in the beck. A dead sheep was caught in the intake reservoir for many months some years ago. Sheep and deer can get caught in the beck during floods
  - flushing through of the pipework system (carried out once a year). The water is discoloured for some time afterwards

- We have applied to Copeland Borough Council under the Freedom of Information Act to obtain any data available on water quality monitoring on Logan Beck. They have been unwilling to confirm if this water supply is regularly tested (or not), and we await data if it is available

- We have made direct contact with all the residents who have properties that use the water supply, via letter, email and direct meetings, and spent a significant amount of time discussing any questions and/or concerns they have raised. Activities in this area have included:
  - A public consultation was held in early April 2009 at the Victory Hall, Broughton in Furness. Four of the six property owners were present.
  - A fifth resident is very familiar with the scheme, and the sixth, though abroad, has been consulted in detail via email
  - Confirmation from all but one of the property owners that they are not unduly concerned by the potential impacts of our scheme on water quality
  - Investigation of the filtering systems present in each property. We have recommended that water filters be fitted, regardless of whether our scheme goes ahead
  - With regards to the one resident who has continued to raise concerns, we have highlighted that he has no filtration fitted to his property, and have arranged and been present at a meeting with a filtration supplier (Cumbria Pumps) to try to facilitate the fitting of suitable filtration. We have also confirmed that the property in question is adjacent to the water main, and that we would be willing to investigate connecting this property to the mains in the event (very unlikely in our opinion) that our scheme does impact his water quality
Potential impacts during scheme construction and operation – summary and proposed mitigation measures

During the scheme’s construction (principally the in-river works related to the proposed weir), we have (in partnership with our engineers Inter Hydro and civils contractor Askam Construction), developed a detailed methodology to minimise impact on water quality. These follow Environment Agency Pollution Prevention Guidelines, and have been developed in close consultation with the Environment Agency to whom they have been submitted as part of the necessary temporary and permanent Land Drainage Consent applications. Measures include isolating the domestic supply temporarily (likely for 1-2 hours) while a temporary channel is constructed and reinstated, which will be undertaken in close consultation with residents. We will also fit a new stainless steel filter at the intake point.

During the scheme’s operation, we are satisfied that the impact on water quality will be limited, and that water quality variability will be no different than that experienced to date. Key points include:

- During high flow conditions, we expect the situation to be improved by our scheme because the proposed abstraction will reduce flood flows and associated impact on water quality.
- During drought / low flow conditions, our scheme will not be operating (as outlined in various documents including the design and access statement, we won’t operate during the driest 30% of the year). Therefore there will be no impact on water quality from our scheme during these times.
- During operation, the volume of water in the beck will be reduced. However, we are very confident our impact will be limited. First, hydrological analysis makes clear that operation will vary day by day, hour by hour as rainfall comes and goes – there is no opportunity for stagnation of the water over days and weeks by prolonged operation. Secondly, the water in the stretch of beck between our proposed intake and the water supply intake is predominantly flowing at high rates as it cascades over water falls, and this flow rate will continue to be high regardless of volume. There are small rock pools but no large areas of open water with limited flow where stagnation might be expected.

In the extremely unlikely event that it can be demonstrated that water quality has deteriorated, the mains supply is reasonably close by and we are willing to make a contribution to the connection of that supply.

I hope the above helps to clarify this matter and look forward to seeing you on 1 July.

Yours sincerely

[Signature]

Mark Cropper, Managing Director
Application no: 7/2009/4039
Applicant: Mr T Slater, The National Trust
Date of Application: 8 May 2009
Type of Application: Major full application

Location: Land adjacent Camp Site, Wasdale Head, Seascale, CA20 1EX
Grid Reference: 318098 507589  See Plan
Proposal: Removal of present temporary bridge and raised road, and replacement with a 54m long by 5m wide curved concrete causeway type bridge with oak clad abutments and steel railings. To re-facilitate a natural laterally moving river approximately 3 braided river channels will be seeded/excavated through the existing landform (e.g. gorse) both up and downstream. To create a natural delta into Wastwater. Landscaping of all surplus excavated material on adjacent campsites to assist flood protection (resubmission)

District Council: 
Parish Council: 
Highway Authority: Comments

RECOMMENDATION: APPROVE with conditions

REPORT:

1  BACKGROUND AND PROPOSAL

1.1 This is an interesting and innovative approach to a replacement river crossing, the design of which is driven by the need to allow natural river processes to take place. The site is in an outstandingly dramatic, highly scenic and much admired landscape setting.

