

APPLICATION NO.	P13/V1315/FUL
APPLICATION TYPE	FULL APPLICATION
REGISTERED	11.6.2013
PARISH	ABINGDON
WARD MEMBER(S)	Julie Mayhew-Archer Tony de Vere
APPLICANT	Abingdon Hydro Ltd
SITE	Land at Abbey Meadow ABINGDON
PROPOSAL	The generation of hydro electricity from the River Thames using two Archimedes screws. In addition the site will have publicly accessible observation platform and a fish pass in the form of a meandering stream. The land has a public footpath (which will be retained) but it does not currently have any other use. (Re-submission of withdrawn application P12/V2111/FUL)
AMENDMENTS	29 August – omitting visitor centre building
GRID REFERENCE	450516/197186
OFFICER	Stuart Walker

1.0 **INTRODUCTION**

- 1.1 This application seeks permission for a hydro electricity proposal. The application site lies on the western bank of the River Thames at the point where the Abingdon weir and lock gates cross the river. The site forms part of the Abbey Meadows public open space area which is managed as a public park by the council.
- 1.2 The application comes to committee because this council owns the land on which the development would be built.

2.0 **PROPOSAL**

- 2.1 The proposal is to construct a 100KW hydroelectricity generating facility on the western end of the current weir. The development would be part on the river bank area and part over and within the existing river environment. This would comprise of a cantilevered foot bridge viewing area and a separate gearing shed together with a dual Archimedes screw water turbine sluice. The Archimedes screws would be partially submerged in the lower level of the Thames, downstream of the weir apparatus. A fish pass is also proposed to the west of the facility. It was originally proposed to erect a visitor centre building, but this has since been omitted from the scheme. A copy of the plans is **attached** at appendix 1.

3.0 **SUMMARY OF CONSULTATIONS & REPRESENTATIONS**

- 3.1 Abingdon Town Council – no objection.
- 3.2 50 letters of support have been received. These consider the proposal acceptable for the following reasons -
- sustainable and environmentally friendly power generation
 - locally based initiative / community interest company
- 3.3 Three letters objecting to the proposal have been received. These consider the proposal unacceptable for the following reasons –
- inappropriate and obtrusive development, particularly the visitor centre building

- impact on recreational use of the river
- energy claims of negligible benefit when compared to visual harm
- construction period too long and disruptive to accessing the lock and meadow grounds
- adverse impact on flow of river for kayakers

- 3.4 Six letters of comment have also been received.
- 3.5 The Kingfisher and Pathfinder Canoe Clubs – both state no objection subject to the EA licence conditions being complied with
- 3.6 Oxford Canoe Club – no objection in principle, but raise concern over loss of riverbank access.
- 3.7 Angling Trust – objection due to lack of information of aquatic ecology and weir pool habitat and impact of fish passage through the development.
- 3.8 County Highway Engineer – no objection, subject to condition.
- 3.9 County Archaeologist – no objection, subject to condition.
- 3.10 County Rights of Way Officer – no objection, subject to conditions.
- 3.11 Landscape Architect – no objection, subject to conditions.
- 3.12 Countryside officer – no objection, subject to conditions.
- 3.13 Forestry Officer – no objection, subject to condition.
- 3.14 Sport England – no objection.
- 3.15 Environment Agency – no objection, subject to condition.
- 3.16 Drainage Engineer – no objection subject to conditions required by the Environment Agency.

4.0 **RELEVANT PLANNING HISTORY**

4.1 [P12/V2111/FUL](#) - withdrawn (14/01/2013)

The generation of hydro electricity from the River Thames using two Archimedes screws. In addition the site will have publicly accessible observation platform an information centre for visiting groups and a fish pass in the form of a meandering stream. The land has a public footpath (which will be retained) but it does not currently have any other use.