Background

1.2 The following explains the background to my reporting of this application to committee.

1.3 Has there been a previous application?

- Yes, on my recommendation committee members inspected the site on 11 March 2009 prior to making a decision
- At the meeting on 6 May 2009 committee refused planning permission for an application (7/2008/4095) of this description on this site, for the following reasons:
The aesthetics of this concrete and steel structure would be visually jarring in this natural landscape setting and the flat concrete form of the design and the railings would be alien in appearance to the magnificent surroundings. It would not conserve the natural beauty of the National Park. For these reasons the proposed development would be contrary to Policy E37 of the Cumbria and Lake District Joint Structure Plan 2001-2016 and Policy DP7 of the North West of England Plan Regional Spatial Strategy to 2021 which require that development should be compatible with the distinctive characteristics and features of the landscape.

1.4 What has happened?

- The decision notice has been issued – permission refused for the application as resolved by committee.
- The National Trust has re-submitted – this is a new application for the same development.

1.5 Why has the National Trust taken this approach?

- They had hoped to build this summer as the Environment Agency requires in river work to be completed in the summertime (although this is no longer possible).
- They hope that committee will reach a decision to approve allowing them to proceed and avoid an appeal.
- They wish to appear at committee to present their views and answer any questions from committee (in accordance with public speaking arrangements).

1.6 How do we proceed?

- This is a new application, we deal with it as such complete with consultation and publicity.

1.7 Are re-submissions unusual?

- They are fairly common when we indicate that we are likely to refuse - an applicant will withdraw and re-present a new application.
- When we refuse (we have a high approval rate) an applicant can make a fresh submission in an attempt to overcome the reason for refusal and avoid an appeal.
- Usually a re-submission includes some revision to the proposals, although sometimes an applicant wishes to present information that they feel should be taken into account.
- Whether to re-submit rather than appeal is entirely a decision for the applicant.
- No special arrangements have been made in this case.

1.8 How do we make a decision?
• In the same way as any other application, on the basis of this written report, presentation, public speaking, questions and debate committee members may listen and form their views prior to a vote.
• To inform committee I hope to have a representative from Natural England available at the meeting.

The surroundings

1.9 Lingmell Bridge lies approximately 400 metres upstream from Wast Water. Lingmell Beck and its main tributary, Mosedale Beck, feed into this lake which is designated as a Special Area of Conservation for its water quality and rare fish. The land between the lake and the bridge site is designated as a Site of Special Scientific Interest. The beck immediately downstream from the bridge is also a spawning ground for Salmon under the Freshwater Fish Directive.

1.10 Access to the bridge is from the highway on the north side of the valley and the metalled part terminates approximately 1 km further along at the cluster of buildings which includes a hotel. The bridge serves as the sole vehicular access to Wasdale Head Hall Farm and a National Trust Campsite and it is the route of a very popular public footpath to Scafell and its neighbouring fells.

The current bridge

1.11 The current temporary bridge was installed in 2005 after the previous bridge was condemned for being structurally unsafe. This was the third bridge to be replaced here over the last 100 years. The Bailey bridge was laid on the abutments of the old concrete bridge and was intended to serve as a temporary measure until a scheme could be drawn up which addressed not only the need for a permanent bridge but also provided a solution to the hydrological problems that previous bridges have caused over the last century. The temporary planning permission which was granted for this structure has expired.

Lingmell Beck

1.12 In its natural state the river here would not form a single water course as it does today, but it would separate into a number of braided channels which over time would migrate backwards and forwards across the floodplain (Lingmell Beck has moved laterally across its floodplain at least three times in the last 150 years). However, the structures of the existing bridge abutments and the embanked road leading to them have been built in the floodplain of Lingmell Beck thereby forming an 18 metres wide constriction in the old river bed. The river course was also affected in the 19th century when river straightening works were undertaken forcing it to flow in a narrow form.

1.13 The previous and existing bridges caused a number of unforeseen and undesirable results:

• Lingmell Beck is subject to frequent short duration floods and the river would normally carry large quantities of earth, gravel and boulders into Wast Water in conditions of high flow. However, because of the
constriction the river backs up against the abutments leading to
significant amounts of materials being deposited in the river bed. This
in turn decreases river velocity which results in sediment deposition
upstream. As water levels decline the water flows under the gravels so
that aquatic life can’t move upstream.

- Instead of entering the existing bridge at a perpendicular angle, as
  would have been the case after its initial construction, the river is
  currently attempting to migrate northwards and it directs its flow
  against the northern abutment and the embanked approach. Scouring
  in this area has resulted in a need for temporary protection
  measures/reinforcement in recent flooding. If the existing abutments
  were retained then rock armouring works and continued dredging
  and would be required to keep the river course from destabilising
  the structure. Such works are incompatible with the protection of the Wast
  Water which is designated because of its water quality.

- The upstream ponding of the river has caused part of the campsite to
  flood.

1.14 To maintain a river crossing while at the same time resolving these problems
it would be necessary to build a structure of a more permeable nature than
that which exists today. The structure would also need to take into account
the impact on the character an appearance of the landscape and nature
conservation interests and the current proposal attempts to address all of
these factors. As part of this process the applicant has carried out a flood risk
survey, an ecological assessment and a fluvial audit of the Lingmell Beck and
Mosedale Beck systems by suitably qualified consultants.

The proposed development

1.15 The proposed development involves the construction of a 54 metre long x 5m
wide curved box culverted bridge. The structure would be positioned
approximately 3m downstream from the existing bridge. The existing bridge,
its abutments and the road and its supporting embankments would be
removed.

1.16 The box culvert section would lie at 66.00m above Ordnance datum which is
two metres lower than the existing bridge and 2 metres below the junction of
the access road and the highway to the north. At the point where the box
culverts meet the embanked access road new embankments would need to
be formed and the embankment would be reinforced by concrete headwalls
protected by gabion mattresses which would be soiled and seeded.

1.17 Each of the box culverts would be 3.2 metres wide by 2.5 metres high
measured from the bottom of the supporting base to the top of the deck
forming the road surface. The applicant’s hydrologist expects that the river
deposits would cover the base of the culvert and that typically the exposed
part of the structure would be 1.7 metres above the river bed.

1.18 The exposed sides of the culverts would be faced with an oak ‘sacrificial’
capping and the road deck would overhang these by 400 mm. Each side of
the road would be enclosed by 1.1m high black painted metal estate style railings.

1.19 It is also intended to re-form remnant braided channels in the river bed on both sides of the bridge to speed up the re-naturalisation process. The materials comprising the present access road embankments which are to be removed are to be deposited on the north eastern part of the National Trust campsite where they would be re-graded, soiled and seeded. The ground level would be raised by an estimated 800 mm average but given that the area dips in the centre the maximum change in levels would be 1200 mm. Primarily this deposition work is to avoid transporting substantial volumes of material over long distances (estimated 2000m3) and at the same time raising the campsite levels would reduce its vulnerability to flooding which has occurred not from river overspill but from rising groundwater.

1.20 While the works are underway the areas on each side of the bridge would serve as temporary storage area while a further area is designated for such use in a field adjoining the east of the campsite.

Nature conservation interests

1.21 In accordance with the habitats regulations both the Environment Agency (land drainage consent) and ourselves (planning permission) must be satisfied that the work would be not likely to have a significant affect on the nature conservation interests of the designated Special Area of Conservation. We have worked closely with the applicant, Environment Agency and Natural England on this matter.

Public Right of Way

1.22 The National Trust is aware that the public right of way over the existing bridge must be open until such time a footpath diversion order has been obtained to provide an alternative route across the new bridge. The Authority’s Rights of Way Advisor is advising the applicant on the procedure involved. The existing bridge would remain in situ and available until a new bridge is complete and available to serve as the public right of way.

2 REPRESENTATIONS

2.1 Given that this is the same proposal as the previous application it is appropriate to report the three letters that were received from members of the public who were concerned about the appearance of some of the details of the proposal.