5.0 **POLICY & GUIDANCE**

5.1 Vale of White Horse Local Plan 2011 policies;

- GS2 - Development in the Countryside
- GS3 - Development in the Oxford Green Belt
- CF2 - Provision of New Community Services and Facilities
- CF10 - Production of Renewable Energy on a Commercial Basis
- DC1 - Design
- DC5 - Access
- DC6 - Landscaping
- DC9 - The Impact of Development on Neighbouring Uses

DC20 - External Lighting
L3 - Urban Open Space and Green Corridors
L12 - The Thames Path
NE9 - The Lowland Vale
TR5 - The National Cycle Network

- 5.2 National Planning Policy Framework – March 2012
Paragraph 14 – presumption in favour of sustainable development
Paragraph 17 – core principles including supporting the transition to a low carbon future in a changing climate
Paragraph 75 – rights of way
Paragraph 91 – energy projects in the green belt
Paragraphs 97 & 98 – increase the use and supply of renewable and low carbon energy
Paragraphs 99 & 103 – managing flood risk
Paragraphs 109 & 118 – contribute to and enhance the natural and local environment and conserve / enhance biodiversity

6.0 PLANNING CONSIDERATIONS

- 6.1 The main planning considerations relate to –
- green belt
 - the impact of the proposal on the character and visual setting of the river bank
 - the impact of the proposal on wildlife and the natural environment
 - the impact on the activities of other water users
- 6.2 *Green belt*
The site lies on the edge of the Oxford Green Belt. As a general rule, development in the Green Belt is normally considered to be inappropriate from the outset unless very special circumstances exist to override this presumption against such development.
- 6.3 The Framework states that such very special circumstances may include the wider environmental benefits associated with increased production of energy from renewable sources. As the proposal represents a small scale development that would enable a sustainable form of electricity generation from the natural water flow of the River Thames via the operation of the weir, it is considered the proposal demonstrates very special circumstances to set aside green belt policy.
- 6.4 *Impact of the proposal on the visual character of the area*
The existing weir is generally a horizontal structure with few vertical structures extending above the railings and the new facility will largely be seen in this context in wider views. The exception to this is the new gearing shelter. Whilst it will be higher than existing structures it is simple in design and together with the surrounding cantilevered walkways it would not be visually harmful in the wider locality to warrant refusal on visual amenity grounds.
- 6.5 *Impact of the proposal on the natural environment*
The proposals are supported by a number of ecological studies which look at the potential impacts of the scheme on the habitats and species surrounding the proposed hydro scheme. The scheme has been assessed by the countryside officer who raises no objection, subject to conditions. He confirms that “the construction of the proposed scheme is likely to involve some substantial engineering works which will undoubtedly have a significant short term impact on the area surrounding the site. The various ecological surveys have indicated that the proposals are unlikely to have a significant ecological impact in the longer term. Whilst there are some sensitive habitats in the vicinity of the site it is unlikely that the proposals will have any impacts on these areas.”

- 6.6 In respect of protected species, the countryside officer confirms “there are a number which could potentially be at risk as a result of the construction of the proposed scheme.” Water voles for example are known to use the local area and signs of water vole activity have been found along the banks of the Abbey Millstream in June 2013. The proposals will have an impact on this area, particularly at the entrance to the proposed fish pass where at least 8 meters of the existing bank side vegetation will be lost in the construction process. It should be possible to avoid any impacts on water voles by surveying the sections of banks affected by the proposals in advance. If water vole activity is found again then the voles can be displaced into surrounding suitable habitats by carefully and gradually clearing all of the bank-side vegetation in advance of any works commencing.” The countryside officer has also requested update surveys are conducted before any vegetation clearance takes place for bat roosts, once the extent of tree removal is clarified for the proposed fish pass. These can be secured through conditions.
- 6.7 There are a number of trees which will be affected by the proposals. The Forestry Officer considers “there are several elements to the scheme that have the potential to impact on trees and include the access, the contractor’s compound, the construction of the fish pass and the underground cable to the electric substation. Whilst none should result in an insurmountable obstacle, further details will be required but can be covered by condition.”
- 6.8 In addition to the above, further details will be required for the proposed cable route, from the pedestrian footbridge through to connect to the electric network at Audlett Drive. At present this will affect a number of trees depending on how the cable is to be installed and the landscape officer requests alternative routes are explored.
- 6.9 In response to the Angling Trust’s objection on the aquatic ecology, the Environment Agency is satisfied that the proposal in principle will not have an adverse impact. The scheme will also be subject to separate Environment Agency abstraction licence consents which will ensure adequate protection for the weir pool habitats. Consequently the impact of the proposal on the natural environment is considered to be acceptable.
- 6.10 *Impact on the activities of recreational water users*
Concern has been expressed by existing recreational users of the river that the proposal would have an adverse impact on their use of the water resource. However, the Environment Agency raises no objection on this ground and has included as part of their abstraction licence requirements a duty to agree with local canoe clubs to provide water ‘sufficient for their purposes’. Furthermore, revisions to the fish pass to ensure access to the river from Abbey Meadow is retained can be secured by condition. On balance the impact on the activities of recreational water users is therefore considered acceptable.
- 6.11 *Other material considerations*
The scheme would not impede flood flows or cause any adverse flood risk.
- 6.12 The scheme would not cause harm to any designated heritage assets. However, a further programme of archaeological investigation work is required to address the significance of local heritage assets. This can be secured through a condition.
- 6.13 The proposed construction access through Abbey Meadows is agreed in principle and a construction traffic management plan can be secured by condition to ensure highway safety and recreational use of the meadow grounds is preserved during construction.