2.2 One correspondent comments that “the development will not be seen from the road except when travelling to the coast; however the railings are out of keeping with the back drop of the valley head. He feels that if the railings were left unpainted that a grey galvanised colour would be less intrusive. He also feels that if timber uprights were used and a wooden top-rail “it would appear as a wood rail at a distance thus being more normal”
2.3 The second correspondent expresses concern that unless it is adequately
screwed the bridge could be a 'blot on the landscape' and does not consider
that black painted estate railings are appropriate in this location. The third
correspondent expresses support for the engineering solution but has
concerns regarding the treatment of the deck and railings. He has written to
the National Trust to suggest that the edge of the deck be topped with a
granular fill to allow vegetation to establish at the edges and on the crown,
that an agricultural post and wire fence would be more appropriate and that
every other culvert could be omitted to give slimmer profiles for the box
culvert upright sections.

2.4 Also a resident from Wasdale Head wrote to support the application
expressing the view that the bridge would fit in with Wasdale.

2.5 A letter on behalf of the farmer at Wasdale Head Farm supports the bridge
proposed and expresses frustration at the delay.

2.6 The Environment Agency has confirmed that their views remain the same as
on the previous application. Prior consent is required from the Environment
Agency under the Land Drainage Act. The Agency expresses confidence that
the reduction in flood risk in the campsite area will not result in a significant
increase in flood risk elsewhere in the catchment. The Agency points out that
an assessment under the Habitats Regulations will need to be carried out in
consultation with Natural England and that they are in discussion with the
applicant on this matter.

2.7 The Environment Agency further comments that the in-river works should be
restricted to 1st June-30th September in any given year to comply with the
Salmon and Freshwater Fisheries Act 1975.

2.8 Wasdale Parish Meeting has considered this application nd the Clerk reports
that opinion in the parish remains divided with strong views on both sides. In
response to the previous application Wasdale Parish Meeting also discussed
the application and the Clerk advised that no formal resolution was made.
The Clerk therefore attempted to convey the views of the people present,
summarised as follows:

- views divided on merits of a causeway type construction
- some regret that this is not a traditional multi arch bridge
- concern about appearance of estate type railings.

2.9 Friends of the Lake District (CPRE – Cumbria Association) supported the
previous application and commented that the applicant had liaised with them
throughout the preparation of this proposal which presents a variety of
environmental challenges. They have written to reiterate their support.

3 POLICY

3.1 Policies of The North West of England Plan Regional Spatial Strategy (RSS)
and the Cumbria and Lake District Joint Structure Plan which are particularly
relevant include:

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- RSS Policy DP7 which, amongst other things, states that environmental quality should be protected and enhanced, especially by; understanding and respecting the character and distinctiveness of places and landscapes, promoting good quality design in new development and ensuring that development respects its setting and maintaining and enhancing the quantity and quality of biodiversity and habitat.

- RSS Policy EMA1 states that schemes protect, maintain and enhance natural, historic and other distinctive features that contribute to the character of landscapes and should be informed by the special qualities of the environment associated with nationally designated areas of the Lake District National Park.

- Policy E37 of the Structure Plan states that development should be compatible with the distinctive characteristics and features of Cumbria’s landscape types and sub types and that proposals will be assessed in relation to a range of factors including: locally distinctive natural or built features, visual intrusion or impact, public access and community value of the landscape, historic patterns and attributes, biodiversity features, ecological networks and semi natural habitats.

- Under the provisions of Policy EM1(B) proposals and schemes should protect, enhance and expand habitats and link areas for wildlife within and between locations of highest biodiversity resources including statutory wildlife sites.

- Insofar as the scheme is intended to secure long term provision of access to the public footpath network, a campsite and a working farm polices which support sustainable tourism and the local economy and communities are also relevant including RSS polices DP1, DP2, RT9 and Policy EM16 of the Structure Plan which supports tourism development which does not conflict with the special qualities of the National Park or be of a scale and nature detrimental to the character and quality of the environment.

3.2 Local Plan Policy NE1 sets out the requirements for all development in the open countryside and Policy NE18 more specifically with the protection of river corridors. Local Plan Policy S5 states that development that would adversely affect the special qualities afforded by public rights of way will not normally be permitted.

4 ASSESSMENT

4.1 Without a river crossing in this location neither the hill farm nor the camp site could function and a public right of way would be denied so there is clearly an imperative retain some kind of bridge here. Equally there are very important grounds to ensure that that any new structure interferes as little as possible with natural processes, protects nature conservation interests and respects the character and appearance of the landscape.
4.2 The applicant has approached the design challenges presented by the need for a bridge in an innovative way:

- seeking to allow and assist the natural processes of the watercourse
- addressing the requirements for development in an internationally and nationally designated nature conservation site
- responding to flood risk considerations

and, seeking to ensure a long term sustainable solution that respects the landscape setting.

4.3 The applicant has considered a number of options before developing the present proposal. The Bailey bridge detracts from the appearance of the area and the retention of the Bailey bridge or the construction of a single span replacement bridge was discounted by the applicant because, amongst other drawbacks, these structures would not resolve the hydrological and ecological problems caused by the existing and previous bridges. The applicant considered that a multi-span raised deck bridge and a multi-span 'packhorse' style bridge but these options were ruled out because they would have been prohibitively expensive and would have involved a much more intrusive level of construction works in the river.

Would the proposed development respect the landscape?

4.4 This upland valley, enclosed by high fells in the central part of the Lake District, is of exceptional landscape quality where, in terms of buildings and structures, man's impact on the natural landscape has been light. Features are small scale; drystone walls, vernacular houses and a highway which is little more than single width. Providing a river crossing here requires a structure with a large span and a 'conventional' buttressed bridge would be considerably more bulky and higher than the proposed bridge. In the rugged setting of Wasdale Head a large men made structure, even if it were stone faced and 'traditionally' designed would be a more imposing structure which, in my opinion, would be out of place in such a setting.

4.5 From the more immediate surroundings of the bridge, where it will be visible from the highway as one approaches the junction with the bridge road, a box culvert structure and gabions would appear utilitarian. It may be possible to mitigate its impact by planting native species trees along the inside of the highway boundary wall to act as screening and gorse is likely to re-colonise next to the ends of the structure but in a dynamic river bed system it is not possible to predict how effective this would be in softening the outline of structure.

4.6 The design of the proposed structure has been driven in large measure by its function to allow river naturalization and notwithstanding its utilitarian appearance it is my opinion that it is an appropriate one in terms of fitting into the landscape because the indirect consequence of a permeable structure is that it would be it would be a low lying feature, significantly lower than a conventional bridge. In my opinion this is a major beneficial factor in terms of
landscape impact because the bridge would be a relatively understated feature in the valley. Apart from the views from the nearby approaches and views obtainable from the highway, where an oblique view of the culverts would be possible, it would simply 'read' as a road and from long distance views the gentle curve of the structure helps to make it a little less unnatural. Taking into account all of the site constraints I consider that the design is appropriate and that impact on the character and appearance of the landscape would not cause landscape harm or conflict with landscape protection policies.

Would the Development be a Flood Risk?

4.7 The Environment Agency is satisfied that the proposed development would not result in flooding elsewhere in the catchment area. By increased permeability of the structure to allow for a faster discharge, and the raising of levels in the campsite, flood risk in the immediate vicinity of the bridge would be reduced.

4.8 The structure is designed to overtop when flow reaches 66m AOD where in high water conditions it would act as a weir. The applicant's hydrologist anticipates that this would be an infrequent event with shallow water and duration. A planning condition could require warning signs.

Would the proposed development be harmful to the nature conservation interests of the area?

4.9 The project is based on the findings of a fluvial audit report of the processes acting on not only this section of the watercourse but also the feeding catchment. It is anticipated that the proposal, which includes works to assist this, will result in a naturalised river of braided channels. One of the benefits should be allowing fish to migrate up stream of this point once again.

4.10 The applicant has prepared method statements for working in this environment. In view of the dual controls (Environment Agency and us as Local Planning Authority) and the interests of Natural England detailed discussions have been required. In particular, given the nature conservation interests and designations it is necessary to ensure that the development would comply with the requirements of the habitats regulations.

4.11 This application affects the Wastwater Special Area of Conservation and Wastwater Site of Special Scientific Interest. The development proposals have therefore been assessed in accordance with the requirements of the Habitats Regulations 1994.

4.12 An appropriate assessment carried out by the Environment Agency has been adopted, with Natural England's agreement, by the National Park Authority as the appropriate assessment for the development proposals. The assessment concludes that with the proposed mitigation measures, the project both alone and in combination with other projects is not considered to have an adverse impact on site integrity.