7.0 **CONCLUSION**

7.1 The proposal to generate renewable energy through a hydro electric facility complies with the relevant development plan policies and the National Planning Policy Framework. The proposal is not considered to be harmful to the openness of the Green Belt, the landscape of the area, any local heritage assets, highway safety and recreational amenity.

8.0 **RECOMMENDATION**

8.1 **Grant Planning Permission**

1 : TL1 - Time limit

2 : Approved plans

3 : MC2 – Sample materials

4 : No development shall take place until detailed designs of the fish pass have been submitted to and approved in writing by the local planning authority. The scheme shall be subsequently implemented in accordance with the approved details before development takes place.

5 : Notwithstanding any details shown on the approved drawings, no development shall take place until detailed designs of the new foot bridges have been submitted to and approved in writing by the local planning authority. The scheme shall be subsequently implemented in accordance with the approved details and shall be completed in full prior to the first operation of the hydro facility hereby approved.

6 : Notwithstanding any details shown on the approved drawings, no development shall take place until detailed designs for all new foot paths have been submitted to and approved in writing by the local planning authority. The scheme shall be subsequently implemented in accordance with the approved details and shall be completed in full prior to the first operation of the hydro facility hereby approved.

7 : Notwithstanding any details shown on the approved drawings, no development shall take place until detailed designs of all cable routes have been submitted to and approved in writing by the local planning authority. The scheme shall be subsequently implemented in accordance with the approved details and shall be completed in full prior to the first operation of the hydro facility hereby approved.

8 : Notwithstanding any details shown on the approved drawings, no development shall take place until detailed designs of all sheet piling and their cappings have been submitted to and approved in writing by the local planning authority. The scheme shall be subsequently implemented in accordance with the approved details and shall be completed in full prior to the first operation of the hydro facility hereby approved.

9 : Prior to the commencement of the development hereby approved, including any demolition or site clearance, surveys for bats and water voles shall be completed to update the information on the species and the impact of development and a report of surveys together with an amended mitigation strategy as appropriate shall be submitted to and be approved in writing by the Local planning authority, and shall be thereafter be implemented as agreed.

10 : No development shall take place until details for the provision of 4 bat boxes and 1

tawny owl box have been submitted to and approved by the Council. Details shall include the type of bat boxes/ nest boxes to be used and the proposed locations including height and orientation on retained trees. The approved works shall be implemented in full before the development is first brought into use, unless otherwise agreed in writing by the Council.

11 : No development shall take place until an arboricultural method statement, which must include a Tree Protection Plan, to ensure the satisfactory protection of retained trees during the construction period has been submitted to and approved in writing by the Local Planning Authority and then implemented on site prior to commencement of any site works. The matters to be encompassed within the arboricultural method statement shall include the following:

- (i) A specification, in accordance with BS3998:2010 Tree work – Recommendations, for the pruning of, or tree surgery to, trees to be retained in order to prevent accidental damage by construction activities.
- (ii) The specification of the location, materials and means of construction of temporary protective fencing and/or ground protection in the vicinity of trees to be retained, in accordance with the recommendations of the current edition of *BS 5837 "Trees in relation to design, demolition and construction"*, and details of the timing and duration of its erection;
- (iii) The definition of areas for the storage or stockpiling of materials, temporary on-site parking, site offices and huts, mixing of cement or concrete, and fuel storage;
- (iv) The specification of the routing and means of installation of the underground electricity cable in the vicinity of retained trees; consideration should be made to avoid the siting of the cable within the root protection area (RPA) of all trees to be retained. Only where it can be demonstrated that there is no alternative location for the cable, will encroachment into the RPA be considered. Methodology for any installation works within the RPA will be provided and must be in compliance with NJUG Volume 4, 2007 'Guidelines for the planning and installation and maintenance of utility apparatus in proximity to trees'.
- (v) The details of the materials and method of construction of the temporary roadway, which is to be of a 'no dig' construction method in accordance with the principles of Arboricultural Practice Note 12 "Through the Trees to Development", and in accordance with current industry best practice; and as appropriate for the type of roadway required in relation to its usage.
- (vi) Provision, prior to the commencement of construction, for the direct supervision by an appropriately qualified consultant, appointed at the developer's expense, of ANY works within the root protection areas of trees to be retained and for the monitoring of continuing compliance with the specified protective measures. The Local Planning Authority are to be notified of the appointed consultant, provided with a timetable of intended site monitoring visits and included in the reporting structure for all monitoring results.
- (vii) Provision for the assessment of trees and preparation of a remedial tree works schedule at the post construction phase following removal of the temporary protective fencing is to be agreed in writing with the Local Planning Authority and be implemented in accordance with the schedule.