Other issues - Highways
4.13 The Applicant has carried out a traffic survey over a week during peak visitor season. Total movements were 3007. Because the existing bridge is narrow and visibility is imperfect conflict between vehicles and pedestrians can arise. These were recorded when either a motor vehicle or one or more pedestrians/cyclists met, or was forced to give way to another vehicle on the bridge. 225 ‘conflicts’ were recorded and of these 75 were car/car and 125 were pedestrian car. The new crossing of Lingmell Beck, like the existing crossing, would provide a single vehicle traffic lane but at 5 metres wide the proposed bridge would be 1.4 m wider than the existing bridge. The pedestrian area would be demarcated by a different surfacing material and the increased width would make it easier for vehicles and pedestrians to pass safely. Visibility across the structure would be improved enabling better self regulation of the flow by bridge users. A waiting space is to be created at the western side and there is already space for vehicles to wait on the eastern side. 10 mph signs are to be erected and the proposed structure does not appear to represent a safety hazard.

5 CONCLUSION

5.1 The design approach to this project is river naturalisation. The research and detail presented with the application is comprehensive and the result is a good evidence base upon which to make a decision. The bridge itself would be a visually unassuming man made feature in an otherwise largely undeveloped area. Detailed assessment of the nature conservation impacts has been satisfactorily concluded. A simple form strongly influenced by the sound principles of river naturalisation has much to commend as a design solution.

Committee is recommended to:

1. The development hereby permitted shall be commenced before the expiration of THREE years from the date hereof.

   REASON: Imposed in accordance with the provisions of Section 91 of the Town and Country Planning Act, 1990.

2. Unless otherwise agreed in writing by the Local Planning Authority, the development hereby permitted shall not be carried out otherwise than in complete conformity with the submitted plans as amended by the plans Nos: xxxxxxxxxx received by the Local Planning Authority on xxxxxxxxxx and the plan reference xxxxxxx received by the Local Planning Authority on xxxxxxx.

   REASON: For the avoidance of doubt and to ensure a satisfactory standard of appearance of the development.

3. Unless otherwise first agreed in writing by the Local Planning Authority the development hereby approved shall not be carried out otherwise than in strict accordance with the Construction Method Statement prepared by Bea Landscape design ref No: xxxxxxxx which forms Appendix A of the National Trust’s Ecological Assessment (Ref No: xxxxxxxxx) received by the Local Planning Authority on xxxxxxxxxx.

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REASON: To ensure that the construction works associated with the proposed development do not cause harm to nature conservation interests in accordance with Policy DP7 of the North West of England Regional Spatial Strategy and Policy E37 of the Cumbria and Lake District Joint Structure Plan.

4. A sample of the proposed road surfacing material for the development hereby approved shall be submitted to and approved in writing by the Local Planning Authority prior to the road surfacing work commencing and the development shall be carried out in accordance with the approved sample.

REASON: To ensure that the road surfacing material has a recessive colour to mitigate the impact of the development on the appearance of the landscape in accordance with Policy NE1 of the Lake District National Park Local Plan and Policy DP7 of the North West of England Regional Spatial Strategy.

5. Notwithstanding the submitted details the type of grass seed to be used in the landscaping of the causeway area shall be first agreed in writing by the Local Planning Authority before its application.

REASON: To ensure that an appropriate seed mix is used which does not have an adverse impact on the nature conservation interests of the area in accordance with Policy DP7 of the North west of England Regional Spatial Strategy and Policy E37 of the Cumbria and Lake District Joint Structure Plan.

Development Plan Policies relevant to the Decision

The proposed bridge is necessary to provide a permanent river crossing which serves an important public right of way, a farm and a campsite and it has been designed as part of a re-naturalisation of the Lingmell Beck river system which seeks to resolve hydrological and ecological problems associated with the present structure. The proposed scheme, and its method construction, would not result in significant harm to nature conservation interests and takes into account the requirements of the Habitat Regulation. By reason of its low height and its sweeping curved form the structure would be satisfactorily assimilated into the landscape.

Lake District National Park Local Plan Policy NE1
Cumbria and Lake District Joint Structure Plan 2001-2016 Policies E37, EM1(B), EM16
North West of England Regional Spatial Strategy DP7, EMA1

BACKGROUND PAPERS: Background papers are available for inspection on the planning application file unless otherwise specified on that file as confidential by reasons of financial/personal circumstances in accordance with the Local Government (Access to Information) Act 1985.