12 : No development shall take place until full details of both hard and soft landscape works have been submitted to and approved in writing by the Local Planning Authority. These details shall include hard surfacing materials, schedules of new trees and shrubs to be planted (noting species, plant sizes and numbers/densities), the identification of the existing trees and shrubs on the site to be retained (noting species, location and spread), any earth moving operations and finished levels/contours, and an implementation programme.

All hard and soft landscape works shall be carried out in accordance with the details and programme approved under this condition. Thereafter, the landscaped areas shall be maintained for a period of 5 years. Any trees or shrubs which die or become seriously damaged or diseased within 5 years of planting shall be replaced by trees and shrubs of similar size and species to those originally planted.

13 : Prior to the commencement of any development a Construction Traffic Management Plan shall be submitted to and approved in writing by the local planning authority. The approved plan shall be complied with throughout the construction period, and shall provide details of the following:

1. routing protocol for vehicles entering the site from the nearest adoptable road
2. vehicle parking facilities for construction workers, other site operatives and visitors;
3. loading and unloading of plant and materials;
4. vehicle wheel washing facilities;
5. repair regime for access roads leading to the site
6. photographic condition survey of routes to be used from the nearest adoptable road to the site before and after works

14 : No development (including any demolition or site clearance groundworks) shall take place until a professional archaeological organisation acceptable to the Local Planning Authority undertakes an Archaeological Written Scheme of Investigation, relating to the application site area, which shall be submitted to and approved in writing by the Local Planning Authority.

Following the approval of the Written Scheme of Investigation referred to above, no development shall commence on site without the appointed archaeologist being present. Once the watching brief has been completed its findings shall be reported to the local planning authority, as agreed in the approved Written Scheme of Investigation. The programme of work shall include all processing, research and analysis necessary to produce an accessible and useable archive and a full report for publication.

15 : No materials, plant, temporary structures or excavations of any kind shall be deposited / undertaken on or adjacent to the public right of way that may obstruct or dissuade the public from using the public right of way whilst development takes place.

16 : No lighting shall be installed without the prior grant of planning permission.

17 : Prior to the first use of the hydro facility hereby approved, details of any visitor interpretation panels shall be submitted to and approved in writing by the local planning authority. The scheme shall be subsequently implemented in accordance with the approved details.

Informatives:

All wild birds and their nests receive protection under the Wildlife and Countryside Act 1981 (as amended) which makes it illegal to intentionally take, damage or destroy the nest of any wild bird while it is use or being built. Therefore in order to avoid contravention of this legislation any site works likely to affect potential bird nesting habitat should be timed to avoid the main bird nesting season which runs from March to August. If this is not possible, a check should be carried out prior to any clearance works to ensure there are no active nests present.

Please note that Flood Defence Consent will be required for the proposed development. Under the terms of the Water Resources Act 1991, and the Thames

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Land Drainage Byelaws 1981, prior written consent of the Environment Agency is required for any proposed works or structures in, under, over or within 8 metres of the top of the bank / foreshore of the River Thames designated a 'main river'. Please contact westthamesconsents@environment-agency.gov.uk

No changes to the public right of way direction, width, surface, signing or structures shall be made without prior permission approved by the Oxfordshire County Council Countryside Access Team or necessary legal process.

No construction / demolition vehicle access may be taken along or across a public right of way without prior permission and appropriate safety / mitigation measures approved by the Oxfordshire County Council Countryside Access Team. Any damage to the surface of the public right of way caused by such use will be the responsibility of the applicants or their contractors to put right / make good to a standard required by the Countryside Access Team.

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